

EA02-027

FORD 8/5/03

LETTER TO ODI

APPENDIX A

5 BOXES

BOX 5 OF 5

PART 2 OF 4

From: Freeland, Mark (M.)
Sent: Tuesday, September 03, 2002 3:23 PM
To: Vondale, James (J.P.)
Subject: Accepted: Mountaineer Rear Windows Opening While Driving

From: Freeland, Mark (M.)
Sent: Tuesday, September 03, 2002 12:38 PM
To: Ewell, Fred (F.)
Cc: McCoy, James (J.D.)
Subject: FW: Spark plug resistance checks

Fred,

When would be a good time for you to check out the plugs on the Mountaineer? If you would like I could come over to your garage tomorrow morning or afternoon. If it will only take an hour I will stay with you, or if a lot longer then I can leave the vehicle with you and borrow wheels from Jim McCoy.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Ewell, Fred (F.)
Sent: Thursday, August 29, 2002 2:15 PM
To: Freeland, Mark (M.)
Cc: Power, James (J.H.)
Subject: Spark plug resistance checks

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for resistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Have a good weekend.

EP02-027-G 4758

From: Freeland, Mark (M.)
Sent: Thursday, August 29, 2002 5:61 PM
To: Alles, Sheran (S.A.)
Subject: FW: SIT class

Sheran,

Info on an upcoming SIT class, if you are interested.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Stephan, Craig (C.H.)
Sent: Tuesday, August 13, 2002 4:16 PM
To: SITGraduates@Ford (E-mail)
Subject: SIT class

Dear SIT graduates:

There will be another Structured Inventive Thinking class given at FTDC, September 11-13. A number of you have contacted me about colleagues who might want to take the course, so if you know of such people I'd appreciate your informing them about it. They can get details at either the FTDC <<http://www.eld.ford.com/ems>> or the SIT <<http://www.arl.ford.com/sitteam/sit.htm>> websites.

There is also the possibility of course(s) in Europe. If you're based there and know of interested people, please have them contact me.

Thanks for your help.

Regards,

Craig Stephan (cstephan@ford.com <<mailto:cstephan@ford.com>>)

Physical and Environmental Sciences Dept., FRL
FRL ad hoc SIT Team
313-33-72588 Fax 313-32-27044

P.S. If you'd prefer not to be contacted in the future, please send me a note.

From: Freeland, Mark (M.)
Sent: Thursday, August 29, 2002 6:48 PM
To: O'Neal, Jim (J.D.)
Subject: RE: Data for the dpfe

Thanks Jim.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: O'Neal, Jim (J.D.)
Sent: Wednesday, August 28, 2002 3:51 PM
To: Freeland, Mark (M.)
Subject: RE: Data for the dpfe

The request is to Kyong. He should have the data in a few days - maybe next week. He also will ship a few more parts.

J. D. O'Neal
Manager, Fuel Metering, Emissions, and Ignition Dept
V-Engine Engineering, Ford Motor Company
joneal@ford.com, 313-322-8639

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 2:40 PM
To: O'Neal, Jim (J.D.)
Subject: Data for the dpfe

Jim,

Sheran Alles, Al Kotwick & I need some information from Kavlico, could you please pass this request on for us.

We would like to have typical example V vs. I curves for the dpFE die as it goes into the SCR latch. Could either Kavlico or Dalsa measure this curve for a small number of sample die.

Also, when we received the parts without the gel, all the wire bonds were severed and the substrates were loose in the bag. We will still be able to use this material for part of our work, but we will also need a few parts where the wire bonds are complete. Could you ask Kyong to ship us 5 more parts without gel, and this time to have the sensor covers held in place with tape or elastic bands, so that the substrates will be captured and secure.

Thanks.

E082-627-G 4778

Regards

Mark Freeland

**6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645**

EP82-027-G 4779

From: Freeland, Mark (M.)
Sent: Thursday, August 29, 2002 6:39 PM
To: Bryant, Bruce (B.D.)
Cc: Miller, Pamela (P.M.)
Subject: FW: 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

Bruce & Pamela

We need to get together to discuss financials for projects #5120, 5228 and 7163, this is face to face stuff, don't think we can cover with emails. When would be good for you? I will manage to squeeze it in some how.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Miller, Pamela (P.M.)
Sent: Thursday, August 29, 2002 7:58 AM
To: Freeland, Mark (M.)
Subject: FW: 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

Mark,

Do you have any documentation to support the financial savings projected for this project??? I need your concurrence in PTS that the anticipated savings have been achieved and sustained so that we can submit this project for "OK to End" status. Thanks!!!

Pamela Miller
Global Product Development Finance
(313)32-30871 / Fax: (313)24-86680
PDC - Cube 2J-G07 / MD #1141

-----Original Message-----

From: 6sigma@ford.com [mailto:6sigma@ford.com]
Sent: Thursday, August 29, 2002 3:10 AM
To: mfreelal@ford.com; mhardie@ford.com; pmiller@ford.com
Subject: 6-Sigma Project 5120 -Ready to Evaluate for Sustainment

Important message on 6-Sigma Project 5120!

EA82-027-G 4788

Subject: Updated: Kavlico dPFE Sensor Core Team Meeting
Location: POEE DI-196 (War Room in FMEI Dept.)

Start: Tue 7/9/2002 1:00 PM
End: Tue 7/9/2002 2:30 PM
Show Time As: Tentative

Recurrence: Weekly
Recurrence Pattern: every Tuesday from 1:00 PM to 2:30 PM

Meeting Status: Not yet responded

Required Attendees: Poma, Amy (A.); Akins, Mary (M.); Alles, Sheran (S.A.); Awad, Mahmoud (M.I.); Ayers, Don; Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); McCarty, Bill (W.D.); Nielsen, Christian (C.A.); O'Neal, Jim (J.D.); Park, Kyong; Perry, Brian (B.J.); Plante, Paul (P.G.); Poma, Amy; Reddy, Srikanth; Rossi, Roberto (R.A.); Shore, John (J.)

Optional Attendees: Akins, Mary (M.); Plante, Paul (P.G.); Rossi, Roberto (R.A.); Maurer, James (J.B.); White-Johnson, Patrice (P.)

This is a continuation of our regular Tuesday meeting from May 28 through the rest of the year. Please accept in order to be noted on your calendars. Thanks.

ER82-027-0 0076

From: Freeland, Mark (M.)
Sent: Thursday, August 29, 2002 5:31 PM
To: Ewell, Fred (F.)
Subject: RE: Spark plug resistance checks

Thanks Fred,

Jim also told me that he had the vehicle tied up all day, and was not able to give you access. I will contact you or Jim on Tuesday and make arrangements for you to have the vehicle for a day.

Regards

Mark Freeland

6-Sigma Black Belt
Engines Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Ewell, Fred (F.)
Sent: Thursday, August 29, 2002 2:15 PM
To: Freeland, Mark (M.)
Cc: Power, James (J.H.)
Subject: Spark plug resistance checks

I was unable to pry Jim McCoy away from the vehicle long enough to get the plugs removed and checked for resistance. Please make arrangements with Jim Power and/or me next week after the labor day holiday. Have a good weekend.

From: Frøeland, Mark (M.)
Sent: Thursday, August 29, 2002 6:30 PM
To: Maurer, James (J.B.)
Subject: Accepted: 14D review

ER02-027-G 4786

From: Freeland, Mark (M.)
Sent: Wednesday, August 28, 2002 12:11 PM
To: Kozewnik, John (J.J.)
Subject: Accepted: Stalls Potential Root Cause

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 5:56 PM
To: Szwabowski, Steve (S.J.)
Subject: RE: EEC V Engine Simulator

Thanks Steve, I emailed both Mikes already.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

-----Original Message-----

From: Szwabowski, Steve (S.J.)
Sent: Tuesday, August 27, 2002 10:47 AM
To: Freeland, Mark (M.)
Subject: RE: EEC V Engine Simulator

Mark,

I suggest you contact Mike Assenmacher or Mike Short over at FPC A building. As of a few weeks ago, they had several Hickok vehicle simulators they were trying to find homes for.

Steve Szwabowski
x81090

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 9:57 AM
To: Szwabowski, Steve (S.J.)
Subject: EEC V Engine Simulator

Steve,

I am working with Al Kotwicki on the dPFE issue. Al is on vacation today, but we talked by phone. He suggested that we should get our hands on an EEC V engine simulator to help with our bench work.

He told me that you may be able to help get us one. Could you let me know if you could help.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517

ER02-827-3 4785

Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 5:55 PM
To: Assenmacher, Mike (M.W.); Short, Mike (M.E.)
Co: Kotwicki, Allan (A.J.)
Subject: FW: EEC V Engine Simulator

Mike and Mike

Do you by any chance still have one of the Hickok vehicle simulators available? If so I would be interested in obtaining one.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Szwabowski, Steve (S.J.)
Sent: Tuesday, August 27, 2002 10:47 AM
To: Freeland, Mark (M.)
Subject: RE: EEC V Engine Simulator

Mark,

I suggest you contact Mike Assenmacher or Mike Short over at FPC A building. As of a few weeks ago, they had several Hickok vehicle simulators they were trying to find homes for.

Steve Szwabowski
x81090

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 9:57 AM
To: Szwabowski, Steve (S.J.)
Subject: EEC V Engine Simulator

Steve,

I am working with Al Kotwicki on the dPFE issue. Al is on vacation today, but we talked by phone. He suggested that we should get our hands on an EEC V engine simulator to help with our bench work.

He told me that you may be able to help get us one. Could you let me know if you could help.

Thanks

Regards

Mark Freeland

EA02-027-G 4787

6-Sigma Black Belt
Engine Research Department
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Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 5:52 PM
To: McCoy, James (J.D.)
Subject: RE: DPFE Output Voltage

Jim,

Thanks for the info.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mufreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: McCoy, James (J.D.)
Sent: Tuesday, August 27, 2002 1:31 PM
To: Freeland, Mark (M.)
Subject: DPFE Output Voltage

<< File: dpfevolts.doc >>

Regards,

Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering
Hardware Control Interface Group
V-Engine Engineering
POEE - MD#69 - Rm. D142 - Cube DF186
Phone (313) 33-79690 / Fax (313) 39-04084
E-Mail: jmccoy1@ford.com

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 2:40 PM
To: O'Neill, Jim (J.D.)
Subject: Data for the dpfe

Jim,

Sheran Alias, Al Kotwicki & I need some information from Kavlico, could you please pass this request on for us.

We would like to have typical example V vs. I curves for the dpFE die as it goes into the SCR latch. Could either Kavlico or Dalsa measure this curve for a small number of sample die.

Also, when we received the parts without the gel, all the wire bonds were severed and the substrates were loose in the bag. We will still be able to use this material for part of our work, but we will also need a few parts where the wire bonds are complete. Could you ask Kyong to ship us 5 more parts without gel, and this time to have the sensor covers held in place with tape or elastic bands, so that the substrates will be captured and secure.

Thanks.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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email: mfreel1@ford.com
Tel.: (313) 594-7645

EP82-827-G 4886

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 10:07 AM
To: McCoy, James (J.D.)
Subject: RE: Website for all vehicle design transmittals

Thanks Jim,
I just printed out the 2001 MY Focus one, but the 2002 MY is not loaded on the site!!!

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: McCoy, James (J.D.)
Sent: Tuesday, August 27, 2002 10:00 AM
To: Altes, Sheran (S.A.); Freeland, Mark (M.)
Subject: Website for all vehicle design transmittals

<http://www.pcse.poee.ford.com/pea/index.htm>

This is the website for all PCM design transmittals.....

Regards,
Jim McCoy
Fuel Metering, Emissions & Ignition Systems Engineering
Hardware Control Interface Group
V-Engine Engineering
POEE - MD#69 - Rm. D142 - Cube DF186
Phone (313) 33-79690 / Fax (313) 39-04084
E-Mail: jmc00y1@ford.com

EP82-027-G 4807

From: Freeland, Mark (M.)
Sent: Tuesday, August 27, 2002 9:57 AM
To: Szwebowski, Steve (S.J.)
Subject: EEC V Engine Simulator

Steve,

I am working with Al Kotwicki on the dPFE issue. Al is on vacation today, but we talked by phone. He suggested that we should get our hands on an EEC V engine simulator to help with our bench work.

He told me that you may be able to help get us one. Could you let me know if you could help.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ER82-027-G 4888

From: Freeland, Mark (M.)
Sent: Monday, August 26, 2002 9:42 AM
To: Koszewnik, John (J.J.)
Subject: Accepted: 1:1 w/Mark Freeland

0002-027-G 4818

Subject: cPFE vehicle & Lab work with Sheran
Start: Mon 8/26/2002 9:15 AM
End: Mon 8/26/2002 5:00 PM
Show Time As: Tentative
Recurrence: Daily
Recurrence Pattern: every day from 9:15 AM to 5:00 PM
Meeting Status: Not yet responded
Required Attendees: Freeland, Mark (M.); Ailes, Sheran (S.A.)
Optional Attendees: McCoy, James (J.D.)

From: Freeland, Mark (M.)
Sent: Friday, August 23, 2002 11:50 AM
To: Gwozdek, Thomas (T.M.)
Subject: RE: Focus Grounds

Thanks Tom, I will contact Curt.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Gwozdek, Thomas (T.M.)
Sent: Friday, August 23, 2002 8:53 AM
To: Freeland, Mark (M.)
Subject: RE: Focus Grounds

Yes I remember you!

If any changes were made, it was to relocate the underhood grounds on a verticle piece of sheet metal and/or combine them. I haven't been involved in Focus in 8 months, so you need to talk to Curt Swick, electrical PMT leader who may be aware of any wiring related changes going from '01 to '02.

Tom Gwozdek

ESE-NAC Quality / Business Planning Leader,
Certified Black Belt
313-24-87872

—Original Message—

From: Freeland, Mark (M.)
Sent: Thursday, August 22, 2002 2:30 PM
To: Gwozdek, Thomas (T.M.)
Subject: Focus Grounds

Tom,

Remember me? The guy working on the dPFE, we both gave a presentation to JN at WAP.

Can you fill me in on the details of the changes which were made to the PCM grounding system on the 2.0L Zetec Focus at the model year change over from 2001 to 2002?

Please call me when you can to discuss.

Thanks

Regards

Mark Freeland

ERS2-827-G 4828

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

EA82-027-G 4821

From: Freeland, Mark (M.)
Sent: Friday, August 23, 2002 11:49 AM
To: Swick, Curt (C.)
Subject: FW: Focus Grounds

Curt,
Can you help me out here, Do you know the details of ground wiring changes for the PCM for the 2.0L Zetec Focus from 2001 to 2002 MY? Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Gwozdek, Thomas (T.M.)
Sent: Friday, August 23, 2002 8:53 AM
To: Freeland, Mark (M.)
Subject: RE: Focus Grounds

Yes I remember you!

If any changes were made, it was to relocate the underhood grounds on a verticle piece of sheet metal and/or combine them. I haven't been involved in Focus in 8 months, so you need to talk to Curt Swick, electrical PMT leader who may be aware of any wiring related changes going from '01 to '02.

Tom Gwozdek

EESE-MAC Quality / Business Planning Leader,
Certified Black Belt
313- 24-87872

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, August 22, 2002 2:30 PM
To: Gwozdek, Thomas (T.M.)
Subject: Focus Grounds

Tom,

Remember me? The guy working on the dPFE, we both gave a presentation to JN at WAP.

Can you fill me in on the details of the changes which were made to the PCM grounding system on the 2.0L Zetec Focus at the model year change over from 2001 to 2002?

Please call me when you can to discuss.

Thanks

Regards

EA02-827-G 4822

Mark Freeland

**6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645**

Subject: Canceled: Update: U204 Phantom Stall Meeting
Location: TEE Conference Rm 2

Start: Thu 3/21/2002 2:00 PM
End: Thu 3/21/2002 3:00 PM
Show Time As: Free

Recurrence: Weekly
Recurrence Pattern: every Thursday from 2:00 PM to 3:00 PM

Meeting Status: Not yet responded

Required Attendees: Altoonlan, Don (D.J.); Amenda, Harry (H.F.); Badgley, Joel (J.K.); Bauer, Scott (S.C.);
Bhaskari, Kamal (K.); Blackburn, Thomas (T.J.); Branson, John (B.); Carr, David; Chitt

From: Freeland, Mark (M.)
Sent: Thursday, August 22, 2002 6:28 PM
To: Bryant, Bruce (B.D.)
Subject: RE: your meeting with j. Kosnick

Had three so far, come see me and I will fill you in.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Bryant, Bruce (B.D.)
Sent: Thursday, August 22, 2002 5:58 PM
To: Freeland, Mark (M.)
Subject: RE: your meeting with j. Kosnick

Well, how did it go?

Cordlolly,
Bruce Bryant, 6 Sigma Master Blackbelt, Ford Research Laboratory
bbryant2@ford.com 001-313-390-6750

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 20, 2002 1:07 PM
To: Bryant, Bruce (B.D.)
Subject: RE: your meeting with j. Kosnick

Thanks for you're thoughts. Will let you know how it goes.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Bryant, Bruce (B.D.)
Sent: Tuesday, August 20, 2002 12:27 PM
To: Freeland, Mark (M.)

ERG2-027-G 4828

Subject: your meeting with J. Kosnick

Just a thought, Mark--If Mr. Kosnick (sp?) does give you the heave-ho from the Kavlico sensor & Sigma work, try to get him to tell you:

- 1) why your support is no longer needed/welcome, and
- 2) who is going to be continuing the investigation, and if they want the return parts.

Good luck,
Bruce

Cordially,
Bruce Bryant, bbryant2@ford.com, 001-313-59-6476
St: Sigma Master Blackbelt, Ford Research Laboratory

From: Freeland, Mark (M.)
Sent: Thursday, August 22, 2002 2:30 PM
To: Gwozdek, Thomas (T.M.)
Subject: Focus Grounds

Tom,

Remember me? The guy working on the dPFE, we both gave a presentation to JN at WAP.

Can you fill me in on the details of the changes which were made to the PCM grounding system on the 2.0L Zetec Focus at the model year change over from 2001 to 2002?

Please call me when you can to discuss.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, August 22, 2002 9:57 AM
To: Kotwicki, Allan (A.J.)
Subject: RE: conflict with dental appointment

Thanks Al,
Got your phone message also. Call my cell (248) 842-1080 , will be over at POEE with Kosz., back by 1:00

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Kotwicki, Allan (A.J.)
Sent: Wednesday, August 21, 2002 6:16 PM
To: Freeland, Mark (M.)
Cc: Kotwicki, Allan (A.J.)
Subject: conflict with dental appointment

I likely won't get to the meeting at POEE because I have a dental appointment that I completely forgot in Sterling Heights.

Thanks in advance for your help,

Allan J. Kotwicki
59-41277
akotwick@ford.com
MD 3619 SRL

From: Freeland, Mark (M.)
Sent: Wednesday, August 21, 2002 12:03 PM
To: Hanges, Jon (.)
Subject: RE: Fibics

Thanks Jon,

I had a look at what they can do with TEM. NeatO! Not sure if the politics will allow us to do this on SRL955, will keep you posted.

Regards

Mark Freeland

6-Sigma Black Bolt
Engine Research Department
Ford Research Laboratory
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

----- Original Message -----

From: Hanges, Jon (.)
Sent: Friday, August 16, 2002 7:00 PM
To: Dornon, William (W.T.)
Cc: Freeland, Mark (M.)
Subject: Fibics

Bill,

S. Dionne, the woman from Canmet that gave an invited talk in Quebec Thursday morning at 8AM, used Fibics to make their FIB cross sections.

I don't think they have the same equipment that Mansfield wants to buy (i.e. a two gun system), but they have good technique and experience.

Their web site is www.fibics.com. There are examples of how to cross section precisely for SEM as well as TEM that put tripod polishing to shame. They've done FIB for SEM on everything from nickel foam to 200ASA color film. They give only a few examples of TEM.

I think it would be desirable to use Fibics or a similar company (or any company that Mansfield suggests) so that we can help Mansfield get a FIB. The more money we put in the more we can use it at a reduced rate, I hope.

Jon

From: Freeland, Mark (M.)
Sent: Wednesday, August 21, 2002 11:55 AM
To: Mazurkewich, George (G.)
Subject: RE: Focus electrical problems

Thanks George,

These guys made a pitch to JN the same morning that I did, and we told him that we believed that the two problems were related.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Mozurkewich, George (G.)
Sent: Tuesday, August 20, 2002 8:37 AM
To: Freeland, Mark (M.)
Cc: Potter, Timothy (T.J.)
Subject: Focus electrical problems

Regarding electrical problems on the Focus: "The problems customers had before aren't there anymore," said Cvetkovski. Surprise! See:
http://www.fcw.ford.com/art_display.ofm?article_id=12135.

George Mozurkewich
Ford Motor Company Research Lab
Physical and Environmental Sciences Dept.
(313) 845-5038

From: Freeland, Mark (M.)
Sent: Wednesday, August 21, 2002 11:33 AM
To: Davis, George (G.C.)
Subject: Accepted: DPFE

EA82-827-G 4832

From: Freeland, Mark (M.)
Sent: Tuesday, August 20, 2002 1:07 PM
To: Bryant, Bruce (B.D.)
Subject: RE: your meeting with J. Kosnick

Thanks for you're thoughts. Will let you know how it goes.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Bryant, Bruce (B.D.)
Sent: Tuesday, August 20, 2002 12:27 PM
To: Freeland, Mark (M.)
Subject: your meeting with J. Kosnick

Just a thought, Mark—if Mr. Kosnick (sp?) does give you the heave-ho from the Kavlico sensor 6 Sigma work, try to get him to tell you:

- 1) why your support is no longer needed/welcome, and
- 2) who is going to be continuing the investigation, and if they want the return parts.

Good luck,
Bruce

Cordally,
Bruce Bryant, bbryant@ford.com, 601-222-29-24710
6th Sigma Master Blackbelt, Ford Research Laboratory

From: Freeland, Mark (M.)
Sent: Tuesday, August 20, 2002 8:22 AM
To: Koszewnik, John (J.J.)
Cc: Davis, George (G.C.)
Subject: RE: Wednesday, August 21st Meeting

John,
Great, I will be there at 2:10pm

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Koszewnik, John (J.J.)
Sent: Tuesday, August 20, 2002 6:29 AM
To: Freeland, Mark (M.); Davis, George (G.C.)
Subject: RE: Wednesday, August 21st Meeting

Mark,

That's great. One minor change based on looking at my calendar for the day. Could we make it 2:10 p.m. please.

I have a meeting at WHQ that is supposed to end at 2:00 p.m.

I need ten minutes travel time. Thanks in advance.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-88087
jkoszewn@ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 7:52 PM
To: Koszewnik, John (J.J.)
Cc: Davis, George (G.C.)
Subject: RE: Wednesday, August 21st Meeting

Thank you John,

I will be at you're office at 2:00 tomorrow. I also just text paged you.

Regards

EA22-827-G 4838

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Kozzewnik, John (J.J.)
Sent: Monday, August 19, 2002 6:07 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.); Novak, Michele (M.)
Subject: RE: Wednesday, August 21st Meeting

Mark,

How about 2 to 3 p.m. tomorrow, Tuesday, August 20th?

If this works out for you, please text-page me so that I can make some changes to my calendar.

Of course, I would be happy to have George included in the meeting.

Looking forward to our discussion.

John Kozzewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkoszewn@ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 1:01 PM
To: Kozzewnik, John (J.J.)
Subject: RE: Wednesday, August 21st Meeting

John,

I also would like to meet with you to share the insights from the work of all at FRL, but unfortunately, as I am a single father and Wednesday night is the one night every week that I get to see my children I have to leave no later than 5:00 pm that day. Also on Thursday mornings I am not in until 9:00 am for the same reason.

Can you suggest an alternative time, and I will make it fit my schedule.

George also asked me if I could include him in our follow up meeting, if that is OK with you.

Thanks

Regards

Mark Freeland

ERR2-027-G 4837

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Kozewnik, John (J.J.)
Sent: Sunday, August 18, 2002 5:10 PM
To: Freeland, Mark (M.)
Cc: Parasik, Sue (S.E.)
Subject: Wednesday, August 21st Meeting

Mark,

As promised, I would very much like to meet with you one-on-one to discuss your work to date on potential DPFE failure modes.

Let's do it in my office at 5:00 p.m. on Wednesday, August 21st, if you're available. It's my last meeting of the day... so I will be willing to stay as long as you require.

Thanks in advance.

John Kozewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86087
jkozewn@ford.com

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 7:54 PM
To: Kotwicki, Alan (A.J.); Gates, Freeman (F.C.)
Subject: Tomorrow's meeting, I'll be late, should be there at 3:15 pm

I have a 2:00 - 3:00 meeting over at POEE which I have to rearrange my schedule for. Should be back by 3:15 and will come straight to Al's desk.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 7:62 PM
To: Koszewnik, John (J.J.)
Cc: Davis, George (G.C.)
Subject: RE: Wednesday, August 21st Meeting

Thank you John,

I will be at your're office at 2:00 tomorrow. I also just text paged you.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Koszewnik, John (J.J.)
Sent: Monday, August 19, 2002 6:07 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.); Novak, Michele (M.)
Subject: RE: Wednesday, August 21st Meeting

Mark,

How about 2 to 3 p.m. tomorrow, Tuesday, August 20th?

If this works out for you, please text-page me so that I can make some changes to my calendar.

Of course, I would be happy to have George included in the meeting.

Looking forward to our discussion.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-88067
jkoszewn@ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 1:01 PM
To: Koszewnik, John (J.J.)
Subject: RE: Wednesday, August 21st Meeting

John,

I also would like to meet with you to share the insights from the work of all at FRL, but unfortunately, as I am a

single father and Wednesday night is the one night every week that I get to see my children I have to leave no later than 5:00 pm that day. Also on Thursday mornings I am not in until 9:00 am for the same reason.

Can you suggest an alternative time, and I will make it fit my schedule.

George also asked me if I could include him in our follow up meeting, if that is OK with you.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Koszewnik, John (J.J.)
Sent: Sunday, August 18, 2002 5:10 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.)
Subject: Wednesday, August 21st Meeting

Mark,

As promised, I would very much like to meet with you one-on-one to discuss your work to date on potential DPFE failure modes.

Let's do it in my office at 5:00 p.m. on Wednesday, August 21st, if you're available. It's my last meeting of the day... so I will be willing to stay as long as you require.

Thanks in advance.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkoszewn@ford.com

Subject: dPFE with John Koszewnik, his meeting room, see separate email from John
Start: Tue 8/20/2002 2:00 PM
End: Tue 8/20/2002 3:00 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Required Attendees: Freeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 7:38 PM
To: Uy, Dalrene (D.)
Subject: RE: pics of SRL995

Thanks Dalrene,

Photos are great.
Much better than I could do down stairs.

Regards

Mark Freeland

6-Sigma Black Belt
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Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Uy, Dalrene (D.)
Sent: Monday, August 19, 2002 5:25 PM
To: Freeland, Mark (M.)
Subject: pics of SRL995

Mark,

Here are the pictures of the blemish on the gold of SRL 995.

Dalrene

<< File: GOLD7.BMP >> << File: GOLD6.BMP >> << File: GOLD5.BMP >> << File: GOLD4.BMP >> <<
File: GOLD3.BMP >> << File: GOLD2.BMP >> << File: GOLD1.BMP >>

Dalrene Uy
Physical and Environmental Sciences Department
Ford Research Laboratory
Mail Drop 3083/SRL, PO Box 2053
Dearborn, MI 48121

Phone: 313-594-1049
Fax: 313-522-7044
Email: duy@ford.com

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 3:52 PM
To: Nuno, Elena (E.S.)
Subject: Accepted: Updated: Discuss V Engine's Desires Regarding 8 Sigma Support on the Kevico dPFE Issue Meeting with Mark Freeland, Jim O'Neal, Bruce Bryant, Dave Amos & Jeff Helms.

Subject: Kavlico dPFE
Location: A's desk
Start: Tue 8/20/2002 3:00 PM
End: Tue 8/20/2002 5:00 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Required Attendees: Freeland, Mark (M.); Kotwicki, Allen (A.J.); Gates, Freeman (F.C.)

Freeman, I tried to call you to discuss, but you were busy. please call me when you get a chance. Thanks

From: Frøland, Mark (M.)
Sent: Monday, August 19, 2002 1:04 PM
To: Bansk, Catherine (C.K.)
Subject: Accepted: Stu Evans DPF/E Repeat Repairs

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 1:01 PM
To: Koszewnik, John (J.J.)
Subject: RE: Wednesday, August 21st Meeting

John,

I also would like to meet with you to share the insights from the work of all at FRL, but unfortunately, as I am a single father and Wednesday night is the one night every week that I get to see my children I have to leave no later than 5:00 pm that day. Also on Thursday mornings I am not in until 9:00 am for the same reason.

Can you suggest an alternative time, and I will make it fit my schedule.

George also asked me if I could include him in our follow up meeting, if that is OK with you.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Koszewnik, John (J.J.)
Sent: Sunday, August 18, 2002 5:10 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.)
Subject: Wednesday, August 21st Meeting

Mark,

As promised, I would very much like to meet with you one-on-one to discuss your work to date on potential DPFE failure modes.

Let's do it in my office at 5:00 p.m. on Wednesday, August 21st, if you're available. It's my last meeting of the day... so I will be willing to stay as long as you require.

Thanks in advance.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkoszewn@ford.com

ERR2-027-G 4853

From: Freeland, Mark (M.)
Sent: Friday, August 16, 2002 1:42 PM
To: Hargas, Jon (.)
Subject: RE: cleaning 30 mile part

Jon,
I had a good look at the part after Shri left. My opinion is that someone stuck a drill down the port, thus it might be a big waste of time. What do you think?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Hargas, Jon (.)
Sent: Thursday, August 15, 2002 6:07 PM
To: Freeland, Mark (M.)
Subject: cleaning 30 mile part

Mark,
If you want to preserve the wire bonds on the 30-mile part that failed on the drive up to MPG, you'll need to get some Dynasolve. Of course this will eat the aluminum.

I don't think it's feasible to soak in freon and scrub around the wire bonds, they're too likely to break.

Jon

Subject: Data needed to redesign the Kavico dPFE Input/output filter
Location: SRL Rm 1517

Start: Fri 8/16/2002 10:00 AM
End: Fri 8/16/2002 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); McCoy, James (J.D.); Alles, Sheran (S.A.)

We will continue again in the afternoon as needed.

Jim, I hope you can make it, if not Sheran and I will start and hopefully catch up with you in the afternoon.

From: Freeland, Mark (M.)
Sent: Thursday, August 16, 2002 4:10 PM
To: Barsek, Catherine (C.K.)
Cc: Gates, Freeman (F.C.); McCoy, James (J.D.); Ales, Sheran (S.A.); Maurer, James (J.B.)
Subject: RE: Info on Stu Evens vehicle with multiple Kevico replacement

Cathy,

First, I have that CD for you, I did it on Monday, but have not been in you're building since.

Second,

Yes, It would be good to look at the vehicle. Also, I would like to get the spark plugs, the coils (all labeled with which cylinder they came from) and the PCM removed and sent to me for testing. Any thoughts?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Barsek, Catherine (C.K.)
Sent: Thursday, August 15, 2002 4:04 PM
To: Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.)
Cc: Vroman, Dennis (D.A.)
Subject: RW: Info on Stu Evens vehicle with multiple Kevico replacement

I believe it might be worth our while to take a look at this vehicle.
It's just in Garden City.

Any thoughts?

—Original Message—

From: Dudes, Jeffrey (J.A.)
Sent: Thursday, August 15, 2002 3:26 PM
To: Vroman, Dennis (D.A.); Barsek, Catherine (C.K.)
Subject: Info on Stu Evens vehicle with multiple Kevico replacement

Dennis/Catherine,

CQIS report on the vehicle we discussed. The service manager is Brian Maher at (734) 458-1902 direct.
Please contact Brian before the visit. Thanks!

Rpt#: 2HOD7006 NHL Rpt: 08/15/2002 Odom: 13,273 M
Rvw: File: _ Folder: _____ Images: 0 Print Smy/Disp Detail(P/D): _
Vehicle: 2002 MOUNTAINEER 4X4,4DR ,MPV 4M2ZU88E12UJ05732 Bid: 02/27/2001
Engine: 4.0L SOHC Calb: 1U51AF0A Trans: 5R55W Axle: 3200F3.55C A/C: YES
Dealer Id: 13928 Stu Evens L-M, Garden City, In Ph#: (313) 425-4300
State: Michigan City: Garden City Orig/Caller: BRIAN MAHER
Symptom: 8 98 2 98 DRVABL,INDICATOR,CHECK ENGINE,NOT LISTED
Addl Sym: P0401, REPEAT CONCERN St: CCRG/EPRC: _ Rvw: Dt:

ER02-027-G 4838

Fix: Caus. Comp: -- Condition Code:
Hotliner: AKNOLL Phone: 313 317-9375 Regn Cd: 48 Detroit - 48
Engineering: Phone: TAR:
Dir Contact: PHONE NUMBER Phone: 734 425-4300 Title Cde: SM

REPAIR SERVICE MANAGER STATES THE VEHICLE HAS A REPEAT P0401, TECH HAS REPLACED THE DPFE WITH THE REVISED 2F1Z DPFE AND 20 MILES LATER THE DPFE HAS CAUSED A REPEAT P0401 AND IS CONTAMINATED WITH WATER. TECH CAN DRIVE VEHICLE FOR A SHORT DISTANCE AND WILL AGAIN CONTAMINATE THE DPFE WITH WATER.

RECOMM ADVISED TECH THAT I WOULD CONTACT ENGINEERING FOR FURTHER INFORMATION. SHOULD VERIFY THE EXHAUST SYSTEM AND AWAIT A CALL BACK.

ADD-ON 08/15/2002 02:44PM ALEXANDER KNOLL MSS - FCSD - TECH SVC HOTLINE CONTACTED SERVICE MANAGER BACK AND EXPLAINED TO HIM THAT ENGINEERING WILL VISIT THE DEALER TOMMOROW (8/16/02)

JEFF DUCLOS

4.0L SOHC ENGINE SYSTEMS-CURRENT AND PAST
PH: (313) 24-89567 TEXT PAGER: (313) 796-3640
EMAIL: JDUCLOS@FORD.COM P.O.E.E. MD 20 CUBE CE043
FAX: (313) 390-2513

From: Freeland, Mark (M.)
Sent: Tuesday, August 06, 2002 12:04 PM
To: Nuno, Elena (E.S.)
Subject: Accepted: Kavlico DPFE Project Disengagement Meeting w/ Mark Freeland, Jeff Helms, Dave Amos & Bruce Bryant

EA02-827-G 4844

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 1:39 PM
To: Poma, Amy (A.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

Thanks Amy,

I will get you copies of the electrical traces and the updated raw data file which I maintain.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Poma, Amy (A.)
Sent: Tuesday, August 13, 2002 1:38 PM
To: Freeland, Mark (M.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

Mark,

I also was keeping a binder with more detailed testing information, reports, etc. Let me know if you want to add any documentation to that binder in case we need for future.

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CO162
phone-313-390-8849, fax 313-390-4084
apoma2@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 1:01 PM
To: Maurer, James (J.B.)
Cc: Poma, Amy (A.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

Jim,

In that case, could you please schedule a meeting as I have some new data to share, negative transients on the Vout of -22 volts, and positive overshoots of Vref during power up. Also, can I please have a copy of the latest vehicle test summary.

Thank you.

Regards

ERB2-827-G 4893

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Maurer, James (J.B.)
Sent: Tuesday, August 13, 2002 12:55 PM
To: Freeland, Mark (M.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

No, vehicle testing is continuing. I don't have any vehicle issues meetings scheduled. If something occurs, we can check into it at that time.

Regards,

Jim Maurer

James B. Maurer
V-Engine 6-Sigma Team Leader
Fuel Metering Dept, V Engine Engineering
Phone (313) 390-3872, Fax (313) 390-4084
Text Page: (313) 795-5210
Email: jmaurer@Ford.com

---Original Message---

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 12:34 PM
To: Maurer, James (J.B.)
Subject: FW: Ongoing Vehicle Testing Spreadsheet

Jim,

Is this true, that the vehicle testing has been discontinued?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Poma, Amy (A.)
Sent: Tuesday, August 13, 2002 11:49 AM
To: Freeland, Mark (M.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

I was advised that the vehicle testing has been discontinued. You might want to check with Jim Maurer if info needs to still be tracked on your Mountaineer.

Let me know if you still need it.

*Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CO162
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com*

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 11:25 AM
To: Poma, Amy (A.)
Subject: Ongoing Vehicle Testing Spreadsheet

Amy,

Could you please send me the latest copy of the vehicle test workbook, so that I may update it and send you my new information on the Mountaineer.

Thank you

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 1:01 PM
To: Maurer, James (J.B.)
Cc: Poma, Amy (A.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

Jim,

In that case, could you please schedule a meeting as I have some new data to share, negative transients on the Vout of -22 volts, and positive overshoots of Vref during power up. Also, can I please have a copy of the latest vehicle test summary.

Thank you.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Maurer, James (J.B.)
Sent: Tuesday, August 13, 2002 12:55 PM
To: Freeland, Mark (M.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

No, vehicle testing is continuing. I don't have any vehicle issues meetings scheduled. If something occurs, we can check into it at that time.

Regards,

Jim Maurer

James B. Maurer
V-Engine 6-Sigma Team Leader
Fuel Metering Dept. V Engine Engineering
Phone (313) 390-3672, Fax (313) 390-4084
Text Page: (313) 795-5219
Email: jmaurer@Ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 12:34 PM
To: Maurer, James (J.B.)
Subject: FW: Ongoing Vehicle Testing Spreadsheet

Jim,

Is this true, that the vehicle testing has been discontinued?

Regards

ERG2-827-G 4988

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Poma, Amy (A.)
Sent: Tuesday, August 13, 2002 11:49 AM
To: Freeland, Mark (M.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

I was advised that the vehicle testing has been discontinued. You might want to check with Jim Maurer if info needs to still be tracked on your Mountaineer. Let me know if you still need it.

*Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CO162
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com*

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 11:25 AM
To: Poma, Amy (A.)
Subject: Ongoing Vehicle Testing Spreadsheet

Amy,

Could you please send me the latest copy of the vehicle test workbook, so that I may update it and send you my new information on the Mountaineer.

Thank you

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 12:34 PM
To: Maurer, James (J.B.)
Subject: FW: Ongoing Vehicle Testing Spreadsheet

Jim,

Is this true, that the vehicle testing has been discontinued?

Regards

Mark Freeland

6-Sigma Black Belt
Engines Research Department
Ford Research Laboratory
P.O. Box 2053
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email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Poma, Amy (A.)
Sent: Tuesday, August 13, 2002 11:49 AM
To: Freeland, Mark (M.)
Subject: RE: Ongoing Vehicle Testing Spreadsheet

I was advised that the vehicle testing has been discontinued. You might want to check with Jim Maurer if info needs to still be tracked on your Mountaineer. Let me know if you still need it.

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CO162
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 11:25 AM
To: Poma, Amy (A.)
Subject: Ongoing Vehicle Testing Spreadsheet

Amy,

Could you please send me the latest copy of the vehicle test workbook, so that I may update it and send you my new information on the Mountaineer.

Thank you

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, August 13, 2002 11:26 AM
To: Poma, Amy (A.)
Subject: Ongoing Vehicle Testing Spreadsheet

Amy,

Could you please send me the latest copy of the vehicle test workbook, so that I may update it and send you my new information on the Mountaineer.

Thank you

Regards

Mark Freeland

6-Sigma Black Belt
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email: mfreelat@ford.com
Tel.: (313) 594-7645

ERR2-021-G 5002

From: Freeland, Mark (M.)
Sent: Monday, August 12, 2002 2:28 PM
To: Vondala, James (J.P.)
Cc: Prasad, Priya (P.)
Subject: Rear windows on Mountaineer opening while driving

James,

I was referred to you by Priya Prasad, as the correct person to report this concern to.

While driving this past weekend the rear window of my 2002 MY Mountaineer unlatched itself (I heard the solenoid activate) and the door ajar indicator on the dash came on. Moments later the door lock solenoids all activated.

I believe that this has happened quite a number of times, as I have on many occasions found the rear glass open at the end of a drive when I was certain that I had closed it at the beginning of the drive.

I would like to meet with you in person to discuss this issue.

Regards

Mark Freeland

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email: mfreela1@ford.com
Tel: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, August 09, 2002 8:55 PM
To: Maurer, James (J.B.); Gates, Freeman (F.C.)
Cc: Plante, Paul (P.G.)
Subject: High mileage parts removed not because of failure

I have in my possession 85 parts which were removed from Lemon Law Buy Back Mazda Tributes just because.
If you have a need for any such parts then I can now supply them.

Regards

Mark Freeland

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Ford Research Laboratory
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, August 09, 2002 5:48 PM
To: Nuno, Elena (E.S.)
Subject: Accepted: Discuss V Engine's Dealree Regarding 8 Sigma Support on the Kevlco dPFE Issue Meeting with Mark Freeland, Jim O'Neal, Bruce Bryant, Dave Armos & Jeff Helms.

From: Freeland, Mark (M.)
Sent: Thursday, August 08, 2002 3:59 PM
To: Helms, Jeffrey (J.H.)
Cc: Nuno, Elena (E.S.); Bryant, Bruce (B.D.)
Subject: Follow up from Dave Amos mug yesterday

Jeff,

Dave would like us to schedule a meeting with Jim O'Neall, yourself, Dave Amos, Bruce Bryant and Mark Freeland to discuss V Engine's desires regarding 6 Sigma Support on the Kavlico dPFE issue.

Jim is on vacation this week.

Could you have Elena set up the meeting.

Until that meeting I am to continue working on my projects. Dave would like me to close the 5228 project "EGR dPFE Sensor Shorts out PCM Vref" based on the 10 ohm resistor which was added for production and service. Implementation date 1/7/2002 at Kavlico.

Thanks

Regards

Mark Freeland

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email: mfreelal@ford.com
Tel.: (313) 594-7645

ER02-027-6 5011

From: Freeland, Mark (M.)
Sent: Thursday, August 08, 2002 10:48 AM
To: Akins, Mary (M.)
Cc: Uy, Dairene (D.); Kyong Park (E-mail); Gates, Freeman (F.C.)
Subject: Sample dPFE with Zarlink die

Mary,

Could you please supply me with a new (never seen a vehicle exhaust system) sensor with Zarlink (Dalsa) die. Dairene is going to use the die for an experiment to attempt to create corrosion in the lab.

Thank you

Regards

Mark Freeland

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Dearborn, MI 48121-2053 USA
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Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, August 07, 2002 12:46 PM
To: Oboza, Doran (D.)
Subject: RE: Future Powertrain PQR Agendas

Doran,

Can you give me any information you have on the issue with the Motorola dPFE failing on the 2.0L Zetec Focus.
Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

-----Original Message-----

From: Oboza, Doran (D.)
Sent: Thursday, August 01, 2002 1:13 PM
To: Agarwal, Apoorva (A.); Banks, Nermine (N.B.); Coryea, Kevin (K.W.); Ovetkovsk, Peter (P.); Deagan, Mike (M.D.); Falls, Stephen (S.W.); Fashina, Ayodeji (A.); Fodera, Michael (M.J.); Foust - Smith, Susan (S.L.); Freeland, Mark (M.); Giannamore, Armando (A.A.); Gilmour, Brady (B.A.); Iwaniszyn, Teri (T.E.); Kalamdari, Rajeev (R.S.); Matt Marin; Marioni, Michael (M.F.); Motley, Leslie (L.M.); Norman, Ingrid (I.); Odum, Ike (I.C.); Prator, Joseph (J.A.); Rézess, John (J.H.); Selleck, Beth (B.); Szarns, Pamim (P.V.); Tedona, Damian (D.J.); Tobias, Bruce (B.J.); Trombetta, Christopher (C.S.); Winekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Melvin (M.); Ahmed, Kamal (K.); Ajulufob, Bart (B.O.); Anderson, Johnny (J.D.); Arszulowicz, Ken (K.J.); August, Dan (D.); Baum, Joe (J.M.); Bednarek, Mark (M.P.); Boesner, Darryle (D.R.); Brian Johnson; Brockette, Ronald (R.K.); Broski, James (J.W.); Brown, Mark (M.D.); Campbell, Andrea (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Cassisa, William (W.C.); Castleman, William (W.G.); Cantivire, James (J.C.); Cervantes, Eduardo (E.J.); Chris Campbell; Ciechanowski, Mark (M.S.); Clugston, Shane (S.A.); Coate, Richard (R.M.); Colatruglio, Vince (V.E.); Cox, Tom (T.T.); D'Agostino, Antonio (A.); Davis, Jerry (J.W.); Debbie Pallani; Dhaliwal, Dave (D.S.); Duneskie, Dennis (D.R.); Dyson, Simon (S.C.); Eggert, Daniel (D.C.); Fike, Barbara (B.G.); Florence, Jeremy (J.D.); Fuiker, James (J.A.); Fowlkes, Michael (M.S.); Francisco Fernandez (E-mail); Franklin, Taj (T.); Gamble, Craig (C.R.); Gazzdeck, Timothy (T.A.); Gerka, David (D.W.); Giles, Anthony (A.T.); Gliner, David (D.C.); Giordano, Mike (M.A.); Goulet, Michela (M.A.); Graca, John (J.E.); Grenados, Rodolfo (R.); Groom, Reginald (R.); Guzzlerdo, Steve (S.P.); Hegda, Damodar (D.M.); Helmstadter, Donald (D.G.); Hettle, Bruce (B.W.); Holloway, Scott (S.S.); Hopkins, Harry (H.S.); J. Sowards; Johnson, John; Jeff Palmer; King, Steve (S.J.); Kinnie, Brian (B.W.); Kircall, Iain (I.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kunde, Olaf (O.); Landzabal, Sergio (S.); Licoite, Brian (B.W.); Longwell, Christina (C.); Lorius, Brett (B.R.); Lubo Djuric; MacDonald, George (G.F.); Madej Jr., Stan (S.P.); Majzoub, Malek (Z.); Mersac, Lance (L.D.); Matthews, Gary (G.); Matysiewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Mihora, Bob (R.S.); Mitchell, Carole (C.A.); Morabito, Mike (M.P.); Moosa, Edwin (E.D.); Nemeth, Steve (S.L.); Nguyen, Thien (T.M.); O'Connor, Jim (James W.); Patel, Pratul (P.J.); Pleszka, David (D.B.); Poehl-barnes, Donna (D.F.); Popenas, Michael (M.J.); Pullala, Ananth (A.); Purvis, Bruce; Ramey, George (G.); Rakchenbach, Ronald (R.W.); Rossman, Michael (M.D.); Samimy, Behman (Ben.); Sands, Roger (R.P.); Sheridan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Smith, David (D.A.); Smith, Tennille (T.C.); Soulliere, James (J.K.); Sperlak, Terrence (T.E.); Stevenson, Ediel (E.E.); Stojov, Tony (T.); Stump, Steven (S.M.); Swick, Curt (C.); Szczepaniak, Gerard (G.); Taraszkiewicz, Alexandre (A.S.); Thomas, Ken (K.C.); Torosian, David (D.A.); Tourco, Lyle (L.W.); Tucker, Shanise (S.M.); Tyrell, Larry (L.J.); Vargavolu, Sreedhar (.); Vinogradov, Alex (A.); Walker, Cheryl (C.); Walsh, Gerald (G.); Washington, Eric (E.D.); Wegrzyn, Michael (M.J.); Wepler, Ron (R.J.); Whita, Christopher (C.); Wiab, Joseph (J.M.); Williams, Anthony (A.J.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Willis, Dean (D.G.); Zigler, Brad (B.T.)

Subject: Future Powertrain PQR Agendas

Agenda for 8/7/02

TF - C90 Connector
TF - MTX Shift Cable Adjust
Shiftor Knob Quality Issue
Yuril Audit Review
Motorola DPFB Update

A. D'Agostino (Updates on Cost and Timing)
K. Arszulowicz
B. Ajulufob/GHSP
J. Florence/K. Arszulowicz
TBD

ERG2-827-G 5049

New Warranty Data

D. Oboza

Agenda for 8/14/02

VFG Loader Report Out
Yard Audit Review
Coolant Leaks Update
Detent Adjust/Vision System
EVAP Warranty Review

Team
J. Florence/K. Arszulowicz
J. Florence
J. Florence
C. Whiteley

Agenda for 8/21/02

FACTS Update
ATX Shifter Quality
Water Pump Pulley Loose
Valve Train Loose
Yard Audit Review

R. Wepler/C. White
B. Tobis
G. MacDonald
J. Bronki
J. Florence/K. Arszulowicz

Agenda for 8/28/02

ATX Trans Contamination
Battery Improvement Actions
Yard Audit Review
More Added

L. Motley/S. Falls
M. Morton
J. Florence/K. Arszulowicz

Doran Oboza

Powertrain Quality Analyst - Wayne Assembly Plant
Phone - 734-487-0604
Pager - 734-286-5439
email - dobozal@ford.com

"I would rather wake up in the middle of nowhere, than in any city in the world."

Steve McQueen

From: Freeland, Mark (M.)
Sent: Wednesday, August 07, 2002 12:26 PM
To: Bryant, Bruce (B.D.)
Cc: Helms, Jeffrey (J.H.)
Subject: FW: Single Agenda Sheet for U/P207

Bruce,

Old buddy networking in action. Thomas is an EESE BB Candidate in training. He may be able to help identify electrical noise generation.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Belanger Jr., Thomas (T.D.)
Sent: Wednesday, August 07, 2002 11:38 AM
To: Freeland, Mark (M.)
Subject: RE: Single Agenda Sheet for U/P207

Thanks Mark,

I am going to try to get involve using the association to voltage noise and Radio noise.

Tom

—Original Message—

From: Freeland, Mark (M.)
Sent: Wednesday, August 07, 2002 11:17 AM
To: Belanger Jr., Thomas (T.D.)
Subject: RE: Single Agenda Sheet for U/P207

Tom,

It is in the middle of the pack. The attached file has the data and the chart. It's getting old, but still is good to illustrate the system's difference between applications.

<< File: DPFE_All Suppliers 20020821.xls >>

Regards

Mark Freeland

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ER02-827-G 5053

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Tel.: (313) 594-7645

—Original Message—

From: Belanger Jr., Thomas (T.D.)
Sent: Wednesday, August 07, 2002 7:17 AM
To: Freeland, Mark (M.)
Subject: Single Agenda Sheet for U/P207

Mark, I was reviewing the single agenda list for the U/P207 and noted all the engine related concerns. On both the U207 and the P207 the "Check engine light trouble" is the worse rated issue, ranked #1.

Can you send me the Pareto Chart of dPFE failure verse the vehicle system that you showed me. If you can not will you let me know how the Sport Trac (P207) and the Explorer Sport (U207) fall on your chart. << File: Sport Single Agenda.xls >> << File: Sport Trac Single Agenda.xls >>

Tom Belanger

Black Belt Candidate - EES/RAVT

Ford Motor Co.

(313) 248-4883, FAX (313) 248-4853
email a text page to: 3137986436@alphapage.airtouch.com

Pager: (313) 798-8435

From: Freeland, Mark (M.)
Sent: Wednesday, August 07, 2002 12:20 PM
To: Belanger Jr., Thomas (T.D.)
Subject: RE: Single Agenda Sheet for U/P207

Tom,

Great! Keep me posted on what you're plan is as you develop it.

Regards

Mark Freeland

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Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Belanger Jr., Thomas (T.D.)
Sent: Wednesday, August 07, 2002 11:38 AM
To: Freeland, Mark (M.)
Subject: RE: Single Agenda Sheet for U/P207

Thanks Mark,

I am going to try to get involve using the association to voltage noise and Radio noise.

Tom

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, August 07, 2002 11:17 AM
To: Belanger Jr., Thomas (T.D.)
Subject: RE: Single Agenda Sheet for U/P207

Tom,

It is in the middle of the pack. The attached file has the data and the chart. It's getting old, but still is good to illustrate the system's difference between applications.

<< File: DPFE_All Suppliers 20020621.xls >>

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA

EP82-627-G 5855

email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Belanger Jr., Thomas (T.D.)
Sent: Wednesday, August 07, 2002 7:17 AM
To: Freeland, Mark (M.)
Subject: Single Agenda Sheet for U/P207

Mark, I was reviewing the single agenda list for the U/P207 and noted all the engine related concerns. On both the U207 and the P207 the "Check engine light trouble" is the worse rated issue, ranked #1.

Can you send me the Pareto Chart of dPFE failure verse the vehicle system that you showed me. I you can not will you let me know how the Sport Trac (P207) and the Explorer Sport (U207) fell on your chart. << File: Sport Single Agenda.xls >> << File: Sport Trac Single Agenda.xls >>

Tom Belanger

Black Belt Candidate - EES/RAVT

Ford Motor Co.

(313) 248-4853, FAX (313) 248-4853
email a text page to: 3137668435@alphapage.airtouch.com

Pager: (313) 798-8435

EP02-027-G 0856

From: Freeland, Mark (M.)
Sent: Monday, August 05, 2002 12:12 PM
To: Poma, Amy (A.)
Subject: Accepted: Voltage measurements during coil charging

ER02-027-G 5061

From: Freeland, Mark (M.)
Sent: Friday, August 02, 2002 10:34 AM
To: Yeung, Lam (.)
Subject: Spark Plug issues

Lam,

I am a 6 Sigma BB in FRL working on a stalls issue. I heard from the Escape stalls team that you are working on a spark plug issue, which may have some connection to the project I am working on.

Would you be prepared to meet with me and fill me in on the details of the spark plug issue?

Regards

Mark Freeland

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Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, August 01, 2002 2:10 PM
To: Poma, Amy (A.)
Subject: RE: 8/1 voicemail

Amy,
First,

I have updated the record for my Mountaineer in the attached file, please copy the updates to the master file.
Thanks

What I am looking for is one of the 6 Uninterruptible Power Supplies which I had Tim Potter order. They were drop shipped to Jim McCoy while I was on vacation. I want to put one into the Mountaineer. Please let me know if you can find one of them. Thanks

Regards

Mark Freeland

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Tel.: (313) 594-7645

-----Original Message-----

From: Poma, Amy (A.)
Sent: Thursday, August 01, 2002 1:25 PM
To: Freeland, Mark (M.)
Subject: 8/1 voicemail

Mark,

Please advise specifically what you need from Jim McCoy. I went by his desk and he is out like you said, but perhaps I can track down what you need.

*Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CO162
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com*

ER82-827-G 8888

From: Freeland, Mark (M.)
Sent: Thursday, August 01, 2002 12:54 PM
To: McCoy, James (J.D.)
Cc: Potter, Timothy (T.J.)
Subject: UPS

Jim,

I understand that the UPS's were all shipped directly to you, and that at least 5 have arrived. Can you please let me have one of them so that I can install it in the Mountaineer.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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email: mfreela1@ford.com
Tel: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, August 01, 2002 12:30 PM
To: Maurer, James (J.B.)
Cc: O'Neill, Jim (J.D.); Helms, Jeffrey (J.H.); Bryant, Bruce (B.D.)
Subject: Buy Back Focus

Jim,

I have just had a conversation with Jim O'Neill regarding my involvement on the team and what I can currently best do to further the teams efforts.

Amongst other things discussed Jim indicated that:

- a) He is traveling to Kavlico tomorrow and will be discussing future team make up, and that my continued participation is on the agenda.
- b) Ford's efforts in looking for the elusive electrical signature which may be affecting the dPFE sensor are going to be reduced, within Powertrain Operations and within EESE.

I still feel, based on the high current events on my Management Lease Vehicle First observed 7/13/2002, where the current indicated by the DVM increased to as high as 200 mA during heavy acceleration and then fell back to the normal level after I eased off on the load, that electrical noise generated by the ignition system probably has a key role to play in the failure of the dPFE.

I asked Jim if anyone on the team has looked at the electrical noise on the Alan Ford Green Buy Back Focus, VIN # 1FAPP36381W115569, to date. Jim thought that as of this time no one had.

If any of the vehicles we have in hand are going to reveal the secret of what causes the high current events, this is the one, as it is the only vehicle we have which has had a confirmed high current event which caused the engine to stop and not restart. I made the offer to Jim O'Neill, that I would look at the electrical noise on this vehicle to see if we can get some conclusive data. Jim O'Neill had no objection to this, and suggested that I contact you and ask if the vehicle could be made available to me for this work.

Please let me know:

- a) if I may have the vehicle
- b) to what level the vehicle is instrumented
- c) when it would be available to me
- d) what are the driving restrictions, (my name is not on the list of approved weekend drivers for any of the test vehicles which Army sent out).

If the instrumentation has not been installed FRL will be happy to install it, if you can provide the equipment with the vehicle.

Thank you

Regards

Mark Freeland

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EA02-027-G 5895

Tel.: (313) 594-7645

8982-027-G 0306

From: Freeland, Mark (M.)
Sent: Thursday, August 01, 2002 11:54 AM
To: Bryant, Bruce (B.D.)
Subject: Accepted: dpfe project

Subject: FRL Disengagement from dPFE project
Location: Jeff's office
Start: Thu 8/1/2002 2:30 PM
End: Thu 8/1/2002 3:00 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Required Attendees: Freeland, Mark (M.); Helms, Jeffrey (J.H.)

Jeff,

Can I have a discussion with you regarding Disengagement this afternoon before I meet with Bruce at 3:00 pm.

Thanks

From: Freeland, Mark (M.)
Sent: Wednesday, July 31, 2002 10:28 AM
To: Donka, John (J.J.)
Subject: RE: Assignment # 58 - Suspect DPFE Sensor

John,
I checked AWS, it actually was on the vehicle for 17 days and just over 700 miles.
It is interesting to note that this vehicle has had wiring problems, break light problems and Tx Shifting problems also at the two DPFE visits!

Regards

Mark Freeland

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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Donka, John (J.J.)
Sent: Tuesday, July 30, 2002 5:12 PM
To: Freeland, Mark (M.)
Subject: RE: Assignment # 58 - Suspect DPFE Sensor

This could be a replacement that never made it out of the dealership after being installed! So I was told!!!!

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, July 30, 2002 5:10 PM
To: Donka, John (J.J.)
Subject: RE: Assignment # 58 - Suspect DPFE Sensor

Thanks John,

Just got the one from Bill Brown Ford, interesting, just manufactured on 8/5/2002!

Regards

Mark Freeland

6-Sigma Black Belt
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MD 2629 - SRL - Room 1517
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email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Donka, John (J.J.)

E062-827-0 5182

From: Freeland, Mark (M.)
Sent: Tuesday, July 30, 2002 6:10 PM
To: Domka, John (J.J.)
Subject: RE: Assignment # 58 - Suspect DPFE Sensor

Thanks John,

Just got the one from Bill Brown Ford, interesting, just manufactured on 6/5/2002!

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Domka, John (J.J.)
Sent: Tuesday, July 30, 2002 4:59 PM
To: Freeland, Mark (M.)
Subject: RE: Assignment # 58 - Suspect DPFE Sensor

Found another today! 2E10B BD.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, July 30, 2002 4:58 PM
To: Domka, John (J.J.)
Subject: RE: Assignment # 58 - Suspect DPFE Sensor

Thank you John,

I have a bunch of parts which arrived while I was on vacation, so it will take a few days to getting round to looking at them all. I will issue a summary on my findings in due course.

Regards

Mark Freeland

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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Domka, John (J.J.)
Sent: Friday, July 19, 2002 6:44 PM

EAB2-827-G 5105

To: Lovelace, Marla (M.E.)
Cc: Freeland, Mark (M.)
Subject: Assignment # 58 - Suspect DPFE Sensor

I'll bring the DPFE in Monday morning.

CSQI002 CQIS Indicator Summary 07/19/02 18:40:38

==>

1 of 1

Rpt#: 2GSBC003 CQD Rpt: 07/19/2002 Odom: 19,803 M
Rvw: File: Folder: Images: 0 Print Smy/Disp Detail(P/D):
Vehicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA51482BA97267 Bld: 02/07/2002
Engine: 3.8L EFI F Calb: 2A31ZC0A Trans: 4F50N Axle: FWD 3.58 A/C: YES
Dealer Id: 45307 BUDGET RAC - ROMULUS Ph#:
State: Michigan City: Romulus Orig/Caller: JOHN DOMKA
Symptom: 8 98 2 00 DRVABL,INDICATOR,CHECK ENGINE,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: Rvw: Dt:
Fix: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: H5

Region Code: CC Region Name: Rental - CC

CONCER CHECK ENGINE LIGHT ON
REPAIR ANALYSIS DETERMINED THE DPFE SENSOR WAS SUSPECT. DPFE CHANGED, ISSUE
CORRECTED. SUSPECT DPFE GIVEN TO MARK FREELAND.
DPFE BUILD DATE 2A26B
MICHIGAN FQE - JOHN DOMKA
313-433-7910

F1 Help F3 Exit F4 Last Cmts F5 Add Cmts F8 Add Fldr
F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return
10018-BOTTOM OF DATA LPENJBD

Thanks,

John J. Domka

Field Quality Engineer
Enhanced Concern Identification
Ford Customer Service Division

jdomka@ford.com
Phone 313-433-7910
FAX 734-475-9110

From: Freeland, Mark (M.)
Sent: Tuesday, July 30, 2002 5:08 PM
To: Poma, Amy (A.)
Subject: RE:

Amy,

Could you forward me a copy of the status of accumulated miles on each test vehicle along with any reports of unusual events.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Poma, Amy (A.)
Sent: Monday, July 15, 2002 8:35 AM
To: Akins, Mary (M.); Ailes, Sheran (S.A.); Awad, Mahmoud (M.I.); Freeland, Mark (M.); Gates, Freeman (F.C.); Janda, Jon (J.M.); John Jalehan (E-mail); Maurer, James (J.B.); McCoy, James (J.D.); Pianta, Paul (P.B.); Poma, Amy (A.); Raddy, Srikanth; Russel, Roberto (R.A.); Verner, Carol (C.J.)
Subject:

Team below please see note Jon asked me to forward regarding week end drives. If you have any questions, please contact him directly. Thanks.

The following people are the ONLY ones approved for week end drives:

Jim McCoy
Dennis Kryzske
Jim Maurer
Jerry Kazmer
Freeman Gates
Gary Ellul

It's expected that those on the list accumulate notable mileage.

Thank You,
Jon Janda

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CO162
phone-313-390-8849, fax: 313-390-4084

ERR2-027-G 5107

apomaz@ford.com

ER82-027-G 0180

From: Freeland, Mark (M.)
Sent: Tuesday, July 30, 2002 4:58 PM
To: Domka, John (J.J.)
Subject: RE: Assignment # 58 - Suspect DPFE Sensor

Thank you John,
I have a bunch of parts which arrived while I was on vacation, so it will take a few days to getting round to looking at them all. I will issue a summary on my findings in due course.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Domka, John (J.J.)
Sent: Friday, July 19, 2002 6:44 PM
To: Lovelace, Maria (M.E.)
Cc: Freeland, Mark (M.)
Subject: Assignment # 58 - Suspect DPFE Sensor

I'll bring the DPFE in Monday morning.

CSQI002 CQIS Indicator Summary 07/19/02 18:40:36 1 of 1
Rpt#: 2GSBC003 CQD Rpt: 07/19/2002 Odom: 19,803 M
Rvw'd: File: Folder: Images: 0 Print Smy/Disp Detail(P/D):
Vehicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA51482BA97287 Bld: 02/07/2002
Engine: 3.8L EFI F Calb: 2A31ZC0A Trans: 4F50N Axle: FWD 3.56 A/C: YES
Dealer Id: 45307 BUDGET RAC - ROMULUS Ph#:
State: Michigan City: Romulus Orig/Caller: JOHN DOMKA
Symptom: 6 98 2 00 DRVABL,INDICATOR,CHECK ENGINE,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: Rvw'd: Dt:
Fb: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: H5

Region Code: CC Region Name: Rental - CC

CONCER CHECK ENGINE LIGHT ON
REPAIR ANALYSIS DETERMINED THE DPFE SENSOR WAS SUSPECT. DPFE CHANGED, ISSUE
CORRECTED. SUSPECT DPFE GIVEN TO MARK FREELAND.
DPFE BUILD DATE 2A25B
MICHIGAN FQE - JOHN DOMKA
313-433-7910

F1 Help F3 Exit F4 Last Cmts F5 Add Cmts F6 Add Fldr
F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return

ERS2-827-G 8100

10018-BOTTOM OF DATA

LPENJBD

Thanks,

John J. Domka

Field Quality Engineer
Enhanced Concern Identification
Ford Customer Service Division

jdomka@ford.com
Phone 313-433-7910
FAX 734-475-9110

From: Freeland, Mark (M.)
Sent: Tuesday, July 30, 2002 4:58 PM
To: Hengas, Jon (.); Uy, Dairana (D.)
Cc: Potter, Timothy (T.J.)
Subject: RE: Elwood Focus sensor

Jon & Dairana,

I have assigned a SRL tracking number of SRL931 to this part. If you have the part could you please inscribe this number on the part and associate all records with this number. I have noted the info that I have in the master log, but please advise me of any info & findings you have on the part.

When you are done then the remains should be stored in a plastic bag clearly labeled with the tracking number and deposited in the 900 series box in my office.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Hengas, Jon (.)
Sent: Friday, July 19, 2002 1:25 PM
To: Freeland, Mark (M.); Uy, Dairana (D.)
Subject: Elwood Focus sensor

Mark,

Tim Potter got a sensor from Kevin Elwood's Focus. It has some clear bubbles by the base of the wire bonds. Dairana wrote down the mileage.

The date stamp on the sensor is 1K19B. I have not assigned it an SRL number. There are images in the Kavlico directory on the optical lab computer.

Jon

ER82-027-G 9111

From: Froeland, Mark (M.)
Sent: Friday, July 12, 2002 4:58 PM
To: Maurer, James (J.B.); Akins, Mary (M.); Gates, Freeman (F.C.)
Cc: Kyong Park (E-mail); Janda, Jon (J.M.); Verner, Carol (C.J.); Aikoikar, Shrikant (S.V.); Plants, Paul (P.G.)
Subject: FQE returns,

I have received an additional 8 post 1/7/2002 TM dPFE's from the field, (yesterday & today). Plus 1 melt down (also had a plugged catalyst), of unknown date code.

The parts are in a box on my chair at SRL if any one wants to do anything with them before I return. Jon and Carol know how to get into my office.

I will return from vacation on Tuesday 7/30/2002.

Have fun.

Regards

Mark Froeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfrasal1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, July 12, 2002 11:37 AM
To: Park, Kyong
Subject: RE: FYI

Thanks Kyong,

I think this article makes some very important points.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Thursday, July 11, 2002 1:25 PM
To: mfreelal@ford.com
Subject: FYI

I thought you might be interested in the attached article.
One of my people sent it to me.

<<Autoweek-Ford.PDF>>

From: Freeland, Mark (M.)
Sent: Friday, July 12, 2002 11:15 AM
To: Plants, Paul (P.G.); Awad, Mahmoud (M.I.); McCliment, Greg (G.A.)
Cc: Janda, Jon (J.M.); Poma, Amy (A.); Maurer, James (J.B.)
Subject: RE: Repeat Repair Data-Meeting Notice 7/22/02

Paul,

I will be on vacation starting 7/15 returning 7/30. The next Monday meeting I will be at is 8/5/2002.

Mahmoud,

Could you please email me with you're and Greg's concensed interpretation of the 2001 MY 2.0L Zetec Focus repeat repair data, specifically paying attention to the 15% for Sept. & Oct. followed by 7% for Nov of 2000.

Thank you.

Regards

Mark Freeland

6-Sigma Black Belt
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email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Plants, Paul (P.G.)
Sent: Friday, July 12, 2002 10:56 AM
To: Awad, Mahmoud (M.I.)
Cc: Janda, Jon (J.M.); Poma, Amy (A.); Freeland, Mark (M.); Maurer, James (J.B.)
Subject: Repeat Repair Data-Meeting Notice 7/22/02

Mahmoud, Mark has asked to rereview this data. You are the assigned RIE expert. When you return from vacation I want to add this to the Monday 1:00 PM meeting agenda for 15 minute discussion. Please bring copies of the data and your/Quality Office conclusions as to what the data means. You can present on your own or bring Greg McCliment, your supervisor, your choice. This is relevant to Vehicle to sensor failure association, and fits the Monday forum.

Mark, I got your call. Kurt is replaced with Greg. I want M. Awad to lead the discussion on his data. Monday forum already exists to do this.

Jon, Mahmoud is back Monday 7/15 I think. That is too soon to schedule this, try for 7/22.

ps I am on vacation 7/15/02.

Paul Plants
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube BG049, Pillar D5
Tele. 313-84-54138; Fax 38-02513
Text Pager: 734-296-1905
E Mail: pplants@ford.cm (CDS ID PPLANTE)

ER82-827-G 5149

From: Freeland, Mark (M.)
Sent: Friday, July 12, 2002 10:45 AM
To: Hanges, Jon (.)
Subject: RE: 308

Thanks for the status Jon.

Next week can you get with Steve and explain what needs done with it. Hopefully he can get it finished by the time I get back from vacation.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Hanges, Jon (.)
Sent: Thursday, July 11, 2002 6:50 PM
To: Freeland, Mark (M.)
Subject: 308

Mark,

Dairene gave me 308, the part you latched and drove, and it's on the bench in my sample prep area in case you need to look at it.

Jon

From: Freeland, Mark (M.)
Sent: Thursday, July 11, 2002 9:49 AM
To: Hanges, Jon (.)
Subject: RE: Simko

Jon,
Steve's on vacation in the UK, he won't be back until Monday. Otherwise good idea.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

— Original Message —

From: Hanges, Jon (.)
Sent: Wednesday, July 10, 2002 12:09 PM
To: Freeland, Mark (M.)
Subject: Simko

Mark,
Steve Simko is also in Jeff's department. Perhaps we could make it a 3 on 1 meeting.
Jon

From: Froelund, Mark (M.)
Sent: Thursday, July 11, 2002 9:47 AM
To: Kyong Park (E-mail); Gates, Freeman (F.C.)
Cc: Hanges, Jon (.); Carter, Roscoe (R.O.)
Subject: Exhaust Gas Condensate Acidity

I measured the condensate in the tubes of the dPFE on my Mountaineer this morning with high resolution paper (thanks Jon or Rosco, not sure which one left me the present last night). The value I observed was 4.5.

Regards

Mark Froelund

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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Dearborn, MI 48121-2053 USA
email: mfrnelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, July 10, 2002 5:07 PM
To: Lovelace, Maria (M.E.)
Subject: RE: part

Thanks,

I will, and so will my three girls (Amy 5, Emma 5 & Melissa 8)

Talk with you again soon.

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
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Tel: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Wednesday, July 10, 2002 3:59 PM
To: Freeland, Mark (M.)
Subject: RE: part

Have fun!

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, July 10, 2002 3:00 PM
To: Lovelace, Maria (M.E.)
Subject: RE: part

Thanks Maria,

You won't hear from me again until August as I am taking two weeks to go overseas starting next Monday. But do keep the parts coming, they are a very valuable source of data for us.

Thanks for you team's help.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

ER02-027-G 5178

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Wednesday, July 10, 2002 1:31 PM
To: Freeland, Mark (M.)
Subject: part

Mark,

I put the part in the company mail. You should have it in a *few* days.

Maria E. Lovelace - FQE Liaison

Enhanced Concern Identification - FCSD

500 Town Center, Suite 300 Cube 25

500 Town Center Drive

Dearborn, Michigan 48126

313-323-6561/800-521-4450

From: Freeland, Mark (M.)
Sent: Wednesday, July 10, 2002 3:00 PM
To: Lovelace, Maria (M.E.)
Subject: RE: part

Thanks Maria,

You won't hear from me again until August as I am taking two weeks to go overseas starting next Monday. But do keep the parts coming, they are a very valuable source of data for us.

Thanks for you team's help.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

—Original Message—

From: Lovelace, Maria (M.E.)
Sent: Wednesday, July 10, 2002 1:31 PM
To: Freeland, Mark (M.)
Subject: part

Mark,
I put the part in the company mail. You should have it in a few days.

Maria E. Lovelace - FQE Liaison
Enhanced Concern Identification - FCSD
500 Town Center, Suite 300 Cube 25
500 Town Center Drive
Dearborn, Michigan 48126
313-323-8561/800-521-4450

From: Freeland, Mark (M.)
Sent: Wednesday, July 10, 2002 2:35 PM
To: Domka, John (J.J.)
Subject: RE: assignment 02-58

John,

Sorry for the delay, still trying to get caught up.

I am interested in the parts which are diagnosed by the dealer as root cause, Irregardless of whether they still work after they are removed from the vehicle, in other words don't filter out "TNI's".

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mffreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Domka, John (J.J.)
Sent: Wednesday, June 05, 2002 9:41 PM
To: Freeland, Mark (M.)
Cc: Lovelace, Maria (M.E.)
Subject: FW: assignment 02-58

Are we looking for failed DPFE's ? Assignment does not state failed or any!!!!!! I'm sure you want failed, but I want to be sure!!!!!!

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Wednesday, June 05, 2002 10:11 AM
To: Christoff II, Donald (D.A.); Colarossi, Anthony (A.); Cox, David (D.M.); Dionisi, Anthony (A.J.); Domka, John (J.J.); Hammack, Dan (D.W.); Hayduk, Mark (M.S.); Hecker, Thomas (T.P.); Howe, Brian (B.T.); Ireland, Harry K.; Kaltz, Gordie (G.); Myers, Dan (D.P.); Peeler, Tom (T.H.); Sorensen, Lynn (R.L.); Trower, Ron (R.D.)
Subject: assignment 02-58

<< File: req02-58.xls >>

Maria E. Lovelace - FQE Liaison

Enhanced Concern Identification - FCSD
500 Town Center, Suite 300 Cube 25
500 Town Center Drive
Dearborn, Michigan 48126
313-323-6561/800-521-4450

0202-027-G 5178

From: Freeland, Mark (M.)
Sent: Wednesday, July 10, 2002 2:07 PM
To: Ed Sickafus (E-mail)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Poma, Amy (A.)
Subject: Ed,

Ed,

Paul Plante has requested that you attend the dPFE 14D team meeting tomorrow at 1:00pm in the POEE building, Thursday 7/11/2002. I know you will be only getting in late tonight, and may not get to this in your email, so I will call you in the morning also.

Jim Maurer is still on vacation, so I can not have him confirm the request.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, July 10, 2002 1:59 PM
To: McCarty, Bill (W.D.)
Subject: FW: STRANGE CASE OF 2001 FOCUS STALL

Bill,

For your information I thought you might like to read the attached report. The report is a typical example of one of the "No Start" reports for the high current dPFE failure. This customer was lucky, in that he was at idle when it happened.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Surti, P. J. (P.J.)
Sent: Monday, June 24, 2002 11:24 AM
To: Johnson, Joe (J.H.); Gates, Freeman (F.C.); Bansek, Catherine (C.K.); Freeland, Mark (M.); Maurer, James (J.B.); Jensen, Ted (T.E.)
Cc: Giordano, Mike (M.A.); Dhallwal, Dave (D.S.); MacDonald, George (G.F.); Malloy, Gene (E.E.); DiAngelo, Ronaldo (R.); Noteboom, Jim (J.E.); Peppone, Gil (G.); Surti, P. J. (P.J.)
Subject: STRANGE CASE OF 2001 FOCUS STALL

Hello Joe - Pl. see attached CQIS report on 2001 Focus. The high incidence of DPFE quality is known concern and we have talked about it several times in past. But this DPFE failure mode is little strange, shorting Vref to ground and its effect of stalling on the road. Also, the inoperative Odometer display was an interesting part of the failure mode. It took some time to diagnose and finding the root cause due to the lack of communication with PCM and not being able to retrieve the DTCs. If you like to receive this sensor back for further test analysis, I can ship it wherever you like me to do so. So, Pl. let me know. Thanks...

CSQI002 CQIS Indicator Summary 08/24/02 10:43:43

==>

1 of 1

Rpt#: 2FXI4001 PTOFSE Rpt: 08/24/2002 Odom: 11,600 M
Rvw'd: File: Folder: Images: 0 Print Stry/Disp Detail(P/D):
Vehicle: 2001 FOCUS,SE ,SEDAN 1FAHP34341W110512 Bld: 09/12/2000
Engine: 2.0L ZTECH Calb: 1AK1AZ0A Trans: FN 4SPD Axle: FWD 3.904 A/C: YES
Dealer Id: 05517 SUNSET FORD Ph#: (714) 372-4520
State: California City: Westminster Orig/Caller: P. J. SURTI
Symptom: 8 03 3 93 DRVABL,CRANKS/NO STAR,START ENG TEMP ,ALL ENGINE TEMP
Addl Sym: St: CCRG/EPRC: Rvw'd: Dt:
Flx: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: 42
PSURTI (714) 962-3227 FAX: MIL? N ABA? Symp V? Survey? N
EO: EC: Prt St O
ER: CB: Intmit? N
CONCER VEHICLE QUIT WHILE DRIVING AND WON'T RESTART.

8902-027-G 5181

REPAIR THE VEHICLE QUIT WHILE IDLING IN PARK AND WONT RESTART. CHECKED THE BATTERY AND STARTING SYSTEM. EVERYTHING WAS O'K. HOOKED UP WDS. BUT THERE WAS NO COMMUNICATION WITH PCM AND COULDN'T RUN EEC SELF TEST. ALSO, THE TECH. NOTICED THAT THE ODOMETER DISPLAY ON THE INSTRUMENT CLUSTER WAS INOPERATIVE. RAN PINPOINT TEST FOR EEC SYSTEM. FOUND DPFE SENSOR VREF CKT. SHORTED TO GROUND. REPLACED THE DPFE SENSOR. THE VEHICLE STARTED AFTER THE REPAIR. THE ODOMETER DISPLAY ALSO STARTED TO WORK FINE AFTER THE REPAIR.

P. J. Smith

Powertrain FQE

T. No. (714) 862-3227

Fax No. (714) 862-4448

From: Freeland, Mark (M.)
Sent: Wednesday, July 10, 2002 12:21 PM
To: Gearhart, Chris (C.)
Subject: RE: Ratio of BB to non-BBs

Chris,
for my dPFE work I would say 2 heads in addition to me at SRL, plus 10 heads including 2 other black belts elsewhere in the company. (ie Powertrain, Purchasing, FCSD, EESE, etc.)

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Gearhart, Chris (C.)
Sent: Monday, July 08, 2002 4:13 PM
To: Agarwal, Apoorva (A.); Amori, Richard (R.); Athavala, Shounak (S.M.); Brod, Larry (L.E.); Bryant, Bruce (B.D.); Cechanowski, Mark (M.S.); Cole, Charles (C.C.); Curtis, Eric (E.W.); DeMurphy, Thomas (T.L.); Denn, Michael (M.E.); Elliott, Adrian (A.N.); Freeland, Mark (M.); Geer, James (J.W.); Gianamore, Armand (A.A.); Gibson, Alex (A.G.); Jensen, Tom (T.E.); JFRANKLI was deleted 20020606; Kiridena, Vijitha (V.); Kishore, Margaret (M.A.); Loring, Daniel (D.H.); League, Ed (E.R.); Liu, Dang (D.R.); McBride, James (J.R.); Naseer, Ahmad (A.M.); Paul, Debabrata (Deb.); Samus, Marsha (M.A.); Sanders, Paul (P.G.); Shaya, Nada (N.J.); Subramaniam, Sankaran (S.); Teng, Charlie (C.); Tobis, Bruce (B.J.); Wei, Kuang (K.C.); Zubeck, Michael (M.W.)
Subject: Ratio of BB to non-BBs

We are trying to get an estimate of the how much support is needed for a typical BB projects. For each of your projects can you make an estimate of the number of active team members and the number of BB. By active team member I am looking for people who devoted a significant amount of time to working on the project. Don't count DD, MBBs, Champions, executive sponsors, etc. unless they were part of the daily working of the project.

Chris Gearhart
Six Sigma Master Black Belt
Ford Research Laboratory
(313)-390-5709

From: Freeland, Mark (M.)
Sent: Tuesday, July 09, 2002 12:16 PM
To: Bryant, Bruce (B.D.)
Subject: RE: progress on dPFE work

Bruce,

The Chief Engineers meeting is likely to be while I am on vacation! I would suggest you join us for the prep meeting for this which will be at 1:00 pm on Thursday over at POEE. As you might like to attend the Chief's meeting.

Call me and let me know if you can attend. Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Bryant, Bruce (B.D.)
Sent: Monday, July 01, 2002 10:01 AM
To: Freeland, Mark (M.)
Subject: progress on dPFE work

Mark:

How are things going? I haven't heard anything from you lately on the dPFE work, so I was wondering how it's going, and if there's anything with which you could use my assistance. As I recall, we left off a couple weeks ago with Paul Duffy agreeing to try to free up resources at EESE for help. Did anything come of that? Also, has Graham Hoare been to the V8 Directors' meetings?

The last I heard on the subject from EESE is when Dante told me that Rob Rossi and Sheran Alles are testing some vehicles for transients but don't believe that transients of sufficient energy as to invoke the latch mode could happen. I'll forward you the note if you'd like.

Cordially,
Bruce Bryant, bbryant@ford.com, 313-213-22-22710
Six Sigma Master Blackbelt, Ford Research Laboratory

ERG2-827-G 5218

From: Freeland, Mark (M.)
Sent: Tuesday, July 09, 2002 11:50 AM
To: Surti, P. J. (P.J.)
Cc: Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.); Rossi, Roberto (R.A.)
Subject: Shorted Sensor

PJ

Please send the sensor back to Freeman Gates.

Freeman,
could you send PJ your shipping address. After you have done whatever you need to could you give me the part when I return from vacation, so that we can measure the part's current etc and add the data to our database.

I am asking that it be shipped to you as I will be out on vacation for two weeks and don't want it to get lost.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Surti, P. J. (P.J.)
Sent: Monday, June 24, 2002 11:24 AM
To: Johnson, Joe (J.H.); Gates, Freeman (F.C.); Bansek, Catherine (C.K.); Freeland, Mark (M.); Maurer, James (J.B.); Jensen, Ted (T.E.)
Cc: Giordano, Mike (M.A.); Dhaliwal, Dave (D.S.); MacDonald, George (G.F.); Malloy, Gene (E.E.); DiAngelo, Ronald (R.); Noteboom, Jim (J.E.); Peppone, Gil (G.); Surti, P. J. (P.J.)
Subject: STRANGE CASE OF 2001 FOCUS STALL

Hello Joe - Pl. see attached CQIS report on 2001 Focus. The high incidence of DPFE quality is known concern and we have talked about it several times in past. But this DPFE failure mode is little strange, shorting Vref to ground and its effect of stalling on the road. Also, the Inoperative Odometer display was an interesting part of the failure mode. It took some time to diagnose and finding the root cause due to the lack of communication with PCM and not being able to retrieve the DTCs. If you like to receive this sensor back for further test analysis, I can ship it wherever you like me to do so. So, Pl-let me know. Thanks...

CBQI002

CQIS Indicator Summary

06/24/02 10:43:43

====>

1 of 1

Rpt#: 2FXI4001 PTOFSE Rpt: 06/24/2002 Odom: 11,600 M
Rvw'd: File: _ Folder: _ Images: 0 Print Smy/Disp Detail(P/D): _
Vehicle: 2001 FOCUS,SE ,SEDAN 1FAHP34341W110612 Bld: 09/12/2000
Engine: 2.0L ZTECH Calb: 1AK1AZ0A Trans: FN 4SPD Axle: FWD 3.904 A/G: YES
Dealer Id: 05517 SUNSET FORD Ph#: (714) 372-4520
State: California City: Westminster Orig/Caller: P. J. SURTI
Symptom: 6 03 3 93 DRVABL,CRANKS/NO STAR,START ENG TEMP ,ALL ENGINE TEMP

Addl Sym: St: CCRG/EPRC: _ Rvw: Dt:
Fix: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: 42
PSURTI (714) 962-3227 FAX: MIL? N ABA? Symp V? Survey? N
EO: EC: Prt St: O
ER: CB: Intmit? N

CONCER VEHICLE QUIT WHILE DRIVING AND WON'T RESTART.

REPAIR THE VEHICLE QUIT WHILE IDLING IN PARK AND WON'T RESTART. CHECKED THE BATTERY AND STARTING SYSTEM. EVERYTHING WAS O.K. HOOKED UP WDS. BUT THERE WAS NO COMMUNICATION WITH PCM AND COULDN'T RUN EEC SELF TEST. ALSO, THE TECH. NOTICED THAT THE ODOMETER DISPLAY ON THE INSTRUMENT CLUSTER WAS INOPERATIVE. RAN PINPOINT TEST FOR EEC SYSTEM. FOUND DPFE SENSOR VREF CKT. SHORTED TO GROUND. REPLACED THE DPFE SENSOR. THE VEHICLE STARTED AFTER THE REPAIR. THE ODOMETER DISPLAY ALSO STARTED TO WORK FINE AFTER THE REPAIR.

P. J. Scott

Powertrain FQE
T. No. (714) 962-3227
Fax No. (714) 962-4448

From: Freeland, Mark (M.)
Sent: Monday, July 08, 2002 3:40 PM
To: Awad, June (J.A.)
Subject: RE: Most recent example of PAD or UPAD

Thanks for alerting me to my mistake, It was meant for Mahmoud.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Awad, June (J.A.)
Sent: Tuesday, July 02, 2002 8:47 AM
To: Freeland, Mark (M.)
Subject: RE: Most recent example of PAD or UPAD

Mark, I believe this was sent to me in error - I am the Ford Credit regional manager in Boston...

<W:\Z22IDRV\pictures\waving flag.gif>

Regards,

June A. Awad
Boston Regional Manager
508 357-6806 fax 508 357-6610 cell 508 612-8554

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Friday, June 28, 2002 5:26 PM
To: Gates, Freeman (F.C.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Kyong Park (E-mail); Hargas, Jon (J.); Janda, Jon (J.M.); Akolkar, Shrikant (S.V.); Awad, June (J.A.)
Subject: Most recent example of PAD or UPAD

Freeman,

Last week you asked what is the most recent date of manufacture of dPFE where we have observed the UPAD or PAD symptom. I checked the database, and find that the most recent example is SRL419 which has PAD on Hpos and Hneg on the Ht die. The part has accumulated 3,700 miles in service from 11/2/2001 through 2/11/2002. Also, note that this is the most recent warranty return part that we have looked at under the microscope which does not have the V Transient improvements.

So I conclude that there is no "clean date" for UPAD, at least prior to the addition of the current limiting resistor.

Additional Information:

ER82-827-G 5224

The lowest mileage part which had PAD was SRL199 with 54 miles. The sensor was changed pre delivery, it was 10.5 months from the failure date until the date it was inspected here, this may be significant. The oldest part which I have inspected which has PAD is SRL171, manufactured 10/9/1999 (pre extended gold). The most recent failure date part I have looked at which has PAD is SRL730, from a Focus staller, with 24,588 miles.

To date I have not observed PAD or UPAD on the few post 1/7/2002 parts I have inspected.

Are there any other questions regarding PAD which I may be able to answer from the data?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, July 08, 2002 3:40 PM
To: Awad, Mahmoud (M.I.)
Subject: FW: Most recent example of PAD or UPAD

Sorry Mahmoud, I sent it to the other Awad!

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

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Sent: Tuesday, July 02, 2002 8:47 AM
To: Freeland, Mark (M.)
Subject: RE: Most recent example of PAD or UPAD

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[W:\Z22IDRV\pictures\waving_flag.gif](file://W:\Z22IDRV\pictures\waving_flag.gif)

Regards,

June A. Awad
Boston Regional Manager
508 357-6606 fax 508 357-6610 cell 508 612-8554

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Friday, June 28, 2002 5:26 PM
To: Gates, Freeman (F.C.)
Cc: Maurer, James (J.B.); Plantz, Paul (P.G.); Kyong Park (E-mail); Nargas, Jon (J.); Janda, Jon (J.M.); Akalkar, Shrikant (S.V.); Awad, June (J.A.)
Subject: Most recent example of PAD or UPAD

Freeman,

Last week you asked what is the most recent date of manufacture of dPFE where we have observed the UPAD or PAD symptom. I checked the database, and find that the most recent example is SRL419 which has PAD on Hpos and Hneg on the HI die. The part has accumulated 3,700 miles in service from 11/2/2001 through 2/11/2002. Also, note that this is the most recent warranty return part that we have looked at under the microscope which does not have the V Transient improvements.

So I conclude that there is no "clean date" for UPAD, at least prior to the addition of the current limiting resistor.

ENG2-827-G 5226

Additional information:

The lowest mileage part which had PAD was SRL199 with 54 miles. The sensor was changed pre delivery, it was 10.5 months from the failure date until the date it was inspected here, this may be significant.

The oldest part which I have inspected which has PAD is SRL171, manufactured 10/9/1999 (pre extended gold).

The most recent failure date part I have looked at which has PAD is SRL730, from a Focus staller, with 24,588 miles.

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Are there any other questions regarding PAD which I may be able to answer from the data?

Regards

Mark Freeland

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Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, July 08, 2002 3:37 PM
To: Brogley, Martin (M.A.)
Subject: RE: test car

Sorry Martin,

But don't you like you're new job title!!!

Just kidding, Mark

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Brogley, Martin (M.A.)
Sent: Tuesday, July 02, 2002 10:15 AM
To: Freeland, Mark (M.)
Subject: RE: test car

Mark,
I am the leader in the shop, Ken is the supervisor.
Martin :>)

---Original Message---

From: Freeland, Mark (M.)
Sent: Monday, July 01, 2002 12:12 PM
To: McCoy, James (J.D.); Poma, Amy (A.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Brogley, Martin (M.A.); Kyong Park (E-mail)
Subject: FW: test car

Jim,
Just a reminder, Martin Brogley, supervisor in the SRL machine shop, drives 100 miles per day and is available to drive the dPFE tests. He is somewhat familiar with the problem, and has made various pieces of test hardware for me in the machine shop. As I will be in CA this week, then please contact him directly if you have one of the five vehicles available and needing a driver.

Updates of the Mountaineer test drive:

The latched sensor which I have been driving finally had a hard failure over the weekend after 1436 miles of latched driving and 141 miles of unlatched driving. It is saturated low, most of the time, but sometimes saturated high, and was once observed to still respond to pressure erratically (negative slope with a big offset). I will remove the sensor from the vehicle this afternoon for testing and inspection.

Regards

ENG2-027-0 5228

Mark Freeland

**6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645**

-----Original Message-----

From: Brogley, Martin (M.A.)
Sent: Monday, July 01, 2002 9:00 AM
To: Freeland, Mark (M.)
Subject: test car

Mark,
Any word on driving a test car? I will be on vacation July 13, to July 29, so I will not be available to help you then.
Give me a call if you hear anything.
Martin

From: Freeland, Mark (M.)
Sent: Monday, July 08, 2002 3:28 PM
To: McCarty, Bill (W.D.)
Subject: Accepted: FW: Kavlico dPFE and service supply

Bill,

I will try to participate as much as possible, but I will be in the process of trying to get three young girls up and out to the YMCA at the time!

Mark

From: Freeland, Mark (M.)
Sent: Monday, July 08, 2002 3:27 PM
To: Rossi, Roberto (R.A.)
Subject: Accepted: Updated: Review Electrical Paper to Be Presented at Thursday, July 11th DPFE Meeting

From: Freeland, Mark (M.)
Sent: Friday, July 05, 2002 4:37 PM
To: Thakur, Arunima (A.); Akins, Mary (M.)
Cc: Fodera, Michael (M.J.)
Subject: RE: Scoping project on wire stow and DPFE install at Wayne

I have been working on the TM dPFE sensor, I have not had any dealings with the DM dPFE, so have no data to offer. I suspect the answer is zero, however I would like to refer you to Mary Akins, the Kavilco rep in Dearborn. Perhaps she may have a more definitive answer for you.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Thakur, Arunima (A.)
Sent: Tuesday, July 02, 2002 1:08 PM
To: Freeland, Mark (M.)
Cc: Fodera, Michael (M.J.)
Subject: Scoping project on wire stow and DPFE install at Wayne

Mark,

Mr. Fodera is the scoper for our department and is trying to scope a wire stow/ DPFE Sensor Installation/ fuse box torquing project for Ford Focus Assembly Plant at Wayne, MI.

We would appreciate a quick verification on some data.
Here's the request:

Of all the R/1000 and TGW's on the DPFE sensor, how many do you think would be associated with assembly process at the plant? (Scenario: DPFE is over torqued at one end, and plastic screw head breaks, and dangles, vibrates with the front dash panel, and ultimately becomes ineffective leading to infant mortality.....)

Wayne has operator(s) manually rotating the DPFE sensor and then torquing it, resulting in cracks at the plastic sleeve of the sensor

Arunima Thakur

Consumer Driven Six Sigma Black Belt (Candidate)
Building: AVT-5/2G103, athakur@ford.com, Ph.313-317-7244
ESEE, Global Core Engineering.

From: Freeland, Mark (M.)
Sent: Friday, July 05, 2002 9:05 AM
To: Poma, Amy (A.)
Subject: Declined: Issues Resolution

Amy
I will be on vacation.

Regards
Mark

From: Freeland, Mark (M.)
Sent: Friday, July 05, 2002 9:01 AM
To: Ross, Roberto (R.A.)
Subject: Declined: Review Electrical Paper to Be Presented at Thursday, July 11th DPFE Meeting

Roberto,

During the summer my three young children live with me, as such I can not be in Dearborn before 9:00 am at the earliest. 9:15am is safer for a meeting.

I would be happy to meet with you and Ray but not at 8:00 am. Where is his office?

From: Freeland, Mark (M.)
Sent: Monday, July 01, 2002 3:53 PM
To: Bryant, Bruce (B.D.)
Subject: RE: progress on dPFE work

Bruce,

Leaving for airport in 10 mins. to go to Kavlico.
Please call me after 4:00 pm on my cell (248) 842-1080 & I will give you an update.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Bryant, Bruce (B.D.)
Sent: Monday, July 01, 2002 10:01 AM
To: Freeland, Mark (M.)
Subject: progress on dPFE work

Mark:

How are things going? I haven't heard anything from you lately on the dPFE work, so I was wondering how it's going, and if there's anything with which you could use my assistance. As I recall, we left off a couple weeks ago with Paul Duffy agreeing to try to free up resources at EESE for help. Did anything come of that? Also, has Graham Hoare been to the V8 Directors' meetings?

The last I heard on the subject from EESE is when Dante told me that Rob Roosal and Sheran Allen are testing some vehicles for transients but don't believe that transients of sufficient energy as to invoke the latch mode could happen. I'll forward you the note if you'd like.

Cordially,
Bruce Bryant, bbryant2@ford.com, 691-313-26-66756
6th Sigma Master BlackBelt, Ford Research Laboratory

From: Freeland, Mark (M.)
Sent: Monday, July 01, 2002 12:12 PM
To: McCoy, James (J.D.); Poma, Amy (A.)
Cc: Maurer, James (J.B.); Plants, Paul (P.G.); Brogley, Martin (M.A.); Kyong Park (E-mail)
Subject: FW: test car

Jim,

Just a reminder, Martin Brogley, supervisor in the SRL machine shop, drives 100 miles per day and is available to drive the dPFE tests.

He is somewhat familiar with the problem, and has made various pieces of test hardware for me in the machine shop.

As I will be in CA this week, then please contact him directly if you have one of the five vehicles available and needing a driver.

Update of the Mountaineer test drive:

The latched sensor which I have been driving finally had a hard failure over the weekend after 1436 miles of latched driving and 141 miles of unlatched driving. It is saturated low, most of the time, but sometimes saturated high, and was once observed to still respond to pressure erratically (negative slope with a big offset). I will remove the sensor from the vehicle this afternoon for testing and inspection.

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Brogley, Martin (M.A.)
Sent: Monday, July 01, 2002 9:00 AM
To: Freeland, Mark (M.)
Subject: test car

Mark,

Any word on driving a test car? I will be on vacation July 13, to July 29, so I will not be available to help you then.

Give me a call if you hear anything.

Martin

From: Freeland, Mark (M.)
Sent: Friday, June 28, 2002 5:26 PM
To: Gates, Freeman (F.C.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Kyong Park (E-mail); Hengse, Jon (.); Janda, Jon (J.M.); Akolkar, Shrikant (S.V.); Awad, June (J.A.)
Subject: Most recent example of PAD or UPAD

Freeman,

Last week you asked what is the most recent date of manufacture of dPFE where we have observed the UPAD or PAD symptom. I checked the database, and find that the most recent example is SRL419 which has PAD on Hpos and Hneg on the HI die. The part has accumulated 3,700 miles in service from 11/2/2001 through 2/11/2002. Also, note that this is the most recent warranty return part that we have looked at under the microscope which does not have the V Transient improvements.

So I conclude that there is no "clean date" for UPAD, at least prior to the addition of the current limiting resistor.

Additional information:

The lowest mileage part which had PAD was SRL199 with 64 miles. The sensor was changed pre delivery, it was 10.5 months from the failure date until the date it was inspected here, this may be significant.

The oldest part which I have inspected which has PAD is SRL171, manufactured 10/9/1999 (pre extended gold).

The most recent failure date part I have looked at which has PAD is SRL730, from a Focus staller, with 24,588 miles.

To date I have not observed PAD or UPAD on the few post 1/7/2002 parts I have inspected.

Are there any other questions regarding PAD which I may be able to answer from the data?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mufreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, June 28, 2002 4:35 PM
To: Kyong Park (E-mail)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Hargas, Jon (.); Jeff Helms (E-mail)
Subject: FW: FREELAND, MARK

Kyong,

As discussed I am planning to visit Kavlico on Tuesday all day and Wednesday morning to review our attempts to create UPAD and to review results from vehicle testing on the Mountaineer and the Yellow cab. Attached is my flight plan.

Please call when you have a chance.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: PNR-american express [mailto:pnr-notification@itn.net]
Sent: Friday, June 28, 2002 4:23 PM
Subject: FREELAND, MARK

TRAVEL BOOKING CONFIRMATION

Your company's Travel Department has requested this Message be sent each time you book travel for company business. If you wish to change that arrangement please contact your Travel Department.

CRS Record Locator # 7YX6X2
Airline Record Locator #1 UA-RBHMZ4

Name(s) of people traveling:
Passenger #1: MARK FREELAND
Meal: standard

Fare Details: DTT UA X/DEN UA BUR 254.66UA X/DEN UA DTT 254.65USD509.31 END UA
ZPDTW DEN BUR DEN XT10.00AY16.50XF DTW4.5DEN4.5BUR 3DEN4.5

Baggage Allowance: 2 pieces

ITINERARY

Flight/Equip.: United Airlines 1905 Boeing 737-300

Depart: Detroit(DTW)/Monday July 1 6:05 pm

Arrive: Denver(DEN)/Monday July 1 7:09 pm

Stops: non-stop Miles:1123

Class: Coach

Flight/Equip.: United Airlines 1285 Boeing 737-500

Depart: Denver(DEN)/Monday July 1 8:00 pm

Arrive: Burbank(BUR)/Monday July 1 9:19 pm

Stops: non-stop Miles:850

Class: Coach

Flight/Equip.: United Airlines 706 Boeing 737-500

Depart: Burbank(BUR)/Wednesday July 3 2:33 pm

Arrive: Denver(DEN)/Wednesday July 3 5:48 pm

Stops: non-stop Miles:850

Class: Coach

Flight/Equip.: United Airlines 378 Airbus A319

Depart: Denver(DEN)/Wednesday July 3 6:35 pm

Arrive: Detroit(DTW)/Wednesday July 3 11:17 pm

Stops: non-stop Miles:1123

Class: Coach

Total Airfare (including taxes) USD 586.00

Flight segments must be ticketed by close of business on July 1.

AGENCY INFORMATION

Agency: American Express

Dearborn, MI

BILLING INFORMATION

Name: Mark Freeland

Address: 2101 Village Road

Mail Stop: Rm 1517 MD 2629

Dearborn, MI 48124

Country: USA

Day Phone: 1-313-5947645

Home Phone: 1-248-426-0799

Email: MFREELA1@ford.com

PAYMENT INFORMATION

Visa Number: ON FILE

Expires: ON FILE

SPECIAL REQUESTS

HAVE A GREAT TRIP!

ERG2-627-0 5258

From: Freeland, Mark (M.)
Sent: Friday, June 28, 2002 2:54 PM
To: Maurer, James (J.B.)
Subject: Accepted: Tuesday, Thursday meeting, and EESE strategy

Loranger, David (D.F.)

From: lkrzyzanowski@aisinworld.com
Sent: Tuesday, May 27, 2003 10:13 AM
To: dlorange@ford.com; aholman@ford.com; tvaims@aaamichigan.com
Subject: BVO

I was going to make a reservation at the Hampton Inn in Ann Arbor this weekend for Saturday night after our wonderful day, is anyone interested???

Dave, could you check with everyone?? I don't have telephone #'s of everyone that will be playing,

Tks,

Krazy-man

Larry L. Krzyzanowski
Senior Manager-Planning, OE Sales
Aisin World Corp. of America
46501 Commerce Center Drive
Plymouth MI 48170
Direct: (734) 582-5340
Tel: (734) 453-5551
Fax: (734) 453-4670

E-Mail- lkrzyzanowski@aisinworld.com

From: Freeland, Mark (M.)
Sent: Thursday, June 27, 2002 8:22 PM
To: Rossi, Roberto (R.A.); Akins, Mary (M.); Alles, Sheran (S.A.); Awad, Mahmoud (M.I.); Gates, Freeman (F.C.); 'Jahshan, John'; Janda, Jon (J.M.); Maurer, James (J.B.); O'Neill, Jim (J.D.); 'Park, Kyong'; Pianta, Paul (P.G.); Poma, Amy (A.); McCoy, James (J.D.)
Subject: RE: Sample Waveform Showing Noise Coupled Into Test Wiring

Roberto,

Thank you for the cautionary information regarding being careful when looking at high frequency signals. The wiring between the sensor and the DVM's is a screened cable, and between the DVM & the scope was a twisted pair. I am replacing the twisted pairs with coax and adding a Pearson ring tonight. Any other suggestions to improve the instrumentation set up on the vehicle? If you had such a thing as a optical isolator available which would float the scope relative to the dPFE signals that might also improve things. I do not have such a beast, do you have one that I might borrow?

Can you offer an explanation as to why the Vout signal recorded at idle on page 5 might be so different to the Vout signal recorded at idle on page six (about one hour later). The scope settings, and Vout wiring been the same undisturbed.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Rossi, Roberto (R.A.)
Sent: Thursday, June 27, 2002 5:29 PM
To: Akins, Mary (M.); Alles, Sheran (S.A.); Awad, Mahmoud (M.I.); Gates, Freeman (F.C.); 'Jahshan, John'; Janda, Jon (J.M.); Maurer, James (J.B.); O'Neill, Jim (J.D.); 'Park, Kyong'; Pianta, Paul (P.G.); Poma, Amy (A.); Freeland, Mark (M.); McCoy, James (J.D.)
Subject: Sample Waveform Showing Noise Coupled Into Test Wiring

As a follow-up from the meeting today, the following waveform is a recording from a vehicle being instrumented by Jim McCoy. The peak to peak voltage is approximately 40 Volts. The signal being monitored is the Scope Reference signal (not connected to anything except the scope ground). The object of the test was to demonstrate that when trying to capture high frequencies signals (>1 MHz) great care must be taken with respect to shielding oscilloscope measurement wires.

<< OLE Object: Microsoft Photo Editor 3.0 Picture >>

An additional comment is that if the sensor on Mark's vehicle was actually seeing the 13 Volts (10 MHz) noise on the sensor Vout the current flowing in the circuit should be Amperes because of the 220 nF capacitor that is on the Vout circuit of the sensor (Impedance of Vout is very low at high frequencies $X=1/(2\pi \cdot \text{Frequency} \cdot \text{Capacitance})$).

Thanks,

ER02-027-0 5263

Robert Ross
Electrical/Electronic Systems Campaign Prevention Specialist
North American Car Lifestyle Vehicles
Phone/Fax: 84-51438

From: Freeland, Mark (M.)
Sent: Wednesday, June 26, 2002 12:27 PM
To: Hargas, Jon (.)
Subject: Accepted: Latest Kavlico results

From: Freeland, Mark (M.)
Sent: Friday, June 21, 2002 12:12 PM
To: Lovelace, Maria (M.E.)
Subject: RE: Report for SRL Analysis of FQE returns

I will try and give you're people as much info as I can on our findings. I'm also very appreciative of the FQE's efforts to support the investigation.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Friday, June 21, 2002 7:48 AM
To: Freeland, Mark (M.)
Subject: RE: Report for SRL Analysis of FQE returns

Mark

thanks for keeping the FQEs in the loop. Everyone appreciates the update. Most times they do an assignment and never find out what happened.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, June 20, 2002 6:14 PM
To: Maurer, James (J.B.); Plante, Paul (P.G.); Gabes, Freeman (F.C.); Kyong Park (E-mail)
Cc: Lovelace, Maria (M.E.); Akins, Mary (M.); Awad, Mahmoud (M.L.)
Subject: Report for SRL Analysis of FQE returns

Attached is the SRL report for each of the three FQE Warranty Return parts we discussed at today's meeting. SRL730 is for the Focus staller, SRL731 and SRL732 are for the two post 1/7/2002 parts which were returned to Kavlico today for three temperature testing.

<< File: SRL730.xls >> << File: SRL731.xls >> << File: SRL732.xls >>

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ERR2-827-G 8286

From: Freeland, Mark (M.)
Sent: Thursday, June 20, 2002 10:08 AM
To: 'Park, Kyong'
Subject: RE: Noisy Escape I?

Thank you for the info. I am putting the good scope in my Mountaineer with Sheran Allies at 11:30 today. If I have any results today I will call you, or give at the 1:00 meeting. My Mountaineer is giving the strange reading on the DVM much more frequently while driving this morning, so may be we will be lucky and catch the events on the scope.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Wednesday, June 19, 2002 5:57 PM
To: mfreelal@ford.com
Cc: Davies, Brady; Rosales, Abe; Mejia, Simon
Subject: Noisy Escape I?

Dear Mark,

Here is the results of the first attempt to catch the noisy signal from the Escape.
Many things have not been confirmed yet, so please, keep just as an 'info' for now.

<<Escape Noise.PDF>>

Thank you.
Kyong

From: Freeland, Mark (M.)
Sent: Thursday, June 20, 2002 10:01 AM
To: Maurer, James (J.B.); McCoy, James (J.D.)
Cc: Rossi, Renato (R.); Alles, Sheran (S.A.); Gates, Freeman (F.C.); Plante, Paul (P.G.)
Subject: RE: It did it again 5 mins ago

Thanks for the offer Jim,
Sheran has agreed to work with me from 11:30 - 1:00 today and to give me the SRL scope from the Focus.
An update,
It is doing it more regularly now, at start up and during tip in. I tried a key on/engine off "tip in" with the vehicle rolling to see if it might just be the TPS, the dPFE current was as stable as a rock during this test.

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Maurer, James (J.B.)
Sent: Thursday, June 20, 2002 9:44 AM
To: Freeland, Mark (M.)
Subject: RE: It did it again 5 mins ago

Mark,
if you don't get the scope from the Focus, we should remove the scope from the Tribute or John Jahshan's car to get data from your vehicle.

Let me know if you can't get the scope from EESE.

Regards,

Jim Maurer

James B. Maurer
V-Engine 6-Sigma Team Leader
Fuel Metering Dept. V Engine Engineering
Phone (313) 390-3672, Fax (313) 390-4084
Text Page: (313) 795-5219
Email: jmaurer@Ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Wednesday, June 19, 2002 4:21 PM
To: Alles, Sheran (S.A.); Rossi, Roberto (R.A.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); McCoy, James (J.D.); Potter, Timothy (T.J.)
Subject: It did it again 5 mins ago

Guys,

We may be in luck tomorrow, as my Mountaineer did it again five minutes ago, with new wiring and a different meter.

Roberto, I totally redid the wiring for my monitor on the dPFE today, just incase the strange event on Monday and two strange events yesterday were caused by an instrumentation wiring issue.

Sheran, As discussed earlier today, we need to get together in the morning and get the good scope from the Focus into my mountaineer. Please call me as arranged on my cell phone between 8:30 and 9:15 in the morning.

Tim, Thanks for you're help today in preparing the new wiring loom for the dPFE monitor in my Mountaineer, and for installing the regulators in the test box for the latched sensors. Works good.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
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email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, June 20, 2002 8:48 AM
To: Lovelace, Maria (M.E.)
Cc: Domka, John (J.J.)
Subject: RE: Assignment #58 - Failed DPFE

Thanks Maria & John,
I will report on findings when I see the part. Keep up the good work, this will be very valuable information.

Regards

Mark Freeland

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Engine Research Department
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Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Thursday, June 20, 2002 8:50 AM
To: Freeland, Mark (M.)
Subject: FW: Assignment #58 - Failed DPFE

-----Original Message-----

From: Domka, John (J.J.)
Sent: Wednesday, June 19, 2002 11:27 PM
To: Lovelace, Maria (M.E.)
Subject: Assignment #58 - Failed DPFE

CSQI002 CQIS Indicator Summary 06/19/02 23:25:03

==> _____ 1 of 1

Rpt#: 2FSG8001 CQD Rpt: 06/19/2002 Odom: 3,355 M
Rvw'd: File: _ Folder: _____ Images: 0 Print Smy/Disp Detail(P/D): _
Vehicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA52432BB55561 Bld: 04/26/2002
Engine: 3.8L EFI F Calb: 2A31ZC0A Trans: 4F50N Axle: FWD 3.58 A/C: YES
Dealer Id: 45262 HERTZ RAC - DETROIT Ph#:
State: Michigan City: Romulus Orig/Caller: JOHN DOMKA
Symptom: 6 98 2 98 DRVABL,INDICATOR,CHECK ENGINE,NOT LISTED
Addl Sym: St: CCRG/EPRC: _ Rvw'd: Dt:
Flc: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: H6

Region Code: CC Region Name: Rental - CC

CONCER CHECK ENGINE LIGHT ON
REPAIR CODE P0401 - EGR INSUFFICIENT FLOW - REPLACE SUSPECT DPFE SENSOR.
ISSUE CORRECTED. SUSPECT DPFE WILL BE GIVEN TO MARK FREELAND
DPFE BUILD DATE 2D09B
MICHIGAN FQE - JOHN DOMKA

From: Freeland, Mark (M.)
Sent: Thursday, June 20, 2002 9:48 AM
To: Akns, Mary (M.); Maurer, James (J.B.); Gates, Freeman (F.C.); Planta, Paul (P.G.)
Cc: Kyong Park (E-mail); Awed, Mahmoud (M.I.); Verner, Carol (C.J.); Janda, Jon (J.M.)
Subject: FW: Assignment #58 - Failed DPFE

For Information,

Another post 1/7/2002 sensor on it's way back for testing. That makes 6 that I have physically received to date. I will report on findings when I get it.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Thursday, June 20, 2002 8:50 AM
To: Freeland, Mark (M.)
Subject: FW: Assignment #58 - Failed DPFE

-----Original Message-----

From: Domka, John (J.J.)
Sent: Wednesday, June 19, 2002 11:27 PM
To: Lovelace, Maria (M.E.)
Subject: Assignment #58 - Failed DPFE

CSQI002 CQIS Indicator Summary 06/19/02 23:25:03 1 of 1

==>
Rpt#: 2FSG8001 CQD Rpt: 06/19/2002 Odom: 3,355 M
Rvw: File: _ Folder: _____ Images: 0 Print Smy/Disp Detail(P/D): _
Vehicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA52432BB55581 Bld: 04/26/2002
Engine: 3.8L EFI F Calb: 2A31ZC0A Trans: 4F50N Axle: FWD 3.56 A/C: YES
Dealer Id: 45262 HERTZ RAC - DETROIT Ph#:
State: Michigan City: Romulus Orig/Caller: JOHN DOMKA
Symptom: 6 98 2 98 DRVABL,INDICATOR,CHECK ENGINE,NOT LISTED
Addl Sym: St: CCRG/EPRC: _ Rvw: Dt:
Fix: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: H5

Region Code: CC Region Name: Rental - CC

CONCER CHECK ENGINE LIGHT ON
REPAIR CODE P0401 - EGR INSUFFICIENT FLOW - REPLACE SUSPECT DPFE SENSOR.
ISSUE CORRECTED. SUSPECT DPFE WILL BE GIVEN TO MARK FREELAND

From: Freeland, Mark (M.)
Sent: Wednesday, June 19, 2002 4:21 PM
To: Alles, Sheran (S.A.); Rossi, Roberto (R.A.)
Cc: Maurer, James (J.B.); Planta, Paul (P.G.); Gates, Freeman (F.C.); McCoy, James (J.D.);
Potter, Timothy (T.J.)
Subject: It did it again 5 mins ago

Guys,

We may be in luck tomorrow, as my Mountaineer did it again five minutes ago, with new wiring and a different meter.

Roberto, I totally redid the wiring for my monitor on the dPFE today, just in case the strange event on Monday and two strange events yesterday were caused by an instrumentation wiring issue.

Sheran, As discussed earlier today, we need to get together in the morning and get the good scope from the Focus into my mountaineer. Please call me as arranged on my cell phone between 8:30 and 9:15 in the morning.

Tim, Thanks for your help today in preparing the new wiring loom for the dPFE monitor in my Mountaineer, and for installing the regulators in the test box for the latched sensors. Works good.

Regards

Mark Freeland

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email: mfreela1@ford.com
Tel: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, June 19, 2002 3:55 PM
To: Maurer, James (J.B.)
Cc: Awad, Mahmoud (M.I.); Janda, Jon (J.M.); Plants, Paul (P.G.); Kyong Park (E-mail); Akina, Mary (M.); Dionisi, Anthony (A.J.); Rossi, Roberto (R.A.); Lovelace, Maria (M.E.); Williamson, Richard (E.)
Subject: FQE Field returns

I have just finished testing and inspecting the three field returns from Tony Dionisi.
The results are as follows:

VIN 3FAFP31381R119440, Stalled, towed in

SRL730, 9/8/2000 part. Confirmed high current failure, still drawing a very high current. (700 mA @ 1.29 Volts). This part will still cause a no crank/no start. I believe this part to have been latched and cooked at high temperature for some considerable time based on the visual symptoms observed and on the current electrical characteristics. Probably caused by a transient on Vref relative to Signal Return.

VIN 1FAFP55U51A28848, Check engine light, P0401

SRL731, 3/21/2002 part. TNI at room temperature, no visual clues. Recommend returning to Kevlico for three temperature parametric testing.

VIN 1FMZU73E82ZC24168, Customer said MIL, dealer said no MIL no codes but dPFE out of spec during road test.

SRL731, 2/2/2002 part. TNI at room temperature, no visual clues. Recommend returning to Kevlico for three temperature parametric testing.

Let's discuss next steps at 14 D meeting tomorrow.

Regards

Mark Freeland

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Dearborn, MI 48121-2053 USA
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Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, June 18, 2002 1:55 PM
To: Maurer, James (J.B.)
Cc: Rossel, Roberto (R.A.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Hanges, Jon (.)
Subject: RE: Duplication of Field Failures

Jim,

One of the H2SO4 with latch may be similar to the field PAD bubble, but not identical as the overlying gel has gone. I have yet to get the Raman done on one of these parts to confirm. One of the HCL parts with latch was similar to the 8 mlla part from the 3.8L Mustang that failed two sensors on the same day. The CD with the photographs Jon & I took last week of the Acid Test parts arrived as I am righting this note. I will have it copied for you to inspect the pictures yourself.

Other than that we have not seen UPAD, area 20 UPAD, confirmed PAD, MC Ctr bubbles, or Blistering of the gel at the die Interface from Laboratory generated experiments.

What we do know how to create in the lab is:

- Fused Wire bonds,
- Bubbles around wire bonds,
- Large circular bubbles over the die,
- Brak like bubbles, (Jon & Shr's description)
- Discolored die attach,
- Saturated Low output,
- Saturated High output,
- Erratic output,
- No slope output,
- Low input impedance,
- High input impedance,
- Abnormal output impedance,
- Low Current Draw,
- High Current Draw,
- TNI after High Current Events.

Note the common necessary condition for the lab generated examples of each of these symptoms is a high current event.

I know that you will only be convinced if we know how to create each and every symptom that we get back from the field. Therefore, one of my objectives is to demonstrate in contrived experiments, how to generate each of the symptoms observed in the field returns.

Regards

Mark Freeland

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email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

ERS2-827-G 5342

From: Maurer, James (J.B.)
Sent: Wednesday, June 19, 2002 12:52 PM
To: Freeland, Mark (M.)
Subject: Duplication of Field Failures

Mark,

Yesterday, I got the impression that you did not think we had a test to duplicate the field failures. I talked to Jon Janda about what the results of Kyong's acid and latch up test were and he stated that the test did duplicate the failures that we had seen in the field. (Latched up with acid)

Do you agree?

Regards,

Jim Maurer

James B. Maurer
V-Engine 6-Sigma Team Leader
Fuel Metering Dept V Engine Engineering
Phone (313) 390-3872, Fax (313) 390-4084
Text Page: (313) 795-5219
Email: jmaurer@Ford.com

From: Freeland, Mark (M.)
Sent: Wednesday, June 19, 2002 11:51 AM
To: Poma, Amy (A.)
Cc: Pianta, Paul (P.G.); Maurer, James (J.B.); McCoy, James (J.D.); Gates, Freeman (F.C.); Rosal, Roberto (R.A.); Kyong Park (E-mail); Akins, Mary (M.)
Subject: RE: Driver for PCM J1 Tests

Amy,

Here is a summary for the testing to date on the Mountaineer:

OE Sensor monitoring test:
Start 5/30/02 - ODO 17614.2
Current 6/19/02 - ODO 18648.8

3 Unexplained events with wild current fluctuations experienced on 6/17 & 6/18. All were immediately upon start up. First two lasted about 10 seconds, third event lasted about 1 minute.

I have requested the use of the SRL oscilloscope to monitor signals, currently equipment is with EESE.

Drive a sensor Latched in the real vehicle environment:
First sensor test started 6/15/02 - ODO 18349.4
Current 6/19/02 - ODO 18648.8
Latched miles driven - 205, Unlatched miles driven - 84
Minimum latched current 272 mA, max observed during drive 720 mA @ 3.5 Volts, sensor still functioning when unlatched and powered up.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Poma, Amy (A.)
Sent: Wednesday, June 19, 2002 9:06 AM
To: Freeland, Mark (M.)
Subject: RE: Driver for PCM J1 Tests

Let's try to get to it Thursday.

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube C0162
phone-313-390-8849, fax: 313-390-4084
apomaz@ford.com

EP02-027-0 5344

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 6:12 PM
To: Poma, Amy (A.)
Subject: RE: Driver for PCM J1 Tests

OK Amy

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Poma, Amy (A.)
Sent: Tuesday, June 18, 2002 12:15 PM
To: Freeland, Mark (M.); Maurer, James (J.B.)
Cc: Brogley, Martin (M.A.); Plante, Paul (P.G.)
Subject: RE: Driver for PCM J1 Tests

Suggest we talk about it this afternoon at the meeting and decide.

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube C0162
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 10:29 AM
To: Maurer, James (J.B.); Poma, Amy (A.)
Cc: Brogley, Martin (M.A.); Plante, Paul (P.G.)
Subject: Driver for PCM J1 Tests

Jim/Amy,

Martin Brogley at SRL drives 100 miles round trip per day, and has volunteered to accumulate test miles on one of the FocI if we wish. Please let me know if you would like to take advantage of this offer.

Regards

Mark Freeland

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Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com

ERE2-827-G 8348

Tel: (313) 594-7645

ERR2-027-G 5348

From: Freeland, Mark (M.)
Sent: Wednesday, June 19, 2002 11:40 AM
To: Dalbo, Bob (R.J.)
Subject: RE: One example of Engine quit

Bob,

I don't want to get in the middle to mess things up, but if they suspect the dPFE is causal part, then could you please get it back for me to test. Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Dalbo, Bob (R.J.)
Sent: Wednesday, June 19, 2002 10:58 AM
To: Kanai, Shinji (S.); Sanders, Muriel (M.S.); Altoonian, Don (D.J.); Aynessazian, Kam (K.); 'Badgley, Joel (J.K.)'; Bauer, Scott (S.C.); Bhojwani, Kamal (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); 'Cary Powell'; Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); Rothweiler, Daniel (D.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Giles, Stuart (S.); Gokhale, Renuka (R.V.); Grewal, Bill (B.S.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); 'John McDonald'; 'Jones, Andy'; Jordan, Donald (D.E.); Kanai, Shinji (S.); King, Robert (R.F.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Lintiac, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Mandziuk, Roger (R.S.); Marck, Edmond (E.C.); Matesa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); 'Morgan, Tom'; Morishima, Shigeki (S.); 'Naveed Khan'; Nematollahi, Sonya (S.); 'Nikolai, Bernie'; Noteboom, Jim (J.E.); Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Shah, Kiran (K.C.); Shiraishi, Masaru (M.); Stilgenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Takasawa, Keith (K.D.); Takubo, Hiroichi (H.); Veenstra, Tim (T.W.); Wakenell, Ray (R.A.); Wettach, Bill (B.); Williams, Les (LHW.); Yeung, Lem (.)
Subject: RE: One example of Engine quit

Kanai-san,

This is the exact problem we have been working on. If your dealer services your vehicle per the TSB and ISM we have released, we believe your issue should be resolved.

E982-627-G 5347

Mr. Lintiaco,

Can you please help ensure Kanai-san's vehicle is properly serviced?

Bob Dalbo

3.0L Calibration Supervisor

Outfitters Calibration, NAT

Phone: (313) 24-84947 Fax: (313) 32-31786

Pager: (313) 795-2859 Email: rdalbo@ford.com

-----Original Message-----

From: Shinji Kanai [mailto:kanai.sh@sv.mazda.co.jp]

Sent: Wednesday, June 19, 2002 10:05 AM

To: 'Sanders, Muriel (M.S.)'; 'Altoonian, Don (D.J.)'; 'Aynessazian, Kam (K.)'; 'Badgley, Joel (J.K.)'; 'Bauer, Scott (S.C.)'; 'Bhojwani, Kamal (K.)'; 'Blackburn, Thomas (T.J.)'; 'Bogema, John (P.)'; 'Cary Powell'; 'Chick, John (J.)'; 'Chih, Ming-Niu (M.N.)'; 'Chin, Darrel (D.)'; 'Corbett, Sandra (S.M.)'; 'Dalbo, Bob (R.J.)'; 'Dan Rothweiler'; 'De Pena, Juan (J.E.)'; 'Diez, Timothy (T.P.)'; 'Fascetti, Bob (R.J.)'; 'Fournelle, Gilbert (G.)'; 'Freeland, Mark (M.)'; 'Giles, Stuart (S.)'; 'Gokhale, Renuka (R.V.)'; 'Grewal, Bill (B.S.)'; 'Grimes, Jeff (J.R.)'; 'Hansen, George (G.C.)'; 'Herr, George (G.J.)'; 'Hofman, Michael (M.V.)'; 'Holmes, Jeffrey (J.R.)'; 'Ichikawa, Jiyunichiro (J.)'; 'Jensen, Ted (T.E.)'; 'John McDonald'; 'Jones, Andy'; 'Jordan, Donald (D.E.)'; 'Kanai, Shinji (S.)'; 'King, Robert (R.F.)'; 'Kosko, Jeff (J.R.)'; 'Kwon, Soon (S.K.)'; 'Lintiaco, Steven (S.)'; 'Linde, Peter (P.A.)'; 'Liu, Jane (J.)'; 'Mandziuk, Roger (R.S.)'; 'Marck, Edmond (E.C.)'; 'Matesa, John (J.)'; 'Maurer, James (J.B.)'; 'Mazzella, Gary (G.R.)'; 'Mooney, Larry (L.)'; 'Moorhouse, Scott (S.R.)'; 'Morgan, Tom'; 'Morishima, Shigeki (S.)'; 'Naveed Khan'; 'Nematollahi, Sonya (S.)'; 'Nikolai, Bernie'; 'Notaboom, Jim (J.E.)'; 'Ortman, James (J.W.)'; 'Powers, Ken (K.W.)'; 'Price, Martin (M.)'; 'Raguepau, Alden (A.P.)'; 'Shah, Kiran (K.C.)'; 'Shiraishi, Masaru (M.)'; 'Stilgenbauer, Jeffrey (J.R.)'; 'Suarez, Rhae (R.)'; 'Takasawa, Keith (K.D.)'; 'Takubo, Hiroichi (H.)'; 'Veenstra, Tim (T.W.)'; 'Wakenell, Ray (R.A.)'; 'Wettach, Bill (B.)'; 'Williams, Lea (LHW.)'; 'Yeung, Lem (.)'

Subject: One example of Engine quit

My lease vehicle 2002MY Tribute experienced engine quit last night.

4F2YU08172KM28336 Build 12/11/2001, Retail 1/11/2002
Mileage: 7360 miles Event: 6/18/2002

After 25 minutes Freeway driving, I exited and stopped traffic signal.
About 30 sec. later I started moving to left turn and stopped at traffic signal again about 50m later.
About 30 sec. later I started moving 20m and right turn.
Then I gave throttle accelerating vehicle up to 35 MPH - 40MPH at slight up hill about 200m.
Then road switched down hill, I released throttle. Usually vehicle slight increase speed up to 45MPH about 200m.
I applied throttle gently after changing road up hill. Few seconds later I realized that vehicle kept down speed and three warning lamp illuminated about 40MPH.
I did not calm enough.
I turned key to start position, but engine did not start because shifter was stayed D range.
I cycled key OFF and ON again, all warning lamp illuminated about 25MPH.
I applied brake to reduce speed and turned vehicle to left.

EA02-027-G 3348

I shifted N range and cranked. Small gear noise (starter engagement ?) was heard but Engine started normally about 10 MPH.

I remember engine rpm dropped twice on this vehicle during last 6 month. Possibly engine rpm drop might happen more than two, but I recognized twice. One is same location same direction, another one was opposite direction almost same location.

No ECM like building or equipment near there, as far as I know.

This is my first V6-4WD model. Previous Tribute was I4-4WD.

I will bring this vehicle to dealer for usual scheduled (7,500 miles) maintenance this week.

I will ask dealer to reflash PCM calibration and continue to monitor.

If you have any question or comment, please feel free to contact to me.

Shinji Kanai
Manager, Tribute Plant QA
Mazda North American Operations

Ford Kansas City Assembly Plant
Plant Vehicle Team
6121 N.E. Hwy. 69, Claycomo, MO 64119 USA
Tel: 816-459-1623/ Fax: -1726/ e-mail: kanai.sh@sv.mazda.co.jp
Local Text Pager: 9135677156@alphapage.airtouch.com

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 6:22 PM
To: Dionisi, Anthony (A.J.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Tony,
The sensors have arrived, Thanks. We will start looking at them tomorrow.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Dionisi, Anthony (A.J.)
Sent: Tuesday, June 18, 2002 8:30 AM
To: Freeland, Mark (M.)
Cc: Dionisi, Anthony (A.J.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Mark, attached are copies of CQIS reports (I tried to include any AWS history that was related in report). Also, parts are tagged and include VIN # on tag and CQIS report #.

<< File: CQIS # 2FMIO001.doc >>
File: CQIS # 2FMIO003.doc >>

<< File: CQIS # 2FMIO002.doc >>

<<

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 6:11 PM
To: Dionisi, Anthony (A.J.)
Cc: Lovelace, Maria (M.E.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Thank you Tony,
Could you please let me have the VIN numbers for the three vehicles, so that I can look up the vehicle service histories in AWS. Also, where/how do I look up the CQIS reports on line. Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory

ENG2-627-3 5356

P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Dionis, Anthony (A.J.)
Sent: Monday, June 17, 2002 9:47 AM
To: Freeland, Mark (M.)
Cc: Lovelace, Maria (M.E.); Dionis, Anthony (A.J.)
Subject: Parts for Assignment # 02-58 Being Returned

Mark, you should be receiving three DPFE sensors today - shipped Airborne Express - airbill # 4358965063.
Related to ECI Assignment # 02-58.
CQIS reports involved for these three sensors are: 2FMIO001, 2FMIO002, 2FMIO003.

Tony Dionis
Ford Motor Company
Enhanced Concern Identification
Denver Field Quality Engineer
Office: 303-348-4788
Cell: 303-821-2517
Fax: 303-348-4798
adionis1@ford.com

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 6:12 PM
To: Poma, Amy (A.)
Subject: RE: Driver for PCM J1 Tests

OK Amy

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Poma, Amy (A.)
Sent: Tuesday, June 18, 2002 12:15 PM
To: Freeland, Mark (M.); Maurer, James (J.B.)
Cc: Brogley, Martin (M.A.); Planta, Paul (P.G.)
Subject: RE: Driver for PCM J1 Tests

Suggest we talk about it this afternoon at the meeting and decide.

*Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CO162
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com*

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 10:29 AM
To: Maurer, James (J.B.); Poma, Amy (A.)
Cc: Brogley, Martin (M.A.); Planta, Paul (P.G.)
Subject: Driver for PCM J1 Tests

Jim/Amy,

Martin Brogley at SRL drives 100 miles round trip per day, and has volunteered to accumulate test miles on one of the Focd if we wish. Please let me know if you would like to take advantage of this offer.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA

EA02-827-G 5392

email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 6:51 PM
To: Potter, Timothy (T.J.)
Subject: RE: Oscilloscope

Thanks Tim,

I will try and get the one from the Focus for the weekend, if EESE are not driving the vehicle.

See you in the morning.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----
From: Potter, Timothy (T.J.)
Sent: Tuesday, June 18, 2002 2:49 PM
To: Freeland, Mark (M.)
Subject: Oscilloscope

Mark,

The Tektronix scope I borrowed is in use by it's owner. I called Electro-Rent and all of their TDK 3054's are rented. They do have a TDS3014 which is a 100MHz scope. The scope rents for \$378/mo plus \$48/mo for the battery pack. If you want that call Arvid at Electro-Rent at (800) 688-1111 then dial 9 and 3189. They can get it here in a day or two normally.

Tim

ERG2-027-G 6354

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 10:29 AM
To: Maurer, James (J.B.); Poma, Amy (A.)
Cc: Brogley, Martin (M.A.); Plante, Paul (P.G.)
Subject: Driver for PCM J1 Tests

Jim/Amy,

Martin Brogley at SRL drives 100 miles round trip per day, and has volunteered to accumulate test miles on one of the Foci if we wish. Please let me know if you would like to take advantage of this offer.

Regards

Mark Freeland

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Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 9:33 AM
To: Maurer, James (J.B.); Plants, Paul (P.G.); Gates, Freeman (F.C.); Janda, Jon (J.M.); Verner, Carol (C.J.); Akina, Mary (M.)
Cc: Kyong Park (E-mail); Rossi, Roberto (R.A.)
Subject: FW: Parts for Assignment # 02-58 Being Returned

Attached are the CQIS reports for two post 1/7/2002 returns and a pre 1/7/2002 Staller, (confirmed dPFE causal part). Note: the staller is a September 2000 Focus.

The parts are on their way back to me for testing.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreels1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Dionisi, Anthony (A.J.)
Sent: Tuesday, June 18, 2002 9:30 AM
To: Freeland, Mark (M.)
Cc: Dionisi, Anthony (A.J.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Mark, attached are copies of CQIS reports (I tried to include any AWS history that was related in report). Also, parts are tagged and include VIN # on tag and CQIS report #.



CQIS #
ZFMIO001.doc



CQIS #
ZFMIO002.doc



CQIS #
ZFMIO003.doc

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 6:11 PM
To: Dionisi, Anthony (A.J.)
Cc: Lovelace, Maria (M.E.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Thank you Tony,

Could you please let me have the VIN numbers for the three vehicles, so that I can look up the vehicle service histories in AWS. Also, where/how do I look up the CQIS reports on line. Thanks

Regards

ERB2-827-G 5358

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Dionisi, Anthony (A.J.)
Sent: Monday, June 17, 2002 9:47 AM
To: Freeland, Mark (M.)
Cc: Lovelace, Maria (M.E.); Dionisi, Anthony (A.J.)
Subject: Parts for Assignment # 02-58 Being Returned

Mark, you should be receiving three DPFE sensors today - shipped Airborne Express - airbill # 4358965063.
Related to ECI Assignment # 02-58.
CQIS reports involved for these three sensors are: 2FMIO001, 2FMIO002, 2FMIO003.

Tony Dionisi
Ford Motor Company
Enhanced Concern Identification
Denver Field Quality Engineer
Office: 303-348-4788
Cell: 303-921-2517
Fax: 303-348-4788
adionisi@ford.com

→
Rpt#: 2FMIO001 CQD Rpt: 06/13/2002 Odom: 15,756 M
Rvwid: File: Folder: Images: 0 Print Stmt/Disp Detail(P/D):
Vehicle: 2001 TAURUS,SE SVG ,SEDAN 1FAPP55U51A286461 Bld: 06/25/2001
Engine: 3.0L EFI Cylb: 1DD12S0A Trans: AX4S Axle: FWD 3.77 A/C: YES
Dealer Id: 45246 HERTZ RAC - DENVER Ph#: (303) 342-3854
State: Colorado City: Denver Orig/Caller: TONY DIONISI
Symptom: 6 98 2 00 DRVABL,INDICATOR,CHECK ENGINE,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: Rvwid: Dt:
Flt: Caus. Comp: SENSOR ASY EGR FR VL - RPL Condition Code:

Region Code: CC Region Name: Rental - CC

CONCERN: CHECK ENGINE LIGHT ON.

REPAIR: TECHNICIAN AT HERTZ RAC CHECKED OUT UNIT AND NOTED THE FOLLOWING:

- * CHECK ENGINE LIGHT ON - CODE P0401 PRESENT (EGR - NOT ENOUGH FLOW).
- * ORDERED AND INSTALLED NEW DPFE SENSOR - RETESTED - CONCERN RESOLVED.
- * DPFE SENSOR REMOVED/REPLACED - DATE CODE: 2C21B
- * VEHICLE HISTORY PER AWS: PER AWS: DPFE SENSOR WAS REPLACED ON 3-29-02 AT 15,756 MILES AND THEN AGAIN AT 15,929 MILES ON 4-9-02. PER HERTZ REPAIR ORDER, AT 15,756 MILES (3-29-02) DPFE SENSOR WAS ORDERED AND REPLACED ON 4-10-02. IN ORDER FOR THE REPLACED SENSOR BEING RETURNED TO BE A 2002 CALENDAR BUILT SENSOR, HERTZ MUST HAVE REPLACED SENSOR ON 3-29-02 AND AGAIN ON 4-10-02.
- * REF. FCSD ECI ASSIGNMENT # 02-58 - PART WILL BE RETURNED TO MARK FREELAND PER ASSIGNMENT DIRECTIONS.
- * CONTACT DENVER FQE (A. DIONISI - 303-921-2517) FOR ADDITIONAL INFORMATION.

→
Rpt#: 2FM10002 CQD Rpt: 06/13/2002 Ocurr: 228 M
Rvwd: File: Folder: Images: 0 Print Smy/Disp Detail(P/D):
Vehicle: 2002 EXPLORER 4X4,XLT ,MPV 1FMZU73E82ZC24168 Hld: 04/10/2002
Engine: 4.0L SOHC Calb: 2U51AF0A Trans: 5R55S Axle: 3200F3.55C A/C: YES
Dealer Id: 03294 O'MEARA FORD CENTER INC Ph#: (303) 254-5020
State: Colorado City: Northglenn Orig/Caller: TONY DIONISI
Symptom: 6 98 2 00 DRVABL,INDICATOR,CHECK ENGINE,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: Rvwd: D:
Fix: Caus. Comp: SENSOR ASY BGR FR VL -- RPL Condition Code:

Region Code: 56 Region Name: Denver - 56

CONCERN: CUSTOMER STATES CHECK ENGINE LIGHT IS ON.

REPAIR: TECHNICIAN CHECKED OUT UNIT AND NOTED THE FOLLOWING:

- * VERIFIED CHECK ENGINE LIGHT ON - CODE P1400 PRESENT.
- * MONITORED PIDS DURING ROAD TEST. DPFE SENSOR CHECK - OUT OF SPEC.
- * REPLACED DPFE SENSOR - RETESTED UNIT - CONCERN RESOLVED.
- * DPFE SENSOR REMOVED/REPLACED - DATE CODE: 2B08B
- * VEHICLE HISTORY PER AWS: NONE IN THIS AREA.
- * REF. FCSD BCI ASSIGNMENT # 02-58 - PART WILL BE RETURNED TO MARK FREELAND PER ASSIGNMENT DIRECTIONS.
- * CONTACT DENVER PQE (A. DIONISI - 303-921-2517) FOR ADDITIONAL INFORMATION.

Rpt#: 2FMIO003 CQD Rpt: 06/13/2002 Odom: 24,588 M
Rvw: File: Folder: Images: 0 Print Stry/Disp Detail(P/D):
Vehicle: 2001 FOCUS_ZK3 ,COUPE 3FAFP31381R119440 Bld: 09/21/2000
Engine: 2.0L ZTECH Calb: 1AK1AZ0A Trans: FN 4SPD Axle: FWD 3.904 A/C: YES
Dealer Id: 03294 OMBARA FORD CENTER INC Pl#: (303) 254-5020
State: Colorado City: Northglenn Orig/Caller: TONY DIONISI
Symptom: 6 14 0 00 DRVABL,LOSS OF POWER ,OTHER-CODE NA,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: S Rvw: A Dt: 06/13/2002
Fix: Caus. Comp: SENSOR ASY BGR PR VL - RPL Condition Code:

Region Code: 56 Region Name: Denver - 56

CONCERN: VEHICLE LOST ALL POWER - WHEN DRIVING HEARD LOUD POP AND DIRD.
REPAIR : TECHNICIAN CHECKED OUT UNIT AND NOTED THE FOLLOWING:

- * VERIFIED NO START/NO CRANK CONCERN DURING INITIAL CHECK OF UNIT.
- USING NGS - UNABLE TO COMMUNICATE WITH PCM OR HBC MODULES.
- * FOLLOWED SYMPTOM CHART DIAGNOSTICS (PERFORMED U1262 DIAGNOSTICS) - NO FAULTS FOUND. DISCONNECTED DPFE SENSOR - VEHICLE STARTED.
- * REPLACED DPFE SENSOR - RETESTED UNIT - NO MIL OR DTC'S SET. CONCERN RESOLVED. DATE CODE OF DPFE SENSOR REMOVED/REPLACED: 0J08C
- * VEHICLE HISTORY PER AWS: NONE IN THIS AREA.
- * REF. FCSD BCI ASSIGNMENT # 02-58 - PART WILL BE RETURNED TO MARK FREBELAND PER ASSIGNMENT DIRECTION.
- * CONTACT DENVER FQE (A. DIONISI - 303-921-2517) FOR ADDITIONAL INFORMATION.

From: Freeland, Mark (M.)
Sent: Tuesday, June 18, 2002 9:25 AM
To: Dionisi, Anthony (A.J.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Thank you Tony,

If I were to get this service from all the people who send me dead dPFE's I would be very happy!
I will let you know when I get the parts.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mrfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Dionisi, Anthony (A.J.)
Sent: Tuesday, June 18, 2002 8:30 AM
To: Freeland, Mark (M.)
Cc: Dionisi, Anthony (A.J.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Mark, attached are copies of CQIS reports (I tried to include any AWS history that was related in report). Also, parts are tagged and include VIN # on tag and CQIS report #.

<< File: CQIS # 2FMIO001.doc >>
File: CQIS # 2FMIO003.doc >>

<< File: CQIS # 2FMIO002.doc >>

<<

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 6:11 PM
To: Dionisi, Anthony (A.J.)
Cc: Lovelace, Maria (M.E.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Thank you Tony,

Could you please let me have the VIN numbers for the three vehicles, so that I can look up the vehicle service histories in AWS. Also, where/how do I look up the CQIS reports on line. Thanks

Regards

Mark Freeland

ERR2-827-G 5381

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Dionisi, Anthony (A.J.)
Sent: Monday, June 17, 2002 9:47 AM
To: Freeland, Mark (M.)
Cc: Lovelace, Maria (M.E.); Dionisi, Anthony (A.J.)
Subject: Parts for Assignment # 02-58 Being Returned

Mark, you should be receiving three DPFE sensors today - shipped Airborne Express - airbill # 4358985083.
Related to ECI Assignment # 02-58.
CQIS reports involved for these three sensors are: 2FMIO001, 2FMIO002, 2FMIO003.

Tony Dionisi
Ford Motor Company
Enhanced Concern Identification
Denver Field Quality Engineer
Office: 303-346-4788
Cell: 303-921-2517
Fax: 303-348-4798
adionisi@ford.com

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 7:03 PM
To: Park, Kyong
Subject: RE: Mazda ILDP for Evaluation

Thanks Kyong.

I will be patient.

Got to go drive a test car now as it's 7:00pm here.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Monday, June 17, 2002 6:53 PM
To: Freeland, Mark (M.)
Cc: McDaniel, Scott
Subject: RE: Mazda ILDP for Evaluation

Mark,

The photographs that you took were transferred to my computer, and I am waiting for Scott to finish the remaining work, so I can burn CD once. I will do as soon as possible.

Kyong

> -----Original Message-----

> From: Freeland, Mark (M.) [SMTP:mfreelal@ford.com]
> Sent: Monday, June 17, 2002 3:35 PM
> To: 'Park, Kyong'
> Cc: Janda, Jon (J.M.)
> Subject: RE: Mazda ILDP for Evaluation

>

> Kyong,

> Thank you for the data. It appears to me that even though this part has
> two symptoms, which are of low severity, the sensor is much cleaner than
> the 28,000 mile part from the Yellow Escape. The implication being, that
> something more than vehicle mileage is a necessary condition to generate
> the UPAD/PAD symptom.
> I think we need to inspect more high mileage parts which have not failed
> from other vehicles, some from the worst warranty family, and some from
> the best warranty family, before we draw firm conclusions.

>

> This past weekend I drove the Mountaineer vehicle with a latched up sensor

> and a control sensor. The total miles driven were 63 unlatched and 115
> latched at a current level varying from 272 mA to 697 mA (end of drive
> current, not peak). At this time the test device is still functioning,
> and there is no noticeable shift in the output at 0 dP.

> I will keep you posted on progress of this test.

> Have you had a chance to burn the photographs from last week onto a CD
> yet? (I would like to be able to show people the photographs of the
> Escape part).

> Regards

> Mark Freeland

> > 6-Sigma Black Belt
> > Engine Research Department
> > Ford Research Laboratory
> > P.O. Box 2053
> > MD 2629 - SRL - Room 1517
> > Dearborn, MI 48121-2053 USA
> email: mfreelal@ford.com
> Tel.: (313) 594-7645

> -----Original Message-----

> From: Park, Kyong [mailto:KPark@kavlico.com]
> Sent: Saturday, June 15, 2002 10:15 AM
> To: mfreelal@ford.com
> Cc: bdavies@kavlico.com; smcdaniel@kavlico.com; arosales@kavlico.com
> Subject: FW: Mazda ILDP for Evaluation

> Mark,

> As I mentioned over the telephone, we replaced the TMDP sensor of a 2001
> Mazda Tribute owned by one of our engineer with a new TMDP. The vehicle
> has
> been driven 24,707 miles to date and the vehicle was serviced twice. Once
> for the replacement of one of the headlights and the other for the leaky
> rear window gasket.

> The VIN is 4F2YU08131KM42376, and the sensor date code is 1J21B.
> The sensor was passed for its functionality tests, and the sensor is very
> stable.
> The gel and die surfaces are very clean, however, the reference die has
> two
> small bubbles. One is near one of the bond pads, and the other is at the
> center of the sensing diaphragm. The photos are attached below.
> Kyong

> -----Original Message-----

> > From: Caffee, Jay
> > Sent: Friday, June 14, 2002 2:40 PM
> > To: Park, Kyong
> > Subject: FW: Mazda ILDP for Evaluation

> > Definitely a bubble forming from under the ball bond, very likely a

> bubble
> > forming from the diaphragm pedestal. (ref. die)
> > sensing die looks good.
> > -----Original Message-----
> > From: Grzywacz, Kyra
> > Sent: Friday, June 14, 2002 2:12 PM
> > To: Caffee, Jay
> > Subject:
> >
> >
> > <<diaphpost.jpg>> <<diaphpostoverall.jpg>> <<bp4bubble.jpg>>
> > Kyra Grzywacz
> > Analysis Lab
> >

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 6:35 PM
To: Park, Kyong'
Cc: Janda, Jon (J.M.)
Subject: RE: Mazda ILDP for Evaluation

Kyong,

Thank you for the data. It appears to me that even though this part has two symptoms, which are of low severity, the sensor is much cleaner than the 28,000 mile part from the Yellow Escape. The implication being, that something more than vehicle mileage is a necessary condition to generate the UPAD/PAD symptom. I think we need to inspect more high mileage parts which have not failed from other vehicles, some from the worst warranty family, and some from the best warranty family, before we draw firm conclusions.

This past weekend I drove the Mountaineer vehicle with a latched up sensor and a control sensor. The total miles driven were 63 unlatched and 115 latched at a current level varying from 272 mA to 697 mA (end of drive current, not peak). At this time the test device is still functioning, and there is no noticeable shift in the output at 0 dP.

I will keep you posted on progress of this test.

Have you had a chance to burn the photographs from last week onto a CD yet? (I would like to be able to show people the photographs of the Escape part).

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Saturday, June 15, 2002 10:15 AM
To: mfreelal@ford.com
Cc: bdavies@kavlico.com; smcdaniel@kavlico.com; arosales@kavlico.com
Subject: FW: Mazda ILDP for Evaluation

Mark,

As I mentioned over the telephone, we replaced the TMDP sensor of a 2001 Mazda Tribute owned by one of our engineer with a new TMDP. The vehicle has been driven 24,707 miles to date and the vehicle was serviced twice. Once for the replacement of one of the headlights and the other for the leaky rear window gasket.

The VIN is 4F2YU08131KM42376, and the sensor date code is 1J21B. The sensor was passed for its functionality tests, and the sensor is very

ENG2-027-G 8371

stable.

The gel and die surfaces are very clean, however, the reference die has two small bubbles. One is near one of the bond pads, and the other is at the center of the sensing diaphragm. The photos are attached below.

Kyong

> -----Original Message-----

> From: Caffee, Jay
> Sent: Friday, June 14, 2002 2:40 PM
> To: Park, Kyong
> Subject: FW: Mazda ILDP for Evaluation

>

>

> Definitely a bubble forming from under the ball bond, very likely a bubble forming from the diaphragm pedestal. (ref. die)
> sensing die looks good.

> -----Original Message-----

> From: Grzywacz, Kyra
> Sent: Friday, June 14, 2002 2:12 PM
> To: Caffee, Jay
> Subject:

>

>

> <<diaphpost.jpg>> <<diaphpostoverall.jpg>> <<bp4bubble.jpg>>

> Kyra Grzywacz

> Analysis Lab

>

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 8:11 PM
To: Dionisi, Anthony (A.J.)
Cc: Lovelace, Maria (M.E.)
Subject: RE: Parts for Assignment # 02-58 Being Returned

Thank you Tony,
Could you please let me have the VIN numbers for the three vehicles, so that I can look up the vehicle service histories in AWS. Also, where/how do I look up the CQIS reports on line. Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Dionisi, Anthony (A.J.)
Sent: Monday, June 17, 2002 9:47 AM
To: Freeland, Mark (M.)
Cc: Lovelace, Maria (M.E.); Dionisi, Anthony (A.J.)
Subject: Parts for Assignment # 02-58 Being Returned

Mark, you should be receiving three DPFE sensors today - shipped Airborne Express - airbill # 4358965063.
Related to ECI Assignment # 02-58.
CQIS reports involved for these three sensors are: 2FMIO001, 2FMIO002, 2FMIO003.

Tony Dionisi
Ford Motor Company
Enhanced Concern Identification
Denver Field Quality Engineer
Office: 303-346-4788
Cell: 303-921-2517
Fax: 303-346-4788
adionisi@ford.com

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 8:08 PM
To: Jones, Chris (C.E.)
Subject: Declined: Updated: EGR Project

From: Fraeland, Mark (M.)
Sent: Monday, June 17, 2002 8:07 PM
To: Berry, Joseph (J.P.)
Subject: Accepted: Part review - 8J480

Joseph,

I am not sure that I know you. Do I?

Please fill me in on some of the background as to why you have called this meeting. I will attend this meeting, but frankly I need to stop going to new meetings and get on with working on the dPFE issue. I am down to <20% effective work time, due to the number of meetings people are calling.

Regards
Mark Fraeland

ER02-027-G 5375

From: Freeland, Mark (M.)
Sent: Monday, June 17, 2002 5:52 PM
To: McCarty, Bill (W.D.)
Subject: Accepted: Kevlco dPFE Sensor status

From: Freeland, Mark (M.)
Sent: Friday, June 14, 2002 2:07 PM
To: Maurer, James (J.B.)
Subject: Ed Sickafus

Jim,

I was talking with Ed yesterday. He would like to know what, if anything you are expecting from him. Should he, for example review the AS reports and give you feedback from his perspective?

He is in town next week, then away again for two weeks.

He also asked me to remind you that he has not been paid for either of his first two invoices, and will submit his third one shortly.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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Ford Research Laboratory
P.O. Box 2053
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Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, June 14, 2002 11:45 AM
To: Domka, John (J.J.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

OK,

Consider this record closed, I look forward to the next one from you!

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Domka, John (J.J.)
Sent: Thursday, June 13, 2002 7:18 PM
To: Freeland, Mark (M.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

No, I agree with your assessment. This is what I thought originally, that's why I put in my CQIS report that there were prior repairs. I got the response I was hoping for on your original note. Thanks!!!!

---Original Message---

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 7:11 PM
To: Domka, John (J.J.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

John,

If you think my assessment is correct, i.e. it was probably not installed correctly or only partially pushed onto the tubes., then correct I do not want this one, as it will not help solve the big issue causing the majority of the warranty.

If you think my assessment is not correct, then please call me to discuss.

Thanks all the same, and do let me know if you come across others which cause the stall or have the data code past 2A07B (1/7/2002).

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA

EA82-827-G 5389

email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----
From: Domka, John (J.J.)
Sent: Thursday, June 13, 2002 7:06 PM
To: Freeland, Mark (M.)
Cc: Lovelace, Maria (M.E.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

So I take it you dont want the DPFE???????

-----Original Message-----
From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 12:34 PM
To: Lovelace, Maria (M.E.); Domka, John (J.J.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Janda, Jon (J.M.); Frazer, Keith (R.K.); Rossi, Roberto (R.A.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

John & Maria,

I suspect this one was due to the dPFE having been previously removed and then reinstalled without pushing the tubes on properly, or using a lubricant on the tubes. We have seen this before coming from B & A, when they used soap to lubricate the tubes, to aid assembly.
I checked the vehicle history and found that the dPFE was replaced in February, and the vehicle had been back several times for Intermittent and steady Check Engine lights, which were eventually blamed on a faulty ignition coil at the end of May.

Keith & Roberto,

Could a faulty ignition coil cause excessive V Transients on Vref that could Impact the dPFE?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----
From: Lovelace, Maria (M.E.)
Sent: Thursday, June 13, 2002 11:24 AM
To: Freeland, Mark (M.)
Subject: FW: Assignment #58 - Failed DPFE- Tow In

-----Original Message-----
From: Domka, John (J.J.)
Sent: Wednesday, June 12, 2002 11:22 AM
To: Lovelace, Maria (M.E.)
Subject: Assignment #58 - Failed DPFE- Tow In

CSQI002 CQIS Indicator Summary 06/12/02 11:18:53

⇒
Rpt#: 2FEA5001 CQD Rpt: 06/05/2002 Odom: 14,433 M 1 of 1

Rvwid: File: Folder: Images: 2 Print Smy/Disp Detail(P/D):
Vehicle: 2001 TAURUS,SE COMF,SEDAN 1FAPP58S91G272542 Bld: 07/25/2001
Engine: 3.0L EFI M Calb: 1DD14N0A Trans: AX4N Axle: FWD 3.98 A/C: YES
Dealer Id: 02750 Avis Ford Inc Ph#: (800) 358-2778
State: Michigan City: Southfield Org/Caller: JOHN DOMKA
Symptom: 6 03 0 00 DRVABL,CRANKS/NO STAR,OTHER-CODE NA,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: S Rvwid: A Dt: 08/06/2002
Fix: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: H5

Region Code: 48 Region Name: Detroit - 48

CONCER NO START
REPAIR NO CODES. ANALYSIS DETERMINED THERE WAS NO VOLTAGE REFERENCE.
PINPOINT DETERMINED OPEN CIRCUIT IN DPFE CIRCUIT. DPFE MELTED.
DEALER DID WORK ON VEHICLE PREVIOUS WEEK FOR A MISS COMPLAINT
REPLACED FAILED DPFE - ISSUE CORRECTED
SUSPECT DPFE WILL BE GIVEN TO M. LOVELACE WITHIN 7 DAYS UNLESS OTHER
WISE NOTIFIED.
PICTURE ATTACHED
MICHIGAN FQE - JOHN DOMKA 313-433-7910
ADD-ON 08/12/2002 11:17AM JOHN DOMKA CQ - CD&A - CQD - FQE
UNABLE TO READ DPFE BUILD DATE INFO DUE TO DPFE DAMAGE/MELTING
CONDITION

F1 Help F3 Exit F4 Last Cmts F5 Add Cmts F6 Add Fldr
F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return
I0018-BOTTOM OF DATA LPENJBD

<< File: 2FEA5001.a.JPG >> << File: 2FEA5001.b.JPG >>

Thanks,

John J. Domka

Field Quality Engineer
Enhanced Concern Identification
Ford Customer Service Division

jdomka@ford.com
Phone 313-433-7910
FAX 734-475-9110

From: Freeland, Mark (M.)
Sent: Friday, June 14, 2002 11:20 AM
To: Jones, Chris (C.E.)
Subject: Accepted: EGR Project

ERG2-027-G 5382

From: Freland, Mark (M.)
Sent: Friday, June 14, 2002 11:12 AM
To: Crockett, Dante (D.K.)
Subject: Accepted: Updated: EESE support of FRL BB projects

From: Freeland, Mark (M.)
Sent: Friday, June 14, 2002 10:38 AM
To: Jones, Chris (C.E.)
Subject: Accepted: EGR Project

From: Freeland, Mark (M.)
Sent: Friday, June 14, 2002 10:37 AM
To: Duffy, Paul (P.E.)
Subject: Accepted: Canceled: EGR Project

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 7:11 PM
To: Domka, John (J.J.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

John,

If you think my assessment is correct, i.e. it was probably not installed correctly or only partially pushed onto the tubes., then correct I do not want this one, as it will not help solve the big issue causing the majority of the warranty.

If you think my assessment is not correct, then please call me to discuss.

Thanks all the same, and do let me know if you come across others which cause the stall or have the date code past 2A07B (1/7/2002).

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Domka, John (J.J.)
Sent: Thursday, June 13, 2002 7:06 PM
To: Freeland, Mark (M.)
Cc: Lovelace, Maria (M.E.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

So I take it you dont want the DPFE?????????

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 12:34 PM
To: Lovelace, Maria (M.E.); Domka, John (J.J.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Janda, Jon (J.M.); Frazier, Keith (R.K.); Rossi, Roberto (R.A.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

John & Maria,

I suspect this one was due to the dPFE having been previously removed and then reinstalled without pushing the tubes on properly, or using a lubricant on the tubes. We have seen this before coming from B & A, when they used soap to lubricate the tubes, to aid assembly.

I checked the vehicle history and found that the dPFE was replaced in February, and the vehicle had been back several times for intermittent and steady Check Engine lights, which were eventually blamed on a faulty ignition coil at the end of May.

Keith & Roberto,

Could a faulty ignition coil cause excessive V Transients on Vref that could impact the dPFE?

Regards

EA82-827-G 5482

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel: (313) 594-7645

---Original Message---

From: Lovelace, Merta (M.E.)
Sent: Thursday, June 13, 2002 11:24 AM
To: Freeland, Mark (M.)
Subject: FW: Assignment #58 - Failed DPFE- Tow In

---Original Message---

From: Domka, John (J.J.)
Sent: Wednesday, June 12, 2002 11:22 AM
To: Lovelace, Merta (M.E.)
Subject: Assignment #58 - Failed DPFE- Tow In

CSQI002 CQIS Indicator Summary 06/12/02 11:18:53 1 of 1

==>
Rpt#: 2FEA5001 CQD Rpt: 06/05/2002 Odom: 14,433 M
Rvw: File: Folder: Images: 2 Print Smy/Disp Detail(P/D):
Vehicle: 2001 TAURUS,SE COMF,SEDAN 1FAFP58S91G272542 Bld: 07/25/2001
Engine: 3.0L EFI M Calb: 1DD14N0A Trans: AX4N Axle: FWD 3.98 A/C: YES
Dealer Id: 02750 Avis Ford Inc Ph#: (800) 358-2778
State: Michigan City: Southfield Orig/Caller: JOHN DOMKA
Symptom: 6 03 0 00 DRVABL,CRANKS/NO STAR,OTHER-CODE NA,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: S Rvw: A Dt: 06/06/2002
Flx: Caus. Comp: SENSOR ASY EGR PR VL -- RPL Condition Code: H5

Region Code: 48 Region Name: Detroit - 48

CONCER NO START
REPAIR NO CODES. ANALYSIS DETERMINED THERE WAS NO VOLTAGE REFERENCE.
PINPOINT DETERMINED OPEN CIRCUIT IN DPFE CIRCUIT. DPFE MELTED.
DEALER DID WORK ON VEHICLE PREVIOUS WEEK FOR A MISS COMPLAINT
REPLACED FAILED DPFE - ISSUE CORRECTED
SUSPECT DPFE WILL BE GIVEN TO M. LOVELACE WITHIN 7 DAYS UNLESS OTHER
WISE NOTIFIED.
PICTURE ATTACHED
MICHIGAN FQE - JOHN DOMKA 313-433-7910
ADD-ON 06/12/2002 11:17AM JOHN DOMKA CQ - CD&A - CQD - FQE
UNABLE TO READ DPFE BUILD DATE INFO DUE TO DPFE DAMAGE/MELTING
CONDITION

F1 Help F3 Exit F4 Last Cmts F5 Add Cmts F6 AddFldr
F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return
I0018-BOTTOM OF DATA LPENJBD

<< File: 2FEA5001.a.JPG >> << File: 2FEA5001.b.JPG >>
Thanks,

John J. Domka

Field Quality Engineer
Enhanced Concern Identification
Ford Customer Service Division

jdomka@ford.com
Phone 313-433-7810
FAX 734-475-8110

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 6:53 PM
To: Potter, Timothy (T.J.)
Subject: Test set up for latched sensor.

Thanks for the slick suggestion on using the 1 ohm resistors as a "switch".

I don't think there is any benefit, as I will have to unplug the battery for charging every day, so I would prefer to keep the resistors permanently wired inside the "box" (big assumption on my part that there will be some kind of a box to keep everything safe), as I think that there is less chance of me breaking things if I can not get my hands near them

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 8:30 PM
To: Duffy, Paul (P.E.)
Cc: O'Neill, Jim (J.D.); Plants, Paul (P.G.)
Subject: Meeting to get up to speed on the dPFE issue and EESE support

Paul,

Could you please also invite Jim O'Neill, the V Engine manager, to join us for our meeting. It would be good to keep him in the loop with us.

SRL Conference Room 1529 would be a good place to meet as it is almost next door to my office and can be booked on line.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 8:15 PM
To: Kyong Park (E-mail)
Cc: Janda, Jon (J.M.); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: Hertz Escape vehicle history

Kyong,

I checked the AWS system for data on the Yellow Hertz Escape, this is what I found:

VIN: 1FMYU04191KA73881
Assembly Plant: Kansas City Plant
Vehicle Built: 2/23/2001
Warranty Start Date: 3/13/2001

Repair History:

There was only one entry dated 4/3/2002 @ 24,775 miles, the break pedal was pulsating when stopping, so the dealer turned the break rotors to true them up.

This is great news, as it means that the electrical system has not been tampered with.

Regards

Mark Freeland

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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ER02-027-G 5428

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 12:38 PM
To: Lovelace, Maria (M.E.)
Subject: RE: Assignment # 02-58 - DPFE Sensor

Thank you for the info, will look forward to receiving the parts.

PS I received the two parts from Mark Hayduk in Pittsburgh this morning when I got back from Kavlico.
Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Thursday, June 13, 2002 11:01 AM
To: Freeland, Mark (M.)
Subject: FW: Assignment # 02-58 - DPFE Sensor

Information for you

-----Original Message-----

From: Dionisi, Anthony (A.J.)
Sent: Thursday, June 13, 2002 10:59 AM
To: Lovelace, Maria (M.E.)
Cc: Bersuder, Lee (L.C.); Dionisi, Anthony (A.J.)
Subject: Assignment # 02-58 - DPFE Sensor

Maria - FYI. Entered three CQIS reports (#s 2FMIO001, 2FMIO002, 2FMIO003) related to Assignment # 02-58. Parts will be returned directly to Mark Freeland per assignment directions. On CQIS # 2FMIO003, I entered it as a "S" (potential safety concern) since vehicle lost all power while driving. DPFE sensor (date code: 0J08C) replaced - resolved concern (this DPFE sensor qualifies to problem 2 listed on assignment form).

Total of three parts being returned.

Tony Dionisi
Ford Motor Company
Enhanced Concern Identification
Denver Field Quality Engineer
Office: 303-346-4788
Cell: 303-921-2517
Fax: 303-346-4788
adlonsi@ford.com

EP02-027-G 5438

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 12:38 PM
To: Maurer, James (J.B.); Plante, Paul (P.G.)
Subject: FW: Assignment # 02-58 - DPFE Sensor

I will keep you informed on this when I receive further information and the parts.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Thursday, June 13, 2002 11:01 AM
To: Freeland, Mark (M.)
Subject: FW: Assignment # 02-58 - DPFE Sensor

Information for you

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Sent: Thursday, June 13, 2002 10:59 AM
To: Lovelace, Maria (M.E.)
Cc: Bersuder, Lee (L.C.); Dionisi, Anthony (A.J.)
Subject: Assignment # 02-58 - DPFE Sensor

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Total of three parts being returned.

Tony Dionisi
Ford Motor Company
Enhanced Concern Identification
Denver Field Quality Engineer
Office: 303-346-4788
Cell: 303-821-2517
Fax: 303-346-4798
adionisi@ford.com

8982-927-G 5431

From: Freeland, Mark (M.)
Sent: Thursday, June 13, 2002 12:34 PM
To: Lovelace, Maria (M.E.); Domka, John (J.J.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Janda, Jon (J.M.); Frazier, Keith (R.K.); Rossi, Roberto (R.A.)
Subject: RE: Assignment #58 - Failed DPFE- Tow In

John & Maria,

I suspect this one was due to the dPFE having been previously removed and then reinstalled without pushing the tubes on properly, or using a lubricant on the tubes. We have seen this before coming from B & A, when they used soap to lubricate the tubes, to aid assembly.

I checked the vehicle history and found that the dPFE was replaced in February, and the vehicle had been back several times for intermittent and steady Check Engine lights, which were eventually blamed on a faulty ignition coil at the end of May.

Keith & Roberto,

Could a faulty ignition coil cause excessive V Transients on Vref that could impact the dPFE?

Regards

Mark Freeland

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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Thursday, June 13, 2002 11:24 AM
To: Freeland, Mark (M.)
Subject: FW: Assignment #58 - Failed DPFE- Tow In

-----Original Message-----

From: Domka, John (J.J.)
Sent: Wednesday, June 12, 2002 11:22 AM
To: Lovelace, Maria (M.E.)
Subject: Assignment #58 - Failed DPFE- Tow In

CSQI002 CQIS Indicator Summary 06/12/02 11:18:53

==>

1 of 1

Rpt#: 2FEA5001 CQD Rpt: 06/05/2002 Odom: 14,433 M
Rvw: File: Folder: Images: 2 Print Smy/Disp Detail(P/D):
Vehicle: 2001 TAURUS,SE COMF,SEDAN 1FAFP56S91G272542 Bld: 07/25/2001
Engine: 3.0L EFI M Calb: 1DD14N0A Trans: AX4N Axle: FWD 3.98 A/C: YES
Dealer Id: 02750 Avls Ford Inc Ph#: (800) 358-2778
State: Michigan City: Southfield Orig/Caller: JOHN DOMKA
Symptom: 8 03 0 00 DRVABL,CRANKS/NO STAR,OTHER-CODE NA,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: S Rvw: A Dt: 06/06/2002

EN82-827-G 5432

Fix Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: H5

Region Code: 48 Region Name: Detroit - 48

CONCER NO START

REPAIR NO CODES. ANALYSIS DETERMINED THERE WAS NO VOLTAGE REFERENCE.
PINPOINT DETERMINED OPEN CIRCUIT IN DPFE CIRCUIT. DPFE MELTED.
DEALER DID WORK ON VEHICLE PREVIOUS WEEK FOR A MISS COMPLAINT
REPLACED FAILED DPFE - ISSUE CORRECTED
SUSPECT DPFE WILL BE GIVEN TO M. LOVELACE WITHIN 7 DAYS UNLESS OTHER
WISE NOTIFIED.

PICTURE ATTACHED

MICHIGAN FQE - JOHN DOMKA 313-433-7910

ADD-ON 08/12/2002 11:17AM JOHN DOMKA CQ - CD&A - CQD - FQE
UNABLE TO READ DPFE BUILD DATE INFO DUE TO DPFE DAMAGE/MELTING
CONDITION

F1 Help F3 Exit F4 Last Cmts F5 Add Cmts F6 Add Fldr
F7 Bkwd F8 Fwd F9 Ind Corr F10 Next Rpt F11 Prev Rpt F12 Return
10018-BOTTOM OF DATA LPENJBD

<< File: 2FEA5001.a.JPG >> << File: 2FEA5001.b.JPG >>

Thanks,

John J. Domka

Field Quality Engineer
Enhanced Concern Identification
Ford Customer Service Division

jdomka@ford.com
Phone 313-433-7910
FAX 734-475-8110

From: Freeland, Mark (M.)
Sent: Friday, June 07, 2002 11:34 AM
To: Kyong Park (E-mail)
Cc: Akine, Mary (M.)
Subject: FW: Media Reports of Focus Stalling

This the medial article I referred to.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Simko, Steven (S.J.)
Sent: Friday, June 07, 2002 9:02 AM
To: Freeland, Mark (M.); Hangea, Jan (.)
Subject: Media Reports of Focus Stalling

Mark,

I heard on the radio today that NHTSA is opening two investigations on Focus, one for engine stalls. The radio report quoted Clarence Diltow, from the Center for Auto Safety, a plaintiff's attorney's clearing-house for lawsuits concerning auto safety. He is extremely good at stirring up negative publicity in auto safety cases. I checked the clipsheet this morning looking for more information about NHTSA's investigation and found the following article. It suggests plugged fuel lines as the cause for stalling (see highlighted region). I just thought you should know this information.

Steve Simko

Government opens new safety investigations into Ford Focus over engine, suspension

Associated Press Newswires 06/06/02
author: Nedra Pickler
Copyright 2001. The Associated Press. All Rights Reserved.

WASHINGTON (AP) — Safety officials have opened two new investigations into the Ford Focus, this time amid complaints the engine can suddenly stall and the front suspension can collapse.

Hurd,
cannot
The government has begun six investigations into the popular subcompact this year. Tim
a spokesman for the National Highway Traffic Safety Administration, said Thursday he
recall the government's ever having as many investigations into one vehicle at the same

time.

Seventy-two people told NHTSA that the Focus stalled while they were driving, including seven who crashed. Seven people reported the front suspension control arm fractured while they were driving, leading to six crashes.

years,

The investigation into engine stall involves 574,700 cars from the 2000 and 2001 model the first two years of production. The suspension investigation also includes the 2002 model year.

The Focus is the country's fifth-best-selling car, trailing only the Honda Accord, Toyota Camry, Ford Taurus and Honda Civic. But it has been plagued with safety problems, already having been recalled eight times for problems ranging from faulty seat latches and windshield wipers to a throttle that can stick open.

Two of NHTSA's other open investigations involve possible air bag malfunctions, while the remaining were prompted by reports the rear wheel bearings could fail and the engine could catch fire.

NHTSA investigators said the alleged engine stall problem may be caused by debris accumulating in the gas tank, blocking fuel from being delivered to the engine.

were

NHTSA also is stepping up its investigation into nearly half a million General Motors Corp. vehicles after 28 crashes were blamed on a possible steering problem. More than 1,200 people have complained that the steering rack and pinion suddenly locked up while they driving.

Grand

The investigation involves the 1998 Oldsmobile Intrigue and 1997 models of the Pontiac Prix, Pontiac Tran Sport, Chevrolet Venture, Chevrolet Malibu, Oldsmobile Silhouette and Oldsmobile Cutlass.

The problem can cause the driver to lose steering control. GM reported six crashes in which eight people were hurt, but no injuries or deaths were reported in the other 22 crashes.

NHTSA opens any investigation with a preliminary inquiry, in which the agency and the manufacturer exchange paperwork. That is the stage of the Focus investigations.

vehicle in

The agency can upgrade the case to an engineering analysis if it wants to examine the detail for a possible safety defect. The GM investigation is in this stage.

NHTSA's investigations can lead to a recall, but many are dropped.

Spokesmen for Ford and General Motors would not comment on the investigations except to say the companies are cooperating with the agency.

the

NHTSA also opened a preliminary investigation into about 75,000 Toyota T100 pickups from the 1993 through 1998 model years. Fourteen people have complained to the agency that clutch pedal mounting bracket or the firewall where it attaches will fracture while driving.

Increase.

The problem would stop the clutch from disengaging when the pedal is pressed and could cause the vehicle to move unintentionally, the engine to stall or stopping distances to

Region Code: 44 Region Name: Pittsburgh - 44

CONCER CUST. STATES: FROM A DEAD STOP THE ENGINE IS STALLING. ENGINE MISSING BADLY.

REPAIR * TECH FOUND CODES P0401 AND P1408 (DPFE CODES).

TECH REPLACED THE DPFE TO CORRECT THE CONCERN. DPFE DATE CODE ON PART IS: 2D03B.

PART SHIPPED TO MARK FRELAND PER ECI ASSIGN. 02-58.

VEHICLE WAS PREVIOUSLY IN FOR A DPFE CONCERN ON 4-19-02 @ 13,997 MI. AT WHICH TIME A NEW DPFE WAS INSTALLED TO CORRECT THAT CONCERN.

* MARK HAYDUK - PITTSBURGH FQE - 724-822-4342

CSQI002

CQIS Indicator Summary

06/06/02 22:43:53

2 of 2

----->
Rpt#: 2FFG2002 CQD Rpt: 06/06/2002 Odom: 4,336 M
Rvw: File: Folder: Images: 0 Print Scty/Disp Detail(P/D):
Vehicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA514X2BB02602 Bld: 02/11/2002
Engine: 3.8L EFI F Calb: 2A31ZCDA Trans: 4F50N Axle: FWD 3.56 A/C: YES
Dealer Id: 07467 WOLTZ & WIND FORD INC Ph#: (412) 279-4551
State: Pennsylvania City: Heidelberg Orig/Caller: MARK HAYDUK
Symptom: 6 98 2 00 DRVABL,INDICATOR,CHECK ENGINE,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: Rvw: Dt:
Ptx: Caus. Camp: SENSOR ASY EGR PR VL - RPL Condition Code: 08

Region Code: 44 Region Name: Pittsburgh - 44

CONCER CUST. STATES: CHECK ENGINE LIGHT IS ON ALL THE TIME.

REPAIR * TECH FOUND CODE P0401 PRESENT (INSUFFICIENT EGR FLOW).

* TECH REPLACED THE DPFE WHICH CORRECTED THE CONCERN.

* DPFE REMOVED HAS DATE CODE OF 2A25B.

* DPFE SENT TO MARK FRELAND PER ECI ASSIGN. 02-58.

* MARK HAYDUK - PITTSBURGH FQE - 724-822-4342

Mark Hayduk

Field Quality Engineer
Global Concern Definition
Ph: 724-941-6670
Cell: 724-822-4342
Fax: 724-941-5154

From: Freeland, Mark (M.)
Sent: Friday, June 07, 2002 9:48 AM
To: Awad, Mahmoud (M.I.)
Subject: RE: Assign. 02-58 2001 DPFE's

Thanks Mahmoud

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Awad, Mahmoud (M.I.)
Sent: Friday, June 07, 2002 9:34 AM
To: Freeland, Mark (M.)
Subject: RE: Assign. 02-58 2001 DPFE's

Mark,
AWS server is down for updates for today, I'll do it next week.
Thanks
Mahmoud

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Friday, June 07, 2002 8:18 AM
To: Maurer, James (J.B.); Gates, Freeman (F.C.); Awad, Mahmoud (M.I.)
Cc: Plante, Paul (P.G.); Janda, Jon (J.M.); McCoy, James (J.D.)
Subject: FW: Assign. 02-58 2001 DPFE's

Mahmoud,
Please check out the vehicle history for the F-150 Staller below and circulate to the team.
I will report on the dPFE sensor when it arrives.
Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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-----Original Message-----

ER52-027-G 5589

CONCERN CUST. STATES: CHECK ENGINE LIGHT IS ON ALL THE TIME.
REPAIR * TECH FOUND CODE P0401 PRESENT (INSUFFICIENT EGR FLOW).
* TECH REPLACED THE DPFE WHICH CORRECTED THE CONCERN.
* DPFE REMOVED HAS DATE CODE OF 2A25B.
* DPFE SENT TO MARK FREELAND PER BCI ASSIGN. 02-58.
* MARK HAYDUK - PITTSBURGH FQE - 724-822-4342

Mark Hayduk

Field Quality Engineer
Global Concern Definition
Ph: 724-941-6670
Cell: 724-822-4342
Fax: 724-941-5154

From: Freeland, Mark (M.)
Sent: Friday, June 07, 2002 9:47 AM
To: Plante, Paul (P.G.)
Subject: FW: Media Reports of Focus Stalling

Paul,
Should we forward this to the team for r information.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Simko, Steven (S.J.)
Sent: Friday, June 07, 2002 9:02 AM
To: Freeland, Mark (M.); Hargas, Jun (.)
Subject: Media Reports of Focus Stalling

Mark,

I heard on the radio today that NHTSA is opening two investigations on Focus, one for engine stalls. The radio report quoted Clarence Ditlow, from the Center for Auto Safety, a plaintiff's attorney's clearing-house for lawsuits concerning auto safety. He is extremely good at stirring up negative publicity in auto safety cases. I checked the clipsheet this morning looking for more information about NHTSA's investigation and found the following article. It suggests plugged fuel lines as the cause for stalling (see highlighted region). I just thought you should know this information.

Steve Simko

Government opens new safety investigations into Ford Focus over engine, suspension

Associated Press Newswires 06/06/02
author: Nedra Pickler
Copyright 2001. The Associated Press. All Rights Reserved.

WASHINGTON (AP) — Safety officials have opened two new investigations into the Ford Focus, this time amid complaints the engine can suddenly stall and the front suspension can collapse.

Hurd,
cannot

The government has begun six investigations into the popular subcompact this year. Tim a spokesman for the National Highway Traffic Safety Administration, said Thursday he recall the government's ever having as many investigations into one vehicle at the same

time.

Seventy-two people told NHTSA that the Focus stalled while they were driving, including seven who crashed. Seven people reported the front suspension control arm fractured while they were driving, leading to six crashes.

years,

The investigation into engine stall involves 574,700 cars from the 2000 and 2001 model

the first two years of production. The suspension investigation also includes the 2002 model year.

The Focus is the country's fifth-best-selling car, trailing only the Honda Accord, Toyota Camry, Ford Taurus and Honda Civic. But it has been plagued with safety problems, already having been recalled eight times for problems ranging from faulty seat latches and windshield wipers to a throttle that can stick open.

Two of NHTSA's other open investigations involve possible air bag malfunctions, while the remaining were prompted by reports the rear wheel bearings could fall and the engine could catch fire.

NHTSA investigators said the alleged engine stall problem may be caused by debris accumulating in the gas tank, blocking fuel from being delivered to the engine.

NHTSA also is stepping up its investigation into nearly half a million General Motors Corp. vehicles after 28 crashes were blamed on a possible steering problem. More than 1,200 people have complained that the steering rack and pinion suddenly locked up while they

were

driving.

The investigation involves the 1998 Oldsmobile Intrigue and 1997 models of the Pontiac

Grand

Prix, Pontiac Tran Sport, Chevrolet Venture, Chevrolet Malibu, Oldsmobile Silhouette and Oldsmobile Cutlass.

The problem can cause the driver to lose steering control. GM reported six crashes in which eight people were hurt, but no injuries or deaths were reported in the other 22 crashes.

NHTSA opens any investigation with a preliminary inquiry, in which the agency and the manufacturer exchange paperwork. That is the stage of the Focus investigations.

The agency can upgrade the case to an engineering analysis if it wants to examine the

vehicle in

detail for a possible safety defect. The GM investigation is in this stage.

NHTSA's investigations can lead to a recall, but many are dropped.

Spokesmen for Ford and General Motors would not comment on the investigations except to say the companies are cooperating with the agency.

NHTSA also opened a preliminary investigation into about 75,000 Toyota T100 pickups from the 1993 through 1998 model years. Fourteen people have complained to the agency that

the

clutch pedal mounting bracket or the firewall where it attaches will fracture while driving.

The problem would stop the clutch from disengaging when the pedal is pressed and could cause the vehicle to move unintentionally, the engine to stall or stopping distances to

increase.

From: Freeland, Mark (M.)
Sent: Friday, June 07, 2002 8:19 AM
To: Lovelace, Maria (M.E.)
Subject: RE: Assign. 02-58 2001 DPFE's

Great,
Thanks for the day 0 report, I await the parts for testing.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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Tel.: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Friday, June 07, 2002 7:43 AM
To: Freeland, Mark (M.)
Subject: FW: Assign. 02-58 2001 DPFE's

-----Original Message-----

From: Hayduk, Mark (M.S.)
Sent: Thursday, June 06, 2002 10:49 PM
To: Lovelace, Maria (M.E.)
On: Hayduk, Mark (M.S.)
Subject: Assign. 02-58 2001 DPFE's

Maria, below are two CQIS reports I wrote for this assignment which was issued today. 0 days to first find!!!

I found one DPFE with a date code after the date code on the assign. and one DPFE which caused a vehicle stall (which also had a date code after the date on the assign.).

The parts are being shipped to Mark Freeland per the assign.

Thanks.

CSQI002 CQIS Indicator Summary 06/06/02 22:43:13 1 of 2

Rpt#: 2FFG2001 CQD Rpt: 06/06/2002 Odom: 14,642 M
Rvw'd: File: Folder: Images: 0 Print Smry/Disp Detail(P/D):
Vehicle: 2001 F150 4X2,REGCAB ,STYSD 1FTRF17WB1KC64157 Bld: 07/25/2001
Engine: 4.6L ROM B Cylb: 1F516MON Trans: 4R70W Axle: 3800F3.55L A/C:
Dealer Id: 07467 WOLTZ & WIND FORD INC Ph#: (412) 279-4551
State: Pennsylvania City: Heidelberg Orig/Caller: MARK HAYDUK
Symptom: 6 07 5 93 DRVABL,STALL,QUITS,ACCELERATION,ALL ENGINE TEMP
Addtl Sym: St: CCRG/RPRC: Rvw'd: Dt:

ER02-027-6 5843

Fix: Caus. Comp: SENSOR ASY EGR PR VL -- RPL Condition Code: 08

Region Code: 44 Region Name: Pittsburgh - 44

CONCER CUST. STATES: FROM A DEAD STOP THE ENGINE IS STALLING. ENGINE MISSING BADLY.

REPAIR * TECH FOUND CODES P0401 AND P1408 (DPFE CODES).
TECH REPLACED THE DPFE TO CORRECT THE CONCERN. DPFE DATE CODE ON PART IS: 2D03B.
PART SHIPPED TO MARK FREELAND PER ECI ASSIGN. 02-58.
VEHICLE WAS PREVIOUSLY IN FOR A DPFE CONCERN ON 4-19-02 @ 13,997 MI. AT WHICH TIME A NEW DPFE WAS INSTALLED TO CORRECT THAT CONCERN.
* MARK HAYDUK - PITTSBURGH PQE - 724-822-4342

CSQI002 CQIS Indicator Summary 06/06/02 22:43:53 2 of 2

Rpt#: 2FFG2002 CQD Rpt: 06/06/2002 Odom: 4,336 M
Rvw: File: Folder: Images: 0 Print Smy/Disp Detail(P/D):
Vehicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA514X2BB02602 Bld: 02/11/2002
Engine: 3.8L EFI F Calb: 2A31ZC0A Trans: 4F50N Axle: FWD 3.56 A/C: YES
Dealer Id: 07467 WOLTZ & WIND FORD INC Ph#: (412) 279-4551
State: Pennsylvania City: Heidelberg Orig/Caller: MARK HAYDUK
Symptom: 6 98 2 00 DRVABL,INDICATOR,CHECK ENGINE,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: Rvw: Dt:
Fix: Caus. Comp: SENSOR ASY EGR PR VL -- RPL Condition Code: 08

Region Code: 44 Region Name: Pittsburgh - 44

CONCER CUST. STATES: CHECK ENGINE LIGHT IS ON ALL THE TIME.
REPAIR * TECH FOUND CODE P0401 PRESENT (INSUFFICIENT EGR FLOW).
* TECH REPLACED THE DPFE WHICH CORRECTED THE CONCERN.
* DPFE REMOVED HAS DATE CODE OF 2A25B.
* DPFE SENT TO MARK FREELAND PER ECI ASSIGN. 02-58.
* MARK HAYDUK - PITTSBURGH PQE - 724-822-4342

Mark Hayduk
Field Quality Engineer
Global Concern Definition
Ph: 724-941-6670
Cell: 724-822-4342
Fax: 724-941-5154

Symptom: 6 07 5 93 DRVABL,STALL/QUITS,ACCELERATION,ALL ENGINE TEMP
Addl Sym: St: CCRG/EPRC: Rvw: Dt:
Fix: Caus. Comp: SENSOR ASY BGR PR VL - RPL Condition Code: 08

Region Code: 44 Region Name: Pittsburgh - 44

CONCER CUST. STATES: FROM A DEAD STOP THE ENGINE IS STALLING. ENGINE MISSING BADLY.

REPAIR * TECH FOUND CODES P0401 AND P1408 (DPFE CODES).
TECH. REPLACED THE DPFE TO CORRECT THE CONCERN. DPFB DATE CODE ON PART IS: 2D03B.
PART SHIPPED TO MARK FREELAND PER ECI ASSIGN. 02-58.
VEHICLE WAS PREVIOUSLY IN FOR A DPFE CONCERN ON 4-19-02 @ 13,997 ML AT WHICH TIME A NEW DPFE WAS INSTALLED TO CORRECT THAT CONCERN.
* MARK HAYDUK - PITTSBURGH FQE - 724-822-4342

CSQI002 CQIS Indicator Summary 06/06/02 22:43:53 2 of 2

Rpt#: 2FFG2002 CQD Rpt: 06/06/2002 Odom: 4,336 M
Rvw: File: Folder: Images: 0 Print Smy/Disp Detail(P/D):
Vehicle: 2002 WINDSTAR,4X2 ,WAGON 2FMZA514X2BB02602 Bld: 02/11/2002
Engine: 3.8L EPI F Calb: 2A31ZC0A Trans: 4F50N Axle: FWD 3.56 A/C: YES
Dealer Id: 07467 WOLTZ & WIND FORD INC Pht#: (412) 279-4551
State: Pennsylvania City: Heidelberg Orig/Calic: MARK HAYDUK
Symptom: 6 98 2 00 DRVABL,INDICATOR,CHECK ENGINE,OTHER-CODE NA
Addl Sym: St: CCRG/EPRC: Rvw: Dt:
Fix: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: 08

Region Code: 44 Region Name: Pittsburgh - 44

CONCER CUST. STATES: CHECK ENGINE LIGHT IS ON ALL THE TIME.
REPAIR * TECH FOUND CODE P0401 PRESENT (INSUFFICIENT BGR FLOW).
* TECH REPLACED THE DPFE WHICH CORRECTED THE CONCERN.
* DPFE REMOVED HAS DATE CODE OF 2A25B.
* DPFE SENT TO MARK FREELAND PER ECI ASSIGN. 02-58.
* MARK HAYDUK - PITTSBURGH FQE - 724-822-4342

Mark Hayduk

Field Quality Engineer
Global Concern Definition
Ph: 724-941-8670
Cell: 724-822-4342
Fax: 724-941-5154

From: Freeland, Mark (M.)
Sent: Thursday, June 06, 2002 1:02 PM
To: Maurer, James (J.B.); McCoy, James (J.D.)
Subject: FW: Escape Stalls

Jim & Jim, Per you're request Jim.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Hermann, Thomas (T.J.)
Sent: Wednesday, June 05, 2002 11:49 AM
To: Freeland, Mark (M.)
Subject: RE: Escape Stalls

No link to the dPFE. It sounds like some RF noise getting onto the IAC sensor lines to the PCM. Just adding (or changing the value of) an RF bypass cap in the PCM to clean it up.

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 4:56 PM
To: Hermann, Thomas (T.J.)
Cc: McCoy, James (J.D.); Maurer, James (J.B.); Plante, Paul (P.G.); Janda, Jon (J.M.); John Johnson (E-mail)
Subject: Escape Stalls

Tom,

I came across this from the Escape Stalls Team,

Status of Concern C11371349 (Tim Veenstra)

2:30-2:35

- o Concern Desc: 3.0L Escape experiences engine stalls between 6-12MHZ and 20-25MHZ as low as 73 V/M. The root cause was determined to be the BEC interface to the IAC. By fixing the BEC the anomaly went away completely.
- o Concern is for implementing the "BEC w/a capacitor change".

What do you know about the capacitor change, is this a filter cap or what, could there be any link to dPFE going into an SCR latch?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory

EM2-827-G 8547

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Tel.: (313) 594-7645

E962-627-G 5548

From: Freeland, Mark (M.)
Sent: Thursday, June 06, 2002 11:23 AM
To: Bryant, Bruce (B.D.)
Subject: RE: Updated: EESE support of FRL BB projects

I have forwarded the meeting notice with explanation, and tried to call and test page him. Best I can do.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Bryant, Bruce (B.D.)
Sent: Thursday, June 06, 2002 10:19 AM
To: Freeland, Mark (M.)
Subject: RE: Updated: EESE support of FRL BB projects

couldn't hurt. why don't you invite him?

Cordially,

Bruce Bryant, hbryant1@ford.com, 313-594-6676
Six Sigma Master Blackbelt, Ford Research Laboratory

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, June 06, 2002 10:15 AM
To: Bryant, Bruce (B.D.)
Subject: FW: Updated: EESE support of FRL BB projects

Bruce,

Should Dante be invited to this afternoon's meeting?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
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email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Crockett, Dante (D.K.)

ER02-027-G 5349

Sent: Thursday, June 06, 2002 6:21 AM
To: Freeland, Mark (M.)
Subject: RE: Updated: EESE support of FRL 88 projects

I would prefer to meet with you and Bruce Bryant to start to gauge how my activity, EESE 6-sigma, can assist you. Keith Frazier and Tom Hermann sit close to me so if we need their input, we can still get it.

—Original Appointment—

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 4:54 PM
To: Crockett, Dents (D.K.)
Subject: Accepted: Updated: EESE support of FRL 88 projects
When: Friday, June 14, 2002 2:30 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Crockett's desk - #5, 2A106

Thanks,

Should we also invite the EESE people who are currently involved?

A new name has just been added to the EESE participants, Keith Frazier, who I first met on Monday this week. Also Tom Hermann, Sheran Alles and Roberto Rossi have been involved.

From: Freeland, Mark (M.)
Sent: Thursday, June 08, 2002 10:15 AM
To: Bryant, Bruce (B.D.)
Subject: FW: Updated: EESE support of FRL BB projects

Bruce,

Should Dante be invited to this afternoon's meeting?

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Crockett, Dante (D.K.)
Sent: Thursday, June 06, 2002 6:21 AM
To: Freeland, Mark (M.)
Subject: RE: Updated: EESE support of FRL BB projects

I would prefer to meet with you and Bruce Bryant to start to gauge how my activity, EESE 6-sigma, can assist you. Keith Frazier and Tom Hermann sit close to me so if we need their input, we can still get it.

-----Original Appointment-----

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 4:54 PM
To: Crockett, Dante (D.K.)
Subject: Accepted: Updated: EESE support of FRL BB projects
When: Friday, June 14, 2002 2:30 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Crockett's desk - #5, 2A106

Thanks,

Should we also invite the EESE people who are currently involved?

A new name has just been added to the EESE participants, Keith Frazier, who I first met on Monday this week. Also Tom Hermann, Sheran Alles and Roberto Rossi have been involved.

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 3:31 PM
To: Awad, Mahmoud (M.I.)
Subject: RE: Focus RR

Great, just what I was looking for.

Thanks for you're help

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Awad, Mahmoud (M.I.)
Sent: Wednesday, June 05, 2002 1:11 PM
To: Freeland, Mark (M.)
Subject: RE: Focus RR

Mark,
Yes, it's only for 9/00 only. Keep in mind that the ranking was based on number of claims reported so far,i.e. regardless of Time In service.
Mahmoud

—Original Message—

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 12:23 PM
To: Awad, Mahmoud (M.I.)
Subject: RE: Focus RR

Mahmoud,

I think this is exactly what I was after. Just to confirm one point, is the D02 and D2t causal part data only for vehicles manufactured in September 2000? If the answer is yes, then I am happy.

Thank you very much for doing the work.

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA

ER62-827-G 5581

email: mfreelal@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Awad, Mahmoud (M.I.)
Sent: Wednesday, June 05, 2002 11:13 AM
To: Freeland, Mark (M.); Plants, Paul (P.G.); Maurer, James (J.B.)
Subject: Focus RR

Mark,

Thanks for the info. Enclosed is the data that you asked for. Please let me know if you have any questions. I'll be out tomorrow for the whole day (department meeting), so if you need anything please let me know today. Paul and Jim.

If you don't have any comments or recommendations, I'm going to carry out the same analysis on the 4 platforms selected next week after the new cutoff date.

Best Regards

Mahmoud Awad

Reliability Implementation Engineer << File: Mark_06_03_02.zip >>

FMEI Department Support

Phone: (313) 24-83859

e-mail: mawad@ford.com

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 3:30 PM
To: Plante, Paul (P.G.)
Subject: RE: American Express Itinerary

Paul,

OK, agreed.

Keith Frazier just spent an hour and half with me getting up to speed. His personal vehicle may have a failing DPFE, and he would like to install the "simple" instrumentation set up in his vehicle. I will have Tim Potter make up a set for him.

Regards

Mark Freeland

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> Engine Research Department
> Ford Research Laboratory
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> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Wednesday, June 05, 2002 12:16 PM
To: Freeland, Mark (M.)
Subject: RE: American Express Itinerary

Go to lunch, your as bad as Me. Thanks for the explanation on Tom, if you keep Roberto in the loop and make him the Monday interface for the answers that would help.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 12:14 PM
To: Plante, Paul (P.G.)
Subject: RE: American Express Itinerary

Paul,

Yes I will ask Kyong for a summary spreadsheet of bench testing at Moorpark to be brought to the team next week.

I will forward you a copy of the revised presentation material, should be done tomorrow morning. (and thanks for the complement).

I understand the need to keep the EESE activity coordinated through a central

focal point, however, I have to be able to talk directly with Tom, he is a green belt on my project, and has been working with me since long before Roberto came to the team, it was Tom that first got Sheran started even before Sheran was a Ford employee! I have no problem keeping Roberto in that loop.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
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> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Wednesday, June 05, 2002 11:00 AM
To: Freeland, Mark (M.)
Subject: RE: American Express Itinerary

Mark, can you have Kavlico update their overall bench test spreadsheet to reflect completed and planned testing?

Have a little fun out there, your working too hard!

Thanks for reviewing your Directors presentation w/ Jim and I and adding our comments. I'm the presentation will go very well. If I can assist with issues/questions let Me know. You remain one of the teams most valuable members. I just need to get a few other people to the party.

FYI, I see a note from you to Tom Hermann. I would like to get to a point where we have a single BESC point of contact to direct all questions and follow up on issues. R. Rossi is assigned that position. Can we make the concept work? Can we direct thru Monday Vehicle Meeting?

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 10:45 AM
To: Janda, Jon (J.M.); Kyong Park (E-mail); Brady Davies (E-mail)
Cc: Jeff Helms (E-mail); Plante, Paul (P.G.); Maurer, James (J.B.); Hargas, Jon (.); Gates, Freeman (F.C.); Bryant, Bruce (B.D.); Kotwicki, Allan (A.J.)
Subject: FW: American Express Itinerary

Attached is my itinerary for next weeks visit to Kavlico.

The focus of my trip is to review the parts from the High Current Acid, H2O2 and HO2 tests conducted to date and to plan next steps in the quest to recreate all of the field failure symptoms with lab tests.

I would propose that I plan to be at the plant at 8:30 am to give you time to take care of you're email etc.. Jon will let us know by tomorrow morning if he will be joining me.

ERG2-627-G 5384

H SU 09JUN HYATT WESTLAKE PLAZA
880 S WESTLAKE VILLAGE BLVD
WESTLAKE VILLAGE CA 91361
PHONE-805-557-1234
FAX-805-379-9392
CONF-8Y0021502555

CHECK IN- 09JUN SUN/300PM
CHECK OUT-11JUN TUE/1200PM
GUARANTEED TO CREDIT CARD-VI

RATE GUARANTEED-USD

PREFERRED RATE GUESTROOM
RATE INFO-EFF 09JUN02 185.00
CANCEL ROOMTS-CANCEL 24 HOURS PRIOR TO ARRIVAL
PERSONS INCLUDED IN RATE-1 CORPORATE ID-CR12642
NSRM

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BURBANK CALIFORNIA 91505
PHONE-818 843-6000
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AMERICAN EXPRESS TRAVEL

CO	DATE	CITY-AIRPORT	TIME	FLIGHT NBR/CLASS	BT SERV/AMNT
H TU	11JUN	HILTON BURBANK AIRPORT			CONTINUED
		RATE INFO-169.00			
		CANCEL RQRMTS-BY 0000 11JUN2002 LOCAL PROPERTY TIME			
		1 NIGHT STAY			
		PERSONS INCLUDED IN RATE-1		CORPORATE ID-N0002590	
		NSRM			
A WE	12JUN	LV BURBANK	616A	UNITED	574M OK SNACK
		AR DENVER	925A		0STOP 737
		UA CONFO *XJTHDQ			
			SEAT	11-E **RESERVED**	
				FREELAND/MARK	
A WE	12JUN	LV DENVER	1005A	UNITED	1406M OK
		AR DETROIT/METRO	240P		0STOP 757
		UA CONFO *XJTHDQ			
		UA1406 SEAT ASSIGNMENT AIRPORT CHECK IN			

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 YOUR ACCESS CODE IS - W-NOP
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 THIS IS AN ELECTRONIC TICKET.
 THE AIRLINE CONFIRMATION APPEARS BELOW THE FLIGHT SEGMENT.
 A PASSENGERS RECEIPT MAY BE REQUESTED AT THE AIRPORT
 FOR EXPENSE PURPOSES.
 PLEASE CALL TO PROCESS A REFUND OR EXCHANGE.
 ***** POLICY REMARKS *****
 ACCEPTED FARE WITHIN TRAVEL POLICY OF \$586.00
 DIRECTORY HOTEL NOT APPLICABLE

 FORM OF PAYMENT IS VISA.
 YOUR UNITED TICKET NUMBER IS 1531025050.

HAVE A PLEASANT TRIP

*****KEEP TO USE FOR EXPENSE REPORT*****

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 12:23 PM
To: Awad, Mahmoud (M.I.)
Subject: RE: Focus RR

Mahmoud,

I think this is exactly what I was after. Just to confirm one point, is the D02 and D21 causal part data only for vehicles manufactured in September 2000? If the answer is yes, then I am happy.

Thank you very much for doing the work.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Awad, Mahmoud (M.I.)
Sent: Wednesday, June 05, 2002 11:13 AM
To: Freeland, Mark (M.); Plante, Paul (P.G.); Maurer, James (J.B.)
Subject: Focus RR

Mark,

Thanks for the info. Enclosed is the data that you asked for. Please let me know if you have any questions. I'll be out tomorrow for the whole day (department meeting), so if you need anything please let me know today. Paul and Jim,

If you don't have any comments or recommendations, I'm going to carry out the same analysis on the 4 platforms selected next week after the new cutoff date.

Best Regards

Mahmoud Awad

Reliability Implementation Engineer << File: Mark_06_03_02.zip >>

FMEI Department Support

Phone: (313) 24-83889

e-mail: mawad@ford.com

ER02-027-G 5500

From: Freeland, Mark (M.)
Sent: Wednesday, June 06, 2002 12:14 PM
To: Plante, Paul (P.G.)
Subject: RE: American Express Itinerary

Paul,

Yes I will ask Kyong for a summary spreadsheet of bench testing at Moorpark to be brought to the team next week.

I will forward you a copy of the revised presentation material, should be done tomorrow morning. (and thanks for the complement).

I understand the need to keep the ESE activity coordinated through a central focal point, however, I have to be able to talk directly with Tom, he is a green belt on my project, and has been working with me since long before Roberto came to the team, it was Tom that first got Sheran started even before Sheran was a Ford employee! I have no problem keeping Roberto in that loop.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: wfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Wednesday, June 05, 2002 11:00 AM
To: Freeland, Mark (M.)
Subject: RE: American Express Itinerary

Mark, can you have Kavlico update their overall bench test spreadsheet to reflect completed and planned testing?

Have a little fun out there, your working too hard!

Thanks for reviewing your Directors presentation w/ Jim and I and adding our comments. I'm the presentation will go very well. If I can assist with issues/questions let Me know. You remain one of the teams most valuable members. I just need to get a few other people to the party.

FYI, I see a note from you to Tom Hermann. I would like to get to a point where we have a single ESE point of contact to direct all questions and follow up on issues. R. Rossi is assigned that position. Can we make the concept work? Can we direct thru Monday Vehicle Meeting?

-----Original Message-----

EA02-627-G 5588

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 10:45 AM
To: Janda, Jon (J.M.); Kyong Park (E-mail); Brady Davies (E-mail)
Cc: Jeff Helms (E-mail); Plante, Paul (P.G.); Maurer, James (J.B.);
Hangas, Jon (.); Gates, Freeman (F.C.); Bryant, Bruce (B.D.); Kotwicki,
Allan (A.J.)
Subject: FW: American Express Itinerary

Attached is my itinerary for next weeks visit to Kavlico.

The focus of my trip is to review the parts from the High Current Acid, H2O2 and HO2 tests conducted to date and to plan next steps in the quest to recreate all of the field failure symptoms with lab tests.

I would propose that I plan to be at the plant at 8:30 am to give you time to take care of you're email etc.. Jon will let us know by tomorrow morning if he will be joining me.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: sachindo [mailto:sachindo@amexusa@mindspring.com]
Sent: Wednesday, June 05, 2002 11:34 AM
To: mfreelal@ford.com
Subject: American Express Itinerary

ITINERARY

PAGE NO. 1
PNR: 1P-2LRAGS

FREELAND/MARK-FORD MOTOR CO
PSGR 1-313-5947645
TKT EMAIL

NAME : FREELAND/MARK

CO	DATE	CITY-AIRPORT	TIME	FLIGHT NBR/CLASS	ST SERV/AMNT
A	SU 09JUN	LV DETROIT/METRO	605P	UNITED	1905M OK
		AR DENVER	709P		OSTOP 737
		UA CONFC *XJTHDQ			
		SEAT	11-B	**RESERVED**	

ERG2-627-G 6886

FREELAND/MARK

A SU 09JUN LV DENVER 800P UNITED 1205M OK
 AR BURBANK 919P 08TOP 737
 UA CONFO *KJTHDQ
 UA1285-SEAT ASSIGNMENT IS AIRPORT CHECK IN

C SU 09JUN HERTZ CONFO-B8432744615
 HOLLYWOOD-BURBANK-TERMINAL PICKUP-09JUN SUN/2119
 BURBANK CALIFORNIA RETURN-12JUN WED/0616
 PHONE-818-569-3570
 RATE-(QUOTED) USD 52.50 DAILY UNLIMITED MILEAGE
 EXTRA HOUR CHARGE 27.00 UNLIMITED MILEAGE
 APPROX TTL USD170.49 INC TAX-OTH CHGS
 1 INTERMEDIATE CAR
 CORPORATE ID-25501

H SU 09JUN HYATT WESTLAKE PLAZA CHECK IN- 09JUN SUN/300PM
 880 S WESTLAKE VILLAGE BLVD CHECK OUT-11JUN TUE/1200PM
 WESTLAKE VILLAGE CA 91361 GUARANTEED TO CREDIT CARD-VI
 PHONE-805-557-1234
 FAX-805-379-9392
 CONFO-HY0021502555
 RATE GUARANTEED-USD
 PREFERRED RATE GUESTROOM
 RATE INFO-EFF 09JUN02 185.00
 CANCEL RQMTS-CANCEL 24 HOURS PRIOR TO ARRIVAL
 PERSONS INCLUDED IN RATE-1 CORPORATE ID-CR12642
 NSRM

H TU 11JUN HILTON BURBANK AIRPORT CHECK IN- 11JUN TUE/1500
 2500 HOLLYWOOD WAY CHECK OUT-12JUN WED/1200
 BURBANK CALIFORNIA 91505 GUARANTEED TO CREDIT CARD-VI
 PHONE-818 843-6000 FREE SHUTTLE SERVICE
 FAX-818 842-9720
 CONFO-3145442668NSCONF
 RATE GUARANTEED-USD
 AMERICAN EXPRESS TRAVEL

CO	DATE	CITY-AIRPORT	TIME	FLIGHT NBR/CLASS	ST SERV/AMNT
H TO	11JUN	HILTON BURBANK AIRPORT			CONTINUED
		RATE INFO-169.00			
		CANCEL RQRMTS-BY 0000 11JUN2002 LOCAL PROPERTY TIME			
		1 NIGHT STAY			
		PERSONS INCLUDED IN RATE-1		CORPORATE ID-N0002690	
		NSRM			
A WE	12JUN	LV BURBANK	616A	UNITED	574M OK SNACK
		AR DENVER	925A		OSTOP 737
		UA CONFO *XJTHDQ			
		SEAT		11-E **RESERVED**	
				FREELAND/MARK	
A WE	12JUN	LV DENVER	1005A	UNITED	1406M OK
		AR DETROIT/METRO	240P		OSTOP 757
		UA CONFO *XJTHDQ			
		UA1406 SEAT ASSIGNMENT AIRPORT CHECK IN			

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 YOUR ACCESS CODE IS - W-NOF
 THIS RESERVATION HAS BEEN MADE FOR YOU BY FCTO
 THIS IS AN ELECTRONIC TICKET.
 THE AIRLINE CONFIRMATION APPEARS BELOW THE FLIGHT SEGMENT.
 A PASSENGERS RECEIPT MAY BE REQUESTED AT THE AIRPORT
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 ***** POLICY REMARKS *****
 ACCEPTED FARE WITHIN TRAVEL POLICY OF \$586.00
 DIRECTORY HOTEL NOT APPLICABLE

 FORM OF PAYMENT IS VISA.
 YOUR UNITED TICKET NUMBER IS 1531025050.

HAVE A PLEASANT TRIP

*****KEEP TO USE FOR EXPENSE REPORT*****

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 10:45 AM
To: Janda, Jon (J.M.); Kyong Park (E-mail); 'Brady Davies (E-mail)'
Cc: 'Jeff Helms (E-mail)'; Plante, Paul (P.G.); Maurer, James (J.B.); Hengas, Jon (.); Gates, Freeman (F.C.); Bryant, Bruce (B.D.); Kotwicki, Allan (A.J.)
Subject: FW: American Express Itinerary

Attached is my itinerary for next weeks visit to Kavlico.

The focus of my trip is to review the parts from the High Current Acid, H2O2 and HO2 tests conducted to date and to plan next steps in the quest to recreate all of the field failure symptoms with lab tests.

I would propose that I plan to be at the plant at 8:30 am to give you time to take care of you're email etc.. Jon will let us know by tomorrow morning if he will be joining me.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: sachindo [mailto:amexusa@mindapring.com]
Sent: Wednesday, June 05, 2002 11:34 AM
To: mfreelal@ford.com
Subject: American Express Itinerary

ITINERARY

PAGE NO. 1
PNR: 1P-2LRAG5

FREELAND/MARK-FORD MOTOR CO
PSGR 1-313-5947645
EFTK EMAIL

NAME : FREELAND/MARK

CUSTOMER NO. ACCOUNT NO. DATE
5100 000037438 0000601850 05JUN02

CO	DATE	CITY-AIRPORT	TIME	FLIGHT NBR/CLASS	ST SERV/AMNT
A	SU 05JUN	LV DETROIT/METRO	605P	UNITED 1905M	OK
		AR DENVER	709P		0STOP 737
		UA CONFO *XJTHDQ			
		SEAT	11-B	**RESERVED**	

882-827-6 8383

FREELAND/MARK

A SU 09JUN LV DENVER 800P UNITED 1285M OK
 AR BURBANK 919P 08TOP 737
 UA CONFO *XJTHDQ
 UA1285-SEAT ASSIGNMENT IS AIRPORT CHECK IN

C SU 09JUN HERTZ CONFO-B8432744615
 HOLLYWOOD-BURBANK-TERMINAL PICKUP-09JUN SUN/2119
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 EXTRA HOUR CHARGE 27.00 UNLIMITED MILEAGE
 APPROX TTL USD170.49 INC TAX-OTH CHGS
 1 INTERMEDIATE CAR
 CORPORATE ID-25501

H SU 09JUN HYATT WESTLAKE PLAZA CHECK IN- 09JUN SUN/300PM
 880 S WESTLAKE VILLAGE BLVD CHECK OUT-11JUN TUE/1200PM
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 CONFO-3145442668NSCONF
 RATE GUARANTEED-USD
 AMERICAN EXPRESS TRAVEL

CO	DATE	CITY-AIRPORT	TIME	FLIGHT NBR/CLASS	ST SERV/AMNT
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		RATE INFO-169.00			
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		1 NIGHT STAY			
		PERSONS INCLUDED IN RATE-1		CORPORATE ID-N0002690	
		NSRM			
A WE	12JUN	LV BURBANK	616A	UNITED	574M OK SNACK
		AR DENVER	925A		0STOP 737
		UA CONFO *XJTHDQ			
		SEAT		11-R **RESERVED**	
				FREELAND/MARK	
A WE	12JUN	LV DENVER	1005A	UNITED	1406M OK
		AR DETROIT/METRO	240P		0STOP 757
		UA CONFO *XJTHDQ			
		UA1406 SEAT ASSIGNMENT AIRPORT CHECK IN			

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 ACCEPTED FARE WITHIN TRAVEL POLICY OF \$586.00
 DIRECTORY HOTEL NOT APPLICABLE

 FORM OF PAYMENT IS VISA.
 YOUR UNITED TICKET NUMBER IS 1531025050.

HAVE A PLEASANT TRIP

*****KEEP TO USE FOR EXPENSE REPORT*****

From: Freeland, Mark (M.)
Sent: Wednesday, June 05, 2002 10:05 AM
To: Williamson, Richard (E.)
Subject: RE: dPFE sensor Requests

Thanks Rick,

Just one comment, it needs to cover 2002 MY for all applications as well as 2001 MY, 2003 MY for Explorer, and 2000 MY for 3.0L DOHC Taurus/Sable.

Sorry, I know that complicates things a bit, but there are 21 applications out there.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Williamson, Richard (E.)
Sent: Wednesday, June 05, 2002 9:59 AM
To: Lovelace, Maria (M.E.)
Cc: Freeland, Mark (M.)
Subject: dPFE sensor Requests
Importance: High

Hi Maria,
Enclosed please find an FQE request form.
Thanks for all your help, << File: mark freeland request.xls >>

RICK WILLIAMSON
Product Concern Analyst-Powertrain
Enhanced Concern Identification
313-248-6348
rwill110@ford.com

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 6:33 PM
To: Janda, Jon (J.M.)
Subject: FW: FREELAND, MARK

Jon,

Here are my flights for the Kavlico trip. Still working on a hotel, will let you know.

Are you planning to come, Jim was unsure this afternoon?

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: PNR-american express [mailto:pnr-notifications@itn.net]
Sent: Tuesday, June 04, 2002 6:25 PM
Subject: FREELAND, MARK

TRAVEL BOOKING CONFIRMATION

Your company's Travel Department has requested this Message be sent each time you book travel for company business. If you wish to change that arrangement please contact your Travel Department.

CRS Record Locator # 2LRAG5
Airline Record Locator #1 UA-XJTHDQ
Car Rental Confirmation #1 ZE-BB432744615 (Hertz)

Name(s) of people traveling:
Passenger #1: MARK FREELAND
Meal: standard

Fare Details: DTT UA X/DENUA BUR 254.66UA X/DENUA DTT 254.65USD509.31 END UA
ZPDTWDENBURDEN XT10.00AY16.50XF DTW4.5DEN4.5BUR 3DEN4.5

Baggage Allowance: 2 pieces

ITINERARY

Flight/Equip.: United Airlines 1905 Boeing 737-300
Depart: Detroit(DTW)/Sunday June 9 6:05 pm
Arrive: Denver(DEN)/Sunday June 9 7:09 pm
Stops: non-stop Miles:1123
Class: Coach

Flight/Equip.: United Airlines 1285 Boeing 737-500
Depart: Denver(DEN)/Sunday June 9 8:00 pm
Arrive: Burbank(BUR)/Sunday June 9 9:19 pm
Stops: non-stop Miles:850
Class: Coach

Car: Hertz (airport)
Pick-up: Jun 09 Burbank
Drop-Off: Jun 12 Burbank
Car size: Intermediate Conf: B8432744615
Rate: EUR 57.53/day Extra Hour: 29.59

/day
USD 52.50/day Extra Hour: 27.00

Flight/Equip.: United Airlines 574 Boeing 737-500
Depart: Burbank(BUR)/Wednesday June 12 6:16 am
Arrive: Denver(DEN)/Wednesday June 12 9:25 am
Stops: non-stop Miles:850
Class: Coach

Flight/Equip.: United Airlines 1406 Boeing 757-200
Depart: Denver(DEN)/Wednesday June 12 10:05 am
Arrive: Detroit(DTW)/Wednesday June 12 2:40 pm
Stops: non-stop Miles:1123
Class: Coach

Total Airfare (including taxes) 586.00 586.00
Flight segments must be ticketed by close of business on June 9.

AGENCY INFORMATION

Agency: American Express
Dearborn, MI

BILLING INFORMATION

Name: Mark Freeland
Address: 2101 Village Road
Mail Stop: SRL Rm 1517 MD 2629
Dearborn, MI 48124
Country: USA
Day Phone: 1-313-5947645
Email: MFREELA1@ford.com

PAYMENT INFORMATION

Visa Number: ON FILE

Expires: ON FILE

SPECIAL REQUESTS

HAVE A GREAT TRIP!

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 4:48 PM
To: Gonzalez, Lebzy (L.)
Subject: RE: Kavlico samples

I will start it as soon as I get in on Thursday morning, probably about 8:15, unless traffic is bad. I have to take my three girls to school at 8:15 in Walled Lake, so I can't get here any earlier. I should be able to have the part in your hands at 9:30 - 9:45, will that work for you? If that is OK, I will see you in Jon's annex to the lab on Thursday morning.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Gonzalez, Lebzy (L.)
Sent: Tuesday, June 04, 2002 1:54 PM
To: Freeland, Mark (M.)
Subject: FW: Kavlico samples

Mark,

Dairne said she can look at the samples whenever we're ready on Thursday—how's 9am for getting the sample prep started?

Regards,

Lebzy Gonzalez
Materials Science Department 20-64167
Scientific Research Laboratory lgonza25@ford.com

EAB2-827-G 5887

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 4:42 PM
To: Awad, Juna (J.A.)
Subject: RE: Need some warranty data in presentation form

Thanks Juna, my mistake.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 4:41 PM
To: Awad, Mahmoud (M.I.)
Subject: FW: Need some warranty data in presentation form

Mahmoud,

I don't know how you knew what I wanted, as I sent it to the incorrect email address., But I'm glad someone else spotted my error.

Sorry.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Awad, June (J.A.)
Sent: Tuesday, June 04, 2002 3:51 PM
To: Freeland, Mark (M.)
Subject: RE: Need some warranty data in presentation form

I believe this was sent to me in error -- I am the Ford Credit Regional Manager in Boston

<W:\Z22\DRV\pictures\waving flag.gif>

Regards,

June A. Awad
Boston Regional Manager
508 357-6606 fax 508 357-6610 cell 508 612-8554

---Original Message---

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 11:23 AM
To: Awad, June (J.A.)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: Need some warranty data in presentation form

Mahmoud,

Could you please make me the following graphs in a format suitable for presentation to a director, I will need the graphs by close of business tomorrow.

For 2.0L Zetec Focus only:

E902-827-G 5000

- 1) (Second repair count/First repair count) v's Month of vehicle production (for 8/2000 through 1/2002)
- 2) Parade of top 10 components (i.e. Causal Part) for D21 symptom for vehicles manufactured 9/2000
- 3) Parade of top 10 components (i.e. Causal Part) for D02 symptom for vehicles manufactured 9/2000

Please include the raw data as well as the charts.

If this request needs clarification let's talk at the 1:00 today.

Thanks

Regards

Mark Froeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreola1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 12:31 PM
To: Plants, Paul (P.G.)
Cc: Maurer, James (J.B.); Awad, Mahmoud (M.I.); Bryant, Bruce (B.D.)
Subject: RE: Need some warranty data in presentation form

Good,

I've invited Master BB Bruce Bryant to join us this afternoon.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Plants, Paul (P.G.)
Sent: Tuesday, June 04, 2002 11:29 AM
To: Freeland, Mark (M.)
Cc: Maurer, James (J.B.); Awad, Mahmoud (M.I.); Plants, Paul (P.G.)
Subject: RE: Need some warranty data in presentation form

Sounds good, maybe we can extend this and use for 5 platforms for overall discussions.

Jim/Mahmoud lets discuss after you complete Mark's request.

Mark, I discussed your FRL review w/ John Koszewnik today. He is OK with it. He expressed that V Engine wants to keep your management aligned and invited to generic management presentations also. Your efforts on the sensor are appreciated. Lets review your presentation at 2:30 today w/ Jim M. and I.

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 11:23 AM
To: Awad, June (J.A.)
Cc: Plants, Paul (P.G.); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: Need some warranty data in presentation form

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Please include the raw data as well as the charts.

If this request needs clarification let's talk at the 1:00 today.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ER02-027-G 5812

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 11:23 AM
To: Awad, June (J.A.)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Getas, Freeman (F.C.)
Subject: Need some warranty data in presentation form

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- 1) (Second repair count/First repair count) v's Month of vehicle production (for 8/2000 through 1/2002)
- 2) Parade of top 10 components (i.e. Causal Part) for D21 symptom for vehicles manufactured 9/2000
- 3) Parade of top 10 components (i.e. Causal Part) for D02 symptom for vehicles manufactured 9/2000

Please include the raw data as well as the charts.

If this request needs clarification let's talk at the 1:00 today.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 9:39 AM
To: Bryant, Bruce (B.D.)
Subject: RE: 8 Sigma support for dPFE sensor projects

Bruce,
Very PC. Looks good to go without any changes.
Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Bryant, Bruce (B.D.)
Sent: Monday, June 03, 2002 6:42 PM
To: Freeland, Mark (M.)
Subject: 6 Sigma support for dPFE sensor projects

Mark - Here's what I want to write to Jane Aselage, the DD for PD, under which EESE resides. Please comment.

Jane:

I am a Master Blackbelt in the Ford Research Laboratory. We met briefly last year when you came to speak as a 6 Sigma Executive at a greenbelt class that Chris Gearhart and I were teaching for NAC at the Huron Training Center. I have a request that I would normally make to another master blackbelt, but I'm not sure which MBBs service the EESE department, so I'm contacting you.

I would like to request blackbelt support from EESE with some projects that one of our FRL blackbelts, Mark Freeland, is working on, related to the Kavlico dPFE sensor failure problems that many of our vehicles are experiencing. Currently, Mark is working on project #5228, "EGR DPFE Sensor Shorts Out PCM Vref" and #7183, "EGR TM dPFE Sensor Unprotected Area Damage."

For background information, these projects are operating in support of a 14D team being run from PTO by Jim Maurer's group, which is responsible for the Kavlico dPFE sensor. Team members from EESE include Roberto Rossi, Sheran Alles, and Tom Hermann. They can provide more information on the problem.

Mark's efforts started as a project whose scope initially appeared to be reasonable in size, but ballooned to 4 projects in Mark's area (the two mentioned above, plus #5120 which was closed, and #3618 which was cancelled), plus other blackbelt projects in Jim Maurer's group. The two projects on which Mark is working would benefit from assistance from additional blackbelts, as the scope and associated workload remains enormous, and we would like to resolve these issues in a timely fashion.

We are looking in various areas, including FRL, for more blackbelts and greenbelts to add to the project, and since there appears to be a "systems" component to the problem, i.e., all vehicles lines which use the sensor

are affected but at vastly different rates, we thought some of the blackbelts in the EESE area would like to contribute. If you would like to support these projects, please identify one or more blackbelts from EESE, with whom Mark and I could meet to discuss the details of the project.

Thanks for your consideration.

Cordially,

**Bruce Bryant, bruyant@ford.com, 661-213-99-04714
Six Sigma Master Blackbelt, Ford Research Laboratory**

From: Freeland, Mark (M.)
Sent: Monday, June 03, 2002 8:18 PM
To: Park, Kyong'
Subject: RE: Wafer Carcasses Returned to Kavlico

Kyong,

Thank you for the acknowledgement.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Monday, June 03, 2002 3:59 PM
To: mfreelal@ford.com
Cc: Ayers, Don; 'Akins, Mary (M.)'
Subject: RE: Wafer Carcasses Returned to Kavlico

Mark,
Kavlico has received those carcasses you had returned.
Thank you again.
Kyong

> -----Original Message-----

> **From:** Ayers, Don
> **Sent:** Monday, June 03, 2002 12:27 PM
> **To:** Park, Kyong; 'Akins, Mary (M.)'
> **Subject:** RE: Wafer Carcasses Returned to Kavlico
>
> They were received today. I will dispose of them appropriately.
>
> Don

> -----Original Message-----

> **From:** Park, Kyong
> **Sent:** Monday, June 03, 2002 12:08 PM
> **To:** Akins, Mary (M.); Park, Kyong
> **Cc:** Ayers, Don
> **Subject:** RE: Wafer Carcasses Returned to Kavlico
>
> Mary,
> As long as, one of us receive them safely, that will be all right

EQ02-627-G 9816

> with me.
>
> Don,
> Please, notify me when you receive them. I do not physically need
> them.
> Kyong

> -----Original Message-----

> From: Akins, Mary (M.) [SMTP:makins@ford.com]
> Sent: Monday, June 03, 2002 9:55 AM
> To: 'Park, Kyong'
> Cc: Don Ayers (E-mail)
> Subject: RE: Wafer Carcasses Returned to Kavlico

> Kyong, I shipped them directly to Don Ayers. I needed to
> ship two other
> items in the same package. Don will pass the wafer
> carcasses on to you when
> they arrive at his desk on Tuesday.

> Mary

> -----Original Message-----

> From: Park, Kyong [mailto:KPark@kavlico.com]
> Sent: Friday, May 31, 2002 4:29 PM
> To: Akins, Mary (M.)
> Subject: RE: Wafer Carcasses Returned to Kavlico

> Mary,
> Could you let me know whose attention you ship this package
> to?
> Thank you.
> Kyong

> -----Original Message-----

> From: Akins, Mary (M.) [SMTP:makins@ford.com]
> Sent: Friday, May 31, 2002 11:01 AM
> To: 'Park, Kyong'
> Cc: Freeland, Mark (M.)
> Subject: RE: Wafer Carcasses Returned to Kavlico

> Kyong,
> The carcasses shipped via FedEx today with a delivery date
> of Tuesday,
> June 4, 2002.
>
> Mary Akins

> -----Original Message-----

> From: Park, Kyong [mailto:KPark@kavlico.com]
> Sent: Wednesday, May 29, 2002 12:15 PM
> To: Freeland, Mark (M.); Kyong Park (E-mail); Robert
> Weikal (E-mail);
> Akins, Mary (M.)
> Cc: Brady Davies (E-mail); Maurer, James (J.B.); Plante,
> Paul (P.G.);
> Gates, Freeman (F.C.); Hargas, Jon (.); Tackman, Bruce
> Subject: RE: Wafer Carcasses Returned to Kavlico

> >
> > Mark,
> > Thank you.
> > I will acknowledge receiving them to you when they arrive
> here.
> > Kyong
> >
> > -----Original Message-----
> > From: Freeland, Mark (M.) [SMTP:mfreelal@ford.com]
> > Sent: Wednesday, May 29, 2002 8:43 AM
> > To: Kyong Park (E-mail); Robert Weikal (E-mail); Akins,
> Mary (M.)
> > Cc: Brady Davies (E-mail); Maurer, James (J.B.); Plante,
> Paul (P.G.);
> > Gates, Freeman (F.C.); Hangan, Jon (.)
> > Subject: Wafer Carcasses Returned to Kavlico
> >
> > Kyong,
> >
> > Per you're request, and in accordance with the terms of
> our
> > confidentiality agreement, I am returning all of the
> wafer Carcasses
> > which
> > I have in my possession to Kavlico.
> > The attached spreadsheet contains the inventory of the
> material I had in
> > my possession and the wafer carcasses which I am
> returning. There is
> > one
> > wafer, no. 2033925, which is unaccounted for. I have
> not been able to
> > locate this wafer. When I do I will return it also.
> >
> > Please note that there are also 13 loose die on various
> mounts also
> > included in the package.
> >
> > The material will be delivered to Mary Akins this
> afternoon, and she
> > will
> > ship it back to Bob Weikal's attention at Moorpark.
> >
> > If you wish the material to be received by an alternate
> designee, then
> > please let Mary know. I have specified Bob, as he is
> the official
> > conduit
> > for all confidential material, per the agreement.
> >
> > Thank you for the opportunity to study the material
> which I have had
> > since
> > January this year.
> >
> > Regards
> >
> > Mark Freeland <<Wafers Returned to Kavlico
> 20020529.xls>>
> >

v > > > 6-Sigma Black Belt
v > > > Engine Research Department
v > > > Ford Research Laboratory
v > > > P.O. Box 2053
v > > > MD 2629 - SRL - Room 1517
v > > > Dearborn, MI 48121-2053 USA
v > > email: mfreelal@ford.com
v > > Tel.: (313) 594-7645
v > > << File: Wafers Returned to Kavlico 20020529.xls >>

From: Frøeland, Mark (M.)
Sent: Monday, June 03, 2002 8:08 PM
To: Plants, Paul (P.G.)
Subject: Accepted: FRL Presentation-Sensor

EP02-027-G 3828

Subject: Testing for Al Hydroxide
Start: Mon 6/3/2002 10:15 AM
End: Mon 6/3/2002 11:16 AM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Required Attendees: Freeland, Mark (M.); Uy, Dairena (D.)

Dairere, can you come to my office, as I have parts & Pictures here. Thanks

From: Freeland, Mark (M.)
Sent: Friday, May 31, 2002 2:31 PM
To: Maurer, James (J.B.); O'Neill, Jim (J.D.)
Cc: Gates, Freeman (F.C.); Plante, Paul (P.G.); Hargas, Jon (.); Kyong Park (E-mail); McCarty, Bill (W.D.)
Subject: Review of Kavlico H2O, H2O2 and Acid test parts

Jim & Jim,

I would like to propose that we review the results (i.e. the physical symptoms, under a microscope and in the SEM) from Kavlico's current series of testing, with Kavlico. To that end I think that I need to be go to Moorpark so that I can look down the microscope with their people and discuss the observations with them.

Thus, I plan to take a trip to Moorpark, departing 6/9 and returning 6/12/2002.

Could you please submit a request to have this trip approved.

Thanks

Do you think anyone else should also come with me?

Regards

Mark Freeland

6-Sigma Black Belt
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email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 31, 2002 1:42 PM
To: D'Agostino, Antonio (A.)
Cc: Oboza, Doran (D.); 'ldjuric@lear.com'; 'fernandez@lear.com'; Rosal, Roberto (R.A.); Maurer, James (J.B.); Plante, Paul (P.G.); McCoy, James (J.D.); Gates, Freeman (F.C.)
Subject: RE: 2.0L Zetec Focus C90 Connector

Tony,

Thanks for the reply, but I did not mean just which Focus's use the same connector, I meant what other vehicles and engines, i.e. is it used on the 3.0L DOHC Escape, 2.0L Zetec Escape, 4.6L Mountaineer..... etc.

It is possible that the C90 issue may be connected with the dPFE issue, and the dPFE is used on a total of 21 vehicle/engine combinations. So I am interested in knowing what other vehicles/engines use the same connector.

Perhaps the supplier of the harness or the tier two supplier of the connector could tell us what applications we have their connector released on!

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: D'Agostino, Antonio (A.)
Sent: Friday, May 31, 2002 1:09 PM
To: Freeland, Mark (M.)
Cc: Oboza, Doran (D.); 'ldjuric@lear.com'; 'fernandez@lear.com'
Subject: RE: 2.0L Zetec Focus C90 Connector

Mark,

The engine/vehicle combinations are:
Any wagon/sedan/3-dr/5-dr C170 with Zetec engine. I haven't seen any data that indicates that the issue is specific to manual or automatic transmission.

Lubo/Paco,

Can either of you speak to why some, but not all of the non gold plated pins in this connector are greased with terminal grease?

Best Regards,

Antonio D'Agostino

PVT Electrical Engineer
Wayne Stamping and Assembly Plant
Phone: 734.467.0485
FAX: 734.467.0489
Pager: 734.297.1785
Text Page: 7342971785@pager.airtouch.com

"There is a difference between concentrating on winning and thinking in terms of not losing."

EA82-827-G 5653

-----Original Message-----

From: Oboza, Doran (D.)
Sent: Friday, May 31, 2002 8:42 AM
To: D'Agostino, Antonio (A.)
Subject: FW: 2.0L Zetec Focus C90 Connector

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 4:18 PM
To: Oboza, Doran (D.)
CC: Awad, Mahmoud (M.I.); Maurer, James (J.B.); McCoy, James (J.D.); Gates, Freeman (F.C.); Rossi, Roberto (R.A.); Pianto, Paul (P.G.)
Subject: 2.0L Zetec Focus C90 Connector

Doran,

Could you please forward this to A. D'Agostino, as I can not locate him in the CDS look up.

Thanks

Could you please provide me with a list of all applications (Engine/Vehicle Combinations) which use the same connector as has been causing all the trouble on the 2.0L Zetec Focus. I assume that there are probably several users of both sides of this connector.

Another question,

Why are some, but not all of the non gold plated pins in this connector greases with terminal grease?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 31, 2002 12:35 PM
To: Oboza, Doran (D.)
Subject: RE: 2.0L Zetec Focus C90 Connector

Thanks Doran

Regards

Mark Freeland

6-Sigma Black Belt
Engins Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Oboza, Doran (D.)
Sent: Friday, May 31, 2002 8:43 AM
To: Freeland, Mark (M.)
Subject: RE: 2.0L Zetec Focus C90 Connector

I forwarded the message.

Tony's ID is ADAGOST3

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 4:18 PM
To: Oboza, Doran (D.)
Cc: Awad, Mahmoud (M.I.); Maurer, James (J.B.); McCoy, James (J.D.); Gates, Freeman (F.C.); Rossi, Roberto (R.A.); Plante, Paul (P.G.)
Subject: 2.0L Zetec Focus C90 Connector

Doran,

Could you please forward this to A. D'Agostino, as I can not locate him in the CDS look up.

Thanks

Could you please provide me with a list of all applications (Engine/Vehicle Combinations) which use the same connector as has been causing all the trouble on the 2.0L Zetec Focus. I assume that there are probably several users of both sides of this connector.

Another question,

Why are some, but not all of the non gold plated pins in this connector greases with terminal grease?

Thanks

Regards

ER02-027-G 5858

Mark Froeland

**6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645**

ERS2-027-G 0060

From: Freeland, Mark (M.)
Sent: Friday, May 31, 2002 12:30 PM
To: 'Park, Kyong'
Subject: RE: Report & Passcode

Thanks for the forward from Analytical Solutions.

Also, thank you for the Die Attach, it is safely in the freezer at -40. Was almost at room temperature when received, but hopefully it was cold for long enough to be OK.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Friday, May 31, 2002 11:21 AM
To: jmMaurer@ford.com; fgates@ford.com; mfreelal@ford.com;
pplante@ford.com; apoma2@ford.com; maward@ford.com
Subject: FW: Report & Passcode

This mail was returned and was forwarded.

> -----Original Message-----

> **From:** Park, Kyong
> **Sent:** Friday, May 31, 2002 8:07 AM
> **To:** 'MIKE STRIZICH'
> **Cc:** Akins, Mary; Davies, Brady; Tackman, Bruce; Hubbard, Rick;
> 'jmMaurer@ford.com'; 'fgates@ford.com'; 'mfreelal@ford.com';
> 'pplante@ford.com'; 'apoma2@ford.com'; 'mawad@ford.com'
> **Subject:** RE: Report & Passcode

>
> Mike,
> I thank you for letting us know of the status of your work.
> Looking forward to receiving your report early next week, and we will be
> communicating with you soon after.
> Yours,
> Kyong

> -----Original Message-----

> **From:** MIKE STRIZICH [SMTP:mstriz@analyticalsol.com]
> **Sent:** Friday, May 31, 2002 7:42 AM
> **To:** 'Park, Kyong'
> **Subject:** RE: Report & Passcode

>

> Kyong,
> Running a little behind, the report will come out early next week. We are
> trying to finish up our latch-up studies, and recreation of the corrosion.
> This is taking longer than expected. The web site database is down
> currently, but the report will be out Mon or Tues.
> Regards,
> Mike

>
> -----Original Message-----
> From: Park, Kyong [mailto:KPark@kavlico.com]
> Sent: Friday, May 31, 2002 8:34 AM
> To: mstriz@analyticalsol.com
> Subject: Report & Passcode

>
> Dear Mike,
> Hello.
> I am not rushing you, but I am just wondering whether I should expect to
> receive any report from you today. Ford people asked about a passcode to
> your data base, the passcode that you had mentioned about during our visit
> to your company.
> Please, let me know.
> Thank you.
> Kyong

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 5:27 PM
To: Awad, Mahmoud (M.I.)
Subject: RE: DPFE Warranty

Thanks for the reply to my question.

I think we must be careful with inferring what sensor was on a vehicle based on which part number the dealer entered! (Implication being, we don't know if the clerk at the dealership picked the correct 9J460 part number, or just picked the one they are most familiar with).
Surely there is some record somewhere, maybe at the plant's PVT, as to exactly when they used engines with the non-standard sensor.

May be that we will never be able to locate such a record! But, thanks for trying all the same.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----
From: Awad, Mahmoud (M.I.)
Sent: Thursday, May 30, 2002 5:04 PM
To: Freeland, Mark (M.)
Subject: FW: DPFE Warranty

-----Original Message-----
From: Bronni Mark-G16624 [mailto:Mark.Bronni@motorola.com]
Sent: Thursday, May 30, 2002 4:43 PM
To: 'mawad@ford.com'
Cc: 'mbronni@ford.com'
Subject: RE: DPFE Warranty

Mahmoud,
I never did have information on the production end of it - just what we saw in warranty. You might want to check with Josh Freeman and Ron Hamlin from 5.4L systems. However, from the warranty data I can definitely find significant instances of reported causal part numbers which reflect the Kavlico Tube Mount for both the 5.4L 2V and 4V. Regarding the 4V the production dates seem to be contained between June and August, for the 2V it seems to be primarily the same - but there are more fliers in months I would not expect (as late as September and October of 2000). Hope this helps.

Anything further please let me know.

> -----Original Message-----

> From: Bronni, Mark (M.J.) [mailto:mbronni@ford.com]
> Sent: Thursday, May 30, 2002 12:58 PM
> To: Mark Bronni (E-mail)
> Subject: FW: DPFE Warranty

>
>
>

> -----
> From: Awad, Mahmoud (M.I.)
> Sent: Thursday, May 30, 2002 12:57:29 PM
> To: Bronni, Mark (M.J.)
> Subject: FW: DPFE Warranty
> Auto forwarded by a Rule

> Mark,
> can you take care of that please? Was it SOHC or DOHC? Production dates
> are between June-August 00, isn't?
> Thanks in advance
> Mahmoud

> -----Original Message-----

> From: Freeland, Mark (M.)
> Sent: Thursday, May 30, 2002 11:57 AM
> To: Awad, Mahmoud (M.I.)
> Subject: RE: DPFE Warranty

> Mahmoud,

> Was it the 5.4L SOHC or the 5.4L DOHC, or both which used 400 TM DPFEs.
> Also, what production dates were these 400 TM DPFE's used?

> Thanks

> Regards

> Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
> email: mfreelal@ford.com
> Tel.: (313) 594-7645

> -----Original Message-----

> From: Awad, Mahmoud (M.I.)
> Sent: Wednesday, May 22, 2002 3:19 PM
> To: Maurer, James (J.B.); Freeland, Mark (M.); Gates, Freeman (F.C.);
> Plante, Paul (P.G.); Janda, Jon (J.M.)
> Cc: Schieding, Kurt (K.J.)
> Subject: DPFE Warranty

> Team,
> Enclosed is an updated chart of the DPFE warranty by supplier. I tried to
> look at Motorola warranty, although 5.4L engines should use Motorola

> sensor, there were 400 Kavlico TM DPFE sensors shipped and used by 5.4L
> engines. This justifies the high warranty on those engines. The rest of
> applications had almost a "consistent" performance in terms of warranty.
> << File: DPFE_All Suppliers.xls >>
> Best Regards
> Mahmoud Awad
> Reliability Implementation Engineer
> FMEI Department Support
> Phone: (313) 24-83869
> e-mail: mawad@ford.com
>
>

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 5:09 PM
To: 'Ed Sickafus'
Subject: RE: Sandwiches

Ed,

I believe the correct sandwiches are:

For Conductor areas within the chip:
Au/Ti-W/Si₃N₄/SiO₂/Al/BPSG/Si-epi

For Non-Conductor areas within the chip:
Au/Ti-W/Si₃N₄/SiO₂/BPSG/Si-epi

For Conductor in the center of the bond pads:
Au/Ti-W/Al/BPSG/Si-epi.

For Conductor in the "Unprotected Area":
Si₃N₄/SiO₂/Al/BPSG/Si-epi

For Non-Conductor in the "Unprotected Area":
Si₃N₄/SiO₂/BPSG/Si-epi

Obviously there is also areas with vias in the BPSG for interconnects

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Ed Sickafus [mailto:ntelleck@ic.net]
Sent: Wednesday, May 22, 2002 7:58 PM
To: Mark Freeland
Cc: Freeman Gates; James B. Maurer
Subject:

Mark: I'm assuming that two types of thin-film sandwiches occur on the Kavlico device: Si₃N₄/Au/SiO₂/SiO₂/Ti-W/Si-epi and Si₃N₄/Au/SiO₂/Al/SiO₂/Ti-W/Si-epi. My notes aren't sufficiently complete and I have not been given a detailed cross-section of the device to know for sure. Can you confirm this, or correct it? If two oxide depositions are done, as I show, are they identical?

FA82-827-G 5680

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 4:18 PM
To: Oboza, Doran (D.)
Cc: Awad, Mahmoud (M.I.); Maurer, James (J.B.); McCoy, James (J.D.); Gates, Freeman (F.C.); Rosal, Roberto (R.A.); Plante, Paul (P.G.)
Subject: 2.0L Zetec Focus G80 Connector

Doran,

Could you please forward this to A. D'Agostino, as I can not locate him in the CDS look up.

Thanks

Could you please provide me with a list of all applications (Engine/Vehicle Combinations) which use the same connector as has been causing all the trouble on the 2.0L Zetec Focus. I assume that there are probably several users of both sides of this connector.

Another question,
Why are some, but not all of the non gold plated pins in this connector greases with terminal grease?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 11:57 AM
To: Awad, Mahmoud (M.I.)
Subject: RE: DPFE Warranty

Mahmoud,

Was it the 5.4L SOHC or the 5.4L DOHC, or both which used 400 TM DPFEs.
Also, what production dates were these 400 TM dPFE's used?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

—Original Message—

From: Awad, Mahmoud (M.I.)
Sent: Wednesday, May 22, 2002 3:19 PM
To: Maurer, James (J.B.); Freeland, Mark (M.); Geiss, Freeman (F.C.); Ranta, Paul (P.G.); Janda, Jon (J.M.)
Cc: Schieding, Kurt (K.J.)
Subject: DPFE Warranty

Team,

Enclosed is an updated chart of the DPFE warranty by supplier. I tried to look at Motorola warranty, although 5.4L engines should use Motorola sensor, there were 400 Kavlico TM DPFE sensors shipped and used by 5.4L engines. This justifies the high warranty on those engines. The rest of applications had almost a "consistent" performance in terms of warranty.

<< File: DPFE_All Suppliers.xls >>

Best Regards

Mahmoud Awad

Reliability Implementation Engineer

FMEI Department Support

Phone: (313) 24-83869

e-mail: mawad@ford.com

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 11:52 AM
To: Janda, Jon (J.M.)
Subject: RE: Completed part analysis

Thanks Jon,

I got the box. (Have been out sick for a few days, so am in the catch up mode).

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Janda, Jon (J.M.)
Sent: Thursday, May 23, 2002 9:15 AM
To: Freeland, Mark (M.)
Subject: Completed part analysis

Mark,

The box of completed parts analysis is in the lab. Couldn't drop in your office - locked.

JJ

From: Freeland, Mark (M.)
Sent: Thursday, May 30, 2002 9:15 AM
To: Hoare, Graham (G.); Bryant, Bruce (B.D.)
Subject: Kevlco dPFE Sensor meeting

Graham/Bruce,

Could you please let me know what info. & in what depth you would like me to cover with you tomorrow morning, so that I can be adequately prepared for the meeting you requested.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, May 29, 2002 4:14 PM
To: Azad, ANM (A.)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.)
Subject: RE: Warranty Part Return Status

Anm,

I will not be attending the meeting. Please fee free to call me if you wish to discuss.

I have referred you're request to the Powertrain Campaign Prevent Specialist (Paul Plante) and the 14 D team leader (James Maurer) associated with the 6PFE issue.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Azad, ANM (A.)
Sent: Wednesday, May 29, 2002 3:52 PM
To: Freeland, Mark (M.)
Subject: Warranty Part Return Status

Mark,

Sorry for late response...

Pls plan to attend on next Friday's PST meeting or send someone else.

You have to explain your Warranty Improvement Plan.

By tomorrow 10am pls send the name who will be in that meeting. We have to make the Final Agenda by 11am.

Pls note that, we took it out from last PST meeting agenda-But I can not show any excuse to Explorer Chief Engineer in next meeting.

Thanks.

ANM Azad
Phone:49870

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, May 28, 2002 12:24 PM
To: Azad, ANM (A.)
Subject: RE: Warranty Part Return Status

I have been out of the office since 5/17/2002, I assume you have the information you need already.

Regards

Mark Freeland

6-Sigma Black Belt

EAB2-827-G 9688

Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room L517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Azad, ANM (A.)
Sent: Monday, May 20, 2002 4:10 PM
To: Crawley, Ian (I.A.); Freeland, Mark (M.); Maurer, James (J.B.)
Subject: Warranty Part Return Status

Can any one fill out the following items of attached file for U152 EGR Sensors (9J480)? It looks Dennis Vroman is in Vacation-but I need this information for PST meeting on May 24.
D. Vroman filled out some items but its incomplete.

1. Supplier Contact person Name
2. Pareto of Returned Parts(Like How many broken, Leak or Bent)
3. Warranty Trend Chart: CPU & R/1000 Chart,
4. Containment Action(if there is any),
- 5 Root cause Analysis/Assessment

<< File: Warranty Part Return Assessment.xls >>

Thanks.
ANM Azad
U152/Quality Reliability

---Original Message---

From: Azad, ANM (A.)
Sent: Monday, May 20, 2002 3:54 PM
To: Vroman, Dennis (D.A.)
Subject: Warranty Part Return Status

<< File: Warranty Part Return Assessment.xls >>

Thanks.
ANM Azad
U152/Quality Reliability

Pls fill out the attached form for U152 EGR Sensors (9J480) to review the plans to improve warranty in next PST meeting.
Thanks

ANM Azad
U152/Quality Reliability

Chassis - (7) U152 Canister Vent Valves (9F945) reviewed on 4/15/02 by A. Yeadon and Frank Robinson
(Visteon)

ERG2-827-G 5898

Powertrain - (22) U152 Alternators (10300) reviewed on 4/14/02 by Marlon Lee and Todd Ansbacher
(Visteon)

(10) U152 MainTransmission Control Assy (7A100) reviewed on 3/27/02 by Zhou Guochou

(6) U152 EGR Sensors (9J460) reviewed on 3/28/02 by Dennis Vroman and Mark

Freeland

-----Original Message-----

From: Fukuda, Neil (N.P.)
Sent: Wednesday, May 15, 2002 5:34 PM
To: Asad, ANM (A.)
Cc: Hilborn, Theresa (T.O.); Reiners, Donna (D.L.); Khan, Asad (A.)
Subject: FW: Warranty Part Return Status

ANM,

pls contact the suppliers and D&R mentioned below. You may need to follow up with Donna and/or PMT leaders to get the right names. I would like each of these parts reviewed at the May 24 PST meeting. See Asad to get them on the agenda. The purpose of this review is to insure that suppliers have plans to improve warranty. The D&R and supplier should work together to fill in the one pager attached. This should not take much effort to complete. If they need help pulling warranty, ask Asad to help. thx

From: Freeland, Mark (M.)
Sent: Wednesday, May 29, 2002 4:10 PM
To: Planta, Paul (P.G.)
Cc: Maurer, James (J.B.)
Subject: FW: Warranty Part Return Status

Paul,

I think this is one for you to handle, I thought that it was not my job to answer to Chief Engineers at PST meetings. Can you get these people off my back?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Azad, ANM (A.)
Sent: Wednesday, May 29, 2002 3:52 PM
To: Freeland, Mark (M.)
Subject: Warranty Part Return Status

Mark,

Sorry for late response...

Pls plan to attend on next Friday's PST meeting or send someone else.

You have to explain your Warranty Improvement Plan.

By tomorrow 10am pls send the name who will be in that meeting. We have to make the Final Agenda by 11am.

Pls note that, we took it out from last PST meeting agenda-But I can not show any excuse to Explorer Chief Engineer in next meeting.

Thanks.

ANM Azad
Phone:49870

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, May 28, 2002 12:24 PM
To: Azad, ANM (A.)
Subject: RE: Warranty Part Return Status

I have been out of the office since 5/17/2002, I assume you have the information you need already.

Regards

Mark Freeland

6-Sigma Black Belt

ER02-027-G 5602

Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Azad, ANM (A.)
Sent: Monday, May 20, 2002 4:10 PM
To: Crawley, Ian (I.A.); Freeland, Mark (M.); Maurer, James (J.B.)
Subject: Warranty Part Return Status

Can any one fill out the following items of attached file for U152 EGR Sensors (9J460)? It looks Dennis Vroman is in Vacation-but I need this information for PST meeting on May 24.
D. Vroman filled out some items but its incomplete.

1. Supplier Contact person Name
2. Pareto of Returned Parts(Like How many broken, Leak or Bent)
3. Warranty Trend Chart: CPU & R/1000 Chart,
4. Containment Action(If there is any),
- 5 Root cause Analysis/Assessment

<< File: Warranty Part Return Assessment.xls >>

Thanks.
ANM Azad
U152/Quality Reliability

—Original Message—

From: Azad, ANM (A.)
Sent: Monday, May 20, 2002 3:54 PM
To: Vroman, Dennis (D.A.)
Subject: Warranty Part Return Status

<< File: Warranty Part Return Assessment.xls >>

Thanks.
ANM Azad
U152/Quality Reliability

Please fill out the attached form for U152 EGR Sensors (9J460) to review the plans to improve warranty in next PST meeting.
Thanks

ANM Azad
U152/Quality Reliability

Chassis - (7) U152 Carlister Vent Valves (9F945) reviewed on 4/15/02 by A. Yeadon and Frank Robinson
(Visteon)

Powertrain - (22) U152 Alternators (10300) reviewed on 4/14/02 by Marlon Lee and Todd Ansbacher (Visteon)

(10) U152 Main Transmission Control Assy (7A100) reviewed on 3/27/02 by Zhou Guochau

(6) U152 EGR Sensors (9J460) reviewed on 3/28/02 by Dennis Vroman and Mark

Freeland

---Original Message---

From: Fukuda, Neil (N.P.)
Sent: Wednesday, May 15, 2002 5:34 PM
To: Azad, ANM (A.)
Cc: Hilborn, Theresa (T.O.); Reiners, Donna (D.L.); Khan, Asad (A.)
Subject: FW: Warranty Part Return Status

ANM,

pls contact the suppliers and D&R mentioned below. You may need to follow up with Donna and/or PMT leaders to get the right names. I would like each of these parts reviewed at the May 24 PST meeting. See Asad to get them on the agenda. The purpose of this review is to insure that suppliers have plans to improve warranty. The D&R and supplier should work together to fill in the one pager attached. This should not take much effort to complete. If they need help pulling warranty, ask Asad to help. trx

ER02-827-G 5894

From: Freeland, Mark (M.)
Sent: Wednesday, May 29, 2002 2:19 PM
To: Nuno, Elena (E.S.); Liu, Dang (D.R.)
Cc: Nagl, Chuck (C.H.); Helms, Jeffrey (J.H.)
Subject: RE: Six Sigma Presentations for FRL Management Meetings

Thanks Elana, I have it in my calendar

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Nuno, Elena (E.S.)
Sent: Wednesday, May 29, 2002 2:16 PM
To: Freeland, Mark (M.); Liu, Dang (D.R.)
Cc: Nagl, Chuck (C.H.); Helms, Jeffrey (J.H.)
Subject: Six Sigma Presentations for FRL Management Meetings

Mark & Ron,

Jeff wanted me to let you know the new dates and times you will be presenting.

Mark, you will now present at the 6/7/02 OCM. The meeting time is 10:00am-12:00pm.
Ron, you will now present at the 7/10/02 OCM. There was no meeting time on the list I had.

Regards,

Elena Nuno

Administrative Assistant to
Jeffrey H. Helms, Manager
Materials Science Department
Ph: (313) 322-3121, Fax: (313) 845-0100, enuno@ford.com

From: Freeland, Mark (M.)
Sent: Tuesday, May 28, 2002 4:56 PM
To: Bryant, Bruce (B.D.)
Subject: RE: project update with Graham Hoare

Bruce,

The help we need on the dPFE project is people who know the vehicle's electrical systems and will work with vehicles to isolate sources of electrical transients which can put the dPFE sensor into an SCR latch.

I have scheduled a meeting for Friday morning per you're request.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Bryant, Bruce (B.D.)
Sent: Wednesday, May 22, 2002 5:54 PM
To: Freeland, Mark (M.)
Subject: project update with Graham Hoare

Mark:

Sorry for this intrusion, but your project is getting some more attention here in the lab. Please set up a meeting with you and me and Graham Hoare in his office for some time next week for an hour, just to get him up to speed.

Also, just as a followup from our previous meeting, please think about what additional resources / help you can use in pushing forward the current phase of your project, and let me know. Thanks in advance.

Bruce

Subject: Kavlico dPFE Sensor 6 Sigma Project
Location: Graham Hoare's office

Start: Fri 5/31/2002 8:30 AM
End: Fri 5/31/2002 9:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Fregland, Mark (M.); Hoare, Graham (G.); Bryant, Bruce (B.D.)

Meeting scheduled per Bruce Bryant's request

From: Freeland, Mark (M.)
Sent: Tuesday, May 28, 2002 11:16 AM
To: Mozurkewich, George (G.)
Subject: RE: Ellen's Focus

George,

Sorry, I was out sick. Let's regroup and see when would be good for you again.

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Mozurkewich, George (G.)
Sent: Wednesday, May 22, 2002 1:28 PM
To: Freeland, Mark (M.)
Subject: Ellen's Focus

Mark,

Would tomorrow (Thurs) be satisfactory for me to bring in Ellen's Focus?

-George

George Mozurkewich
Ford Motor Company Research Lab
(313) 845-5038

ER02-027-G 0728

From: Freeland, Mark (M.)
Sent: Tuesday, May 28, 2002 11:08 AM
To: McCoy, James (J.D.); Awad, Mahmoud (M.I.)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.)
Subject: FW: Powertrain PQR - May 29th - Agenda

Jim & Mahmoud,

I would suggest that you get in touch with L. Djuric and J. Palmer to find out what all the other big wiring warranty issues are on the 2.0L Zetec Focus.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Obcozi, Doran (D.)
Sent: Thursday, May 23, 2002 11:08 AM
To: Agarwal, Apoorva (A.); Banks, Nemine (N.B.); Coryea, Kevin (K.W.); Oretkovski, Peter (P.); Davenport, Marty (M.F.); Deegan, Mike (M.D.); Pails, Stephen (S.W.); Pashina, Ayodeji (A.); Fodera, Michael (M.J.); Foust - Smith, Susan (S.L.); Freeland, Mark (M.); Giannamore, Armand (A.A.); Gilmour, Brady (B.A.); Iwanyszyn, Tari (T.E.); Kalamdani, Rajeev (R.S.); Madrid, David (D.R.); Matt Morin; Morton, Michael (M.F.); Motley, Lesia (L.M.); Norman, Ingrid (I.); Odum, Ike (I.C.); Preber, Joseph (J.A.); Rezaee, John (J.H.); Seljck, Beth (B.); Stearns, Famm (P.V.); Tedone, Damien (D.J.); Tobia, Bruce (B.J.); Trombetta, Christopher (C.B.); Whang, Sonjee (S.); Winekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Melvin (M.); Ahmed, Kamal (K.); Ajulufah, Bart (B.O.); Anderson, Johnny (J.D.); Arszulowicz, Ken (K.J.); August, Dan (D.); Baum, Joe (J.M.); Bednarek, Mark (M.P.); Boetner, Derryle (D.R.); Brian Johnson; Brackatiz, Ronald (R.K.); Broski, James (J.W.); Brown, Mark (M.D.); Campbell, Andrea (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Caessia, William (W.C.); Castleman, William (W.G.); Cerdifvire, James (J.C.); Cervantes, Eduardo (E.J.); Chris Campbell; Clechanowski, Mark (M.S.); Ougston, Shane (S.A.); Coats, Richard (R.M.); Colatruoglio, Vince (V.E.); Cox, Tom (T.T.); D'Agostino, Antonio (A.); Davis, Jerry (J.W.); Debbie Palani; Dhrethwal, Dave (D.S.); Duranske, Dennis (D.R.); Dyson, Simon (S.C.); Eggert, Daniel (D.C.); Fike, Barbara (B.G.); FJORDAN2 was deleted 20020509; Florence, Jeremy (J.D.); Fluker, James (J.A.); Fowlkes, Michael (M.S.); Francisco Fernandez (E-mail); Franklin, Taj (T.); Gamble, Craig (C.R.); Gazzdeck, Timothy (T.A.); Gerke, David (D.W.); Giles, Anthony (A.T.); Gilmer, David (D.C.); Giordano, Mike (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Graham, Robert (S.); Granados, Rodolfo (R.); Groom, Reginald (R.); Guzzardo, Steve (S.P.); Hegde, Demodar (D.M.); Helmstadter, Donald (D.G.); Heltke, Bruce (B.W.); Holloway, Scott (S.S.); Hopkins, Harry (H.S.); J. Sowards; Jahshan, John; Johnson, Gary (G.A.); King, Steve (S.J.); Kintia, Brian (B.W.); Kirzall, Ish (I.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kunde, Gief (G.); Landzabal, Sergio (S.); Lizzotte, Brian (B.W.); Lortus, Brett (B.R.); Lubo Djuric; MacDonald, George (G.F.); Madaj Jr., Stan (S.P.); Majroub, Malek (Z.); Marsac, Lance (L.D.); Matthews, Gary (G.); Mayslewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Mihora, Bob (R.S.); Miller, Malinda (M.S.); Mitchell, Carol (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.); Nemeth, Steve (S.L.); O'Connor, Jim (James W.); Patel, Praful (P.J.); Pissanda, David (D.B.); Post-barnes, Donna (D.F.); Popariss, Michael (M.J.); Pullala, Ananth (A.); Purvis, Bruce; Ramey, George (G.); Raichenbach, Ronald (R.W.); Rollin, Anthony (A.D.); Rossman, Michael (M.D.); Samimy, Bahman (Benny.); Sands, Roger (R.P.); Schnekler, Jeff; Sheridan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Smith, David (D.A.); Smith, Tennille (T.C.); Soulliere, James (J.K.); Spaniak, Terrence (T.E.); Stevenson, Ethel (E.E.); Stojov, Tony (T.); Stump, Steven (S.M.); Sturgeon, Bill (W.); Swick, Curt (C.); Szczepaniak, Gerard (G.); Tarszkiewicz, Alexande (A.S.); Thomas, Ken (K.C.); Torostan, David (D.A.); Tourco, Lyle (L.W.); Tucker, Shanika (S.M.); Tyrell, Larry (L.J.); Vangavoku, Sreedhar (S.); Vinogradov, Alex (A.); Walker, Cheryl (C.); Walsh, Gerald (G.); Washington, Eric (E.D.); Wegryzn, Michael (M.J.); Wepler, Ron (R.L.); White, Christopher (C.); Whiteley, Christine (C.); Wiatr, Joseph (J.M.); Wilkins, Robert (R.M.); Williams, Anthony (A.J.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Willis, Deon (D.G.); Zigler, Brad (B.T.)

Subject: Powertrain PQR - May 29th - Agenda

Agenda for 5/29/02
FACTS Overview

R. Wepler

ERS2-027-G 0730

TF - C90 Connection
Other Wiring Concerns - Warranty
TF - MTX Shift Adjust
Gas Cap - 6 Sigma Project
Evap/VMV - 6 Sigma
TRS Missing O-Ring - G8D

A. D'Agostino/S. Holloway
L. Djuric/J. Palmer
K. Arszukowicz/E. Moses
D. Tedone/C. Whiteley
K. Coryea/C. Whiteley
Van Dyke

Doran Oboza

Powertrain Quality Analyst - Wayne Assembly Plant
Phone - 734-457-0804
Pager - 734-298-5439
email - doboza1@ford.com

"I would rather wake up in the middle of nowhere, than in any city in the world."

Steve McQueen

From: Freeland, Mark (M.)
Sent: Tuesday, May 28, 2002 10:51 AM
To: Park, Kyong
Subject: RE: Parts data for Analytical Solutions

Sorry for forgetting to attach the document, but have it now as it was on the CD we gave you in NM. Will talk with you at the 1:00 pm later today.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Saturday, May 18, 2002 11:08 AM
To: Freeland, Mark (M.)
Subject: RE: Parts data for Analytical Solutions

Mark,
You forgot to attach the attachment.
Thanks.
Kyong

> -----Original Message-----

> From: Freeland, Mark (M.) [SMTP:mfreela1@ford.com]
> Sent: Thursday, May 16, 2002 6:36 PM
> To: Kyong Park (E-mail); Brady Davies (E-mail); Maurer, James (J.B.);
> Gates, Freeman (F.C.)
> Cc: Plante, Paul (P.G.); Akolkar, Shrikant (S.V.); Janda, Jon (J.M.);
> Verner, Carol (C.J.); Danae, Adam (A.V.)
> Subject: Parts data for Analytical Solutions

> Attached is an updated data file for the Analytical Solutions parts.

> Jon and Shri re-examined each part and updated the data to insure that
> they had all been examined consistently and with their most recent
> knowledge at hand.

> Please dispose of older versions of this file.

> Copies of the photographs will be distributed on CD and hard copy when we
> get to NM.

> Regards

ERG2-827-8 8732

> Mark Freeland
>
> > 6-Sigma Black Belt
> > Engine Research Department
> > Ford Research Laboratory
> > P.O. Box 2053
> > MD 2629 - SRL - Room 1517
> > Dearborn, MI 48121-2053 USA
> email: mfreelal@ford.com
> Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 17, 2002 9:15 AM
To: Alles, Sheran (S.A.); Rossi, Roberto (R.A.)
Cc: Plante, Paul (P.G.)
Subject: RE: Pick up the buy back focus

I will be here today, in the office all morning and in meetings all afternoon.
Monday and Tuesday next week I will be in New Mexico. So if you can't make it today then you will have to get the car from Tim Potter next week.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Alles, Sheran (S.A.)
Sent: Friday, May 17, 2002 7:36 AM
To: Freeland, Mark (M.); Rossi, Roberto (R.A.)
Subject: RE: Pick up the buy back focus

Mark,

Today is not good for me as I have a whole day test in the AudiLab with an outside supplier.

Rob, how is your schedule today, could you pick up the vehicle. The current Amp and probes are with Ron after cal. Also previously we had a loop on Vref, maybe this is the best place to monitor the current as it is inside the vehicle, your thoughts.....

Regards

-Sheran

---Original Message---

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 9:50 PM
To: Alles, Sheran (S.A.); Rossi, Roberto (R.A.)
Cc: Plante, Paul (P.G.)
Subject: Pick up the buy back focus

I'm still waiting for you to pick up the buy back focus!

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA

ERR2-827-G 8777

email: mfreeial@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 17, 2002 9:13 AM
To: Simko, Steven (S.J.)
Subject: RE: Preparation for dPFE trip to Analytical Solutions

OK I will drag you're ass in!!!
Meeting is just to do a data dump for Ed.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Simko, Steven (S.J.)
Sent: Friday, May 17, 2002 7:39 AM
To: Freeland, Mark (M.)
Subject: RE: Preparation for dPFE trip to Analytical Solutions

Mark,

I will make the 1:30 PM meeting today. I will also try to get that Steve Simler guy to come too! :-)

Steve

PS As always, life is busy, so please stop by on your way to the meeting room and drag me down there.

—Original Message—

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 12:57 PM
To: Hargas, Jon (.); Simko, Steven (S.J.); Simler, Steven (S.K.)
Subject: RE: Preparation for dPFE trip to Analytical Solutions

OOPS,

Sorry Steve Simler, it was not meant for you.

Sorry Steve Simko, the invite was meant for you.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053

ER02-927-G 6779

MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

—Original Appointment—

From: Hanges, Jon (.)
Sent: Thursday, May 16, 2002 11:55 AM
To: Freeland, Mark (M.)
Subject: Tentative: Preparation for dPFE trip to Analytical Solutions
When: Friday, May 17, 2002 1:30 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: SRL Conf Room 1347 (10)

Not unless you invite Steve Simko. Who is Steve Simler?
Jon

From: Freeland, Mark (M.)
Sent: Friday, May 17, 2002 9:09 AM
To: Poma, Amy (A.)
Subject: RE: Monday, May 13, 2002 Meeting Notes

Thank you Amy, I would appreciate all notes.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Poma, Amy (A.)
Sent: Friday, May 17, 2002 8:14 AM
To: Freeland, Mark (M.)
Subject: RE: Monday, May 13, 2002 Meeting Notes

Thanks for the note. I will be sending out a note. The Tuesday May 21st meeting is being cancelled. FYI, Paul is still having his Monday 1-3. We were going to cancel but then realized the following Monday is Memorial Day and it would be too long until the next meeting so he then decided to have Monday's May 20th meeting. I will forward any notes.

Have a good trip.

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CQ-156
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 7:47 PM
To: Poma, Amy (A.)
Subject: RE: Monday, May 13, 2002 Meeting Notes

Amy,

I will not be at the meeting as I will be at Analytical Solutions with Freeman & Jim.
See you on the 23rd.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department

ERS2-027-G 0017

Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreola1@ford.com
Tel: (313) 594-7645

-----Original Message-----

From: Poma, Amy (A.)
Sent: Wednesday, May 15, 2002 10:49 AM
To: Akins, Mary (M.); Altes, Sheran (S.A.); Awad, Maimoud (M.I.); Freeland, Mark (M.); Gates, Freeman (F.C.); Janda, Jon (J.M.); John Jahshan (E-mail); Maurer, James (J.B.); McCoy, James (J.D.); Plante, Paul (P.G.); Poma, Amy (A.); Rossi, Roberto (R.A.); Verner, Carl (C.)
Subject: Monday, May 13, 2002 Meeting Notes

Team-

Attached please find notes from the May 13th meeting. Also attached is the Agenda for May 20th.

<< File: IssuesResolutionMtg.doc >>

<< File: IssuesResolutionAgenda.doc >>

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CQ-156
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 9:50 PM
To: Alles, Sheran (S.A.); Rossi, Roberto (R.A.)
Cc: Planie, Paul (P.G.)
Subject: Pick up the buy back focus

I'm still waiting for you to pick up the buy back focus!

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 9:38 PM
To: Kyong Park (E-mail); Brady Davies (E-mail); Maurer, James (J.B.); Gatas, Freeman (F.C.)
Cc: Pienta, Paul (P.G.); Akolkar, Shrikant (S.V.); Janda, Jon (J.M.); Verner, Carol (C.J.); Danes, Adam (A.V.)
Subject: Parts data for Analytical Solutions

Attached is an updated data file for the Analytical Solutions parts.

Jon and Shri re-examined each part and updated the data to insure that they had all been examined consistently and with their most recent knowledge at hand.

Please dispose of older versions of this file.

Copies of the photographs will be distributed on CD and hard copy when we get to NM.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 7:47 PM
To: Poma, Amy (A.)
Subject: RE: Monday, May 13, 2002 Meeting Notes

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See you on the 23rd.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Poma, Amy (A.)
Sent: Wednesday, May 15, 2002 10:49 AM
To: Akina, Mary (M.); Ales, Sheran (S.A.); Awad, Mahmoud (M.L.); Freeland, Mark (M.); Gates, Freeman (F.C.); Janda, Jon (J.M.); John Jahshan (E-mail); Maurer, James (J.B.); McCoy, James (J.D.); Planke, Paul (P.G.); Poma, Amy (A.); Ross, Roberto (R.A.); Verner, Carol (C.L.)
Subject: Monday, May 13, 2002 Meeting Notes

Team-

Attached please find notes from the May 13th meeting. Also attached is the Agenda for May 20th.

<< File: IssuesResolutionMtg.doc >>

<< File: IssuesResolutionAgenda.doc >>

Amy Poma
V-Engine Engineering-Project Mgmt.
POEE Building, FMEI Cube CQ-156
phone-313-390-8849, fax: 313-390-4084
apoma2@ford.com

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 7:23 PM
To: 'Davies, Brady'
Subject: RE: FREELAND, MARK

Thanks Brady, offer accepted.

I hope we can all get together for dinner. Ed Sickafus is keen to meet with you both also. Ed will be here tomorrow afternoon to get back up to speed with SRL work to date, hopefully Jim and Freeman will join us also. I will try and set a time and place to meet with them if you agree.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Davies, Brady [mailto:BDavies@kavlico.com]
Sent: Thursday, May 16, 2002 7:10 PM
To: Freeland, Mark (M.)
Cc: Park, Kyong
Subject: RE: FREELAND, MARK

Kyong and I can pick you up and then take you to dinner if thats okay.

> -----Original Message-----

> From: Freeland, Mark (M.) [SMTP:mfreelal@ford.com]
> Sent: Thursday, May 16, 2002 3:39 PM
> To: Ed Sickafus (E-mail); Kyong Park (E-mail); Brady Davies (E-mail);
> Maurer, James (J.B.); Gates, Freeman (F.C.)
> Subject: FW: FREELAND, MARK

>
> This is my itinerary for Sunday, different from Freeman's because by the
> time I tried to book NW the price had gone up another \$500! So I booked a
> cheaper option with American.

>
> So, can someone pick me up at the airport, if not I will taxi to the
> hotel.

> Thanks

> Regards

> Mark Freeland

>

> > 6-Sigma Black Belt
> > Engine Research Department
> > Ford Research Laboratory
> > P.O. Box 2053
> > MD 2629 - SRI, - Room 1517
> > Dearborn, MI 48121-2053 USA
> email: mfreelal@ford.com
> Tel.: (313) 594-7645

> -----Original Message-----

> From: PNR-american express [mailto:pnr-notifications@itn.net]
> Sent: Thursday, May 16, 2002 6:32 PM
> Subject: FREELAND, MARK

> *****

> TRAVEL BOOKING CONFIRMATION

> *****
> Your company's Travel Department has requested this Message be sent each
> time you book travel for company business. If you wish to change that
> arrangement please contact your Travel Department.

> *****
> *****
> **

> CRS Record Locator # 2MV6E4
> Airline Record Locator #1 AA-GNVLQK

> *****
> **

> Name(s) of people traveling:
> Passenger #1: MARK FREELAND
> Meal: standard

> Fare Details: DTT AA X/DFW AA ABQ 286.51AA X/STL AA DTT 282.32USD568.83
> END
> AA ZPDTWDFWABQSTL XT10.00AY15.00XF DTW4.5DFW3ABQ3 STL4.5

> Baggage Allowance: 2 pieces

> *****
> **

> ITINERARY

> Flight/Equip.: American Airlines 1863 Fokker 100
> Depart: Detroit(DTW)/Sunday May 19 1:13 pm
> Arrive: Dallas/Ft Worth(DFW)/Sunday May 19 3:09 pm
> Stops: non-stop Miles:987 Seats Requested: 17A
> Class: Coach

> Flight/Equip.: American Airlines 2055 McDonnell Douglas MD-80
> Depart: Dallas/Ft Worth(DFW)/Sunday May 19 4:07 pm
> Arrive: Albuquerque(ABQ)/Sunday May 19 5:07 pm
> Stops: non-stop Miles:569 Seats Requested: 27F
> Class: Coach

> Flight/Equip.: American Airlines 2810 Operated by: Twa McDonnell Douglas

> MD-80

> Depart: Albuquerque (ABQ) / Tuesday May 21 8:45 am
> Arrive: St Louis (STL) / Tuesday May 21 12:01 pm
> Stops: non-stop Miles:934 Seats Requested: 27F
> Class: Coach

> Flight/Equip.: American Airlines 2616 Operated by: Twa McDonnell Douglas

> MD-80

> Depart: St Louis (STL) / Tuesday May 21 1:15 pm
> Arrive: Detroit (DTW) / Tuesday May 21 3:55 pm
> Stops: non-stop Miles:440 Seats Requested: 17A
> Class: Coach

> Total Airfare (including taxes) 648.50 648.50

> Flight segments must be ticketed by close of business on May 19.

> *****

> **

> AGENCY INFORMATION
> Agency: American Express
> Dearborn, MI

> *****

> **

> BILLING INFORMATION
> Name: Mark Freeland
> Address: 2101 Village Road
> Mail Stop: SRL Room 1517/MD 2629
> Dearborn, MI 48121-2053
> Country: USA
> Day Phone: 1-313-5947645
> Email: MFREELAL@ford.com

> *****

> **

> PAYMENT INFORMATION
> Visa Number: ON FILE
> Expires: ON FILE

> *****

> **

> SPECIAL REQUESTS

> *****

> **

> HAVE A GREAT TRIP!

>

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 6:39 PM
To: Ed Sickafus (E-mail); Kyong Park (E-mail); Brady Davies (E-mail); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: FW: FREELAND, MARK

This is my itinerary for Sunday, different from Freeman's because by the time I tried to book NW the price had gone up another \$500! So I booked a cheaper option with American.

So, can someone pick me up at the airport, if not I will taxi to the hotel.

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: PNR-american express [mailto:pnr-notification@itn.net]
Sent: Thursday, May 16, 2002 6:32 PM
Subject: FREELAND, MARK

TRAVEL BOOKING CONFIRMATION

Your company's Travel Department has requested this Message be sent each time you book travel for company business. If you wish to change that arrangement please contact your Travel Department.

CRS Record Locator # 2MV6E4
Airline Record Locator #1 AA-GNVLQK

Name(s) of people traveling:
Passenger #1: MARK FREELAND
Meal: standard

Fare Details: DTT AA X/DFW AA ABQ 286.51AA X/STL AA DTT 282.32USD568.83 END AA
ZPDTWDFWABQSTL XT10.00AY15.00XF DTW4.5DFW3ABQ3 STL4.5

Baggage Allowance: 2 pieces

ITINERARY

Flight/Equip.: American Airlines 1863 Fokker 100
Depart: Detroit(DTW)/Sunday May 19 1:13 pm
Arrive: Dallas/Ft Worth(DFW)/Sunday May 19 3:09 pm
Stops: non-stop Miles:987 Seats Requested: 17A
Class: Coach

Flight/Equip.: American Airlines 2055 McDonnell Douglas MD-80
Depart: Dallas/Ft Worth(DFW)/Sunday May 19 4:07 pm
Arrive: Albuquerque(ABQ)/Sunday May 19 5:07 pm
Stops: non-stop Miles:569 Seats Requested: 27F
Class: Coach

Flight/Equip.: American Airlines 2810 Operated by: Twa McDonnell Douglas MD-80
Depart: Albuquerque(ABQ)/Tuesday May 21 8:45 am
Arrive: St Louis(STL)/Tuesday May 21 12:01 pm
Stops: non-stop Miles:934 Seats Requested: 27F
Class: Coach

Flight/Equip.: American Airlines 2616 Operated by: Twa McDonnell Douglas MD-80
Depart: St Louis(STL)/Tuesday May 21 1:15 pm
Arrive: Detroit(DTW)/Tuesday May 21 3:55 pm
Stops: non-stop Miles:440 Seats Requested: 17A
Class: Coach

Total Airfare (including taxes) 648.50 648.50
Flight segments must be ticketed by close of business on May 19.

AGENCY INFORMATION

Agency: American Express
Dearborn, MI

BILLING INFORMATION

Name: Mark Freeland
Address: 2101 Village Road
Mail Stop: SRL Room 1517/MD 2629
Dearborn, MI 48121-2053
Country: USA
Day Phone: 1-313-5947645
Email: MFRBLA1@ford.com

PAYMENT INFORMATION

Visa Number: ON FILE
Expires: ON FILE

SPECIAL REQUESTS

HAVE A GREAT TRIP!

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 2:41 PM
To: Gates, Freeman (F.C.)
Subject: Ed's Contact Info

(734) 675-8501

ntelleck@ic.net

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 12:57 PM
To: Hargas, Jon (.); Simko, Steven (S.J.); Simler, Steven (S.K.)
Subject: RE: Preparation for dPFE trip to Analytical Solutions

OOPS,

Sorry Steve Simler, it was not meant for you.

Sorry Steve Simko, the Invite was meant for you.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Appointment---

From: Hargas, Jon (.)
Sent: Thursday, May 16, 2002 11:55 AM
To: Freeland, Mark (M.)
Subject: Tentative: Preparation for dPFE trip to Analytical Solutions
Where: Friday, May 17, 2002 1:30 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: SRL Conf Room 1347 (10)

Not unless you Invite Steve Simko. Who is Steve Simler?
Jon

ERR2-027-G 0002

Subject: Preparation for dPFE trip to Analytical Solutions
Location: SRL Conf Room 1347 (10)

Start: Fri 6/17/2002 1:30 PM
End: Fri 6/17/2002 4:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Maurer, James (J.B.); Carter, Roscoe (R.O.); Hanges, Jon (.); Ed Sickafus (E-mail); Gates, Freeman (F.C.)
Optional Attendees: Bimler, Steven (S.K.); Uy, Dairene (D.)
Resources: SRL Conf Room 1347 (10)

To update Ed with all new information from FRL and Powertrain

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 10:32 AM
To: Rossi, Roberto (R.A.); Alles, Sheran (S.A.)
Subject: Buy Back Focus is waiting for you

Roberto & Sheran

I still have the keys to the buy back focus sitting on my desk awaiting you.
When will you come and get it?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 10:22 AM
To: Verner, Carol (C.J.); Janda, Jon (J.M.); Akolkar, Shrikant (S.V.)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Gates, Freeman (F.C.); Williamson, Richard (E.)
Subject: Parts needing testing

Carol, Jon & Shri

I have three parts which should be evaluated with our established process. Each is interesting for it's own reason.

SRL723 a 0 mile failure (failed on installation at a dealership) i.e. the second replacement on the same day. It's from a 2001 MY 2.0L Zetec Focus.

SRL724 from an Escape staller which stalls while driving at highway speeds, and belongs to a dealer service manager's wife.

SRL725 from an Escape staller which has been in for three dealer visits for stalling, i.e. the problem was not resolved by the previous fixes.

Can you please process these parts. I will leave them with Tim Potter in his lab with the paperwork.

In addition, I would like to collect as many high current devices as we can find.

Carol, could you do a screening test of simply plugging in and measuring I_{vref} for each sensor from my warehouse of untested parts. Don't record data for each sensor, just sort for $I_{vref} >$ say 20 mA. Then, any which are >20 mA we can give an SRL # to and run through the full test.

Thanks

Rick,

Thanks for the parts you dropped off this morning, 723 was from this morning's batch.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

EA02-827-G 8870

From: Freeland, Mark (M.)
Sent: Wednesday, May 15, 2002 3:18 PM
To: Ed Sickafus (E-mail)
Subject: FW: Trip to Analytical Solutions In New Mexico, USA

Ed,

For info

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Tackman, Karen [mailto:KTackman@kavlico.com]
Sent: Wednesday, May 15, 2002 2:08 PM
To: Park, Kyong; 'Maurer, James (J.B.)'
Cc: Davies, Brady; 'mfreelal@ford.com'; 'fgates@ford.com'
Subject: RE: Trip to Analytical Solutions in New Mexico, USA

Hotel name correction:

> Kyong Park and Brady Davies will be arriving in Albuquerque on Sunday, May
> 19, 2002. They will be staying at Holiday Inn Express, 10330 Hotel Avenue
> NE, Albuquerque. The phone number is (505) 275-8900. If there is any
> additional information you may need, please let me know.

>

> -----Original Message-----

> From: Park, Kyong
> Sent: Tuesday, May 14, 2002 3:53 PM
> To: Maurer, James (J.B.)
> Cc: Tackman, Karen; Davies, Brady; mfreelal@ford.com;
> fgates@ford.com
> Subject: Trip to Analytical Solutions in New Mexico, USA

>

> Dear Jim,

> Brady and I will be flying out to New Mexico on Sunday, May 19,
> 2002. We are planning to arrive at around 4 PM in local time. We will fly
> back Monday evening.

>

> As soon as I learn our itinerary, we will let you know.

> Yours,
> Kyong

From: Freeland, Mark (M.)
Sent: Wednesday, May 15, 2002 3:18 PM
To: Ed Sickafus (E-mail); Gates, Freeman (F.C.)
Subject: FW: Ed Sickafus Trip to A.S.

Freeman,

I just talked with Ed, he can join us on Sunday/Monday.

Can you make the travel arrangements for Ed. If not then he will make his own and bill it back to Ford.

Also we should meet with Ed on Friday. When is good for you and Jim.

Ed's phone number is (734) 675-8501 so you can contact him directly.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Plante, Paul (P.G.)
Sent: Wednesday, May 15, 2002 2:13 PM
To: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: Ed Sickafus Trip to A.S.

Bill McCarty confirmed OK to go per Kavlico.

Mark, contact him now and have him prep. He is on the list already that Freeman sent to Jim O. for approval.

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube BG049, Pillar D5
Tele. 313-84-54138; Fax 39-02513
Text Pager: 734-296-1905
E Mail: pplante@ford.com (CDS ID PPLANTE)

ERR2-827-G 6888

From: Freeland, Mark (M.)
Sent: Wednesday, May 15, 2002 9:41 AM
To: Park, Kyong; Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; Freeland, Mark (M.); Gates, Freeman (F.C.)
Subject: RE: Trip to Analytical Solutions in New Mexico, USA

Good,
Freeman is going to make the travel arrangements for himself and me. We will see you on Sunday.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Tuesday, May 14, 2002 6:53 PM
To: Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; mfreelal@ford.com; fgates@ford.com
Subject: Trip to Analytical Solutions in New Mexico, USA

Dear Jim,
Brady and I will be flying out to New Mexico on Sunday, May 19, 2002. We are planning to arrive at around 4 PM in local time. We will fly back Monday evening.

As soon as I learn our itinerary, we will let you know.
Yours,
Kyong

From: Freeland, Mark (M.)
Sent: Wednesday, May 15, 2002 9:41 AM
To: 'Park, Kyong'; Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; Freeland, Mark (M.); Gates, Freeman (F.C.)
Subject: RE: Trip to Analytical Solutions in New Mexico, USA

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Freeman is going to make the travel arrangements for himself and me. We will see you on Sunday.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Tuesday, May 14, 2002 6:53 PM
To: Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; mfreela1@ford.com; fgates@ford.com
Subject: Trip to Analytical Solutions in New Mexico, USA

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As soon as I learn our itinerary, we will let you know.
Yours,
Kyong

From: Freeland, Mark (M.)
Sent: Wednesday, May 16, 2002 9:41 AM
To: 'Park, Kyong'; Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; Freeland, Mark (M.); Gates, Freeman (F.C.)
Subject: RE: Trip to Analytical Solutions in New Mexico, USA

Good,
Freeman is going to make the travel arrangements for himself and me. We will see you on Sunday.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
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> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Tuesday, May 14, 2002 6:53 PM
To: Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; mfreelal@ford.com; fgates@ford.com
Subject: Trip to Analytical Solutions in New Mexico, USA

Dear Jim,
Brady and I will be flying out to New Mexico on Sunday, May 19, 2002. We are planning to arrive at around 4 PM in local time. We will fly back Monday evening.

As soon as I learn our itinerary, we will let you know.
Yours,
Kyong

ER02-027-G 0001

From: Freeland, Mark (M.)
Sent: Tuesday, May 14, 2002 4:57 PM
To: Rossi, Roberto (R.A.)
Subject: RE: Vehicle

OK,

I'll drive it again tonight. Call me some time mid morning to arrange pick up.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Rossi, Roberto (R.A.)
Sent: Tuesday, May 14, 2002 3:05 PM
To: Freeland, Mark (M.)
Cc: Alles, Sheran (S.A.)
Subject: Vehicle

Mark,

Can we pick up the vehicle sometime on Wednesday?

Thanks,

Robert Rossi
Electrical/Electronic Systems Campaign Prevention Specialist
North American Car Lifestyle Vehicles
Phone/Fax: 84-51438

ERB2-827-G 8818

From: Freeland, Mark (M.)
Sent: Tuesday, May 14, 2002 4:58 PM
To: Bryant, Bruce (B.D.)
Subject: Accepted: Discuss DPFE sensor project

From: Freeland, Mark (M.)
Sent: Tuesday, May 14, 2002 12:08 PM
To: Plante, Paul (P.G.)
Subject: RE: Assignments Follow Up-Action Required-DPFE Stalls Meeting

Paul,

I will not be able to complete this assignment on time. I am held up awaiting parts and information from Freeman. Shouldn't this should really be an EESE task?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Monday, May 13, 2002 11:02 AM
To: Patel, Anup (A.M.); McCoy, James (J.D.); Awad, Mahmoud (M.I.); Freeland, Mark (M.); Maurer, James (J.B.)
Cc: Plante, Paul (P.G.); Poma, Amy (A.); 'jahshan@vision.com'; Gates, Freeman (F.C.); Perry, Brian (B.J.); O'Neill, Jim (J.D.)
Subject: Assignments Follow Up-Action Required-DPFE Stalls Meeting

Assignments and due dates from the 5/2/02 DPFE Stalls Working Group meeting are below. Please submit your answers to Amy Poma by due date. Answers will be summarized for review at 14D meeting Tuesday/Thursday.

Amy, please give answers to Jim Maurer and Paul Plante.

<< File: stalls.xls >>

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube BG049, Pillar D5
Tele. 313-84-54138; Fax 39-02513
Text Pager: 734-296-1905
E Mail: pplante@ford.com (CDS ID PPLANTE)

From: Freeland, Mark (M.)
Sent: Tuesday, May 14, 2002 11:58 AM
To: 'Jahshan, John (J.H.)'
Subject: RE: Active Current Probe for Buy Back Focus

Thanks John

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Monday, May 13, 2002 10:28 PM
To: 'Freeland, Mark (M.)'; Jahshan, John (J.H.)
Cc: 'McCoy, James (J.D.)'; 'Janda, Jon (J.M.)'
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

I said at the meeting earlier today, that I might get to program the modules on Wednesday. If I get them all completed, then I will bring them to the meeting on Thursday.

-----Original Message-----

From: Freeland, Mark (M.)
To: 'Jahshan, John (J.H.)'
Cc: McCoy, James (J.D.); Janda, Jon (J.M.)
Sent: 5/13/02 3:55 PM
Subject: RE: Active Current Probe for Buy Back Focus

John,

When can you provide me with the first 3 PCM/s with the J1 solder issue? After we both drive them, then I think we should open each module and identify which pins were affected on each module.

Another suggestion, should we use a hair dryer in the vehicle (or the HVAC system) to blow hot and cold air at the PCM to encourage any the intermittent to occur?

Thanks

Regards

ERG2-827-G 18257

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Monday, May 13, 2002 8:03 AM
To: 'Freeland, Mark (M.)'; 'Potter, Timothy (T.J.)'
Subject: RE: Active Current Probe for Buy Back Focus

Hi Tim,

When do you have time to instrument the Vref at the DPFE on the MT Focus?

John H. Jahshan
FOEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T,
YOU'RE
RIGHT"

-----Original Message-----

From: Jahshan, John (J.H.)
Sent: Wednesday, May 08, 2002 3:26 PM
To: 'Freeland, Mark (M.)'; Potter, Timothy (T.J.)
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

Ken has found a probe but we do not have an amp for it. Do you have an amp?

I currently have the MT 4 door Focus instrumented for Vref at the PCM only.

Hi Tim,

I would like to get the Vref signal at the DPFE sensor instrumented.
When
can you help me out on this?

John H. Jahshan
PORE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>

"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T,
YOU'RE
RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreel1@ford.com]
Sent: Wednesday, May 08, 2002 10:34 AM
To: John Jahshan (E-mail)
Cc: Potter, Timothy (T.J.)
Subject: Active Current Probe for Buy Back Focus

John,

I still want to take you up on you're offer of an active current probe
for
the Buy Back Focus I we are driving at SRL. When do you think we could
have
it?

Tim,

When John gives us the probe, will the existing DC to AC converter
handle an
extra box? Would you please install it? Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
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> Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, May 14, 2002 11:07 AM
To: Markee, John (J.W.)
Cc: Helms, Jeffrey (J.H.)
Subject: FW: FRL OCM date changed from 5/20 to 5/22

Importance: High

John,

I am meeting with Dave Amos and Jeff Helms today to discuss what is appropriate for the OCM. For your information my project is tied to a 14D team working a powertrain issue which is under review by the ECRG and should go to the CCRG. It is also implicated in NHTSA Inquiry PEO1-043 2001-2002 Ford Escapes & Mazda Tribute. All information on the project is very sensitive. I will get back with you after my review with Dave Amos.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Dodge, Barbara (B.A.)
Sent: Tuesday, May 14, 2002 9:45 AM
To: Amos, David (D.E.); Freeland, Mark (M.)
Cc: Hodge, Belinda (B.); Markee, John (J.W.); Nagl, Chuck (C.H.)
Subject: FRL OCM date changed from 5/20 to 5/22
Importance: High

David & Mark: Please update your calendars - FRL OCM date has been changed from 5/20 to 5/22 . Six Sigma presentation will begin at 10:00am on 5/22 in Dr. Schmidt's conference room.

Mark: Please send John Markee an electronic copy of your presentation to be shown via Net Meeting. Also, if you need time to set-up in Dr. Schmidt's conference room please feel free to do so before the 10:00am start time. Thanks. .

Barbara Dodge
Administrative Assistant
RPIS Department
84-69288
bdodge1@ford.com

From: Freeland, Mark (M.)
Sent: Monday, May 13, 2002 6:37 PM
To: Williamson, Richard (E.)
Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Plante, Paul (P.G.); Akins, Mary (M.)
Subject: Vin Numbers from RO numbers

Rick,

There are two additional parts from the group which you supplied without VIN numbers which we are planning to send to an outside lab for analysis. It is very important to us to get the vehicle history associated with both of these parts.

Could you please make every effort to identify the VIN numbers from the RO numbers given below.

SRL ID No: SRL547 RO: 87591
SRL ID No: SRL614 RO: 3615309

SRL614 is particularly important as it is one of the Improved parts which was manufactured after 1/7/2002. It may be from a second repair, from a low mileage failure on a new vehicle or from a pre delivery failure. It exhibits one of the symptoms of a high current draw.

Thanks for you're assistance.

Regards

Mark Freeland

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Engine Research Department
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

ERR2-827-G 18297

From: Freeland, Mark (M.)
Sent: Monday, May 13, 2002 4:08 PM
To: Hargas, Jon (.)
Subject: FW: Re-delegated Approval Authority Levels

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: North American Business Expense [mailto:North American Business Expense]
Sent: Thursday, May 09, 2002 3:35 PM
To: All LL6 Ford Employees
Subject: Re-delegated Approval Authority Levels

Per Don Leclair's letter of April 12, 2002, Leadership Level 6s (LL6) will no longer be allowed to approve Travel Expense Reports (TER). Beginning June 1, 2002, all TERs must be approved by a LL5 or higher Manager. Other changes in approval authority levels for travel are;

Trip Authorization

Domestic Travel (Within North America)
Commercial LL2 or highest-level employee at the location
Company Aircraft - Scheduled Flights LL5
Company Aircraft - Non-Scheduled Group VP

Outside North America Vice President
Spousal Travel Vice President
Group Travel Vice President

All reservations must be made through the Company designated travel agency. Travel outside North America requires written pre-approval by a Corporate Vice-President. Travelers may obtain the pre-approval form at www.travel.ford.com <<http://www.travel.ford.com/>> (click on Policy ICON). E-mail completed forms to Vice President for approval. Travelers are to forward approved forms via e-mail to extravel@ford.com <<mailto:extravel@ford.com>> or fax to 313-323-4388. A copy of written authorization form must be attached to employee's TER/Receipt Transmittal. Travel expenses incurred without an authorized pre-trip approval form may not be reimbursed and may become the responsibility of the traveler.

EA82-827-G 18298

For further details refer to Don Leclair's letter that has been sent to P&SC Members and Controllers.

From: Freeland, Mark (M.)
Sent: Monday, May 13, 2002 3:55 PM
To: 'Jahshan, John (J.H.)'
Cc: McCoy, James (J.D.); Janda, Jon (J.M.)
Subject: RE: Active Current Probe for Buy Back Focus

John,

When can you provide me with the first 3 PCM/s with the J1 solder issue?
After we both drive them, then I think we should open each module and identify
which pins were affected on each module.

Another suggestion, should we use a hair dryer in the vehicle (or the HVAC
system) to blow hot and cold air at the PCM to encourage any the intermittent to
occur?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Monday, May 13, 2002 8:03 AM
To: 'Freeland, Mark (M.)'; 'Potter, Timothy (T.J.)'
Subject: RE: Active Current Probe for Buy Back Focus

Hi Tim,

When do you have time to instrument the Vref at the DPFB on the MT Focus?

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE
RIGHT"

-----Original Message-----

From: Jahshan, John (J.H.)

EP02-027-G 10300

Sent: Wednesday, May 08, 2002 3:26 PM
To: 'Freeland, Mark (M.)'; Potter, Timothy (T.J.)
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

Ken has found a probe but we do not have an amp for it. Do you have an amp?

I currently have the MT 4 door Focus instrumented for Vref at the PCM only.

Hi Tim,

I would like to get the Vref signal at the DPFK sensor instrumented. When can you help me out on this?

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfrelai@ford.com]
Sent: Wednesday, May 08, 2002 10:34 AM
To: John Jahshan (E-mail)
Cc: Potter, Timothy (T.J.)
Subject: Active Current Probe for Buy Back Focus

John,

I still want to take you up on you're offer of an active current probe for the Buy Back Focus I we are driving at SRL. When do you think we could have it?

Tim,

When John gives us the probe, will the existing DC to AC converter handle an extra box? Would you please install it? Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA

ERS2-827-3 18381

email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, May 13, 2002 12:33 PM
To: Nuno, Elena (E.S.)
Subject: Accepted: Need to discuss Mark Freeland's project on dPFE sensor

ER02-027-G 10303

From: Freeland, Mark (M.)
Sent: Monday, May 13, 2002 10:12 AM
To: Potter, Timothy (T.J.)
Subject: RE: Yokogawa Current Probe - follow up

Tim,

I don't need too much accuracy at the normal current level, so the 2 mA resolution should be just fine. Please proceed.

If we can borrow the evaluation unit while the paperwork goes through that would be great.

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Potter, Timothy (T.J.)
Sent: Monday, May 13, 2002 7:24 AM
To: Freeland, Mark (M.)
Subject: FW: Yokogawa Current Probe - follow up

Mark,

The Yokogawa current probe is marginal, but cheaper. Look at the specs below and let me know what you think. I will likely be in Mourne today.

Tim.

-----Original Message-----

From: Tony.Seccia@yca.com [mailto:Tony.Seccia@yca.com]
Sent: Friday, May 10, 2002 4:14 PM
To: tpotter1@ford.com
Subject: Yokogawa Current Probe - follow up

Tim,

For use with your DL1740 Digital Scope to measure in the mA range, we have the following:

Model 700937 - DC to 50MHz current probe, 15A max range.

Coat: \$1,795.00 each

Note: as your DL1740 has the /P4 probe power option, you can power the probe directly from the scope and you will not require any additional power supplies.

On your scope you can set the following:

Input: DC coupling, 1Mohm input impedance
Range: 2mV / div (which gives you 20mA / div current readings)
Probe: 1:1 ratio

Variable: you can change, this will let you zoom up to 10x, so you can see 2mA per division.

Answer to your question:

Yes - you should be able to read in the mA range. Either directly with 20mA per division setting or by zooming in the variable on the channel range.

I have a 700937 current probe in our office if you would like to evaluate before you buy.

Please let me know, thanks!

Tony Seccia
Account Manager
Yokogawa Corporation of America
Test & Measurement Division
Suite A-1
27260 Haggerty Road
Farmington Hills, MI 48331
Phone: 248-553-8700
Fax: 248-553-8881
Cell: 248-761-2086
Email: tony.seccia@us.yokogawa.com
www.yokogawa.com/tm
www.yca.com

You're invited....Basic Networking in Instrumentation
A seminar brought to you by Yokogawa
May 21, 2002
Hilton Inn - Southfield

Learn more about Networks, Ethernet, and connecting your lab instrumentation. RSVP via email or to request additional information.

Subject: Selection of dPFEs for the outside lab
Location: SRL Conf Room 2843 (12)

Start: Mon 5/13/2002 10:30 AM
End: Mon 5/13/2002 1:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Maurer, James (J.B.); Gates, Freeman (F.C.); Plante, Paul (P.G.)

Jon, Shri and Carol are already here. See you at 10:30

From: Freeland, Mark (M.)
Sent: Friday, May 10, 2002 12:48 PM
To: Plante, Paul (P.G.)
Subject: RE: VIN 1FMCU01191KF33250

Got you!

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Friday, May 10, 2002 12:34 PM
To: Freeland, Mark (M.)
Cc: Maurer, James (J.B.)
Subject: RE: VIN 1FMCU01191KF33250

Monday 1:00 PM for team resolution. See how easy this is, just dump everything associated with cars into this forum until people are so sick of hearing this, they take action or quite the team all together.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Friday, May 10, 2002 11:58 AM
To: Maurer, James (J.B.); Gatzes, Freeman (F.C.); Plante, Paul (P.G.); Awad, Mahmoud (M.I.)
Subject: VIN 1FMCU01191KF33250

Mahmoud,

Could you please pull this vehicle's history and give copies to the others on this note. Thanks

All,

Please review the vehicle history for this 3.0L Escape.

On 5/26/2001 this vehicle had the PCM reprogrammed for unexplained stalls, on 11/7/2002 it had the dPFE replaced at 13,342 miles for MIL, on 4/12/2002 it had a second dPFE changed for MIL (P0401)

I have the second dPFE, SRL719. and will propose that it be one that goes to the outside lab.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory

EP82-827-G 18311

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email: mfreelal@ford.com
Tel.: (313) 594-7645

EA82-827-G 18312

From: Freeland, Mark (M.)
Sent: Friday, May 10, 2002 11:58 AM
To: Maurer, James (J.B.); Gates, Freeman (F.C.); Plante, Paul (P.G.); Awad, Mahmoud (M.I.)
Subject: VIN 1FMCU01191KF33250

Mahmoud,

Could you please pull this vehicle's history and give copies to the others on this note. Thanks

All,

Please review the vehicle history for this 3.0L Escape.

On 5/28/2001 this vehicle had the PCM reprogrammed for unexplained stalls, on 11/7/2002 it had the dPFE replaced at 13,342 miles for MIL, on 4/12/2002 it had a second dPFE changed for MIL (P0401)

I have the second dPFE, SRL719. and will propose that it be one that goes to the outside lab.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 10, 2002 10:58 AM
To: Kyong Park (E-mail)
Subject: Parts received

Kyong,

The system works very well.
This morning I received the 10 parts you shipped yesterday.

Thank you

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 10, 2002 10:57 AM
To: Maurer, James (J.B.)
Cc: Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.); Awad, Mahmoud (M.I.); Perry, Brian (B.J.); McCoy, James (J.D.)
Subject: RE: INOP SBDS Systems

Jim,

Last night while I was doing my test drive on one of the Outside lab samples, I plugged in the NGST while the Ignition was on. It caused a very large transient on Vref!!! I have the data captured and will provide it when I get time to process it.

This may be relevant, possibly the act of hooking up SBDS may itself cause a latch to occur on some occasions, and explain why the tech. observed SBDS to be INOP.

Brian, any comments?

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Maurer, James (J.B.)
Sent: Friday, May 10, 2002 10:12 AM
To: Freeland, Mark (M.)
Subject: RE: INOP SBDS Systems

I suspect that this is trying to tell us that the PCM is asleep and therefore not communicating with the SBDS (service bay diagnostic system). Could also be a defective PCM or connector. Usually serial communication link is inside the vehicle and not subject to normal moisture/corrosive environment.

Regards,

Jim Maurer

James B. Maurer
V-Engine 6-Sigma Team Leader
Fuel Metering Dept. V Engine Engineering
Phone (313) 390-3672, Fax (313) 390-4084
Text Page: (313) 795-5219
Email: jmaurer@Ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 09, 2002 9:34 PM
To: Rossi, Roberto (R.A.)
Cc: Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.); Awad, Mahmoud (M.I.); Perry, Brian (B.J.)
Subject: INOP SBDS Systems

Roberto,

EA02-827-0 18315

I have seen a number of instances of "INOP SBDS System" at the same time as trouble with dPFE's.

Please check out the 3/26/2002 repairs on VIN # 1FAPP55U11A138704 for an example.

Could there be any link between an INOP SBDS and a transient voltage concern?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 10, 2002 10:52 AM
To: Potter, Timothy (T.J.)
Subject: RE: Yokogawa files

Thanks Tim.

I got the data from both traces and made nice pictures from the data.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Potter, Timothy (T.J.)
Sent: Friday, May 10, 2002 8:19 AM
To: Freeland, Mark (M.)
Subject: Yokogawa files

Mark,

I checked the files I put onto the shared drive and discovered that the time base had not been saved. I regenerated the files with smaller portions of the original data files. I also made sure that you can make a Excel graph of the data. I got carried away and so I saved the Excel files in the same directory. You may want to blow up or graph separately the Vref current, but I already spent too much time fussing with Microsoft.

Tim

From: Freeland, Mark (M.)
Sent: Thursday, May 09, 2002 9:34 PM
To: Rosal, Roberto (R.A.)
Cc: Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.); Awad, Mahmoud (M.I.); Perry, Brian (B.J.)
Subject: INOP SBDS Systems

Roberto,

I have seen a number of instances of "INOP SBDS System" at the same time as trouble with dPFE's.

Please check out the 3/26/2002 repairs on VIN # 1FAFP55U11A136704 for an example.

Could there be any link between an INOP SBDS and a transient voltage concern?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, May 08, 2002 6:16 PM
To: Rossi, Roberto (R.A.)
Cc: Planis, Paul (P.G.); Maurer, James (J.B.); Gatas, Freeman (F.C.)
Subject: Electrically, what would kill a CD player and a dPFE at the same time?

Roberto,

I have seen many instances of trouble with radios at the same time as trouble with dPFE's.

Please check out the 4/8/2002 repairs on VIN # 1FMCU60E91UC36801.

The CD player and the dPFE are both replaced the same visit.

Any thoughts on what kills CD players?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

Subject: Review inspection/electrical test results & Selection of dPFE sensors for the outside lab
Location: SRL Conf Room 1529 (10)

Start: Fri 5/10/2002 3:00 PM
End: Fri 5/10/2002 4:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Janda, Jon (J.M.); Akolkar, Shrikant (S.V.); Verner, Carol (C.J.)
Optional Attendees: Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Hargas, Jon (.)
Resources: SRL Conf Room 1529 (10)

From: Freeland, Mark (M.)
Sent: Thursday, May 09, 2002 4:24 PM
To: Notaboom, Jim (J.E.)
Cc: Gates, Freeman (F.C.); Maurer, James (J.B.); Plants, Paul (P.G.)
Subject: RE: U204 Stall Meeting Agenda - 5/9/02

Jim,

Thanks, the revised VIN number worked.

I see that this vehicle was in on 3/22/2002 with problems on the TPS Circuit. The dealer replaced the TPS on that date.

Can you check if the C90 connector on this vehicle is fully seated? The C90 is the connector between the engine and the Engine compartment loom which goes to the injectors, the TPS and the Fuel Rail Pressure Sensor.

There is no information in AWS on the stall issue at this time. Were there any codes set in the PCM? What date was the dealer visit for the stall? Is the vehicle still at the dealership?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Notaboom, Jim (J.E.)
Sent: Thursday, May 09, 2002 4:03 PM
To: Freeland, Mark (M.)
Subject: RE: U204 Stall Meeting Agenda - 5/9/02

I left out a 2; try 1FMYU04142KC10492.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 09, 2002 1:52 PM
To: Notaboom, Jim (J.E.)
Subject: RE: U204 Stall Meeting Agenda - 5/9/02

Jim,

The VIN number you provided is incomplete as it only has 16 characters. I want to look up the vehicle history in AWS, so can you get the correct VIN number to me.

Thanks

Regards

ER02-027-G 10510

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Noteboom, Jim (J.E.)
Sent: Thursday, May 09, 2002 3:46 PM
To: Senders, Muriel (M.S.); Altzoukari, Don (D.J.); Badgley, Joel (J.K.); Bauer, Scott (S.C.); Bhojwani, Karmal (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); 'Cary Powell'; Chick, John (J.); Chin, Ming-Miu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); 'Dan Rothweiler'; De Pena, Juan (J.E.); Diez, Timothy (T.P.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Giles, Stuart (S.); Gokhale, Renuka (R.V.); Grimes, Jeff (J.R.); Hanson, George (G.C.); Herr, George (G.J.); Hoffman, Michael (M.V.); Holmes, Jeffrey (J.R.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); John McDonald; Jones, Andy; Jordan, Donald (D.E.); Kanai, Shinji (S.); King, Robert (R.F.); Kostermann, Eric (E.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Limtiaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Matasa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Tom; Morishima, Shigeki (S.); 'Naveed Khan'; Nematollahi, Sonya (S.); 'Nikolai, Bernie'; Orman, James (J.W.); Povers, Ken (K.W.); Price, Martin (M.); Raquapau, Alden (A.P.); Shah, Kiran (K.C.); Shirashi, Masaru (M.); Solgerbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Sullivan, Jamie (J.P.); Takasawa, Keith (K.D.); Takubo, Hiroshi (H.); Vecchio, Anne Marie (A.); Wakenell, Ray (R.A.); Wettach, Bill (B.); Williams, Les (L.W.); Williamson, David (D.E.); Yeung, Lem (.)
Subject: RE: LZD4 Stall Meeting Agenda - 5/9/02

Inspection results of '02 Escape VIN: 1FMYU0414KC18482

LOCATION: John Elway West, Denver
OWNER: Mike Cochran (JEW Service Mgr.)
MILEAGE: 3342
BUILD DATE: 1-29-02

COMPLAINT: Stalled while driving approx. 50 mph. Noticed dash lights came on and steering became stiff; coasted to side of road, went to crank (did not turn key off) and the engine restarted. Occurred at around 2500 miles and has not happened since.

DIAGNOSTICS: Went through the latest TSB/ISM draft; no concerns were found except for the following:

- There was battery acid in the batt. tray that had seeped down onto grounds G-104 and 105; some corrosion was evident.
- The customer's key chain contained several oz. of additional weight.

Jim Noteboom
Powertrain Field Quality Specialist/Denver
Phone: 303.674.4015 FAX: 303.674.5730
Page: 1.888.375.1980

EP82-827-G 10518

From: Freeland, Mark (M.)
Sent: Thursday, May 09, 2002 4:08 PM
To: Myers, Dan (D.P.)
Cc: Gates, Freeman (F.C.)
Subject: RE: RO# 126443

Thanks Dan.

I am going to drive this returned dPFE (Log number SRL642) from this car on a customer buy back Focus tonight. The sensor is unusual in that it is currently working on the bench and is within spec. I really believe that it was not working when it was on the customer's vehicle as the drivability symptoms and PCM codes were consistent with the sensor being failed for two consecutive drive cycles.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Myers, Dan (D.P.)
Sent: Wednesday, May 08, 2002 9:13 PM
To: Freeland, Mark (M.)
Subject: RO# 126443

Mark,
The VIN for the requested RO is: 1FAFP353X1W140177
It is a 2001 Focus 2.0L Zetec DOHC.

I am sorry if it was copied wrong on the tag.

Thanks,

Dan Myers

Field Quality Engineer - Iowa
Enhanced Concern Identification

dmyers4@ford.com

Cell 563-505-9002
Office 563-289-9991
Fax 563-289-1364

From: Freeland, Mark (M.)
Sent: Thursday, May 09, 2002 3:52 PM
To: Noteboom, Jim (J.E.)
Subject: RE: U204 Stall Meeting Agenda - 5/9/02

Jim,

The VIN number you provided is incomplete as it only has 16 characters. I want to look up the vehicle history in AWS, so can you get the correct VIN number to me.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mtfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Noteboom, Jim (J.E.)
Sent: Thursday, May 09, 2002 3:46 PM
To: Sanders, Muriel (M.S.); Altocanian, Don (D.J.); Badgley, Joel (J.K.); Bauer, Scott (S.C.); Bhojwani, Kamel (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); 'Cary Powell'; Chick, John (J.); Chih, Ming-Hsi (M.N.); Chin, Derral (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); 'Dan Rothweiler'; De Pena, Juan (J.E.); Diez, Timothy (T.P.); Fascetti, Bob (R.J.); Fournelle, Gilbert (G.); Freeland, Mark (M.); Giles, Stuart (S.); Gokhale, Renuka (R.V.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Harr, George (G.J.); Hofman, Michael (M.V.); Holmes, Jeffrey (J.R.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); 'John McDonald'; Jones, Andy; Jordan, Donald (D.E.); Karal, Shirji (S.); King, Robert (R.P.); Klotzmann, Eric (E.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Limbaco, Steven (S.); Linde, Peter (P.A.); Liu, Jane (J.); Marck, Edmond (E.C.); Matsua, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mooney, Larry (L.); Moothous, Scott (S.R.); Morgan, Tom; Morishima, Shigetl (S.); 'Navood Kharr'; Nematollahi, Sonya (S.); 'Nikolai, Bernie'; Ortman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Shah, Kiran (K.C.); Shiraiishi, Masaru (M.); Stillenbauer, Jeffrey (J.R.); Suarez, Rhae (R.); Sullivan, Jamie (J.P.); Takasawa, Keith (K.D.); Takubo, Hirochil (H.); Vecchio, Arnie Marie (A.); Wakenell, Roy (R.A.); Wettach, Bill (B.); Williams, Les (LHW.); Williamson, David (D.E.); Yeung, Lam (.)
Subject: RE: U204 Stall Meeting Agenda - 5/9/02

Inspection results of '02 Escape VIN: 1FMYUO414KC19492

LOCATION: John Elway West, Denver
OWNER: Mike Cochran (JEW Service Mgr.)
MILEAGE: 3342
BUILD DATE: 1-29-02

COMPLAINT: Stalled while driving approx. 50 mph. Noticed dash lights came on and steering became stiff; coasted to side of road, went to crank (did not turn key off) and the engine restarted. Occured at around 2500 miles and has not happened since.

DIAGNOSTICS: Went through the latest TSB/ISM draft; no concerns were found except for the following:

- There was battery acid in the batt. tray that had seeped down onto grounds G-104 and 105; some corrosion was evident.
- The customer's key chain contained several oz. of additional weight.

ENR2-827-G 10521

Jim Noteboom
Powertrain Field Quality Specialist/Driver
Phone: 303.674.4015 FAX: 303.674.5730
Page: 1.888.375.1980

ER02-827-G 18522

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 3:54 PM
To: Jensen, Ted (T.E.); Marrone, Rob (R.B.)
Cc: Danes, Adam (A.V.)
Subject: RE: Ideas

But we do have proof of dPFE causing it's stall issue on pre delivery vehicles as well as in service examples. Funny, we have one with precisely 8 miles on a 3.8L Mustang.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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Tel: (313) 594-7645

-----Original Message-----

From: Jensen, Ted (T.E.)
Sent: Wednesday, May 08, 2002 3:35 PM
To: Marrone, Rob (R.B.)
Cc: Freeland, Mark (M.); Danes, Adam (A.V.)
Subject: Ideas

Rob,

It has been suggested that heavy key weight could be causing stalls on a wider range of vehicles than just the Escape. Seems the same key mechanism is used on most Ford vehicles. A recent report is an experience with a 2002 MY 5.4L Mountaineer. 285 grams of key weight, when bounced with the palm of the hand vertically would stall the vehicle. This is a repeatable condition. I have suggested a designed experiment with weight, drop distance, vehicle angle, and steering column set point as variables.

It may be possible for momentary loss of contact from key position to result in a number of customer concerns and could even be linked high current events that damage the dPFE sensor.

This would not help understand stalls at 8 miles with only a single vehicle key. I assume that only one key and no extra weight is involved here.

Sorry this was in my outbox. It should have been sent some time ago.

Best Regards,

Ted Jensen

Trescott E. Jensen, Ph.D.
6-Sigma Black Belt
Staff Technical Specialist
Chemical Engineering Department
Ford Research Laboratory

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ER02-027-0 10523

Dearborn, MI 48121-2053

Phone: (313) 322-4698

FAX: (313) 821-0848

E-Mail: jensen2@ford.com

ER02-027-G 10924

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 3:51 PM
To: Marrone, Rob (R.B.); Jensen, Ted (T.E.)
Cc: Dames, Adam (A.V.)
Subject: RE: Ideas

Sorry, you are correct I meant a 4.6 L.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Marrone, Rob (R.B.)
Sent: Wednesday, May 08, 2002 3:43 PM
To: Jensen, Ted (T.E.)
Cc: Freeland, Mark (M.); Dames, Adam (A.V.)
Subject: RE: Ideas

Ted, that's an intriguing possibility. A couple of questions –
The Mountaineer does not presently have the 5.4 available. did you mean 4.6?
Wouldn't this lead to repeat claims – that is, replacing the valve wouldn't solve the customer's stall issue
(yet we see 2 repeat claims for all of '02MY for 4.6 truck)?

It certainly would explain how we can't duplicate the failure on a company car with precisely one key on the
ring ...

We should discuss tomorrow a.m.

Sincerely,

Rob Marrone

Six Sigma Certified Black Belt
4.6L/5.4L Engine Program Engineering
POEE column J-14A, Mall drop 36
313-2488887, Fax 313-3907407, Pgr. 313-851-5713

—Original Message—

From: Jensen, Ted (T.E.)
Sent: Wednesday, May 08, 2002 3:35 PM
To: Marrone, Rob (R.B.)
Cc: Freeland, Mark (M.); Dames, Adam (A.V.)
Subject: Ideas

Rob,

It has been suggested that heavy key weight could be causing stalls on a wider range of vehicles than just
the Escape. Seems the same key mechanism is used on most Ford vehicles. A recent report is an

experience with a 2002 MY 5.4L Mountaineer. 285 grams of key weight, when bounced with the palm of the hand vertically would stall the vehicle. This is a repeatable condition. I have suggested a designed experiment with weight, drop distance, vehicle angle, and steering column set point as variables.

It may be possible for momentary loss of contact from key position to result in a number of customer concerns and could even be linked high current events that damage the dPFE sensor.

This would not help understand stalls at 8 miles with only a single vehicle key. I assume that only one key and no extra weight is involved here.

Sorry this was in my outbox. It should have been sent some time ago.

Best Regards,

Ted Jensen

Trecott E. Jensen, Ph.D.
0-Sigma Black Belt
Staff Technical Specialist
Chemical Engineering Department
Ford Research Laboratory

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Phone: (313) 322-4556
FAX: (313) 621-0846
E-Mail: tjensen@ford.com

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 3:49 PM
To: 'Jahshan, John (J.H.); Freeland, Mark (M.); Potter, Timothy (T.J.)'
Subject: RE: Active Current Probe for Buy Back Focus

Tim,
Am I correct in assuming we don't have an amplifier for an active current probe?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
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> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Wednesday, May 08, 2002 3:26 PM
To: 'Freeland, Mark (M.)'; Potter, Timothy (T.J.)
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

Ken has found a probe but we do not have an amp for it. Do you have an amp?

I currently have the MT 4 door Focus instrumented for Vref at the PCM only.

Hi Tim,

I would like to get the Vref signal at the DPFE sensor instrumented. When can you help me out on this?

John H. Jahshan
POBE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]

ENG2-627-G 18527

Sent: Wednesday, May 08, 2002 10:34 AM
To: John Jahshan (E-mail)
Cc: Potter, Timothy (T.J.)
Subject: Active Current Probe for Buy Back Focus

John,

I still want to take you up on you're offer of an active current probe for the Buy Back Focus I we are driving at SRL. When do you think we could have it?

Tim,

When John gives us the probe, will the existing DC to AC converter handle an extra box? Would you please install it? Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 3:49 PM
To: 'Jahshan, John (J.H.); Freeland, Mark (M.); Potter, Timothy (T.J.)'
Subject: RE: Active Current Probe for Buy Back Focus

Tim,
Am I correct in assuming we don't have an amplifier for an active current probe?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Wednesday, May 08, 2002 3:26 PM
To: 'Freeland, Mark (M.)'; Potter, Timothy (T.J.)
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

Ken has found a probe but we do not have an amp for it. Do you have an amp?

I currently have the MT 4 door Focus instrumented for Vref at the PCM only.

Hi Tim,

I would like to get the Vref signal at the DPF sensor instrumented. When can you help me out on this?

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
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<http://www.myairmail.com/>

"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreela1@ford.com]

EP02-027-G 10328

Sent: Wednesday, May 08, 2002 10:34 AM
To: John Jahshan (E-mail)
Cc: Potter, Timothy (T.J.)
Subject: Active Current Probe for Buy Back Focus

John,

I still want to take you up on you're offer of an active current probe for the Buy Back Focus I we are driving at SRL. When do you think we could have it?

Tim,

When John gives us the probe, will the existing DC to AC converter handle an extra box? Would you please install it? Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 3:49 PM
To: 'Jahshan, John (J.H.); Freeland, Mark (M.); Potter, Timothy (T.J.)'
Subject: RE: Active Current Probe for Buy Back Focus

Tim,
Am I correct in assuming we don't have an amplifier for an active current probe?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Wednesday, May 08, 2002 3:26 PM
To: 'Freeland, Mark (M.)'; Potter, Timothy (T.J.)
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

Ken has found a probe but we do not have an amp for it. Do you have an amp?

I currently have the MT 4 door Focus instrumented for Vref at the PCM only.

Hi Tim,

I would like to get the Vref signal at the DPFE sensor instrumented. When can you help me out on this?

John H. Jahshan
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"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]

EA02-827-G 18531

Sent: Wednesday, May 08, 2002 10:34 AM
To: John Jahshan (E-mail)
Cc: Potter, Timothy (T.J.)
Subject: Active Current Probe for Buy Back Focus

John,

I still want to take you up on you're offer of an active current probe for the Buy Back Focus I we are driving at SRL. When do you think we could have it?

Tim,

When John gives us the probe, will the existing DC to AC converter handle an extra box? Would you please install it? Thanks

Regards

Mark Freeland

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> Ford Research Laboratory
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> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

ER02-027-0 10532

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 2:02 PM
To: Maurer, James (J.B.); Gates, Freeman (F.C.); Plante, Paul (P.G.)
Cc: Rossi, Roberto (R.A.); Hermann, Thomas (T.J.)
Subject: Poor Connections

After reading many many many vehicle histories, I am starting to make a poor connection, pun intended.

There appears to be a connection between dPFE failures, blown fuses for the cigarette lighter, INOP cigarette lighters with poor connections and poor AM radio reception.

Can you direct this clue to the people who may be interested in checking it out.

I don't know how many of you read children's books? But this is sort of a Blue's Clue if you know what I mean. More will follow.

PS Who has the radio, maybe they should be in on the act. They may have some clues of their own!

Regards

Mark Freeland

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Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 1:00 PM
To: Helms, Jeffrey (J.H.)
Subject: FW: Six Sigma Presentation Schedule

Jeff,

I am up on the OCM on 5/20.

You said a week or so ago that you would set up a 3 way with Dave Amos. Maybe that should be done before I talk at the OCM.

Also, I would like you're input about what is appropriate for an OCM presentation on this project.

Do you have any time on Friday to discuss. Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

—Original Message—

From: Bunzendahl, Shanah (S.M.)
Sent: Wednesday, May 08, 2002 11:49 AM
To: Freeland, Mark (M.); Liu, Dang (D.R.); Kiridena, Vijitha (V.); Gibson, Alex (A.O.); Elliott, Adrian (A.M.); McBride, James (J.R.); Cole, Charles (C.L.C.); Neaser, Ahmad (A.M.); Gearhart, Chris (C.); Zubeck, Michael (M.W.); Giannamore, Armand (A.A.); Amorl, Richard (R.)
Subject: Six Sigma Presentation Schedule

There have been some revisions to the 6sigma presentation schedule. The file is attached for your information. Please let me know if there is a problem with the date/time you are scheduled.

Also, if there is not a title listed for your presentation, please send me an email with the topic of your presentation.

Thanks!
Shanah Bunzendahl



2002FRL Six Sigma
Reviews and ...

Six Sigma Presentations for FRL Management Meetings

<i>Meeting Name</i>	<i>Meeting Date</i>	<i>Six Sigma Topic</i>	<i>Presenter</i>
OCM	01/23/2002		None
OCM	02/06/2002 10:15-Noon		Ed League
OCM	02/15/2002 9:45-11:30	Ford Credit Customer Satisfaction	Kuang Wei
OCM	02/27/2002 10:30-Noon	LS Wheel Bearing Concerns	Apoorva Agarwal
MM	2/28/02 8:00-9:30am	Improve loose/poor fit on LS weatherstrip	Sankar Subraminiam
MM	3/28/02 8:00-9:30am	Escape HEV Battery Project	Bruce Bryant
OCM	04/09/2002 9:30-10:45	DFSS Optimization of the cyclone V6 for Transient Response	Eric Curtis
OCM	05/08/2002	Lincoln LS Door Latching	Mark Ciechanowski
OCM	05/20/2002	Kavlico TM dPFE Sensor Unprotected Area Damage	Mark Freeland
OCM	6/7/2002	LS decklid hard to open/close, and INOP due to latch/striker misalignment	D. Ron Liu
MM	6/13/02 8:00-9:30am	Interference Indicator Tape	Vijltha Kirdena
OCM	6/14/2002	Sensor-Based Tire Pressure Monitoring DFSS	Alex Gibson
OCM	6/24/2002	C170 Front End Dimensional Capability	Adrian Elliott
OCM	7/10/2002		Jim McBride
MM	7/19/02 8:00-9:30am		Chuck Cole

FRL-027-0 10030

Six Sigma Presentations for FRL Management Meetings

OCM	7/24/2002		Ahmad, Nasser
OCM	8/7/2002	Lincoln LS Initiative Update	Chris Gearhart
MM	8/15/02 8:00-9:30am	LS Oil Filter Leaks	Mike Zubeck
OCM	8/21/2002		Ahmad Giannamore
OCM	9/4/2002		Rick Amori
OCM	9/18/2002		
MM	9/19/02 8:00-9:30am		
OCM	10/2/2002		
OCM	10/16/2002		
MM	10/17/02 8:00-9:30am		
OCM	10/28/2002		
OCM	11/14/2002		
MM	11/21/02 8:00-9:30am		
OCM	11/27/2002		
OCM	12/9/2002		
MM	12/13/02 8:00-9:30am		

Note: Carl Johnson and the other FRL Six Sigma Champions will fill in the remaining topics and presenters in this table.

DNR2-027-0 10290

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 12:56 PM
To: Carter, Roscoe (R.O.); Hargas, Jon (.)
Subject: FW: fyl



HCl Spin
Reaction.PDF

Jon & Roscoe,

Kyong probably meant this for all the scientific folks. I haven't read it yet, might get round to it tonight after kids go to bed.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Wednesday, May 08, 2002 12:26 PM
To: Davies, Brady; Spivak, Alex; McDaniel, Scott; Caffee, Jay; McDaniel, Scott; mfreela1@ford.com
Subject: fyl

I came cross a very interesting a research article, and I attached here. I thought you might be interested in reading this paper.

Kyong

<<HCl Spin Reaction.PDF>>

Theoretical Study of the Validity of the Born-Oppenheimer Approximation in the $\text{Cl} + \text{H}_2 \rightarrow \text{HCl} + \text{H}$ Reaction

Millard H. Alexander,^{1*} Gabriella Capecchi,²
Hans-Joachim Werner^{2*}

Reactivity of the excited spin-orbit state of Cl with H_2 to yield ground-state HCl products is forbidden by the Born-Oppenheimer (BO) approximation. We used new ab initio potential energy surfaces and exact quantum scattering calculations to explore the extent of electronic nonadiabaticity in this reaction. In direct contrast to recent experiments, we predict that the BO-allowed reaction of the ground spin-orbit state will be much more efficient than the BO-forbidden reaction of the excited spin-orbit state. Also, Coriolis coupling opens up an electronically nonadiabatic inelastic channel, which competes substantially with reaction.

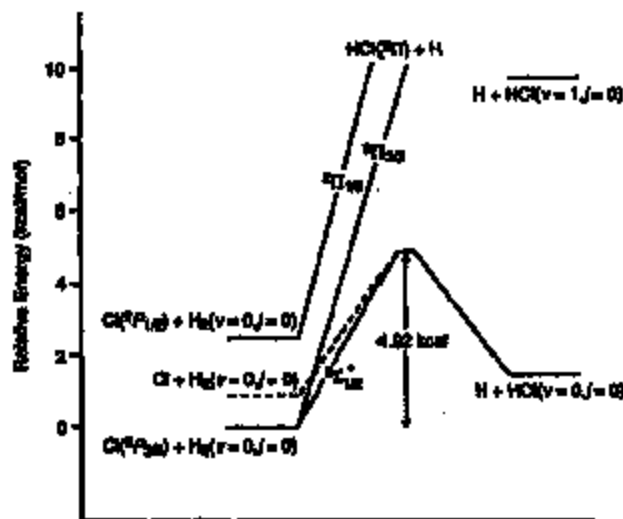
The kinetics of the $\text{Cl} + \text{H}_2$ reaction has been the object of study for more than a century (1, 2). The reaction has played an important role in the development of transition state theory, has provided verification of the kinetic isotope effect, and is the paradigm for the reaction of Cl with hydrocarbons, which is of importance in many atmospheric environments. Recently, molecular beam techniques have been used to yield information on this reaction at well-defined collision energies (3-6). Quasi-classical trajectory and precise quantum scattering investigations have been reported (7-16) on several potential energy surfaces (PESs) (17, 18). All previous theoretical work has been based on the approximation that only a single PES governs the reaction and that the open-shell character of the Cl atom plays no role in the dynamics.

The approach of molecular hydrogen to an atom in a 2P electronic state splits the degeneracy of this state, giving rise to three PESs (18-21). Of these only the lowest, which corresponds to the lower state of A' symmetry in C_{2v} geometry (Σ symmetry in collinear geometry), correlates with the electronic ground state of the products [$\text{H} + \text{HCl}(^1\Sigma^+)$]. The PESs of the two other states (the higher state of A' symmetry and the unique state of A'' symmetry) correlate with HCl products in the $\sigma^2\Pi$ electronic state, which is considerably higher in energy (22) (Fig. 1).

The excited spin-orbit (SO) state of the Cl

atom ($^2P_{1/2}$), which lies 880 cm^{-1} (2.52 kcal/mol) above the ground SO state (23), does not correlate adiabatically with the electronic ground state of the reaction products. Thus, if the reaction were to proceed adiabatically on a single PES, as would be predicted by the Born-Oppenheimer (BO) approximation, then the excited SO state would not react (24, 25). For the chemically similar $\text{F} + \text{H}_2$ reaction, both theory (21) and experiment (26, 27) agree that the reactivity of the excited SO state is, at most, 10% of that of the ground state. The $\text{Cl} + \text{H}_2$ reaction differs in two respects: (i) the spin-orbit splitting is more than a factor of 2 greater (23) and (ii) the barrier height is much higher. The larger SO splitting suggests that the breakdown in the BO approximation would be less important in the $\text{Cl} + \text{H}_2$ reaction. However, because the

Fig. 1. Schematic plot of the energetics of the $\text{Cl} + \text{H}_2$ reaction. The relative reactant energies, the position of the barrier, and the position of the indicated HCl product channels are drawn to scale. All energies include zero-point corrections; those for the barrier were determined from the constants published by Stan and Werner (table II of (18)). Linear-molecule Σ and Π state labels are used, which is appropriate for a collinear transition state. The dashed line indicates the schematic reaction profile for single-surface calculations based on the BWZ PES, in which the SO Hamiltonian is not included.



internal SO energy might help to overcome the higher barrier, nonadiabaticity might be more important in $\text{Cl} + \text{H}_2$.

In recent molecular beam experiments, Liu and co-workers (4-6) used two different Cl atom sources to characterize the reactivity of the two SO states of the Cl atom. Except at the lowest collision energies, they conclude that the excited SO state has a substantially larger reactive cross section. This result is surprising, because the body of prior experimental work indicates that BO-allowed (adiabatically allowed) pathways always dominate (21, 28).

This breakdown in the BO approximation inferred by Liu and co-workers (4-6) demands further theoretical investigation. Two questions must be answered: (i) How large is the reactivity of the adiabatically forbidden channel [$\text{Cl}(^2P_{1/2}) + \text{H}_2$], and (ii) how well can the reactivity of the adiabatically allowed channel [$\text{Cl}(^2P_{3/2}) + \text{H}_2$] be predicted by standard scattering calculations (7-16), based on a single PES in which nonadiabatic effects are of necessity neglected. We used exact quantum scattering calculations to answer these questions.

We first need accurate PESs for the three electronic states mentioned above. For the subsequent scattering calculations, it is necessary to transform the two states of A' symmetry into an electronically diabatic basis, in which the occupation of the missing 3p electron on the Cl atom remains unchanged in the body frame (21). Capecchi and Werner (29) have carried out internally contracted, multireference, configuration-interaction calculations (30, 31) of these PESs and the SO coupling matrix elements. Transformation into the diabatic basis results in four PESs. Capecchi and Werner subsequently developed multiparameter global fits (29) to these

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PESs and to the two SO coupling functions (21). Their calculations extend the earlier work of Bies and Werner (16), which was limited to the lowest electronically adiabatic ClH_2 PES.

In the $Cl + H_2$ arrangement, there are six electronic states. These correspond to the three spatial orientations of the $3p$ hole on the Cl atom and the two possible spin-projection quantum numbers. In each $H + HCl$ product arrangement, we neglect the high-lying Π states of HCl (22). In general, outside the reactant arrangement, the description of the $Cl + H_2$ system is unchanged from the original BWZ fit (16), which was limited to the lowest electronically adiabatic PES.

If the sum of the electronic interaction Hamiltonian plus the SO coupling in the 6×6 electronic basis is diagonalized at each value of the coordinates, the lowest root will define what we will call the fully (electronic + SO) adiabatic Caspochi-Werner (CWad) PES and corresponds to the reactive PES illustrated schematically in Fig. 1. This PES differs from the BWZ PES (16), which is obtained by diagonalizing only the electrostatic Hamiltonian, without inclusion of the SO Hamiltonian.

The SO Hamiltonian couples the reactive PES (${}^2\Sigma_{1/2}$ in linear geometry) with the two repulsive PESs (${}^2\Pi_{3/2}$ and ${}^2\Pi_{1/2}$ in linear geometry). Because the latter are so much higher in energy at the barrier, inclusion of the SO coupling has a negligible effect at the barrier. However, inclusion of the SO coupling in the asymptotic reactant region lowers

the lowest adiabatic PES by $\sim 1/3$ the SO splitting of the Cl atom. Thus, when compared to the BWZ PES, the barrier to reaction on the CWad PES is ~ 0.84 kcal/mol higher (18, 21, 32-34).

In addition to the electrostatic and SO Hamiltonians, it is also necessary to determine matrix elements of the orbital angular momentum of the triatomic system $L^2 = (J - l - s - \Omega)^2$, where J is the total angular momentum, l is the rotational angular momentum of the diatomic moiety, and l and s are the electronic orbital and spin angular momenta (21).

With the required ClH_2 PESs in the diabatic basis, it is possible to carry out complete quantum scattering calculations. We draw from the formalism presented by Schatz on the $Cl + HCl$ exchange reaction (17) and use the algorithms and computer program developed over the past decade by Manolopoulos and co-workers (35, 36), extended, as we have described previously (21), to treat abstraction reactions involving an atom in a 2P electronic state. The choice of integration parameters was identical to those adopted in the single-state studies of the $Cl + H_2$ reaction (14).

We obtain, at each value of the total angular momentum J , probabilities for transition from a given initial state to any particular final state of either the reactants (an inelastic collision) or products (a reactive collision). By summing the latter over all accessible product states and averaging over the rotational ($2j + 1$) and electronic ($2j_e + 1$) degeneracy of the initial state ($j_e = 3/2$ or $1/2$),

we extract a total probability for reaction.

In Fig. 2 we compare, at the lowest value of the total angular momentum ($J = 0.5$), the calculated total probabilities for reaction of H_2 in $v = 0, j = 0$ (the lowest rotational level of *para*- H_2). The multistate results, determined with the full set of diabatic PESs, are compared in Fig. 2 with the $J = 0$ transition probabilities, as predicted by single-state calculations on the CWad PES. In the latter calculation, both the SO and electronic-orbital angular momenta of the Cl atom were neglected, as in any standard single-state treatment of a triatomic reaction (13, 14, 35, 36). The reaction probabilities are plotted as a function of collision energy, which is the fundamental dynamical variable in a molecular beam experiment. Thermal rate constants could then be obtained by integration over a Maxwellian distribution of collision velocities, although an equally valid expression involves integration over the total (collision + internal) energy of the "cumulative reaction probability" (37).

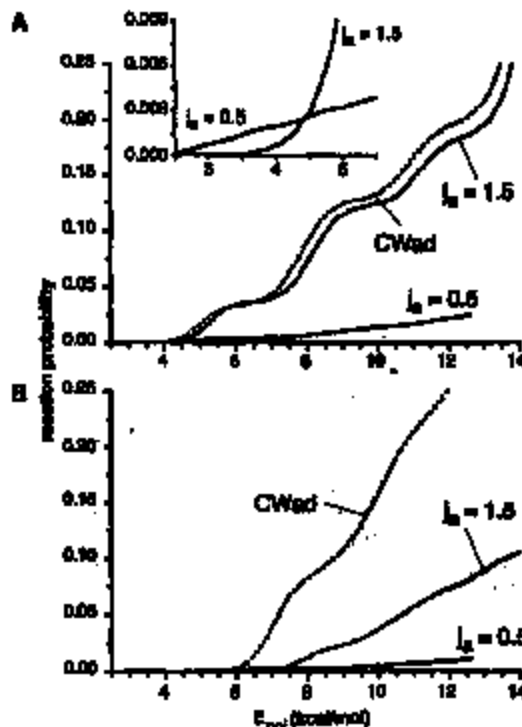
In the multistate treatment, four states coincide with the ground-state reactants $Cl({}^2P_{3/2}) + H_2$ moiety, as seen in Fig. 1, $\Sigma_{-1/2}$ and $\Pi_{-3/2}$. Of these, the Π states are unreactive, within the BO approximation, so that, to zeroth order, only 50% of the reactants will approach on a PES that leads to reaction. However, in the single-state calculations, one assumes that all (100%) of the reactants will approach on the reactive PES. To take into account this fundamental difference, previous investigators (21, 37) have divided the single-state results by a factor of 2 to compare with the cross sections and probabilities for reaction out of the $j_e = 3/2$ level of a 2P atom obtained from multistate calculations.

The probability for (adiabatically forbidden) reaction out of the excited ($j_e = 1/2$) SO state of Cl is much smaller than the probability for the adiabatically allowed reaction of the ground SO state. Only at collision energies below the zero-point corrected barrier to reaction [$E_{\text{corr}} < 4.93$ kcal/mol (Fig. 1)] does the adiabatically forbidden channel start to dominate, because the threshold for reaction of the excited SO state is 2.52 kcal/mol lower.

We also observe that the reaction probabilities predicted by single-state calculations on the fully adiabatic CWad PES agree very well with the multistate probabilities for the adiabatically allowed channel. As discussed above, the single-state probabilities have been divided by 2. Because the excited Π states are very high in energy in the region of the barrier, the topology of the barrier, which controls the flux from reactants to products, is virtually identical in the multistate and single-state calculations.

The pronounced staircase-like structure in the reaction probability out of the lower (adi-

Fig. 2. (A) Probabilities for reaction of Cl in the $j_e = 3/2$ (${}^2P_{3/2}$) and $j_e = 1/2$ (${}^2P_{1/2}$) SO states with H_2 ($v = j = 0$) for $J = 0.5$. The abscissa is the collision energy. Also shown are reaction probabilities determined from single-state calculations based on the fully adiabatic (CWad) PESs for $J = 0$ but divided by a factor of 2. (Inset) The low-energy behavior of the multistate probabilities. (B) Similar reaction probabilities, but for $J = 17.5$.



REPORTS

The first part of the report discusses the general situation of the economy in the United States and the world. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The second part of the report discusses the situation in the Soviet Union. It notes that the economy is growing, but there are some concerns about the quality of the growth and the political situation.

The third part of the report discusses the situation in the Middle East. It notes that the situation is generally stable, but there are some concerns about the conflict between Israel and the Arab states.

The fourth part of the report discusses the situation in Latin America. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The fifth part of the report discusses the situation in Africa. It notes that the economy is generally stable, but there are some concerns about the political situation and the quality of the growth.

The sixth part of the report discusses the situation in Asia. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The seventh part of the report discusses the situation in Europe. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The eighth part of the report discusses the situation in the Pacific. It notes that the economy is generally stable, but there are some concerns about the political situation and the quality of the growth.

The ninth part of the report discusses the situation in the Caribbean. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The tenth part of the report discusses the situation in the Balkans. It notes that the situation is generally stable, but there are some concerns about the political situation and the quality of the growth.

The eleventh part of the report discusses the situation in the Mediterranean. It notes that the situation is generally stable, but there are some concerns about the political situation and the quality of the growth.

The twelfth part of the report discusses the situation in the Middle East. It notes that the situation is generally stable, but there are some concerns about the conflict between Israel and the Arab states.

The thirteenth part of the report discusses the situation in Latin America. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The fourteenth part of the report discusses the situation in Africa. It notes that the economy is generally stable, but there are some concerns about the political situation and the quality of the growth.

The fifteenth part of the report discusses the situation in Asia. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The sixteenth part of the report discusses the situation in Europe. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.

The seventeenth part of the report discusses the situation in the Pacific. It notes that the economy is generally stable, but there are some concerns about the political situation and the quality of the growth.

The eighteenth part of the report discusses the situation in the Caribbean. It notes that the economy is generally stable, but there are some concerns about inflation and unemployment.



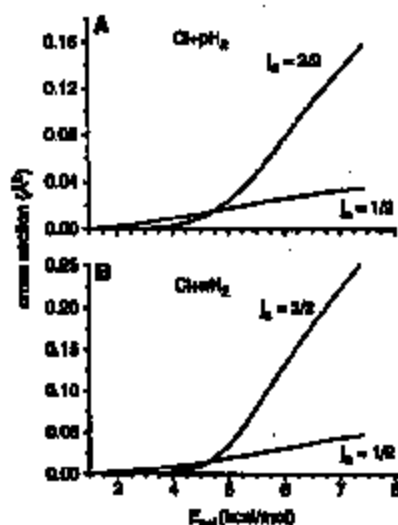


Fig. 5. (A) Integral cross sections for reaction of Cl in its ground ($l_0 = 3/2$) and excited ($l_0 = 1/2$) SO state with $p\text{-H}_2$. (B) Similar integral cross sections for reaction with $n\text{-H}_2$. The relative rotational state populations of the $j = 0, 1$ and 2 H_2 rotational levels were taken from (4–6).

count in Fig. 5, the observed reactivity of the excited SO state will be a factor of 2 less than predicted by Fig. 5.

We predict, fully in agreement with the body of available experimental evidence on other reactions (25, 26), that the adiabatically allowed [$\text{Cl}(^2P_{3/2}) + \text{H}_2$] reaction will dominate the adiabatically forbidden reaction [$\text{Cl}(^2P_{1/2}) + \text{H}_2$], except for collision energies below 5 kcal/mol. This prediction is in direct contrast with the recent work of Liu and co-workers (4–6). This disagreement is one of the major currently unresolved problems in the dynamics of elementary chemical reactions.

Although we predict the reactivity of the adiabatically forbidden channel to be small, we conclude that the breakdown in the SO approximation nevertheless plays an important role in the Cl + H_2 reaction. The coupling between the electronic-orbital angular momentum and the overall orbital motion of the reactants opens up a reactive channel that competes with reaction. The predicted reactive cross sections are smaller than those calculated from more traditional treatments, in which these nonadiabatic inelastic processes are not taken into account.

We have shown that nonadiabatic processes influence the Cl + H_2 reaction dynamics in subtle and as yet not fully understood ways. In the *ab initio* calculations of Capocci and Werner, the nonreactive Π states were characterized only in the reactant arrangement, whereas these states lie relatively close in energy to the reactive Σ state. It may be that additional electronic couplings at (or inside) the reaction barrier underlie the discrepancy with Liu's experiments. The need for further studies, both theoretical and experimental, is clear.

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- M.A.A. is grateful to NSF for support under grant CHE-9971870. H.J.W. was supported by the Deutsche Forschungsgemeinschaft and the Fonds der Chemischen Industrie. G.C. was supported by a fellowship as a participant in the European Union-Training and Mobility of Researchers network "Reaction Dynamics," contract no. 10994-CT-1989-00007. Finally, the authors are grateful to K. Liu and D. Manolopoulos for their encouragement and for many productive discussions.

1 February 2002; accepted 10 March 2002

Dynamic Aggregation of Chiral Spinners

Bartosz A. Grzybowski* and George M. Whitesides*

An object spinning at the surface of a liquid creates a chiral vortex. If the spinning object is itself chiral, its shape modifies the characteristics of the vortex; interactions between that vortex and other vortices then depend on the chirality of the objects that produce them. This paper describes the aggregation of millimeter-sized, chiral magnetized plates floating at a liquid-air interface and rotating under the influence of a rotating external magnetic field. This external field confines all the plates at densities that cause the vortices they generate to interact strongly. For one set of plates investigated, plates of one chirality attract one another, and plates of the other chirality repel other plates of both chiralities.

The properties and interactions of chiral molecules are a central concern in chemistry, with applications in chromatographic separations, asymmetric catalysis, and medicinal chemistry (1, 2). Chiral interactions between molecules are conceptually well understood

(3, 4). Interactions between chiral objects larger than molecules are, however, less well explored or exploited. Here, we describe a study of the interactions between millimeter-scale vortices generated in a fluid by the rotation of chiral objects floating at the surface of that fluid. This system has the characteristic that it is dynamic (3–5)—that is, the interacting objects (the vortices) exist only when there is a flux of energy into the system—and that both the vortices and the objects that generate them are macroscopic. The system consists of magnetically doped

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From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 10:34 AM
To: John Jahshan (E-mail)
Cc: Potter, Timothy (T.J.)
Subject: Active Current Probe for Buy Back Focus

John,

I still want to take you up on you're offer of an active current probe for the Buy Back Focus I we are driving at SRL. When do you think we could have it?

Tim,

When John gives us the probe, will the existing DC to AC converter handle an extra box? Would you please install it? Thanks

Regards

Mark Freeland

6-Sigma Black Belt
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Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, May 07, 2002 4:40 PM
To: Plante, Paul (P.G.)
Subject: RE: 02S33B

Paul,

You are correct, I can not, single handedly, look at all possible, probable or even documented and known electrical issues which may affect the dPFE sensor. The EE Experts should be doing this, and should especially be doing this for the known documented issues, like the C90 connector, the Ignition switch interrupt from bouncing keys, the 5 Volt to 12 Volt short in the brake switch connector, all of which DO put transient voltages on the 5 Vref line relative to signal return.

The question for the EE Experts should be do these transients exceed the requirements of the SDS or are they within the requirements of the SDS, and could any of these transients cause a CMOS device to enter a SCR Latched state.

Another observation from reading many AWS reports over the past couple of weeks is that there are a number of failures which came in with a second failure on the vehicle's electrical system. One which specifically comes to mind is several reports where the cigarette light er also did not work. The diagnosis in these cases was that the fuse was blown. Fuses, blow when high currents flow through unintended paths.

The electrical issues on these vehicles are not onzies and twozies according to AWS.

I am open to you're suggestions as to how we get the EE Experts to take these issues seriously and investigate them thoroughly.

Regards

Mark Freeland

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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Tuesday, May 07, 2002 12:44 PM
To: Freeland, Mark (M.); Gabes, Freeman (F.C.); Rossi, Roberto (R.A.); Maurer, James (J.B.); Plante, Paul (P.G.)
Subject: RE: 02S33B

There are basic core tools defining how this sensor should be designed and the potential detrimental interfaces from wiring harness, PCM etc. These tools include ES, Design Guide, SDS etc.

Questions:

- 1) How do we establish which issues affect the sensor, and we need to work on?
- 2) Who should do the work.

Mark can not single handed look at all electrical failures and establish affect on sensor thru testing or theoretical analysis. We need to concentrate our efforts, prioritize our work, and distribute work to the

responsible people.

I intend on discussing briefly at 14D team meeting.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, May 07, 2002 12:25 PM
To: Rossi, Roberto (R.A.)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: RE: 02S33B

Roberto,

Thanks for the info on the recall.
Could this result in "electrical noise" reaching the dPFE as arc overs are occurring?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Rossi, Roberto (R.A.)
Sent: Tuesday, May 07, 2002 9:05 AM
To: Freeland, Mark (M.); Plante, Paul (P.G.)
Subject: RE: 02S33B

Mark,

I worked on this recall. The issue was the body sealing was not consistently being applied behind the right rear tire on the Windstar. During wet road conditions the tire was spraying water into the vehicle. An unsealed connector is located directly behind the wheel and it has a power and ground circuit next to each other. The water and salt that would enter the connector could cause a carbon track to form between the pins and melt the connector.

Robert Rossi
Electrical/Electronic Systems Campaign Prevention Specialist
North American Car Lifestyle Vehicles
Phone/Fax: 84-51438

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, May 06, 2002 5:33 PM
To: Plante, Paul (P.G.)
Cc: Rossi, Roberto (R.A.)
Subject: 02S33B

Paul,

Can you tell me where I can look up the details of this safety recall. It appears to be to do with the sealing of an electrical connector, and thus could be relevant to our issue with the dPFE.

Thanks

Regards

Mark Freeland

**6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645**

From: Freeland, Mark (M.)
Sent: Tuesday, May 07, 2002 12:25 PM
To: Rossi, Roberto (R.A.)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: RE: 02S33B

Roberto,

Thanks for the info on the recall.
Could this result in "electrical noise" reaching the dPFE as arc overs are occurring?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Rossi, Roberto (R.A.)
Sent: Tuesday, May 07, 2002 9:05 AM
To: Freeland, Mark (M.); Plante, Paul (P.G.)
Subject: RE: 02S33B

Mark,

I worked on this recall. The issue was the body sealing was not consistently being applied behind the right rear tire on the Windstar. During wet road conditions the tire was spraying water into the vehicle. An unsealed connector is located directly behind the wheel and it has a power and ground circuit next to each other. The water and salt that would enter the connector could cause a carbon track to form between the pins and melt the connector.

Robert Rossi
Electrical/Electronic Systems Campaign Prevention Specialist
North American Car Lifestyle Vehicles
Phone/Fax: 84-51436

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, May 06, 2002 5:33 PM
To: Plante, Paul (P.G.)
Cc: Rossi, Roberto (R.A.)
Subject: 02S33B

Paul,

Can you tell me where I can look up the details of this safety recall. It appears to be to do with the sealing of an electrical connector, and thus could be relevant to our issue with the dPFE.

Thanks

ERR2-027-G 18573

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, May 06, 2002 5:34 PM
To: Williamson, Richard (E.)
Subject: RE: 85581

Thanks for the info.

This was a great lead as it has lead me to 02S33B, a safety recall for sealing of an electrical connector.

Where can I get the low down on the safety recall?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Williamson, Richard (E.)
Sent: Monday, May 06, 2002 10:46 AM
To: Freeland, Mark (M.)
Cc: Bissi, Gerry (G.)
Subject: 85581
Importance: High

Hi Mark,
Michael Storms found one of your two dPFE sensors - 85581
VIN# 2FMZA51491BA02850
AWS CLAIM: 6378587
Gaudin Ford, Nevada
This came from our Nevada FQE - Brain Cox

No luck on the second VIN - we have exhausted all worldly efforts - we may think of something in a different dimension???????? but we will probably not find that VIN.

Regards,

RICK WILLIAMSON
Product Concern Analyst-Powertrain
Enhanced Concern Identification

ER02-027-G 10581

313-248-6348
rwill110@ford.com

From: Freeland, Mark (M.)
Sent: Monday, May 06, 2002 5:33 PM
To: Plante, Paul (P.G.)
Cc: Roasi, Roberto (R.A.)
Subject: 02933B

Paul,

Can you tell me where I can look up the details of this safety recall. It appears to be to do with the sealing of an electrical connector, and thus could be relevant to our issue with the dPFE.

Thanks

Regards

Mark Freeland

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Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, May 06, 2002 4:41 PM
To: Gates, Freeman (F.C.)
Subject: RE: Zarlink's(Dalsa) CMOS Latch-up paper

Thanks Freeman,

I already have (and have read) this paper, but with a different company's logo (Mitel) on the front page!!!!

Please forward also to Jim Maurer and Paul Plante if you have not already.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engines Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfree1a1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Gates, Freeman (F.C.)
Sent: Monday, May 06, 2002 12:49 PM
To: Freeland, Mark (M.); Maurer, James (J.B.); 'jpark@kavli.com'; Plante, Paul (P.G.); 'dayers@kavli.com'
Cc: Johnson, Joe (J.H.); King II, Lamer (L.L.); O'Neill, Jim (J.D.)
Subject: Zarlink's(Dalsa) CMOS Latch-up paper

Team,

I found a very interesting technical bulletin that Zarlink published on CMOS latch-up in 1993 that you may want to reference.

Please refer to <http://assets.zarlink.com/products/data/appnotes/msan107.pdf>

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)32-04064
POEE Rm D-138 CM-173

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 2:28 PM
To: Awad, Mahmoud (M.I.); Maurer, James (J.B.); Plante, Paul (P.G.); Gatta, Freeman (F.C.)
Subject: FW: Focus Information

Info on customer symptoms for you're reference. This is from the lead Mahmoud forwarded to me this morning.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Johnson, Roger (R.)
Sent: Friday, May 03, 2002 1:08 PM
To: Freeland, Mark (M.)
Cc: Galante, Chris (C.R.); Awad, Mahmoud (M.I.)
Subject: RE: Focus Information

Hi Mark,

I have yet to experience a stall with the Focus after the MIL came on. The car has about 11,800 miles on it.

My Focus will want to stall (sometimes) on a humid day with the defroster on, if I drive on the expressway and then put the car in neutral and coast to a stop. This would happen when I would drive down I-896 and get off on Southfield and coast up the off ramp to a stop. The car will act like it wants to stall, but then it catches itself at or just before I stop for the light. It then acts like it just started - the engine speed climbed and then settles into idle. I stalled on me once, but if it does this, I usually tap the throttle and it catches itself.

This does not set a check engine light or a code. After it did this a few times, I put an NGS on the car, but there were no stored codes. I ran KOEO and KOER test but found nothing. It hasn't done this for a while (about 2 months), and definitely not since the MIL showed up (about April 15)

A few weeks ago, I was driving down Southfield at about 45 mph, and the car started to surge and run rough. I tipped into the throttle and the problem went away. I figured that something was wrong with the EGR system, so I varied the throttle on the way home.

I found that I can get the car to surge/run rough at an engine speed of approx. 1600 to 200 rpm, mainly in 4th or 5th gear. The next time I drove the car, it repeated the symptoms, and set a check engine light. When I got to work, I ran the NGS, and it revealed a stored P0401 code. I decided not to clear the code, but rather leave it for the dealer in case he wanted the snapshot of the system when the code was set (I caught a hard time for this at the dealer for another car).

After the dealer looked at the car, they cleared the codes. By the time I got home after stopping for gas and at Mellor, I got the MIL again. I have not run another test since that car came back from the dealer. Now the car runs a little rough at idle - both clutch engaged and clutch disengaged.

ERG2-827-G 18818

Let me know if I can help with anything or if you need anything else.

Regards,
Roger Johnson
Wixom Assembly Plant PVT
Phone: (248) 34-45889

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 12:18 PM
To: Johnson, Roger (R.)
Cc: Galante, Chris (C.R.); Awad, Mahmoud (M.I.)
Subject: FW: Focus Information

Roger,

Could you let me know what your symptoms were. Did the engine ever stall? If so, did the MIL light come on a) before the stall or b) sometime after the stall.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Awad, Mahmoud (M.I.)
Sent: Friday, May 03, 2002 11:55 AM
To: Freeland, Mark (M.)
Subject: RE: Focus Information

Mark,

This is a failed sensor coming from August 2001 MOP and got over 11000 miles on it...this is for the outside lab. The part is with Mar now.

Mahmoud

-----Original Message-----

From: Galante, Chris (C.R.)
Sent: Friday, May 03, 2002 9:08 AM
To: Awad, Mahmoud (M.I.)
Subject: FW: Focus Information

Mahmoud,



Here is the vehicle information for the PVT engineer at Wixom who has had a problem with his Focus. I do not know the mileage, but he could get it to you pretty quickly.

I have a part from Mary Akins that I will give him next week. His dealer said they were on back order and it might take a number of weeks. We can change it in the parking lot here at EEE, and get the team the part. I

think if the team wanted to take his vehicle for a period of time for evaluation, he'd be happy to help.

Chris

Christopher R. Galante
cgalante@ford.com

 Fax: (313) 337-3813
 Phone: (313) 845-6067
Pager: (313) 795-2807

V-Engine Engineering - Ford Motor Co.

—Original Message—

From: Johnson, Roger (R.)
Sent: Friday, May 03, 2002 7:34 AM
To: Galante, Chris (C.R.)
Subject: Focus Information

Chris,

I got the information from my Focus ZX3:

VIN: 3FAFP31321R244403

Engine Information: 1G-778-BA
002002105
7/30/01
CHEP

Let me know if you need anything else. Otherwise, I will be by sometime next week, probably Monday.
Thanks again for the help.

Regards,
Roger Johnson
Whom Assembly Plant PVT
Phone: (248) 34-45889

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 2:07 PM
To: Carter, Roscoe (R.O.)
Subject: FW: Fluorocarbon Gel Spec Sheet



Fluorocarbon Gel
Spec Sheet.bmp...

Info for you from Kavlico on the Gel.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Friday, May 03, 2002 1:25 PM
To: mfreelal@ford.com
Subject: Fluorocarbon Gel Spec Sheet

FYI

<<Flurocarbon Gel Spec Sheet.bmp>>

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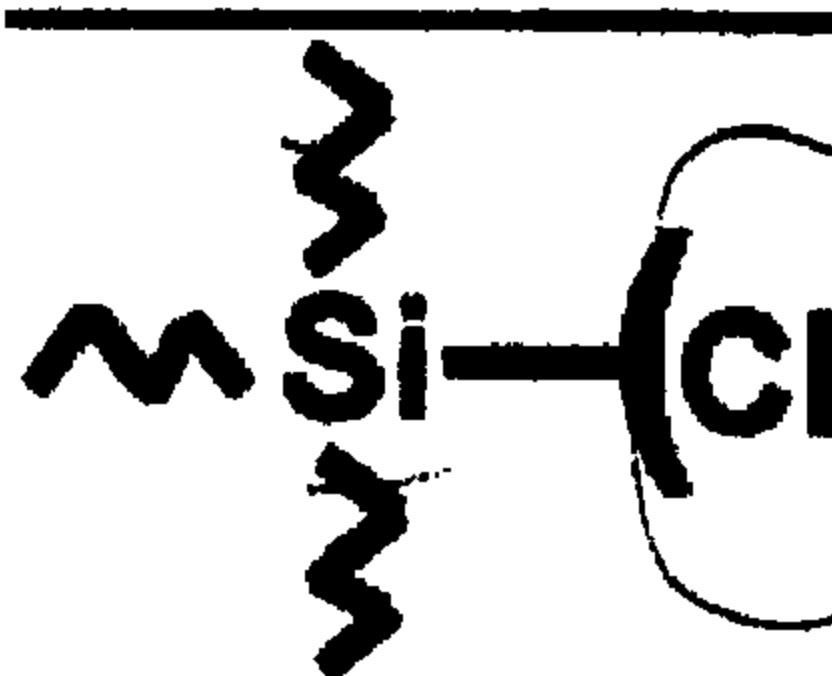
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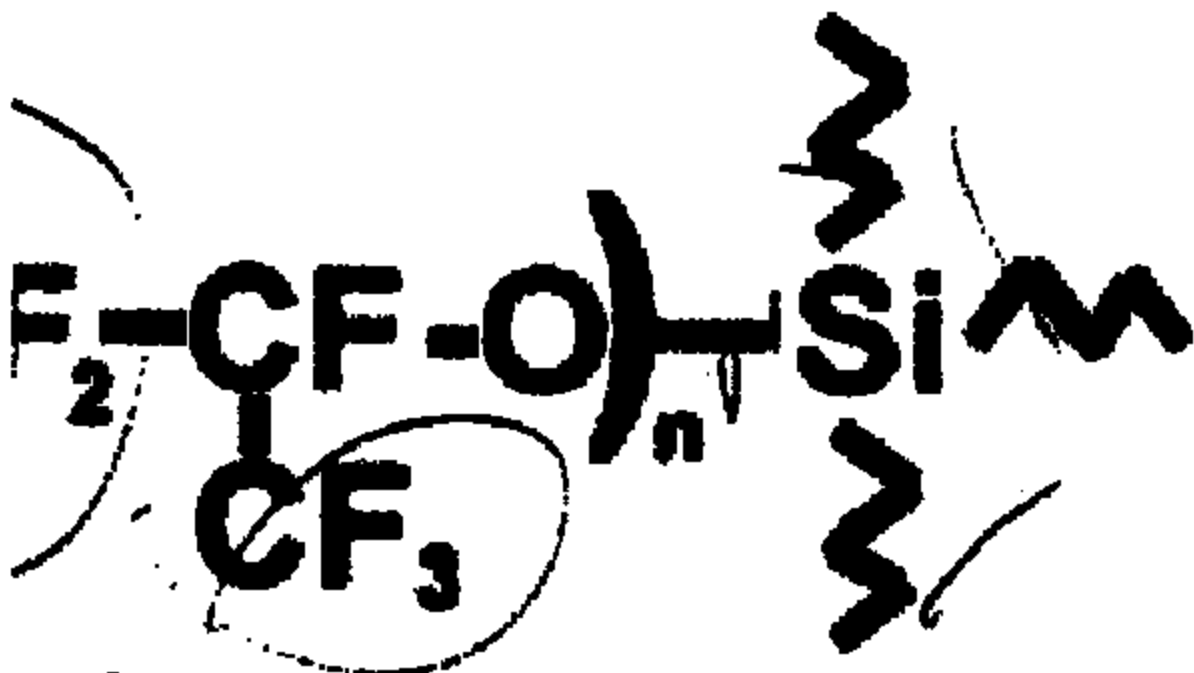
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From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 2:05 PM
To: Sanders, Muriel (M.S.)
Subject: RE: DPFE Question

Muriel,

If the sensor is in the "High Current" mode, then you need to completely remove power from it before it could reset and function normally. Therefore, the power to the PCM must be removed to allow the 5.0V Vref to go to zero V. This means you should key off before you attempt to restart.

There have been a couple of occasions (on the bench) when I have observed the sensor's current to be reset without powering off (by hitting the sensor with a second transient voltage spike), but normally this does not happen.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Sanders, Muriel (M.S.)
Sent: Friday, May 03, 2002 1:59 PM
To: Freeland, Mark (M.)
Subject: DPFE Question

Hi Mark,

When the vehicle stalls because of the DPFE can the driver just re-crank the engine or does he/she need to key off first? This came up in yesterday's stall meeting and I would like to clarify it in the minutes.

Thanks,

> Muriel Sanders
> U204 3.0L Calibration
> Ford Motor Company
> Phone: 313-32-27307
> Fax: 313-32-31786
> E-mail: msander6@ford.com
>

From: Frelund, Mark (M.)
Sent: Friday, May 03, 2002 1:47 PM
To: Sanders, Muriel (M.S.)
Subject: Declined: Updated: U204 Phantom Stall Meeting

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 1:22 PM
To: Plante, Paul (P.G.)
Subject: RE: U204 Stall Meeting Agenda - 5/2/02

Paul,

I am not suggesting that anyone on our team look at a Mountaineer Issue. This is a confirmed Escape Issue, which I duplicated on another vehicle line. It probably exists on many vehicle lines, and is may well be a source of transient electrical noise which could put the dPFE into a SCR latch.

Therefore we can not ignore it. We must look to see if it is a source of V Transients which could cause the dPFE to go into the SCR latch. AND We should look at it on our number two and number three (worst of the worst) vehicles, i.e. the 2.0L and 3.0L Escape.

It is my opinion that this is a EESE Systems Issue which could be a primary root cause for the dPFE failures, and therefore belongs on our docket. Let's discuss further and put it on our Tuesday agenda.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Thursday, May 02, 2002 12:37 PM
To: Freeland, Mark (M.); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: RE: U204 Stall Meeting Agenda - 5/2/02

Opinion: We have targeted (5) platforms (worst of worst). It is difficult to follow up on every issue on all car lines, there are too many open issues not being contained today. Do not do this. Apply our resources to (5) only. We have PCSE Applications engineers assigned to these (5) (Perry, Beed and Arnold). They would be the correct ones to give a concern like this to. We can discuss briefly at Team meeting if you like.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 02, 2002 9:25 AM
To: Sanders, Muriel (M.S.); Plante, Paul (P.G.); Rosal, Roberto (R.A.); Maurer, James (J.B.); Gates, Freeman (F.C.); Awad, Mahmoud (M.A.); Perry, Brian (B.J.)
Cc: O'Neill, Jim (J.O.)
Subject: RE: U204 Stall Meeting Agenda - 5/2/02

Thank you for the information Muriel.

I did an experiment in my 2002 5.4L Mountaineer last night. I hung an extra bunch of keys on my key chain, and as I do not drive over any railroad tracks on the way home I simply bounced the bunch of keys up and down by hitting them from below in a vertical direction.

On two occasions I recreated the symptoms you describe. Once the engine cut out momentarily, and all the

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 12:56 PM
To: Lovelace, Maria (M.E.)
Subject: FW: CONFERENCE

Maria,

The V engine team do not want me talking with the field quality engineers (I think). Please contact Jim Maurer, the powertrain supervisor for the dPFE sensor and ask him for my participation if you want me to talk directly with you're people.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Thursday, May 02, 2002 12:41 PM
To: Freeland, Mark (M.); Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.)
Subject: RE: CONFERENCE

What is the issue too be discussed? We need to assign a single point of contact. The FQE's can help us get parts, vehicles, discuss issue w/ the field mechanics etc. I suggest the team rep to FQE be Carol, Jim Maurer, Shri, John Janda, or myself.

Jim, put on T/Th agenda for brief review and assignment.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 02, 2002 9:08 AM
To: Plante, Paul (P.G.)
Subject: FW: CONFERENCE

Paul,

I have a request to talk with the FQEs. How shall we (the team) handle this request?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517

EA82-827-G 18951

Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel: (313) 594-7645

-----Original Message-----

From: Lovelace, Maria (M.E.)
Sent: Thursday, May 02, 2002 8:40 AM
To: Freeland, Mark (M.)
Subject: CONFERENCE

Mark,
every Monday we have a conference call with our FQEs. They are in town this week for training, but will be going home tomorrow. Would it be possible for you to call in Monday, May 6 to our conference call? Say about 10:20 am? I will not be here, but my supervisor Lee Bersuder will be handling the call. Please advise if you can do this. Thanks

Maria E. Lovelace - FQE Liaison
Enhanced Concern Identification - FCSD
500 Town Center, Suite 300 Cube 25
500 Town Center Drive
Dearborn, Michigan 48126
313-323-6561/800-521-4450

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 12:18 PM
To: Johnson, Roger (R.)
Cc: Galante, Chris (C.R.); Awad, Mahmoud (M.I.)
Subject: FW: Focus Information

Roger,

Could you let me know what your symptoms were. Did the engine ever stall? If so, did the MIL light come on a) before the stall or b) sometime after the stall.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Awad, Mahmoud (M.I.)
Sent: Friday, May 03, 2002 11:55 AM
To: Freeland, Mark (M.)
Subject: RE: Focus Information

Mark,

This is a failed sensor coming from August 2001 MOP and got over 11000 miles on it...this is for the outside lab. The part is with Mar now.

Mahmoud

-----Original Message-----

From: Galante, Chris (C.R.)
Sent: Friday, May 03, 2002 9:08 AM
To: Awad, Mahmoud (M.I.)
Subject: FW: Focus Information

Mahmoud,

Here is the vehicle information for the PVT engineer at Wixom who has had a problem with his Focus. I do not know the mileage, but he could get it to you pretty quickly.



I have a part from Mary Akins that I will give him next week. His dealer said they were on back order and it might take a number of weeks. We can change it in the parking lot here at EEE, and get the team the part. I think if the team wanted to take his vehicle for a period of time for evaluation, he'd be happy to help.

Chris

Christopher R. Galante

ER02-027-G 10057

cgalante@ford.com

 Fax: (313) 337-3813
 Phone: (313) 845-6067
Pager: (313) 795-2807

V-Engine Engineering - Ford Motor Co.

-----Original Message-----

From: Johnson, Roger (R.)
Sent: Friday, May 03, 2002 7:34 AM
To: Galante, Chris (C.R.)
Subject: Focus Information

Chris,

I got the information from my Focus ZX3:

VIN: 3FAFP31321R244403

Engine Information: 1G-779-BA
002002105
7/30/01
CHEP

Let me know if you need anything else. Otherwise, I will be by sometime next week, probably Monday.
Thanks again for the help.

Regards,
Roger Johnson
Wbcom Assembly Plant PVT
Phone: (248) 34-45889

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 11:37 AM
To: Awad, Mahmoud (M.I.)
Subject: RE: Stall No start Casual Parts

Mahmoud,

Can you get details on what the actual failure modes of the "Sender Electrical Pump" are.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Awad, Mahmoud (M.I.)
Sent: Thursday, May 02, 2002 12:41 PM
To: Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.)
Subject: Stall No start Casual Parts

Team,

Pls find an attached file highlights all the parts that may cause a
D02:Engine Would Not Start
D21:Engine Stalls

Sorted by month of production and by the R/1000...it looks like it is a long list.

<< File: D02&D21 Casual Parts.xls >>

Best Regards
Mahmoud Awad
Reliability Implementation Engineer
FMEI Department Support
Phone: (313) 24-83669
e-mail: mawad@ford.com

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 11:20 AM
To: Williamson, Richard (E.)
Subject: RE: VIN numbers from RO numbers.

Thanks for the update, I do appreciate you're efforts.

I just got a new clue! Do you know anything about shorts between 12 V & 5 Vref caused by a connector to the break switch? Report came from Mazda on a Tribute in Canada.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Williamson, Richard (E.)
Sent: Friday, May 03, 2002 10:04 AM
To: Freeland, Mark (M.)
Cc: Storms, Michael (M.); Bissel, Gerry (G.)
Subject: RE: VIN numbers from RO numbers.
Importance: High

Hi Mark,

I have not been able to find either of those two hot VINS you need, even after several hours of looking. Michael Storms has an idea that he will try on Monday (AWS is down today). Hang in there - we should have an answer for you then!

Regards,

RICK WILLIAMSON

Product Concern Analyst-Powertrain

Enhanced Concern Identification

313-248-6348

rwill110@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 2:51 PM
To: Williamson, Richard (E.)
Subject: RE: VIN numbers from RO numbers.

Thanks Rick, but it's the specific test results from this part, not just the date that makes it so important.

Also, from this morning's tests there is another SUPER HOT one. Even hotter than the first, as it was built after the V Transient Improvements went into production. The number from the box was 3815309, the

sensor's date of manufacture is 1/21/2002. Another golden egg if we can locate the VIN number.

Thanks for all your help and dead sensors.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Williamson, Richard (E.)
Sent: Tuesday, April 30, 2002 6:50 AM
To: Freeland, Mark (M.)
Subject: RE: VIN numbers from RO numbers.

Mark,

John Dornka is in training all week (he is the guy who promised quick action on the VIN's). I have a bunch more DPFE's - can I find a similar date for you or do you want me to bring them over??

I will still try and find a way to get the VIN's

Rick

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 6:15 PM
To: Williamson, Richard (E.)
Subject: VIN numbers from RO numbers.

Rick,

What is the best way for us to handle getting VINs for the specific parts of interest in the ones you sent? Should I ship you a excel workbook with the RO numbers and have you send it back with the VIN's filled in?

There is one that I am in a hurry to get, that is for RO number 85581

Can you get your person find me the VIN for this one ASAP.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 9:21 AM
To: 'Jahshan, John (J.H.)'
Subject: RE:

Hi John,

I'm in.

What time do you think you will be here so that I will be in my office rather than in one of the labs?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Friday, May 03, 2002 8:52 AM
To: 'Freeland, Mark (M.)'
Subject:

Hi Mark

Send me an Email when you get it so I can swing over and pick up the car please.

Thanks

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

From: Freeland, Mark (M.)
Sent: Thursday, May 02, 2002 8:43 AM
To: Awad, Mahmoud (M.I.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.); Rossi, Roberto (R.A.); Alias, Sheran (S.A.)
Subject: FW: WSAP Powertrain PQR Meeting Minutes - 4/24/02

Team,

We need to dig in to what the possible consequences of a intermittent on the C-90 connector could do. The Signal return and Vref for the TPS and the Fuel Rail Pressure sensor and the Injector connections are in this shelf. Also, if not properly seated, it is possible that water might get into the connector and create cross talk and or corrosion of the pins.

Roberto,

I understand that this is such a big issue at the plant that a new connector design was released for 2002 MY, but they are having just as much trouble with the new connector as with the old one. Can you get full details of this issue and example hardware for the team to review, say by next Tuesday's meeting.

Other information I have is that the C-90 used on 2.0L SPI is different and not a problem. The problem C-90 may be used in other applications, (can you find out which other applications use the same connector).

Lear is the wiring supplier for the 2.0L Zetec Focus.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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email: mfreela1@ford.com
Tel: (313) 594-7645

-----Original Message-----

From: Oboza, Doran (D.)
Sent: Wednesday, May 01, 2002 3:31 PM
To: Freeland, Mark (M.)
Subject: RE: WSAP Powertrain PQR Meeting Minutes - 4/24/02

Mark, the primary contact for the C90 connector is Tony D'Agostino (adagost3).

I can answer many questions for you as well.

This is a Zetec issue. Partially connected connectors can get passed the EOL testing. If this happens we will see intermittent stalls, check engine light failures, and no starts in the field. The connection is checked at about 4 different locations in the plant.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 2:58 PM
To: Oboza, Doran (D.)

ERS2-027-G 10057

Cc: Plinta, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.); Rzesl, Roberto (R.A.); Ailes, Sheran (S.A.)
Subject: FW: WSAP Powertrain PQR Meeting Minutes - 4/24/02

Doran,

Can you provide the name of the key contact who knows all about the C-90 Connector Issue, and what the implications of the fault are.

Thanks

Others, please see the attachment from Doran.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mrfreel@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Oboza, Doran (D.)
Sent: Friday, April 26, 2002 3:36 PM
To: Agarwal, Apoorva (A.); Banke, Nemine (N.B.); Corysa, Kevin (K.W.); Orelkovski, Peter (P.); Davenport, Marty (M.F.); Deegan, Mike (M.D.); Falls, Stephen (S.W.); Fashina, Ayodeji (A.); Fodera, Michael (M.J.); Foust - Smith, Susan (S.L.); Freeland, Mark (M.); Giannamore, Armand (A.A.); Gilmour, Brady (B.A.); Ivaniszy, Teri (T.E.); Madrid, David (D.R.); Matt Morin; Morton, Michael (M.F.); Motley, Leslie (L.M.); Norman, Ingrid (I.); Odum, Ika (I.C.); Prater, Joseph (J.A.); Rezaee, John (J.H.); Sallack, Beth (B.); Stearns, Pam (P.V.); Tobie, Bruce (B.J.); Trombetta, Christopher (C.B.); Whang, Songjae (S.); Winekoff, Bryan (B.D.); Zubeck, Michael (M.W.); Acuff Jr., Melvin (M.); Ahmed, Kamal (K.); Ajulufoh, Bart (B.O.); Anderson, Johnny (J.D.); Arszulowicz, Ken (K.L.); August, Dan (D.); Baum, Joe (J.M.); Bednarek, Mark (M.P.); Boetner, Derryla (D.R.); Brian Johnson; Brockette, Ronald (R.K.); Brook, James (J.W.); Brown, Mark (M.D.); Campbell, Alndrea (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Cassika, William (W.C.); Castleman, William (W.G.); Cantilvre, James (J.C.); Cervantes, Eduardo (E.J.); Chris Campbell; Ciochanowski, Merk (M.S.); Clugston, Shane (S.A.); Coats, Richard (R.M.); Colabruglio, Vince (V.E.); Cox, Tom (T.T.); D'Agostino, Antonio (A.); Davis, Jerry (J.W.); Debbie Pallani; Dhaliwal, Dave (D.S.); Duneske, Dennis (D.R.); Dyson, Simon (S.C.); Eggert, Daniel (D.C.); Fike, Barbara (B.G.); Florence, Jeremy (J.D.); Fluker, James (J.A.); Fowlkes, Michael (M.S.); Francisco Fernandez (E-mail); Franklin, Tej (T.); Gamble, Craig (C.R.); Gazdeck, Timothy (T.A.); Gerke, David (D.W.); Giles, Anthony (A.T.); Gilmer, David (D.C.); Giordano, Mike (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Graham, Robert (S.); Granados, Rodolfo (R.); Groom, Reginald (R.); Gucciardo, Steve (S.P.); Hegde, Damodar (D.M.); Helmstadter, Donald (D.G.); Hettie, Bruce (B.W.); Holloway, Scott (S.S.); Hopkins, Harry (H.S.); J. Sowarda; Jahshan, John; Johnson, Gary (G.A.); Jordan, Frances (F.J.); King, Steve (S.J.); Kinne, Brian (B.W.); Kircahi, Isin (I.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kunde, Claf (C.); Lardizabal, Sergio (S.); Lizotte, Brian (B.W.); Lorus, Brett (B.R.); MacDonald, George (G.F.); Madej Jr., Stan (S.P.); Majzoub, Malek (Z.); Mansac, Lance (L.D.); Matthews, Gary (G.); Matysiewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Mihora, Bob (B.S.); Miller, Melinda (M.S.); Mitchell, Carole (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.); Nemeth, Steve (S.L.); O'Connor, Jim (James W.); Patel, Praful (P.J.); Piacenza, David (D.B.); Poetbarnes, Donna (D.F.); Popemas, Michael (M.J.); Pullala, Ananth (A.); Purvia, Bruce; Ramey, George (G.); Reichenbach, Ronald (R.W.); Rollin, Anthony (A.D.); Rossman, Michael (M.D.); Samimy, Bahman (Bahmy.); Sands, Roger (R.P.); Schneider, Jeff; Sheridan, Richard (R.D.); Shopp, James (J.J.); Singley, Rogers (R.W.); Smith, David (D.A.); Smith, Tennille (T.C.); Soukire, James (J.K.); Spaniak, Terrence (T.E.); Stevenson, Ethel (E.E.); Stojov, Tony (T.); Stump, Steven (S.M.); Sturgson, Bill (W.); Swick, Curt (C.); Szczepaniak, Gerard (G.); Taraszkewicz, Alexande (A.S.); Tedone, Damian (D.J.); Thomas, Ken (K.C.); Torosian, David (D.A.); Touros, Lyle (L.W.); Tucker, Shantea (S.M.); Tyrrell, Larry (L.J.); Vangavolu, Sreedhar (S.); Vinogradov, Alex (A.); Walker, Cheryl (C.); Walsh, Gerald (G.); Washington, Eric (E.D.); Wegrym, Michael (M.J.); Wepler, Ron (R.J.); White, Christopher (C.); Whiteley, Christine (C.); Wiatr, Joseph (J.M.); Wilkins, Robert (R.M.); Williams, Anthony (A.L.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Willis, Deon (D.G.); Zigler, Brad (B.T.)
Subject: WSAP Powertrain PQR Meeting Minutes - 4/24/02

<< File: Meeting Minutes (04_24_02).doc >>

Doran Oboza
Powertrain Quality Analyst - Wayne Assembly Plant

ERS2-827-G 10000

Phone - 734-467-0604
Pager - 734-296-5439
email - doboza1@ford.com

"I would rather wake up in the middle of nowhere, than in any city in the world."
Steve McQueen

From: Freeland, Mark (M.)
Sent: Thursday, May 02, 2002 9:08 AM
To: Plants, Paul (P.G.)
Subject: FW: CONFERENCE

Paul,

I have a request to talk with the FQEs. How shall we (the team) handle this request?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
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email: mfreela1@ford.com
Tel.: (313) 594-7645

----- Original Message -----

From: Lovelace, Maria (M.E.)
Sent: Thursday, May 02, 2002 8:40 AM
To: Freeland, Mark (M.)
Subject: CONFERENCE

Mark,
every Monday we have a conference call with our FQEs. They are in town this week for training, but will be going home tomorrow. Would it be possible for you to call in Monday, May 6 to our conference call? Say about 10:20 am? I will not be here, but my supervisor Lee Bersuder will be handling the call. Please advise if you can do this. Thanks

Maria E. Lovelace - FQE Liaison

Enhanced Concern Identification - FCSD
500 Town Center, Suite 300 Cube 25
500 Town Center Drive
Dearborn, Michigan 48126
313-323-6561/800-521-4450

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 3:36 PM
To: Maurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Awad, Mahmoud (M.I.); Rossi, Roberto (R.A.)
Cc: O'Neill, Jim (J.D.)
Subject: FW: WSAP Powertrain PQR Meeting Minutes - 4/24/02

I would suggest that we look into the effects of the C-90 Connector being intermittent, and or individual pins in the C-90 circuit being intermittent.

Who will take the lead in doing this?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Oboza, Doran (D.)
Sent: Wednesday, May 01, 2002 3:31 PM
To: Freeland, Mark (M.)
Subject: RE: WSAP Powertrain PQR Meeting Minutes - 4/24/02

Mark, the primary contact for the C90 connector is Tony D'Agostino (adagoat3).

I can answer many questions for you as well.

This is a Zetec issue. Partially connected connectors can get passed the EOL testing. If this happens we will see intermittent stalls, check engine light failures, and no starts in the field. The connection is checked at about 4 different locations in the plant.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 2:58 PM
To: Oboza, Doran (D.)
Cc: Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.); Rossi, Roberto (R.A.); Ailes, Sheran (S.A.)
Subject: FW: WSAP Powertrain PQR Meeting Minutes - 4/24/02

Doran,

Can you provide the name of the key contact who knows all about the C-90 Connector issue, and what the implications of the fault are.

Thanks

Others, please see the attachment from Doran.

Thanks

Regards

ERS2-827-G 18789

Mark Freeland

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Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Oboza, Doran (D.)
Sent: Friday, April 26, 2002 3:36 PM
To: Agarwal, Apoorva (A.); Banke, Nermna (N.B.); Coryea, Kevin (K.W.); Cvetkovic, Peter (P.); Devenport, Marty (M.F.); Deegan, Mike (M.D.); Falls, Stephan (S.W.); Fashina, Ayodeji (A.); Fodera, Michael (M.J.); Foust - Smith, Susan (S.L.); Freeland, Mark (M.); Giannamore, Armand (A.A.); Gilmour, Bradley (B.A.); Ivaniszyn, Teri (T.E.); Madrid, David (D.R.); Matt Morin; Morton, Michael (M.F.); Motley, Lesia (L.M.); Norman, Ingrid (I.); Odum, Ike (I.C.); Preter, Joseph (J.A.); Rezzee, John (J.H.); Seleck, Beth (B.); Stearns, Pam (P.V.); Tobis, Bruce (B.J.); Trombetta, Christopher (C.B.); Whang, Sonjae (S.); Winekoff, Bryan (B.D.); Zuback, Michael (M.W.); Acuff Jr., Melvin (M.); Ahmed, Kamal (K.); Ajulufok, Bart (B.O.); Anderson, Johnny (J.D.); Anzulowicz, Ken (K.J.); August, Dan (D.); Baum, Joe (J.M.); Bednarek, Mark (M.P.); Boatner, Derryle (D.R.); Brian Johnson; Brockelbe, Ronald (R.K.); Brook, James (J.W.); Brown, Mark (M.D.); Campbell, Andrea (A.M.); Campbell, Donald (D.C.); Caruso, Barry (B.); Cassisa, William (W.C.); Castleman, William (W.G.); Cantilva, James (J.C.); Cervantes, Eduardo (E.J.); Chris Campbell; Ciechanowski, Mark (M.S.); Clugston, Shane (S.A.); Coats, Richard (R.M.); Colatruccio, Vince (V.E.); Cox, Tom (T.T.); D'Agostino, Antonio (A.); Davis, Jerry (J.W.); Debbie Pallani; Dhaliwal, Deve (D.S.); Duneska, Dennis (D.R.); Dyson, Simon (S.C.); Eggert, Daniel (D.C.); Fike, Barbara (B.G.); Florence, Jeremy (J.D.); Fluker, James (J.A.); Fowkes, Michael (M.S.); Francisco Fernandez (E-mail); Franklin, Taj (T.); Gamble, Craig (C.R.); Gazecki, Timothy (T.A.); Gerka, David (D.W.); Giles, Anthony (A.T.); Gilmer, David (D.C.); Giordano, Mike (M.A.); Goulet, Michele (M.A.); Grace, John (J.E.); Graham, Robert (S.); Granados, Rodolfo (R.); Groom, Reginald (R.); Gucciardo, Steve (S.P.); Hegde, Demodar (D.M.); Helmstadter, Donald (D.G.); Hette, Bruce (B.W.); Holloway, Scott (S.S.); Hopkins, Harry (H.S.); J. Sowards; Jahshan, John; Johnson, Gary (G.A.); Jordan, Frances (F.J.); King, Steve (S.J.); Kinnie, Brian (B.W.); Kirca, Isin (I.G.); Kline, Denise (D.M.); Koch, Thomas (T.P.); Kunde, Olaf (O.); Landzabal, Sergio (S.); Lizotte, Brian (B.W.); Lorus, Brett (B.R.); MacDonald, George (G.F.); Madel Jr., Stan (S.P.); Majzoub, Malek (Z.); Marsac, Lance (L.D.); Matthews, Gary (G.); Matyslewicz, Edwin (E.J.); McCowin, Enoch (E.G.); Mihora, Bob (B.S.); Miller, Melinda (M.S.); Mitchell, Carole (C.A.); Morabito, Mike (M.P.); Moses, Edwin (E.D.); Nemethi, Steve (S.L.); O'Connor, James (J.W.); Patel, Praful (P.J.); Piazenda, David (D.B.); Postbarnes, Donna (D.F.); Popenas, Michael (M.J.); Pullala, Ananth (A.); Purvis, Bruce; Ramey, George (G.); Reichenbach, Ronald (R.W.); Rollin, Anthony (A.D.); Rosaman, Michael (M.D.); Samimy, Bahman (Benny.); Sands, Roger (R.P.); Schneider, Jeff; Sheridan, Richard (R.D.); Shupp, James (J.J.); Singley, Rogers (R.W.); Smith, David (D.A.); Smith, Tennille (T.C.); Soulliers, James (J.K.); Spaniak, Terrence (T.E.); Stevenson, Ethel (E.E.); Stojov, Tony (T.); Stump, Steven (S.M.); Sturgeon, Bill (W.); Swick, Curt (C.); Szczepaniak, Gerard (G.); Tszeszkwicz, Alexandre (A.S.); Tedone, Damian (D.J.); Thomas, Ken (K.C.); Torosian, David (D.A.); Tounon, Lyle (L.W.); Tucker, Sharrisa (S.M.); Tyrell, Larry (L.J.); Vangavola, Sreether (S.); Vinogradov, Alex (A.); Walker, Cheryl (C.); Walsh, Gerald (G.); Washington, Eric (E.D.); Wegryn, Michael (M.J.); Wepker, Ron (R.J.); White, Christopher (C.); Whiteley, Christine (C.); Wiatr, Joseph (J.M.); Wilkins, Robert (R.M.); Williams, Anthony (A.J.); Williams, Elizabeth (E.P.); Williams, Michael (M.T.); Williams, Robert (R.L.); Willis, Dean (D.G.); Ziegler, Brad (B.T.)

Subject: WSAP Powertrain PQR Meeting Minutes - 4/24/02

<< File: Meeting Minutes (04_24_02).doc >>

Doran Oboza

Powertrain Quality Analyst - Wayne Assembly Plant
Phone - 734-457-0804
Pager - 734-295-5439
email - doboza1@ford.com

"I would rather wake up in the middle of nowhere, than in any city in the world."

Steve McQueen

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 3:01 PM
To: D'Agostino, Antonio (A.)
Subject: C-90 Issue

Antonio,

Could you please fill me in on the details of the Focus C-90 connector issue, and what the symptoms of the defect are, or if you are not the right guy, then can you tell me who is.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 2:51 PM
To: Williamson, Richard (E.)
Subject: RE: VIN numbers from RO numbers.

Thanks Rick, but it's the specific test results from this part, not just the date that makes it so important.

Also, from this morning's tests there is another SUPER HOT one. Even hotter than the first, as it was built after the V Transient Improvements went into production. The number from the box was 3615309, the sensor's date of manufacture is 1/21/2002. Another golden egg if we can locate the VIN number.

Thanks for all your help and dead sensors.

Regards

Mark Freeland

6-Sigma Black Belt
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mufreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Williamson, Richard (E.)
Sent: Tuesday, April 30, 2002 6:50 AM
To: Freeland, Mark (M.)
Subject: RE: VIN numbers from RO numbers.

Mark,
John Domka is in training all week (he is the guy who promised quick action on the VIN's). I have a bunch more DPFE's - can I find a similar date for you or do you want me to bring them over??
I will still try and find a way to get the VIN's
Rick

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 6:15 PM
To: Williamson, Richard (E.)
Subject: VIN numbers from RO numbers.

Rick,

What is the best way for us to handle getting VINs for the specific parts of interest in the ones you sent? Should I ship you an excel workbook with the RO numbers and have you send it back with the VIN's filled in?

There is one that I am in a hurry to get, that is for RO number 65581

Can you get your person find me the VIN for this one ASAP.

Thanks

Regards

ER02-027-G 10710

Mark Freeland

**6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel: (313) 594-7645**

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 2:39 PM
To: Rossi, Roberto (R.A.); Mozurkewich, George (G.)
Cc: Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.); Awad, Mahmoud (M.I.)
Subject: RE: No Start Car at SRL

Roberto & Mahmoud

Could you please provide the team with a list of all known defects which do occur in the field on 2001/2002 MY 2.0L Zetec Focuses which will result in a No Crank & No Start failure mode. Please also provide the warranty data to support.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel: (313) 594-7645

-----Original Message-----

From: Rossi, Roberto (R.A.)
Sent: Tuesday, April 30, 2002 10:13 AM
To: Mozurkewich, George (G.)
Cc: Freeland, Mark (M.)
Subject: FW: No Start Car at SRL

George,

One additional thought. If the concern happens again and the DPFE sensor is not the concern, try moving the gear selector into neutral and try cranking the engine. An open in the transmission range sensor (switch) can cause a no crank.

Thanks,

Robert Rossi
Electrical/Electronic Systems Campaign Prevention Specialist
North American Car Lifestyle Vehicles
Phone/Fax: 84-51436

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 11:25 AM
To: Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.); Rossi, Roberto (R.A.)
Cc: Mozurkewich, George (G.); Potter, Timothy (T.J.)
Subject: No Start Car at SRL

Freeman et al.

We have a new mystery.

ER02-027-G 10718

Last October George Mozurkewich's wife had a dPFE failure on her 2.0L Zetec Focus, VIN 1FAFP38301W196354. We replaced the sensor with one of the prototype V Transient hardened sensors, Sn. SRL123.

Yesterday her car would not crank or start for her. After several attempts to start the car, George unplugged the dPFE sensor and the car started.

This morning Tim & I bench tested the sensor removed from the car. It appeared from the results to behave normally, and had normal current draw and impedances. We then deliberately latched the sensor on the bench. The maximum latched current we drew was 238 mA, which by itself is not sufficient to stop the PCM from functioning normally.

Using a Star tester we checked for PCM Codes, and only found a P1401 code. (This would be expected as George drove the car for several drive cycles with the dPFE sensor unplugged).

The above scenario would suggest one possibility is the following:

- 1) the dPFE had something to do with the car not starting, possibly by drawing up to 238 mA.
- 2) something else was drawing a high also from the Vref line such that the combined current was in excess of 690 mA, but less than 928 mA.
- 3) when George unplugged the dPFE sensor the total current draw from the Vref fell to below 690mA and so the car could be started.

Question:

Is it possible to latch the Fuel Rail Pressure Sensor and/or the Fuel Tank Vapor Pressure Sensor such that either or both sensors draw a high current?

Can you suggest any alternate reasons why the car did not start, but then did after the dPFE was unplugged?

In the mean time, until we decide what else to look at, Tim Potter is going to install a new production V Transient Improved part in the car.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, May 01, 2002 10:12 AM
To: Park, Kyong
Subject: RE: e-Mail

Kyong,

Yes, you got the correct email for Jon Hargas. (jhargas@ford.com)

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Thursday, April 25, 2002 4:54 PM
To: Freeland, Mark (M.)
Cc: jhargas@ford.com
Subject: e-Mail

Mark,

John mentioned about e-mail he sent to me.

I never received yet. Just in case that he put wrong address, I wanted let John know.

However, I could not find his e-mail address.

Could you help me letting him know?

I do not even know whether John's address I put into the CC space above is correct. I just guessed.

Thanks.

Kyong

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 6:28 PM
To: Willamaon, Richard (E.)
Subject: VIN Numbers

Rick,

Here is the list of parts which I need VIN numbers for so far.



RQ numbers
requiring VINs.xls

Can you're guy help? Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

SRL Tracking #	Logged	Source	RO number from box	VIN
SRL537	4/26/2002	ECI	166520	
SRL538	4/26/2002	ECI		1FTZR15E81TA63403
SRL539	4/26/2002	ECI	165964	
SRL540	4/26/2002	ECI	164392	
SRL541	4/26/2002	ECI	359734	
SRL542	4/26/2002	ECI	T4114	
SRL543	4/26/2002	ECI	166265	
SRL544	4/26/2002	ECI	354674	
SRL545	4/26/2002	ECI	166270	
SRL546	4/26/2002	ECI	352074	
SRL547	4/29/2002	ECI	87691	
SRL548	4/29/2002	ECI	85273	
SRL549	4/29/2002	ECI	95406	
SRL550	4/29/2002	ECI	91939	
SRL551	4/29/2002	ECI	87613	
SRL552	4/29/2002	ECI	89114	
SRL553	4/29/2002	ECI	91402	
SRL554	4/29/2002	ECI	88309	
SRL555	4/29/2002	ECI	95009	
SRL556	4/29/2002	ECI	88073	
SRL557	4/29/2002	ECI	92136	
SRL558	4/29/2002	ECI	88708	
SRL559	4/29/2002	ECI	89209	
SRL560	4/29/2002	ECI	84652	
SRL561	4/29/2002	ECI	83695	
SRL562	4/29/2002	ECI	490624	
SRL563	4/29/2002	ECI	82787	
SRL564	4/29/2002	ECI	82791	
SRL565	4/29/2002	ECI	94476	
SRL566	4/29/2002	ECI	94722	
SRL567	4/29/2002	ECI	93024	
SRL568	4/29/2002	ECI	94648	
SRL569	4/29/2002	ECI	95583	
SRL570	4/29/2002	ECI	93616	
SRL571	4/29/2002	ECI	98125	
SRL572	4/29/2002	ECI	92674	
SRL573	4/29/2002	ECI	93977	
SRL574	4/29/2002	ECI	93458	
SRL575	4/29/2002	ECI	83525	
SRL576	4/29/2002	ECI	82887	
SRL577	4/29/2002	ECI	94178	
SRL578	4/29/2002	ECI	94278	
SRL579	4/29/2002	ECI	91363	
SRL580	4/29/2002	ECI	84897	
SRL581	4/29/2002	ECI	91190	
SRL582	4/29/2002	ECI	93855	
SRL583	4/29/2002	ECI	80874	
SRL584	4/29/2002	ECI	88859	
SRL585	4/29/2002	ECI	82843	
SRL586	4/29/2002	ECI	83378	
SRL587	4/29/2002		82862	

SRL588	4/28/2002	80731	
SRL589	4/29/2002	85878	
SRL590	4/29/2002	94920	
SRL591	4/29/2002	84036	
SRL592	4/29/2002	93760	
SRL593	4/29/2002	95766	
SRL594	4/29/2002	83832	
SRL595	4/29/2002	83202	
SRL596	4/29/2002	90379	
SRL597	4/29/2002	85115	
SRL598	4/29/2002	84921	
SRL599	4/29/2002	93275	
SRL600	4/29/2002	90461	
SRL601	4/29/2002	88917	
SRL602	4/29/2002	90727	
SRL603	4/29/2002	93070	
SRL604	4/29/2002	90413	
SRL605	4/29/2002	81127	
SRL606	4/29/2002	80367	
SRL607	4/29/2002	88279	
SRL608	4/29/2002	91416	
SRL609	4/29/2002	84495	
SRL610	4/29/2002	93488	
SRL611	4/29/2002	88933	
SRL612	4/29/2002	86561	
SRL613	4/29/2002	86141	

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 8:15 PM
To: Williamson, Richard (E.)
Subject: VIN numbers from RO numbers.

Rick,

What is the best way for us to handle getting VINs for the specific parts of interest in the ones you sent? Should I ship you a excel workbook with the RO numbers and have you send it back with the VIN's filled in?

There is one that I am in a hurry to get, that is for RO number 85581

Can you get your person find me the VIN for this one ASAP.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 11:31 AM
To: 'Jahshan, John (J.H.)'
Subject: RE:

Thanks John

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Monday, April 29, 2002 10:55 AM
To: 'Freeland, Mark (M.)'
Cc: Gates, Freeman (F.C.)
Subject: RE:

Hi Mark,

Here is what I know about the letters:

A Line 2 SC1
B Line 2 SC2
C Line 2 SC3

D Line 3 SC1
E Line 3 SC2
F Line 3 SC3

SC1 = Midnight Shift, SC2 = Dayshift, SC3 = Afternoon shift

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>

"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreela1@ford.com]

EP02-027-G 10735

Sent: Wednesday, April 24, 2002 9:25 AM
To: 'Jahshan, John (J.H.)'
Cc: Gates, Freeman (F.C.)
Subject: RE:

John,

Can you tell me what the E in the date code is? Also how do you know what line at North Penn the unit was manufactured on?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Wednesday, April 24, 2002 7:51 AM
To: 'Freeland, Mark (M.)'
Subject: RE:

Hi Mark,

You hit the date code on the head. Nice interoperation.

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]
Sent: Tuesday, April 23, 2002 6:08 PM
To: 'jjahshan@visteon.com'
Subject:

Sorry for the delay in getting the PCM date code to you, but it is 0H23E which I interoperate as meaning 8/23/2000. Not sure about the E.

<<SRL185 Label.TIF>>

See the picture for the label on the connector.

Please call me if there is anything else you need to know.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 11:30 AM
To: Perry, Brian (B.J.); John Jahshan (E-mail)
Subject: FW: No Start Car at SRL

Brian & John,
Sorry I forgot to include you when I sent initially.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 11:25 AM
To: Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.); Ross, Roberto (R.A.)
CC: Mozurkewich, George (G.); Potizer, Timothy (T.J.)
Subject: No Start Car at SRL

Freeman et al.

We have a new mystery.

Last October George Mozurkewich's wife had a dPFE failure on her 2.0L Zetec Focus, VIN 1FAPP38301W196354. We replaced the sensor with one of the prototype V Transient hardened sensors, Sn. SRL123.

Yesterday her car would not crank or start for her. After several attempts to start the car, George unplugged the dPFE sensor and the car started.

This morning Tim & I bench tested the sensor removed from the car. It appeared from the results to behave normally, and had normal current draw and impedances. We then deliberately latched the sensor on the bench. The maximum latched current we drew was 238 mA, which by itself is not sufficient to stop the PCM from functioning normally.

Using a Star tester we checked for PCM Codes, and only found a P1401 code. (This would be expected as George drove the car for several drive cycles with the dPFE sensor unplugged).

The above scenario would suggest one possibility is the following:

- 1) the dPFE had something to do with the car not starting, possibly by drawing up to 238 mA.
- 2) something else was drawing a high also from the Vref line such that the combined current was in excess of 690 mA, but less than 928 mA.
- 3) when George unplugged the dPFE sensor the total current draw from the Vref fell to below 690mA and so the car could be started.

Question:

Is it possible to latch the Fuel Rail Pressure Sensor and/or the Fuel Tank Vapor Pressure Sensor such that either or both sensors draw a high current?

Can you suggest any alternate reasons why the car did not start, but then did after the dPFE was unplugged?

In the mean time, until we decide what else to look at, Tim Potter is going to install a new production V Transient Improved part in the car.

Regards

Mark Freeland

**6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfree1@ford.com
Tel.: (313) 594-7645**

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 11:25 AM
To: Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.); Rossi, Roberto (R.A.)
Cc: Mozurkewich, George (G.); Potter, Timothy (T.J.)
Subject: No Start Car at SRL

Freeman et al.

We have a new mystery.

Last October George Mozurkewich's wife had a dPFE failure on her 2.0L Zetec Focus, VIN 1FAPP38301W196354. We replaced the sensor with one of the prototype V Transient hardened sensors, Sn. SRL123.

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Can you suggest any alternate reasons why the car did not start, but then did after the dPFE was unplugged?

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Regards

Mark Freeland

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EA82-827-G 18740

Dearborn, MI 48121-2053 USA
email: mfree1@ford.com
Tel.: (313) 594-7645

ERR2-027-0 10741

From: Freeland, Mark (M.)
Sent: Monday, April 29, 2002 9:22 AM
To: Verner, Carol (C.J.)
Cc: Potter, Timothy (T.J.)
Subject: Registration & Insurance papers for the Automatic Buy Back Focus.

Carol,

There is no paperwork (registration and proof of insurance) in the glove box of the two door automatic buy back Focus, VIN 3FAFP313X1R108133 .

Could you please pass this on to you're car coordinator and ask him to obtain copies of these documents for the vehicle. Thanks

Regards

Mark Freeland

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Engine Research Department
Ford Research Laboratory
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Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

EA62-027-G 18742

Subject: Lab testing dPFE sensors for Latch Up
Location: SRL 1517

Start: Mon 4/29/2002 12:30 PM
End: Tue 4/30/2002 5:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.)

From: Freeland, Mark (M.)
Sent: Friday, April 26, 2002 11:17 AM
To: Plante, Paul (P.G.); Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: RE: Sci Lab Sensor Lab Work

Jim and Freeman,

Please consider yourselves also invited to spend some time with Paul and me in the lab. We intend to electrically test a few sensors and patch them up and then retest them. The intent is to get a personal experience of how it can happen and what the outcome is.

Regards

Mark Freeland

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MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Plante, Paul (P.G.)
Sent: Thursday, April 25, 2002 3:53 PM
To: Freeland, Mark (M.)
Subject: Sci Lab Sensor Lab Work

I have a note to call you Monday to set a day/time to spend in your labs. My calendar will be complete then to pick a free day.

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube BG049, Pillar D5
Tele. 313-84-54138; Fax 39-02513
Text Pager: 734-298-1905
E Mail: pplante@ford.com (CDS ID PPLANTE)

From: Freeland, Mark (M.)
Sent: Thursday, April 25, 2002 12:32 PM
To: Gonzalez, Lebzy (L.)
Subject: RE: Football match

Thanks Lebzy. I will collect the sample and examine under the microscope after a 1 - 3 pm meeting at POEB. I will let you know what we find.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Gonzalez, Lebzy (L.)
Sent: Wednesday, April 24, 2002 2:54 PM
To: Freeland, Mark (M.)
Subject: RE: Football match

Match complete--I think I missed one or two goals, though. The sample is right next to the microtome, where you had left the stubs. Let me know what it tells you...

Lebzy Gonzalez
Materials Science Department
Scientific Research Laboratory
20-64167
lgonza25@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 10:02 AM
To: Gonzalez, Lebzy (L.)
Subject: RE: Football match

Lebzy,

The machine shop is making sample holders, two will be ready this afternoon. I will be out of the building from 1 - 3:30 approx., but Martin will put them in my office when they are ready. You can come look for them, or I will look for you when I get back to the office.

Hoping for another good game with lots of own goals!

Regards

Mark Freeland

ENG2-827-G 10788

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----
From: Gonzalez, Lebzy (L.)
Sent: Monday, April 22, 2002 2:12 PM
To: Freeland, Mark (M.)
Subject: Football match

Hi Mark,

I was getting ready for my next match when I realized that I don't have any Al stubs to mount the chip in. Do you have them?

Lebzy Gonzalez
Materials Science Department
Scientific Research Laboratory

20-64167
lgonza25@ford.com

From: Freeland, Mark (M.)
Sent: Thursday, April 26, 2002 11:03 AM
To: Bansk, Catherine (C.K.)
Subject: RE: Testing sensors

Kathy, there are about 300 ready to be tested! They will be in my office.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Bansk, Catherine (C.K.)
Sent: Wednesday, April 24, 2002 7:39 PM
To: Freeland, Mark (M.)
Cc: Verner, Carol (C.J.)
Subject: RE: Testing sensors

I will be at SRL Thursday afternoon to measure voltage. If you are there great, if you are not, please leave the sensors in a box marked so I know where to start.

Carol and I seem to move pretty quickly through them.

Carol, let me know if you can meet me there in Tim's lab for voltage checking.

Thanks,

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 6:46 PM
To: Bansk, Catherine (C.K.)
Cc: Verner, Carol (C.J.)
Subject: RE: Testing sensors

Looks like Thursday is the next day for testing. I have parts when either of you can test them.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ER02-027-6 10782

—Original Message—

From: Barsek, Catherine (C.K.)
Sent: Tuesday, April 23, 2002 11:27 AM
To: Freeland, Mark (M.)
Cc: Verner, Carol (C.J.)
Subject: RE: Testing sensors

I plan on attending a supplier off-site at Auburn Hills all day.
I can start Thursday afternoon.
If something changes with the off-site, I will come over Wednesday.
Tim's Lab is the voltage check, correct?

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 10:06 AM
To: Barsek, Catherine (C.K.)
Cc: Verner, Carol (C.J.)
Subject: Testing sensors

Kathy,

I will have about 75 sensors later today which need testing in Tim's lab before we crack them open. Carol is in training until Thursday. so would you be available tomorrow morning to start testing them?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Plante, Paul (P.G.)
Sent: Tuesday, April 23, 2002 9:32 AM
To: Freeland, Mark (M.); Verner, Carol (C.J.)
Subject:

I have field return sensors from Field Quality Engineers (Rick Williamson) at my desk. I will bring to 1:00 PM meeting today. If you want earlier call or page me, or pick up-they are in my office in box on my round table.

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube B0049, Pillar D5
Tele. 313-84-54138; Fax 39-02513
Text Pager: 734-296-1905
E Mail: pplante@ford.com (CDS ID PPLANTE)

EP02-027-G 10703

From: Freeland, Mark (M.)
Sent: Thursday, April 25, 2002 11:02 AM
To: Janda, Jon (J.M.)
Subject: RE: Completed DPFE's

Thanks John.

I have 300 more sensors in my office plus about 15 which are electrically tested and waiting in the microscope lab for you.

I would like to hear more about you're drive last night. I will be at SRL until 12:45 then over at POEE until about 3:30, then back to SRL.

See you later.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----
From: Janda, Jon (J.M.)
Sent: Thursday, April 25, 2002 8:52 AM
To: Freeland, Mark (M.)
Subject: Completed DPFE's
Importance: High

Mark,

The last 2 DPFE's are complete and in the "box" in the lab by the microscope (you weren't in yet to drop them off).

I drove the Focus last night and recorded 6 events:

2 on initial part of drive home

4 on initial part of drive in

The data should be electronically stored and on the strip chart. I left the keys on Tim's desk with a similar note.

8082-827-G 18784

From: Freeland, Mark (M.)
Sent: Wednesday, April 24, 2002 1:01 PM
To: Bryant, Bruce (B.D.)
Subject: RE: High-level exposure

Bruce,

Yes, I made a presentation on the Kavlico dPFE sensor projects at WAP to Jac Nasser and Louise Goesser on Jac's last day with the company (don't recall the exact date, but it was a Monday morning in October 2001).

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Bryant, Bruce (B.D.)
Sent: Wednesday, April 24, 2002 12:48 PM
To: Cole, Charles (C.C.); Curtis, Eric (E.W.); DeMurry, Thomas (T.L.); Freeland, Mark (M.); Glanville, Armand (A.A.); Loring, Daniel (D.H.); Liu, Dang (D.R.); McBride, James (J.R.); Nasser, Ahmad (A.M.); Shaya, Nada (N.J.); Teng, Charlie (C.); Tobis, Bruce (B.J.); Wei, Kuang (K.C.); Zubeck, Michael (M.W.); Agarwal, Apoorva (A.); Amori, Richard (R.); Brod, Larry (L.E.); Ciechanowski, Mark (M.S.); Denn, Michael (M.E.); Elliott, Adrian (A.N.); Geer, James (J.W.); Gibson, Alex (A.O.); Jensen, Ted (T.E.); Kiridara, Vijitha (V.); Kishore, Margaret (M.A.); Paul, Debabrata (Deb.); Samus, Marsha (M.A.); Subramaniam, Santharan (S.)
Cc: Eggers, Pamela (P.J.); Gearhart, Chris (C.)
Subject: High-level exposure

Pam Eggers would like to know if any of us has had any high-level exposure outside of research during our blackbelt tenure. Please let me know of any presentations you've given to VPs or other high-ranking executives, or of any meetings you've had with same, and I'll compile the info and pass it on to her.

Please respond promptly; I'd like to give her an answer by tomorrow (Thursday) morning.

Cordially,
Bruce Bryant, mbryant2@ford.com, 001-313-59-06750
6-Sigma Blackbelt, Ford Research Laboratory

ER02-027-0 10785

From: Freeland, Mark (M.)
Sent: Wednesday, April 24, 2002 11:04 AM
To: Potter, Timothy (T.J.)
Subject: FW:

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Wednesday, April 24, 2002 7:51 AM
To: 'Freeland, Mark (M.)'
Subject: RE:

Hi Mark,

You hit the date code on the head. Nice interoperation.

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreela1@ford.com]
Sent: Tuesday, April 23, 2002 6:08 PM
To: 'jjahshan@visteon.com'
Subject:

Sorry for the delay in getting the PCM date code to you, but it is 0H23E which I interoperate as meaning 8/23/2000. Not sure about the E.

<<SRL185 Label.TIF>>
See the picture for the label on the connector.

0002-027-0 10765

Please call me if there is anything else you need to know.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, April 24, 2002 9:25 AM
To: 'Jahshan, John (J.H.)'
Cc: Gates, Freeman (F.C.)
Subject: RE:

John,

Can you tell me what the E in the date code is? Also how do you know what line at North Penn the unit was manufactured on?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Wednesday, April 24, 2002 7:51 AM
To: 'Freeland, Mark (M.)'
Subject: RE:

Hi Mark,

You hit the date code on the head. Nice interoperation.

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]
Sent: Tuesday, April 23, 2002 6:08 PM
To: 'jjahshan@visteon.com'
Subject:

0002-827-6 18788

Sorry for the delay in getting the PCM date code to you, but it is OH23E which I interpret as meaning 8/23/2000. Not sure about the E.

<<SRL185 Label.TIF>>

See the picture for the label on the connector.

Please call me if there is anything else you need to know.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 6:48 PM
To: Bansek, Catherine (C.K.)
Cc: Verner, Carol (C.J.)
Subject: RE: Testing sensors

Looks like Thursday is the next day for testing. I have parts when either of you can test them.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Bansek, Catherine (C.K.)
Sent: Tuesday, April 23, 2002 11:27 AM
To: Freeland, Mark (M.)
Cc: Verner, Carol (C.J.)
Subject: RE: Testing sensors

I plan on attending a supplier off-site at Auburn Hills all day.
I can start Thursday afternoon.
If something changes with the off-site, I will come over Wednesday.
Tim's Lab is the voltage check, correct?

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 10:06 AM
To: Bansek, Catherine (C.K.)
Cc: Verner, Carol (C.J.)
Subject: Testing sensors

Kathy,

I will have about 75 sensors later today which need testing in Tim's lab before we crack them open. Carol is in training until Thursday. so would you be available tomorrow morning to start testing them?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053

EA02-027-G 10790

MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Plante, Paul (P.G.)
Sent: Tuesday, April 23, 2002 9:32 AM
To: Freeland, Mark (M.); Verner, Carol (C.J.)
Subject:

I have field return sensors from Field Quality Engineers (Rick Williamson) at my desk. I will bring to 1:00 PM meeting today. If you want earlier call or page me, or pick up-they are in my office in box on my round table.

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube BG049, Pillar D5
Tele. 313-84-54138; Fax 39-02513
Text Pager: 734-298-1905
E Mail: pplante@ford.com (CDS ID PPLANTE)

ERR2-827-G 18701

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 6:08 PM
To: Maurer, James (J.B.)
Subject: Accepted: Finalize information for Analytical Solutions

ERG2-827-G 18794

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 8:08 PM
To: 'jjahahan@visteon.com'

Sorry for the delay in getting the PCM data code to you, but it is 0H23E which I interpret as meaning 8/23/2000. Not sure about the E.



SRL185 Label.TIF

See the picture for the label on the connector.

Please call me if there is anything else you need to know.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

811

1-aa 8287

SZR5

EEC-V



LP2-321



194F-12862-AMC - LINE SPEED NOX

Subject: Outside Lab discussion
Location: SRL Conf Room 1347 (10)

Start: Wed 4/24/2002 2:00 PM
End: Wed 4/24/2002 4:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Plante, Paul (P.G.)
Resources: SRL Conf Room 1347 (10)

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 10:08 AM
To: Bansek, Catherine (C.K.)
Cc: Verner, Carol (C.J.)
Subject: Testing sensors

Kathy,

I will have about 75 sensors later today which need testing in Tim's lab before we crack them open. Carol is in training until Thursday. so would you be available tomorrow morning to start testing them?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Tuesday, April 23, 2002 9:32 AM
To: Freeland, Mark (M.); Verner, Carol (C.J.)
Subject:

I have field return sensors from Field Quality Engineers (Rick Williamson) at my desk. I will bring to 1:00 PM meeting today. If you want earlier call or page me, or pick up-they are in my office in box on my round table.

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube BG049, Pillar D5
Tele. 313-84-54138; Fax 39-02513
Text Pager: 734-298-1905
E Mail: pplante@ford.com (CDS ID PPLANTE)

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 10:02 AM
To: Gonzalez, Lebzy (L.)
Subject: RE: Football match

Lebzy,

The machine shop is making sample holders, two will be ready this afternoon. I will be out of the building from 1 - 3:30 approx., but Martin will put them in my office when they are ready. You can come look for them, or I will look for you when I get back to the office.

Hoping for another good game with lots of own goals!

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Gonzalez, Lebzy (L.)
Sent: Monday, April 22, 2002 2:12 PM
To: Freeland, Mark (M.)
Subject: Football match

Hi Mark,

I was getting ready for my next match when I realized that I don't have any Al stubs to mount the chip in. Do you have them?

Lebzy Gonzalez
Materials Science Department
Scientific Research Laboratory

20-64167
lgonza25@ford.com

ER02-027-G 10780

From: Freeland, Mark (M.)
Sent: Monday, April 22, 2002 6:45 PM
To: Bansek, Catherine (C.K.)
Subject: RE: Kavlico Failure Analysis

Please Kathy, we will have lots left to do.

Check with me tomorrow at the 1:00 pm war room meeting.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Bansek, Catherine (C.K.)
Sent: Monday, April 22, 2002 4:16 PM
To: Freeland, Mark (M.); Verner, Carol (C.J.)
Cc: Gates, Freeman (F.C.); Johnson, Joe (J.H.)
Subject: Kavlico Failure Analysis

My Tuesdays are full of meetings, but I've got time Wed and Thursday afternoon if you want to schedule some "voltage checking" or "microscope looking time for me.

Let me if you need me know so I can plan some time for it.

Catherine Bansek <mailto:cbansek2@ford.com> <<mailto:cbansek2@ford.com>>
Product Design Engineer, EGR Systems
FMEI Dept, V-Engine Engineering
Ford Motor Company
Phone: (313) 323-8101; Fax: (313) 390-4084
POEE MD 69; Column G-15; Cube CQ170
Text Page: 3137965245@alphapage.airtouch.com <<mailto:3137965245@alphapage.airtouch.com>>

From: Freeland, Mark (M.)
Sent: Monday, April 22, 2002 6:43 PM
To: Dalbo, Bob (R.J.)
Subject: RE: Temperature Sensitivity

Bob,
According to the literature, it should be easier to get a CMOS device to go into a SCR latch at higher temperatures.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Dalbo, Bob (R.J.)
Sent: Monday, April 22, 2002 5:49 PM
To: Freeland, Mark (M.)
Subject: Temperature Sensitivity

Mark,
How does temperature affect the Kavlico DPFE sensor's noise sensitivity?

Bob Dalbo

3.0L Calibration Supervisor
Outfitters Calibration, NAT
Phone: (313) 24-84947 Fax: (313) 32-31786
Pager: (313) 795-2859 Email: rdalbo@ford.com

From: Freeland, Mark (M.)
Sent: Monday, April 22, 2002 11:05 AM
To: Akins, Mary (M.)
Subject: RE: Parts for the outside lab

Mary,

I would like the vehicle to be random (i.e. don't look at the label for vehicle in case it biases whether you pick the part or not), but the date to be specific.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Akins, Mary (M.)
Sent: Monday, April 22, 2002 10:41 AM
To: Freeland, Mark (M.)
Subject: RE: Parts for the outside lab

Mark,

I should be able to have them tomorrow, Tuesday, at 9:00am. Do you care what vehicle they came off? Most of what we pulled from WPRC will be Escape and Focus.

Mary

---Original Message---

From: Freeland, Mark (M.)
Sent: Friday, April 19, 2002 6:52 PM
To: Akins, Mary (M.)
Cc: Maurer, James (J.B.); Gates, Freeman (F.G.)
Subject: Parts for the outside lab

Mary,

Of all the parts I currently have, only one is from a vehicle built in 9/2000 time frame.

Could you please get me about 50 WPRC parts which were from 8/2000 - 10/2000 sensor MOM. Could you let me know when you could reasonably have them?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt

ER02-027-G 10004

Engine Research Department
Ford Research Laboratory
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Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

BR02-027-G 10005

From: Freeland, Mark (M.)
Sent: Friday, April 19, 2002 6:52 PM
To: Akins, Mary (M.)
Cc: Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: Parts for the outside lab

Mary,

Of all the parts I currently have, only one is from a vehicle built in 9/2000 time frame.

Could you please get me about 50 WPRC parts which were from 8/2000 - 10/2000 sensor MOM. Could you let me know when you could reasonably have them?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, April 16, 2002 7:06 PM
To: Jensen, Ted (T.E.)
Subject: Check this one out

Ted,

I have the dPFE from the following vehicle:

1FMYU04121KB22225

Customer Complaint:

CUSTOMER STATES THAT THE ENGINE STALLED OUT ONE TIME WHILE DRIVING DOWN HILL IN HIGH GEAR WITHOUT FOOT ON GAS PEDAL

And Guess What:

The dPFE was shorted, i.e. was the primary root cause for the stall

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, April 16, 2002 9:44 AM
To: Potter, Timothy (T.J.)
Cc: Alles, Sheran (S.A.); McCoy, James (J.D.); Gates, Freeman (F.C.); Maurer, James (J.B.);
Plante, Paul (P.G.); Mazurkewich, George (G.); Rossi, Roberto (R.A.)
Subject: Buy Back Focus

Tim,

Could you please obtain the two buy back Focuses, Sheran has the Auto and Jim McCoy has the stick shift. Please install our instrumentation package into the Auto, (using a the second current pickup and gray box if you like, so as not to tear out everything from the stick shift, but use our good scope in the Auto).

Then, once you are satisfied that the instrumentation is functioning correctly, install the EEC V (PCM) test number SRL185 that was removed from the Alan Ford customer vehicle with the short circuit sensor in the Auto.

I will give you the test sensor (8/2000 warranty return) and reference sensor (Post 1/7/2002 V Transient Improved) for the vehicle when you collect the PCM from me.

We will drive that PCM for a while to see if there are any unusual transient voltages on the Vref line.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Tuesday, April 16, 2002 9:23 AM
To: Gates, Freeman (F.C.)
Subject: VIN # for Alan Ford Staller

Freeman,
Just a reminder, I need to know the VIN number from the Alan Ford Staller which had the shorted sensor.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreola1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 7:58 PM
To: Rosal, Roberto (R.A.)
Subject: RE: PCM Data Code from Focus Buy-Back

Roberto, Is this the one from the stick shift or the automatic vehicle? or better still, what is the VIN number of the vehicle it came off.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Rosal, Roberto (R.A.)
Sent: Tuesday, April 09, 2002 3:45 PM
To: Freeland, Mark (M.)
Cc: Maurer, James (J.B.)
Subject: PCM Data Code from Focus Buy-Back

Mark,

I do not know how to read the date codes from the module but here is what is printed on the label.

Part Number: 1S4F-12A850-ADF

LMGB5FCMX6TT
0H16C

Robert Rosal
Electrical/Electronic Systems Campaign Prevention Specialist
North American Car Lifestyle Vehicles
Phone/Fax: 84-51436

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 5:35 PM
To: Renouf, Joe (J.H.)
Subject: RE: PE02-040 Investigation Meeting

Joe, I will await you're call.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Renouf, Joe (J.H.)
Sent: Thursday, April 11, 2002 1:44 PM
To: Freeland, Mark (M.)
Subject: PE02-040 Investigation Meeting

Mark,

You were invited to our kick off meeting regarding the Focus stalling issue and we talked about the issue by phone. The decision has been made that we will be answering the questions as asked, only in regard to the FDM and stalling. We will address other issues that can cause stalling separately. Therefore, you will not have to attend the 2:00PM 4/12 meeting. I don't want to take up your time needlessly.

Thank you for the information you gave me during our call and I may need to talk to you again at a later date.

Regards,

Joe Renouf: Automotive Safety Office
Fairlane Plaza South, 330 Town Center Drive, Suite 500
(313) 32-31603 Fax (313) 59-42208 Internet: jrenouf@ford.com

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 5:24 PM
To: Dhallwal, Dave (B.S.)
Subject: RE: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Thanks Dave.

But, be advised there is a 14 D team working on the issue, Dan Popoff is supposed to be the Focus rep on the team.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Dhallwal, Dave (B.S.)
Sent: Thursday, April 11, 2002 3:54 PM
To: Freeland, Mark (M.)
Cc: Bell, Ryan (R.M.); MacDonald, George (G.F.)
Subject: RE: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Mark, its OK if you cannot attend. We are out of tube mounted DPFE sensor at Wayne.

We are going to use new release tube mounted DPFE sensor only for service.

-----Original Message-----

From: Bell, Ryan (R.M.)
Sent: Thursday, April 11, 2002 12:50 PM
To: MacDonald, George (G.F.); Dhallwal, Dave (B.S.)
Subject: FW: Wayne Power train Containment Matrix / PQR Presentations On April 17th

fyi

Ryan Bell (rbell2)
Master Black Belt
Wayne Stamping and Assembly Operations
Ph. (734)467-8876
Fax. (734)467-8882
Pgr. (734)787-8582

<< File: Bell, Ryan (R.M.).vcf >>

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 12:43 PM
To: Bell, Ryan (R.M.)
Subject: RE: Wayne Power train Containment Matrix / PQR Presentations On April 17th

ER02-027-G 10054

Ryan,

I understand where you are coming from, however I just have too many meetings to go to and can not commit

to coming to any regular meetings, otherwise I will not get any work done! I will try and attend next weeks meeting.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Bell, Ryan (R.M.)
Sent: Wednesday, April 10, 2002 4:10 PM
To: Fashina, Ayodeji (A.); Selleck, Beth (B.); Morton, Michael (M.F.); Trombetta, Christopher (C.B.); Orelkovski, Peter (P.); Coryea, Kevin (K.W.); Gwozdek, Tom (T.M.); Agarwal, Apoorva (A.); Tobis, Bruce (B.J.); Rezaee, John (J.H.); Freeland, Mark (M.); Srivastava, Shivhari (S.P.)
Cc: Bell, Ryan (R.M.); MacDonald, George (G.F.); Dhaliwal, Dave (D.S.)
Subject: FW: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Team,

I would like to know which of you are working on a Powertrain Project and which are not. It is totally unacceptable to not attend the PT VRT meeting if you are working on a 6 sigma project at Wayne. Please let me know if you are getting this in error.

Thank you,

Ryan Bell (rbell2)
Master Black Belt
Wayne Stamping and Assembly Operations
Ph. (734)467-8878
Fax. (734)467-8882
Pgr. (734)797-8582

<< File: Bell, Ryan (R.M.).vcf >>

-----Original Message-----

From: Srivastava, Shivhari (S.P.)
Sent: Wednesday, April 10, 2002 3:59 PM
To: Fashina, Ayodeji (A.); Selleck, Beth (B.); Morton, Michael (M.F.); Trombetta, Christopher (C.B.); Orelkovski, Peter (P.); Coryea, Kevin (K.W.); Gwozdek, Tom (T.M.); Agarwal, Apoorva (A.); Tobis, Bruce (B.J.); Rezaee, John (J.H.); Freeland, Mark (M.); Srivastava, Shivhari (S.P.)
Cc: Dhaliwal, Dave (D.S.); Bell, Ryan (R.M.); MacDonald, George (G.F.)
Subject: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Team,

If you are working on Focus PT issues then mark your calendar for this meeting. Your presence is very crucial for the success of the team.

WHAT: Wayne Power train Containment Matrix / PQR Presentations - by G. MacDonald

WHEN: PT VRT Meeting, 11 - 12 Noon (Presentation From 11:30AM), 04/17/02

WHERE: Wayne Maverick Conference Room

ERG2-827-G 16655

Note:

We postponed this presentation for next week because only 2 BB's came to attend this meeting. Let us fill the

room next week to show our support. Ryan, pl. support the PT VRT and request all PT BB's to attend this meeting.

Thanks

Shivharl Srivastava

Body & Chassis Black Belt, G.C.E.

(Consumer Driven 6-Sigma)

ph. 313-322-5392 / pg. 313-795-8141

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 4:38 PM
To: James Maurer (J.B.) (E-mail)
Subject: FW: Proposed data to be gathered on all parts sent to outside labs

Sorry Jim, sent it to the wrong Maurer

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Maurer, Andrea (A.M.)
Sent: Wednesday, April 10, 2002 2:27 PM
To: Freeland, Mark (M.)
Subject: RE: Proposed data to be gathered on all parts sent to outside labs

Mark,

I think this was sent to me in error.

Andrea Maurer
Safety Engineer
Ford Livonia Transmission
Phone: 734/523-4037
Fax: 734/523-5986
amaurer@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, April 10, 2002 1:46 PM
To: Maurer, Andrea (A.M.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Verner, Carol (C.J.); Hargas, Jon (J.)
Cc: Potter, Timothy (T.J.)
Subject: Proposed data to be gathered on all parts sent to outside labs

Please see the attached document for my initial proposal of the minimum data which should be collected for each part sent to an outside lab before any tear down analysis is conducted.

If you have any additional suggestions then please let me know and I will add this to the document.

Thanks

<< File: Outside Lab Initial Characterization.doc >>

Regards

Mark Freeland

8002-027-G 10057

6-Sigma Black Belt
Engine Research Department
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P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ERS2-027-G 10850

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 12:43 PM
To: Bell, Ryan (R.M.)
Subject: RE: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Ryan,

I understand where you are coming from, however I just have too many meetings to go to and can not commit to coming to any regular meetings, otherwise I will not get any work done. I will try and attend next weeks meeting.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Bell, Ryan (R.M.)
Sent: Wednesday, April 10, 2002 4:10 PM
To: Fashina, Ayodeji (A.); Selleck, Beth (B.); Norton, Michael (M.F.); Trombetta, Christopher (C.B.); Ovetkovski, Peter (P.); Coryea, Kevin (K.W.); Gwozdek, Tom (T.M.); Agarwal, Apoorva (A.); Tobis, Bruce (B.J.); Rezaee, John (J.H.); Freeland, Mark (M.); Srivastava, Shikhar (S.P.)
Cc: Bell, Ryan (R.M.); MacDonald, George (G.F.); Dhallwal, Dave (D.S.)
Subject: FW: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Team,

I would like to know which of you are working on a Powertrain Project and which are not. It is totally unacceptable to not attend the PT VRT meeting if you are working on a 6 sigma project at Wayne. Please let me know if you are getting this in error.

Thank you,

Ryan Bell (rbell2)
Master Black Belt
Wayne Stamping and Assembly Operations
Ph. (734)467-8878
Fax. (734)467-8882
Pgr. (734)787-8582

<< File: Bell, Ryan (R.M.).vcf >>

-----Original Message-----

From: Srivastava, Shikhar (S.P.)
Sent: Wednesday, April 10, 2002 3:59 PM
To: Fashina, Ayodeji (A.); Selleck, Beth (B.); Norton, Michael (M.F.); Trombetta, Christopher (C.B.); Ovetkovski, Peter (P.); Coryea, Kevin (K.W.); Gwozdek, Tom (T.M.); Agarwal, Apoorva (A.); Tobis, Bruce (B.J.); Rezaee, John (J.H.); Freeland, Mark (M.); Srivastava, Shikhar (S.P.)
Cc: Dhallwal, Dave (D.S.); Bell, Ryan (R.M.); MacDonald, George (G.F.)
Subject: Wayne Power train Containment Matrix / PQR Presentations On April 17th

Team,

If you are working on Focus PT Issues then mark your calendar for this meeting. Your presence is very crucial

for the success of the team.

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WHEN: PT VRT Meeting, 11 - 12 Noon (Presentation From 11:30AM), 04/17/02

WHERE: Wayne Maverick Conference Room

Note:

We postponed this presentation for next week because only 2 BB's came to attend this meeting. Let us fill the room next week to show our support. **Ryan, pl. support the PT VRT and request all PT BB's to attend this meeting.**

Thanks

Shivhari Srivastava

Body & Chassis Black Belt, G.C.E.

(Consumer Driven 6-Sigma)

ph. 313-322-5392 / pg. 313-796-8141

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 12:04 PM
To: Awad, Mahmoud (M.I.); 'Brady Davis'; 'Dr Park'; 'Mary'; Donald Ayers (E-mail)
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Gates, Freeman (F.C.); Schieding, Kurt (K.J.)
Subject: RE: PCM Vs DPFE Failures

Mahmoud,

I would only expect to see a strong correlation for all MOP at a given TIS if and only if 1) there were a normal common cause of the failure which you would expect to occur at varying frequency, 2) there is only one strong contributing common cause, and 3) there are no special causes.

However, with our problem there is at least one special cause "Mask Misalignment" (but more likely at least 3 special causes, some of which may come from the vehicle not from the sensor), and we have at least two strong common causes for which the symptoms are "UPAD" and "High Current Latch".

Thus the lack of correlation in the graphs is to be expected, and is inconclusive.

What would be conclusive, however, is if we were to try and show correlation between life expectancy of sensors manufactured on the same day, and the actual life of the sensors on one vehicle line versus another. If this correlation does not exist, then it would be conclusive that a difference in the vehicle system was a primary contributing factor to the difference in failure rate on one vehicle vs. the other.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Awad, Mahmoud (M.I.)
Sent: Thursday, April 11, 2002 9:10 AM
To: 'Brady Davis'; 'Dan Ayers'; 'Dr Park'; 'Mary'
Cc: Plante, Paul (P.G.); Maurer, James (J.B.); Freeland, Mark (M.); Gates, Freeman (F.C.); Schieding, Kurt (K.J.)
Subject: PCM Vs DPFE Failures

Team,

This is a correlation study between PCM Failures and DPFE Failures. The points in the chart represents R/1000 for each vehicle month of production.

<< File: Correlation between PCM Failures and DPFE Failures.doc >>

Best Regards

Mahmoud Awad

Reliability Implementation Engineer

FMEI Department Support

Phone: (313) 24-83889

e-mail: mawad@ford.com

ER02-027-G 10001

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 11:47 AM
To: Plante, Paul (P.G.)
Subject: RE: Proposed data to be gathered on all parts sent to outside labs

Paul,

You bet! But I am not done yet. have a new one to add to the list.

For parts which we suspect V Transient we should have the lab measure the Z1 (Transient Voltage Suppressor) as well.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Thursday, April 11, 2002 11:29 AM
To: Freeland, Mark (M.)
Subject: RE: Proposed data to be gathered on all parts sent to outside labs

Nice list, you done this before?

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, April 10, 2002 1:46 PM
To: Maurer, Andrea (A.M.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Verner, Carol (C.J.); Hargas, Jon (.)
Cc: Potter, Timothy (T.J.)
Subject: Proposed data to be gathered on all parts sent to outside labs

Please see the attached document for my initial proposal of the minimum data which should be collected for each part sent to an outside lab before any tear down analysis is conducted.

If you have any additional suggestions then please let me know and I will add this to the document.

Thanks

<< File: Outside Lab Initial Characterization.doc >>

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517

ERS2-827-0 18682

Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 9:31 AM
To: Chen, Smith S N (S.)
Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); McCoy, James (J.D.); Plante, Paul (P.G.)
Subject: RE: DPFE EGR Part Concern

Smith,

Thanks for the info and shipping the PCM. I have asked Jim Maurer to look into getting you a replacement PCM.

I do not know if you are aware of the Improved dPFE sensor which went into production on January 7th, 2002. If not here are the details.

There is a known failure mode that we have been referring to a "V Transient". With this failure the sensor goes into a high current draw situation, where the current draw can be anywhere in the range 200 - 1,700 mA. It is believed to be a SCR latch caused by some unknown transient voltage spike hitting the sensor output and/or the sensor Vref line. The Improved transient voltage protection to the dPFE sensor went into production at Kavlico on January 7th 2002. It incorporates an added 10 ohm current limiting resistor on the 5 V input (Vref line) and two 30 ohm series resistors and a diode to ground on the sensor output line. This improved sensor will prevent the sensor from ever drawing a current greater than 500 mA for any failure mode. For the Escape (and I presume also for the Tribute) it takes a current of 1,500 mA to pull the PCM 5 V low enough to stall the engine.

So a good fix to prevent dPFE induced stalls and/or no starts is to replace the dPFE sensor with one which has a manufacturing date code of greater than or equal to 2A07B. Please pass this information on to those who need to know.

We are still working to identify the source of the transient voltage spikes which cause the sensor to go into the SCR latch. This is why we are so interested in examining the PCM from your problem vehicle.

Many thanks for your help in obtaining the PCM from the problem vehicle.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory

EA62-627-6 16674

From: Freeland, Mark (M.)
Sent: Thursday, April 11, 2002 9:47 AM
To: Munoz, Kathleen (K.)
Subject: FW: U204 Stall Meeting (Field issue update: Engine stall -> No restart (DPFE shortage))

Kathy,

I think you're office should read this and be aware of this.

PRIVILEGED AND CONFIDENTIAL

This note contains privileged communications. If you receive this message in error, please delete it and notify the sender.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Shinji Kanai [mailto:kanai.sh@sv.mazda.co.jp]
Sent: Wednesday, April 10, 2002 6:59 PM
To: 'Sanders, Muriel (M.S.)'; 'Altoonian, Don (D.J.)'; 'Badgley, Joel (J.K.)'; 'Bauer, Scott (S.C.)'; 'Bhojwani, Kamal (K.)'; 'Blackburn, Thomas (T.J.)'; 'Bogema, John (P.)'; 'Cary Powell'; 'Chick, John (J.)'; 'Chih, Ming-Niu (M.N.)'; 'Chin, Darrel (D.)'; 'Corbett, Sandra (S.M.)'; 'Dalbo, Bob (R.J.)'; 'Dan Rothweiler'; 'De Pena, Juan (J.E.)'; 'Diez, Timothy (T.P.)'; 'Fascetti, Bob (R.J.)'; 'Fournelle, Gilbert (G.)'; 'Freeland, Mark (M.)'; 'Giles, Stuart (S.)'; 'Gokhale, Renuka (R.V.)'; 'Grimes, Jeff (J.R.)'; 'Hansen, George (G.C.)'; 'Herr, George (G.J.)'; 'Hofman, Michael (M.V.)'; 'Holmes, Jeffrey (J.R.)'; 'Ichikawa, Jiyunichiro (J.)'; 'Jensen, Ted (T.E.)'; 'John McDonald'; 'Jones, Andy'; 'Jordan, Donald (D.E.)'; 'Kanai, Shinji (S.)'; 'King, Robert (R.F.)'; 'Klostermann, Eric (E.)'; 'Kosko, Jeff (J.R.)'; 'Kwon, Soon (S.K.)'; 'Limtiaco, Steven (S.)'; 'Linde, Peter (P.A.)'; 'Liu, Jane (J.)'; 'Luehrsen, Eric (E.A.)'; 'Marck, Edmond (E.C.)'; 'Matesa, John (J.)'; 'Maurer, James (J.B.)'; 'Mazzella, Gary (G.R.)'; 'Mooney, Larry (L.)'; 'Moorhouse, Scott (S.R.)'; 'Morgan, Tom'; 'Morishima, Shigeki (S.)'; 'Naveed Khan'; 'Nematollahi, Sonya (S.)'; 'Nikolai, Bernie'; 'Noteboom, Jim (J.E.)'; 'Ortman, James (J.W.)'; 'Powers, Ken (K.W.)'; 'Price, Martin (M.)'; 'Raquepau, Alden (A.P.)'; 'Shah, Kiran (K.C.)'; 'Shiraishi, Masaru (M.)'; 'Stilgenbauer, Jeffrey (J.R.)'; 'Suarez, Rhae (R.)'; 'Sullivan, Jamie (J.P.)'; 'Takasawa, Keith (K.D.)'; 'Takubo, Hiroichi (H.)'; 'Vecchio, Anne Marie (A.)'; 'Wakenell, Ray (R.A.)'; 'Wettach, Bill (B.)'; 'Williams, Les (LHW.)'; 'Williamson, David (D.E.)'; 'Yeung, Lem (.)'
Subject: U204 Stall Meeting (Field issue update: Engine stall -> No restart (DPFE shortage))

I update Taiwan case as follows.

VIN:SF2CU08B01KM71661

Prod. July,2001 at Hofu. Sale: Sep. 24,2001.

Stall occurred on Mar. 01, 2002, 6997km.

Before the case, the car had no problem (back to the dealer for 1000 & 5000KM regular maintainence only.)

When the car picked back to the dealer:

1. can't start again.
2. can't communicate with WDS.
3. replacing another PCM (from anothe same model car),can't communicate with WDS.
4. with original PCM, communicate with WDS by using " Manual Entry" function of WDS.
5. WDS showed DTC : B1681/B1401/U1262
6. diagnoze the DTCs with " Probe test" function of WDS, everything seemed OK.
7. because the connector of DPFE was disconnected in "Probe test", the technician tried to start again after the test, the car started, then found the DPFE was disconnected.
8. try several times, all the same, when the connector was connected, can't start. when disconnecting, can start again.
9. change another new DPFE, the problem was disappeared.

Shinji Kanai

-----Original Message-----

From:

Sent: Monday, April 08, 2002 9:16 PM

Subject: U204 Stall Meeting (Field issue update: Engine stall -> No restart (DPFE shortage))

I update concern which I reported Stall meeting in last week. Failed DPFE sensors were scrapped at dealers in all cases.

CASE 1 (Japan)

VIN: EPBW-101286, Hofu build: 2000/12/13, Retail 2000/12/26

(1) First repair 2001/4/9 4,893km

DTC P0401 and P1408 illuminated. DPFE output Voltage was 0.122V (standard 0.95 - 1.05V).

Replace DPFE sensor with new one. Problem was solved.

(2) Second repair 2001/8/20 11,084km

Engine stall during normal operating temp. Starter was clanking but engine did not start.

WDS tester could not communicate with PCM. BUS(-) terminal voltage showed 1.9V (standard 4.5V) causing NO communication.

Vref was 2.0V (standard 4.0 - 6.0V). When DPFE sensor connector was disconnected, Vref increased to 5V.

Same time Click sound was observed from Fuel pump relay and fuel pressure was increased to normal range.

Also BUS(-) terminal voltage was returned 4.5V at same time, and WDS can communicate with PCM.

Replace DPFE sensor with new one. Problem was solved.

<<<DPFE sensor lot number is unknown. According to second repair date, it might be pre CM part.>>>

CASE 2 (Taiwan)

We are contacting Taiwan continuously.

CASE 3 (Australia)

Attachment is the information from Australia (VIN: JMOYU06BY11100053, Hofu build 2001/01/09).

In addition to this report;

- (1) Vref was 2.1 V (standard 4.0 - 6.0V) during NO start condition.
- (2) Vref returned standard value and engine started immediately after disconnect DPFE connector.
- (3) In this DPFE internal shortage case, WDS cannot communicate to PCM.

Replace DPFE sensor with new one. Problem was solved.

<<<DPFE sensor lot number is unknown. According to build date, it might be pre CM part.>>>

Shinji Kanai

Manager, Tribute Plant QA
Mazda North American Operations

Ford Kansas City Assembly Plant
Plant Vehicle Team

8121 N.E. Hwy. 69, Claycomo, MO 64119 USA

Tel: 816-459-1623/ Fax: -1726/ e-mail: kanai.sh@sv.mazda.co.jp

Local Text Pager: 9135677156@alphapage.airtouch.com

> P.O. Box 2053
> MD 2829 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: schen16 [mailto:schen16@ford.com]
Sent: Thursday, April 11, 2002 3:10 AM
To: Freeland, Mark (M.); Chang C.K
Subject: Fw: DPFE EGR Part Concern

Mark:

Please be advised that the part was ready and will sent through "DHL" shipment, the shipping no is "2642010453" .

Regards,

— Original Message —

From: "schen16" <schen16@ford.com>
To: "Freeland, Mark (M.)" <mfreela1@ford.com>
Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Jao, Jack (J.)" <jjao@ford.com>; "Kwon, Soon (S.K.)" <skwon@ford.com>; "Maurer, James (J.B.)" <jmaurer@ford.com>
Sent: Thursday, April 11, 2002 3:03 PM
Subject: Re: DPFE EGR Part Concern

> Mark:

> Attached file please find the information that responded from our ACSG
> people, this vehicle was "Tribute 2.0L" imported car, however, I can't get
> this car so far but the PCM parts No. shall be "YL8Z-12A650-TG".
> The Lot # of this EGR part is "1F19B", Mr. C.K.Chang will mail this part
to
> you ASAP .
>

> Regards,

> — Original Message —

> From: "Freeland, Mark (M.)" <mfreela1@ford.com>

> To: "Chen, Smith S N (S.)" <schen16@ford.com>; "Kwon, Soon (S.K.)"

> <skwon@ford.com>; "Maurer, James (J.B.)" <jmaurer@ford.com>; "Freeland,
Mark

> (M.)" <mfreela1@ford.com>

> Cc: "Huang, M (M.T.)" <mhuang3@ford.com>; "Freeland, Mark (M.)"

> <mfreela1@ford.com>; "Gates, Freeman (F.C.)" <fgates@ford.com>; "Jao, Jack

> (J.)" <jjao@ford.com>

> Sent: Tuesday, April 09, 2002 9:57 PM

> Subject: RE: DPFE EGR Part Concern

>

>

>> Smith,

>>

>> This is great news. Can you also tell me if the original dPFE sensor is

>> still with the vehicle, if so it would be very helpful to get that back

>> also. We can provide a replacement for the dPFE sensor.

>> I will need additional information on the vehicle to obtain a

>> replacement PCM.

>> Can you please provide me with the VIN number, Build date, Specific

>> Vehicle description (i.e. 2.0L Zetec Focus, 2001 MY etc.) and if

>> possible also the part number and any other available information from

>> the label on the current PCM.

>>

>> Also, can you please provide me with the complete service history on the

>> vehicle.

>>

>> My shipping address is:

>> SRL Room 1517/MD 2629

>> 2101 Village Road

>> Dearborn, MI 48121-2053

>>

>> Jim,

>>

>> Do you have any idea if we can obtain a replacement PCM for an overseas

> > application locally? Any thoughts, please let me know.

> >

> >

> > Regards

> >

> > Mark Freeland

> >

> > > 6-Sigma Black Belt

> > > Engine Research Department

> > > Ford Research Laboratory

> > > P.O. Box 2053

> > > MD 2829 - SRL - Room 1517

> > > Dearborn, MI 48121-2053 USA

> > email: mfreela1@ford.com

> > Tel.: (313) 594-7645

> >

> >

> > —Original Message—

> > From: schen16 [mailto:schen16@ford.com]

> > Sent: Monday, April 08, 2002 10:51 PM

> > To: Kwon, Soon (S.K.); Maurer, James (J.B.); Freeland, Mark (M.)

> > Cc: Huang M. T.; Freeland, Mark (M.); Gates, Freeman (F.C.); Jao, Jack

> > (J.)

> > Subject: Re: DPFE EGR Part Concern

> >

> >

> > Mark:

> > It is possible to get the PCM from the concern vehicle, due to our

> > company

> > decided to buy back this vehicle to solve the customer's big concern,

> > however, we will send PCM to you if you can provide a new one for

> > replacement. Please also show your detailed address, I can mail to you

> > when

> > it is available.

> >

> > Regards,

> >

>> — Original Message —

>> From: "Freeland, Mark (M.)" <mfreela1@ford.com>

>> To: "Chen, Smith S N (S.)" <schen16@ford.com>; "Maurer, James (J.B.)"

>> <jmaurer@ford.com>; "Kwon, Soon (S.K.)" <skwon@ford.com>

>> Cc: "Jao, Jack (J.)" <jjao@ford.com>; "Gates, Freeman (F.C.)"

>> <fgates@ford.com>; "Freeland, Mark (M.)" <mfreela1@ford.com>

>> Sent: Monday, April 08, 2002 9:42 PM

>> Subject: RE: DPFE EGR Part Concern

>>

>>

>>> Smith,

>>> Would it be possible to obtain the PCM from the subject vehicle as

>>> there

>>> is a possibility that a defect in the PCM was the trigger which caused

>>> the dPFEE sensor to go into the high current mode and become shorted?

>>>

>>> Regards

>>>

>>> Mark Freeland

>>>

>>>> 6-Sigma Black Belt

>>>> Engine Research Department

>>>> Ford Research Laboratory

>>>> P.O. Box 2053

>>>> MD 2629 - SRL - Room 1517

>>>> Dearborn, MI 48121-2053 USA

>>>> email: mfreela1@ford.com

>>>> Tel.: (313) 594-7645

>>>

>>>

>>> — Original Message —

>>> From: schen16 [mailto:schen16@ford.com]

>>> Sent: Wednesday, April 03, 2002 12:11 AM

>>> To: Maurer, James (J.B.); Kwon, Soon (S.K.)

>>> Cc: Jack Jao; Gates, Freeman (F.C.); Freeland, Mark (M.)

>>> Subject: Re: DPFE EGR Part Concern

>>>

EP82-027-G 10078

> > >

> > > Jim:

> > > Please find the attached file for the measuring data of the defeat

> > DPFE

> > > EGR

> > > part, this case was happened when the customer was driving in city

> > with

> > > 40kph cruising, the engine stalled suddenly without any warning

> > signals,

> > > after that the ODO Indicator showed "-----" and can not restart

> > > engine,

> > > this vehicle was buy in Sept, 2001, the accumulated mlieage was 7034KM

> > > only.

> > > it causes the customer very big concern and our S& M people do their

> > > best to

> > > try to explain and calm down customer's emotion.

> > > As your mall, do you have any experiance for engine stall? and the

> > > Improved

> > > parts can prevent this engine stall? what actions shall be taken?

> > > Any queries of this case you want to understand please let me know.

> > >

> > > Regards,

> > > --- Original Message ---

> > > From: "Maurer, James (J.B.)" <jmaurer@ford.com>

> > > To: "Chen, Smith S N (S.)" <schen16@ford.com>

> > > Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)"

> > > <mfreela1@ford.com>

> > > Sent: Tuesday, April 02, 2002 11:27 PM

> > > Subject: FW: DPFE EGR Part Concern

> > >

> > >

> > > > Mr. Chen,

> > > >

> > > > Your attached files did not come through to me, so I don't know the

> > > > specifics for your vehicle.

> > > >

> > > > One of the failure modes of the sensor is that it may short and draw

> > a
> > > high current from the PCM (engine control module). When this
> > happens,
> > > the voltage that is supplied to the microprocessor inside the PCM is
> > not
> > > sufficient to keep the PCM operating. When the microprocessor is
> > not
> > > running, there are no signals to the fuel injectors, ignition coils,
> > and
> > > other components required to keep the engine running.
> > >
> > > The circuit inside the sensor was changed to eliminate this issue.
> > A
> > > resistor was added to limit the amount of current the sensor would
> > draw
> > > when it shorted, and another resistor and diode were added to
> > eliminate
> > > electrical noise issues that could potentially cause the short to
> > occur.
> > > The new part was released on concern C11286321. Production began
> > > January 7, 2002.
> > >
> > > I am interested in knowing the details about why a customer would
> > sue
> > > over this issue. Does the customer want you to buy back the vehicle
> > if
> > > it cannot be fixed? The latest level part should take care of the
> > > issue.
> > >
> > >
> > > Regards,
> > > Jim Maurer
> > > James B. Maurer
> > > V-Engine 8-Sigma Team Leader
> > > Fuel Metering Dept. V Engine Engineering
> > > Phone (313) 390-3672, Fax (313) 390-4084
> > > Text Page: (313) 795-5219

>>>> Email: jmaurer@Ford.com

>>>>

>>>> ~~Original Message~~

>>>> From: Owens, Karen (K.E.)

>>>> Sent: Tuesday, April 02, 2002 9:58 AM

>>>> To: Chen, Smith S N (S.)

>>>> Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Frøeland, Mark (M.)

>>>> Subject: RE: DPFE EGR Part Concern

>>>>

>>>>

>>>> Mr., Chen:

>>>> I am no longer working on this matter, James Maurer (JMAURER) is the

>>>> new

>>>> team leader. I am forwarding your note to him.

>>>>

>>>> Jim:

>>>> Please respond to Mr. Chen. Thank you.

>>>>

>>>>

>>>> Change is Good. Proactivity is Better!

>>>> Karen E. Owens

>>>> Supervisor

>>>> Modular V8/V10 Engine Systems

>>>> (off) 313.845.5770

>>>> (fax) 313.390.1229

>>>>

>>>> ~~Original Message~~

>>>> From: schen16 [mailto:schen16@ford.com]

>>>> Sent: Wednesday, March 27, 2002 3:25 AM

>>>> To: Owens, Karen (K.E.)

>>>> Cc: Jack Jao

>>>> Subject: DPFE EGR Part Concern

>>>>

>>>>

>>>> Miss Owens:

>>>> How are you, we recently have a special case that DPFE EGR part

>>>> malfunction and causing engine stalled w/o any warning during

> > driving,

> > > > this customer is proposed to sue to company if we can not provide a

> > > > reasonable reason. Attached file please find the failure mode 2

> > which

> > > is

> > > > causing engine stall immediately during drive, the failure mode 1

> > > which

> > > > is other defeat parts data, and we also show the new parts and dura.

> > > > test part. Please give us a special effort to explain this concern.

> > > > Your quick response will be requested and appreciated.

>

From: Freeland, Mark (M.)
Sent: Wednesday, April 10, 2002 1:47 PM
To: Plaud, Zaida (Z.)
Subject: Accepted: PE02-040 Focus Stalling - Kick-off Meeting

Zaida,

Could you please send me directions, I am not sure where FPS is.

Thanks

Mark Freeland

From: Freeland, Mark (M.)
Sent: Wednesday, April 10, 2002 1:46 PM
To: Plaud, Zaida (Z.)
Subject: Accepted: PE02-040 Focus Stalling - Kick-off Meeting

From: Freeland, Mark (M.)
Sent: Tuesday, April 09, 2002 5:02 PM
To: Oswalt, Greg (G.G.)
Subject: FW: unanticipated acceleration

Greg,

This is the report we discussed from my friend regarding an unintended acceleration event of a 2002 MY 3.0L Escape.

His name is Richard Brewer, daytime phone is (248) 552-1000 and evening phone (248) 356-2610.

According to AWS the throttle body was replaced by Alan Ford Inc. on 3/26/2002, ODO 12,872, Claim Key 943539. Customer Comment: "Accelerator pedal sticking at idle hangs up when giving gas", Technician Comment: "12872 9E926 69 Verified concern, found throttle body sticking, replaced throttle body and retested and verified repair".

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: [REDACTED]
Sent: Monday, April 08, 2002 10:13 PM
To: mark freeland
Subject: unanticipated acceleration

Dear Mark

On 4/4/02 I was driving my 2002 Escape vn# 1fmyu04142k A39090 n/b on southfield rd. at 40mph when it began to accelerate with out being requested to do so. The cruise was off at the time , the accelerator pedal was free, my lights were off. I do not believe that it down shifted, but it began to accelerate from approx 40-45 mph to about 65. The first thing that I did was hit the cruise off button, no help.I then applied brakes which slowed the rate of acceleration but did not stop it .I then put the car in neutral, the tach went to about 7-7500 rpm indicated was at approx 70 by that point. I then stomped on the gas pedal 2/3 times and with the toe of my shoe , pulled the pedal toward me , no help.Finally I reached over to turn the ignition off , but before my hand got to the key, the motor went to idle. I put it in gear and drove on, no further problems to date.

ER02-027-0 10888

About 2 weeks ago, Allan Ford had replaced the throttle body because the gas pedal had high breakout force from idle, ie you had to push hard to get the pedal off of idle. Since that fix, the pedal has worked smoothly.

At the time of this incident the pedal appeared to be free and smoothly functioning.

Very disconcerting event , I am comfortable with machines, yet when this occurred, I had accelerated more than 20 mph before I realized what was happening and thought to take corrective action, and then my first impulse was to jam on the binders, and I know better! God help the soccer mom that has this happen with half the team in the car. I was around 10 miles when this occurred, could the close proximity of all those radio towers have had any thing to do with this ask because just before this happened, I experienced some distortion on the radio (wjr-am).

From: Freeland, Mark (M.)
Sent: Tuesday, April 09, 2002 9:58 AM
To: Chen, Smith S N (S.); Kwon, Soon (S.K.); Maurer, James (J.B.); Freeland, Mark (M.)
Cc: Huang, M (M.T.); Freeland, Mark (M.); Gates, Freeman (F.C.); Jao, Jack (J.)
Subject: RE: DPFE EGR Part Concern

Smith,

This is great news. Can you also tell me if the original dPFE sensor is still with the vehicle, if so it would be very helpful to get that back also. We can provide a replacement for the dPFE sensor.

I will need additional information on the vehicle to obtain a replacement PCM.

Can you please provide me with the VIN number, Build date, Specific Vehicle description (i.e. 2.0L Zetec Focus, 2001 MY etc.) and if possible also the part number and any other available information from the label on the current PCM.

Also, can you please provide me with the complete service history on the vehicle.

My shipping address is:

SRL Room 1517/MD 2629
2101 Village Road
Dearborn, MI 48121-2053

Jim,

Do you have any idea if we can obtain a replacement PCM for an overseas application locally? Any thoughts, please let me know.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA

ERS2-827-G 19999

email: mfreela1@ford.com

Tel.: (313) 594-7645

-----Original Message-----

From: schen16 [mailto:schen16@ford.com]

Sent: Monday, April 08, 2002 10:51 PM

To: Kwon, Soon (S.K.); Maurer, James (J.B.); Freeland, Mark (M.)

Cc: Huang M. T.; Freeland, Mark (M.); Gates, Freeman (F.C.); Jao, Jack (J.)

Subject: Re: DPFE EGR Part Concern

Mark:

It is possible to get the PCM from the concern vehicle, due to our company decided to buy back this vehicle to solve the customer's big concern, however, we will send PCM to you if you can provide a new one for replacement. Please also show your detailed address, I can mail to you when it is available.

Regards,

----- Original Message -----

From: "Freeland, Mark (M.)" <mfreela1@ford.com>

To: "Chen, Smith S N (S.)" <schen16@ford.com>; "Maurer, James (J.B.)" <jmaurer@ford.com>; "Kwon, Soon (S.K.)" <skwon@ford.com>

Cc: "Jao, Jack (J.)" <jjao@ford.com>; "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)" <mfreela1@ford.com>

Sent: Monday, April 08, 2002 9:42 PM

Subject: RE: DPFE EGR Part Concern

> Smith,

> Would it be possible to obtain the PCM from the subject vehicle as there
> is a possibility that a defect in the PCM was the trigger which caused
> the dPFE sensor to go into the high current mode and become shorted?

>

> Regards

ERG2-827-G 16851

>
> Mark Freeland
>
>> 6-Sigma Black Belt
>> Engine Research Department
>> Ford Research Laboratory
>> P.O. Box 2053
>> MD 2629 - SRL - Room 1517
>> Dearborn, MI 48121-2053 USA
> email: mfreela1@ford.com
> Tel.: (313) 594-7645

>
>
> —Original Message—

> From: schen16 [mailto:schen16@ford.com]
> Sent: Wednesday, April 03, 2002 12:11 AM
> To: Maurer, James (J.B.); Kwon, Soon (S.K.)
> Cc: Jack Jao; Gates, Freeman (F.C.); Freeland, Mark (M.)
> Subject: Re: DPFE EGR Part Concern

>
>
> Jim:
> Please find the attached file for the measuring data of the defeat DPFE
> EGR
> part, this case was happened when the customer was driving in city with
> 40kph cruising, the engine stalled suddenly without any warning signals,
> after that the ODO indicator showed "—" and can not restart
> engine,
> this vehicle was buy in Sept, 2001, the accumulated mileage was 7034KM
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> It causes the customer very big concern and our S& M people do their
> best to
> try to explain and calm down customer's emotion.
> As your mail, do you have any experience for engine stall? and the
> improved
> parts can prevent this engine stall? what actions shall be taken?
> Any queries of this case you want to understand please let me know.

ER02-027-G 10002

>

> Regards,

> — Original Message —

> From: "Maurer, James (J.B.)" <jmaurer@ford.com>

> To: "Chen, Smith S N (S.)" <schen16@ford.com>

> Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Fræland, Mark (M.)"

> <mfræla1@ford.com>

> Sent: Tuesday, April 02, 2002 11:27 PM

> Subject: FW: DPFE EGR Part Concern

>

>

> > Mr. Chen,

> >

> > Your attached files did not come through to me, so I don't know the

> > specifics for your vehicle.

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> > One of the failure modes of the sensor is that it may short and draw a

> > high current from the PCM (engine control module). When this happens,

> > the voltage that is supplied to the microprocessor inside the PCM is

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> > sufficient to keep the PCM operating. When the microprocessor is not

> > running, there are no signals to the fuel injectors, ignition coils,

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> > other components required to keep the engine running.

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> > resistor was added to limit the amount of current the sensor would

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> > when it shorted, and another resistor and diode were added to

> > eliminate

> > electrical noise issues that could potentially cause the short to

> > occur.

> > The new part was released on concern C11286321. Production began

> > January 7, 2002.

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> > I am interested in knowing the details about why a customer would sue

> > over this issue. Does the customer want you to buy back the vehicle

> If
> > It cannot be fixed? The latest level part should take care of the
> > issue.
> >
> >
> > Regards,
> > Jim Maurer
> > James B. Maurer
> > V-Engine 6-Sigma Team Leader
> > Fuel Metering Dept. V Engine Engineering
> > Phone (313) 390-3672, Fax (313) 390-4084
> > Text Page: (313) 795-5219
> > Email: jmaurer@Ford.com
> >
> > ~~Original Message~~
> > From: Owens, Karen (K.E.)
> > Sent: Tuesday, April 02, 2002 9:58 AM
> > To: Chen, Smith S N (S.)
> > Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.)
> > Subject: RE: DPFE EGR Part Concern
> >
> >
> > Mr., Chen:
> > I am no longer working on this matter, James Maurer (JMAURER) is the
> > new
> > team leader. I am forwarding your note to him.
> >
> > Jim:
> > Please respond to Mr. Chen. Thank you.
> >
> >
> > Change Is Good. Proactivity Is Better!
> > Karen E. Owens
> > Supervisor
> > Modular V8/V10 Engine Systems
> > (off) 313.845.5770
> > (fax) 313.390.1229

EA82-827-G 18884

> >

> > **-----Original Message-----**

> > **From:** schen16 [mailto:schen16@ford.com]

> > **Sent:** Wednesday, March 27, 2002 3:25 AM

> > **To:** Owens, Karen (K.E.)

> > **Cc:** Jack Jao

> > **Subject:** DPFE EGR Part Concern

> >

> >

> > **Miss Owens:**

> > How are you, we recently have a special case that DPFE EGR part
> > malfunction and causing engine stalled w/o any warning during driving,
> > this customer is proposed to sue to company if we can not provide a
> > reasonable reason. Attached file please find the failure mode 2 which
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> > causing engine stall immediately during drive, the failure mode 1
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> > is other defeat parts data, and we also show the new parts and dura.

> > test part. Please give us a special effort to explain this concern.

> > Your quick response will be requested and appreciated.

From: Freeland, Mark (M.)
Sent: Tuesday, April 09, 2002 9:58 AM
To: Chen, Smith S N (S.); Kwon, Soon (S.K.); Maurer, James (J.B.); Freeland, Mark (M.)
Cc: Huang, M (M.T.); Freeland, Mark (M.); Gatas, Freeman (F.C.); Jac, Jack (J.)
Subject: RE: DPFE EGR Parl Concern

Smith,

This is great news. Can you also tell me if the original dPFE sensor is still with the vehicle, if so it would be very helpful to get that back also. We can provide a replacement for the dPFE sensor.

I will need additional information on the vehicle to obtain a replacement PCM.

Can you please provide me with the VIN number, Build date, Specific Vehicle description (i.e. 2.0L Zetec Focus, 2001 MY etc.) and if possible also the part number and any other available information from the label on the current PCM.

Also, can you please provide me with the complete service history on the vehicle.

My shipping address is:

SRL Room 1517/MD 2629
2101 Village Road
Dearborn, MI 48121-2053

Jim,

Do you have any idea if we can obtain a replacement PCM for an overseas application locally? Any thoughts, please let me know.

Regards

Mark Freeland

- > 6-Sigma Black Belt
- > Engine Research Department
- > Ford Research Laboratory
- > P.O. Box 2053
- > MD 2629 - SRL - Room 1517
- > Dearborn, MI 48121-2053 USA

EA02-327-G 10000

email: mfreela1@ford.com

Tel.: (313) 594-7645

—Original Message—

From: schen16 [mailto:schen16@ford.com]

Sent Monday, April 08, 2002 10:51 PM

To: Kwon, Soon (S.K.); Maurer, James (J.B.); Freeland, Mark (M.)

Cc: Huang M. T.; Freeland, Mark (M.); Gates, Freeman (F.C.); Jao, Jack (J.)

Subject: Re: DPFE EGR Part Concern

Mark:

It is possible to get the PCM from the concern vehicle, due to our company decided to buy back this vehicle to solve the customer's big concern, however, we will send PCM to you if you can provide a new one for replacement. Please also show your detailed address, I can mail to you when it is available.

Regards,

— Original Message —

From: "Freeland, Mark (M.)" <mfreela1@ford.com>

To: "Chen, Smith S N (S.)" <schen16@ford.com>; "Maurer, James (J.B.)" <jmaurer@ford.com>; "Kwon, Soon (S.K.)" <skwon@ford.com>

Cc: "Jao, Jack (J.)" <jjao@ford.com>; "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)" <mfreela1@ford.com>

Sent: Monday, April 08, 2002 9:42 PM

Subject: RE: DPFE EGR Part Concern

> Smith,

> Would it be possible to obtain the PCM from the subject vehicle as there
> is a possibility that a defect in the PCM was the trigger which caused
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>

> Regards

EP02-027-G 10097

- >
- > Mark Freeland
- >
- >> 6-Sigma Black Belt
- >> Engine Research Department
- >> Ford Research Laboratory
- >> P.O. Box 2053
- >> MD 2829 - SRL - Room 1517
- >> Dearborn, MI 48121-2053 USA
- > email: mfreela1@ford.com
- > Tel.: (313) 594-7845

>

>

> -----Original Message-----

- > From: schen16 [mailto:schen16@ford.com]
- > Sent: Wednesday, April 03, 2002 12:11 AM
- > To: Maurer, James (J.B.); Kwon, Soon (S.K.)
- > Cc: Jack Jao; Gates, Freeman (F.C.); Freeland, Mark (M.)
- > Subject: Re: DPFE EGR Part Concern

- >
- >
- > Jim:
- > Please find the attached file for the measuring data of the defeat DPFE
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 - > improved
 - > parts can prevent this engine stall? what actions shall be taken?
 - > Any queries of this case you want to understand please let me know.

>
> Regards,
> — Original Message —
> From: "Maurer, James (J.B.)" <jmaurer@ford.com>
> To: "Chen, Smith S N (S.)" <achen16@ford.com>
> Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)"
> <mfreela1@ford.com>
> Sent: Tuesday, April 02, 2002 11:27 PM
> Subject: FW: DPFE EGR Part Concern

>

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> > specifics for your vehicle.

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> > The new part was released on concern C11286321. Production began
> > January 7, 2002.

> >

> > I am interested in knowing the details about why a customer would sue
> > over this issue. Does the customer want you to buy back the vehicle

ERS2-827-3 10886

> If
> > It cannot be fixed? The latest level part should take care of the
> > issue.
> >
> >
> > Regards,
> > Jim Maurer
> > James B. Maurer
> > V-Engine 6-Sigma Team Leader
> > Fuel Metering Dept. V Engine Engineering
> > Phone (313) 390-3672, Fax (313) 390-4084
> > Text Page: (313) 795-5219
> > Email: jmaurer@Ford.com
> >
> > —Original Message—
> > From: Owens, Karen (K.E.)
> > Sent: Tuesday, April 02, 2002 9:58 AM
> > To: Chen, Smith S N (S.)
> > Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Fretland, Mark (M.)
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> > Mr., Chen:
> > I am no longer working on this matter, James Maurer (JMAURER) is the
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> > From: schen16 [mailto:schen16@ford.com]

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> > To: Owens, Karen (K.E.)

> > Cc: Jack Jao

> > Subject: DPFE EGR Part Concern

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ER02-027-G 10981

From: Freeland, Mark (M.)
Sent: Tuesday, April 09, 2002 9:58 AM
To: Chen, Smith S N (S.); Kwon, Soon (S.K.); Maurer, James (J.B.); Freeland, Mark (M.)
Cc: Huang, M (M.T.); Freeland, Mark (M.); Gates, Freeman (F.C.); Jao, Jack (J.)
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> Engine Research Department
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> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA

ER02-027-G 10002

email: mfreela1@ford.com

Tel.: (313) 594-7645

—Original Message—

From: schen16 [mailto:schen16@ford.com]

Sent: Monday, April 08, 2002 10:51 PM

To: Kwon, Soon (S.K.); Maurer, James (J.B.); Freeland, Mark (M.)

Cc: Huang M. T.; Freeland, Mark (M.); Gates, Freeman (F.C.); Jao, Jack (J.)

Subject: Re: DPFE EGR Part Concern

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— Original Message —

From: "Freeland, Mark (M.)" <mfreela1@ford.com>

To: "Chen, Smith S N (S.)" <schen16@ford.com>; "Maurer, James (J.B.)" <jmaurer@ford.com>; "Kwon, Soon (S.K.)" <skwon@ford.com>

Cc: "Jao, Jack (J.)" <jjao@ford.com>; "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)" <mfreela1@ford.com>

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ER02-027-G 16983

>
> Mark Freeland
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>> 6-Sigma Black Belt
>> Engine Research Department
>> Ford Research Laboratory
>> P.O. Box 2053
>> MD 2620 - SRL - Room 1517
>> Dearborn, Mi 48121-2053 USA
> email: mfreela1@ford.com
> Tel.: (313) 594-7645

>
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> -----Original Message-----
> From: schen16 [mailto:schen16@ford.com]
> Sent: Wednesday, April 03, 2002 12:11 AM
> To: Maurer, James (J.B.); Kwon, Soon (S.K.)
> Cc: Jack Jao; Gates, Freeman (F.C.); Freeland, Mark (M.)
> Subject: Re: DPFE EGR Part Concern

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> From: "Maurer, James (J.B.)" <jmaurer@ford.com>

> To: "Chen, Smith S N (S.)" <schen16@ford.com>

> Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Frøeland, Mark (M.)"

> <mfrøela1@ford.com>

> Sent: Tuesday, April 02, 2002 11:27 PM

> Subject: FW: DPFE EGR Part Concern

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> >
> > —Original Message—
> > From: Owens, Karen (K.E.)
> > Sent: Tuesday, April 02, 2002 9:58 AM
> > To: Chen, Smith S N (S.)
> > Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.)
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> > (off) 313.845.5770
> > (fax) 313.390.1229

2002-027-0 10908

> >

> > —Original Message—

> > From: schen16 [mailto:schen16@ford.com]

> > Sent: Wednesday, March 27, 2002 3:25 AM

> > To: Owens, Karen (K.E.)

> > Cc: Jack Jao

> > Subject: DPFE EGR Part Concern

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> > test part. Please give us a special effort to explain this concern.

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From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 6:02 PM
To: Awad, Mahmoud (M.I.); Plants, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.)
Subject: RE: PCM Vs DPFE

Mahmoud,

Thanks for the data.

First question on the data:

Why only up to 8 MIS when data is available through 18 MIS for 2001 MY? Do you think we could be missing something?

Observations:

2.0L Zetec Focus:

You only show the D02 & D21 data, so please refer to the files distributed by Christine for me earlier today. There is a very strong indication of a correlation between the PCM 12A650 warranty, the dPFE 9J460 warranty and the D02 & D21 symptoms warranty for the 8/2000 - 10/2000 spike.

4.6L F150:

There is a corresponding spike in the PCM warranty and the D02 & D21 warranty for 8/2000 - 9/2000.

3.0L DOHC Taurus/Sable:

There are corresponding peaks in the PCM warranty and the D02 & D21 warranty for 8/2000, 12/2000 & 3/2001.

2.0L Zetec Escape:

There are corresponding peaks in the dPFE warranty, PCM warranty and the D02 & D21 warranty for 10/2000, 6/2001. Also, the volume for 2.0L Zetec Escape is relatively low, so it is difficult to make judgments particularly for low time in service. Are you going to look at 3.0L Escape, as it's has the majority of the Escape volume?

Let's discuss further at tomorrow's meeting.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Awad, Mahmoud (M.I.)
Sent: Monday, April 08, 2002 3:48 PM
To: Freeland, Mark (M.); Plants, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.)
Subject: PCM Vs DPFE

ERE2-627-G 18908

Team,

Enclosed is a file highlighting the warranty of each of PCM and DPFE along with D02 and D21 warranty for 3 different vehicle lines.

My personal opinion that the data shows a very weak correlation between PCM and DPFE....what do you think Mark?

Jim and Paul,

Do you want to share this with Kavlico tomorrow? Knowing that it has some info about stalls?

Thanks << File: DPFE-PCM-Stall.xls >>

Best Regards

Mahmoud Awad

Reliability Implementation Engineer

FMEI Department Support

Phone: (313) 24-83889

e-mail: mawad@ford.com

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 5:17 PM
To: Potter, Timothy (T.J.)
Subject: Wiring of the test vehicle

Tim

if you can could you come see me between 9 and 11 am tomorrow (that would be today when you read this), I have a wiring diagram from the POEE group for the wiring on the Focus which I would like you to verify, and also some questions regarding the 5 Volt regulator used for the reference sensor. Do you have the spec sheets for the regulator?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ENG2-027-G 10010

Subject: Kavlico dPFE UPAD research
Location: SRL Conf Room 1347 (10)

Start: Tue 4/8/2002 11:00 AM
End: Tue 4/8/2002 12:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Hargas, Jon (.); Simko, Steven (S.J.)
Resources: SRL Conf Room 1347 (10)

Subject: Kavico dPFE LIPAD research
Location: SRL Conf Room 1347 (10)

Start: Tue 4/9/2002 11:00 AM
End: Tue 4/9/2002 12:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Hargas, Jan (.); Simko, Steven (S.J.)
Resources: SRL Conf Room 1347 (10)

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 12:18 PM
To: Panaretos, Christine (C.M.)
Subject: RE: Updated: Electrical Wiring Testing for Kavlico dPFE Sensor

Chris,

I replied to two notes regarding meetings. I can attend today's but not the one for Wednesday afternoon.

See you at 2:00 pm today.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Panaretos, Christine (C.M.)
Sent: Monday, April 08, 2002 9:34 AM
To: Freeland, Mark (M.)
Cc: Maurer, James (J.B.)
Subject: RE: Updated: Electrical Wiring Testing for Kavlico dPFE Sensor

Mark - It is imperative that you attend this meeting today. You and Robert Rossal are key to settling some issues. Please contact Jim Maurer to address any pressing need to cancel.

Chris Panaretos

Account Manager, Project Solutions at Ford Powertrain
POEE Building, Cuba CG-071
(313) 24-89337; Fax: (313) 32-29265
cpanarat@ford.com

---Original Appointment---

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 8:58 AM
To: Panaretos, Christine (C.M.)
Subject: Declined: Updated: Electrical Wiring Testing for Kavlico dPFE Sensor
When: Monday, April 08, 2002 2:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: POEE FAO video POECB072

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 9:42 AM
To: Chen, Smith B N (S.); Maurer, James (J.B.); Kwon, Soon (S.K.)
Cc: Jao, Jack (J.); Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: RE: DPFE EGR Part Concern

Smith,

Would it be possible to obtain the PCM from the subject vehicle as there is a possibility that a defect in the PCM was the trigger which caused the DPFE sensor to go into the high current mode and become shorted?

Regards

Mark Freeland

> 8-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: schen16 [mailto:schen16@ford.com]
Sent: Wednesday, April 03, 2002 12:11 AM
To: Maurer, James (J.B.); Kwon, Soon (S.K.)
Cc: Jack Jao; Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: Re: DPFE EGR Part Concern

Jim:

Please find the attached file for the measuring data of the defeat DPFE EGR part, this case was happened when the customer was driving in city with 40kph cruising, the engine stalled suddenly without any warning signals, after that the ODO indicator showed "—" and can not restart engine, this vehicle was buy in Sept, 2001, the accumulated mileage was 7034KM only.

ERE2-027-G 10000

it causes the customer very big concern and our S& M people do their best to try to explain and calm down customer's emotion.

As your mail, do you have any experience for engine stall? and the improved parts can prevent this engine stall? what actions shall be taken?

Any queries of this case you want to understand please let me know.

Regards,

--- Original Message ---

From: "Maurer, James (J.B.)" <jmaurer@ford.com>

To: "Chen, Smith S N (S.)" <schen16@ford.com>

Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)" <mfreela1@ford.com>

Sent: Tuesday, April 02, 2002 11:27 PM

Subject: FW: DPFE EGR Part Concern

> Mr. Chen,

>

> Your attached files did not come through to me, so I don't know the
> specifics for your vehicle.

>

> One of the failure modes of the sensor is that it may short and draw a
> high current from the PCM (engine control module). When this happens,
> the voltage that is supplied to the microprocessor inside the PCM is not
> sufficient to keep the PCM operating. When the microprocessor is not
> running, there are no signals to the fuel injectors, ignition coils, and
> other components required to keep the engine running.

>

> The circuit inside the sensor was changed to eliminate this issue. A
> resistor was added to limit the amount of current the sensor would draw
> when it shorted, and another resistor and diode were added to eliminate
> electrical noise issues that could potentially cause the short to occur.
> The new part was released on concern C11286321. Production began
> January 7, 2002.

>

> I am interested in knowing the details about why a customer would sue
> over this issue. Does the customer want you to buy back the vehicle if

> it cannot be fixed? The latest level part should take care of the
> issue.

>

>

> Regards,

> Jim Maurer

> James B. Maurer

> V-Engine 6-Sigma Team Leader

> Fuel Metering Dept. V Engine Engineering

> Phone (313) 390-3672, Fax (313) 390-4084

> Text Page: (313) 795-5219

> Email: jmaurer@Ford.com

>

> ~~Original Message~~

> From: Owens, Karen (K.E.)

> Sent: Tuesday, April 02, 2002 9:58 AM

> To: Chen, Smith S N (S.)

> Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.)

> Subject: RE: DPFE EGR Part Concern

>

>

> Mr., Chen:

> I am no longer working on this matter, James Maurer (JMAURER) is the new
> team leader. I am forwarding your note to him.

>

> Jim:

> Please respond to Mr. Chen. Thank you.

>

>

> Change Is Good. Proactivity Is Better!

> Karen E. Owens

> Supervisor

> Modular V8/V10 Engine Systems

> (off) 313.845.5770

> (fax) 313.390.1229

>

> ~~Original Message~~

ENG2-027-G 10052

> From: echen16 [mailto:echen16@ford.com]
> Sent: Wednesday, March 27, 2002 3:25 AM
> To: Owens, Karen (K.E.)
> Cc: Jack Jao
> Subject: DPFE EGR Part Concern
>
>
> Miss Owens:
> How are you, we recently have a special case that DPFE EGR part
> malfunction and causing engine stalled w/o any warning during driving,
> this customer is proposed to sue to company if we can not provide a
> reasonable reason. Attached file please find the failure mode 2 which is
> causing engine stall immediately during drive, the failure mode 1 which
> is other defeat parts data, and we also show the new parts and dura.
> test part. Please give us a special effort to explain this concern.
> Your quick response will be requested and appreciated.

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 9:42 AM
To: Chen, Smith S N (S.); Maurer, James (J.B.); Kwon, Soon (S.K.)
Cc: Jao, Jack (J.); Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: RE: DPFE EGR Part Concern

Smith,

Would it be possible to obtain the PCM from the subject vehicle as there is a possibility that a defect in the PCM was the trigger which caused the dPFE sensor to go into the high current mode and become shorted?

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2829 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7646

—Original Message—

From: schen18 [mailto:schen18@ford.com]
Sent: Wednesday, April 03, 2002 12:11 AM
To: Maurer, James (J.B.); Kwon, Soon (S.K.)
Cc: Jack Jao; Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: Re: DPFE EGR Part Concern

Jlm:

Please find the attached file for the measuring data of the defeat DPFE EGR part, this case was happened when the customer was driving in city with 40kph cruising, the engine stalled suddenly without any warning signals, after that the ODO indicator showed "—" and can not restart engine, this vehicle was buy in Sept, 2001, the accumulated mileage was 7034KM only.

ER02-027-0 10054

It causes the customer very big concern and our S& M people do their best to try to explain and calm down customer's emotion.

As your mail, do you have any experience for engine stall? and the improved parts can prevent this engine stall? what actions shall be taken?

Any queries of this case you want to understand please let me know.

Regards,

--- Original Message ---

From: "Maurer, James (J.B.)" <jmaurer@ford.com>

To: "Chen, Smith S N (S.)" <schen16@ford.com>

Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)" <mfreela1@ford.com>

Sent: Tuesday, April 02, 2002 11:27 PM

Subject: FW: DPFE EGR Part Concern

> Mr. Chen,

>

> Your attached files did not come through to me, so I don't know the
> specifics for your vehicle.

>

> One of the failure modes of the sensor is that it may short and draw a
> high current from the PCM (engine control module). When this happens,
> the voltage that is supplied to the microprocessor inside the PCM is not
> sufficient to keep the PCM operating. When the microprocessor is not
> running, there are no signals to the fuel injectors, ignition coils, and
> other components required to keep the engine running.

>

> The circuit inside the sensor was changed to eliminate this issue. A
> resistor was added to limit the amount of current the sensor would draw
> when it shorted, and another resistor and diode were added to eliminate
> electrical noise issues that could potentially cause the short to occur.
> The new part was released on concern C11286321. Production began
> January 7, 2002.

>

> I am interested in knowing the details about why a customer would sue
> over this issue. Does the customer want you to buy back the vehicle if

EP02-027-8 10035

> it cannot be fixed? The latest level part should take care of the
> issue.

>

>

> Regards,

> Jim Maurer

> James B. Maurer

> V-Engine 6-Sigma Team Leader

> Fuel Metering Dept. V Engine Engineering

> Phone (313) 390-3672, Fax (313) 390-4084

> Text Page: (313) 795-5218

> Email: jmaurer@Ford.com

>

> ---Original Message---

> From: Owens, Karen (K.E.)

> Sent: Tuesday, April 02, 2002 9:58 AM

> To: Chen, Smith S N (S.)

> Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.)

> Subject: RE: DPFE EGR Part Concern

>

>

> Mr., Chen:

> I am no longer working on this matter, James Maurer (JMAURER) is the new
> team leader. I am forwarding your note to him.

>

> Jim:

> Please respond to Mr. Chen. Thank you.

>

>

> Change is Good. Proactivity is Better!

> Karen E. Owens

> Supervisor

> Modular V8/V10 Engine Systems

> (off) 313.845.5770

> (fax) 313.390.1229

>

> ---Original Message---

> From: schen18 [mailto:schen18@ford.com]
> Sent: Wednesday, March 27, 2002 3:25 AM
> To: Owens, Karen (K.E.)
> Cc: Jack Jao
> Subject: DPFE EGR Part Concern

>

>

> Miss Owens:

> How are you, we recently have a special case that DPFE EGR part
> malfunction and causing engine stalled w/o any warning during driving,
> this customer is proposed to sue to company if we can not provide a
> reasonable reason. Attached file please find the failure mode 2 which is
> causing engine stall immediately during drive, the failure mode 1 which
> is other defect parts data, and we also show the new parts and dura.
> test part. Please give us a special effort to explain this concern.
> Your quick response will be requested and appreciated.

ERR2-027-G 10057

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 9:42 AM
To: Chen, Smith S N (S.); Maurer, James (J.B.); Kwon, Soon (S.K.)
Cc: Jao, Jack (J.); Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: RE: DPFE EGR Part Concern

Smith,

Would it be possible to obtain the PCM from the subject vehicle as there is a possibility that a defect in the PCM was the trigger which caused the dPFE sensor to go into the high current mode and become shorted?

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: schen16 [mailto:schen16@ford.com]
Sent: Wednesday, April 03, 2002 12:11 AM
To: Maurer, James (J.B.); Kwon, Soon (S.K.)
Cc: Jack Jao; Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: Re: DPFE EGR Part Concern

Jim:

Please find the attached file for the measuring data of the defeat DPFE EGR part, this case was happened when the customer was driving in city with 40kph cruising, the engine stalled suddenly without any warning signals, after that the ODO indicator showed "—" and can not restart engine, this vehicle was buy in Sept, 2001, the accumulated mileage was 7034KM only.

EP02-027-Q 18955

it causes the customer very big concern and our S& M people do their best to try to explain and calm down customer's emotion.

As your mail, do you have any experience for engine stall? and the improved parts can prevent this engine stall? what actions shall be taken?

Any queries of this case you want to understand please let me know.

Regards,

--- Original Message ---

From: "Maurer, James (J.B.)" <jmaurer@ford.com>

To: "Chen, Smith S N (S.)" <schen16@ford.com>

Cc: "Gates, Freeman (F.C.)" <fgates@ford.com>; "Freeland, Mark (M.)" <mfreela1@ford.com>

Sent: Tuesday, April 02, 2002 11:27 PM

Subject: FW: DPFE EGR Part Concern

> Mr. Chen,

>

> Your attached files did not come through to me, so I don't know the
> specifics for your vehicle.

>

> One of the failure modes of the sensor is that it may short and draw a
> high current from the PCM (engine control module). When this happens,
> the voltage that is supplied to the microprocessor inside the PCM is not
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> running, there are no signals to the fuel injectors, ignition coils, and
> other components required to keep the engine running.

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> resistor was added to limit the amount of current the sensor would draw
> when it shorted, and another resistor and diode were added to eliminate
> electrical noise issues that could potentially cause the short to occur.
> The new part was released on concern C11286321. Production began
> January 7, 2002.

>

> I am interested in knowing the details about why a customer would sue
> over this issue. Does the customer want you to buy back the vehicle if

> it cannot be fixed? The latest level part should take care of the
> issue.

>

>

> Regards,

> Jim Maurer

> James B. Maurer

> V-Engine 6-Sigma Team Leader

> Fuel Metering Dept. V Engine Engineering

> Phone (313) 390-3672, Fax (313) 390-4084

> Text Page: (313) 795-5219

> Email: jmaurer@Ford.com

>

> ~~Original Message~~

> From: Owens, Karen (K.E.)

> Sent: Tuesday, April 02, 2002 9:58 AM

> To: Chen, Smith S N (S.)

> Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.)

> Subject: RE: DPFE EGR Part Concern

>

>

> Mr., Chen:

> I am no longer working on this matter, James Maurer (JMAURER) is the new
> team leader. I am forwarding your note to him.

>

> Jim:

> Please respond to Mr. Chen. Thank you.

>

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> Change is Good. Proactivity is Better!

> Karen E. Owens

> Supervisor

> Modular V8/V10 Engine Systems

> (off) 313.845.5770

> (fax) 313.390.1228

>

> ~~Original Message~~

EP62-827-8 10000

> From: schen16 [mailto:schen16@ford.com]
> Sent: Wednesday, March 27, 2002 3:25 AM
> To: Owens, Karen (K.E.)
> Cc: Jack Jao
> Subject: DPFE EGR Part Concern
>
>
> Miss Owens:
> How are you, we recently have a special case that DPFE EGR part
> malfunction and causing engine stalled w/o any warning during driving,
> this customer is proposed to sue to company if we can not provide a
> reasonable reason. Attached file please find the failure mode 2 which is
> causing engine stall immediately during drive, the failure mode 1 which
> is other defeat parts data, and we also show the new parts and dura.
> test part. Please give us a special effort to explain this concern.
> Your quick response will be requested and appreciated.

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 8:58 AM
To: Panaretos, Christine (C.M.)
Subject: Declined: Updated: Electrical Wiring Testing for Kavlico dPFE Sensor

ER02-027-G 10002

From: Freeland, Mark (M.)
Sent: Monday, April 08, 2002 8:56 AM
To: Penareto, Christine (C.M.)
Subject: Accepted: Updated: Electrical Wiring Testing for Kavlico dPFE Sensor

From: Freeland, Mark (M.)
Sent: Wednesday, March 27, 2002 2:14 PM
To: Hargas, Jon (.)
Subject: RE: resend

Maybe you could through the die into the freezing liquid, gel and all. The frozen gel might do a better job of shearing the welds off than Lebzy can with the football machine! (Sorry Lebzy, no offense meant if Jon should forward this to you).

Mark

From: Freeland, Mark (M.)
Sent: Wednesday, March 27, 2002 2:09 PM
To: Drows, Andy (A.R.)
Subject: RE: Infrared Microscope

Thanks Andy .

I appreciate you following up on this.

Jon will have all my sample parts if you are successful.

Regards

Mark Freeland

From: Freeland, Mark (M.)
Sent: Tuesday, March 26, 2002 5:08 PM
To: Verner, Carol (C.J.)
Subject: RE: HOW ABOUT I MEET YOU AT THE DOOR IN 10 MINS

OK Leaving now see you at the side door in 10 mins.

Mark

From: Freeland, Mark (M.)
Sent: Tuesday, March 26, 2002 5:08 PM
To: Verner, Carol (C.J.)
Subject: HOW ABOUT I MEET YOU AT THE DOOR IN 10 MINS

Mark

ENG2-027-G 11011

From: Freeland, Mark (M.)
Sent: Tuesday, March 26, 2002 5:04 PM
To: Verner, Carol (C.J.)
Subject: RE: Zarlink parts needed

Carol,

Either would work for us, whichever we can get the soonest. If you can't get me then contact Jon Hargas when you know which we can have.

Thanks

Mark

From: Freeland, Mark (M.)
Sent: Tuesday, March 26, 2002 5:01 PM
To: Verner, Carol (C.J.); Gates, Freeman (F.C.); Maurer, James (J.B.)
Cc: Akins, Mary (M.)
Subject: Zarlink parts needed

Call for help.

We need a few Zarlink parts for destructive analysis related to UPAD. We want to check them for the HILLOCKS that we have been looking at. Can any of you help us get a few?

Thanks

Mark

ER02-027-G 11013

From: Freeland, Mark (M.)
Sent: Tuesday, March 26, 2002 11:20 AM
To: 'Ed Sickafus'
Cc: Hargas, Jon (.)
Subject: RE: resend

Ed,

I am thinking that we should keep the books open for a few weeks. I would like to have you back for another day (or two) after the Easter break. Partially to cover flushing out recommendations as you suggested, and also to spend some more time looking at parts with you. I will be out from 3/28 returning 4/8, so there will be no conflict with you're Easter plans. If you need to contact me while I am away I will have my cell phone with me (248) 842-1080. It may not work in the Grand Canyon, but hopefully will work some of the time!

Before you come back I want to have the attorneys resolve the transfer of Kavlico confidential information to you so that I can give you answers to all you're questions.

One thing which came out of Friday's meeting was a suggestion from Andy Draws to use ID imaging to try and see flaws in the Al under the Au without removing the Au first. He found a reference for IBM using such a technique to look at the Al layer from the back side through the Si. He is following up on trying to recreate the technique here. I will keep you posted on this one.

Regards

Mark Freeland

EA82-827-G 11817

From: Freeland, Mark (M.)
Sent: Tuesday, March 26, 2002 10:50 AM
To: Akins, Mary (M.)
Subject: FW: Old Style DPFE Sensors

Mary, the original request from George.

Mark

-----Original Message-----

From: MacDonald, George (G.F.)
Sent: Monday, March 25, 2002 4:18 PM
To: Freeland, Mark (M.)
Cc: Florence, Jeremy (J.D.)
Subject: RE: Old Style DPFE Sensors

Mark,

We need to get about 50 DPFE's (old style) for repairs. What is the best way to get them? Can you help?

George F. MacDonald

Wayne Stamping & Assembly Plant - Powertrain Resident Engineer
Phone: 734-48-70186
Mobile: 734-730-8174
Textpager: 313-796-7969 <mailto:3137957969@alphapage.airtouch.com>
gmacdona@ford.com

-----Original Message-----

From: Florence, Jeremy (J.D.)
Sent: Monday, March 25, 2002 11:44 AM
To: MacDonald, George (G.F.)
Subject: Old Style DPFE Sensors

George -

As you know I had a Ford employee (Shakeeb Rahman) in today for evaluation of a check engine light on a 2001 Focus built in March of '01 with 10,000 miles on it. The root cause was the DPFE sensor. Can we find a way to get spare parts of the old design here so we can fix Ford employee's cars that come directly to us with this issue? I know you said you thought you had a contact that could get these parts for us. Hind sight 20/20, we should have saved some off of the line before discontinuation. Also, if you think we can get some can you give me an estimate so I can call Shakeeb back and let him know we will be able to fix his car for him and that he doesn't have to take it to a dealership.

Regards,

Jeremy Florence

<mailto:jfloren3@ford.com>

Wayne Stamping & Assembly Plant - PVT
Idle Quality VFG40 Team Leader &
Six Sigma Black Belt Candidate
Phone: 734-84-15795
Textpager: 313-851-0071
<mailto:3138510071@alphapage.airtouch.com>

From: Freeland, Mark (M.)
Sent: Tuesday, March 26, 2002 10:13 AM
To: Akins, Mary (M.)
Cc: MacDonald, George (G.F.)
Subject: FW: Old Style DPFE Sensors

Mary,

Please get in touch with George MacDonald at WAP. He is in need of some Vref Improved TM dPFE sensors for "finishing" some old vehicles at the plant (I think).

Thanks

Mark Freeland

-----Original Message-----

From: MacDonald, George (G.F.)
Sent: Tuesday, March 26, 2002 6:47 AM
To: Freeland, Mark (M.)
Subject: RE: Old Style DPFE Sensors

Yes. . . I should have clarified. We are in need of the tube-mounted design. I'm not going to be by a phone all morning. Do you have Mary's e-mail address?

George F. MacDonald

Wayne Stamping & Assembly Plant - Powertrain Resident Engineer
Phone: 734-48-70196
Mobile: 734-730-8174
Textpager: 313-795-7868 <mailto:3137957969@alhhpsgc.airtouch.com>
gmacdona@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, March 25, 2002 4:37 PM
To: MacDonald, George (G.F.)
Subject: RE: Old Style DPFE Sensors

George,

I hope you mean the Improved Tube Mount with a date code past 1/7/2002?

Please call me after 8:00 am tomorrow so we can discuss. Probably the best source is Mary Akins, the Kavilco Resident.

Regards

Regards

Mark Freeland

6-Sigma Black Belt
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

EN02-027-0 11010

From: Freeland, Mark (M.)
Sent: Monday, March 26, 2002 4:37 PM
To: MacDonald, George (G.F.)
Subject: RE: Old Style DPFE Sensors

George,

I hope you mean the Improved Tube Mount with a date code past 1/7/2002?

Please call me after 9:00 am tomorrow so we can discuss. Probably the best source is Mary Akins, the Kavlico Resident.

Regards

Regards

Mark Freeland

6-Sigma Black Belt
Ford Research Laboratory
P.O. Box 2053
MD 2020 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, March 25, 2002 1:37 PM
To: Maurer, James (J.B.)
Subject: RE: Working relationship with Kevlco

Jim,

I called Patrice White Johnson, as requested. Told her I had no plans to take Ed Sickafus to CA.

Tried to get info from her on what was going on out there.
She either is not talking, or is as much in the dark as we are.
However, her phone went dead when I asked her what she had heard!

Mark

ER02-027-G 11821

From: Freeland, Mark (M.)
Sent: Monday, March 25, 2002 12:39 PM
To: Plants, Paul (P.G.); Gates, Freeman (F.C.); Maurer, James (J.B.)
Subject: Working relationship with Kavico

Paul, Freeman & Jim,

I understand from Dr. Kyong Park that as of this morning their directions from Kavico's management to not work on the dPFE sensor issues which have been in place since 3/15/2002 are still in force.

Do you have any new news on this issue?

Thank you

Mark Freeland

From: Freeland, Mark (M.)
Sent: Monday, March 25, 2002 10:58 AM
To: Akins, Mary (M.); Grant Heliker (E-mail)
Cc: Holubka, Joe (J.W.); Simko, Steven (S.J.); Hargas, Jon (.)
Subject: Sample of potting gel

Mary/Grant,

Could you please get me a sample of the uncured potting gel from the chimneys. We want to do some experiments with it regarding it's effect on Al conductor traces.

About 50 cc or so would be good.

Also, please provide me with the "procedure" for using it (i.e. the normal process parameters which are relevant to using and curing the gel).

Thanks

Mark Freeland

From: Freeland, Mark (M.)
Sent: Monday, March 25, 2002 10:30 AM
To: 'Ed Skikafus'
Subject: RE: resend

Thank you Ed,

I did receive the second send.

I think from you're notes you are of the same opinion as I am. That is that the most plausible reason for the missing Al is from unintended etching in process, but that we should also explore the possibility of a reaction with the potting gel.

Thank you again for coming in at short notice last Friday.

Best Regards

Mark Freeland

EA02-027-G 11027

From: Freeland, Mark (M.)
Sent: Thursday, March 21, 2002 7:40 PM
To: Plante, Paul (P.G.)
Cc: Maurer, James (J.B.); Awad, Mahmoud (M.I.)
Subject: THERE ARE NO WIRING PROBLEMS!!!

Bull Shit!

GQRS Staller with Special Service Message 14747 with 3 no starts, 1 difficult start, 1 14401 (wiring) and 2 dPFE sensors



1FAHF38391W1071
29.pdf

Mark

S20CDM1
12:12:57
P296

HOTLINE RECORD (REVIEW2)

03/08/02

NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED MDL/YR: TRX ES A /01

PQI Ref No.....: Caller: MANNY

Location.....: 51516 TULLEY MAZDA Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL ON P-0401

RI No for prior repair attempts:

Describe attempted repairs.....:

THIS THE THIRD TIME BACK WITH THIS CODE, REPAIR SEEMS TO BE EFFECTIVE FOR
FOUR MONTHS. WATER WAS FOUND INSIDE SENSOR.

RI Ref No	Suggested Repairs	Try	Eff
0003529	P0401/P0402 - MIL ON DUE TO DPFE SENSORS		

S20CEM1
12:13:28
P296

HOTLINE RECORD (REVIEW3)

03/08/02

NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED MDL/YR: TRX ES A /01

PQI Ref No.....: Caller: MANNY

Location.....: 51516 TULLEY MAZDA Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL ON P-0401

Other suggested repairs:

REPLACE DPFE SENSOR.

Callback Date.....:

Entered By: KULP 01/10/02 Last Rev By: KULP 01/10/02

The 2nd set of 2 is off of another Tribute customer Hammond that had 2 DPFE
replacements. VIN # 4F2CU08LX1KM42319. This Tribute we don't have any
hotline information on but the RO's are included as well.

I need an address to send these parts to you so if you can get it to me soon
I will ship them to you.

Thanks,

Daniel H. Rothweiler
Mazda North American Operations
Fixed Operations Technical Specialist
Office: 732-868-2135
Fax: 214-442-5222
Cellular: 732-547-8578

From: Freeland, Mark (M.)
Sent: Thursday, March 21, 2002 8:43 PM
To: Verner, Carol (C.J.)
Subject: RE: Mazda Tribute Reminder

Carol,

He is:

Dan Rothweiler [DRothwei@mazdausa.com]

Also, will forward the message from him regarding the recent sensors we got.

Thanks for the follow up.

Mark

From: Freeland, Mark (M.)
Sent: Thursday, March 21, 2002 6:40 PM
To: Simko, Steven (S.J.)
Subject: RE: Nodule report

Thanks Steve,

I will read at home later tonight. See you in the morning.

Mark

From: Freeland, Mark (M.)
Sent: Thursday, March 21, 2002 10:51 AM
To: Gates, Freeman (F.C.); Plante, Paul (P.G.); Maurer, James (J.B.)
Subject: FW: Your Project

For info

I tried it and came up with "Owner Notification".

Mike Hardy is my Master Black Belt, in case you don't know him.

Regards

Mark Freeland

---Original Message---

From: Hardle, Mike (M.D.)
Sent: Wednesday, March 20, 2002 4:22 PM
To: Freeland, Mark (M.)
Subject: Your Project

Are you aware of the Safety Footprint site at:

http://www-ese.ta.ford.com/~aso_srf/index.html

It takes you through a decision matrix on recall history. Try the Automatic Version with the Focus Issue In mind and see what you come up with. Granted, it appears to be based on data from 1996.....I had never heard of this before today.....

Mike Hardle
Six Sigma Master Black Belt
(313) 84-57279
text pager (313) 796-8475

From: Freeland, Mark (M.)
Sent: Thursday, March 21, 2002 10:41 AM
To: Panaratos, Christine (C.M.)
Subject: RE: Kavlico dPFE Sensor Core Team 3/21

Chris,

I think the whole team as it's just warranty data that anyone on the Ford Web can access, but maybe we should check with Paul.

Thanks

Mark

From: Freeland, Mark (M.)
Sent: Wednesday, March 20, 2002 3:58 PM
To: Uy, Dalrene (D.)
Subject: FW: more on UPAD

Dalrene,

No we do not know if there are fully functional sensors with bubbles. We do not get fully functional sensors to inspect. However, I would suspect that the bubble occurs before the sensor actually fails, therefore I would predict that the answer is probably YES.

Regards

Mark Freeland

-----Original Message-----
From: Uy, Dalrene (D.)
Sent: Wednesday, March 13, 2002 6:32 PM
To: Freeland, Mark (M.)
Subject: more on UPAD

Mark,

I never looked at a bubble from Type 2 UPAD. I should look at one. If I also see nitrate in that bubble, maybe these bubbles are unrelated to sensor failure. Do we know if there are bubbles on fully functional sensors?

I'll talk to you more when you get back. I have a meeting at lunchtime and in the afternoon so I don't think I will go to your gathering, but if you want an elaboration of my previous email or want some "technical support" and none of us (steve, jon) are there, please do call and I will see if I can make it there.

Dalrene

Dalrene Uy
Physical and Environmental Sciences Department
Ford Research Laboratory
Mail Drop 3083/SRL, PO Box 2053
Dearborn, MI 48121

Phone: 313-584-1649
Fax: 313-322-7044
Email: duy@ford.com

From: Freeland, Mark (M.)
Sent: Wednesday, March 20, 2002 3:38 PM
To: Plants, Paul (P.G.)
Subject: RE: Manpower Requirements for DPFE Sensor Issue

Paul,

I have no objection to you recommending additional SRL type resources. I am trying to identify who might be good candidates at my Friday morning meeting.

Regards

Mark

From: Freeland, Mark (M.)
Sent: Wednesday, March 20, 2002 3:24 PM
To: Brackett, Tom (T.P.)
Subject: RE: Shaun's Home Phone

Thanks Tom,

I will only use Shaun's home number wisely!

Regards

Mark Freeland

From: Freeland, Mark (M.)
Sent: Wednesday, March 20, 2002 3:18 PM
To: Hargas, Jon (.)
Subject: RE: I won't bother with the microprobe

Thanks for the calculations Jon, I understand, something more productive would be good.

Mark

Subject: Kavlico TM dPFE Sensor UPAD Root Cause Investigation
Location: SRL Rm. 1133

Start: Fri 3/22/2002 9:00 AM
End: Fri 3/22/2002 12:45 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Hangee, Jon (.); Simko, Steven (S.J.); Uy, Dairene (D.); Potter, Timothy (T.J.); Harris, Stephen (S.J.); Carter, Roscoe (R.O.); Holubka, Joe (J.W.); Drews, Andy (A.R.); Visser, Jaco (J.H.); Soltis, Richard (R.E.); Donlon, William (W.T.); Bauer, David (D.R.); Stephen, Craig (C.H.); Zanini-Fisher, Margherita (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); Gonzalez, Lebzy (L.); Ed Sickafus (E-mail)

Optional Attendees: Helms, Jeffrey (J.H.); Hass, Kenneth (K.C.); Plante, Paul (P.G.); Akns, Mary (M.); O'Naal, Jim (J.D.)

You're participation is requested to learn about this high warranty issue, and to solicit you're assistance and technical expertise in getting to the root cause of "Unprotected Area Damage".

Some key team members will also be required to work with Dr. Ed Sickafus during the afternoon.

Subject: Kavlico TM dPFE Sensor UPAD Root Cause Investigation
Location: SRL Rm. 1133

Start: Fri 3/22/2002 8:00 AM
End: Fri 3/22/2002 12:46 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Hangas, Jon (.); Simko, Steven (S.J.); Uy, Dairone (D.); Potter, Timothy (T.J.); Harris, Stephen (S.J.); Carter, Roacos (R.O.); Holubka, Joe (J.W.); Drews, Andy (A.R.); Vlaeer, Jaco (J.H.); Softis, Richard (R.E.); Donlon, William (W.T.); Bauer, David (D.R.); Stephen, Craig (C.H.); Zanini-Fisher, Margherita (M.); Getts, Freeman (F.C.); Maurer, James (J.B.); Gonzalez, Lebzy (L.); Ed Sickafus (E-mail)

Optional Attendees: Helms, Jeffrey (J.H.); Hess, Kenneth (K.C.); Plante, Paul (P.G.); Akins, Mary (M.); O'Neal, Jim (J.D.)

Your participation is requested to learn about this high warranty issue, and to solicit your assistance and technical expertise in getting to the root cause of "Unprotected Area Damage".

Some key team members will also be required to work with Dr. Ed Sickafus during the afternoon.

From: Freeland, Mark (M.)
Sent: Wednesday, March 20, 2002 11:25 AM
To: Panaretos, Christine (C.M.)
Subject: FW: 14d 3.A.I & II ATTACHMENT

Chris,

Did you get the attachments on the transient voltage test results? The message below suggests you did not!

Mark

-----Original Message-----

From: System Administrator
Sent: Tuesday, March 19, 2002 1:05 PM
To: Panaretos, Christine (C.M.)
Subject: Undeliverable: 14d 3.A.I & II ATTACHMENT

Your message did not reach some or all of the intended recipients.

Subject: 14d 3.A.I & II ATTACHMENT
Sent: 3/19/02 1:05 PM

The following recipient(s) could not be reached:

Panaretos, Christine (C.M.) on 3/19/02 1:05 PM
No transport provider was available for delivery to this recipient.

From: Freeland, Mark (M.)
Sent: Wednesday, March 20, 2002 9:51 AM
To: Hargas, Jon (.)
Subject: RE: conference room 1133

Thanks Jon,

When you get in please look me up so we can confirm names to invite.

Mark

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 3:43 PM
To: Plante, Paul (P.G.)
Subject: RE: 14D Dictionary of Terms

Paul, How about the following definition:

AUGER - Electron Beam based instrument for characterization of surface and thin film elemental composition. Capable of Ion Sputtering to remove material allowing characterization of underlying layers.

Regards

Mark Freeland

6-Sigma Black Belt
Ford Research Laboratory
P.O. Box 2053
SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

ER02-027-G 11291

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 12:17 PM
To: Sanders, Muriel (M.S.)
Subject: Declined: U204 Phantom Staff Meeting

ER02-027-G 11202

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 11:58 AM
To: Hermann, Thomas (T.J.)
Cc: Gates, Freeman (F.C.); Maurer, James (J.B.); Verner, Carol (C.J.); Owens, Karen (K.E.)
Subject: FW: Motorola EMC Test Plan - Revised

Tom,

With regard to the new and Improved Kavlico TM sensor (1/7/2002 production) I passed on you're recommendations regarding ES-XW7T-1A278-xx and a hard copy of the Karen Owens, and that is what she was using for the modification to the sensor. With regard to the original release of the sensor I have to refer you to Joe Johnson and Freeman Gates.

Regards

Mark Freeland

—Original Message—

From: Hermann, Thomas (T.J.)
Sent: Wednesday, March 13, 2002 11:20 AM
To: Gates, Freeman (F.C.); Freeland, Mark (M.)
Cc: Maurer, James (J.B.); Minfield, Jeremiah (J.R.)
Subject: FW: Motorola EMC Test Plan - Revised

Freeman/Mark It appears that Motorola is working to a different (subset of) EMC spec then the required ES-XW7T-1A278-xx for electronic components. Given the current delta PFE problems, this seems to leading down a similar path.

WHY IS THE SUPPLIER WORKING TO A DIFFERENT EMC SPECIFICATION?

The spec. called out appears to be a power train specification so **WHY ARE EMC SPECIFICATIONS CALLED OUT IN THAT SPEC?**

At most, a pointer to the complete EMC specification (ES-XW7T-1A278-xx) should be included in the power train specification.

Freeman, you need to straighten this out with your supplier. We will not be approving any test plans unless it meets the ES-XW7T-1A278-xx EMC requirements.

Mark, what requirements did Kavlico have to meet for EMC 's requirements ES-XW7T-1A278-xx or the power train ES-F1AE-BJ460-AA?

—Original Message—

From: Minfield, Jeremiah (J.R.)
Sent: Tuesday, March 12, 2002 4:37 PM
To: Bronni, Mark (M.J.)
Cc: Gates, Freeman (F.C.); Bensek, Catherine (C.K.); Komp, Karl (K.R.)
Subject: RE: Motorola EMC Test Plan - Revised

Mark,

- 1 - Fax over frame 10 (X05327). It must have gotten corrupted in the original transmission.
- 2 - I've reviewed your ES and find that it is lacking in the following areas:
 - RI 120, RI 130
 - CI 280A
 - RE 310

If discussions need to take place, so be it. At some point the part must be made compliant with Ford component EMC requirements. I'd like to include our Tech Specialist, Keith Frazier in those discussions.

*Grace and Peace,
Jerry Minifie (jminifie@ford.com),
R&VT EMC Section, Cube 2D102,
MD 5017, Dept T411,
Ph: 313-32-36583, Fax: 313-39-05327*

—Original Message—

From: Bronni, Mark (M.J.)
Sent: Monday, March 11, 2002 08:46
To: Minifie, Jeremiah (J.R.)
Cc: Gates, Freeman (F.C.); Barsek, Catherine (C.K.); Klomp, Karl (K.R.)
Subject: Motorola EMC Test Plan - Revised

Jerry,

Here is the test plan which reflects our current requirements in our product ES Spec. (ES-F1AE-9J460-AA). The people you will want to speak to relative to changing this specification are the Motorola Champion in the EGR group - Karl Klomp and the Technical Specialist for the EGR group - Freeman Gates.

As I mentioned in my message to you last week - in order to run our continuous conformance testing for the sensor we will need an approved test plan.

If Ford wishes to include additional tests to our product ES then we will need to sit down and discuss what those elements should be and determine if any design changes would be required in order to meet them.

That discussion should take place with yourself, the people I referenced above, as well as specific personnel from my design and manufacturing groups. But for now I would like to move forward with getting a test plan approved which reflects the current specifications. If you want to refer to the document in question (ES-F1AE-9J460-AA) the information relative to EMC is on frame 10 (I have included that frame in this e-mail). Thanks.

<< File: Ford Current Prod EMC Test Plan_Stripline_v2.doc >> << File: ES-F1AE-9J460-AA Frame 10.tif >>

Regards,

Mark Bronni

MOTOROLA - Resident Engineer
Tel: (313) 248-4509; Fax: (313) 390-4084
Pager: (800) 714-8172

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 11:50 AM
To: Rothweller, Daniel (D.)
Subject: RE: DPF sensor evaluation

Dan, Thanks for the sensors. I received them OK

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 10:18 AM
To: Akns, Mary (M.); Verner, Carol (C.J.)
Cc: Maurer, James (J.B.); Plante, Paul (P.G.); Sanders, Muriel (M.S.); Limtiaco, Steven (S.)
Subject: FW: Part Purge Request - DPFE Sensor (P/N AJ09-18-211B / Ford p/n Y F1Z-9J460-AC)

Mary/Carol,

What supporting documentation was used? Do you have any specific attachments to the CR etc. which may be appropriate to support this request.

-----Original Message-----

From: Sanders, Muriel (M.S.)
Sent: Friday, March 15, 2002 9:32 AM
To: Freeland, Mark (M.)
Subject: FW: Part Purge Request - DPFE Sensor (P/N AJ09-18-211B / Ford p/n Y F1Z-9J460-AC)

Mark,

Can you help with the information that Steve is requesting below.

Thanks,

> Muriel Sanders
> U204 3.0L Calibration
> Ford Motor Company
> Phone: 313-32-27307
> Fax: 313-32-31786
> E-mail: msander6@ford.com
>

-----Original Message-----

From: Steven Limtiaco [mailto:SLimtiaco@mazdausa.com]
Sent: Thursday, March 14, 2002 7:08 PM
To: 'msander6@ford.com'
Cc: 'lwilli73@ford.com'; 'rdalbo@ford.com'
Subject: Part Purge Request - DPFE Sensor (P/N AJ09-18-211B / Ford p/n Y F1Z-9J460-AC)

Muriel,

Do you have any supporting documents (an 8D or equivalent) explaining the Jan 7th, 2002 countermeasures and the white dot indicator? I want to request a parts purge of old stock from the Mazda PDCs and will need this information for justification.

Anything you can provide will be helpful. Thanks,

Steve Limtiaco
Mazda North American Operations
Tribute Product Support Engineer
949-442-6514 (phone)
949-442-6599 (fax)

EA02-027-G 11286

e-mail: slimtiac@mazdausa.com

EPG2-827-G 11287

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 10:11 AM
To: Kozewnik, John (J.J.)
Subject: Accepted: DPFE EGR Sensor Pre-Review (for 3/25 Tech Review)

From: Freeland, Mark (M.)
Sent: Friday, March 15, 2002 8:27 AM
To: Verner, Carol (C.J.)
Subject: RE: DPFE Sensor: Romeo Engine Plant

Carol,

Thanks, I will try and stop by today, if I don't make it then please bring on Tuesday.

Mark

ERR2-827-G 11289

From: Freeland, Mark (M.)
Sent: Thursday, March 14, 2002 5:36 PM
To: Helms, Jeffrey (J.H.)
Subject: FW: SEM help needed.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, March 14, 2002 1:59 PM
To: Jeff Helms (E-mail)
Subject: SEM help needed.

Jeff,

At today's Kavlico dPFE off site there was much discussion as to what help we need to get to accelerate the effort on root cause analysis.

The tasks listed below have already been identified as needed to be accomplished. Jon Hargas told me that Michellene may be able to assist us on the second user SEM. In addition we want to explore the possibility of using outside labs to do some of the work.

I will try and get time with you tomorrow to discuss this in detail. You should also expect a call from Jim O'Neill on this subject.

We can work with Jim to identify "funding".

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

E982-827-0 11308

From: Freeland, Mark (M.)
Sent: Thursday, March 14, 2002 1:59 PM
To: Jeff Helms (E-mail)
Subject: SEM help needed.

Jeff,

At today's Kavlico dPFE off site there was much discussion as to what help we need to get to accelerate the effort on root cause analysis.

The tasks listed below have already been identified as needed to be accomplished. Jon Hargas told me that Michellene may be able to assist us on the second user SEM. In addition we want to explore the possibility of using outside labs to do some of the work.

I will try and get time with you tomorrow to discuss this in detail. You should also expect a call from Jim O'Neill on this subject.

We can work with Jim to identify "funding".

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel: (313) 594-7645

ER02-027-G 11301

From: Freeland, Mark (M.)
Sent: Wednesday, March 13, 2002 4:14 PM
To: Panaretos, Christina (C.M.)
Subject: RE: Revised Agenda for 3/14 Kavlico Technical Offsite

Christine,

I will not be at the offsite until after 9:00 am.

Mark

From: Freeland, Mark (M.)
Sent: Wednesday, March 13, 2002 4:12 PM
To: Hanges, Jon (.)
Subject: FW: Revised Agenda for 3/14 Kavlico Technical Offsite

-----Original Message-----

From: Panaretos, Christine (C.M.)
Sent: Wednesday, March 13, 2002 1:01 PM
To: Akne, Mary (M.); Alokkar, Shrikant (S.V.); Ales, Sheran (S.A.); Awad, Mahmoud (M.I.); Ayers, Don; Danes, Adam (A.V.); Freeland, Mark (M.); Galas, Freeman (F.C.); Jahshan, John; Janda, Jon (J.M.); Maurer, James (J.B.); Nielsen, Christian (C.A.); O'Neill, Jim (J.D.); Panaretos, Christine (C.M.); Perry, Brian (B.J.); Plante, Paul (P.G.); Ross, Roberto (R.A.); Schieding, Kurt (K.J.); Shore, John (J.); Smythe, Joseph (J.M.); Vener, Carol (C.J.)
Subject: Revised Agenda for 3/14 Kavlico Technical Offsite

Attached please find the revised agenda for the offsite meeting tomorrow. As a reminder, this will be held at the Fairlane Training and Development Center, Room 145, South building. Lunch will no longer be provided, but the cafeteria will be open if you would like to purchase one. There will be an in-focus projector available for presentation purposes.

If you have any questions, please feel free to contact me. See you tomorrow at 8:30!



Kavlico dPFE Tech
Offsite Agen...

Chris Panaretos

Project Manager, Project Solutions, LLC.
Ford POEE, Components "B"
(313) 24-89337
Fax: (313) 32-29285

ER02-927-G 11383

Kavlico TM dPFE Sensor
Technical Offsite Meeting
FTDC – Room
March 14, 2002
8:30-5:00

Agenda

Discussion of UPAD – Results from FRL	<i>Mark Freeland</i>	1 hour
Break		10 minutes
Summary of Investigations to Date: Corrosion Analysis	<i>Freeman Gates</i>	1 hour
Analysis from Kavlico Returns	<i>Loay Saliaeh, Mahmoud Awad</i>	.5 hour
Discussion of Outside help and Management Support	<i>Jim O'Neill</i>	.5 hour
Break for Lunch – FTDC Cafeteria		50 minutes
Is/Is Not and Fishbone	<i>Shri Atolkar, Jon Janda, Team</i>	1.5 hours
Break		10 minutes
Cause/Effect Analysis	<i>Team</i>	2.5 hours
Final Summary		.5 hours

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 3:43 PM
To: Plante, Paul (P.G.)
Subject: RE: 14D Dictionary of Terms

Paul, How about the following definition:

AUGER - Electron Beam based instrument for characterization of surface and thin film elemental composition. Capable of Ion Sputtering to remove material allowing characterization of underlying layers.

Regards

Mark Freeland

6-Sigma Black Belt
Ford Research Laboratory
P.O. Box 2053
SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 12:17 PM
To: Sanders, Muriel (M.S.)
Subject: Declined: U204 Phantom Stall Meeting

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 11:58 AM
To: Hermann, Thomas (T.J.)
Cc: Gates, Freeman (F.C.); Maurer, James (J.B.); Verner, Carol (C.J.); Owens, Karen (K.E.)
Subject: FW: Motorola EMC Test Plan - Revised

Tom,

With regard to the new and improved Kavlico TM sensor (1/7/2002 production) I passed on you're recommendations regarding ES-XW7T-1A278-xx and a hard copy of the Karen Owens, and that is what she was using for the modification to the sensor. With regard to the original release of the sensor I have to refer you to Joe Johnson and Freeman Gates.

Regards

Mark Freeland

-----Original Message-----

From: Hermann, Thomas (T.J.)
Sent: Wednesday, March 13, 2002 11:20 AM
To: Gates, Freeman (F.C.); Freeland, Mark (M.)
Cc: Maurer, James (J.B.); Minfield, Jeremiah (J.R.)
Subject: FW: Motorola EMC Test Plan - Revised

Freeman/Mark It appears that Motorola is working to a different (subset of) EMC spec than the required ES-XW7T-1A278-xx for electronic components. Given the current delta PFE problems, this seems to leading down a similar path.

WHY IS THE SUPPLIER WORKING TO A DIFFERENT EMC SPECIFICATION?

The spec. called out appears to be a power train specification so **WHY ARE EMC SPECIFICATIONS CALLED OUT IN THAT SPEC?**

At most, a pointer to the complete EMC specification (ES-XW7T-1A278-xx) should be included in the power train specification.

Freeman, you need to straighten this out with your supplier. We will not be approving any test plans unless it meets the ES-XW7T-1A278-xx EMC requirements.

Mark, what requirements did Kavlico have to meet for EMC 's requirements ES-XW7T-1A278-xx or the power train ES-F1AE-8J480-AA?

-----Original Message-----

From: Minfield, Jeremiah (J.R.)
Sent: Tuesday, March 12, 2002 4:37 PM
To: Bronn, Mark (M.J.)
Cc: Gates, Freeman (F.C.); Bansek, Catherine (C.K.); Komp, Karl (K.R.)
Subject: RE: Motorola EMC Test Plan - Revised

Mark,

- 1 - Fax over frame 10 (X05327). It must have gotten corrupted in the original transmission.
- 2 - I've reviewed your ES and find that it is lacking in the following areas:
 - RI 120, RI 130
 - CI 280A
 - RE 310

If discussions need to take place, so be it. At some point the part must be made compliant with Ford component EMC requirements. I'd like to include our Tech Specialist, Keith Frazier in those discussions.

*Grace and Peace,
Jerry Minifie (jminifie@ford.com),
R&VT EMC Section, Cube 2D102,
MD 5017, Dept T411,
Ph: 313-32-36583, Fax: 313-39-05327*

—Original Message—

From: Brown, Mark (M.J.)
Sent: Monday, March 11, 2002 08:46
To: Minifie, Jeremiah (J.R.)
Cc: Gates, Freeman (F.C.); Sansok, Catherine (C.K.); Klomp, Karl (K.R.)
Subject: Motorola EMC Test Plan - Revised

Jerry,

Here is the test plan which reflects our current requirements in our product ES Spec. (ES-F1AE-9J460-AA). The people you will want to speak to relative to changing this specification are the Motorola Champion in the EGR group - Karl Klomp and the Technical Specialist for the EGR group - Freeman Gates.

As I mentioned in my message to you last week - in order to run our continuous conformance testing for the sensor we will need an approved test plan.

If Ford wishes to include additional tests to our product ES then we will need to sit down and discuss what those elements should be and determine if any design changes would be required in order to meet them. That discussion should take place with yourself, the people I referenced above, as well as specific personnel from my design and manufacturing groups. But for now I would like to move forward with getting a test plan approved which reflects the current specifications. If you want to refer to the document in question (ES-F1AE-9J460-AA) the information relative to EMC is on frame 10 (I have included that frame in this e-mail). Thanks.

<< File: Ford Current Prod EMC Test Plan_StrpLine_v2.doc >> << File: ES-F1AE-9J460-AA Frame 10.tif >>

Regards,

Mark Brown

MOTOROLA - Resident Engineer
Tel: (313) 248-4609; Fax: (313) 390-4084
Pager: (800) 714-8172

ES82-827-0 11311

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 11:50 AM
To: Rothwiler, Daniel (D.)
Subject: RE: DPFE sensor evaluation

Dan, Thanks for the sensors. I received them OK

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 10:18 AM
To: Akins, Mary (M.); Verner, Carol (C.J.)
Cc: Maurer, James (J.B.); Platis, Paul (P.G.); Sanders, Muriel (M.S.); Limtiaco, Steven (S.)
Subject: FW: Part Purge Request - DPFE Sensor (P/N AJ09-18-211B / Ford p/n Y F1Z-9J460-AC)

Mary/Carol,

What supporting documentation was used? Do you have any specific attachments to the CR etc. which may be appropriate to support this request.

-----Original Message-----

From: Sanders, Muriel (M.S.)
Sent: Friday, March 15, 2002 9:32 AM
To: Freeland, Mark (M.)
Subject: FW: Part Purge Request - DPFE Sensor (P/N AJ09-18-211B / Ford p/n Y F1Z-9J460-AC)

Mark,

Can you help with the information that Steve is requesting below.

Thanks,

> Muriel Sanders
> U204 3.0L Calibration
> Ford Motor Company
> Phone: 313-32-27307
> Fax: 313-32-31786
> E-mail: msander6@ford.com
>

-----Original Message-----

From: Steven Limtiaco [mailto:SLimtiac@mazdausa.com]
Sent: Thursday, March 14, 2002 7:08 PM
To: 'msander6@ford.com'
Cc: 'llwilli73@ford.com'; 'rdalbo@ford.com'
Subject: Part Purge Request - DPFE Sensor (P/N AJ09-18-211B / Ford p/n Y F1Z-9J460-AC)

Muriel,

Do you have any supporting documents (an 8D or equivalent) explaining the Jan 7th, 2002 countermeasures and the white dot indicator? I want to request a parts purge of old stock from the Mazda PDCs and will need this information for justification.

Anything you can provide will be helpful. Thanks,

Steve Limtiaco
Mazda North American Operations
Tribute Product Support Engineer
949-442-6514 (phone)
949-442-6599 (fax)

EA82-827-G 11313

e-mail: slimtiac@mazdausa.com

From: Freeland, Mark (M.)
Sent: Monday, March 18, 2002 10:11 AM
To: Koszewnik, John (J.J.)
Subject: Accepted: DPFE EGR Sensor Pre-Review (for 3/25 Tech Review)

From: Freeland, Mark (M.)
Sent: Friday, March 15, 2002 9:27 AM
To: Verner, Carol (C.J.)
Subject: RE: DPFE Sensor: Romeo Engine Plant

Carol,

Thanks, I will try and stop by today, if I don't make it then please bring on Tuesday.

Mark

ER82-827-G 11316

From: Freeland, Mark (M.)
Sent: Thursday, March 14, 2002 5:36 PM
To: Helms, Jeffrey (J.H.)
Subject: FW: SEM help needed.

—Original Message—

From: Freeland, Mark (M.)
Sent: Thursday, March 14, 2002 1:59 PM
To: Jeff Helms (E-mail)
Subject: SEM help needed.

Jeff,

At today's Kavlico dPFE off site there was much discussion as to what help we need to get to accelerate the effort on root cause analysis.

The tasks listed below have already been identified as needed to be accomplished. Jon Hargas told me that Michellene may be able to assist us on the second user SEM. In addition we want to explore the possibility of using outside labs to do some of the work.

I will try and get time with you tomorrow to discuss this in detail. You should also expect a call from Jim O'Neill on this subject.

We can work with Jim to identify "funding".

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, March 14, 2002 1:58 PM
To: Jeff Helms (E-mail)
Subject: SEM help needed.

Jeff,

At today's Kavlco dPFE off site there was much discussion as to what help we need to get to accelerate the effort on root cause analysis.

The tasks listed below have already been identified as needed to be accomplished. Jon Hargas told me that Michellene may be able to assist us on the second user SEM. In addition we want to explore the possibility of using outside labs to do some of the work.

I will try and get time with you tomorrow to discuss this in detail. You should also expect a call from Jim O'Neill on this subject.

We can work with Jim to identify "funding".

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel: (313) 594-7645

ER02-027-G 11318

From: Freeland, Mark (M.)
Sent: Wednesday, March 13, 2002 4:14 PM
To: Panaretos, Christina (C.M.)
Subject: RE: Revised Agenda for 3/14 Kavlico Technical Offsite

Christine,

I will not be at the offsite until after 9:00 am.

Mark

ER82-827-G 11319

From: Freeland, Mark (M.)
Sent: Wednesday, March 13, 2002 4:12 PM
To: Hargas, Jon (.)
Subject: FW: Revised Agenda for 3/14 Kavlico Technical Offsite

-----Original Message-----

From: Panaretos, Christine (C.M.)
Sent: Wednesday, March 13, 2002 1:01 PM
To: Akins, Mary (M.); Akolkar, Shrikant (S.V.); Ailes, Sheran (S.A.); Awad, Mahmoud (M.I.); Ayers, Don; Damos, Adam (A.V.); Freeland, Mark (M.); Gates, Fraerman (F.C.); Jahshan, John; Janda, Jon (J.M.); Maurer, James (J.B.); Nielsen, Christian (C.A.); O'Neall, Jim (J.D.); Panaretos, Christine (C.M.); Perry, Brian (B.J.); Plante, Paul (P.G.); Rosal, Roberto (R.A.); Schieding, Kurt (K.J.); Shore, John (J.); Smythe, Joseph (J.M.); Vemor, Carol (C.L.)
Subject: Revised Agenda for 3/14 Kavlico Technical Offsite

Attached please find the revised agenda for the offsite meeting tomorrow. As a reminder, this will be held at the Fairlane Training and Development Center, Room 145, South building. Lunch will no longer be provided, but the cafeteria will be open if you would like to purchase one. There will be an in-focus projector available for presentation purposes.

If you have any questions, please feel free to contact me. See you tomorrow at 8:30!



Kavlico dPFE Tech
Offsite Agen...

Chris Panaretos

Project Manager, Project Solutions, LLC.
Ford POEE, Components "B"
(313) 24-89337
Fax: (313) 32-29265

Kavlico TM dPFE Sensor
Technical Offsite Meeting
FTDC – Room
March 14, 2002
8:30-5:00

Agenda

Discussion of UPAD – Results from FRL	<i>Mark Freeland</i>	1 hour
Break		10 minutes
Summary of Investigations to Date: Corrosion Analysis	<i>Freeman Gates</i>	1 hour
Analysis from Kavlico Returns	<i>Loay Saliieh, Mahmoud Awad</i>	.5 hour
Discussion of Outside help and Management Support	<i>Jim O'Neill</i>	.5 hour
Break for Lunch – FTDC Cafeteria		50 minutes
Is/Is Not and Fishbone	<i>Shri Akolkar, Jon Janda, Team</i>	1.5 hours
Break		10 minutes
Cause/Effect Analysis	<i>Team</i>	2.5 hours
Final Summary		.5 hours

From: Freeland, Mark (M.)
Sent: Tuesday, March 12, 2002 4:33 PM
To: Panaristos, Christina (C.M.)
Subject: Accepted: Canceled: Kavlico D.P.F.E. Sensor Technical Offsite #2

From: Freeland, Mark (M.)
Sent: Tuesday, March 12, 2002 4:32 PM
To: Munoz, Kathleen (K.)
Subject: RE: NHTSA Inquiry PEO1-043 2001-2002 Ford Escapes & Mazda Tribute

Kathleen,

I would like to make it late in the day if possible, to give me time to burn the CD's. I can be flexible, so name your time, and tell me where I should find you.

Thanks

Mark Freeland

From: Freeland, Mark (M.)
Sent: Tuesday, March 12, 2002 4:30 PM
To: Rothweiler, Daniel (D.)
Subject: RE: DPFE sensor evaluation

Dan,

My shipping address is:

SRL Room 1517/MD 2629
2101 Village Road
Dearborn, MI 48121-2053

and the mail address is:

> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA

Please let me know when you ship the parts so I can bug our receiving dock!

Thanks

Mark Freeland

email: mfreela1@ford.com
Tel.: (313) 594-7645

ER02-027-G 11327

From: Freeland, Mark (M.)
Sent: Monday, March 11, 2002 4:35 PM
To: 'Tamashiro, Terry'
Subject: RE:

Thanks Terry,

Mark

From: Freeland, Mark (M.)
Sent: Monday, March 11, 2002 4:30 PM
To: Hargas, Jon (.)
Subject: FW: Sifel 807 biproducts during curing

Jon, Let's ask this again of Brady on Wednesday.

Mark

-----Original Message-----

From: Heliker, Grant [mailto:GHeliker@kavlico.com]
Sent: Monday, March 11, 2002 1:04 PM
To: Freeland, Mark (M.)
Subject: RE: Sifel 807 biproducts during curing

I asked -- nothing at all is given off according to my sources here.

> -----Original Message-----

> **From:** Freeland, Mark (M.) [SMTP:mfreelal@ford.com]
> **Sent:** Monday, March 11, 2002 8:46 AM
> **To:** Grant Heliker (E-mail)
> **Cc:** Brady Davies (E-mail); Kyong Park (E-mail); Hargas, Jon (.)
> **Subject:** FW: Sifel 807 biproducts during curing

>

> Grant,

>

> Could you please research what is given off during the cure cycle for the
> chimney potting gel. We are looking into the possibility that if there
> were a path to the Al through the Au & TiW, could the potting cause damage
> to the Al.

>

> Thanks

>

> Mark

>

> -----Original Message-----

> **From:** Hargas, Jon (.)
> **Sent:** Monday, March 11, 2002 10:46 AM
> **To:** Freeland, Mark (M.)
> **Subject:** FW: Sifel 807 biproducts during curing

>

>

> Mark,

> I think we're going to have to ask Kavlico whether acetic acid, etc., is
> given off during cure.

> I left a voice message with the new sales rep, but we'll see if I get a
> response.

> Regards,

> Jon

> -----Original Message-----

> **From:** jheitler [mailto:jheitler@men.com]
> **Sent:** Monday, March 11, 2002 7:35 AM
> **To:** 'Hargas, Jon (.)'
> **Subject:** RE: Sifel 807 biproducts during curing

>

>

ER02-027-G 11330

> Dear Mr. Hargas,

>
> Mark is no longer with Shin-Etsu. Your new Sales Rep. is Steve Craig. He
> handles North Penn, Tech. Ctr., etc.

>
> To answer your question, there are no other hydrocarbon solvents in
> Sifel807A/B except for that small amount of toluene which is the carrier
> for the catalyst necessary to cure the gel.

> You can find Steve Craig at 330-630-9860 X202.

> Best regards

> John Heitler

> -----Original Message-----

> From: Hargas, Jon (.) [mailto:jhargas@ford.com]

> Sent: Friday, March 08, 2002 7:45 PM

> To: 'Neuber, Mark'

> Subject: Sivel 807 biproducts during curing

> Mark,

> Does Sivel 807 give off any biproducts other than hydrocarbon
> solvents during curing, similar to acetic acid given off when RTV cures?

> I realize there is some toluene in one component according to the
> MSDS sheet, and I'm not concerned with pH neutral solvents.

> Regards,

> Jon Hargas

> Materials Science Dept.

> Ford Motor Co.

> 313-323-1068

Subject: Meeting with Kevico to review SRL work on UPAD
Location: SRL Rm. T.B.D.

Start: Wed 3/13/2002 9:00 AM
End: Wed 3/13/2002 1:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Freeland, Mark (M.); Hargas, Jon (.); Simko, Steven (S.J.); Uy, Dalrene (D.); Plante, Paul (P.G.); Gates, Freeman (F.C.)

From: Freeland, Mark (M.)
Sent: Monday, March 11, 2002 12:08 PM
To: Jensen, Ted (T.E.)
Subject: RE:

Thanks Ted,

Yes very enjoyable! Sent it "home"

Mark

From: Freeland, Mark (M.)
Sent: Monday, March 11, 2002 11:46 AM
To: Grant Heltzer (E-mail)
Cc: Brady Davies (E-mail); Kyong Park (E-mail); Hargas, Jon (.)
Subject: FW: Sifel 807 biproducts during curing

Grant,

Could you please research what is given off during the cure cycle for the chimney potting gel. We are looking into the possibility that if there were a path to the Al through the Au & TiW, could the potting cause damage to the Al.

Thanks

Mark

-----Original Message-----

From: Hargas, Jon (.)
Sent: Monday, March 11, 2002 10:46 AM
To: Freeland, Mark (M.)
Subject: FW: Sifel 807 biproducts during curing

Mark,

I think we're going to have to ask Kavico whether acetic acid, etc., is given off during cure. I left a voice message with the new sales rep, but we'll see if I get a response.

Regards,

Jon

-----Original Message-----

From: jheltzer [mailto:jheltzer@man.com]
Sent: Monday, March 11, 2002 7:35 AM
To: Hargas, Jon (.)
Subject: RE: Sifel 807 biproducts during curing

Dear Mr. Hargas,

Mark is no longer with Shin-Etsu. Your new Sales Rep. is Steve Craig. He handles North Penn, Tech. Ctr., etc.

To answer your question, there are no other hydrocarbon solvents in Sifel807A/B except for that small amount of toluene which is the carrier for the catalyst necessary to cure the gel.

You can find Steve Craig at 330-630-8860 X202.

Best regards

John Heltzer

-----Original Message-----

From: Hargas, Jon (.) [mailto:jhargas@ford.com]
Sent: Friday, March 08, 2002 7:45 PM
To: 'Neuber, Mark'
Subject: Sifel 807 biproducts during curing

ER82-827-G 11514

Mark,

Does Sifel 807 give off any byproducts other than hydrocarbon solvents during curing, similar to acetic acid given off when RTV cures?

I realize there is some toluene in one component according to the MSDS sheet, and I'm not concerned with pH neutral solvents.

Regards,

Jon Hargas
Materials Science Dept.
Ford Motor Co.
313-323-1088

Condition Codes: 401 DTC

402 DTC

Symptom Freq...: C CONSTANT

C CONSTANT

Did you duplicate symptoms?: Y (Y or N) Number of Repair Attempts: 3

Describe Symptoms and Conditions:

MIL ON P-0401

S20CDM1
12:12:57
P296

HOTLINE RECORD (REVIEW2)

03/08/02

NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED MDL/YR: TRX ES A /01

PQI Ref No.....: Caller: MANNY

Location.....: 51516 TULLEY MAZDA Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL ON P-0401

RI No for prior repair attempts:

Describe attempted repairs.....:

THIS THE THIRD TIME BACK WITH THIS CODE, REPAIR SEEMS TO BE EFFECTIVE FOR
FOUR MONTHS. WATER WAS FOUND INSIDE SENSOR.

RI Ref No	Suggested Repairs	Try	Eff
0003529	P0401/P0402 - MIL ON DUE TO DPFE SENSORS		

S20CEM1
12:13:28
P296

HOTLINE RECORD (REVIEW3)

03/08/02

NOEP137

Hotline Ref No.: 0250034 Status: SG SUGGESTED MDL/YR: TRX ES A /01

PQI Ref No.....: Caller: MANNY

Location.....: 51516 TULLEY MAZDA Phone: 603 888 - 0550 Ext:

Hotline Subject: 1/10 BK MIL ON P-0401

Other suggested repairs:

REPLACE DPFE SENSOR.

EA82-827-0 11532

Callback Date.....:

Entered By: KULP 01/10/02 Last Rev By: KULP 01/10/02

The 2nd set of 2 is off of another Tribute customer Hammond that had 2 DPFK replacements. VIN # 4F2CU081X1KM42319. This Tribute we don't have any hotline information on but the RO's are included as well.

I need an address to send these parts to you so if you can get it to me soon I will ship them to you.

Thanks,

Daniel H. Rothweiler
Mazda North American Operations
Fixed Operations Technical Specialist
Office: 732-868-2135
Fax: 214-442-5222
Cellular: 732-547-8578

From: Freeland, Mark (M.)
Sent: Thursday, March 07, 2002 12:03 PM
To: Saleh, Loay (L.)
Cc: Awad, Mahmoud (M.I.); Plants, Paul (P.G.); Maurer, James (J.B.)
Subject: RE: Clean_data

Thank you Loay.

A great effort, I know how much work that was.

Can you work on the initial analysis we discussed and forward that to me when available. We are scheduled to sit down on Monday to Define what questions to ask the data.

Regards

Mark Freeland

ER02-027-0 11548

From: Freeland, Mark (M.)
Sent: Thursday, March 07, 2002 11:42 AM
To: Awad, Mahmoud (M.I.)
Subject: Accepted: Return Parts Analysis

From: Freeland, Mark (M.)
Sent: Thursday, March 07, 2002 10:10 AM
To: Awad, Mahmoud (M.I.)
Subject: RE: Functional Characteristics

Monday is OK, after 10:30 would work.

Can we do it here in my office. You could email me the data files and the analysis to date before hand.

Thanks

Mark

ER02-027-G 11543

From: Freeland, Mark (M.)
Sent: Thursday, March 07, 2002 9:35 AM
To: Awad, Mahmoud (M.I.); Sahieh, Loay (L.)
Subject: RE: Functional Characteristics

Mahmoud & Loay,

How about 3:30 this afternoon?

I have to leave our 14 D mtg to go to the Escape Stalls Mtg from 2 - 3 at another bldg. But I could come back after that. Tomorrow I have no time available, as I have to do my own work (Auger and SEM analysis of parts).

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2829 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Thursday, March 07, 2002 9:18 AM
To: Salhieh, Loay (L.)
Cc: Awad, Mahmoud (M.I.)
Subject: FW: Functional Characteristics

Loay,

If they have no test data then they have not tested them yet, so I would say to use TBD as the Functional Description.

Thanks

Mark

—Original Message—

From: Salhieh, Loay (L.)
Sent: Thursday, March 07, 2002 8:42 AM
To: Freeland, Mark (M.)
Subject: Functional Characteristics

Hi,

There are some records that have no functional characteristics: I called it zero. Should I leave it as that or change it to something else.

Advice,

Best Regards,
Loay Salhieh
Ph.317-4618

ERR2-827-G 11545

From: Freeland, Mark (M.)
Sent: Wednesday, March 06, 2002 10:00 AM
To: Verner, Carol (C.J.); Gatas, Freeman (F.C.)
Cc: Maurer, James (J.B.)
Subject: RE: Kavlico Improved Sensor Test Results; Focus Team

Freeman,

I assume that you will handle the contact with Bob?

It is my understanding that the results are from testing "ONE" sample of each. This is not enough. The power up behavior of the Kavlico TM design depends upon which die wins the power up race. So, the implication is that the behaviors shown in Fig 1 and Fig 2 are both normal behaviours for both the unmodified and the Diode/resistor modified TM sensors.

If a number of each type sensors from a number of production dates were tested, then he could put a probability statement around the frequency of occurrence of each behavior.

If you need further details on the power up behavior then you should contact Mark Clifford at Kavlico for those details.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Wednesday, March 06, 2002 9:28 AM
To: Brady Davies (E-mail); Grant Heliker (E-mail)
Cc: Kyong Park (E-mail)
Subject: FW: Six Sigma Expert

Thanks Brady,

I look at this as a real positive to the dPFE program. I will channel all my future requests for info. experimentation & for parts etc. through Grant.

Grant & I will use a simple one pager to track any assignments which Grant may circulate as necessary.

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Davies, Brady [mailto:BDavies@kavlico.com]
Sent: Tuesday, March 05, 2002 11:48 PM
To: Mark Freeland (E-mail)
Cc: Park, Kyong; Heliker, Grant; Miller, Mark; Ray, Randy; Ayers, Don; Tamashiro, Terry; Lee, Steven; McDaniel, Scott
Subject: Six Sigma Expert

Grant Heliker has been assigned to be the Kavlico point-of-contact with Mark Freeland for coordination of data and experiments regarding TMDP sensor field reliability.

Grant is now a trained Six Sigma Expert at Kavlico and is in the best position to work closely with Mark to assist in the various activities related to leading six sigma projects and work to measure, set goals, improve, ... as related to the six sigma methodology.

Grant has agreed that this is a good assignment and R&D will continue to provide technical support and perform appropriate tests and data gathering functions as necessary. Grant will coordinate our efforts so that the communication is reliable, consistent, and accurate. He recieved this assignment sometime ago and has been providing data and samples to Mark.

Brady

ER82-027-G 11547

Brady Davies
Director, MEMS Technology
Kavlico Corporation, A Solectron Company
14501 Los Angeles Avenue
Moorpark, CA 93021
Voice: (805) 523-2000 ext. 2441
Fax: (805) 523-7125
E-Mail: bdavies@kavlico.com
Website: www.kavlico.com

BR02-027-0 11048

From: Freeland, Mark (M.)
Sent: Wednesday, March 06, 2002 9:20 AM
To: 'Davies, Brady'
Subject: RE: Aluminum etch tests

Thanks Brady,

Will wait for the results.

In the literature I also found a 1:1 aqueous solution of HF referred to as an Al Etch. I am sure you knew that already, just I didn't.

Thanks

Mark

ER22-827-G 11548

From: Freeland, Mark (M.)
Sent: Tuesday, March 05, 2002 10:11 AM
To: Slimko, Steven (S.J.)
Subject: RE: SEM Images of 030 and 044

Thanks for the pictures Steve.

Mark

From: Freeland, Mark (M.)
Sent: Tuesday, March 05, 2002 9:39 AM
To: Williams, Lee (LHW.)
Subject: Accepted: Updated: Update: U204 Phantom Stall Meeting

ER02-027-0 11551

From: Freeland, Mark (M.)
Sent: Monday, March 04, 2002 5:35 PM
To: Williams, Les (LHW.)
Subject: RE: Mark Freeland

OK,

Will bring my warranty story on Focus showing correlation between dPFE replacements and Stalls warranty.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 3028 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Freeland, Mark (M.)
Sent: Monday, March 04, 2002 5:30 PM
To: Williams, Les (LHW.)
Subject: RE: Mark Freeland

Les,

Thanks for the directions.

What do I need to be prepared with for Thursday? Or am I just there to give a verbal and answer questions?

Thanks

Mark

From: Freeland, Mark (M.)
Sent: Monday, March 04, 2002 5:28 PM
To: Uy, Dakene (D.)
Subject: RE:

Thanks for the Etch web site info. Very interesting.

I have a new thought, a specific question.

What does:

Piranha

- > > Excellent oxidant; removes most organic residues.
6 parts H₂SO₄
1 part H₂O₂
- > > **Note:** Always add peroxide to sulfuric acid, never vice versa! This is a self-heating solution.

do to an exposed thin film (about 1 micron) of Al, and how fast?

I don't know what the process temperature is, but I would assume room temp. for the question.

Piranha is typically used to strip photo resist after the normal etch steps have been completed.

Thanks

Mark

From: Freeland, Mark (M.)
Sent: Monday, March 04, 2002 3:59 PM
To: Williams, Les (LHW.)
Subject: RE: Mark Freeland

Thanks Les,

I have a place holder in my Outlook.

Can you send directions for the TEE bldg. I'm not sure where it is at.

Regards

Mark Freeland

From: Freeland, Mark (M.)
Sent: Monday, March 04, 2002 2:50 PM
To: Terry Tamashiro (E-mail)
Cc: Hengas, Jon (.); Simko, Steven (S.J.); Maurer, James (J.B.); Gates, Freeman (F.C.); Plante, Paul (P.G.)
Subject: Low mileage UPAD part

Terry,

I would like to have one or two of the very low mileage UPAD parts for Auger analysis.

Specifically, there is one in the data base RML No. 8760-184 which was one of two sensors replaced on a 3.8L Mustang for the complaint of Stalling at 8 miles. The vehicle had not been delivered to the customer at the time the sensor was replaced.

Another part which would be of interest if you can locate it, would be RML 8900-080, which came from a Focus with 54 miles.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Frestard, Mark (M.)
Sent: Monday, March 04, 2002 10:59 AM
To: 'Heller, Grant'
Subject: RE: 20338-18 first pass yields



4/20338-18
comparison before.

Here you go then!

What I was really doing was getting all the info on one specific die that I have in the Auger right now. So I could have just asked for one die's data. But it is quite interesting to see what effect the HF did had on all the die.

Note this time I did not check which die are still on the carcass, so ignore the "Missing Die" col.

Regards

Mark

From: Freeland, Mark (M.)
Sent: Friday, March 01, 2002 5:13 PM
To: O'Neill, Ann (A.E.)
Subject: RE: SRL chemical inventory

Ann,

Thanks for the link.

Mark

From: Freeland, Mark (M.)
Sent: Friday, March 01, 2002 5:03 PM
To: 'Hallker, Grant'
Subject: RE: 20336-18 first pass yields

Thanks Grant,

Done the comparison, do you want a copy?

Mark

ER02-027-0 11037

From: Gale, Allan (A.R.)
Sent: Wednesday, October 30, 2002 5:08 PM
To: Freeland, Mark (M.)
Subject: FW: Focus

This is what we have. Any help?

-----Original Message-----

From: Jaura, Arun (A.K.)
Sent: Wednesday, October 30, 2002 4:04 PM
To: Gale, Allan (A.R.)
Cc: Burrows, Neil (N.R.)
Subject: RE: Focus

Allan: We do not have a 08/2000 engine, but have one that was built in 2000. Call Neil at 58743.

-----Original Message-----

From: Gale, Allan (A.R.)
Sent: Wednesday, October 30, 2002 3:21 PM
To: Jaura, Arun (A.K.)
Subject: Focus

Arun, I have an FRL colleague that is looking for Zatec engines from Focuses built in Sept 2000. Do any of our engines fit that bill or do you know of any?

Allan R. Gale

Sr. Technical Specialist-Electric Drives
VES
Tel: (313)390-4639 Fax: (313)390-2267

From: Gates, Freeman (F.C.)
Sent: Thursday, December 05, 2002 10:06 AM
To: Freeland, Mark (M.)
Subject: Out of Office AutoReply: Repeat Repair Warranty Data

Out of the office until 12/09/02

EP02-227-5 11548

From: Gates, Freeman (F.C.)
Sent: Tuesday, December 03, 2002 10:29 AM
To: Freeland, Mark (M.); Maurer, James (J.B.); McCoy, James (J.D.)
Cc: Kotwicki, Allan (A.J.); Ailes, Sharan (S.A.); O'Neill, Jim (J.D.); Crawley, Ian (I.A.); Williamson, Richard (E.); Jefford, Bob (R.D.)
Subject: RE: DPFE Sensor stalls

This vehicle will have the ESM. This sounds like it may even be an EVR concern i.e. vacuum on EGR valve continually. We have seen this on some EVR applications if the filter is not installed correctly or contamination exists on the disc (internal to EVR). We have seen this at least 1 time this year. When you disconnect the DPFE, you also disconnect, EVR and MAP sensor through the common connector.

Thanks Mark/Richard.

Anyway the answer is YES , we want the part !

-----Original Message-----
From: Freeland, Mark (M.)
Sent: Tuesday, December 03, 2002 10:14 AM
To: Gates, Freeman (F.C.); Maurer, James (J.B.); McCoy, James (J.D.)
Cc: Kotwicki, Allan (A.J.); Ailes, Sharan (S.A.); O'Neill, Jim (J.D.)
Subject: FW: DPFE Sensor stalls
Importance: High

Freeman, Jim & Jim,

Please read the attached from Rick Williamson of ECI. I will ask Rick to obtain the part if he can.

A couple of questions:

- 1) Which dPFE sensor will this vehicle have, Kavlico TM, Motorola Dash Mount or Siemens (Kavlico) ECM?
- 2) What current draw does it take to shut down a 2003 MY Town Car?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----
From: Williamson, Richard (E.)
Sent: Wednesday, November 27, 2002 7:57 AM
To: Freeland, Mark (M.)
Subject: DPFE Sensor stalls
Importance: High

Hi Mark,
How have you been?
Are you still interested in the DPFE sensor?
I have a CQIS report that you might be interested in:

==>

1 of 1

Rpt#: 2KTAC415 EDSR -or- Q 200200039171 Rpt: 11/21/2002 Odom: 3,439 M
Rvw: File: Folder: Atchmnts: 0 Print Smy/Disp Detail(P/D):
Vehicle: 2003 TOWN CAR,EXEC ,SEDAN 1LNHM81W73Y626638 Bld: 07/29/2002
Engine: 4.6L ROM B Calb: Trans: Axle: A/C:
Dealer Id: 08910 Columbia Ford Lincoln-Mercury Ph#: (860) 228-2886
State: Connecticut City: Columbia Orig/Caller: PAUL DANIELUK
Symptom: 6 07 6 03 DRVABL,STALL/QUITS,AT CRUISE,ALL ENGINE TEMP
Addl Sym: St: CCRG/EPRC: S Rvw: A Dt: 11/25/2002
Fix Y Caus. Comp: EGR ASSEMBLY - RPL Condition Code:

Region Code: 11 Region Name: Boston -11

CONCER VEHICLE STALLS WHILE DRIVING SOMETIMES, SOMETIMES IT RESTARTS AND
SOMETIMES IT WON'T CRANK AFTER IT STALLS.
TECH/C NGS SELF TEST NO CODES, WHEN CAR WON'T CRANK YOU LOSE COMMUNICATION
WITH PCM, THEFT LIGHT DOES NOT PROVE OUT WHEN KEY IS TURNED ON,
UNPLUGGED DPFE AND CONCERN IS CORRECTED. REPLACED SHORTED DPFE ERG
VALVE ASSEMBLY AND RETEST.

I am going to try and get the part back, let me know if you would like it

Take care,

RICK WILLIAMSON
Product Concern Analyst
Enhanced Concern Identification
313-248-6348
rwill110@ford.com

From: Gates, Freeman (F.C.)
Sent: Wednesday, November 13, 2002 4:35 PM
To: Freeland, Mark (M.); Maurer, James (J.B.); O'Neill, Jim (J.D.)
Subject: FW: Data File Key

The next step is to complete "tails" testing exercise.

-----Original Message-----

From: Danhoff, Gary (G.L.)
Sent: Wednesday, November 13, 2002 2:54 PM
To: Gates, Freeman (F.C.)
Subject: Data File Key

Freeman,
Here's the key to the data files.

New Sensor:

Initialization and starts - sen1001 & sen1002

Stop and go drive on track - sen1003

Old Sensor:

Initialization and starts - sen1005, sen1006 & sen1007

Stop and go drive on track - sen1004

As I mentioned to you in passing, the new sensor didn't exhibit any anomalies and was very similar in response to the old sensor during the very limited testing I conducted today.

From: Gates, Freeman (F.C.)
Sent: Tuesday, October 29, 2002 9:17 AM
To: kpark@kavlico.com; Freeland, Mark (M.)
Cc: O'Neal, Jim (J.D.); Maurer, James (J.B.); Alles, Sheran (S.A.); Verner, Carol (C.J.)
Subject: Tantalum Capacitor Substitute

Kyong/Mark,

Last night, I remembered a problem Kavlico had in packaging feed through capacitors in the PFE sensor many years ago (around '86). The solution that Kyong Park proposed was to use a capacitor made by Taiyo Yuden corporation. This was made possible by a special Nickel Based proprietary process which allows higher value of capacitance in a smaller package.

This morning, I checked their web site and found ceramic chip capacitors they offered with values ranging from .022 uf up to 100 uf (no tantalum or electrolytic)

<http://www.t-yuden.com/catalog/index.cfm#ceramic>

In researching their on-line catalog, I found the following capacitors of interest:

- 10 uf/35 volt - p/n GMK325F106ZH (1.5 mm thick) [2.8 x 3.6 mm]
- 6.8 uf/6.3 volt - p/n JMK316BJ685MF (1.15 mm thick) [2.0 x 3.6 mm]
- 4.7 uf/25 volt - p/n TMK325BJ475MN (1.9 mm thick) [2.8 x 3.6 mm]

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)38-04064
POEE Rm D-138 CM-173

From: Gates, Freeman (F.C.)
Sent: Monday, October 07, 2002 9:33 AM
To: Freeland, Mark (M.); Kotwicki, Allan (A.J.)
Subject: FW: Zener Diode voltage rating

FYI...

-----Original Message-----

From: Hueniken Peter [mailto:Peter.Hueniken@at.siemens.ca]
Sent: Sunday, October 06, 2002 8:49 AM
To: 'icrawley@ford.com'; 'fgates@ford.com'
Cc: Jefford Bob
Subject: FW: Zener Diode voltage rating

Hello Freeman

Per your request, the Zener Diode incorporated with the Transient Voltage Suppression is rated at 9.1 volts nominal.
Note from Don Ayers is attached below.

Regards
Peter Hueniken

-----Original Message-----

From: Ayers, Don [mailto:DAyers@kavlico.com]
Sent: Friday, October 04, 2002 6:14 PM
To: Hueniken Peter
Cc: Bugaj, Barry; makins@ford.com
Subject: Zener Diode voltage rating

Per Freeman's request via you, the diode used on ESM is rated at 9.1 volts nominal. I've requested the warranty data that you wanted on TBD's. I hope to get that out to you later.

Regards,
Don

From: Gates, Freeman (F.C.)
Sent: Thursday, August 01, 2002 10:08 AM
To: Freeland, Mark (M.)
Subject: Out of Office AutoReply: Bond Pad Corrosion created by running a dPFE on vehicle in the latched condition

Out of the office until 08/12/02

ER02-027-G 11894

From: Gates, Freeman (F.C.)
Sent: Wednesday, May 15, 2002 12:35 PM
To: Plante, Paul (P.G.); McCarty, Bill (W.D.)
Cc: Maurer, James (J.B.); Freeland, Mark (M.)
Subject: RE: Ed Sickafus Trip to Analytical Solutions

I just submitted a trip request in for approval to John Koszewnik. I did include Ed Sickafus in this request just in case he was able to make the trip.

-----Original Message-----

From: Plante, Paul (P.G.)
Sent: Wednesday, May 15, 2002 12:29 PM
To: McCarty, Bill (W.D.)
Cc: Maurer, James (J.B.); Gates, Freeman (F.C.); Freeland, Mark (M.)
Subject: Ed Sickafus Trip to Analytical Solutions

Ed is Ford agency person and recognised I.C. expert. I think he is required on this trip. Bill, is there still an issue w/ Kavlico? Ed needs to make plans to join the team NOW.

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube BG049, Pillar D5
Tele. 313-84-54138; Fax 39-02513
Text Pager: 734-286-1905
E Mail: pplante@ford.com (CDS ID PPLANTE)

Subject: FW: EDP DPFE Bench Test
Location: POEE Cafeteria

Start: Fri 5/31/2002 10:00 AM
End: Fri 5/31/2002 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Gates, Freeman (F.C.); Freeland, Mark (M.)

---Original Appointment---

From: Gates, Freeman (F.C.)
Sent: Wednesday, May 29, 2002 11:11 AM
To: Gates, Freeman (F.C.); Gates, Freeman (F.C.); Kotwicki, Allan (A.L.); Maurer, James (J.B.); Komp, Karl (K.R.)
Subject: EDP DPFE Bench Test
When: Friday, May 31, 2002 10:00 AM-11:00 AM (GMT-05:00) Eastern Time (US & Canada).
Where: POEE Cafeteria

From: Gates, Freeman (F.C.)
Sent: Friday, May 17, 2002 8:51 AM
To: 'Ed Sickafus'
Cc: Maurer, James (J.B.); Freeland, Mark (M.)
Subject: RE: Analytical Solutions Trip

Ed,
Could you please book your flight as normal and bill us for your expenses?

-----Original Message-----
From: Ed Sickafus [mailto:ntelleck@ic.net]
Sent: Thursday, May 16, 2002 4:31 PM
To: Gates, Freeman (F.C.)
Subject: RE: Analytical Solutions Trip

Freeman: The web page, www.travel.ford.com, is inaccessible from my computer -- it cannot be displayed. Shall I book my flight as I normally do using an online service? Ed

-----Original Message-----
From: Gates, Freeman (F.C.) [mailto:fgates@ford.com]
Sent: Thursday, May 16, 2002 3:57 PM
To: Freeland, Mark (M.); Maurer, James (J.B.); 'ntelleck@ic.net'
Cc: 'fgates3319@aol.com'
Subject: Analytical Solutions Trip

Unfortunately, the new corporate guidelines require each of us to book our reservations online. The web site is www.travel.ford.com. I reserved a full size vehicle from Hertz. Please noted the attached .

(I will reserve 4 rooms at the Holiday Inn Express as per Kavlico).

<<Confirmation Your Booking Was Sent!.htm>>

Freeman Gates
Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)39-04084
PORE Rm D-138 CM-173

ER02-027-G 11707

From: Gates, Freeman (F.C.)
Sent: Thursday, May 16, 2002 3:57 PM
To: Freeland, Mark (M.); Maurer, James (J.B.); 'intellect@ic.net'
Cc: 'fgates3319@aol.com'
Subject: Analytical Solutions Trip

Unfortunately, the new corporate guidelines require each of us to book our reservations online. The web site is www.travel.ford.com .I reserved a full size vehicle from Hertz. Please noted the attached .

(I will reserve 4 rooms at the Holiday Inn Express as per Kavlico).



Confirmation Your
Booking Was ...

Freeman Gates
Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)39-04084
POEE Rm D-138 CM-173

ERS2-027-G 11788

From: Gates, Freeman (F.C.)
Sent: Wednesday, May 15, 2002 12:33 PM
To: King, Sandra (S.M.)
Cc: Meurer, James (J.B.); Freeland, Mark (M.); Gates, Freeman (F.C.); Plante, Paul (P.G.)
Subject: Analytical Solutions Trip Approval



Travel
Request1.doc

Freeman Gates
Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)32-04064
POEE Rm D-138 CM-173

x

Confirmation

x

✕ ✕ ✕ ✕ ✕ ✕ ✕ ✕ ✕ ✕

Traveler

Site: Ford Motor Company

The CTD Itinerary is for information purposes only. American Express will email you an Itinerary for the FAA and Travel Expense Reports.
 Itinerary received: Thu May 18 20:42:01 2002

Detroit (DTW) to Albuquerque (ABQ)

Sunday, May 19

Review Vendor	Dates	Information	Prices
<input type="checkbox"/> Northwest Airlines Flight 1833 Airbus A319	May 18 12:00 pm depart May 19 1:55 pm arrive	DTW IAH	Class: Coach Fare Rules
<input type="checkbox"/> Northwest Airlines Flight 7849 Boeing 737-300	May 19 2:34 pm depart May 19 3:40 pm arrive	IAH ABQ	Class: Coach Fare Rules
<input type="checkbox"/> Hertz airport location	May 19 pick-up May 21 drop-off	ABQ non-smoking car Special requests are not confirmed and are on request until pickup Rental Policy	Full Size 49.50 USD/day Extra Hour: 25.00 Conf: 88248848320

Albuquerque (ABQ) to Detroit (DTW)

Tuesday, May 21

<input type="checkbox"/> Northwest Airlines Flight 824 Airbus A320	May 21 8:35 am depart May 21 12:08 pm arrive	ABQ MSP	Class: Coach Fare Rules
<input type="checkbox"/> Northwest Airlines Flight 762 Boeing 757-200	May 21 1:07 pm depart May 21 4:00 pm arrive	MSP DTW	Class: Coach Fare Rules

Total Airfare (including taxes) **567.75**

EN82-827-0 11718

Itinerary Information

Worldspan Record: MIDHGM
Locator:
Car Confirmation 1: ZE-88248948320 (Hertz)

Delivery Information

Name: Freeman Gates
Address: Ford Motor - POEE Bldg
Dearborn, MI 48121
Email: FGATES@ford.com
Business Phone: 1-313-3224807
Card type: Visa
Card issuer/bank: Freeman C Gates

Passenger Information

Passenger 1: FREEMAN GATES (standard meal)

Instructions

Agency Contact Information

Agency: American Express
Address: 4 Parklane Blvd
5th Floor
City: Dearborn
State / Postal Code: MI 48128
Phone:
Toll-Free:
Fax:
Regular Business Hours:

Emergency Contact Information

Contact Name: Paris Gates
Country: USA
Contact Phone: 248-640-7018

[Printer Friendly Version](#)

Save this booking as a Trip Template?

Enter Trip Template Name:

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E882-827-0 11711

COMMERCIAL TRAVEL APPROVAL FORM

Freeman Gates	5/19-5/21	Albuquerque, NM	1500	Visit outside laboratory (Analytical Solutions) to discuss plan/procedure for Kavlico DPFE Sensor failure analysis.	Jim Oneall
Mark Freeland	5/19-5/21	Albuquerque, NM	1500	" "	Jim Oneall
Jim Maurer	5/19-5/21	Albuquerque, NM	1500	" "	Jim Oneall
Ed Sickafus	5/19-5/21	Albuquerque, NM	1500	" "	Jim Oneall

6982-027-0 11712

John Koszewnik, Chief Engineer

From: Gates, Freeman (F.C.)
Sent: Wednesday, May 15, 2002 9:43 AM
To: Freeland, Mark (M.); Park, Kyong; Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady
Subject: RE: Trip to Analytical Solutions in New Mexico, USA

Jim Maurer will be traveling with us also.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, May 15, 2002 9:41 AM
To: 'Park, Kyong'; Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; Freeland, Mark (M.); Gates, Freeman (F.C.)
Subject: RE: Trip to Analytical Solutions in New Mexico, USA

Good,
Freeman is going to make the travel arrangements for himself and me. We will see you on Sunday.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Tuesday, May 14, 2002 6:53 PM
To: Maurer, James (J.B.)
Cc: Tackman, Karen; Davies, Brady; mfreela1@ford.com; fgates@ford.com
Subject: Trip to Analytical Solutions in New Mexico, USA

Dear Jim,
Brady and I will be flying out to New Mexico on Sunday, May 19, 2002. We are planning to arrive at around 4 PM in local time. We will fly back Monday evening.

As soon as I learn our itinerary, we will let you know.
Yours,
Kyong

ER02-027-G 11713

From: Gates, Freeman (F.C.)
Sent: Monday, May 13, 2002 9:43 AM
To: Freeland, Mark (M.); Meurer, James (J.B.); Plante, Paul (P.G.); Awad, Mahmoud (M.I.)
Cc: Lovelace, Maria (M.E.); Sorenson, Lynn (R.L.)
Subject: RE: Request for Melted DPFE's

Team,

This is not a new failure mode. The cat would melt due to a known ignition concern. The resultant high backpressure would cause an exhaust leak and subsequent sensor failure. This was only evident on the 3.8L, however there was a similar concern on early 2001 3.0L Duratech Escapes. This was due to weld slag from the catalyst.

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, May 13, 2002 9:35 AM
To: Meurer, James (J.B.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Awad, Mahmoud (M.I.)
Cc: Lovelace, Maria (M.E.); Sorenson, Lynn (R.L.)
Subject: FW: Request for Melted DPFE's

Team,

We may have a new failure mode to add to the 14 D.

Is it possible that the previously failed dPFE causes a cat. melt down, which causes high back pressure, which causes exhaust flow through the dPFE's seals and it melts?

Or the alternative hypothesis,

Something else causes the cat. to melt down, which causes high exhaust back pressure, causing exhaust flow through the dPFE's seals etc..

Mahmoud,

What can you find out about cat. melt downs on 3.8L Mustang from AWS?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Lovelace, Maria (M.E.)
Sent: Monday, May 13, 2002 7:55 AM
To: Freeland, Mark (M.)
Subject: FW: Request for Melted DPFE's

Mark

a few comments from our FQE in Houston concerning DPFEs. Technician's comments

—Original Message—

From: Sorenson, Lynn (R.L.)
Sent: Friday, May 10, 2002 3:48 PM

ER82-827-G 11714

To: Lovelace, Maria (M.E.)
Cc: Sorensen, Lynn (R.L.)
Subject: Request for Melted DPFE's

Maria, I have not seen one yet, but every technician that has had one indicated that it came from a 3.8L Mustang. The cause is simply a plugged Cat. converter that causes the exhaust to flow up through the DPFE and melts it down. No one has had one that wasn't a V-6 Mustang or that was caused by something other than a plugged converter. They have all been asked to save me one if they get one, but most haven't seen one for a couple of months..

R. L. (Lynn) Sorensen

Enhanced Concern Identification - FCSD
Field Quality Engineer...Houston, TX,
Office: 281-443-6582 Fax: 281-443-4206
Cell: 281-384-0617
lsorensen@ford.com

E982-827-G 11710

From: Gates, Freeman (F.C.)
Sent: Monday, May 06, 2002 12:49 PM
To: Freeland, Mark (M.); Maurer, James (J.B.); 'kpark@kavlico.com'; Plante, Paul (P.G.); 'dayere@kavlico.com'
Cc: Johnson, Joe (J.H.); King II, Lamar (L.L.); O'Neill, Jim (J.D.)
Subject: Zarlink's(Dalsa) CMOS Latch-up paper

Team,

I found a very interesting technical bulletin that Zarlink published on CMOS latch-up in 1993 that you may want to reference.

Please refer to <http://assets.zarlink.com/products/data/appnotes/mstan107.pdf>

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)39-04084
POEE Rm D-138 CM-173

From: Gates, Freeman (F.C.)
Sent: Thursday, April 11, 2002 12:22 PM
To: Hangas, Jon (.); Maurer, James (J.B.); Freeland, Mark (M.); Planta, Paul (P.G.)
Subject: RE: comments on analytical labs, and one new lab

Yes, Charles Evans was one of the ones I looked at earlier and started to list, I got the impression they were possibly the largest of all but may have had the slowest turn around time.

-----Original Message-----

From: Hangas, Jon (.)
Sent: Thursday, April 11, 2002 12:00 PM
To: Gates, Freeman (F.C.); Maurer, James (J.B.); Freeland, Mark (M.); Planta, Paul (P.G.)
Subject: comments on analytical labs, and one new lab

Some web sites list emission microscopy or liquid crystal, which can be used to detect the flaw that latches up a device from the photons emitted. We should inquire more about this. Infrared may be similar but detect thermal differences, whereas emission might detect the characteristic photons generated due to the latching event. I wonder if some emission detectors rely the visible spectrum which would not be detectable through the Si chip.

Tandex appears to be a Milspec lab good at packaging and circuit board failure analysis. They check for fungus growth, do vibration tolerance for abuse from rockets and GI's, and they even do SEM, but I doubt they have the capability or experience to do everything we need at the die level. They are the only ones I would advise against using for examining the die.

Insight Analytical Labs IAL (www.ial-fa.com) lists cross sectioning capability, SEM, TEM (not necessary but an indication of some more experienced people are there or are consultants), Auger, Infrared, radiography, etc. Do they do all that in house?

ISE has advanced radiography device. Appear to have an FIB fabrication device, but are they willing to cross section a device?

Raytheon Reliability Analysis Laboratory has everything but FIB. They seem to have a good thermal analysis capability, liquid crystal hot spot detection, so perhaps they could detect flaws in stage 2.

IBM has all techniques except liquid crystal listed, but they do have infrared microscopy for looking through silicon chips. They did early work on hillock growth. Maybe they would also be able to give recommendations. What's their backlog?

Accurat has 10 FIB systems. They have emission microscopy/liquid crystal capability which they claim can detect latch up from photons emitted. Can this be done through the back of the die?

Analytical Solutions has many techniques, SEM, EBIC and liquid crystal. They mention cross section capability but do not specify whether they have FIB.

Charles Evans Associates (www.cea.com) claims to be the largest independent analytical lab for semiconductor and biomedical industries, and has FIB, SEM, Auger, SIMS, etc. They do not mention infrared or emission microscopy capability.

Jon Hangas

ERG2-827-0 11718

From: Gates, Freeman (F.C.)
Sent: Tuesday, April 09, 2002 12:34 PM
To: Maurer, James (J.B.); Plante, Paul (P.G.); Plante, Paul (P.G.); Freedland, Mark (M.)
Cc: O'Neel, Jim (J.D.); Panaretos, Christine (C.M.); Gates, Freeman (F.C.)
Subject: Additional Lab Outside References

Please note the following Labs in addition to Analytical Solutions:

- Insight Analytical Labs - www.IAL-fa.com/
- Tandex Labs - www.tandexlabs.com/
- Raytheon Labs - www.reliabilityanalysislab.com/
- ISE Labs - www.dts.com/fa.html

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)96-04084
POEE Rm D-138 CM-173

From: Gates, Freeman (F.C.)
Sent: Wednesday, March 20, 2002 5:29 PM
To: Plants, Paul (P.G.); Freland, Mark (M.)
Cc: Maurer, James (J.B.); Johnson, Joe (J.H.)
Subject: University of Maryland (CALCE)

Earlier this afternoon, Jim Maurer and I contacted Dr. Craig Hillman of CALCE [Http://www.calce.umd.edu](http://www.calce.umd.edu). This division of the University of Maryland provides a cooperative partnership with industry of which Ford Motor Co. has been a past member. Most noticeable, they were involved with TFI module analysis. They get deeply involved with all aspects of CMOS processing and design, problem analysis and warranty/reliability data crunching.

Please visit their web site and provide your comments.

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)32-04084
POEE Rm D-135 CM-173

From: Gates, Freeman (F.C.)
Sent: Wednesday, March 20, 2002 3:40 PM
To: Freeland, Mark (M.); Plante, Paul (P.G.); Johnson, Joe (J.H.); Maurer, James (J.B.)
Cc: Panaretos, Christine (C.M.)
Subject: RE: TMDPFE Technical Summary

I agree, will update and redistribute.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, March 20, 2002 3:34 PM
To: Gates, Freeman (F.C.); Plante, Paul (P.G.); Johnson, Joe (J.H.); Maurer, James (J.B.)
Cc: Panaretos, Christine (C.M.)
Subject: RE: TMDPFE Technical Summary

<< File: 20020320 changes Technical Summary TMDPFE_5.doc >>

Freeman,

I have made a few suggested changes, added words in Red, and deleted words with a strike through. Please review my proposed changes and let me know what you think.

Thanks

Mark Freeland

From: Gates, Freeman (F.C.)
Sent: Monday, March 18, 2002 5:57 PM
To: Freeland, Mark (M.)
Subject: "Analytical Solutions" URL

Mark,
As per our conversation this morning the URL is <http://www.analyticalsol.com>.

Thanks

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)39-04084
POEE Rm O-136 CM-173

From: Giordano, Mike (M.A.)
Sent: Monday, November 25, 2002 2:25 PM
To: Fraeland, Mark (M.)
Subject: Out of Office AutoReply: Repeat dPFE Repair Analysis of 2.0L Zetec Focus

I am on vacation until December 2.

ER02-027-G 11753

From: Gonzalez, Lebzy (L.)
Sent: Wednesday, June 05, 2002 11:02 AM
To: Freeland, Mark (M.)
Subject: RE: Kavlico samples

Sounds great. I'll see you in the lab.

Lebzy Gonzalez
Materials Science Department 20-64167
Scientific Research Laboratory lgonza25@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
To: Gonzalez, Lebzy (L.)
Sent: 6/4/02 4:48 PM
Subject: RE: Kavlico samples

I will start it as soon as I get in on Thursday morning, probably about 9:15, unless traffic is bad. I have to take my three girls to school at 8:15 in Walled Lake, so I can't get here any earlier. I should be able to have the part in you're hands at 9:30 - 9:45, will that work for you? If that is OK, I will see you in Jon's annex to the lab on Thursday morning.

Regards

Mark Freeland

>6-Sigma Black Belt
>Engine Research Department
>Ford Research Laboratory
>P.O. Box 2053
>MD 2629 - SRL - Room 1517
>Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

> -----Original Message-----

>From: Gonzalez, Lebzy (L.)
>Sent: Tuesday, June 04, 2002 1:54 PM
>To: Freeland, Mark (M.)
>Subject: FW: Kavlico samples

>

>Mark,

>

>Dairene said she can look at the samples whenever we're ready on
>Thursday--how's 9am for getting the sample prep started?

>

>Regards,

>

>Lebzy Gonzalez
>Materials Science Department 20-64167
>Scientific Research Laboratory lgonza25@ford.com

>

EA02-027-G 11776

From: Gonzalez, Leby (L)
Sent: Tuesday, June 04, 2002 1:54 PM
To: Freeland, Mark (M.)
Subject: FW: Kavlico samples

Mark,

Dalrene said she can look at the samples whenever we're ready on Thursday--how's 9am for getting the sample prep started?

Regards,

Leby Gonzalez

Materials Science Department 20-64167
Scientific Research Laboratory lgonza25@ford.com

From: Gonzalez, Lebzy (L.)
Sent: Wednesday, April 24, 2002 2:54 PM
To: Freeland, Mark (M.)
Subject: RE: Football match

Match complete--I think I missed one or two goals, though. The sample is right next to the microtome, where you had left the stubs. Let me know what it tells you...

Lebzy Gonzalez
Materials Science Department 20-64167
Scientific Research Laboratory lgonza25@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, April 23, 2002 10:02 AM
To: Gonzalez, Lebzy (L.)
Subject: RE: Football match

Lebzy,

The machine shop is making sample holders, two will be ready this afternoon. I will be out of the building from 1 - 3:30 approx., but Martin will put them in my office when they are ready. You can come look for them, or I will look for you when I get back to the office.

Hoping for another good game with lots of own goals!

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Gonzalez, Lebzy (L.)
Sent: Monday, April 22, 2002 2:12 PM
To: Freeland, Mark (M.)
Subject: Football match

Hi Mark,

I was getting ready for my next match when I realized that I don't have any Al stubs to mount the chip in. Do you have them?

Lebzy Gonzalez

ER02-027-G 11782

Materials Science Department
Scientific Research Laboratory

20-64167
lgonza25@ford.com

ENG2-827-8 11783

From: Gonzalez, Lebzy (L.)
Sent: Monday, April 22, 2002 2:12 PM
To: Freeland, Mark (M.)
Subject: Football match

Hi Mark,

I was getting ready for my next match when I realized that I don't have any Al stubs to mount the chip in. Do you have them?

Lebzy Gonzalez
Materials Science Department 20-64167
Scientific Research Laboratory lgonza25@ford.com

From: Gonzalez, Lebzy (L.)
Sent: Wednesday, March 06, 2002 11:28 AM
To: Freeland, Mark (M.)
Subject: Football match

Mark,

I'm back at the office. Let me know when you'd like to try that microtoming experiment...

Lebzy Gonzalez

Materials Science Department 20-64167
Scientific Research Laboratory lgonza25@ford.com

From: Gwozdek, Thomas (T.M.)
Sent: Friday, August 23, 2002 8:53 AM
To: Freeland, Mark (M.)
Subject: RE: Focus Grounds

Yes I remember you!

If any changes were made, it was to relocate the underhood grounds on a verticle piece of sheet metal and/or combine them. I haven't been involved in Focus in 8 months, so you need to talk to Curt Swick, electrical PMT leader who may be aware of any wiring related changes going from '01 to '02.

Tom Gwozdek

EESE-MAC Quality / Business Planning Leader,
Certified Black Belt
313-24-87872

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, August 22, 2002 2:30 PM
To: Gwozdek, Thomas (T.M.)
Subject: Focus Grounds

Tom,

Remember me? The guy working on the dPFE, we both gave a presentation to JN at WAP.

Can you fill me in on the details of the changes which were made to the PCM grounding system on the 2.0L Zetec Focus at the model year change over from 2001 to 2002?

Please call me when you can to discuss.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

From: Hargas, Jon (.)
Sent: Tuesday, September 03, 2002 1:27 PM
To: Freeland, Mark (M.)
Subject: current annual cost

Mark,
What is the current annual warranty cost of Kavlico? This is for my project review with Jeff next week.
Jon

From: Hargas, Jon (.)
Sent: Friday, August 23, 2002 11:16 AM
To: Freeland, Mark (M.)
Subject: vehicle electronics robustness design for 6-sigma

Mark,

As I suggested yesterday it would be important to use noisy spark plugs when testing the Seimens module in the Crown Vic.

Perhaps what the company should do in the long run is perform a study on electrical noise characteristics of spark plugs as they degrade in use. Perhaps the electrical characteristics of population of spark plugs at 100,000 miles would be sufficient, taking into consideration any that have been pulled from service early. Then select a 6-sigma criterion for electrical noise generated from these plugs. Then spark plugs with such electrical noise should be used in testing the robustness of vehicle electronics as a system in design verification, if not at the component level.

Perhaps rejects from spark plug manufacturers could be selected for such tests.

Jon

From: Hangas, Jon (.)
Sent: Wednesday, August 21, 2002 12:06 PM
To: Freeland, Mark (M.)
Subject: RE: Fibics

Accurel should be able to do just as good a job for SEM purposes, and do Infrared Imaging as well.
Jon

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Wednesday, August 21, 2002 12:03 PM
To: Hangas, Jon (.)
Subject: RE: Fibics

Thanks Jon,

I had a look at what they can do with TEM. NeatOI Not sure if the politics will allow us to do this on SRL955, will keep you posted.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Hangas, Jon (.)
Sent: Friday, August 16, 2002 7:00 PM
To: Donlon, William (W.T.)
Cc: Freeland, Mark (M.)
Subject: Fibics

Bill,

S. Dionne, the woman from Canmet that gave an invited talk in Quebec Thursday morning at 8AM, used Fibics to make their FIB cross sections.

I don't think they have the same equipment that Mansfield wants to buy (i.e. a two gun system), but they have good technique and experience.

Their web site is www.fibics.com. There are examples of how to cross section precisely for SEM as well as TEM that put tripod polishing to shame. They've done FIB for SEM on everything from nickel foam to 200ASA color film. They give only a few examples of TEM.

I think it would be desirable to use Fibics or a similar company (or any company that Mansfield suggests) so that we can help Mansfield get a FIB. The more money we put in the more we can use it at a reduced rate, I hope.

Jon

ER02-027-G 11792

From: Hanges, Jon (.)
Sent: Friday, August 16, 2002 7:00 PM
To: Donlon, William (W.T.)
Cc: Freeland, Mark (M.)
Subject: Fibics

Bill,

S. Dionne, the woman from Canmet that gave an invited talk in Quebec Thursday morning at 8AM, used Fibics to make their FIB cross sections.

I don't think they have the same equipment that Mansfield wants to buy (i.e. a two gun system), but they have good technique and experience.

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I think it would be desirable to use Fibics or a similar company (or any company that Mansfield suggests) so that we can help Mansfield get a FIB. The more money we put in the more we can use it at a reduced rate, I hope.

Jon

EA82-827-0 11783

From: Hargas, Jon (.)
Sent: Friday, August 16, 2002 1:58 PM
To: Freeland, Mark (M.)
Subject: RE: cleaning 30 mile part

Mark,

I only saw the broken wire Shri showed me. A drill bit down the port? That would be rather hefty foreign object damage! Do you see scratches on the sides of the port?

Jon

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Friday, August 16, 2002 1:42 PM
To: Hargas, Jon (.)
Subject: RE: cleaning 30 mile part

Jon,

I had a good look at the part after Shri left. My opinion is that someone stuck a drill down the port, thus it might be a big waste of time. What do you think?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Hargas, Jon (.)
Sent: Thursday, August 15, 2002 6:07 PM
To: Freeland, Mark (M.)
Subject: cleaning 30 mile part

Mark,

If you want to preserve the wire bonds on the 30-mile part that failed on the drive up to MPG, you'll need to get some Dynasolve. Of course this will eat the aluminum.

I don't think it's feasible to soak in freon and scrub around the wire bonds, they're too likely to break.

Jon

From: Hanges, Jon (.)
Sent: Thursday, August 15, 2002 8:07 PM
To: Freeland, Mark (M.)
Subject: cleaning 30 mile part

Mark,

If you want to preserve the wire bonds on the 30-mile part that failed on the drive up to MPG, you'll need to get some Dynasolve. Of course this will eat the aluminum.

I don't think it's feasible to soak in freon and scrub around the wire bonds, they're too likely to break.

Jon

ER02-027-G 1179B

From: Mangas, Jon (.)
Sent: Friday, July 19, 2002 1:25 PM
To: Freeland, Mark (M.); Uy, Dalrene (D.)
Subject: [REDACTED]

Mark,
Tim Potter got a sensor from [REDACTED] Focus. It has some clear bubbles by the base of the wire bonds.
Dalrene wrote down the mileage.

The date stamp on the sensor is 1K19B. I have not assigned it an SRL number. There are images in the Kavlico directory on the optical lab computer.

Jon

From: Hanges, Jon (.)
Sent: Thursday, July 18, 2002 5:22 PM
To: Freeland, Mark (M.)
Subject: Kavlico visit Aug. 8-9

Mark,
Kyong and Brady may visit Aug. 8-9 to present their acid tests, etc. I have to be in Quebec City to present my poster Tuesday, Aug 6.

Jon

ERG2-327-0 11787

From: Hargas, Jon (.)
Sent: Thursday, July 18, 2002 5:08 PM
To: Verner, Carol (C.J.); Uy, Dairene (D.)
Cc: Freeland, Mark (M.); Akins, Mary (M.); 'Kyong Park (E-mail) ' (E-mail);
Subject: Used good sensor for Raman

Carol,

Dairene Uy presented data on her Raman analysis at today's meeting. It was requested that she look at a used sensor that was still good to see if there was anything in the exhaust gas that was dissolved in the gel. It would be desirable to have the results reported next week, but Mark is in Ireland and he's our normal source for parts.

Do you have any good used parts? I think it would actually be more appropriate to take a sensor off a vehicle and give it to her, condensate and all. There's a better chance that a more volatile chemical will be present in a sensor directly off a vehicle than one sitting in a parts bin for months. We have to break the case open for Dairene to do Raman, so a replacement would have to be available.

Jon Hargas
Materials Science Dept.
x31068

From: Hanges, Jon (.)
Sent: Thursday, July 11, 2002 6:50 PM
To: Freeland, Mark (M.)
Subject: 308

Mark,
Dairene gave me 308, the part you latched and drove, and it's on the bench in my sample prep area in case you need to look at it.
Jon

From: Hengas, Jon (.)
Sent: Thursday, July 11, 2002 6:48 PM
To: Carter, Roscoe (R.O.)
Cc: Freeland, Mark (M.); Uy, Dalrene (D.)
Subject: silicone

Roc,
Dalrene found some silicones in Raman. It might be best for you to discuss with her your findings about the gel and what is produced when it is overheated.

The gel over the hybrid is different than the gel over the die.

There may be some possibility of cross contamination of the gels.

To get the gel off the scalpel I was using I did have to wipe it onto the nitrile gloves on my hand. I don't know if the nitrile has silicone.

I don't think I have any silicones in the area that I removed the gel. I have vacuum grease and diffusion pump oil in hte room, but don't use them on that bench.

Jon

EAB2-827-G 11868

From: Hargas, Jon (.)
Sent: Thursday, July 11, 2002 10:53 AM
To: Freeland, Mark (M.)
Subject: RE: Exhaust Gas Condensate Acidity

Give the pH paper to Roc when you're done. I don't need it. It's what was available in the crib.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, July 11, 2002 9:47 AM
To: Kyong Park (E-mail); Gates, Freeman (F.C.)
Cc: Hargas, Jon (.); Carter, Roscoe (R.O.)
Subject: Exhaust Gas Condensate Acidity

I measured the condensate in the tubes of the dPFE on my Mountaineer this morning with high resolution paper (thanks Jon or Rosco, not sure which one left me the present last night). The value I observed was 4.5.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

EA02-027-G 11881

From: Hargas, Jon (.)
Sent: Thursday, July 11, 2002 10:37 AM
To: Freeland, Mark (M.)
Subject: RE: Exhaust Gas Condensate Acidity

Ma.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, July 11, 2002 9:47 AM
To: Kyong Park (E-mail); Gates, Freeman (F.C.)
Cc: Hargas, Jon (.); Carter, Roscoe (R.O.)
Subject: Exhaust Gas Condensate Acidity

I measured the condensate in the tubes of the dPFE on my Mountaineer this morning with high resolution paper (thanks Jon or Rosco, not sure which one left me the present last night). The value I observed was 4.5.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ERR2-827-G 11882

From: Hanges, Jon (.)
Sent: Wednesday, July 10, 2002 12:09 PM
To: Freeland, Mark (M.)
Subject: Simko

Mark,
Steve Simko is also in Jeff's department. Perhaps we could make it a 3 on 1 meeting.
Jon

ER02-027-G 11883

From: Hargas, Jon (.)
Sent: Wednesday, July 03, 2002 11:38 AM
To: Uy, Dairene (D.); Freetland, Mark (M.)
Subject: Greenbelt training

Dairene, Mark,
I will be in greenbelt training July 16-18, and unable to here Dairene's presentation on the 18th.
Jon

ERR2-027-G 11884

From: Hargae, Jon (.)
Sent: Monday, July 01, 2002 1:06 PM
To: Gonzalez, Lebzy (L.)
Cc: Uy, Dairene (D.); Freeland, Mark (M.)
Subject: No microtomy needed on SRL326 Ref

Lebzy,

All the wire bonds fell off while ultrasonically cleaning SRL326 Ref die. Microtomy will not be needed on this part. But there might not be much left for Dairene to look at. The Ref die had cooked its gel and die attach adhesive.

Since the HI die in the sensor still had gel and nearly normal die attach color, it may not have run latched. It's possible for only one of the two die in a sensor to be latched. I'll try to look at it optically to see if it's worth microtoming this one for Dairene to look at.

Jon

ER02-027-G 11003

From: Hargas, Jon (.)
Sent: Wednesday, June 26, 2002 3:59 PM
To: Freeland, Mark (M.)
Subject: More Ion Chromatography

Mark,
Mary Haga's answering machine referred me to Vicki Cooper x40945.

I just talked to Vicki and she said she would be the one to do Ion Chromatography. Usually they promise a turn around time of 4-6 weeks. Plant shut downs come first. If you want it faster, it would require a letter from someone in management. (Actual turn around time may be as short as 2 weeks).

There are problems, however. Hydrocarbons can plug up their column, and if the condensate contains any she may not be able to do it. She cannot distinguish, or does not have time to come up with a procedure to distinguish, simple carbon based acids like formic acid.

She said as long as the condensate contains simple nitrates, etc., or sulfates, etc., she would be able to do the analysis. More obscure compounds become a research project, and she doesn't have the time or experience.

Jon

From: Hargas, Jon (.)
Sent: Wednesday, June 28, 2002 3:35 PM
To: Fraeland, Mark (M.)
Subject: Ion Chromatography

Mark,

Roc suggested Ion Chromatography at Central Labs.

Diago Lopez, who works for Roc used to work there. He suggested talking to Mary Haga. She's out this week.

If we need to dilute the condensate, they suggested using RO/Ion Exchange water from Willie Young's lab on the third floor. It's the cleanest in the building.

Jon

Subject: Latest Kavloo results
Location: 2433

Start: Wed 6/26/2002 1:00 PM
End: Wed 6/26/2002 2:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Hansas, Jon (.); Carter, Roscoe (R.O.); Frelund, Mark (M.); Uy, Dalana (D.); Simko, Steven (S.J.); Kaberline, Steven (S.L.); SRL Conf Room 2433 (30)

Mark requested this meeting so everyone could discuss their latest results and plans for future research.

From: Hargas, Jon (.)
Sent: Thursday, June 13, 2002 3:16 PM
To: Freeland, Mark (M.)
Subject: clamps

I have a couple the right size in my office.
Jon

From: Hanges, Jon (.)
Sent: Thursday, May 23, 2002 5:12 PM
To: Fraeland, Mark (M.); Simko, Steven (S.J.); Kaberline, Steven (S.L.); 'kpark@kavlico.com'
Subject: SIMS

Mark,

Steve Simko suggested that Steve Kaberline and SIMS may be able to detect what F is associated with in the aluminum oxide (or hydroxide) in the Area 20 damage of the conductor around the rim of the die. Steve Simko found what he estimates to be 2% F in the alumina.

If F is associated with Al directly, then this would lend a little more support for HF attack of the material, as opposed to gel that might have gotten in with Freon while I was ultrasonically cleaning the part.

See Steve Kaberline Tuesday to discuss the feasibility of this. Steve told me their resolution is 5 microns.

Regards,
Jon

From: Hanges, Jan (.)
Sent: Thursday, May 23, 2002 3:15 PM
To: Freeland, Mark (M.)
Subject: package of wiring

Mark,
Mary gave me a package of wiring to give to you.
I left it on top of the box of wafers in 1240.
Jon

From: Hargas, Jon (.)
Sent: Wednesday, May 22, 2002 2:43 PM
To: 'kpark@kavilco.com'
Cc: Carter, Roscoe (R.O.); Flanigan, Cynthia (C.M.); Frelsand, Mark (M.)
Subject: die attach

Kyong,

The adhesive spent the weekend on my desk. It was not until Roc read the label Monday that we put it in storage at -40C.

The syringe the adhesive was in had a solid or semi-solid lump in it when it was first attempted to use it.

An attempt was made by Roc Carter and Cynthia Flanigan to bond two metal plates together to get a pull strength. The bond failed at the metal surface with no strength. The adhesive extruded on the plates may have been of improper composition due to improper storage. The material in the syringe is now solidified.

If we do this again it may be necessary to ship the adhesive under dry ice. We now know to store it in a cooler immediately upon receipt.

Roc finds it interesting that NOx and HF are given off by the die attach adhesive when it degrades at high temperature.

Jon Hargas
Ford Research Lab
313-323-1088

EA82-827-G 11833

From: Hargas, Jon (.)
Sent: Thursday, May 16, 2002 12:34 PM
To: Freeland, Mark (M.)
Subject: FW: Area 20 cross section

Mark,
What was FRL612?
Jon

-----Original Message-----

From: Park, Kyong [mailto:KPark@kavlico.com]
Sent: Thursday, May 16, 2002 12:32 PM
To: Hargas, Jon (.); Davies, Brady; Ayers, Don; Park, Kyong; Akins, Mary (M.); Simko, Steven (S.J.); Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.)
Subject: RE: Area 20 cross section

John,
Thank you for sharing your work and data.
Could you explain more about the history of the samples?
Yours,
Kyong

> -----Original Message-----

> **From:** Hargas, Jon (.) [SMTP:jhargas@ford.com]
> **Sent:** Thursday, May 16, 2002 9:06 AM
> **To:** Brady Davies (E-mail); Don Ayers (E-mail); 'Kyong Park (E-mail) '
> (E-mail); Akins, Mary (M.); Simko, Steven (S.J.); Freeland, Mark (M.);
> Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.)
> **Subject:** Area 20 cross section
>
> <<SRL612 pore in Al layer area 20.jpg>> <<SRL612 some AlOx in pore
> SP10.TIF>> Attached are an image and spectrum showing loss of Al
> conductor in Area 20 of SRL612 Ref. Some aluminum oxide appears to be
> present in the pore. There are many pores along the conductor.
>
> The cross section of the sample was prepared by tripod polishing. Flakes
> of gold are visible in many of the pores. I would assume those are
> polishing debris, but for polishing debris they're oddly shaped...
>
> Steve Simko will do Auger next week on the Hi die to sputter Au off area
> 20 and observe the extent of damage in plan view. This will have fewer
> specimen preparation artefacts.
>
> Jon Hargas
> Ford Research Lab.
> 313-323-1068 << File: SRL612 pore in Al layer area 20.jpg >> << File:
> SRL612 some AlOx in pore SP10.TIF >>

From: Hengas, Jon (.)
Sent: Thursday, May 16, 2002 11:55 AM
To: Freeland, Mark (M.)
Subject: Tentative: Preparation for dPFE trip to Analytical Solutions

Not unless you invite Steve Simko. Who is Steve Simler?
Jon

ER02-027-G 11050

From: Hargas, Jon (.)
Sent: Wednesday, May 15, 2002 6:03 PM
To: Freeland, Mark (M.); Simko, Steven (S.J.)
Subject: SRL612

The second attempt at sectioning the part was showed that there's alumina in the pits in the aluminum layer, but some also contain gold flakes suggestive of polishing debris. Hence the need for Auger.
Jon

From: Hengas, Jon (.)
Sent: Wednesday, May 15, 2002 11:50 AM
To: Freeland, Mark (M.)
Subject: Steve and SRL812

Mark,
Steve said he'd get to it next week.
Jon

From: Hengas, Jan (.)
Sent: Monday, May 13, 2002 7:11 PM
To: Freeland, Mark (M.)
Subject: poor die cement

Mark,

The die on SRL812 were not very well adhered to the hybrid or circuit board. I don't know if that makes a significant thermal conductivity problem.

Other die were difficult to pry off and the cement stuck on the sides of the die made the die very difficult to hold.

Jon

ER02-027-G 11002

From: Hargas, Jon (.)
Sent: Friday, April 26, 2002 12:32 PM
To: Freeland, Mark (M.)
Subject: assembly plant failure

Mark,
About the picture you showed me of a low, narrow linear defect crossing a couple of traces: I think the defect is so narrow that it is located only at the top surface or somewhere within the gold, and is not something that started in the aluminum or passivation and got transmitted up.

Jon

ERS2-627-0 11688

From: Hargas, Jon (.)
Sent: Friday, April 26, 2002 11:16 AM
To: Akolkar, Shrikant (S.V.); Frøeland, Mark (M.)
Cc: Janda, Jon (J.M.)
Subject: Spot camera noise filter

Contacts: Akolkar, Shrikant (S.V.)

Jon Janda was also having problems acquiring with the Spot camera today.

I found that a couple of the setups, the factory default and the Kavlico, had a noise filter set to 50%. Online filtering could slow the Spot or computer drastically, so it should not be left on all the time. I got good response time with noise filtering turned off.

Jon will be back this afternoon, and we'll see if the Spot is more cooperative.

Regards

From: Hanges, Jon (.)
Sent: Monday, April 22, 2002 7:36 PM
To: Janda, Jon (J.M.); Akolkar, Shrikant (S.V.); Freeland, Mark (M.)
Subject: added printers

Given the rate you're going through paper, I added the closest public printers to the Nikon FXA microscope's computer. Both are in the mail alcove near the ladies room on the first floor of the lab, near room 1311. That's a ways to walk, but considering the alternative of no output

pr21105 is a Laserjet 5000.
pr28217 is an HP Color Laserjet 2440.

The cryptic names are a problem with installing a printer on our network, unless you're in the computer group and can massage the printcap file.

I also installed the macros that Tom Brackett had so that every user will see them. The first is combine pictures, which combines all open images and asks how many rows and columns to make, as well as number of pixels to separate the images.

Jon

From: Hengas, Jon (.)
Sent: Monday, April 22, 2002 5:02 PM
To: Freeland, Mark (M.); Janda, Jon (J.M.); Akolkar, Shrikant (S.V.)
Subject: FW: Codonics printer paper

When you run out of the current stock of paper for the Codonics printer, there will be no paper until Friday. I suppose with the small size of the order you'll burn half of it up next week.
Jon

—Original Message—

From: Peck, Michelle (M.C.)
Sent: Monday, April 22, 2002 1:28 PM
To: Dunkon, William (W.T.); Hengas, Jon (.)
Subject: Codonics printer paper

4 packages of 100 sheets each are presently on order with Vital Image. They should be arriving this Friday.

Michelle C. Peck
Materials Science Department
Ford Research Lab

phone 313-59-41841

From: Hargas, Jon (.)
Sent: Wednesday, April 17, 2002 5:33 PM
To: Gates, Freeman (F.C.); Maurer, James (J.B.); Frøeland, Mark (M.); Plante, Paul (P.G.)
Subject: Accurel has had contact with Visteon

The initial information I got in a call to Accurel customer service was that Accurel has had dealings with Visteon. The woman I talked with was not aware of any litigation for or against Ford. She did not believe that the Visteon project involved litigation. However, they'll look into it.

Jon

ER02-027-G 11881

From: Hargas, Jon (.)
Sent: Monday, April 15, 2002 11:21 AM
To: Freeland, Mark (M.)
Subject: more EDX of pre-extended gold

Mark,

I did analysis at 8keV and found that the large hillocks on the preextended gold capacitors had silicon nitride detectable on top except where they were obviously cracked. i might like to have one or two FIBed. I'd like to see the amount of aluminum oxidation under ones that have cracks at their bases.

Jon

ED02-027-0 11002

From: Hargas, Jon (.)
Sent: Thursday, April 11, 2002 12:00 PM
To: Gates, Freeman (F.C.); Maurer, James (J.B.); Freeland, Mark (M.); Plante, Paul (P.G.)
Subject: comments on analytical labs, and one new lab

Some web sites list emission microscopy or liquid crystal, which can be used to detect the flaw that latches up a device from the photons emitted. We should inquire more about this. Infrared may be similar but detect thermal differences, whereas emission might detect the characteristic photons generated due to the latching event. I wonder if some emission detectors rely the visible spectrum which would not be detectable through the Si chip.

Tandax appears to be a Milspec lab good at packaging and circuit board failure analysis. They check for fungus growth, do vibration tolerance for abuse from rockets and G's, and they even do SEM, but I doubt they have the capability or experience to do everything we need at the die level. They are the only ones I would advise against using for examining the die.

Insight Analytical Labs IAL (www.ial-fa.com) lists cross sectioning capability, SEM, TEM (not necessary but an indication of some more experienced people are there or are consultants), Auger, Infrared, radiography, etc. Do they do all that in house?

ISE has advanced radiography device. Appear to have an FIB fabrication device, but are they willing to cross section a device?

Raytheon Reliability Analysis Laboratory has everything but FIB. They seem to have a good thermal analysis capability, liquid crystal hot spot detection, so perhaps they could detect flaws in stage 2.

IBM has all techniques except liquid crystal listed, but they do have infrared microscopy for looking through silicon chips.. They did early work on hillock growth. Maybe they would also be able to give recommendations. What's their backlog?

Accurel has 10 FIB systems. They have emission microscopy/liquid crystal capability which they claim can detect latch up from photons emitted. Can this be done through the back of the die?

Analytical Solutions has many techniques, SEM, EBIC and liquid crystal. They mention cross section capability but do not specify whether they have FIB.

Charles Evans Associates (www.cea.com) claims to be the largest independant analytical lab for semiconductor and biomedical industries, and has FIB, SEM, Auger, SIMS, etc. They do not mention Infrared or emission microscopy capability.

Jon Hargas

From: Hanges, Jon (.)
Sent: Wednesday, March 27, 2002 12:05 PM
To: Brady Davies (E-mail); Kyong Park (E-mail) ' (E-mail)
Cc: Freeland, Mark (M.)

Hi Brady and Kyong,

Here's a paper on hillocks in Al alloys.

Michal Zaborowski and Piotr Dumania, "Kinetics of hillock growth in Al and Al-alloys", *Microelectronic Engineering* 50(2000)301-309.

They show dramatically less hillock growth in annealing at 400 degrees C when using Al-1%Si-0.5%Cu over pure Al or Al-1%Si. The sputter targets used are alloys of the desired material.

Regards,
Jon Hanges
Materials Science Dept.
Ford Motor Co.
313-323-1068

Subject: Kavlico follow up discussion
Location: SRL 3433

Start: Fri 3/22/2002 2:00 PM
End: Fri 3/22/2002 6:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Hargas, Jon (.); SRL Conf Room 3433 (20); Frelund, Mark (M.); Stephan, Craig (C.H.); Carter, Roscoe (R.O.); Donlon, Willem (W.T.); Drews, Andy (A.R.); Vlaser, Jaco (J.H.); Solts, Richard (R.E.); Simko, Steven (S.J.); Holubka, Joe (J.W.); Zanini-Fisher, Margherita (M.); Gonzalez, Lebyz (L.); Narula, Chaitanya (C.K.); Potter, Timothy (T.J.); Uy, Dalrene (D.)

Discussion with Ed Sickafus

From: Hargas, Jon (.)
Sent: Tuesday, March 19, 2002 4:29 PM
To: Freeland, Mark (M.)
Subject: conference room 1133

Mark.
Bring your laptop. Only 1133 was available from 9am-1pm Friday.
Jon

From: Hargas, Jon (.)
Sent: Monday, March 11, 2002 10:48 AM
To: Freetand, Mark (M.)
Subject: FW: Sifel 807 biproducts during curing

Mark,
I think we're going to have to ask Kavlico whether acetic acid, etc., is given off during cure.
I left a voice message with the new sales rep, but we'll see if I get a response.
Regards,
Jon

-----Original Message-----
From: jheftier [mailto:jheftier@msn.com]
Sent: Monday, March 11, 2002 7:35 AM
To: 'Hargas, Jon (.)'
Subject: RE: Sifel 807 biproducts during curing

Dear Mr. Hargas,

Mark is no longer with Shin-Etsu. Your new Sales Rep. is Steve Craig. He handles North Penn, Tech. Ctr., etc.

To answer your question, there are no other hydrocarbon solvents in Sifel807A/B except for that small amount of toluene which is the carrier for the catalyst necessary to cure the gel.

You can find Steve Craig at 330-630-8860 X202.

Best regards

John Heitler

-----Original Message-----
From: Hargas, Jon (.) [mailto:jhargas@ford.com]
Sent: Friday, March 08, 2002 7:45 PM
To: 'Neuber, Mark'
Subject: Sifel 807 biproducts during curing

Mark,
Does Sifel 807 give off any biproducts other than hydrocarbon solvents during curing, similar to acetic acid given off when RTV cures?

I realize there is some toluene in one component according to the MSDS sheet, and I'm not concerned with pH neutral solvents.

Regards,
Jon Hargas
Materials Science Dept.
Ford Motor Co.
313-323-1088

From: Hardle, Mike (M.D.)
Sent: Wednesday, March 20, 2002 4:22 PM
To: Freeland, Mark (M.)
Subject: Your Project

Are you aware of the Safety Footprint site at:

http://www-ese.ta.ford.com/~aso_srf/index.html

It takes you through a decision matrix on recall history. Try the Automatic Version with the Focus Issue in mind and see what you come up with. Granted, it appears to be based on data from 1996.....I had never heard of this before today.....

Mike Hardle
Six Sigma Master Black Belt
(313) 84-57279
text pager (313) 796-8475

From: Heliker, Grant [GHeliker@kavlico.com]
Sent: Monday, March 11, 2002 1:04 PM
To: Freeland, Mark (M.)
Subject: RE: Sifel 807 bproducts during curing

I asked -- nothing at all is given off according to my sources here.

> -----Original Message-----

> **From:** Freeland, Mark (M.) [SMTP:mfreela1@ford.com]
> **Sent:** Monday, March 11, 2002 8:46 AM
> **To:** Grant Heliker (E-mail)
> **Cc:** Brady Davies (E-mail); Kyong Park (E-mail); Hargas, Jon (.)
> **Subject:** FW: Sifel 807 bproducts during curing

>
> Grant,

> Could you please research what is given off during the cure cycle for the
> chimney potting gel. We are looking into the possibility that if there
> were a path to the Al through the Au & TiW, could the potting cause damage
> to the Al.

>
> Thanks

>
> Mark

> -----Original Message-----

> **From:** Hargas, Jon (.)
> **Sent:** Monday, March 11, 2002 10:46 AM
> **To:** Freeland, Mark (M.)
> **Subject:** FW: Sifel 807 bproducts during curing

>
>
> Mark,

> I think we're going to have to ask Kavlico whether acetic acid, etc., is
> given off during cure.

> I left a voice message with the new sales rep, but we'll see if I get a
> response.

> Regards,

> Jon

> -----Original Message-----

> **From:** jheitler [mailto:jheitler@msn.com]
> **Sent:** Monday, March 11, 2002 7:35 AM
> **To:** 'Hargas, Jon (.)'
> **Subject:** RE: Sifel 807 bproducts during curing

>
>
> Dear Mr. Hargas,

> Mark is no longer with Shin-Etsu. Your new Sales Rep. is Steve Craig. He
> handles North Penn, Tech. Ctr., etc.

>
> To answer your question, there are no other hydrocarbon solvents in
> Sifel807A/B except for that small amount of toluene which is the carrier
> for the catalyst necessary to cure the gel.

>
> You can find Steve Craig at 330-630-9860 X202.

ER02-027-G 11824

> Best regards

>
> John Heitler

>

>

> -----Original Message-----

> From: Hargas, Jon (.) [mailto:jhargas@ford.com]

> Sent: Friday, March 08, 2002 7:45 PM

> To: 'Neuber, Mark'

> Subject: Sivel 807 biproducts during curing

>

>

>

> Mark,

> Does Sivel 807 give off any biproducts other than hydrocarbon
> solvents during curing, similar to acetic acid given off when RTV cures?

>

> I realize there is some toluene in one component according to the
> MSDS sheet, and I'm not concerned with pH neutral solvents.

>

> Regards,

> Jon Hargas

> Materials Science Dept.

> Ford Motor Co.

> 313-323-1068

>

From: Helker, Grant [GHelker@kavlico.com]
Sent: Monday, March 11, 2002 12:14 PM
To: Freeland, Mark (M.)
Subject: RE: Sifel 807 biproducts during curing

I'll ask around, though going directly to the source (as you're already doing below) seems the best bet.

> -----Original Message-----

> From: Freeland, Mark (M.) [SMTP:mfreelal@ford.com]
> Sent: Monday, March 11, 2002 8:46 AM
> To: Grant Heliker (E-mail)
> Cc: Brady Davies (E-mail); Kyong Park (E-mail); Hargas, Jon (.)
> Subject: FW: Sifel 807 biproducts during curing

>
> Grant,

>
> Could you please research what is given off during the cure cycle for the
> chimney potting gel. We are looking into the possibility that if there
> were a path to the Al through the Au & TiW, could the potting cause damage
> to the Al.

>
> Thanks

>
> Mark

> -----Original Message-----

> From: Hargas, Jon (.)
> Sent: Monday, March 11, 2002 10:46 AM
> To: Freeland, Mark (M.)
> Subject: FW: Sifel 807 biproducts during curing

>
> Mark,

> I think we're going to have to ask Kavlico whether acetic acid, etc., is
> given off during cure.

> I left a voice message with the new sales rep, but we'll see if I get a
> response.

> Regards,

> Jon

> -----Original Message-----

> From: jheitler [mailto:jheitler@usn.com]
> Sent: Monday, March 11, 2002 7:35 AM
> To: 'Hargas, Jon (.)'
> Subject: RE: Sifel 807 biproducts during curing

>
> Dear Mr. Hargas,

>
> Mark is no longer with Shin-Etsu. Your new Sales Rep. is Steve Craig. He
> handles North Penn, Tech. Ctr., etc.

>
> To answer your question, there are no other hydrocarbon solvents in
> Sifel807A/B except for that small amount of toluene which is the carrier
> for the catalyst necessary to cure the gel.

>
> You can find Steve Craig at 330-630-9860 X202.

ER82-827-G 11828

>
> Best regards

>
> John Heitler

>
> -----Original Message-----

> From: Hansas, Jon (.) [mailto:jhansas@ford.com]

> Sent: Friday, March 08, 2002 7:45 PM

> To: 'Neuber, Mark'

> Subject: Sivel 807 biproducts during curing

>
> Mark,

> Does Sivel 807 give off any biproducts other than hydrocarbon
> solvents during curing, similar to acetic acid given off when RTV cures?

> I realize there is some toluene in one component according to the
> MSDS sheet, and I'm not concerned with pH neutral solvents.

> Regards,

> Jon Hansas

> Materials Science Dept.

> Ford Motor Co.

> 313-323-1068

From: Heliker, Grant [GHeliker@kavlico.com]
Sent: Friday, March 01, 2002 8:02 PM
To: Freeland, Mark (M.)
Subject: RE: 20336-18 first pass yields

Sure!

> -----Original Message-----
> From: Freeland, Mark (M.) [SMTP:mfreela1@ford.com]
> Sent: Friday, March 01, 2002 2:03 PM
> To: 'Heliker, Grant'
> Subject: RE: 20336-18 first pass yields
>
> Thanks Grant,
>
> Done the comparison, do you want a copy?
>
> Mark

From: Helms, Jeffrey (J.H.)
Sent: Wednesday, June 19, 2002 4:37 PM
To: Freeland, Mark (M.)
Subject: Out of Office AutoReply: Priority Machine Shop support

I will be out of the office until June 27. If my immediate attention is required, please page me at 313-796-6245, text page at jhelms or leave a message with my Administrative Assistant, Elena Nuno (313)322-3121.

From: Holms, Jeffrey (J.H.)
Sent: Wednesday, May 08, 2002 5:23 PM
To: Freeland, Mark (M.)
Subject: RE: Six Sigma Presentation Schedule

I should be available. I have not spoken to Dave yet (shame on me).

Jeffrey H. Holms, Manager
Materials Science Department
Ford Research Laboratory
Ph: (313)337-1098
Fax: (313)845-0100

---Original Message---

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 1:00 PM
To: Holms, Jeffrey (J.H.)
Subject: FW: Six Sigma Presentation Schedule

Jeff,

I am up on the OCM on 5/20.

You said a week or so ago that you would set up a 3 way with Dave Amos. Maybe that should be done before I talk at the OCM.

Also, I would like you're input about what is appropriate for an OCM presentation on this project.

Do you have any time on Friday to discuss. Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

---Original Message---

From: Bunzendehl, Sharon (S.M.)
Sent: Wednesday, May 08, 2002 11:49 AM
To: Freeland, Mark (M.); Liu, Dang (D.R.); Kiridana, Vijitha (V.); Gibson, Alex (A.O.); Elliott, Adrian (A.N.); McBride, James (J.R.); Cole, Charles (C.C.); Nasser, Ahmad (A.M.); Gearhart, Chris (C.); Zubeck, Michael (M.W.); Giannamora, Armand (A.A.); Amori, Richard (R.)
Subject: Six Sigma Presentation Schedule

There have been some revisions to the 6sigma presentation schedule. The file is attached for your information. Please let me know if there is a problem with the date/time you are scheduled.

Also, if there is not a title listed for your presentation, please send me an email with the topic of your presentation.

ENG2-827-G 12840

Thanks!
Shanan Bunzendahl

<< File: 2002FRL Six Sigma Reviews and MM's.doc >>

From: Hermann, Thomas (T.J.)
Sent: Tuesday, December 10, 2002 8:13 AM
To: Freeland, Mark (M.)
Subject: RE: EMC review of Kavlico DPFE module layouts

I would like to hear the short version of the feedback.

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, December 09, 2002 2:29 PM
To: Tracz, Jarek (J.A.); O'Neill, Jim (J.D.)
Cc: Gates, Freeman (F.C.); Maurer, James (J.B.); Altes, Sheron (S.A.); Kotwicki, Allan (A.J.); Hermann, Thomas (T.J.)
Subject: RE: EMC review of Kavlico DPFE module layouts

Jarek,

In addition to your comments regarding the Kavlico Layout, I noticed that the shortest path on the ground trace between the Connector Pin and C5, C3 and C1 is necked down to a VERY thin trace. I discussed this point with Kavlico during a conference call which Jim Maurer set up with Kavlico last Thursday. Kavlico had already discovered this themselves and intend to fix it.

Did Jim Maurer give you feedback on the meeting? If not then let me know and I will. Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Tracz, Jarek (J.A.)
Sent: Monday, December 09, 2002 11:11 AM
To: Freeland, Mark (M.); O'Neill, Jim (J.D.)
Cc: Gates, Freeman (F.C.); Maurer, James (J.B.); Altes, Sheron (S.A.); Kotwicki, Allan (A.J.); Hermann, Thomas (T.J.)
Subject: EMC review of Kavlico DPFE module layouts

Gentlemen,

I've completed the EMC review of the subject, and my findings are summaries in the attached document.

Having received no feedback regarding the function of such signals as RO, Vout, Vbuf, I've assumed the worst case (i.e. they are low impedance signals susceptible to crosstalk).

Pls, let me know if you have any questions.

<< File: Kavlico dPFE module EMC review.doc >>

Best Regards,

Jarek A. Tracz
EMC Engineer
RVT/EESE
Bldg. #5, Cube 2D101

tel: (313) 323-1919
fax: (313) 390-5327
<mailto:jtracz@ford.com>

From: Hermann, Thomas (T.J.)
Sent: Wednesday, June 05, 2002 11:48 AM
To: Freeland, Mark (M.)
Subject: RE: Escape Stalls

No link to the dPFE. It sounds like some RF noise getting onto the IAC sensor lines to the PCM. Just adding (or changing the value of) an RF bypass cap in the PCM to clean it up.

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, June 04, 2002 4:56 PM
To: Hermann, Thomas (T.J.)
Cc: McCoy, James (J.D.); Maurer, James (J.B.); Plante, Paul (P.G.); Janda, Jon (J.M.); John Jahshan (E-mail)
Subject: Escape Stalls

Tom,

I came across this from the Escape Stalls Team,

Status of Concern C11371349 (Tim Veenstra)

2:38-2:35

- o Concern Desc: 3.0L Escape experiences engine stalls between 6-12MHZ and 20-25MHZ as low as 73 V/M. The root cause was determined to be the EEC interface to the IAC. By fixing the EEC the anomaly went away completely.
- o Concern is for implementing the "EEC w/a capacitor change".

What do you know about the capacitor change, is this a filter cap or what, could there be any link to dPFE going into an SCR latch?

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ERG2-827-G 12857

From: Hermann, Thomas (T.J.)
Sent: Wednesday, May 08, 2002 2:17 PM
To: Freeland, Mark (M.)
Cc: Garrett, Bill (W.G.)
Subject: FW: Poor Connections

Mark, Bill is the quality contact for Multimedia (Audio).

—Original Message—

From: Freeland, Mark (M.)
Sent: Wednesday, May 08, 2002 2:02 PM
To: Maurer, James (J.B.); Gates, Freeman (F.C.); Plants, Paul (P.G.)
Cc: Road, Roberto (R.A.); Hermann, Thomas (T.J.)
Subject: Poor Connections

After reading many many many vehicle histories, I am starting to make a poor connection, pun intended.

There appears to be a connection between dPFE failures, blown fuses for the cigarette lighter, INOP cigarette lighters with poor connections and poor AM radio reception.

Can you direct this clue to the people who may be interested in checking it out.

I don't know how many of you read children's books? But this is sort of a Blue's Clue if you know what I mean. More will follow.

PS Who has the radio, maybe they should be in on the act. They may have some clues of their own!

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Hermann, Thomas (T.J.)
Sent: Wednesday, March 13, 2002 11:20 AM
To: Gates, Freeman (F.C.); Freeland, Mark (M.)
Cc: Maurer, James (J.B.); Minfield, Jeremiah (J.R.)
Subject: FW: Motorola EMC Test Plan - Revised

Freeman/Mark it appears that Motorola is working to a different (subset of) EMC spec than the required ES-XW7T-1A278-xx for electronic components. Given the current delta PFE problems, this seems to be leading down a similar path.

WHY IS THE SUPPLIER WORKING TO A DIFFERENT EMC SPECIFICATION?

The spec. called out appears to be a power train specification so **WHY ARE EMC SPECIFICATIONS CALLED OUT IN THAT SPEC?**

At most, a pointer to the complete EMC specification (ES-XW7T-1A278-xx) should be included in the power train specification.

Freeman, you need to straighten this out with your supplier. We will not be approving any test plans unless it meets the ES-XW7T-1A278-xx EMC requirements.

Mark, what requirements did Kavlico have to meet for EMC 's requirements ES-XW7T-1A278-xx or the power train ES-F1AE-9J480-AA?

—Original Message—

From: Minfield, Jeremiah (J.R.)
Sent: Tuesday, March 12, 2002 4:37 PM
To: Bronni, Mark (M.J.)
Cc: Gates, Freeman (F.C.); Bansek, Catherine (C.K.); Komp, Karl (K.R.)
Subject: RE: Motorola EMC Test Plan - Revised

Mark,

1 - Fax over frame 10 (X05327). It must have gotten corrupted in the original transmission.

2 - I've reviewed your ES and find that it is lacking in the following areas:

RI 120, RI 130

CI 280A

RE 310

If discussions need to take place, so be it. At some point the part must be made compliant with Ford component EMC requirements. I'd like to include our Tech Specialist, Keith Frazier in those discussions.

Grace and Peace,

Jerry Minfield (jminifie@ford.com),

R&VT EMC Section, Cube 2D102,

MD 5017, Dept T411,

Ph: 313-32-36583, Fax: 313-39-05327

—Original Message—

From: Bronni, Mark (M.J.)
Sent: Monday, March 11, 2002 08:46
To: Minfield, Jeremiah (J.R.)
Cc: Gates, Freeman (F.C.); Bansek, Catherine (C.K.); Komp, Karl (K.R.)
Subject: Motorola EMC Test Plan - Revised

Jerry,

Here is the test plan which reflects our current requirements in our product ES Spec. (ES-F1AE-9J480-AA).

The people you will want to speak to relative to changing this specification are the Motorola Champion in the EGR group - Karl Komp and the Technical Specialist for the EGR group - Freeman Gates.

As I mentioned in my message to you last week - In order to run our continuous conformance testing for the sensor we will need an approved test plan.

If Ford wishes to include additional tests to our product ES then we will need to sit down and discuss what those elements should be and determine if any design changes would be required in order to meet them. That discussion should take place with yourself, the people I referenced above, as well as specific personnel from my design and manufacturing groups. But for now I would like to move forward with getting a test plan approved which reflects the current specifications. If you want to refer to the document in question (ES-F1AE-9J460-AA) the information relative to EMC is on frame 10 (I have included that frame in this e-mail). Thanks.

<< File: Ford Current Prod EMC Test Plan_StripLine_v2.doc >> << File: ES-F1AE-9J460-AA Frame 10.tif >>

Regards,

Mark Bronni

MOTOROLA - Resident Engineer

Tel: (313) 248-4508; Fax: (313) 390-4084

Pager: (800) 714-8172

Subject: FW: Kavlico dPFE Sensor
Location: FPC-B #35 Exec Conf Rm

Start: Thu 6/6/2002 4:00 PM
End: Thu 6/6/2002 5:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Hoare, Graham (G.); Plants, Paul (P.G.)

Paul,

Could you please join me for this meeting with my Director.

Thank you

-----Original Appointment-----

From: Mickel, Lori (L.L.) On Behalf Of Hoare, Graham (G.)
Sent: Friday, May 31, 2002 10:46 AM
To: Hoare, Graham (G.); FPCB executive (35); Freedland, Mark (M.); Bryant, Bruce (B.D.)
Subject: Updated: Kavlico dPFE Sensor
When: Thursday, June 06, 2002 4:00 PM-5:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: FPC-B #35 Exec Conf Rm

Subject: FW: Kaylco dPFE Senior
Location: FPC-B #35 Exec Conf Rm

Start: Thu 6/6/2002 4:00 PM
End: Thu 6/6/2002 6:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Hoare, Graham (G.); Plante, Paul (P.G.)

Paul,

Could you please join me for this meeting with my Director.

Thank you

—Original Appointment—

From: Mickel, Lori (L.L.) On Behalf Of Hoare, Graham (G.)
Sent: Friday, May 31, 2002 10:49 AM
To: Hoare, Graham (G.); FPCB executive (35); Freeland, Mark (M.); Bryant, Bruce (B.D.)
Subject: Updated: Kaylco dPFE Senior
When: Thursday, June 06, 2002 4:00 PM-5:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: FPC-B #35 Exec Conf Rm

Subject: FW: Kavlico dPFE Sensor
Location: FPC-B #35 Exec Conf Rm

Start: Thu 6/6/2002 4:00 PM
End: Thu 6/6/2002 5:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Hoare, Graham (G.); Plants, Paul (P.G.)

Paul,

Could you please join me for this meeting with my Director.

Thank you

—Original Appointment—

From: Michel, Lori (L.L.) On Behalf Of Hoare, Graham (G.)
Sent: Friday, May 31, 2002 10:48 AM
To: Hoare, Graham (G.); FPCB executive (35); Freeland, Mark (M.); Bryant, Bruce (B.D.)
Subject: Updated: Kavlico dPFE Sensor
When: Thursday, June 06, 2002 4:00 PM-5:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: FPC-B #35 Exec Conf Rm

From: Mickel, Lori (L.L.) on behalf of Hoare, Graham (G.)
Sent: Tuesday, May 28, 2002 5:19 PM
To: Freeland, Mark (M.)
Subject: Accepted: Kavlico dPFE Sensor & Sigma Project

Mark -- Graham requested to have this meeting.

From: Jahshan, John (J.H.) [jahshan@visteon.com]
Sent: Monday, May 20, 2002 10:30 AM
To: Akhs, Mary (M.); Akolkar, Shrikant (S.V.); Albrecht, Guenter (G.K.); Altes, Sheran (S.A.); Arnold, Kenneth (K.M.); Auller, Jim (J.E.); Awad, Mahmoud (M.I.); Ayers, Don; Bandoeka, Peter (P.F.); Bansek, Catherine (C.K.); Bersuder, Lee (L.C.); Bissl, Gerry (G.); Bronni, Mark (M.J.); Bugaj, Barry; Danes, Adam (A.V.); Davies, Brady; Deeb, Joe (J.S.); Douglass, Jim (J.B.); Freeland, Mark (M.); Galante, Chris (C.R.); Gates, Freeman (F.C.); Giordano, Mike (M.A.); Godlewski, Ed (E.V.); Hanges, Jon (.); Jahshan, John (J.H.); Janda, Jon (J.M.); Johnson, Joe (J.H.); Kerezi, Karen (K.J.); Koszownik, John (J.J.); Kunde, Olaf (O.); Masura, Gordon (G.P.); Maurer, James (J.B.); McCarty, Bill (W.D.); Muter, Doreen (D.J.); Nielsen, Christian (C.A.); O'Neal, Jim (J.D.); Oswald, Greg (G.G.); Park, Kyong; Pascany, Ken (K.M.); Perry, Brian (B.J.); Plante, Paul (P.G.); Poma, Amy (A.); Popoff, Daniel (D.M.); Requepau, Aldan (A.P.); Rosal, Roberto (R.A.); Schieding, Kurt (K.J.); Shore, John (J.); Tamashiro, Terry; Trujillo, Thomas (T.G.); Verner, Carol (C.J.); White-johnson, Patrice (P.); Williamson, Richard (E.)
Subject: FW: Hussein Bina's Focus failed it's DPFE again

Any interest in this vehicle?

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Matysiewicz, Edwin (E.J.) [mailto:ematysie@ford.com]
Sent: Monday, May 20, 2002 9:58 AM
To: Grant, Kathleen, Kathy (K.A.)
CC: Perry, Brian (B.J.); Sebold, Lynn (L.A.); 'jjahshan@visteon.com'; Huck, Dave (D.E.); Stump, Steven (S.M.)
Subject: Hussein Bina's Focus failed it's DPFE again

Kathy

I just went out into the parking lot, dumped codes, and got a P401 code on Hussein's 2001 Zetec Focus.

His DPFE is stuck at 0.11 VDC all the time.

This is his second DPFE failure on his car.

Ed

From: Jahshan, John (J.H.) [jjahshan@visteon.com]
Sent: Monday, May 13, 2002 10:28 PM
To: Freeland, Mark (M.); Jahshan, John (J.H.)
Cc: McCoy, James (J.D.); Janda, Jon (J.M.)
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

I said at the meeting earlier today, that I might get to program the modules on Wednesday. If I get them all completed, then I will bring them to the meeting on Thursday.

-----Original Message-----

From: Freeland, Mark (M.)
To: 'Jahshan, John (J.H.)'
Cc: McCoy, James (J.D.); Janda, Jon (J.M.)
Sent: 5/13/02 3:55 PM
Subject: RE: Active Current Probe for Buy Back Focus

John,

When can you provide me with the first 3 PCM/s with the J1 solder issue? After we both drive them, then I think we should open each module and identify which pins were affected on each module.

Another suggestion, should we use a hair dryer in the vehicle (or the HVAC system) to blow hot and cold air at the PCM to encourage any the intermittent to occur?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Monday, May 13, 2002 8:03 AM
To: 'Freeland, Mark (M.)'; 'Potter, Timothy (T.J.)'
Subject: RE: Active Current Probe for Buy Back Focus

Hi Tim,

When do you have time to instrument the Vref at the DPFE on the MT

Focus?

John H. Jahshan
POEE Resident Engineer
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-----Original Message-----

From: Jahshan, John (J.H.)
Sent: Wednesday, May 08, 2002 3:26 PM
To: 'Freeland, Mark (M.)'; Potter, Timothy (T.J.)
Subject: RE: Active Current Probe for Buy Back Focus

Hi Mark,

Ken has found a probe but we do not have an amp for it. Do you have an amp?

I currently have the MT 4 door Focus instrumented for Vref at the PCM only.

Hi Tim,

I would like to get the Vref signal at the DPFE sensor instrumented.
When
can you help me out on this?

John H. Jahshan
POEE Resident Engineer
PCM Applications
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-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]
Sent: Wednesday, May 08, 2002 10:34 AM
To: John Jahshan (E-mail)
Cc: Potter, Timothy (T.J.)
Subject: Active Current Probe for Buy Back Focus

John,

I still want to take you up on you're offer of an active current probe for the Buy Back Focus I we are driving at SRL. When do you think we could have it?

Tim,

When John gives us the probe, will the existing DC to AC converter handle an extra box? Would you please install it? Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
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To: John Jahshan (E-mail)
Co: Potter, Timothy (T.J.)

Subject: Active Current Probe for Buy Back Focus

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Regards

Mark Freeland

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email: mfreelal@ford.com
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Cc: Potter, Timothy (T.J.)
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Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory

EE22-827-6 12068

> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Jahshan, John (J.H.) [jahshan@visteon.com]
Sent: Monday, April 29, 2002 10:55 AM
To: Freeland, Mark (M.)
Cc: Gates, Freeman (F.C.)
Subject: RE:

Hi Mark,

Here is what I know about the letters:

A Line 2 SC1
B Line 2 SC2
C Line 2 SC3

D Line 3 SC1
E Line 3 SC2
F Line 3 SC3

SC1 = Midnight Shift, SC2 = Dayshift, SC3 = Afternoon shift

John H. Jahshan
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-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]
Sent: Wednesday, April 24, 2002 9:25 AM
To: 'Jahshan, John (J.H.)'
Cc: Gates, Freeman (F.C.)
Subject: RE:

John,

Can you tell me what the E in the date code is? Also how do you know what line at North Penn the unit was manufactured on?

Thanks

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA

ER82-827-G 12886

email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Jahshan, John (J.H.) [mailto:jjahshan@visteon.com]
Sent: Wednesday, April 24, 2002 7:51 AM
To: 'Freeland, Mark (M.)'
Subject: RE:

Hi Mark,

You hit the date code on the head. Nice interoperation.

John H. Jahshan
POKE Resident Engineer
PCM Applications
jjahshan@visteon.com
Phone & Fax: (313) 722-1638 or (313) 390-4854
Pager: (313) 795-8068
<http://www.myairmail.com/>
"WHETHER YOU BELIEVE YOU CAN DO SOMETHING OR YOU BELIEVE YOU CAN'T, YOU'RE RIGHT"

-----Original Message-----

From: Freeland, Mark (M.) [mailto:mfreelal@ford.com]
Sent: Tuesday, April 23, 2002 6:08 PM
To: 'jjahshan@visteon.com'
Subject:

Sorry for the delay in getting the PCM date code to you, but it is 0H23E which I interoperate as meaning 8/23/2000. Not sure about the E.

<<SRL185 Label.TIF>>
See the picture for the label on the connector.

Please call me if there is anything else you need to know.

Regards

Mark Freeland

> 6-Sigma Black Belt
> Engine Research Department
> Ford Research Laboratory
> P.O. Box 2053
> MD 2629 - SRL - Room 1517
> Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Jahshan, John (J.H.) [jahshan@visteon.com]
Sent: Monday, April 20, 2002 7:16 AM
To: 'Plante, Paul (P.G.); Jahshan, John (J.H.); Schleding, Kurt (K.J.); Awad, Mahmoud (M.I.); Gates, Freeman (F.C.); Frelsland, Mark (M.); Maurer, James (J.B.); Perry, Brian (B.J.)
Cc: Panaretos, Christine (C.M.); O'Neill, Jim (J.D.)
Subject: RE: DPFE Sensor Stalls Issue Review-Thursday, 6/2/02, 1:00-3:00 P M

Thursday works for me.

John H. Jahshan
POEE Resident Engineer
PCM Applications
jjahshan@visteon.com
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-----Original Message-----

From: Plante, Paul (P.G.) [mailto:pplante@ford.com]
Sent: Friday, April 26, 2002 4:20 PM
To: 'jjahshan@visteon.com'; Schieding, Kurt (K.J.); Awad, Mahmoud (M.I.); Plante, Paul (P.G.); Gates, Freeman (F.C.); Frelsland, Mark (M.); Maurer, James (J.B.); Perry, Brian (B.J.)
Cc: Panaretos, Christine (C.M.); O'Neill, Jim (J.D.)
Subject: DPFE Sensor Stalls Issue Review-Thursday, 5/2/02, 1:00-3:00 PM

Team, we need 2 hours to discuss this subject. The only time all are available is 5/2 during our normal team meeting. Advise Me Monday COB if this DOES NOT work for you. All are required to have a meaningful discussion. BRING ALL DATA ASSOCIATED WITH STALLS FOR DISCUSSION. Flimsies are better than paper to save copies.

Jim/Chris, please issue agenda advising all others that this will be the ONLY agenda item that day. Others may choose NOT to attend. We need a small but mandatory working group.

Agenda:

- 1) Overview to set agenda. Brainstorm data and issues from V Engine, PCSE, and Quality Office.
- 2) Review data from each attendee and discuss with team.
- 3) Establish:
 - A) Can stalls theoretically happen?
 - B) What happens when a stall occurs?
 - C) What is the rate of stall compared to overall sensor warranty.
 - D) What components affect stalls (i.e. sensor, PCM, etc.)
- 4) Consense on stall issues. Establish statement for 14D.
- 5) Next steps.

Paul Plante
V Engine Campaign Prevention Specialist
POEE Building, Drop 20, Cube EG049, Pillar D5
Tele. 313-64-54138; Fax 39-02513
Text Pager: 734-296-1905

E Mail: pplante@ford.cm (CDS ID PPLANTE)

From: Jahshan, John (J.H.) [jahshan@visteon.com]
Sent: Wednesday, April 24, 2002 7:51 AM
To: 'Freeland, Mark (M.)'
Subject: RE:

Hi Mark,

You hit the date code on the head. Nice interoperation.

John H. Jahshan
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See the picture for the label on the connector.

Please call me if there is anything else you need to know.

Regards

Mark Freeland

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email: mfreelal@ford.com
Tel.: (313) 594-7645

From: Janda, Jon (J.M.)
Sent: Friday, June 21, 2002 11:41 AM
To: Sturzenegger, Larry (L.W.)
Cc: Freeland, Mark (M.); Johnson, Joe (J.H.); Maurer, James (J.B.)
Subject: DPFE help

Larry,

The team need to get back some high mileage (20K+) original tube mount DPFE's. The preferred 2001 vehicle list would be:

- Z-Tech Focus
- 2.0L or 3.0L Escape
- 4.6L F160
- 4.6L Expedition
- 3.0L Vulcan ranger
- 4.0L SOHC Explorer
- 3.8L Windstar
- 4.2L Econoline
- 3.0L Vulcan Taurus/Sable
- 4.6L Econoline

We will take any that we can get. The list represents the best and worse failure rates.

The following information is necessary for each DPFE: Vehicle, VIN, Mileage

Please contact Ray Gaston at the WHQ Lease Garage to start. We can make contacts at the other garages later.

Thank You,
Jon Janda

V-Engine Engineering - Ford
2V - V6 Certified Black Belt
Ph: 313-24-82589 Pgr: 313-795-5889
E-mail: JJANDA@ford.com
Fax: 313-84-50813

From: Janda, Jon (J.M.)
Sent: Thursday, May 23, 2002 8:15 AM
To: Freeland, Mark (M.)
Subject: Completed part analysis

Mark,
The box of completed parts analysis is in the lab. Couldn't drop in your office - locked.
JJ

From: Janda, Jon (J.M.)
Sent: Friday, May 17, 2002 8:00 AM
To: Freeland, Mark (M.)
Subject: RE: Parts data for Analytical Solutions

Mark,
There was not any attachment to my note; maybe it doesn't go to the CC's.

Jim Maurer asked me to make 10 copies of the analysis parts package to make sure there were enough for NM. Do you want your copy or will you get it from Jim M.? They'll be ready @ 11:00AM Fri.

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Thursday, May 16, 2002 9:36 PM
To: Kyong Park (E-mail); Brady Davies (E-mail); Maurer, James (J.B.); Gatas, Freeman (F.C.)
Cc: Plante, Paul (P.G.); Akolkar, Shrikant (S.V.); Janda, Jon (J.M.); Verner, Carol (C.J.); Danes, Adam (A.V.)
Subject: Parts data for Analytical Solutions

Attached is an updated data file for the Analytical Solutions parts.

Jon and Shri re-examined each part and updated the data to insure that they had all been examined consistently and with their most recent knowledge at hand.

Please dispose of older versions of this file.

Copies of the photographs will be distributed on CD and hard copy when we get to NM.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

From: Janda, Jon (J.M.)
Sent: Wednesday, May 16, 2002 11:06 AM
To: Gonzalez, Labzy (L.)
Cc: Freeland, Mark (M.)
Subject: Lab Printer (Cordanics mpx97a)

Labzy,

Remember yesterday when my MS PP photo slides weren't printing? I resent them individually yesterday - they never printed: one paused the rest just stayed there over night. Cleared them out & resent along with my other new files. So far nothing has printed and the printer (Cordanics mpx97a) has 'READY' on the display. I checked the paper, for jams, connection and all looks OK.

Could you please take a look at it.

THNX Jon

From: Janda, Jon (J.M.)
Sent: Friday, May 10, 2002 1:06 PM
To: Foust - Smith, Susan (S.L.)
Cc: Freeland, Mark (M.)
Subject: BB Project 7323

Susan,

I'm interested in your Project on the Focus 'B' post connection. We're working on the DPFE failure and found voltage spikes & transients (may or may not be related to this).

Did you have a time period this was happening?

Do you know what the voltage variations were?

Any identifying characteristics of a loose connection (other than the obvious)?

Any related component failures (EEC, Sensors...)?

Any good general back ground info.?

We may give you a follow up call for more specific details.

Thank You,

Jon Janda

V-Engine Engineering - Ford

2V - V6 Certified Black Belt

Ph: 313-24-82588 Pgr: 313-795-5889

E-mail: JJANDA@ford.com

Fax: 313-84-50813

---Original Message---

From: Holt, Jon (J.)
Sent: Thursday, April 25, 2002 2:45 PM
To: Janda, Jon (J.M.)
Subject: RE: BB Project

JON, the project number is 7323. The BB's name is Susan Foust.

Let me know if you need anything else.

Jon H. Holt
Consumer Driven Six Sigma Black Belt (Candidate)
Electrical Electronic Systems Engineering
Phone: (313)248-1236, Fax: (313)223-2823, JHOLT@Ford.com

"You must become the change you wish to see in the world." - Gandhi

---Original Message---

From: Janda, Jon (J.M.)
Sent: Thursday, April 25, 2002 2:41 PM
To: Holt, Jon (J.)
Subject: BB Project

John,

Can you get me more info on the BB project we talked about this morning on the 'B' electrical connection. I would like to talk to the BB on vehicle lines, time period, symptoms...

Thank You,

Jon Janda

V-Engine Engineering - Ford

2V - V8 Certified Black Belt

Ph: 313-24-82589 Pgr: 313-795-5869

E-mail: JIANDA@ford.com

Fax: 313-84-50613

From: Janda, Jon (J.M.)
Sent: Thursday, April 25, 2002 8:52 AM
To: Freeland, Mark (M.)
Subject: Completed DPFE's

importance: High

Mark,

The last 2 DPFE's are complete and in the 'box' in the lab by the microscope (you weren't in yet to drop them off).

I drove the Focus last night and recorded 6 events:

2 on initial part of drive home

4 on initial part of drive in

The data should be electronically stored and on the strip chart. I left the keys on Tim's desk with a similar note.

From: Jensen, Ted (T.E.)
Sent: Wednesday, May 08, 2002 3:35 PM
To: Marrone, Rob (R.B.)
Cc: Freeland, Mark (M.); Danes, Adam (A.V.)
Subject: Ideas

Rob,

It has been suggested that heavy key weight could be causing stalls on a wider range of vehicles than just the Escape. Seems the same key mechanism is used on most Ford vehicles. A recent report is an experience with a 2002 MY 5.4L Mountaineer. 285 grams of key weight, when bounced with the palm of the hand vertically would stall the vehicle. This is a repeatable condition. I have suggested a designed experiment with weight, drop distance, vehicle angle, and steering column set point as variables.

It may be possible for momentary loss of contact from key position to result in a number of customer concerns and could even be linked high current events that damage the dPFE sensor.

This would not help understand stalls at 8 miles with only a single vehicle key. I assume that only one key and no extra weight is involved here.

Sorry this was in my outbox. It should have been sent some time ago.

Best Regards,

Ted Jensen

Tracott E. Jensen, Ph.D.
8-Sigma Black Belt
Staff Technical Specialist
Chemical Engineering Department
Ford Research Laboratory

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2101 Village Road
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Fed Ex & Other Delivery Services:
Receiving R SRL Room 1317
2101 Village Road
Dearborn, MI 48124

Phone: (313) 322-4588
FAX: (313) 821-0546
E-Mail: jensen2@ford.com

From: Johnson, Jim (J.S.)
Sent: Thursday, June 27, 2002 9:12 AM
To: Pepitone, Gil (J.); Bilicki, John (J.R.); Corbett, Sandra (S.M.); Alcornian, Don (D.J.); Aynessazan, Kam (K.); Bauer, Scott (S.C.); Bhojwani, Kamal (K.); Blackburn, Thomas (T.J.); Bogema, John (P.); Chick, John (J.); Chih, Ming-Niu (M.N.); Chin, Darrel (D.); Corbett, Sandra (S.M.); Dalbo, Bob (R.J.); Rothwaller, Daniel (D.); De Pena, Juan (J.E.); Diez, Timothy (T.P.); Faecetti, Bob (R.J.); Fournelle, Gilbert (G.); Froeland, Mark (M.); Gilles, Stuart (S.); Gokhale, Ranuka (R.V.); Grimes, Jeff (J.R.); Hansen, George (G.C.); Herr, George (G.J.); Hoffman, Michael (M.V.); Holmes, Jeffrey (J.R.); Ichikawa, Jiyunichiro (J.); Jensen, Ted (T.E.); McDonald II, John (J.M.); Jordan, Donald (D.E.); King, Robert (R.F.); Kosko, Jeff (J.R.); Kwon, Soon (S.K.); Lintlaco, Steven (S.); Linde, Peter (P.A.); Lu, Jane (J.); Mandzlik, Roger (R.S.); Marck, Edmond (E.C.); Matasa, John (J.); Maurer, James (J.B.); Mazzella, Gary (G.R.); Mooney, Larry (L.); Moorhouse, Scott (S.R.); Morgan, Tomiko (T.T.); Morishima, Shigeki (S.); Namatollahi, Sonya (S.); Noteboom, Jim (J.E.); Orman, James (J.W.); Powers, Ken (K.W.); Price, Martin (M.); Raquepau, Alden (A.P.); Sanders, Muriel (M.S.); Shah, Kiran (K.C.); Shirahli, Masaru (M.); Stiggenbauer, Jeffrey (J.R.); Suarez, Rhee (R.); Takasawa, Keith (K.D.); Takubo, Hirochi (H.); Veenstra, Tim (T.W.); Wakenell, Ray (R.A.); Weitach, Bill (B.); Williams, Les (L.H.W.); Yeung, Lam (L.); Suarez, Rhee (R.); Terzes, Laura (L.D.); Martin, Mike (M.S.); Amely, Felix (F.A.); Bradley, Joe (J.C.); Linde, Peter (P.A.); Goering, Kimberly (K.L.); Terzes, Laura (L.D.); Benliende, Robert (R.F.); Kaercher, Don (D.F.)
Cc: DiAngelo, Renaldo (R.); Beranter, Joel (J.R.); Surti, P. J. (P.J.); Noteboom, Jim (J.E.)
Subject: RE: PFQS's Investigation Results of Virgin Islands Escape Drivability Concerns

Gil, thanks for the report and supporting WDMO on the trip. It appears you identified a few items that will benefit the group.

I did research Air Box replacements for the 2.0 and 3.0 engines and found the following.

3.0L PN, YL8Z-9600-BA - SALES	2.0L PN, YL8Z-9600-AE - SALES
2002 - 529	2002 - 80
2001 - 642	2001 - 104
2000 - 103	2000 - 52

It appears that YL8Z-9600-BA is in the process of being replaced by 2L8Z-9600-BA.

---Original Message---

From: Pepitone, Gil (J.)
Sent: Thursday, June 27, 2002 2:11 AM
Cc: Pepitone, Gil (J.); DiAngelo, Renaldo (R.); Beranter, Joel (J.R.); Surti, P. J. (P.J.); Noteboom, Jim (J.E.)
Subject: PFQS's Investigation Results of Virgin Islands Escape Drivability Concerns
Importance: High

Good evening everyone:

Here's my report on my trip.

<< File: Results of Virgin Island Escape Dacell Stalls Investigation.doc >>

I will be calling in on the Conference all at 2pm today.

Call-In Info: 1-877-870-3529 or Ford net 9-1-954-1144

International Participants: 1-830-693-1704

Passcode: 7673538, then hit #

I thank the Team for all their assistance.

Gil Pepitone
Powertrain Field Quality Specialist-"PFQS" In
South Florida

Office/Answering Machine: 954-753-9989

Cell Phone 954-242-2066

"With Warranty you are Paying for the Sins of the Past"

From: Johnson, Joe (J.H.)
Sent: Tuesday, July 16, 2002 2:46 PM
To: Surti, P. J. (P.J.)
Cc: Gates, Freeman (F.C.); Freeland, Mark (M.); DiAngelo, Renaldo (R.)
Subject: RE: Shorted Sensor

OK. We're all on the same team.

Joe Johnson

Supervisor, EGR Systems, FMEI Dept
V-Engine Engineering, Powertrain Operations
POEE Bldg, Mail Drop 69
21500 Oakwood Blvd
Dearborn, Mich 48124-4091

Ph: (313) 845-8292
Fax: (313) 390-4084
e-mail: jjohnson@ford.com

—Original Message—

From: Surti, P. J. (P.J.)
Sent: Tuesday, July 16, 2002 9:44 AM
To: Johnson, Joe (J.H.)
Cc: Gates, Freeman (F.C.); Freeland, Mark (M.); DiAngelo, Renaldo (R.); Surti, P. J. (P.J.)
Subject: FW: Shorted Sensor

Hello Joe - At first I was going to ship the subject DPFE sensor to you but I was requested to send it to Mr. Freeman and then eventually to Mr. Freeland.
So, the sensor has been sent, Attn. name, To: Freeman. This is just FYI...

P. J. Surti

Powertrain FQE
T. No. (714) 982-3227
Fax No. (714) 982-4448

—Original Message—

From: Gates, Freeman (F.C.)
Sent: Tuesday, July 09, 2002 1:00 PM
To: Surti, P. J. (P.J.)
Subject: RE: Shorted Sensor

Please send this to:

Freeman Gates
Ford Motor
POEE Bldg DP 69
21500 Oakwood Blvd.
Dearborn, MI. 48301

Thanks

—Original Message—

From: Surti, P. J. (P.J.)
Sent: Tuesday, July 09, 2002 12:32 PM
To: Freeland, Mark (M.); Gates, Freeman (F.C.)
Cc: Maurer, James (J.B.); Flanta, Paul (P.G.); Ross, Roberts (R.A.); DiAngelo, Renaldo (R.); Surti, P. J. (P.J.)

Subject: RE: Shorted Sensor

Hello Freeman - Pl. send your mailing address so I can ship the sensor. Thanks...

P. J. Surti

Powertrain FGE

T. No. (714) 962-3227

Fax No. (714) 962-4446

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, July 09, 2002 11:50 AM
To: Surti, P. J. (P.J.)
Cc: Gates, Freeman (F.C.); Maurer, James (J.B.); Florita, Paul (P.G.); Rossi, Roberto (R.A.)
Subject: Shorted Sensor

PJ

Please send the sensor back to Freeman Gates.

Freeman,
could you send PJ you're shipping address. After you have done whatever you need to could you give me the part when I return from vacation, so that we can measure the part's current etc and add the data to our database.

I am asking that it be shipped to you as I will be out on vacation for two weeks and don't want it to get lost.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Surti, P. J. (P.J.)
Sent: Monday, June 24, 2002 11:24 AM
To: Johnson, Joe (J.H.); Gates, Freeman (F.C.); Barsak, Catherine (C.K.); Freeland, Mark (M.); Maurer, James (J.B.); Jensen, Tad (T.E.)
Cc: Giordano, Mike (M.A.); Dhallwal, Dave (D.S.); MacDonald, George (G.F.); Malloy, Gene (E.E.); DiAngelo, Renaldo (R.); Noteboom, Jim (J.E.); Peppone, Gil (G.); Surti, P. J. (P.J.)
Subject: STRANGE CASE OF 2001 FOCUS STALL

Hello Joe - Pl. see attached CQIS report on 2001 Focus. The high incidence of DPFE quality is known concern and we have talked about it several times in past. But this DPFE failure mode is little strange, shorting Vref to ground and its effect of stalling on the road. Also, the inoperative Odometer display was an interesting part of the failure mode. It took some time to diagnose and finding the root cause due to the lack of communication with PCM and not being able to retrieve the DTCs. If you like to receive this sensor back for further test analysis, I can ship it wherever you like me to do so. So, Pl. let me know. Thanks...

CSQI002

CQIS Indicator Summary

06/24/02 10:43:43

====>

1 of 1

Rpt#: 2FXI4001 PTOFSE

Rpt: 06/24/2002 Odom: 11,600 M

EA02-027-0 12137

Rvwd: File: _ Folder: _____ Images: 0 Print Smy/Disp Detail(P/D): _
Vehicle: 2001 FOCUS,SE ,SEDAN 1FAHP34341W110512 Bid: 09/12/2000
Engine: 2.0L ZTECH Calb: 1AK1AZ0A Trans: FN 4SPD Axc: FWD 3.904 A/C: YES
Dealer Id: 06517 SUNSET FORD Ph#: (714) 372-4520
State: California City: Westminster Orig/Caller: P. J. SURTI
Symptom: 6 03 3 93 DRVABL,CRANKS/NO STAR,START ENG TEMP ,ALL ENGINE TEMP
Addl Sym: St: CCRG/EPRC: _ Rvwd: Dt
Flx: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: 42
PSURTI (714) 962-3227 FAX: MIL? N ABA? Symp Vt? Survey? N
EO: EC: Prt St: 0
ER: CB: Intmlt? N

CONCER VEHICLE QUIT WHILE DRIVING AND WONT RESTART.
REPAIR THE VEHICLE QUIT WHILE IDLING IN PARK AND WONT RESTART. CHECKED THE
BATTERY AND STARTING SYSTEM. EVERYTHING WAS O'K. HOOKED UP WDS, BUT
THERE WAS NO COMMUNICATION WITH PCM AND COULDN'T RUN EEC SELF TEST.
ALSO, THE TECH. NOTICED THAT THE ODOMETER DISPLAY ON THE INSTRUMENT
CLUSTER WAS INOPERATIVE. RAN PINPOINT TEST FOR EEC SYSTEM. FOUND
DPFE SENSOR VREF CKT. SHORTED TO GROUND. REPLACED THE DPFE SENSOR.
THE VEHICLE STARTED AFTER THE REPAIR. THE ODOMETER DISPLAY ALSO
STARTED TO WORK FINE AFTER THE REPAIR.

P. J. Surti

Powertrain FQE
T. No. (714) 962-3227
Fax No. (714) 962-4448

Fix: Caus. Comp: SENSOR ASY EGR PR VL - RPL Condition Code: 42
PSURTI (714) 962-3227 FAX: MIL? N ABA? Symp Vf? Survey? N
EO: EC: Prt St: 0
ER: CB: Intrim? N

CONCER VEHICLE QUIT WHILE DRIVING AND WONT RESTART.

REPAIR THE VEHICLE QUIT WHILE IDLING IN PARK AND WONT RESTART. CHECKED THE BATTERY AND STARTING SYSTEM. EVERYTHING WAS O'K. HOOKED UP WDS. BUT THERE WAS NO COMMUNICATION WITH PCM AND COULDN'T RUN EEC SELF TEST. ALSO, THE TECH. NOTICED THAT THE ODOMETER DISPLAY ON THE INSTRUMENT CLUSTER WAS INOPERATIVE. RAN PINPOINT TEST FOR EEC SYSTEM. FOUND DPFE SENSOR VREF CKT. SHORTED TO GROUND. REPLACED THE DPFE SENSOR. THE VEHICLE STARTED AFTER THE REPAIR. THE ODOMETER DISPLAY ALSO STARTED TO WORK FINE AFTER THE REPAIR.

P. J. Scott

Powertrain FQE

T. No. (714) 962-3227

Fax No. (714) 962-4448

From: Johnson, Joe (J.H.)
Sent: Thursday, March 21, 2002 7:31 AM
To: Gates, Freeman (F.C.); Plante, Paul (P.G.); Freeland, Mark (M.)
Cc: Maurer, James (J.B.)
Subject: RE: University of Maryland (CALCE)

Well, I visited the website but couldn't access any of the documents. Did I miss a step?

Joe Johnson

Supervisor, EGR Systems, FMEI Dept
V-Engine Engineering, Powertrain Operations
POEE Bldg, Mail Drop 69
21500 Oakwood Blvd
Dearborn, Mich 48124-4091

Ph: (313) 845-8292
Fax: (313) 390-4084
e-mail: jjohnson@ford.com

---Original Message---

From: Gates, Freeman (F.C.)
Sent: Wednesday, March 20, 2002 5:29 PM
To: Plante, Paul (P.G.); Freeland, Mark (M.)
Cc: Maurer, James (J.B.); Johnson, Joe (J.H.)
Subject: University of Maryland (CALCE)

Earlier this afternoon, Jim Maurer and I contacted Dr. Craig Hillman of CALCE [Http://www.calce.umd.edu](http://www.calce.umd.edu). This division of the University of Maryland provides a cooperative partnership with industry of which Ford Motor Co. has been a past member. Most noticeable, they were involved with TFI module analysis. They get deeply involved with all aspects of CMOS processing and design, problem analysis and warranty/reliability data crunching.

Please visit their web site and provide your comments.

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)39-04084
POEE Rm D-138 GM-173

From: Johnson, Mary (M.K.)
Sent: Tuesday, March 12, 2002 1:21 PM
To: Frøeland, Mark (M.)
Subject: Conference Room Request

Mark:

It's 1:20pm. I have not yet heard from anyone re: the availability of a conference room. I am leaving at 1:30pm. I will check again first thing in the morning for you and will telephone you if there is a change in the status.

So sorry I couldn't pull a rabbit out of a hat for you!

Regards,

Mary K. Johnson

Administrative Assistant to Kenneth C. Hass, Manager
Physical and Environmental Sciences Department/SRL

Phone: (313) 322-7007

Fax: (313) 322-7044

mjohns64@ford.com

From: Johnson, Roger (R.)
Sent: Friday, May 03, 2002 1:08 PM
To: Freeland, Mark (M.)
Cc: Galante, Chris (C.R.); Awad, Mahmoud (M.I.)
Subject: RE: Focus Information

Hi Mark,

I have yet to experience a stall with the Focus after the MIL came on. The car has about 11,800 miles on it.

My Focus will want to stall (sometimes) on a humid day with the defroster on, if I drive on the expressway and then put the car in neutral and coast to a stop. This would happen when I would drive down I-896 and get off on Southfield and coast up the off ramp to a stop. The car will act like it wants to stall, but then it catches itself at or just before I stop for the light. It then acts like it just started - the engine speed climbed and then settles into idle. I stalled on me once, but if it does this, I usually tap the throttle and it catches itself.

This does not set a check engine light or a code. After it did this a few times, I put an NGS on the car, but there were no stored codes. I ran KOEO and KOER test but found nothing. It hasn't done this for a while (about 2 months), and definitely not since the MIL showed up (about April 16)

A few weeks ago, I was driving down Southfield at about 45 mph, and the car started to surge and run rough. I tipped into the throttle and the problem went away. I figured that something was wrong with the EGR system, so I varied the throttle on the way home.

I found that I can get the car to surge/run rough at an engine speed of approx. 1600 to 2000 rpm, mainly in 4th or 5th gear. The next time I drove the car, it repeated the symptoms, and set a check engine light. When I got to work, I ran the NGS, and it revealed a stored P0401 code. I decided not to clear the code, but rather leave it for the dealer in case he wanted the snapshot of the system when the code was set (I caught a hard time for this at the dealer for another car).

After the dealer looked at the car, they cleared the codes. By the time I got home after stopping for gas and at Meljer, I got the MIL again. I have not run another test since that car came back from the dealer. Now the car runs a little rough at idle - both clutch engaged and clutch disengaged.

Let me know if I can help with anything or if you need anything else.

Regards,
Roger Johnson
Wixom Assembly Plant PVT
Phone: (248) 34-45889

—Original Message—

From: Freeland, Mark (M.)
Sent: Friday, May 03, 2002 12:18 PM
To: Johnson, Roger (R.)
Cc: Galante, Chris (C.R.); Awad, Mahmoud (M.I.)
Subject: FW: Focus Information

Roger,

Could you let me know what your symptoms were. Did the engine ever stall? If so, did the MIL light come on a) before the stall or b) sometime after the stall.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreelal@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Awad, Mahmoud (M.I.)
Sent: Friday, May 03, 2002 11:55 AM
To: Freeland, Mark (M.)
Subject: RE: Focus Information

Mark,

This is a failed sensor coming from August 2001 MOP and got over 11000 miles on it...this is for the outside lab. The part is with Mar now.
Mahmoud

-----Original Message-----

From: Galante, Chris (C.R.)
Sent: Friday, May 03, 2002 9:08 AM
To: Awad, Mahmoud (M.I.)
Subject: FW: Focus Information



Mahmoud,

Here is the vehicle information for the PVT engineer at Wixom who has had a problem with his Focus. I do not know the mileage, but he could get it to you pretty quickly.

I have a part from Mary Akns that I will given hi m next week. His dealer said they were on back order and it might take a number of weeks. We can change it in the parking lot here at EEE, and get the team the part. I think if the team wanted to take his vehicle for a period of time for evaluation, he'd be happy to help.

Chris

Christopher R. Galante
cgalante@ford.com

 Fax: (313) 337-3813
 Phone: (313) 845-6067
Pager: (313) 795-2807

V-Engine Engineering - Ford Motor Co.

-----Original Message-----

From: Johnson, Roger (R.)
Sent: Friday, May 03, 2002 7:34 AM
To: Galante, Chris (C.R.)
Subject: Focus Information

Chris,

I got the information from my Focus ZX3:

ER02-027-G 12145

VIN: 3FAFP31321R244403

Engine Information: 1G-779-BA
002002105
7/30/01
CHEP

Let me know if you need anything else. Otherwise, I will be by sometime next week, probably Monday.
Thanks again for the help.

Regards,
Roger Johnson
Wixom Assembly Plant PVT
Phone: (248) 34-45889

Subject: Updated: EGR Project
Location: SRL Conf Room 1529 (10)

Start: Mon 6/17/2002 10:00 AM
End: Mon 6/17/2002 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Jonas, Chris (C.E.); Duffy, Paul (P.E.); Frestland, Mark (M.); Ailes, Sheran (S.A.); Makki, Asaad (A.); O'Neal, Jim (J.D.); SRL Conf Room 1529 (10)

Subject: Updated: EGR Project
Location: SRL Conf Room 1629 (10)

Start: Mon 6/17/2002 10:00 AM
End: Mon 6/17/2002 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Jones, Chris (C.E.); Duffy, Paul (P.E.); Freeland, Mark (M.); Altes, Sheran (S.A.); Makki, Assad (A.); O'Neill, Jim (J.D.); SRL Conf Room 1629 (10)

Subject: Canceled: EGR Project
Location: SRL CR 1529

Start: Mon 8/17/2002 10:30 AM
End: Mon 8/17/2002 12:00 PM
Show Time As: Free

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Jones, Chris (C.E.); Freeland, Mark (M.); SRL Conf Room 1529 (10); Duffy, Paul (P.E.); Alles, Sheran (S.A.); Makk, Aasad (A.); O'Neill, Jim (J.D.)
Optional Attendees: Bryant, Bruce (B.D.)

Importance: High

Meeting has been rescheduled for Friday

Subject: Canceled: EGR Project
Location: SRL CR 1529

Start: Mon 8/17/2002 10:30 AM
End: Mon 8/17/2002 12:00 PM
Show Time As: Free

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Jones, Chris (C.E.); Freeland, Mark (M.); SRL Conf Room 1529 (10); Duffy, Paul (P.E.); Alee, Sheran (S.A.); Makki, Assad (A.); O'Naall, Jim (J.D.)
Optional Attendees: Bryant, Bruce (B.D.)

Importance: High

Meeting has been rescheduled for Friday

Subject: Canceled: EGR Project
Location: SRL CR 1629

Start: Mon 6/17/2002 10:30 AM
End: Mon 6/17/2002 12:00 PM
Show Time As: Free

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Jones, Chris (C.E.); Freeland, Mark (M.); SRL Conf Room 1529 (10); Duffy, Paul (P.E.); Ales, Sheran (S.A.); Makki, Asead (A.); O'Neal, Jim (J.D.)
Optional Attendees: Bryant, Bruce (B.D.)

Importance: High

Meeting has been rescheduled for Friday

Subject: Updated: EGR Project
Location: SRL Conf Room 1529 (10)

Start: Mon 6/17/2002 10:00 AM
End: Mon 6/17/2002 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Jones, Chris (C.E.); Duffy, Paul (P.E.); Freland, Mark (M.); Alles, Sheran (S.A.); Makhl, Asaad (A.); O'Neill, Jim (J.D.); SRL Conf Room 1529 (10)

From: Kevin R.J. Ellwood [keilwood@ford.com]
Sent: Friday, July 19, 2002 2:17 PM
To: Mark Freeland (MFREELA1)
Cc: Jon Hargas (JHANGAS)
Subject: VIN number for my Focus

Hi Guys,

I was told that you need my VIN number. Here it is:

1FAFP34362W147490

cu
Kevin

Kevin R.J. Ellwood
Materials Science Dept.
Scientific Research Lab
Dearborn, MI 48121-2153 MD3182

Phone: (313) 322-5535
Fax: (313) 323-1129

Subject: Audio Conf. Call Mtg. w/Kav/co-Please see call-in numbers below
Location: JDOs Ofc

Start: Fri 10/11/2002 11:30 AM
End: Fri 10/11/2002 12:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: King, Sandra (S.M.); Alles, Sheran (S.A.); Awad, Mahmoud (M.I.); Freeland, Mark (M.); Gates, Freeman (F.C.); Maurer, James (J.B.); McCoy, James (J.D.); O'Neill, Jim (J.D.); Kyong Park (E-mail); Verner, Carol (C.J.)

This meeting was requested by Jim O'Neill - MOVs For Transient Voltage Testing
Dearborn, MI time: 11:30 a.m.
Moorpark, CA time: 8:30 a.m.

Dial In Number: 1-866-274-3059
Pass code number: 861-1088#
Internal Ford Number: 954-1148

From: King, Sandra (S.M.)
Sent: Thursday, May 16, 2002 11:06 AM
To: DeSpirt, Margaret (M.M.)
Cc: O'Neill, Jim (J.D.); Gates, Freeman (F.C.); Maurer, James (J.B.); Plante, Paul (P.G.);
Freeland, Mark (M.)
Subject: RE: Analytical Solutions Trip Approval

Thanks Margaret.

Aloha,

Sandra M. King

Administrative Assistant to J.D. O'Neill, Ford Motor Company, FMEI Dept. 5100N415, V-Engine Engineering, Telephone (313) 322-3196, Fax (313) 390-4084, e-mail address sking4@ford.com

-----Original Message-----

From: DeSpirt, Margaret (M.M.)
Sent: Thursday, May 16, 2002 11:01 AM
To: King, Sandra (S.M.)
Cc: Gates, Freeman (F.C.)
Subject: RE: Analytical Solutions Trip Approval

I called Sue and she told me John signed off on the travel request below.....
Thanks.

Margaret DeSpirt

Engineering Information Coordinator
Program Administration
POEE Bldg., Cube #CO078, Mail Drop #72
Phone: (313) 59-41552 Fax: (313) 39-02814

-----Original Message-----

From: King, Sandra (S.M.)
Sent: Wednesday, May 15, 2002 1:40 PM
To: Kosowmik, John (J.J.)
Cc: DeSpirt, Margaret (M.M.); Gates, Freeman (F.C.)
Subject: FW: Analytical Solutions Trip Approval

Freeman Gates said this is an emergency trip that has just come up and is seeking your approval.

Aloha,

Sandra M. King

Administrative Assistant to J.D. O'Neill, Ford Motor Company, FMEI Dept. 5100N415, V-Engine Engineering, Telephone (313) 322-3196, Fax (313) 390-4084, e-mail address sking4@ford.com

-----Original Message-----

From: Gates, Freeman (F.C.)
Sent: Wednesday, May 15, 2002 12:33 PM
To: King, Sandra (S.M.)
Cc: Maurer, James (J.B.); Freeland, Mark (M.); Gates, Freeman (F.C.); Plante, Paul (P.G.)
Subject: Analytical Solutions Trip Approval

<< File: Travel Request1.doc >>

Freeman Gates

Senior EGR Systems Technical Specialist
Tel (313)32-24807 Fax (313)39-04084

EG02-827-0 12158

POEE Rm D-138 CM-173

EP82-827-G 12159

Subject: Kavico TM dPFE Sensor w/M. Freeland
Location: John's office

Start: Thu 12/12/2002 10:30 AM
End: Thu 12/12/2002 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszownik, John (J.J.); Freeland, Mark (M.)

From: Koszewnik, John (J.J.)
Sent: Saturday, November 30, 2002 1:45 PM
To: Russell, Lori (L.S.); Freeland, Mark (M.)
Cc: Davis, George (G.C.); O'Neal, Jim (J.D.)
Subject: RE: Test results from bench testing the Kavlico TM dPFE sensor and Filter 2.0 with spark generated RF

Mark,

I'm anxious to talk to you about your results. I didn't understand everything I was looking at... but it seems you are on to something important.

Lori,

Please schedule a half hour meeting with Mark and me for sometime this week or next. Thanks in advance.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28873
Fx. 39-09670
jkoszewn@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, November 25, 2002 11:49 AM
To: Koszewnik, John (J.J.)
Cc: Davis, George (G.C.); O'Neal, Jim (J.D.); Maurer, James (J.B.); Gates, Freeman (F.C.); McCoy, James (J.D.); Allen, Sheran (S.A.); Kotwidd, Allen (A.J.)
Subject: Test results from bench testing the Kavlico TM dPFE sensor and Filter 2.0 with spark generated RF

John,

As we have been unable to meet to discuss the results of the bench testing you requested, I am forwarding you a PowerPoint presentation of the results I have obtained.

In short I was able to cause failures of the original sensor and the current production sensor, but was unable to cause failure of a sensor protected with the prototype Filter Rev. 2.0.

I am leaving the country for the next week to look after my mother who has just had a double bypass operation. I expect to return to the office on 12/3/02, and will be available to discuss the testing and results at your convenience thereafter.

<< File: 20021118 Bench Testing of Filter 20 with open spark gap.ppt >>

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mrfreel1@ford.com

EP82-827-G 12163

Tel.: (313) 594-7645

Subject: dPFE Bench Testing
Location: JJK's office

Start: Mon 11/18/2002 4:30 PM
End: Mon 11/18/2002 5:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszewnik, John (J.J.); Freeland, Mark (M.)

From: Koszewnik, John (J.J.)
Sent: Wednesday, November 13, 2002 7:13 AM
To: Russell, Lori (L.S.)
Cc: Davis, George (G.C.); Freeland, Mark (M.)
Subject: RE: dPFE Bench Testing.

Lori,

Please find a half hour for me to meet with Mark next week.

This could be late if required. Just work with Mark to ensure it's at a time when he can attend. Thanks.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 39-09870
jkoszewn@ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Tuesday, November 12, 2002 4:03 PM
To: Koszewnik, John (J.J.)
Cc: Davis, George (G.C.)
Subject: dPFE Bench Testing.

John,

As a follow up to our last meeting I now have some bench test results from subjecting the sensors to spark generated RF which I would like to share with you. When would be a good time to meet with you?

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ERG2-827-0 12188

From: Koszewnik, John (J.J.)
Sent: Sunday, November 03, 2002 6:18 PM
To: Freeland, Mark (M.)
Subject: RE: dPFE - recommended engineer to review layout

Mark,

Thanks for the info. I'll see what we can do when I meet with Kavlico later this week.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 39-08670
jkoszewn@ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Friday, November 01, 2002 3:25 PM
To: Koszewnik, John (J.J.)
Cc: Hermann, Thomas (T.J.)
Subject: dPFE - recommended engineer to review layout

John,

I met with the EMC supervisor (Tom Hermann) this afternoon to get his recommendations on the testing we discussed yesterday.

I also asked him to recommend the best engineer we have to discuss design layout guidelines and to review Kavlico's layout. He recommended Jarek Tracz (jtracz@ford.com).

I would suggest we get Jarek together with Kavlico's designer before they start the layout.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

Subject: Transient Voltage Test Results
Location: JJK's office
Start: Thu 10/31/2002 2:00 PM
End: Thu 10/31/2002 2:30 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Required Attendees: Koszewnik, John (J.J.); Freeland, Mark (M.); Davis, George (G.C.)

Subject: Updated: Mig w/M. Freeland
Location: JJK's ofc

Start: Wed 10/2/2002 10:00 AM
End: Wed 10/2/2002 10:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszewnik, John (J.J.); Freeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

Update on what you are doing.

From: Wedlow, Janice (J.K.) on behalf of Kozewnik, John (J.J.)
Sent: Thursday, September 26, 2002 9:34 AM
To: Freeland, Mark (M.)
Subject: RE: Updated: Mtg w/M. Freeland

Mark, I changed it to 9:30 on 10/2.

Thanks,
Jan

-----Original Appointment-----

From: Freeland, Mark (M.)
Sent: Thursday, September 26, 2002 9:25 AM
To: Wedlow, Janice (J.K.); Porosky, Sue (S.E.); Novak, Michele (M.)
Subject: Declined: Updated: Mtg w/M. Freeland
When: Wednesday, October 02, 2002 5:30 PM-6:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: JJK's ofc

John,

Can we make it a different time please, as I have to pick up my children in Farmington Hills by 6:00 pm on Wednesday.

Thanks

Mark Freeland

Subject: Updated: Mtg w/M. Freeland
Location: JJK's ofc

Start: Wed 10/2/2002 10:00 AM
End: Wed 10/2/2002 10:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszewnik, John (J.J.); Freeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

Update on what you are doing.

Subject: Updated: Mtg w/M. Freeland
Location: JJK's ofc

Start: Wed 10/2/2002 10:00 AM
End: Wed 10/2/2002 10:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Kozewnik, John (J.J.); Freeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

Update on what you are doing.

From: Wedlow, Janice (J.K.) on behalf of Koszewnik, John (J.J.)
Sent: Thursday, September 26, 2002 9:27 AM
To: Freeland, Mark (M.)
Subject: RE: Updated: Mtg w/M. Freeland

Is 11:30 ok?

-----Original Appointment-----

From: Freeland, Mark (M.)
Sent: Thursday, September 26, 2002 9:25 AM
To: Wedlow, Janice (J.K.); Porosky, Sue (S.E.); Novak, Michele (M.)
Subject: Declined: Updated: Mtg w/M. Freeland
When: Wednesday, October 02, 2002 5:30 PM-6:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: JK's ofc

John,

Can we make it a different time please, as I have to pick up my children in Farmington Hills by 6:00 pm on Wednesday.

Thanks

Mark Freeland

Subject: Updated: Mig w/M. Freeland
Location: JJK's cfc

Start: Wed 10/2/2002 10:00 AM
End: Wed 10/2/2002 10:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszownik, John (J.J.); Freeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

Update on what you are doing.

From: Kozewnik, John (J.J.)
Sent: Tuesday, September 24, 2002 1:28 PM
To: Freeland, Mark (M.)
Subject: RE: Latch protection for DPFE

Mark,

Great. Thanks for the update.

One more question though. When you make the changes we discussed yesterday to the transient voltage protection on Vref and Vout, do we have any impact on the fuzz we saw on Vout?

John Kozewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28873
Fx. 24-86067
jkozewn@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Tuesday, September 24, 2002 9:31 AM
To: Kozewnik, John (J.J.)
Cc: Davis, George (G.C.)
Subject: RE: Latch protection for DPFE

Thanks John.

I have requested a sampling of 30 ESM's from Freeman Gates to perform transient susceptibility testing on.

Yesterday afternoon I tested 20 parts for the internal (die level) threshold voltage. (I plan on at least 30 for the statistic). Then I will follow up with a larger sample for the external threshold voltage statistic, as we discussed yesterday.

I will feed you the results by email as I complete each group.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreel1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Kozewnik, John (J.J.)
Sent: Monday, September 23, 2002 7:00 PM
To: Freeland, Mark (M.)
Subject: FW: Latch protection for DPFE

ENG2-827-0 12182

Mark,

As promised, I ran out the question we discussed in my office today.

I'll let you know if Jim provides me any additional feedback to my note below.

Thanks for our meeting. See you sometime early next week.

John Koszewnik

Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-88087
jkoszewn@ford.com

-----Original Message-----

From: Koszewnik, John (J.J.)
Sent: Monday, September 23, 2002 6:59 PM
To: O'Neall, Jim (J.D.)
Subject: RE: Latch protection for DPFE

Jim,

Noted and understood. Thanks for running this out for me.

My takeaway is that the ESM has the same overvoltage protection on Vref and Vout as the tube-mounted DPFE sensor.... no better, no worse.

Hence, we cannot say that the improved field performance of the ESM (versus tube-mounted DPFE) results from reduced sensitivity to latch-ups.

The remaining hypothesis for its improved field performance is that it sees less corrosive exhaust constituents due to being downstream of the EGR valve.

Let me know if I'm incorrect in the above. Thanks again for running this out.

John Koszewnik

Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-88087
jkoszewn@ford.com

-----Original Message-----

From: O'Neall, Jim (J.D.)
Sent: Monday, September 23, 2002 5:58 PM
To: Koszewnik, John (J.J.)
Cc: Maurer, James (J.B.); Gates, Freeman (F.C.)
Subject: Latch protection for DPFE

John - the latch protection you see in the schematics you had in hand this PM are for tube mount. The ESM did implement a similar effort right after Job 1 (implemented around May of this year at the same time we implemented the Dalsa die and the Microlyne gold sputtering) except the test data dictated the use of a Zener diode. So both have the protection. Freeman can give you more specifics if you need it or call me at home at 734-867-2986 or cell - 734-748-7781.

J. D. O'Neill

Manager, Fuel Metering, Emissions, and Ignition Dept
V-Engine Engineering, Ford Motor Company
joneall@ford.com, 313-322-8839

From: Koszewnik, John (J.J.)
Sent: Monday, September 23, 2002 7:00 PM
To: Freeland, Mark (M.)
Subject: FW: Latch protection for DPFE

Mark,

As promised, I ran out the question we discussed in my office today.

I'll let you know if Jim provides me any additional feedback to my note below.

Thanks for our meeting. See you sometime early next week.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkoszewn@ford.com

—Original Message—

From: Koszewnik, John (J.J.)
Sent: Monday, September 23, 2002 6:59 PM
To: O'Neall, Jim (J.D.)
Subject: RE: Latch protection for DPFE

Jim,

Noted and understood. Thanks for running this out for me.

My takeaway is that the ESM has the same overvoltage protection on Vref and Vout as the tube-mounted DPFE sensor.... no better, no worse.

Hence, we cannot say that the improved field performance of the ESM (versus tube-mounted DPFE) results from reduced sensitivity to latch-ups.

The remaining hypothesis for its improved field performance is that it sees less corrosive exhaust constituents due to being downstream of the EGR valve.

Let me know if I'm incorrect in the above. Thanks again for running this out.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkoszewn@ford.com

—Original Message—

From: O'Neall, Jim (J.D.)
Sent: Monday, September 23, 2002 5:58 PM
To: Koszewnik, John (J.J.)
Cc: Maurer, James (J.B.); Gibbs, Freeman (F.C.)
Subject: Latch protection for DPFE

EA02-027-G 12105

John - the latch protection you see in the schematics you had in hand this PM are for tube mount. The ESM did implement a similar effort right after Job 1 (implemented around May of this year at the same time we implemented the Dalsa die and the Microlyne gold sputtering) except the test data dictated the use of a Zener diode. So both have the protection. Freeman can give you more specifics if you need it or call me at home at 734-667-2968 or cell - 734-748-7781.

J. D. O'Neill

Manager, Fuel Metering, Emissions, and Ignition Dept
V-Engine Engineering, Ford Motor Company
joneall@ford.com, 313-322-6839

Subject: Updated: Mtg w/M. Freeland
Location: JJK's ofc

Start: Wed 10/2/2002 10:00 AM
End: Wed 10/2/2002 10:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Kozewnik, John (J.J.); Freeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

Update on what you are doing.

Subject: DPFE Redesign
Location: John Kozewnik's office
Start: Mon 8/23/2002 1:00 PM
End: Mon 8/23/2002 2:00 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Required Attendees: Kozewnik, John (J.J.); Fraeland, Mark (M.)
Optional Attendees: Davis, George (G.C.)

From: Kozewnik, John (J.J.)
Sent: Tuesday, September 10, 2002 1:54 PM
To: Drbn Pool Lot, QMP (.)
Cc: Freeland, Mark (M.); McCoy, James (J.D.); King, Sandra (S.M.); O'Neill, Jim (J.D.)
Subject: RE: Pool Vehicle

By copy of this note, I'm approving Mark Freeland's use of a pool car for the period shown below. Thanks in advance.

John Kozewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkozewn@ford.com

—Original Message—

From: O'Neill, Jim (J.D.)
Sent: Tuesday, September 10, 2002 1:12 PM
To: Kozewnik, John (J.J.); King, Sandra (S.M.)
Cc: Freeland, Mark (M.); McCoy, James (J.D.)
Subject: FW: Pool Vehicle

John - Please forward the below note to Dbnpool@ford.com this afternoon. Thanks.
Sandra - can you follow up with John's admin (I think her name is Jan) to make sure this happens.

I approve Mark Freeland's use of a pool car while his lease car is being evaluated for Delta PFE EGR sensor issues. He will need a pool car from Sept 11th at 2PM to Sept 13th at 4PM. Thanks

J. D. O'Neill
Manager, Fuel Metering, Emissions, and Ignition Dept
V-Engine Engineering, Ford Motor Company
joneall@ford.com, 313-322-6839

—Original Message—

From: Mack, Ed (E.T.)
Sent: Tuesday, September 10, 2002 9:27 AM
To: McCoy, James (J.D.)
Cc: O'Neill, Jim (J.D.); Freeland, Mark (M.)
Subject: RE: Pool Vehicle

Yes, with LL4 approval. Send to Dbnpool@ford.com

—Original Message—

From: McCoy, James (J.D.)
Sent: Tuesday, September 10, 2002 9:26 AM
To: Mack, Ed (E.T.)
Cc: O'Neill, Jim (J.D.); Freeland, Mark (M.)
Subject: FW: Pool Vehicle

Ed, Can you provide an answer our question listed below?

Thanks. Jim.

Regards,
Jim McCoy

ER82-827-G 12189

Fuel Metering, Emissions & Ignition Systems Engineering
Hardware Control Interface Group
V-Engine Engineering
POEB - MD#69 - Rm. D142 - Cube DF186
Phone (313) 33-79690 / Fax (313) 39-04084
E-Mail: jmcocoy1@ford.com

-----Original Message-----

From: Tokarczyk, Jim (J.J.)
Sent: Tuesday, September 10, 2002 9:02 AM
To: McCoy, James (J.D.)
Subject: RE: Pool Vehicle

Need to contact Ed Mack in Vehicle Programs (he controls the pool vehicles).

Thank You

Jim Tokarczyk

Product Development Vehicle Control

phone x76943, fax 23811

QMP 408

Vehicle Services WEB Site:

<http://www.dearborn.ford.com/tppb/PPPBV/VehicleControl/vehiclecontrol.html>

-----Original Message-----

From: McCoy, James (J.D.)
Sent: Tuesday, September 10, 2002 9:00 AM
To: Tokarczyk, Jim (J.J.)
Cc: O'Neill, Jim (J.D.); Freeland, Mark (M.)
Subject: Pool Vehicle

Jim,

We are currently working on a warranty issue and have a vehicle which is exhibiting concerns and needs to be investigated. The vehicle we need to test is a lease vehicle that belongs to an employee, Mark Freeland, here at Ford. Mark has volunteered his vehicle for testing which will take about a week.

Would it be possible to provide a pool vehicle for Mark's use while we test his vehicle? Could you let me know if this is something we can do?

Thanks Jim.

Regards,

Jim McCoy

Fuel Metering, Emissions & Ignition Systems Engineering

Hardware Control Interface Group

V-Engine Engineering

POEB - MD#69 - Rm. D142 - Cube DF186

Phone (313) 33-79690 / Fax (313) 39-04084

E-Mail: jmcocoy1@ford.com

ER02-627-G 12288

Subject: FW: Stalls Potential Root Cause
Location: John Koszewnik Conference Room POEE AA140

Start: Fri 8/30/2002 4:00 PM
End: Fri 8/30/2002 5:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszewnik, John (J.J.)
Optional Attendees: Davis, George (G.C.)

George, this is the meeting we discussed this morning.

-----Original Appointment-----

From: Porosky, Sue (S.E.) On Behalf Of Koszewnik, John (J.J.)
Sent: Wednesday, August 28, 2002 10:04 AM
To: Koszewnik, John (J.J.); Wolfe, Brian (B.C.); Aulfer, Jim (J.E.); Samardzich, Raul (R.J.); Freedland, Mark (M.)
Subject: Stalls Potential Root Cause
When: Friday, August 30, 2002 4:00 PM-5:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: John Koszewnik Conference Room POEE AA140

Subject: FW: Stalls Potential Root Cause
Location: John Koszewnik Conference Room POEE AA140

Start: Fri 8/30/2002 4:00 PM
End: Fri 8/30/2002 5:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszewnik, John (J.J.)
Optional Attendees: Davis, George (G.C.)

George, this is the meeting we discussed this morning.

—Original Appointment—

From: Porosky, Sue (S.E.) On Behalf Of Koszewnik, John (J.J.)
Sent: Wednesday, August 28, 2002 10:04 AM
To: Koszewnik, John (J.J.); Wolfe, Brian (B.C.); Auller, Jim (J.E.); Samardzich, Raul (R.J.); Frelund, Mark (M.)
Subject: Stalls Potential Root Cause
When: Friday, August 30, 2002 4:00 PM-5:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: John Koszewnik Conference Room POEE AA140

Subject: 1:1 w/Mark Freeland
Location: John Koszewnik's Office

Start: Mon 8/26/2002 12:00 PM
End: Mon 8/26/2002 1:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Koszewnik, John (J.J.); Freeland, Mark (M.)

From: Koszewnik, John (J.J.)
Sent: Tuesday, August 20, 2002 6:29 AM
To: Freeland, Mark (M.); Davis, George (G.C.)
Subject: RE: Wednesday, August 21st Meeting

Mark,

That's great. One minor change based on looking at my calendar for the day. Could we make it 2:10 p.m. please.

I have a meeting at WHQ that is supposed to end at 2:00 p.m.

I need ten minutes travel time. Thanks in advance.

John Koszewnik

Chief Engineer
V-Engine Engineering
Ph. 32-28873
Fx. 24-88067
jkoszewn@ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 7:52 PM
To: Koszewnik, John (J.J.)
Cc: Davis, George (G.C.)
Subject: RE: Wednesday, August 21st Meeting

Thank you John,

I will be at you're office at 2:00 tomorrow. I also just text paged you.

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

—Original Message—

From: Koszewnik, John (J.J.)
Sent: Monday, August 19, 2002 6:07 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.); Novak, Michele (M.)
Subject: RE: Wednesday, August 21st Meeting

Mark,

How about 2 to 3 p.m. tomorrow, Tuesday, August 20th?

ERR2-827-B 12284

If this works out for you, please text-page me so that I can make some changes to my calendar.

Of course, I would be happy to have George included in the meeting.

Looking forward to our discussion.

John Koszewnik

Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkoszewn@ford.com

-----Original Message-----

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 1:01 PM
To: Koszewnik, John (J.J.)
Subject: RE: Wednesday, August 21st Meeting

John,

I also would like to meet with you to share the insights from the work of all at FRL, but unfortunately, as I am a single father and Wednesday night is the one night every week that I get to see my children I have to leave no later than 6:00 pm that day. Also on Thursday mornings I am not in until 9:00 am for the same reason.

Can you suggest an alternative time, and I will make it fit my schedule.

George also asked me if I could include him in our follow up meeting, if that is OK with you.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

-----Original Message-----

From: Koszewnik, John (J.J.)
Sent: Sunday, August 18, 2002 5:10 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.)
Subject: Wednesday, August 21st Meeting

Mark,

As promised, I would very much like to meet with you one-on-one to discuss your work to date on potential DPFE failure modes.

Let's do it in my office at 5:00 p.m. on Wednesday, August 21st, if you're available. It's my last meeting of the day... so I will be willing to stay as long as you require.

Thanks in advance.

John Koszewski

Chief Engineer

V-Engine Engineering

Ph. 32-28973

Fx. 24-88067

jkoszewn@ford.com

From: Koszewnik, John (J.J.)
Sent: Monday, August 19, 2002 6:07 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.); Novak, Michele (M.)
Subject: RE: Wednesday, August 21st Meeting

Mark,

How about 2 to 3 p.m. tomorrow, Tuesday, August 20th?

If this works out for you, please text-page me so that I can make some changes to my calendar.

Of course, I would be happy to have George included in the meeting.

Looking forward to our discussion.

John Koszewnik

Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-88087
jkoszewn@ford.com

—Original Message—

From: Freeland, Mark (M.)
Sent: Monday, August 19, 2002 1:01 PM
To: Koszewnik, John (J.J.)
Subject: RE: Wednesday, August 21st Meeting

John,

I also would like to meet with you to share the insights from the work of all at FRL, but unfortunately, as I am a single father and Wednesday night is the one night every week that I get to see my children I have to leave no later than 5:00 pm that day. Also on Thursday mornings I am not in until 9:00 am for the same reason.

Can you suggest an alternative time, and I will make it fit my schedule.

George also asked me if I could include him in our follow up meeting, if that is OK with you.

Thanks

Regards

Mark Freeland

6-Sigma Black Belt
Engine Research Department
Ford Research Laboratory
P.O. Box 2053
MD 2629 - SRL - Room 1517
Dearborn, MI 48121-2053 USA
email: mfreela1@ford.com
Tel.: (313) 594-7645

ENG2-821-G 12287

—Original Message—

From: Koszewnik, John (J.J.)
Sent: Sunday, August 18, 2002 5:10 PM
To: Fredland, Mark (M.)
Cc: Porosky, Sue (S.E.)
Subject: Wednesday, August 21st Meeting

Mark,

As promised, I would very much like to meet with you one-on-one to discuss your work to date on potential DPFE failure modes.

Let's do it in my office at 5:00 p.m. on Wednesday, August 21st, if you're available. It's my last meeting of the day... so I will be willing to stay as long as you require.

Thanks in advance.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-88067
jkoszewn@ford.com

From: Koszewnik, John (J.J.)
Sent: Sunday, August 18, 2002 5:10 PM
To: Freeland, Mark (M.)
Cc: Porosky, Sue (S.E.)
Subject: Wednesday, August 21st Meeting

Mark,

As promised, I would very much like to meet with you one-on-one to discuss your work to date on potential DPFE failure modes.

Let's do it in my office at 5:00 p.m. on Wednesday, August 21st, if you're available. It's my last meeting of the day... so I will be willing to stay as long as you require.

Thanks in advance.

John Koszewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-86067
jkozewn@ford.com

From: Kozzewnik, John (J.J.)
Sent: Thursday, May 16, 2002 3:40 PM
To: King, Sandra (S.M.)
Cc: Maurer, James (J.B.); Freeland, Mark (M.); Gates, Freeman (F.C.); Plants, Paul (P.G.)
Subject: FW: Analytical Solutions Trip Approval

Approved.

John Kozzewnik
Chief Engineer
V-Engine Engineering
Ph. 32-28973
Fx. 24-88087
jkozze@ford.com

—Original Message—

From: King, Sandra (S.M.)
Sent: Wednesday, May 15, 2002 1:40 PM
To: Kozzewnik, John (J.J.)
Cc: DeSpiri, Margaret (M.M.); Gates, Freeman (F.C.)
Subject: FW: Analytical Solutions Trip Approval

Freeman Gates said this is an emergency trip that has just come up and is seeking your approval.

Aloha,

Sandra M. King

Administrative Assistant to J.D. O'Neill, Ford Motor Company, FMEI Dept. 5100N415, V-Engine Engineering, Telephone (313) 322-3196, Fax (313) 390-4084, e-mail address sking4@ford.com

—Original Message—

From: Gates, Freeman (F.C.)
Sent: Wednesday, May 15, 2002 12:33 PM
To: King, Sandra (S.M.)
Cc: Maurer, James (J.B.); Freeland, Mark (M.); Gates, Freeman (F.C.); Plants, Paul (P.G.)
Subject: Analytical Solutions Trip Approval



Travel
Request1.doc

Freeman Gates
Senior EGR Systems Technical Specialist
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POEE Rm D-138 CM-173

COMMERCIAL TRAVEL APPROVAL FORM

Freeman Gates	5/19-5/21	Albuquerque, NM	1500	Visit outside laboratory (Analytical Solutions) to discuss plan/procedure for Kavlico DPFE Sensor failure analysis.	Jim Oneall
Mark Freeland	5/19-5/21	Albuquerque, NM	1500	" "	Jim Oneall
Jim Maurer	5/19-5/21	Albuquerque, NM	1500	" "	Jim Oneall
Ed Sickafus	5/19-5/21	Albuquerque, NM	1500	" "	Jim Oneall

John Koszewnik, Chief Engineer