

PE03-044

FORD

5/13/2005

APPENDIX I

BOOK 21 OF 28

PART 4 OF 4

From: MacLeod, Randy [Randy.MacLeod@alcoa.com]
Sent: Friday, June 06, 2003 9:00 AM
To: McConnell, Roger A.
Cc: Abar, Robert (R.B.); West, Gregory (G.S.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Roger,

We have a warranty issue with the ETC circuits near the shock tower area in 2002 MY P131/U137. Greg West (313) 845-9401 is requesting that we confirm his statements in the TSB which is attached. The 640 circuit is in the 14401 and does not go underhood. Greg is requesting the history of design changes to this area to see if this concern was addressed in the past so he can know which vehicles to target.

Randy MacLeod, AFL, systems, <mailto:Randy.MacLeod@alcoa.com>
(313)436-8708 Fax:(313)436-8780 Pager:(313)796-9029

—Original Message—

From: West, Gregory (G.S.) [<mailto:gwest2@ford.com>]
Sent: Friday, June 06, 2003 8:13 AM
To: 'Randy.MacLeod@alcoa.com'
Cc: Abar, Robert (R.B.)
Subject: FW: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures
Importance: High

Randy, please read the TSB in the attached file and let me know if it's OK from an AFL perspective. Specifically is the statement about circuit 640 not routing in the same area as the other ETC circuits correct?

Thanks

—Original Message—

From: Abar, Robert (R.B.)
Sent: Friday, June 06, 2003 7:47 AM
To: Hale, Curt (B.C.); Williams, Brent (B.A.); Ambruster, Phil (P.J.); Liposky, Lawrence (L.J.); West, Gregory (G.S.)
Cc: Figurski, Patrick (P.M.); Abar, Robert (R.B.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures
Importance: High

All,
Updated TSB for your review.

Curt,
I would like to get it started into the TSB review process early next week after we pull together any final comments.

Phil,
How do we get the wiring inspection and corrective action added to Customer Satisfaction Program 03B03 for those vehicles built before Dec 2001?

10/2/2003

PE03-044 8551

Robert B. Abar

Manager, Powertrain

(313) 64-64247 FAX:(313) 24-88073 rabar@ford.com
Room: 1CP25/Richards Ct #4 Mail Drop: LM410

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

From: Abar, Robert (R.B.)

Sent: Thursday, May 15, 2003 3:16 PM

To: Hale, Curt (B.C.)

Cc: Abar, Robert (R.B.); Williams, Brent (B.A.); Ambruster, Phil (P.J.); Figurski, Patrick (P.M.); Liposky, Lawrence (L.J.); West, Gregory (G.S.)

Subject: FW: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Curt,

Updated draft to start thru the TSB process.

Robert B. Abar

Manager, Powertrain

(313) 64-64247 FAX:(313) 24-88073 rabar@ford.com
Room: 1CP25/Richards Ct #4 Mail Drop: LM410

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

From: Williams, Brent (B.A.)

Sent: Thursday, May 15, 2003 2:33 PM

To: Abar, Robert (R.B.); Hale, Curt (B.C.); West, Gregory (G.S.)

Cc: Ambruster, Phil (P.J.); Figurski, Patrick (P.M.); Liposky, Lawrence (L.J.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

I have updated electrical statements.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-338-7286

Email: bwillia8@ford.com

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

From: Abar, Robert (R.B.)

Sent: Thursday, May 15, 2003 12:10 PM

To: Hale, Curt (B.C.); Williams, Brent (B.A.); West, Gregory (G.S.)

Cc: Ambruster, Phil (P.J.); Figurski, Patrick (P.M.); Liposky, Lawrence (L.J.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Rough draft of TSB content is attached below.

10/2/2003

PEB3-044 8352

Greg,

Any codes or other diagnostics that should be included in the TSB to further define the issue.

Brent,

Need electrical team to verify wiring info / add wire repair procedure and action required to prevent recurrence.

Curt,

What else will the team need to supply?

Robert B. Abar

Manager, Powertrain

(313) 64-54247 FAX:(313) 24-88873 rabar@ford.com

Room: 1CP20Rokunda Ct #4 Mail Drop: LM478

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

From: Hale, Curt (B.C.)

Sent: Thursday, May 08, 2003 8:05 AM

To: Abar, Robert (R.B.); Williams, Brent (B.A.)

Cc: Liposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.); West, Gregory (G.S.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

We have to have the draft test for the TSB from whomever before we can begin the process.

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

From: Abar, Robert (R.B.)

Sent: Thursday, May 08, 2003 7:58 AM

To: Williams, Brent (B.A.); Hale, Curt (B.C.)

Cc: Liposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.); West, Gregory (G.S.); Abar, Robert (R.B.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

What is timing for TSB (Oasis/SSM/etc) addressing the wiring?

Robert B. Abar

Manager, Powertrain

(313) 64-54247 FAX:(313) 24-88873 rabar@ford.com

Room: 1CP20Rokunda Ct #4 Mail Drop: LM478

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

From: Williams, Brent (B.A.)

Sent: Thursday, May 08, 2003 7:38 AM

To: Abar, Robert (R.B.); West, Gregory (G.S.)

Cc: Liposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.); Hale, Curt (B.C.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

10/2/2003

PE83-844 8333

Robert,

All of the circuits except 640 do in fact go to the suspect connector/wiring that was potentially shorted to shock tower.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-336-7285

Email: bwillie8@ford.com

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

From: Abar, Robert (R.B.)

Sent: Thursday, May 08, 2003 7:27 AM

To: West, Gregory (G.S.); Williams, Brent (B.A.)

Cc: Liposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.);

Hale, Curt (B.C.); Abar, Robert (R.B.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Greg,

Can you provide the specific circuit that Brent is requesting that is generating the failure?

Brent,

The accelerator pedal circuits at connector C2040 14401 Accelerator pedal position sensor are as follows:

pin 6 circuit 640 (RD/YE) Voltage supplied in Start and Run (overload protected)

pin 7 circuit 1285 (RD/LG) Idle validation switch, signal

pin 8 circuit 355 (GY/WH) Accelerator pedal position sensor, signal

pin 9 circuit 357 (YE/WH) Accelerator pedal position sensor, ground

pin 10 circuit 351 (BN/RD) Reference voltage

Into connectors C139 for Pickup & C133 for Excursion

From there into C175 at powertrain control module

Independent of Greg's response do any of these circuits go thru the are near the shock tower?

Robert B. Abar

Manager, Powertrain

(313) 64-64247 FAX:(313) 24-88079 rabar@ford.com

Room: PCP26/Roberts Ct #4 Mail Drop: LM410

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

From: Williams, Brent (B.A.)

Sent: Wednesday, May 07, 2003 9:54 AM

To: Abar, Robert (R.B.); Hale, Curt (B.C.)

Cc: West, Gregory (G.S.); Liposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.);

Figurski, Patrick (P.M.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

10/2/2003

PE83-844 8554

Still one question that was never answered from my standpoint.....Can anyone tell me was circuit # or pin that could have the potential shorting condition to cause the failure modes seen with the pedals? I would like to trace the path of the circuit to see if it even runs near the shock tower.
Thanks.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-338-7285

Email: bwilla8@ford.com

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

From: Abar, Robert (R.B.)

Sent: Wednesday, May 07, 2003 9:36 AM

To: Williams, Brent (B.A.); Hale, Curt (B.C.)

Cc: West, Gregory (G.S.); Abar, Robert (R.B.); Liposky, Lawrence (L.J.); Armbruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.)

Subject: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Importance: High

Brent / Curt,

We started seeing repeat repairs on 2002 F-series HD vehicles that have the 03B03 Recall level -9F836-DE accelerator pedal assy's on them. They are coming back with usually less than 5000 miles on them and usually within two months of the replacement.

Highest frequency of repeat repairs are in the early builds when the wire chafing issue was a potential as indicated by the following data on repeat repairs. (this data includes repeats for earlier level -DA and fix level -DE pedal assys)

Jul 01 - 6

Aug 01 - 6

Sep 01 - 12

Oct 01 - 38

Nov 01 - 30

Dec 01 - 41

Jan 02 - 51

Feb 02 - 6

Mar 02 - 7

Apr 02 - 2

May 02 - 4

Jun 02 - 3

Jul 02 - 0

Aug 02 - 4

Sept 02 - 4

In order to reduce repeat repairs and reduce the mechanics diagnostic time associated with the repeat repairs please issue a TSB to the field instructing them where to look for the potential chafing issue, especially for the builds prior to Feb 02. Can an Oasis or SSM go out ahead of the TSB?

10/2/2003

PE83-044 0555

Robert B. Abar

Manager, Powertrain

(313) 84-54247 FAX(313) 24-89073 rbar@ford.com

Room: 1CP20Rokade Ct #4 Mail Drop: LM418

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

From: West, Gregory (G.S.)

Sent: Tuesday, May 06, 2003 3:53 PM

To: Abar, Robert (R.B.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LC010

FYI

Call when you get a chance and I'll explain the pictures.

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

From: Williams, Brent (B.A.)

Sent: Tuesday, May 06, 2003 3:42 PM

To: West, Gregory (G.S.)

Cc: West, Craig (C.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LC010

Here you go Greg, Sorry Craig, delete the previous note.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-336-7285

Email: bwillia8@ford.com

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

From: Williams, Brent (B.A.)

Sent: Tuesday, May 06, 2003 3:34 PM

To: West, Craig (C.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LC010

take a look at these pics and give me a call.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-336-7285

Email: bwillia8@ford.com

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

From: Leese, Michael (M.V.)

Sent: Thursday, October 04, 2001 11:14 AM

To: Williams, Brent (B.A.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LC010

10/2/2003

PE83-844 8256

FYI...

I also have another dealership whom said he would send us a picture. This other truck was also a F550 4X2.

Thank you, best regards and have a great TODAY!

Michael V. Leese

FIS/0137 Plant Vehicle Team- Electrical EEE/RTsT

Kentucky Truck Plant

ph: (502) 428-2506, pager: (333) 788-7178

email: mleesel@ford.com

—Original Message—

From: Evenhouse, Phil (P.J.)

Sent: Thursday, October 04, 2001 8:49 AM

To: Ayotte, Albert (A.P.); Michalek, Gregory (G.B.); Kuzdek, Kurt (K.M.); Scherrin, Jesse (J.); Moncikovich, Michael (M.); Gardner, James (J.R.); Klein, Mark (M.A.); Bonnema, Grant (G.); Leese, Michael (M.V.); Smith, Ryan (R.E.)

Cc: Barrett, Malcolm (M.C.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQ15 #11LCX010

Gentlemen, FYI

Shop Foreman Larry Simon of Don Sanderson Ford in Arizona sent this picture of harness rubbing driver's side shock tower and causing no accel by interrupting IVS signal.

This was a 2002 F550 4X2 R/C Chassis Cab with Flaibed built 8/8/01 and 10 miles on the odometer.

Dealer put two pedals on this unit and ran 5V in place of B+ to IVS portion of switch (as a test only) before finding chaff, repaired wiring, restoring B+ to IVS, and deeming concern fixed.

Same dealer told of another stock unit on which the starter would stay engaged when applying pressure to fuse panel....replaced CJB....still had concern....traced issue to when moving fuse panel was actually moving underhood harness which was chaffed to the LH shock tower...both units are fixed at this point.

I think the grey/white and brown/white wires in the picture are for AP signal, but its hard to see.

This is for information update purposes only to inform everyone of what we and the dealers are seeing.

Phil Evenhouse, 78334

Tech Hotline Diesel Group Leader

—Original Message—

From: GCHUNT@aol.com [mailto:GCHUNT@aol.com]

Sent: Wednesday, October 03, 2001 1:30 PM

To: PEVENHOU@ford.com

Subject: PICTURES OF F550 SHOCK TOWER INTERFERENCE

HERE YOU GO.....LET ME KNOW IF YOU HAVE ANY QUESTIONS.....623-642-8601

10/2/2003

PE83-844 8557

TSB - revised 6/6/03

Accelerator pedal assembly (-9F836-) with repeat repairs for failed pedal sensor on 2002 MY F-SD with 7.3L Diesel (built before Dec 2001)

On subject vehicles that are experiencing repeat repairs of -9F836- accelerator pedal assemblies and/or diagnostic codes P0122, or P0123, or P0221 verify that no shorting or chafing condition exist on the 14401 wire assembly at the left hand shock tower.

The accelerator pedal circuits at connector C2040 14401 Accelerator pedal position sensor are as follows:
pin 6 circuit 640 (RD/YE) Voltage supplied in Start and Run (overload protected)
pin 7 circuit 1285 (RD/LG) Idle validation switch, signal
pin 8 circuit 335 (GY/WH) Accelerator pedal position sensor, signal
pin 9 circuit 337 (YE/WH) Accelerator pedal position sensor, ground
pin 10 circuit 351 (BN/RD) Reference voltage

All of these circuits except 640 route near the shock tower and should be inspected.

If damage or wiring circuits touch or route near the left hand shock tower, repair the shorted or damaged wire and add convolute to protect the wire or use a wire tie strap to retain wiring clear of the shock tower.

From: MacLeod, Randy [Randy.MacLeod@alcoa.com]
Sent: Monday, June 02, 2003 9:22 AM
To: Overmire, Jeffrey B.
Cc: West, Gregory (G.S.)
Subject: RE: 2002 7.3L 14401 wiring issues

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

From: West, Gregory (G.S.) [mailto:gwest2@ford.com]
Sent: Monday, June 02, 2003 9:19 AM
To: 'MacLeod, Randy'
Cc: Abar, Robert (R.B.); Figurski, Patrick (P.M.); Liposky, Lawrence (L.J.); Kramer, Michael (M.T.); West, Gregory (G.S.)
Subject: 2002 7.3L 14401 wiring issues

Thanks for the info Randy, I'm aware of the following 14401 circuits affected in the area of the shock tower:

640 R/S power for ETC
1285 IVS for ETC
355 AP for ETC
357 APGRD for ETC
351 VREF for ETC
39, TEMPERATURE GAGE TO TEMPERATURE SENDING UNIT, Red, White
45, HOT WATER TEMPERATURE RELAY TO HOT WATER TEMPERATURE SENDING UNIT, Yellow, Red
142, DIESEL FUEL FILTER WARNING LAMP INDICATOR FEED, Lt Blue, Red
238, MODULE, POWERTRAIN CONTROL TO FUEL PUMP MONITOR /FUEL PUMP RELAY TO SAFETY SWITCH, Dk Green, Yellow
787, FUEL PUMP POWER, Pink, Black

Can you tell me if any additional circuits are affected and have AFL look into any warranty spikes related to these affected components from 2002 job #1 through December 2002. Thanks in advance.

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

From: MacLeod, Randy [mailto:Randy.MacLeod@alcoa.com]
Sent: Monday, June 02, 2003 7:52 AM
To: Gregory West (G.S.) (E-mail)
Subject: 2C3T-14401-JP_JV

These are the harnesses you requested. The release dates are on the file names.

Randy MacLeod, AFL, systems, mailto:Randy.MacLeod@alcoa.com
(313)436-8708 Fax:(313)436-8780 Pager:(313)796-9029

From: West, Gregory (G.S.)
Sent: Monday, June 02, 2003 9:19 AM
To: MacLeod, Randy
Cc: Abar, Robert (R.B.); Figurski, Patrick (P.M.); Liposky, Lawrence (L.J.); Kramer, Michael (M.T.); West, Gregory (G.S.)
Subject: 2002 7.3L 14401 wiring issues

Thanks for the info Randy, I'm aware of the following 14401 circuits affected in the area of the shock tower:

640 R/S power for ETC
1285 IVS for ETC
355 AP for ETC
357 APGRD for ETC
351 VREF for ETC
39, TEMPERATURE GAGE TO TEMPERATURE SENDING UNIT, Red, White
45, HOT WATER TEMPERATURE RELAY TO HOT WATER TEMPERATURE SENDING UNIT, Yellow, Red
142, DIESEL FUEL FILTER WARNING LAMP INDICATOR FEED, Lt Blue, Red
238, MODULE, POWERTRAIN CONTROL TO FUEL PUMP MONITOR /FUEL PUMP RELAY TO SAFETY SWITCH, Dk Green, Yellow
787, FUEL PUMP POWER, Pink, Black

Can you tell me if any additional circuits are affected and have AFL look into any warranty spikes related to these affected components from 2002 job #1 through December 2002. Thanks in advance.

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

From: MacLeod, Randy [mailto:Randy.MacLeod@alcoa.com]
Sent: Monday, June 02, 2003 7:52 AM
To: Gregory West (G.S.) (E-mail)
Subject: 2C3T-14401-JP JV

These are the harnesses you requested. The release dates are on the file names.

Randy MacLeod, AFL, systems, <mailto:Randy.MacLeod@alcoa.com>
(313) 436-8708 Fax: (313) 436-8780 Pager: (313) 796-9029

From: West, Gregory (G.S.)
Sent: Friday, May 30, 2003 3:13 PM
To: Pascany, Ken (K.M.); Aber, Robert (R.B.)
Cc: Kromberg, Arnold (A.W.); West, Gregory (G.S.); Liposky, Lawrence (L.J.); Figurski, Patrick (P.M.)
Subject: 7.3L wiring short investigation

FYI, got this VIN from an old WMCO 8D.

The truck is 2WD

Note the last tech comment that the red/lt green wire was shorting, that's circuit 1285 (IVS) and it each time (4) set P0221 codes.

Bob, can you have a detailed search done thru AWS to match up tech comments that state exactly what wire was repaired, what code was set, 2 or 4 WD and who's pedal failed.

We're finding the WMCO pedals more susceptible to failure than the TFX pedal.

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

From: Case, Joseph (J.E.)
Sent: Friday, May 30, 2003 2:07 PM
To: West, Gregory (G.S.)
Subject:


1FDJAF56F42

Greg,

The link above shows several claims for this VIN. Looks like a 2002 MY >8500 F

Joe Case
SUV and Body-on-Frame
Quality Strategy
(313) 39-06223 RC4

From: West, Gregory (G.S.)
Sent: Friday, July 11, 2003 2:18 PM
To: Liposky, Lawrence (L.J.); Wolfe, Brian (B.C.); Figurski, Patrick (P.M.); Auler, Jim (J.E.); Logel, Jay (J.D.)
Cc: West, Gregory (G.S.)
Subject: FW: P code information



P code information

The attached note just came from Teleflex requesting the following info. Should I pursue?
I have the pinpoint test as a word file.
I can easily get them the DTC code list/definitions
They can purchase the wiring schematics from the dealerships I believe.

Hardware side, we would like to have,

1. Vehicle wiring diagram.
2. Harness drawings, which should cover from ETC pedal to PCM
3. PCM circuit schematics related to ETC pedal, which should cover power feeds to the pedal and input circuit for the pedal signals.
4. Hardware change logs, which should include wiring change, harness change and PCM circuit change, etc.

Software side,

1. Code definitions of P0123, P0122, P0220, P0221, CC42, CC28, P1000, P1111 and P1211.
2. Detail processing flowcharts of ETC pedal signals.
3. Detail logics (flowcharts and software coding) of the pedal related P-codes.
4. Firmware/Software change logs.

We would also like to have information of Pinpoint testing hardware and procedure.

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

From: Bill Teller (mailto:bteller@tfxauto.com)
Sent: Friday, July 11, 2003 12:34 PM
To: Greg West
Cc: Charlie Meier; Bob Belanger
Subject: Fwd: P code information

Greg - See below for our requested information on the P-Codes. Thanks in advance.

From: Jiyuen Ouyang [jouyang@fbxauto.com]
Sent: Friday, July 11, 2003 11:03 AM
To: Bill Teller
Cc: Charita Meier
Subject: P code information

Bill,

Hardware side, we would like to have,

1. Vehicle wiring diagram.
2. Harness drawings, which should cover from ETC pedal to PCM
3. PCM circuit schematics related to ETC pedal, which should cover power feeds to the pedal and input circuit for the pedal signals.
4. Hardware change logs, which should include wiring change, harness change and PCM circuit change, etc.

Software side,

1. Code definitions of P0123, P0122, P0220, P0221, CC42, CC28, P1000, P1111 and P1211.
2. Detail processing flowcharts of ETC pedal signals.
3. Detail logics (flowcharts and software codlog) of the pedal related P-codes.
4. Firmware/Software change logs.

We would also like to have information of Pinpoint testing hardware and procedure.

George

From: Pascany, Ken (K.M.)
Sent: Thursday, May 22, 2003 2:34 PM
To: West, Gregory (G.S.)
Cc: Perry, Brian (B.J.)
Subject: FW: Request for Information

Greg,

The Service Publications wiring diagrams web page is not working today. Perhaps I can access the schematics tomorrow.

From the drawing of the fixed pedal assembly (1C34-9F836-BB), it looks like the IVS is a normally open switch (at idle) with a 510 ohm resistor to ground. Depressing the pedal closes the switch and presents battery voltage to the PCM Input on J1-10. The P0221 code is associated exclusively with the IVS circuit and it indicates a "failed pedal assembly." It looks like that matches with your experiment of shorting IVS to ground through the break-out box and failing the switch.

The codes P0122 and P0123 are for the accelerator position signal portion of the pedal sensor, with P0221 indicating a grounded input and P0123 indicating either an open circuit or a short to power.

The drawing for the adjustable pedal assembly (2C34-9F836-DC) does not have any schematic information to analyze. I assume the circuit is the same as the fixed pedal (?). Do you know if the engineering specifications for these parts contain any information about the electrical function of the pedal sensor/switch?

Regards,

Ken Pascany, kpascany@ford.com
Voice, fax: 313-248-4669
P/T Electronic Applications
POEE Building, Mail Drop 75, BH177
21500 Oakwood Boulevard
Dearborn, MI 48124-4091

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

From: Pascany, Ken (K.M.)
Sent: Thursday, May 22, 2003 7:21 AM
To: West, Gregory (G.S.)
Subject: Request for Information

Greg,

Brian Perry asked me to contact you regarding questions you have about pedal position sensors. Please let me know how I can be of assistance. Thank you.

Regards,

Ken Pascany, kpascany@ford.com
Voice, fax: 313-248-4669
P/T Electronic Applications
POEE Building, Mail Drop 75, BH177
21500 Oakwood Boulevard
Dearborn, MI 48124-4091

From: Williams, Brent (B.A.)
Sent: Monday, May 12, 2003 3:07 PM
To: West, Gregory (G.S.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

The 14401 does not distinguish between 4x4 and 4x2, only if 4x4 is ESOF so the following parts are related

For Super Duty
2C3T-14401-G*

H*

J*

V*

X*

R*

For Excursion
2C7T-14401-G, J, K, L, P, R & T Levels are potentially affected.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-336-7285

Email: bwillia8@ford.com

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

From: West, Gregory (G.S.)
Sent: Monday, May 12, 2003 2:13 PM
To: Williams, Brent (B.A.)
Cc: West, Gregory (G.S.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Brent, I need the 14401 part numbers that are related to 7.3L, Adj pedals, 4X4, SD and Excursion.
Thanks

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

From: Williams, Brent (B.A.)
Sent: Thursday, May 08, 2003 3:07 PM
To: West, Gregory (G.S.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

We have 6 different levels of parts do you need all?

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-336-7285

Email: bwillia8@ford.com

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

From: West, Gregory (G.S.)
Sent: Thursday, May 08, 2003 2:39 PM
To: Williams, Brent (B.A.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Brent, what is the full part number for the 14401 that we're dealing with on the diesel?

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

From: Hale, Curt (B.C.)
Sent: Thursday, May 08, 2003 6:05 AM
To: Abar, Robert (R.B.); Williams, Brent (B.A.)
Cc: Uposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.); West, Gregory (G.S.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

We have to have the draft test for the TSB from whomever before we can begin the process.

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

From: Abar, Robert (R.B.)
Sent: Thursday, May 08, 2003 7:58 AM
To: Williams, Brent (B.A.); Hale, Curt (B.C.)
Cc: Uposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.); West, Gregory (G.S.); Abar, Robert (R.B.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

What is timing for TSB (Oasis/SSM/etc) addressing the wiring?

Robert B. Abar

Manager, Powertrain

(313) 84-64247 FAX(313) 24-80073 rabar@ford.com
Room: 1CP26/Fordville CI #4 Mail Drop: LM410

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

From: Williams, Brent (B.A.)
Sent: Thursday, May 08, 2003 7:38 AM
To: Abar, Robert (R.B.); West, Gregory (G.S.)
Cc: Uposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.); Hale, Curt (B.C.)
Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Robert,

All of the circuits except 640 do in fact go to the suspect connector/wiring that was potentially shorted to shock tower.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP
Phone: 502-429-2979
Pager: 502-336-7285
Email: bwillia8@ford.com

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

From: Abar, Robert (R.B.)

Sent: Thursday, May 08, 2003 7:27 AM

To: West, Gregory (G.S.); Williams, Brent (B.A.)

Cc: Liposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.); Hale, Curt (B.C.); Abar, Robert (R.B.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Greg,

Can you provide the specific circuit that Brent is requesting that is generating the failure?

Brent,

The accelerator pedal circuits at connector C2040 14401 Accelerator pedal position sensor are as follows:

pin 6 circuit 840 (RD/YE) Voltage supplied in Start and Run (overload protected)

pin 7 circuit 1286 (RD/LG) Idle validation switch, signal

pin 8 circuit 355 (GY/WH) Accelerator pedal position sensor, signal

pin 9 circuit 357 (YE/WH) Accelerator pedal position sensor, ground

pin 10 circuit 351 (BN/RD) Reference voltage

Into connectors C139 for Pickup & C133 for Excursion

From there into C175 at powertrain control module

Independent of Greg's response do any of these circuits go thru the area near the shock tower?

Robert B. Abar

Manager, Powertrain

(313) 84-64247 FAX:(313) 24-88073 rbar@ford.com
Room: NCP20/Rokanda Cl 84 Mail Stop: LM410

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

From: Williams, Brent (B.A.)

Sent: Wednesday, May 07, 2003 9:54 AM

To: Abar, Robert (R.B.); Hale, Curt (B.C.)

Cc: West, Gregory (G.S.); Liposky, Lawrence (L.J.); Ambruster, Phil (P.J.); Reed Jr., Bill (W.P.); Williams Jr., James (J.P.); Figurski, Patrick (P.M.)

Subject: RE: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Still one question that was never answered from my standpoint.....Can anyone tell me was circuit # or pin that could have the potential shorting condition to cause the failure modes seen with the pedals? I would like to trace the path of the circuit to see if it even runs near the shock tower.

Thanks.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-336-7285

Email: bwillia8@ford.com

—Original Message—

From: Abar, Robert (R.B.)

Sent: Wednesday, May 07, 2003 9:36 AM

To: Williams, Brent (B.A.); Hale, Curt (B.C.)

Cc: West, Gregory (G.S.); Abar, Robert (R.B.); Lipsky, Lawrence (L.J.); Armbruster, Phil (P.J.); Reed Jr., Bill (W.P.);

Williams Jr., James (J.P.); Figurski, Patrick (P.M.)

Subject: Request to have TSB for Wire Chafing Affecting Accelerator Pedal Failures

Importance: High

Brent / Curt,

We started seeing repeat repairs on 2002 F-series HD vehicles that have the 03B03 Recall level - 9F836-DE accelerator pedal assy's on them. They are coming back with usually less than 5000 miles on them and usually within two months of the replacement.

Highest frequency of repeat repairs are in the early builds when the wire chafing issue was a potential as indicated by the following data on repeat repairs. (This data includes repeats for earlier level -DA and fix level -DE pedal assys)

Jul 01 - 6

Aug 01 - 6

Sep 01 - 12

Oct 01 - 38

Nov 01 - 30

Dec 01 - 41

Jan 02 - 51

Feb 02 - 6

Mar 02 - 7

Apr 02 - 2

May 02 - 4

Jun 02 - 3

Jul 02 - 0

Aug 02 - 4

Sept 02 - 4

In order to reduce repeat repairs and reduce the mechanics diagnostic time associated with the repeat repairs please issue a TSB to the field instructing them where to look for the potential chafing issue, especially for the builds prior to Feb 02. Can an Oasis or SSM go out ahead of the TSB?

Robert B. Abar

Manager, Powertrain

(313) 84-64247 FAX:(313) 24-89073 rabar@ford.com
Route: 1CP2B/Rtdjundh CI #4 Web Drop: LAM1D

—Original Message—

From: West, Gregory (G.S.)

Sent: Tuesday, May 06, 2003 3:53 PM

To: Abar, Robert (R.B.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LC010

FYI

Call when you get a chance and I'll explain the pictures.

—Original Message—

From: Williams, Brent (B.A.)

Sent: Tuesday, May 06, 2003 3:42 PM

To: West, Gregory (G.S.)

Cc: West, Craig (C.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LCX010

Here you go Greg. Sorry Craig, delete the previous note.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-338-7285

Email: bwillia8@ford.com

—Original Message—

From: Williams, Brent (B.A.)

Sent: Tuesday, May 06, 2003 3:34 PM

To: West, Craig (C.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LCX010

take a look at these pics and give me a call.

Brent Williams

Electrical PVT - Super Duty/Excursion - KTP

Phone: 502-429-2979

Pager: 502-338-7285

Email: bwillia8@ford.com

—Original Message—

From: Leese, Michael (M.V.)

Sent: Thursday, October 04, 2001 11:14 AM

To: Williams, Brent (B.A.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS #11LCX010

FYI...

I also have another dealership whom said he would send us a picture. This other truck was also a F550 4X2.

Thank you, best regards and have a great TODAY!

Michael V. Leese

F51/W137 Heavy Vehicle Team- Electrical ESE/BVt

Kentucky Truck Plant

ph: (502) 419-2558, fax: (513) 704-7176

email: mleese1@ford.com

—Original Message—

From: Evenhouse, Phil (P.J.)

Sent: Thursday, October 04, 2001 8:49 AM

To: Ayotte, Albert (A.P.); Michalek, Gregory (G.B.); Kuzdek, Kurt (K.M.); Schemm, Jesse (J.); Mondlovich, Michael (M.); Gardner, James (J.R.); Klein, Mark (M.A.); Bonnema, Grant (G.); Leese, Michael (M.V.); Smith, Ryan (R.E.)

Cc: Barrett, Malcolm (M.C.)

Subject: FW: PICTURES OF F550 SHOCK TOWER INTERFERENCE CQIS # 11LC01D

Gentlemen, FYI

Shop Foreman Larry Simon of Don Sanderson Ford in Arizona sent this picture of harness rubbing driver's side shock tower and causing no accel by interrupting IVS signal.

This was a 2002 F550 4X2 R/C Chassis Cab with Flatbed built 8/8/01 and 10 miles on the odometer.

Dealer put two pedals on this unit and ran 5V in place of B+ to IVS portion of switch (as a test only) before finding chaffe, repaired wiring, restoring B+ to IVS, and dearming concern fixed.

Same dealer told of another stock unit on which the starter would stay engaged when applying pressure to fuse panel....replaced CJB....still had concern....traced issue to when moving fuse panel was actually moving underhood harness which was chaffed to the LH shock tower...both units are fixed at this point.

I think the grey/white and brown/white wires in the picture are for AP signal, but its hard to see.

This is for information update purposes only to inform everyone of what we and the dealers are seeing.

Phil Evenhouse, 79334

Tech Hotline Diesel Group Leader

—Original Message—

From: GCHUNT@aol.com [mailto:GCHUNT@aol.com]

Sent: Wednesday, October 03, 2001 1:30 PM

To: PEVENHOU@ford.com

Subject: PICTURES OF F550 SHOCK TOWER INTERFERENCE

HERE YOU GO.....LET ME KNOW IF YOU HAVE ANY QUESTIONS.....823-842-8601

From: David B. Lydy [dblydy@wineternail.com]
Sent: Friday, December 08, 2000 11:22 AM
To: Bill Teller
CC: Lisa Petrauska; Phil Beuckelaere; Joe Slachta; Rob Soleros; Steve Ross; Fred Dshaw
Subject: P131 Bracket

Dear Bill,

As a result of our meeting on Nov. 30, 2000, it was agreed that in order to hold a 0.5mm coaxiality tolerance on the pivot holes, it would take a separate cam/pierce operation and a gauge. It was also agreed that this operation could not be incorporated into our existing progressive die lineup. Therefore, our recommendation was for KSR to continue to stamp this bracket for you, pull the punches for the pivot holes, and have you cam/pierce the pivot holes at your facility.

Should you have any questions, please contact me.

David B. Lydy
248-354-4690

From: Mike Foreman [mforeman@fbcauto.com]
Sent: Friday, September 27, 2002 11:15 AM
To: Zulqarnain Khan; guest2@ford.com; mcam@fbcauto.com
Cc: gbraniff@fbcauto.com; kzkhan@fbcauto.com
Subject: Re: Alert for P131/U137 with Adj Accel Pedal



Card for
mforeman@fbcauto.com

We got a copy of the alert this morning. Thanks for the quick response.

So everyone can tell the difference between old vs new, I plan to do two things:

1. The regular barcode label will show the latest -DE part number (but we'll ship under the -DD).
2. We will put a green dot on the ETC covers, in place of the current yellow dot, until PPAP approval and part numbers are updated in the ordering system. When this happens, we should no longer need the alert.

If anyone has issues with this plan, please notify me as soon as possible.

Thanks,
Mike

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

From: "Zulqarnain Khan" <zkhan1@fbcauto.com>
Date: Friday, September 27, 2002 7:26 am
Subject: Alert for P131/U137 with Adj Accel Pedal

> Mike :
>
> The alert written to deliver parts for 2C34-9F836-DE is A11415042
>
> Khan
>
>
>
>

Full Name: Mike Foreman
Last Name: Foreman
First Name: Mike
Job Title: Sr. Manufacturing Engineer
Department: Kendallville
Company: Teleflex

Other Address: 301 West Ohio Street
Kendallville, IN 46755-2017

Business: 260-349-1985
Business Fax: 260-349-1983

E-mail: mforeman@fxauto.com

From: West, Gregory (G.S.)
Sent: Tuesday, September 24, 2002 12:16 PM
To: Greg Braniff (E-mail); Mike Foreman (E-mail); 'zkham1@trauto.com'
Cc: West, Gregory (G.S.); Liposky, Lawrence (L.J.)
Subject: 3 track guard band

Based off the info I received from your KTP FEU data collection the following are my recommendation for a Kendallville guard band:

Track 1	78.25 to 82.25	data indicated a 1% shift up on average
Track 2	27.2 to 30.70	data indicated a 1.5% shift up on average
Track 3	18.2 to 19.7	data indicated a 1.5% shift up on average

I realize this is based on 30 pieces but the direction of the shift is very consistent.

I highly recommend getting this same data for IB, and also incorporating the shift seen in KLT

From: Conrad, James (J.A.)
Sent: Wednesday, May 10, 2000 8:28 AM
To: Drew Homovic; DURAND; GCORNETE; kdavies; PBOYES; Abbasi, Basel (B.A.); Amato, Raymond (R.J.); Antal, Jim (J.J.); Barrera, Carlos (C.M.); Birtcher, Terese (T.A.); Bass, Raymond (R.); Breckenridge, Guy (G.A.); Brooks, Brett (B.G.); Budzynski, Dan (D.J.); Burrows, Jim (J.A.); Carr, Richard (R.T.); Chesney, Craig (C.D.); Cicalo, Jim (J.T.); Cook, Mike (W.M.); Dalton, Joel (J.D.); Engle, Jim (J.J.); Engler, Dan (D.K.); Florini, John (J.J.); Fodera, Jas (J.J.); Gew, Ron (R.M.); Gilbert, Mike (T.M.); Gilcho, Garry (G.); Green, Don (D.L.); Groves Jr., Tom (T.); Haunert, Tom (T.P.); Henson, Scott (S.E.); Hervay, Doug (J.D.); Hippley, Rick (R.J.); Hughes, James (J.M.); Jahshan, John (J.H.); Kampf, Robert (R.A.); Khan, Mohammed (M.S.); Kinzinger, Jane (J.J.); Kohl, Fred (F.H.); Kozykosi, Mike (M.J.); Kurth, Kelly (K.J.); Ljposky, Lawrence (L.J.); Lotrey, Larry (L.G.); MacLean, Bob (R.J.); Martin, Norm (N.G.); Mulder, Casey (C.M.); Nojima, Masahiro (M.); Opaleski, Ed (E.J.); Oppon, Sam (S.A.); Paskus, Anthony (A.); Patel, Ghanshyam (G.M.); Reberndt II, Bob (R.G.); Reeca, Larry (L.E.); Rich, John (J.N.); Ries, David (D.E.); Rivard, Frank (F.L.); Roifins, Scott (S.); Ryan, Emmett (E.C.); Samson, Frederick (F.P.); Sathya, Santh (S.); Saunders, Mark (M.A.); Schauman, Ronald (R.A.); Shelh, Rakesh (R.); Sillanpaa, Don (D.C.); Siawara, Mike (M.); Steinman, Duane (D.E.); Swenskowski, Kevin (K.M.); Walker, Noel (N.A.); Weber, Michael (M.J.); Zawacki, Gary (G.A.); DBURCHI; ssundaresan; stoelke; jgallmeyer; jrniskovich; rkolasinik; GKOLWICH; PMISHCHE; rbelanger; bteller@tfxauto.com; odasilva@tfxauto.com; cniester@tfxauto.com; gmausoft; grutkowski@tfxauto.com; jzych; kholand; Larry Wyatt; pfolian@tfxauto.com; mlizer; reidel@tfxauto.com; shasan; tlighe@tfxauto.com

Subject: Added SCT Meeting Agenda Item

Ray Amato will be discussing the change to a seven pin APPS connector for MY2003. This is significant item for all future programs.

In Conrad
Accelerator Controls
Powertrain Subsystems Engineering Technology Dept.
R&VT / P&AE - Core & Adv P/T Engrg. (CAPE)
Location: FPC-A Mail Drop: #3 Cube: 1AK15
e-* jconrad1@ford.com
*(313) 33-76483 Fax: (313) 62-16020
<http://www.pama.pd5.ford.com/t362/indexacc.html>

Full Name: Polzin, Donna - Troy
Last Name: Polzin
First Name: Donna

E-mail: DPolzin@txauto.com

From: Carter, Roscoe (R.O.)
Sent: Tuesday, September 10, 2002 4:48 PM
To: West, Gregory (G.S.)
Subject: RE: Report on the analysis and root cause related to the pedal sensor for electronic Throttle Control for P131/U137

Greg,

Sure we could help but if you could get Central Labs to do it that would be better for us and for them. Give Kathy Minnich a call (x21676) and give her the URL for the report. I can give them any additional help they need to get this underway quickly.

ROC

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

From: West, Gregory (G.S.)
Sent: Tuesday, September 10, 2002 3:54 PM
To: Carter, Roscoe (R.O.)
Subject: RE: Report on the analysis and root cause related to the pedal sensor for electronic Throttle Control for P131/U137

Thanks for the note Roc, I believe we may have never found appropriate root cause with the help of FRL. I may need some more testing to have a statistical sample if you open to doing more.

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

From: Carter, Roscoe (R.O.)
Sent: Tuesday, September 10, 2002 9:08 AM
To: Sherani, Gail (G.); Lipsky, Lawrence (L.J.); West, Gregory (G.S.); Gow, Ron (R.M.)
Cc: Hoss, Kenneth (K.C.); Helms, Jeffrey (J.H.); Tarver, Michael (M.A.); Siroko, Steven (S.J.); Schmitz, Pete (P.J.); Heaton, Christopher (C.E.); Nicastri, Paul (P.R.); Gilkey, James (J.K.)
Subject: Report on the analysis and root cause related to the pedal sensor for electronic Throttle Control for P131/U137

The team at FRL has finished its examination of the ETC pedal position sensors as requested. After sharing our findings with the platform folks on August 28th, we have written a report to document our findings and conclusions. Due to the size of the file, I have taken the liberty of listing the report on the Physical and Environmental Sciences web site on the Lubrication Science resant report page. It can be called up using the URL given below:

http://www.srl.ford.com/pas/Trans_Fkld/ElectronicThrottleFailure.doc

By clicking on this URL you can view and print the document if you wish.

It was interesting to find out that commercial labs had been employed to find the lubricant on the worn potentiometer tracks and that they had reported no lube when we were able to find it on all suspect parts. One of the labs has contacted me and I have shared our findings and techniques with them. Perhaps in the future that lab will be of more assistance in solving these types of problems.

We hope this effort assist in solving the failure issue in the very near term.

On behalf of Steve Simko, Chris Heaton, Paul Nicastri, and Pete Schmitz

Roscoe "ROC" Carter
Ford Research Lab
Physical and Environmental Sciences Department
Lubricant Science and ATF Analysis Group Leader

From: Killgoar Jr., Paul (P.C.)
Sent: Tuesday, September 10, 2002 10:43 AM
To: Liposky, Lawrence (L.L.)
Cc: Helms, Jeffrey (J.H.); Tamor, Michael (M.A.); Simko, Steven (S.J.); Schmitz, Pete (P.J.); Heaton, Christopher (C.E.); Nicastri, Paul (P.R.); Gilkey, James (J.K.); Sherard, Gail (G.); West, Gregory (G.S.); Gaw, Ron (R.M.); Carter, Roscoe (R.O.); Hass, Kenneth (K.C.); Gays, Philip (P.R.); Schmitt, Gerhard (G.)
Subject: RE: Report on the analysis and root cause related to the pedal sensor for electronic Throttle Control for P131/AJ137

Larry:

Thank you for the note. It is always nice to hear from our customers that the work has been valuable. I think we have a very talented team here and your note reinforces my opinion.

Thanks.

Paul

Paul C. Killgoar Jr., Director
Physical Sciences and Systems Research Laboratory
Ford Motor Company
2101 Village Road
P. O. Box 2053, MD 2074 SRL
Dearborn, MI 48121
Phone: 313-323-1413
Fax: 313-323-8992
e-mail: pkillgo@ford.com

----- Original Message -----
From: Liposky, Lawrence (L.L.)
Sent: Tuesday, September 10, 2002 10:39 AM
To: Killgoar Jr., Paul (P.C.)
Cc: Helms, Jeffrey (J.H.); Tamor, Michael (M.A.); Simko, Steven (S.J.); Schmitz, Pete (P.J.); Heaton, Christopher (C.E.); Nicastri, Paul (P.R.); Gilkey, James (J.K.); Sherard, Gail (G.); West, Gregory (G.S.); Gaw, Ron (R.M.); Carter, Roscoe (R.O.); Hass, Kenneth (K.C.); Gays, Philip (P.R.)
Subject: RE: Report on the analysis and root cause related to the pedal sensor for electronic Throttle Control for P131/AJ137

Outstanding job from the folks at FRL. The expertise and information provided was key in determining root cause and resolution of this issue. We appreciate the focus and dedication. Great Job!! Thanks again.

Larry Liposky
Supervisor - Tough Truck
Accelerator/VMV Components
Phone: 24-81728
Pager: 796-0940

----- Original Message -----
From: Carter, Roscoe (R.O.)
Sent: Tuesday, September 10, 2002 9:08 AM
To: Sherard, Gail (G.); Liposky, Lawrence (L.L.); West, Gregory (G.S.); Gaw, Ron (R.M.)
Cc: Hass, Kenneth (K.C.); Helms, Jeffrey (J.H.); Tamor, Michael (M.A.); Simko, Steven (S.J.); Schmitz, Pete (P.J.); Heaton, Christopher (C.E.); Nicastri, Paul (P.R.); Gilkey, James (J.K.)
Subject: Report on the analysis and root cause related to the pedal sensor for electronic Throttle Control for P131/AJ137

The team at FRL has finished its examination of the ETC pedal position sensors as requested. After sharing our findings with the platform folks on August 28th, we have written a report to document our findings and conclusions. Due to the size of the file, I have taken the liberty of listing the report on the Physical and Environmental Sciences web site on the Lubrication Science recent report page. It can be called up using the

URL given below:

http://www.srl.ford.com/pes/Trans_Fluid/ElectronicThrottleFailure.doc.

By clicking on this URL you can view and print the document if you wish.

It was interesting to find out that commercial labs had been employed to find the lubricant on the worn potentiometer tracks and that they had reported no lube when we were able to find it on all suspect parts. One of the labs has contacted me and I have shared our findings and techniques with them. Perhaps in the future that lab will be of more assistance in solving these types of problems.

We hope this effort assist in solving the failure issue in the very near term.

On behalf of Steve Simko, Chris Heaton, Paul Nicastri, and Pete Schmitz

Roscoe "ROC" Carter
Ford Research Lab
Physical and Environmental Sciences Department
Lubricant Science and ATF Analysis Group Leader

Beuckelaere, Phillip (P.R.)

From: Petrauskas, Lisa (L.E.)
Sent: Thursday, November 16, 2000 5:38 PM
To: Conrad, James (J.A.); Beuckelaere, Phillip (P.R.)
Subject: FW: U-137 Pedal efforts

—Original Message—

From: Kalsi, Avtar - Troy [mailto:akalsi@TFXAuto.com]
Sent: Thursday, November 16, 2000 4:30 PM
To: Lisa Petrauskas (E-mail)
Cc: Conrad, James (J.A.); Beuckelaere, Phillip (P.R.); Teller, Bill - Troy
Subject: U-137 Pedal efforts

Lisa,

As I mentioned on the phone, U-137 adjustable ETC pedal has a fixed pivot, therefore pedals efforts will be different at full forward and full rearward. Our drawing also shows that the specified pedal efforts are applicable when pedal is at full rearward position. This is done to ensure that the pedal efforts aren't too low at full rearward position to avoid any potential non-conformance to FMVSS124. Therefore when a pedal meets the pedal effort spec. at full rearward position, the same pedal would have higher break-away and WOT pedal efforts due reduction in resultant lever-arm length and increase in COM (center of mass) of adjustable mechanism.

Regards,
Avtar Kalsi

PE83-844 28148

From: Liposky, Lawrence (L.J.)
Sent: Wednesday, August 21, 2002 3:57 PM
To: West, Gregory (G.S.)
Subject: FW: FW: Ink Testing



FW: Ink Testing

Larry Liposky
Supervisor - Tough Truck
Accelerator/VMV Components
Phone 24-81726
Pager 196-0949

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

From: Avtar Kalsi [mailto:akalsi@tfaauto.com]
Sent: Wednesday, August 21, 2002 3:38 PM
To: lliposky@ford.com
Subject: Fwd: FW: Ink Testing

Larry,

Here is a list of thing that we are having Wabash work on accomplishing in the next few days.

Tests to be performed:

1. Micro finish of ink surface. To be performed in-house - 1/2 day for testing. Compared to a capability study of surface finish to be performed.
2. Micro hardness testing of precious metal tips on contacts from field failure. To be performed at contact supplier. 2 days. This can be done concurrently with number 3
3. SEMS/EDX spectra of ink composition. To be performed locally - testing scheduled for Friday, can not be done sooner.
4. Micro hardness/scratch force testing. To be performed in California Laboratory - 4 days for testing.

Beuckelaere, Phillip (P.R.)

From: Evangelista, Elio - Troy [eevangelist@TFXAUTO.com]
Sent: Tuesday, April 17, 2001 3:55 PM
To: Lisa Petrauskas (E-mail); Richard Stanton (E-mail)
Cc: Phil Beuckelaere (E-mail); Braniff, Greg - Troy; Teller, Bill - Troy
Subject: ETC with lighter effort springs & motor screw with 6mm head

The ETC with the lighter springs and the motor screws with the 6mm head will be shipped to Lisa's attention (to hotel) tomorrow. The brake with lighter spring will not be available this week as originally planned. I will advise when a part for review is available. If you have any questions I will be in Kendallville all week and can be reached at (219) 349 - 1885.

thanks

Elio Evangelista
Program Manager - Pedal Systems
Teleflex Automotive Group

Beuckelaere, Philip (P.R.)

From: Evangelista, Elio - Troy [eevangelist@TFXAuto.com]
Sent: Friday, April 20, 2001 4:26 PM
To: Phil Beuckelaere (E-mail)
Subject: noise testing plan / spring plan

Phil,

Based on our conversation today, following is plan to try to improve both noise and spring effort

Noise:

I will pick up the vehicle Monday morning and drive it to Kendallville where Rob Mundroff will work on some noise solutions.

I spoke to him today and we will be able to get actual noise levels in the vehicle. From baseline we will evaluate each option.

Tuesday, will present some material when your down although may not have a permanent solution at that time.

Spring:

Based on what you requested and if Greg can actually get a spring in time, we will have him go to KTP Sunday night to support the spring evaluation Monday morning. We will make other arrangements with our spring source for Monday.

In addition, Rex Smith said he will contact you today so he can hear the noise level in the actual vehicle, he is hoping to meet with you Saturday.

In case you can't reach me at the office call my cell phone at (248) 797 - 0905
thanks

Elio Evangelista
Program Manager - Pedal Systems
Teleflex Automotive Group

Skwirsk, Tom (T.V.)

Subject: 2002 MY U137P131 Adjustable Pedals Design Review
Location: Scott Van Dorn's Office (PDC 2GF28)

Start: Tue 7/10/2001 5:00 PM
End: Tue 7/10/2001 8:00 PM

Recurrence: (none)

Meeting Status: Meeting organizer

Required Attendees: Skwirsk, Tom (T.V.); Van Dorn, Scott (J.S.); Hightower, Edward (E.T.); Vojtisek, Beth Looney (E.L.); West, Gregory (G.S.); Petrauskas, Lisa (L.E.); Eno Evangelista (E-mail); Greg Braniff (E-mail); Allen, Dave (D.R.); Clough, Randy (R.J.)

see DAVID SABL
did this

We will have this meeting at 5:00 in place of the normal 5:00 per Open Issues meeting. Randy - Can you send to your normal distribution list. Thanks! Sorry for any confusion this may cause!

Per Ed Hightower's Request, we are pulling ahead the Thursday Design Review. The agenda is as follows:

- | | | |
|---|---|--|
| 1) PPAP Inhibitors
- High Diesel Accel Pedal EOL Reject Rate
- Tang Process Capability
- <i>Ali's feature - potential Low Sait</i> | <i>for effort with capacity</i>
<i>people to say what will work</i>
<i>SAE SP-1000</i> | Beth Vojtisek
SAE SP-1000 find out ASAP
<i>1/10 effort inc in diesel pedal</i> |
| 2) 6.8L Accel Pedal
- Pedal Efforts
- Throttle Body PSW
- Accel Pedal PSW - <i>8/24/01</i>
- Fixed Pedal w/ 6.8L on Excursion
- <i>check trial - last wk of July</i> | <i>check operation</i>
<i>50% fuel out Accel</i>
<i>30% fuel out Brake</i>
<i>64% fuel rate?</i>
<i>tang. 11/17</i> | Tom Skwirsk/Elio Evangelista/Greg West
<i>1. RATE OPA procedure for KSP</i>
<i>- need to be checked</i>
<i>10/15/01</i> |
| 3) Pedal Squeak & Rattle
- Verification Plan | | Teleflex |
| 4) Diesel Accel Pedal to Carpet Floor Mat Clearance | | Tom Skwirsk/Lisa Petrauskas |
| 5) Memory Accel Cable Length Change | | Teleflex |

Lisa - I need your participation. Please call into Scott's Office @ 313-845-7920

3. Control plan for all squeaks & rattle capability data

Get Mohammad on phone call at 5:00

5 Actions.
- capability
- a control plan

Ankenbauer, Neil (N.D.) *Rattle (not pedals)*

From: Ankenbauer, Neil (N.D.)
Sent: Friday, June 15, 2001 10:50 AM
To: Allen, Dave (D.F.); Ankenbauer, Neil (N.D.); Bray, Martin (M.L.); Brown, Lyndel (L.D.); Burdette, Dave (D.W.); Charis, Cory (C.J.); Clough, Randy (R.J.); Cowley, Michael (M.D.); Crew, John (J.G.); 'cacherin@vision.com'; DeMara, Matt (M.A.); Dooille, Harry (H.E.); Errol Jackson; Falter, Keith (K.R.); Freeman, Scott (S.T.); Fusco, Frank (F.D.); Hatzel, Mark (M.A.); Hightower, Edward (E.T.); Holmes, Ann Marie (A.); Hortal, Carmen (C.); Ickes, Bill (B.K.); 'John Sapp'; Johnson, David (D.J.); Kazan, Nick (N.); Lee, Jason (J.D.); Marsden, Doug (D.W.); McCullough, Marcella (M.M.); Minialy, Kenneth (K.C.); Morales, Jhannel (J.); Ochs, Berline (B.); Osborne, William (W.H.); Page, Michael (M.A.); Petrauskis, Lisa (L.E.); Ramos, Gregory (G.W.); 'woody@vision.com'; Sabol, David (D.A.); Schuetzler, Dennis (D.E.); Seelye, Daniel (D.R.); Southwick, Lisa (L.); Van Dorn, Scott (S.); Vojtisek, Beth Looney (E.L.); Weems, Joe (J.); Pullia, Ananth (A.); Sheth, Lisa (L.); Flynn, Pat (J.P.)
Subject: 2002 P131A/137 LAUNCH ISSUES MTG AGENDA FOR 6/15 3:00PM Cat-In

Ford Net: 954-1111
NA Toll-Free: 888-721-6229
International: 630-424-2351
Passcode: 6720029#

70% Diesel Engines.

22% would be process.

Agenda 6/15/01 3PM Audio Conference

Added Starter Disposition on Adjustable Pedals

VCR HyGe Sled Status *work call*

Vision Diesel Manual Trans Starter Motor, Job1 Direction

Run At Rate Discussion

D. Allen

S. Young

S. Young

B. Vojtisek

begin sled test on Monday

Tuesday: Memory cable

Act Pedals

Tuesday - Springs in (run tomorrow at cold chamber tomorrow)

-10°C 10 hours.

** TGW's on pedal efforts - nothing so far*

Job 1 +30 design

6-8 come when ready

- worst case:

Monday Morning

Stiction on Pedal

Rattle / Lash : Scott No worst will not discover significantly better for 6B1

5.4/6-8 Cam, spring different

4th test

Rich: Overview Test

42 mph - RAN TEST
35 mph - spec

First 2 test w/ vel screen up

Weems, Joe (L.J.) 1st 2 test ~~unrelated~~ 3rd test - Good - less energy 30mph

From: Ankenbauer, Neil (N.D.)
Sent: Tuesday, June 19, 2001 9:58 AM
To: [Redacted]
Subject: 2002 P131U137 LAUNCH ISSUES RTG AGENDA FOR 6/19 5:00PM Call-in

Ankenbauer, Neil (N.D.)
Tuesday, June 19, 2001 9:58 AM
Allen, Dave (D.R.); Ankenbauer, Neil (N.D.); Bray, Marin (M.L.); Brown, Lyndal (L.D.);
Burdette, Dave (D.W.); Chang, Cory (C.L.); Clough, Randy (R.J.); Conley, Michael (M.D.);
Craig, John (J.G.); ccharm@visteon.com; DeMars, Matt (M.A.); Doolittle, Harry (H.E.); Errol
Jackson; Fater, Keith (K.R.); Frohman, Scott (S.T.); Fusco, Frank (F.D.); Halpern, Mark
(M.A.); Hightower, Edward (E.T.); Holmes, Ann Marie (A.); Hortal, Carmen (C.); Iches, Bill
(B.K.); John Sutt; Johnson, David (D.M.); Kozmin, Nick (N.); Lee, Jason (J.D.); Marsden,
Doug (D.W.); T.L.K.; [Redacted]; [Redacted] (M.M.); Lively, Kenneth (K.C.); Montes, Jhannel (J.);
Ochoa, Bertha (B.); Osborne, William (W.H.); Page, Michael (M.A.); Petruskas, Lisa (L.E.);
Ramos, Gregory (G.W.); [Redacted]@visteon.com; Sabol, David (D.A.); Schneider, Dennis
(D.E.); Seelye, Daniel (D.R.); Southwick, Lisa (L.); Van Dorn, Scott (S.S.); Volzack, Beth
Looney (E.L.); Weems, Joe (L.J.); [Redacted], Ananth (A.); Smith, Lisa (L.); Flynn, Pat (P.P.);
vick@ron@hw.com; Brown, Pamela (P.S.); Hughes, James (J.M.)
2002 P131U137 LAUNCH ISSUES RTG AGENDA FOR 6/19 5:00PM Call-in

4th Test: Speed Test

T Skwiesk

Ford Net: 954-1111
NA Toll-Free: 888-721-6229
International: 630-424-2351
Passcode: 6720029#

we parts forwarded
gast.

Agenda 6/19/01 5PM Audio Conference
Adjustable Pedals
3 Spring Design Status
Teleflex Extraordinary anti rattle Plan

30% orders
out of

VCR HyGe Status

Parts control
people

Visteon Diesel Manual Trans Starter Motor
Documentation Status as to VAS saleability
Status of ONE consensus containment plan

Teleflex:
Ransomville Build
4 rattle build

4 weeks ⁱⁿ testing August 15
support
4 weeks
fill parts at plant
from Larry Lipovsky

Worst case for Teleflex
- July

The New Design - By Friday
dual path

D. Allen Jack: Receive
Pedals on
Thursday
for Rattles

S. Young - Mohammad
FEI: Pedals
TEST ASAP

S. Young
15 gas Inspection
15 diesel All Components
w/ Ford

Orders: Added Started
Process - Sept 4th

Lately design release
by early August

Sept 4th Job 1
- worst case
month

Engg. Calling it a good test

WSP

Safety Group - Alex
- garage door
- Super

Pass test Garage door
same off.

9/1

From: Binger, Charlie (C.F.)
Sent: Thursday, September 19, 2002 5:14 PM
To: Turner, Steve (S.F.); Compton, James (J.D.); Ryan, Emmett (E.C.)
Subject: RE: Teleflex (T0710), Adjustable Pedal Warranty

Yes, they are.

JimvEmmett, fy.

Charlie Binger

(cbinger@ford.com)

Phone: (313) 390-5356

Manager, Vehicle Procurement Operations
Supplier Technical Assistance

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

From: Turner, Steve (S.F.)
Sent: Thursday, September 19, 2002 5:02 PM
To: Binger, Charlie (C.F.)
Subject: FW: Teleflex (T0710), Adjustable Pedal Warranty

when I saw Teleflex, a light went off - aren't they a Top 12 supplier? here's another issue to be concerned about. FYI ... unless you have someone working specifically with Teleflex.

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

From: Polman, James (J.J.)
Sent: Thursday, September 19, 2002 4:52 PM
To: Miller, Tom (T.E.); Ryan, Emmett (E.C.); Compton, James (J.D.)
Cc: Turner, Steve (S.F.); Kazan, Nick (N.)
Subject: Teleflex (T0710), Adjustable Pedal Warranty

Tom, the Tough Truck PDQR recently reviewed problems with the Adjustable Pedal made by Teleflex for the Superduty Platform. The silicone grease from the on and off brushes is propagating across the board to the power output brushes. The silicone grease is causing premature wear of the power output brushes. The part number involved is 2C34 9F838 D*. The warranty claims for this issue is quite high.

How do we recover the warranty costs associated with this failure from Teleflex? Dean M. Kuchta, R reliability Engineer from Teleflex, 248 616 3105, has been involved with the issue.

James Polman

NAT STA Program Manager
Navigator, Expedition, Ranger
Super Duty, and Excursion Platforms
Pager 888 405 1868

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From: Polman, James (J.J.)
Sent: Thursday, September 19, 2002 4:52 PM
To: Miller, Tom (T.E.); Ryan, Emmett (E.C.); Compton, James (J.D.)
Cc: Turner, Steve (S.F.); Kazan, Nick (N.)
Subject: Teleflex (T0710), Adjustable Pedal Warranty

Tom, the Tough Truck PDQR recently reviewed problems with the Adjustable Pedal made by Teleflex for the Superduty Platform. The silicone grease from the on and off brushes is propagating across the board to the power output brushes. The silicone grease is causing premature wear of the power output brushes. The part number involved is 2C34 9F836 D*. The warranty claims for this issue is quite high.

How do we recover the warranty costs associated with this failure from Teleflex? Dean M. Kuchta, R reliability Engineer from Teleflex, 248 616 3105, has been involved with the issue.

James Polman

NAT STA Program Manager
Navigator, Expedition, Ranger
Super Duty, and Excursion Platforms
Pager 888 405 1868

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Design Review Outline

Component / Program

Page <P> <N> <PP> <CC> <LR>

1.0 Program Management

- 1.1 Program Content / Assumptions
- 1.2 Program Timing
- 1.3 Hardware Review / Drawing / Sketches / Buckets
- 1.4 Open Issues / Milestone / Checkpoint Review

Next Milestone: CP
 Review Date: 14 Apr

Contributor Program Milestone				
<P>	<N>	<PP>	<CC>	<LR>
X	X	X		
X	X	X		
X	X	X		
X	X	X		

2.0 Functional Review

R-R Assessment

- 2.1 System Function
 - 2.1.1 Best Practice Checklist
 - 2.1.2 Performance
 - 2.1.3 NVH / Sound Quality
 - 2.1.4 Weight
 - 2.1.5 Appearance / Craftmanship
 - 2.1.6 Service
- 2.2 Variable Cost / Investment Status / Panel Cost
- 2.3 Risk and Opportunities
- 2.4 Benchmark Study

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X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		

3.0 Engineering Program

- 3.1 Boundary Diagram
- 3.2 F-Diagram
- 3.3 Robustness and Reliability Checklist (RRCL)
- 3.4 Summary of FMEA Top 5 RPN's
- 3.5 FMEA
- 3.6 <SC>'s and <CC>'s
- 3.7 DUP&R

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X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		

4.0 Quality / Reliability

- 4.1 Summary of Active and Proposed WOR and SDS Deviations
- 4.2 Reliability Demonstration Metric (RDM)
- 4.3 Quality Data (R/1000, CPK, TOW, etc)
- 4.4 Campaign Prevention (T5B, Fresh Eyes, Lessons Learned)
- 4.5 ORDAN
- 4.6 APQP

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X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		
X	X	X		

From: Pascary, Ken (K.M.)
Sent: Tuesday, May 27, 2003 2:00 PM
To: West, Gregory (G.S.)
Cc: Perry, Brian (B.J.)
Subject: RE: Request for information

Greg,

I went to Docman and printed out a copy of the 14401 and the 12A581 for the '02 7.3L P131. Please take a look at the attached sketch. I have illustrated the pedal sensor circuits that pass from the 14401 into the 12A581, along with a few other circuits that share the same interface connection. Are these the other circuits that you are interested in?



7.3L APP.ppt

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

From: West, Gregory (G.S.)
Sent: Thursday, May 22, 2003 3:09 PM
To: Pascary, Ken (K.M.)
Subject: RE: Request for information

<< File: 1C34-9F836-BA Design Transmittal.xls >> << File: ES-1C34-9F836-BA.doc >>

Ken, I've attached the design transmittal which is common for both parts. I've also included the ES.

PCM circuits associated with the pedal are :

89 AP signal
24 AP ground
10 IVS

90 Vref

Circuits on the 14401 are :

640 IVS 12 V power
355 AP output
1285 IVS ground
367 AP ground
351 AP Vref

Hope this info helps.

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

From: Pascary, Ken (K.M.)
Sent: Thursday, May 22, 2003 2:34 PM
To: West, Gregory (G.S.)
Cc: Perry, Brian (B.J.)
Subject: RE: Request for information

Greg,

The Service Publications wiring diagrams web page is not working today. Perhaps I can access the schematics tomorrow.

From the drawing of the fixed pedal assembly (1C34-9F836-BB), it looks like the IVS is a normally open switch (at idle) with a 510 ohm resistor to ground. Depressing the pedal closes the switch and presents battery voltage to the PCM input on J1-10. The P0221 code is associated exclusively with the IVS circuit and it indicates a "failed pedal assembly." It looks like that matches with your experiment of shorting IVS to ground

through the break-out box and failing the switch.

The codes P0122 and P0123 are for the accelerator position signal portion of the pedal sensor, with P0221 indicating a grounded input and P0123 indicating either an open circuit or a short to power.

The drawing for the adjustable pedal assembly (2C34-9F836-DC) does not have any schematic information to analyze. I assume the circuit is the same as the fixed pedal (?). Do you know if the engineering specifications for these parts contain any information about the electrical function of the pedal sensor/switch?

Regards,

Ken Pascany, kpascany@ford.com
Voice, fax: 313-248-4669
P/T Electronic Applications
POEE Building, Mail Drop 75, BH177
21500 Oakwood Boulevard
Dearborn, MI 48124-4091

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

From: Pascany, Ken (K.M.)
Sent: Thursday, May 22, 2003 7:21 AM
To: West, Gregory (G.S.)
Subject: Request for Information

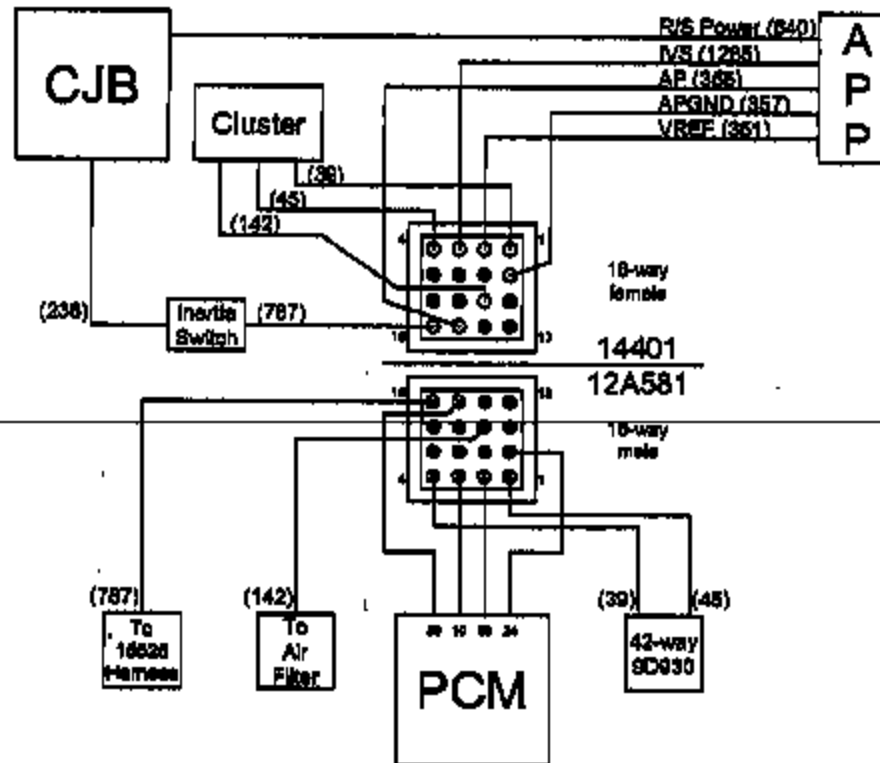
Greg,

Brain Perry asked me to contact you regarding questions you have about pedal position sensors. Please let me know how I can be of assistance. Thank you.

Regards,

Ken Pascany, kpascany@ford.com
Voice, fax: 313-248-4669
P/T Electronic Applications
POEE Building, Mail Drop 75, BH177
21500 Oakwood Boulevard
Dearborn, MI 48124-4091

7.3L Diesel APP Sensor & Wiring



Circuit Summary

38, TEMPERATURE GAGE TO TEMPERATURE SENDING UNIT, Red, White

45, HOT WATER TEMPERATURE RELAY TO HOT WATER TEMPERATURE SENDING UNIT, Yellow, Red

142, DIESEL FUEL FILTER WARNING LAMP INDICATOR FEED, Lt Blue, Red

238, MODULE, POWERTRAIN CONTROL TO FUEL PUMP MONITOR /FUEL PUMP RELAY TO SAFETY SWITCH, Dk Green, Yellow

787, FUEL PUMP POWER, Pink, Black

From: Pino, Tomas [Tpino@WMCO.com]
Sent: Tuesday, January 23, 2001 12:08 PM
To: Gregory West (G.S.) (E-mail)
Cc: Drew Homoyac (E-mail)
Subject: 2003 Device Transmittals & Timing (1.5MB)



2003 timing &
design transmittals

Greg,

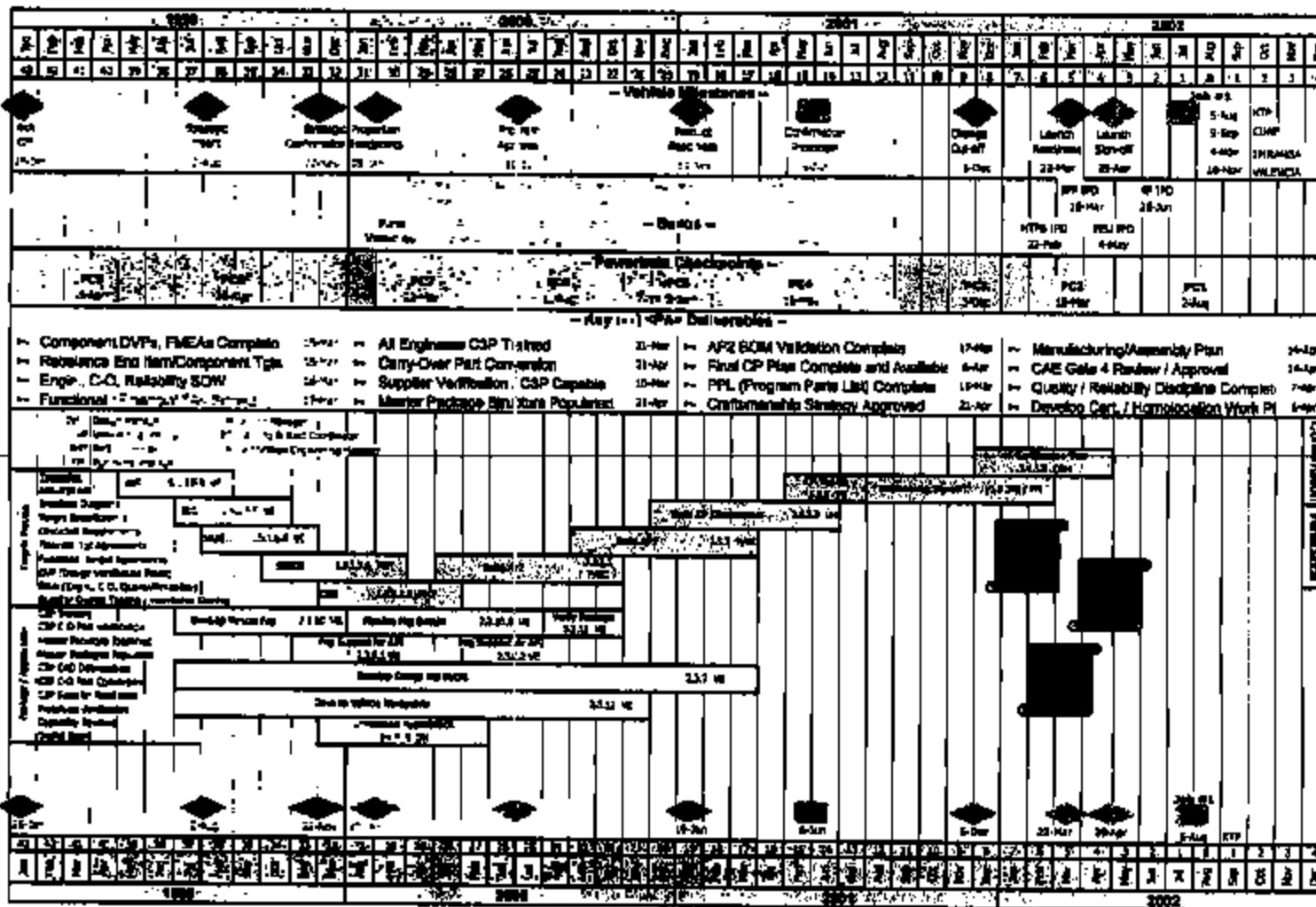
These are the latest files I received from Don.

TomAs Pino
Aptek Williams
Ph. 954-421-8450 x370
Ex. 954-421-8044
tpino@WMCO.com

<<2003 timing & design transmittals.21E>>

2003 Super-Duty (P131) Truck, Medium Duty (H215) Truck, and Excursion (U137)

FPDS Program Scale: S3 / P4



FPDS-014 0482

Device Transmittal

FOR ALL EOL NAVSTAR BUDDS - APS
FIXED & ADJUSTABLE ACCELERATOR CONTROLS

Control Number:

Vehicle Code: Model Year: Vehicle Mfr:

Device Name:

Subsystem Name:

Port Device Engineer:

Phone Number:

Signature:

Location/Cube:

Issue Date:

Revised Date:

PDMS Systems Engineer:

Phone Number:

Device Part Number: Device Connector P/N:

Device Supplier: Device Connector Supp:

YFH Sales Assistant: Device Connection Type:

YFH Location Code:

Feed Connector P/N: Res. Conn App Pass No:

Connector Supplier: Connector Description:

Feed Cable P/N: Does Connector meet specs:

ECIS Requirement? Yes No



*Connector does not have a Part Number, a Connector/Device Code must be submitted

Dist	Class	Function	Class	Mfr	Mfr Cat	Device		Voltage		Term Type		Terminal Classification			Comp Term	Class	Mfr	Mfr Cat	Mfr	Energy
						Part	Part	Min	Max	Min	Max	Min	Max	Watts							Temp	Class
A	Unplug																			
B	Unplug																			
C	PP01 - Probe					5mA	10mA	various	0.2			1.5B-10	25A-02	N/A						
D	PP02 - Probe					5mA	10mA	various	0.2			1.5B-10	25A-02	N/A						
E	PP03 - Probe					5mA	10mA	various	0.2			1.5B-10	25A-02	N/A						
F	Unplug																			
G	SRND					5mA	10mA	0	<	Ac/v		1.5B-10	25A-02	N/A						
H	YREP					5mA	10mA	4.8	5.0	0.2		1.5B-10	25A-02	N/A						
J	DPND					5mA	10mA	0	<	48V		1.5B-10	25A-02	N/A						
K	YREP					5mA	10mA	4.8	5.0	0.2		1.5B-10	25A-02	N/A						

Feed System Engineer: Phone Number: Signature: Location/Cube:

Port Wiring Engineer: Phone Number: Signature: Location/Cube:

Feed Conn Dev Engineer: Phone Number: Signature: Location/Cube:

Port Term Engineer: Phone Number: Signature: Location/Cube:

Feed Conn App Engineer: Phone Number: Signature: Location/Cube:

Comments:

PDC-844-0000

Device Transmittal

FOR ALL E.R. CLIMMING BUILDS - APF & AP3
 ROAD ACCELERATOR CONTROL

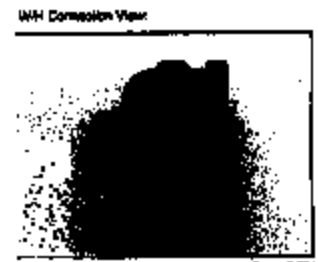
Control Number:

Vehicle Code: Model Year: **2002** Vehicle Line: **PF19**
 Device Name: **Road Position Sensor**
 Subsystem Name: **ECU & Gear Assy - Axial**

Ford Device Engineer: **Don Silveira**
 Phone Number: **84-8200**
 Signature: _____
 Location/Cube: **POC 23-848**

Issue Date:
 Revised Date:
 FMS Systems Engineer: **Thomas Phip**
 Phone number: **(817) 681-8440**

Device Part Number: **3021-2000-00** Device Connector Part:
 Device Supplier: **Delphi** Device Connector Supp:
 VEH Equip Number: Device Connector Type:
 Veh Location Code:
 Part Connector Part: **3021-2000-00** Ref. Data App Part No:
 Connector Supplier: **Delphi** Connector Description: **ECU Connector**
 Ford Spec Part: Does Connector meet spec: No



1) Connector description based on Part Part Number:

Cavity	Device Function	MO	Displacement	Min Ckt	Max	Type Temp			Terminal Dimensions			Temp. Rise Peak Code	Shield Number	Terminal Part Number	Term. Supp. Term. Code	Wire Size	Wire Spec.	Lot Began/End	
						Min	Max	Min	Width	Thick	Dist								
A	APF300 - Axial road position sensor (1)	(PIN #6)				5mA	10mA	4.0	5.0	5.5	1.28x.20x.20x.20	N/A	Tin & Au						
B	APF300																		
D	APF300 - Axial road position sensor (2)	(PIN #7)				5mA	10mA	0.56	N/A	4.05	1.28x.20x.20x.20	N/A	Tin & Au						
E	APF300 - Axial road position sensor (3)	(PIN #8)				5mA	10mA	0	+	4.0	1.28x.20x.20x.20	N/A	Tin & Au						
F	APF300																		
G	APF300	(PIN #9)				5mA	10mA	4.0	5.0	5.5	1.28x.20x.20x.20	N/A	Tin & Au						
H	APF300																		
J	APF300 - Axial road position sensor (4)	(PIN #10)				5mA	10mA	0	5.0	5.5	1.28x.20x.20x.20	N/A	Tin & Au						
K	APF300 - Axial road position sensor (5)	(PIN #11)				5mA	10mA	0	+	4.0	1.28x.20x.20x.20	N/A	Tin & Au						

Ford System Engineer: Phone number: Signature: _____ Location/Cube:
 Ford Wiring Engineer: Phone number: Signature: _____ Location/Cube:
 Ford Dev Des Engineer: Phone number: Signature: _____ Location/Cube:
 Ford Term Engineer: Phone number: Signature: _____ Location/Cube:
 Ford Conn App Engineer: Phone number: Signature: _____ Location/Cube:

PESC-844 8484

Device Transmittal

FOR ALL FORD CATERPILLAR BUILDS - AP0 & AP0
FIXED ACCELERATOR CONTROLS

Vehicle Code: _____ Model Year: 2001 Vehicle Line: AP0
 Device Name: Fixed Position Sensor
 Submitter Name: PE & WTR AP0 - AP0

Ford Device Engineer: Don Murray
 Phone Number: 81-6080
 Signature: _____
 Location/Date: POC 28-842

Control Number: _____
 Issue Date: _____
 Revised Date: _____
 PSWS System Engineer: Yanis Poy
 Phone Number: 800-421-9200

Device Part Number: _____ Device Connector P/N: _____
 Device Supplier: _____ Device Connector Description: _____
 WSN Base Number: _____ Device Connector Type: _____
 Vehicle Location Code: _____
 Part Connector P/N: _____ Ref. Conn App Form No.: _____
 Connector Supplier: Yanis Connector Description: Direct Connect
 Part Spacer P/N: _____ Does Connector meet basic
 ECM Requirements? Yes No
*If connector does not have a Part Part Number, a Connector Application Form must be submitted.



Order	Device Part Number	UC	Connector Type	Max Ohm Reg.	Current					Voltage			Temp			Terminal Dimensions			Group Term Plug Code	Couch Number	Terminal Pin Number	Wire Size	Wire Type	Wire Color	Drain			
					Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max										
A	APP - accel pedal position (1)	PSWS			200	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	Unused																											
C	APP - accel pedal position (2)	PSWS																										
D	Unused																											
E	APP - accel pedal position (3)	PSWS																										
F	Unused																											
G	Unused																											
H	Unused																											
I	Unused																											
J	Unused																											
K	Unused																											

Field System Engineer: _____ Phone number: _____ Signature: _____ Location/Date: _____
 Part Wiring Engineer: _____ Phone number: _____ Signature: _____ Location/Date: _____
 Port Conn Eng. Engineer: _____ Phone number: _____ Signature: _____ Location/Date: _____
 Field Test Engineer: _____ Phone number: _____ Signature: _____ Location/Date: _____
 In-House App Engineer: _____ Phone number: _____ Signature: _____ Location/Date: _____

Comments: _____

FORM 440-0024

Electrical / Electronic Systems Design Transmittal

PROJECT NAME: JPL 80000-000-0000-0000-0000-0000
PROJECT NUMBER: 80000-000-0000-0000-0000-0000

BY: [Name] [Date]
FOR: [Name] [Date]

DATE: [Date]
TIME: [Time]
LOCATION: [Location]

Electrical Hardware Requirements Matrix

Item ID	Description	QTY	Unit	Part #	Drawing Reference	Drawing Title	Drawing Date	Drawing Rev	Item Name	Material	Value	Weight	Notes
1.00	...	1	...	...	...	...	...	...	...	...	...	...	...

DATE: [Date]
TIME: [Time]
LOCATION: [Location]

Note: All required values and symbols are for NORMAL, provide one major hex size and tolerance note.

Physical Interface Requirements Matrix

Review and Provide Your Location info per Page of the document or otherwise.

Interface ID	Description	QTY	Unit
1.00	...	1	...

API BUILD ONLY

SEE ATTACHMENT

Note: Contact the person in the first column of the interface requirements matrix.

PERS-644 6446

Electrical/Electronic Systems Design Transmittal

Project No.	100-00000000
Revision	001

Customer	USAF
Contract No.	100-00000000
Contract Title	...

Drawn By	...
Checked By	...
Date	...

Electrical Hardware Requirements Matrix

Requirement Number	Description	Standard Board I/O (Digital I/O)					I/O Card Type	Data Interface Method	Timing Method or Interface Standard	Powering Method	Other	Remarks
		In	Out	Open	Close	Power						
1	...											
2	...											
3	...											
4	...											
5	...											
6	...											
7	...											
8	...											
9	...											
10	...											
11	...											
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38	...											
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46	...											
47	...											
48	...											
49	...											
50	...											

Customer	USAF
Contract No.	100-00000000
Contract Title	...

NOTE: All hardware voltages and currents are for 28VDC, 1000V, 1000mA and 1000VDC. All other values are for 28VDC, 1000V, 1000mA and 1000VDC.

Physical Interface Requirements Matrix

Requirement Number	Description	Notes
1	...	
2	...	
3	...	
4	...	
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9	...	
10	...	
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49	...	
50	...	

AP3 & AP3 BUILDS

Note: Required dimensions are provided in Attachment 100-00000000-001. All dimensions are in inches unless otherwise specified.

SEE ATTACHMENT

PHYSICAL PART

NOTE: Standard Part Numbers for Part Numbers for the Requirements for Equipment (Requirements Matrix).

Electrical / Electronic Systems Design (Transmission)

Project Name	AP3-044
Version	1.0

Project Code	AP3-044
Project Manager	[Name]
Project Engineer	[Name]

Project Status	[Status]
Project Start	[Date]
Project End	[Date]

Electrical Hardware Requirements Matrix

Req ID	Req Name	Priority	Functional Requirements					Physical Requirements	Performance	Reliability	Safety	Security	Interference	EMC/EMI	Thermal	Mechanical	Manufacturing	Testability
			Min	Max	Min	Max	Min											
1	Power Supply	High																
2	Signal Processing	Medium																
3	Control System	High																
4	Communication	Medium																
5	Power Distribution	High																
6	Signal Conditioning	Medium																
7	Control Logic	High																
8	Communication Interface	Medium																
9	Power Regulation	High																
10	Signal Amplification	Medium																

Note: All electrical symbols and standards are per IEEE, applicable and must comply with other applicable standards.

Physical Interface Requirements Matrix

Req ID	Req Name	Priority	Min	Max
1	Power Connector	High		
2	Signal Connector	Medium		
3	Control Connector	High		
4	Communication Connector	Medium		
5	Power Distribution Connector	High		
6	Signal Conditioning Connector	Medium		
7	Control Logic Connector	High		
8	Communication Interface Connector	Medium		
9	Power Regulation Connector	High		
10	Signal Amplification Connector	Medium		

General AP3-044 - VME/Locking into the Form of the Connector on Components

AP3 & AP3 BUILDS

Note: Detailed specifications are attached to complete build AP3-044-01.
 Note: Detailed specifications are attached to complete build AP3-044-02.

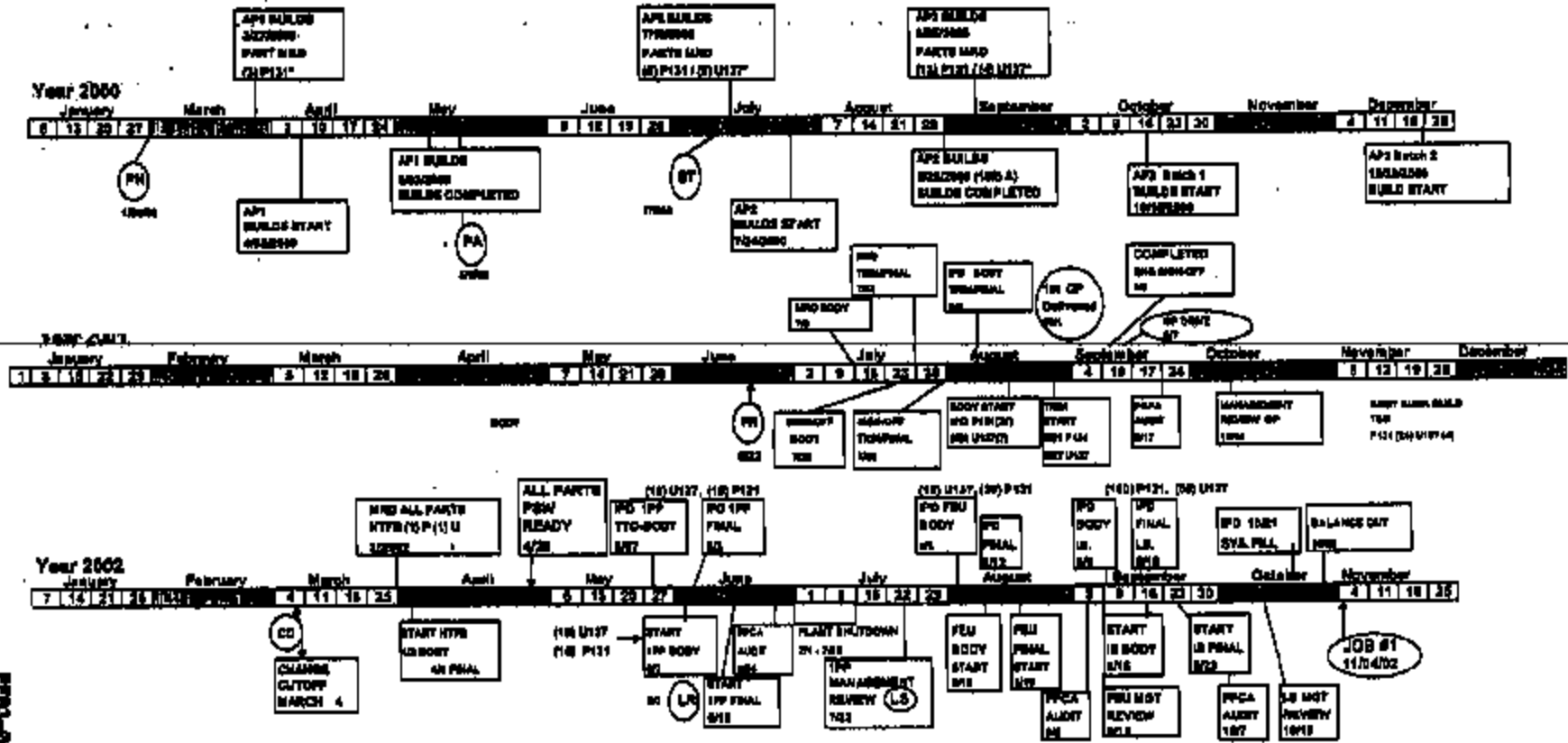
SEE ATTACHMENT

AP3-044 B001

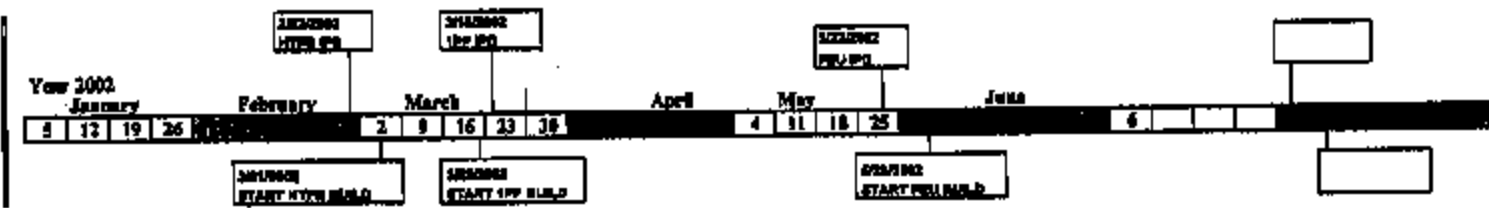
Note: All dimensions are specified unless otherwise noted.

PROGRAM KEY TIMING EVENTS

2003.5 U137 P131 6.0L Diesel/ ISO Fix



PERS-044 0883



PERS-614 B0300

From: Petruskas, Lisa (L.E.)
Sent: Monday, January 22, 2001 8:58 AM
To: West, Gregory (G.S.)
Subject: FW: Design & Device transmittals for 2003 AP3 electronic throttle controls

—Original Message—

From: Sillanpaa, Don (D.C.)
Sent: Tuesday, August 01, 2000 9:20 AM
To: 'skain@ford.com'; 'tjpro@wmc.com'; Beaudelaere, Philip (P.R.); Petruskas, Lisa (L.E.)
Subject: Design & Device transmittals for 2003 AP3 electronic throttle controls

I have attached the two subject items for final review prior to issuing to the electrical PMT and AFL. Input from both ETC suppliers was considered for commonality for the electrical interface with the dash harness.

Don Sillanpaa
Ford Motor Company
(313) 845-2820
dsillanp@ford.com



3C44-9F836-A0 2003 International
Design Transmittal... ETC Device ...

Device Transmittal

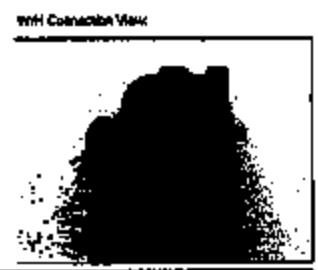
FOR ALL S.O.L. HIGHWAY BUILDERS - AFS
FIXED & ADJUSTABLE ACCELERATOR CONTROLS

Vehicle Code: _____ Model Year: 2008 Vehicle Line: P125U/127A-015
 Device Name: Fixed Position Storage
 Installation Name: Cell & Equip. App - Appl

Field Device Engineer: Don Morgan
Don Morgan
 Page Number: 04-020000-00070
 Signature: _____
 Location/Date: POC 20-04000-000

Control Number: _____
 Issue Date: _____
 Revised Date: _____
 PSMC Systems Engineer: Torrie Probst
 Phone number: 204-464-2222

Device Part Number: 800-0100-1000-000-0 Device Connector P/N: _____
 Device Supplier: Wipac Controls/Systems Device Connector Suppl: _____
 WH Part Number: _____ Device Connection Type: _____
 Veh Location Code: _____



Field Connector P/N: 2007-14000-000 Ref. Conn App Form No. _____
 Connector Supplier: Wipac Connector Description: Fixed Control
 Field Spacer P/N: _____ Does Connector meet label
 SCE (Required)? Yes No

Wipac part #s and POC Part #s - Connect App Form number number

Circuit	Function	NO	Discrete Time	Min. Ckt. Res.	Current				Voltage				Temp. Rise			Comp. Temp. Pkts. Code	Circuit Number	Terminal Part Number	Term. Suppl. Term. Code	Wiring Spec.	WH Spec.	Low Energy CHY
					Min.	Max.	Avg.	Peak	Min.	Max.	Avg.	Peak	Min.	Max.	Avg.							
A	Power																					
B	Ground																					
C	PP1 - Power				50A	100A	variable		5.2				1.00-1.00-00-00	N/A	Tn & Au							
D	PP2 - Power				50A	100A	variable		5.2				1.00-1.00-00-00	N/A	Tn & Au							
E	PP3 - Power				50A	100A	variable		5.2				1.00-1.00-00-00	N/A	Tn & Au							
F	Ground																					
G	Ground				50A	100A	0	+	400				1.00-1.00-00-00	N/A	Tn & Au							
H	WREF				50A	100A	4.0	0.0	0.2				1.00-1.00-00-00	N/A	Tn & Au							
J	Ground				50A	100A	0	+	400				1.00-1.00-00-00	N/A	Tn & Au							
K	WREF				50A	100A	4.0	0.0	0.2				1.00-1.00-00-00	N/A	Tn & Au							

Field System Engineer: Don Morgan Field Wiring Engineer: _____
 Phone number: 204-464-2222 Phone number: _____
 Signature: _____ Signature: _____
 Location/Date: POC 20-04000-000 Location/Date: _____

Field Conn Dev Engineer: _____ Field Term Engineer: _____
 Phone number: _____ Phone number: _____
 Signature: _____ Signature: _____
 Location/Date: _____ Location/Date: _____

Field Conn App Engineer: _____
 Phone number: _____
 Signature: _____
 Location/Date: _____

Comments: _____

FORM 410-000

From: Piro, Tomas [Tpiro@WMCO.com]
Sent: Wednesday, February 07, 2001 3:05 PM
To: Silanpa, Don
Cc: Drew Humovec (E-mail); Gregory West (G.S.) (E-mail); Bronson, Walt
Subject: Foot Rotation



foot up.jpg



foot down.jpg

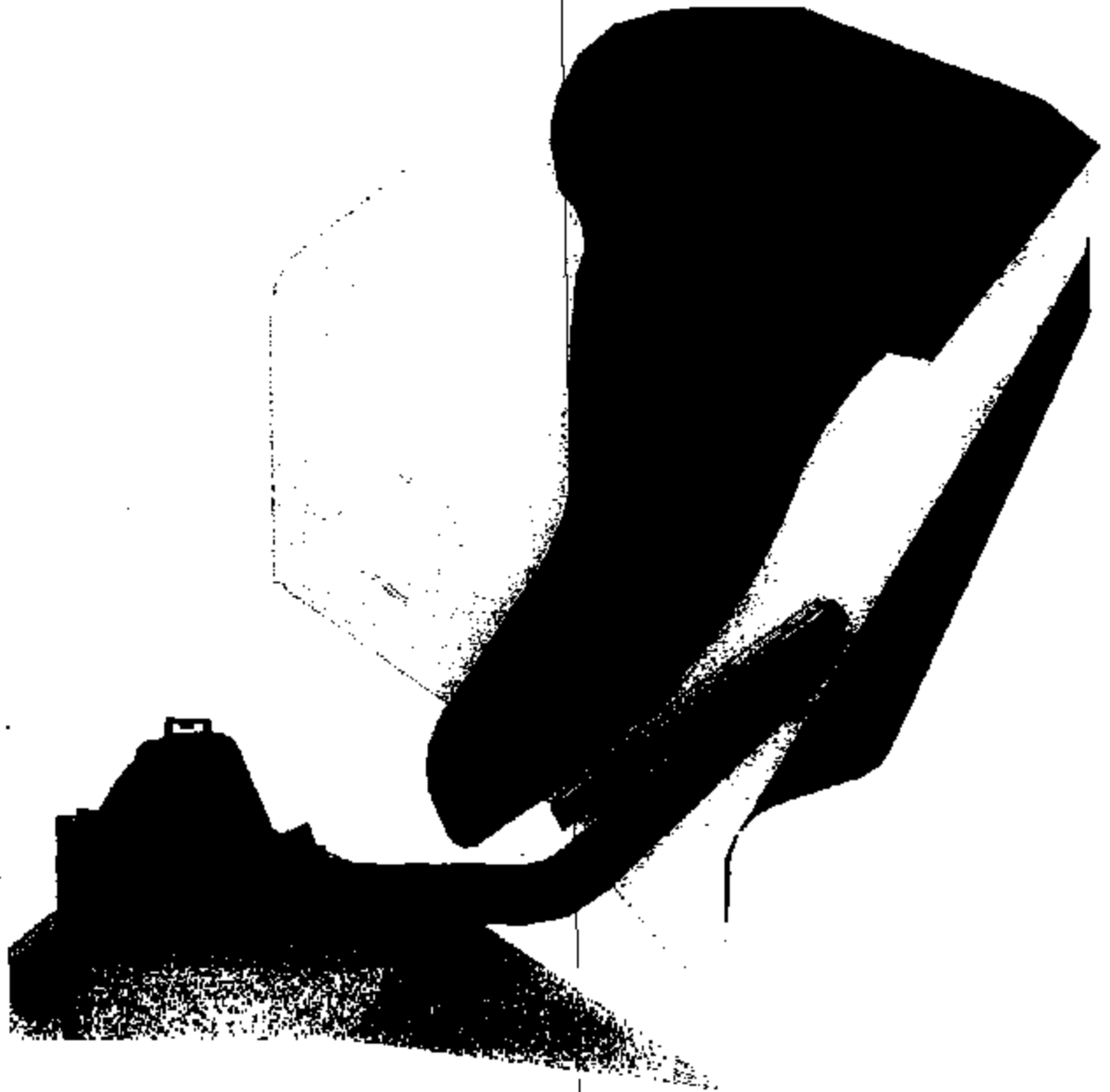
Don,

One of the problems that I have been having with this issue is that I don't know where the actual floor is in my CAD data. I went back to a CD that had the original PDGS Teleflex pedal package and used the foot outlined there. Assuming that foot is the right size and it's position correctly, the full rotation from idle to WOF is...13.5° !!!! Weird, right?
I am including pictures of the event. Don, if you want we can repeat it here when you visit.

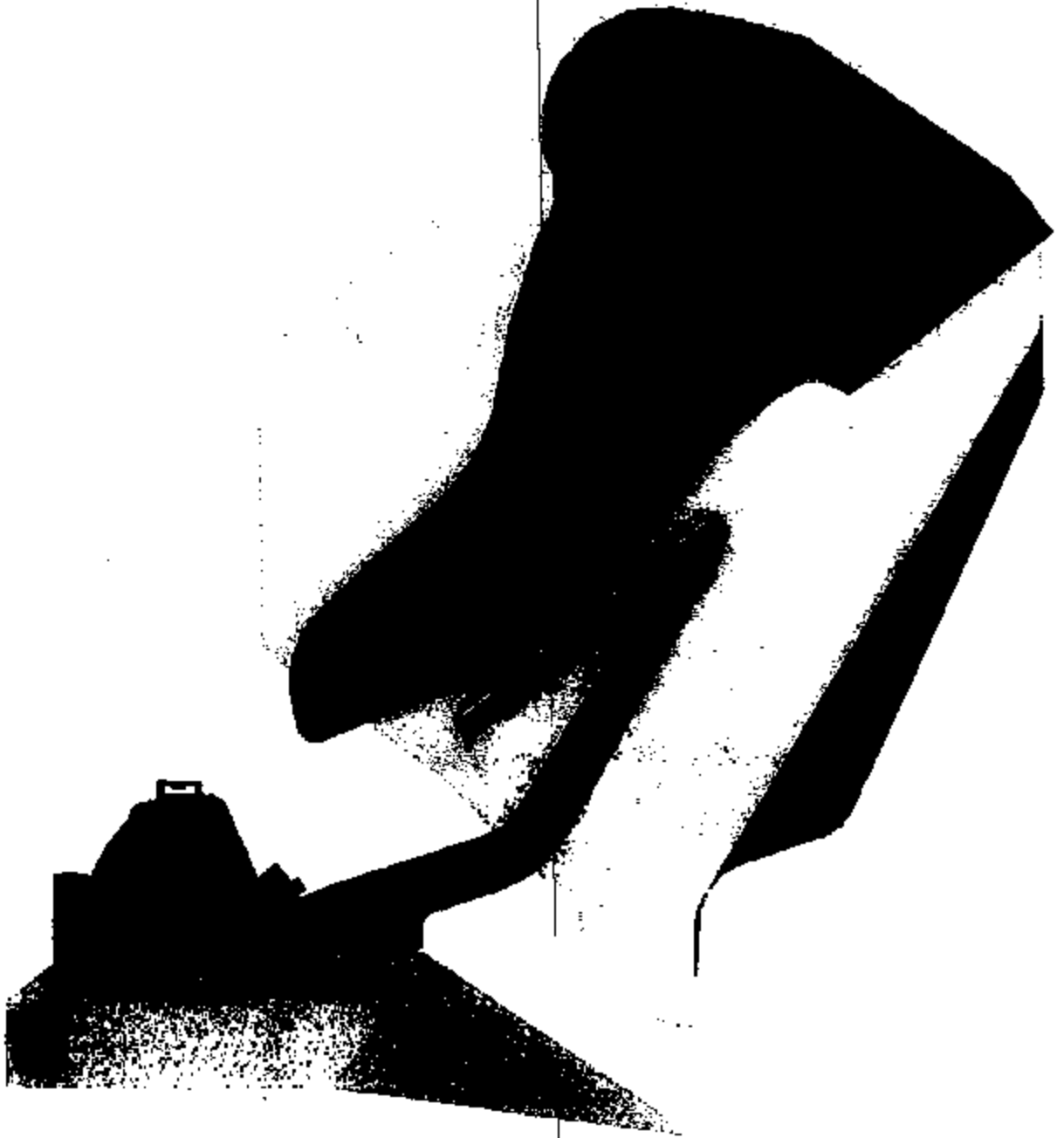
Thanks,

Tomas Piro
Aptek Williams
Ph. 954-421-8450 x370
Fx. 954-421-8044
tpiro@WMCO.com

<<foot up.jpg>> <<foot down.jpg>>



FEB3-844 8765



FE03-044 0708

From: Heaton, Christopher (C.E.)
Sent: Thursday, August 15, 2002 12:53 PM
To: Carter, Roscoe (R.O.); Nicastri, Paul (P.R.); Simko, Steven (S.J.); Gaw, Ron (R.M.); Gilkey, James (J.K.); Schmitz, Pete (P.J.); West, Gregory (G.S.)
Cc: Heaton, Christopher (C.E.)
Subject: Electronic Throttle Control

Team,

I have taken a few pictures of the electronic throttle control and saved them on the FRL (W) drive under the allshare folder. I'm not sure if everyone on the team has access to that drive so we may have to find another way to share the pictures. The file size of each picture might make it hard to e-mail them to all of you.

Initial observations show a couple of things: 1. There is evidence of contact heating seen in the discoloration of the rider contacts. This is evident on both sets of riders. 2. The plastic around the contact riders is melted—this may be from contact heating or it may be due to the process of attaching the contactors to the plastic pivot arm. 3. The failing track seems to have a much more gritty appearance than the passing track—this may be acting like sandpaper and wearing away the contacts on the failed riders. 4. On the failed rider contact there is a pair of contacts that each have four fingers. One has the contact points completely worn away and the other has three of four fingers worn down. The fourth finger has considerably less wear than the others. This may be due to the finger being bent or it may have had a large chunk of debris than protected it from the usual pattern of wear.

Again, it would be helpful at this point to get some information about materials used for the riders, greases, silicone, and the two different contact traces. There is definitely grease on both tracks. The failed track has a lot more debris plowed at the end of the track but this may be a combination of grit from the track and metal from the rider with only minor amounts of grease holding the clumps together and on the track.

Christopher E. Heaton
cheaton@ford.com
Research Engineer
Vehicle Electronics and Systems Dept.
Ford Research Laboratory
Phone: (313)845-4214 Fax: (313)323-8239

From: West, Gregory (G.S.)
Sent: Thursday, August 15, 2002 2:20 PM
To: Heaton, Christopher (C.E.); Carter, Roscoe (R.O.); Nicastri, Paul (P.R.); Simko, Steven (S.J.);
Gaw, Ron (R.M.); Gilkey, James (J.K.); Schmitz, Pete (P.J.)
Subject: RE: Electronic Throttle Control

FYI

RTV is GE Product RTV128, RTV paste, adhesive/sealant.
The rub bar lube is NYE 774.
The switch track lube is Nye 706D.
The properties of each lube can be obtained at:
<http://www.nyelubricants.com/datasheets.php>

I am getting samples of each one.
Also, I am trying to obtain the makeup of the inks from Wabash.

---Original Message---

From: Heaton, Christopher (C.E.)
Sent: Thursday, August 15, 2002 12:53 PM
To: Carter, Roscoe (R.O.); Nicastri, Paul (P.R.); Simko, Steven (S.J.); Gaw, Ron (R.M.); Gilkey, James (J.K.); Schmitz, Pete (P.J.); West,
Gregory (G.S.)
Cc: Heaton, Christopher (C.E.)
Subject: Electronic Throttle Control

Team,

I have taken a few pictures of the electronic throttle control and saved them on the FRL (W) drive under the aishare folder. I'm not sure if everyone on the team has access to that drive so we may have to find another way to share the pictures. The file size of each picture might make it hard to e-mail them to all of you.

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Again, it would be helpful at this point to get some information about materials used for the riders, greases, silicone, and the two different contact traces. There is definitely grease on both tracks. The failed track has a lot more debris plowed at the end of the track but this may be a combination of grit from the track and metal from the rider with only minor amounts of grease holding the clumps together and on the track.

Christopher E. Heaton
cheaton@ford.com
Research Engineer
Vehicle Electronics and Systems Dept.
Ford Research Laboratory
Phone: (313)845-4214 Fax: (313)323-8239

From: Pino, Tomas [Tpino@HAWCO.com]
Sent: Thursday, February 08, 2001 8:43 AM
To: Gregory West (G.S.) (E-mail)
Cc: Stillman, Don
Subject: Foot rotation (78KB)



foot rotation.ZIP

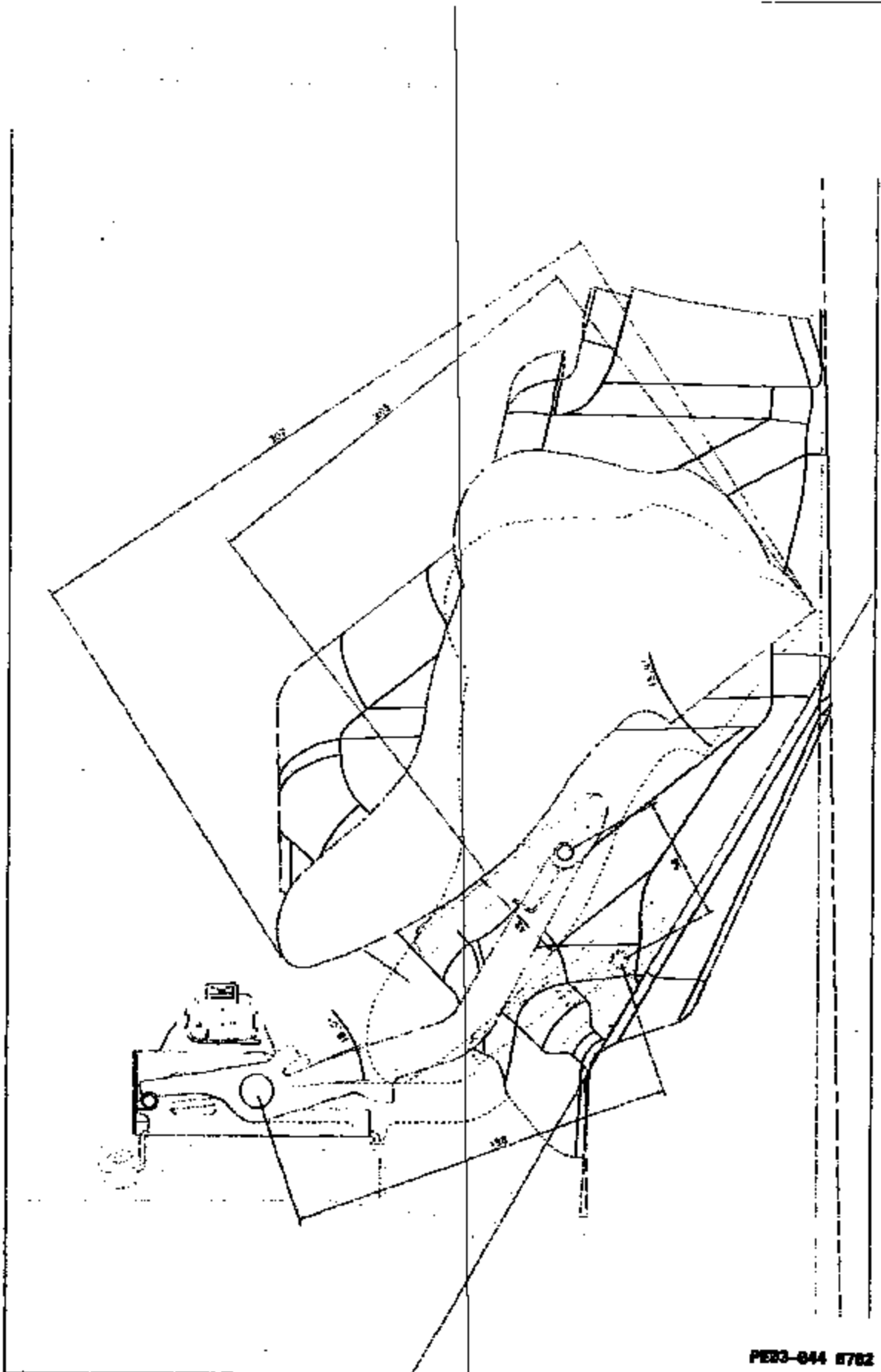
Greg,

Take a look at this picture. It shows what I presume is a 95th percentile foot with a 203 BOP to Heel point dimension. Pedal to the metal required almost 14° of foot rotation, but the ball of foot moves 10mm less than the ped pivot. This is opposite of what we thought would happen, right? I'll show this to Don, and maybe we can call you about it.

Thanks,

Tomas Pino
Aptek Williams
Ph. 954-421-8450 x370
F. 954-421-8044
tpino@HAWCO.com

<<foot rotation.ZIP>>



PE23-044 8782

Subject: DEW and P221 validation of electronic pedals Tuesday, October 29, 2002 9:00 AM-10:00 AM.
Location: PDC Conf Rm 1H-B66 (10)

Start: Tue 10/29/2002 9:00 AM
End: Tue 10/29/2002 10:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Gaw, Ron (R.M.); Schmitz, Peter (P.J.); Simko, Steven (S.J.); Heaton, Christopher (C.E.); Gilkey, James (J.K.); West, Gregory (G.S.); Liposky, Lawrence (L.J.); Chesney, Craig (C.D.)
Optional Attendees: Nicastrì, Paul (P.R.); Carter, Roscoe (R.O.)

Update: Sorry for the late notice, but I will be travelling on business tomorrow afternoon and will not be available for the original meeting as planned. I have rescheduled it for next Tuesday, 10/29, in PDC 1H-B66

Meeting Goal

The goal of the meeting is to discuss the steps necessary to initiating technical investigations into early wear issues of the ETC pedals on P221 and DEW. Craig Chesney has provided a DEW pedal (electronic signals out of agreement, no apparent circuit shorts or opens) with unusual wear. Though the supplier has identified mechanical issues with the pedals that can cause unusual wear, this team would like to get confirmation of the greases/oils significance.

Please let me know if there is anyone else I should include in the discussion.

Ron Gaw
PTSE D&R

Electronic Throttle Controls Design & Release
Ph. #: 313 390-5756 Fax #: 313 248-2558
Pager #: 313 795-3909

From: Gaw, Ron (R.M.)
Sent: Saturday, November 02, 2002 2:06 PM
To: Allen Irish (E-mail); Brennan, Patrick (P.M.); Carter, Roscoe (R.O.); Conrad, James (J.A.); Florini, John (J.J.); Gilkey, James (J.K.); Greg Mausoli (E-mail); Heaton, Christopher (C.E.); Kathy Zolan (E-mail); Khan Zulkarnain (E-mail); Lowman, Harold (H.R.); Saliccioli, Dennis (D.S.); Schmitz, Pete (P.J.); Sheth, Rajesh (R.); Simko, Steven (S.J.); Todd Brown (E-mail); Tom Martin (E-mail); West, Gregory (G.S.)
Subject: 11/4/02 7AM Meeting Agenda

Good news, everyone. The focus of the 7AM meeting is returning back to it's original intended form.

We will use the 7AM meeting to discuss status to target of specific assignments. The discussions will be limited to answering whether the assignment is complete, what percent complete if not done (no in-depth technical discussions here: any discussions necessary should be focused on what barriers/blocks to progress need to be removed). If a technical discussion is warranted, we will list it as an assignment and work to set up a separate discussion, the timing of which will be based on the relative priority.

Monday's 7AM Agenda:

1. Wabash update [Bob Petersak] on 33 Side Load parts data (% complete, information delivered to Teleflex)
2. Wabash Rotor Gap vs. Wear correlation study start, estimated completion date
3. Teleflex update on Side Load test data entry (% complete, plus copy of electronic file as is to date)
 - Electronic copy of data sent before 8AM directly to RGAW and RSHETH1 (@ford.com)
4. Teleflex update [Allen Irish] on Idle level, WOP level, Index, Slope Correlation and Linearity analysis
 - Trend Plots complete
 - Mini-tab analysis start date, estimated completion date, progress to date
5. Teleflex Mechanical Stack Up data results sent electronically [Kathy Zolan]
6. 6 additional DEW parts (GPIRS #398279) delivery to Ford date
7. At 7:30AM, Larry Liposky and Ron Gaw will be leaving for Teleflex Troy offices to review and assist in data analysis

Regards,

Ron Gaw
PTSE D&R

Electronic Throttle Controls Design & Release
Ph. #: 313 390-5758 Fax. #: 313 248-2558
Pager #: 313 796-3009

From: Shepherd, Scott (S.A.)
Sent: Monday, May 19, 2003 6:56 PM
To: Sheffield, Drew (D.L.)
Subject: FW: Teleflex

pls schedule review of the package

- mtg with Brian Wolfe and his engineers to review thier package -- May 30 or June 2.

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

From: Engel, Jeff (J.R.)
Sent: Saturday, May 17, 2003 10:52 AM
To: Brown, Tony (Thomas K.)
Cc: Velliky, Dave (D.A.); Shepherd, Scott (S.A.)
Subject: Fw: Teleflex

Resolution of teleflex field action will take longer but it is important that we have our ducks in a row before we discuss with them at a higher level next time.

Jeff Engel
Executive Director
North American Vehicle Procurement Operations
Phone (313) 845-8392 Fax (313) 390-3123

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

From: Shepherd, Scott (S.A.) <sshepher@ford.com>
To: Engel, Jeff (J.R.) <jengel3@ford.com>
Sent: Fri May 16 15:38:24 2003
Subject: RE: Teleflex

I have reviewed the engineering information with PD recently and we agreed that PD needed to put together the comprehensive package on the recall -- while there is alot of data it is not in a well organized presentation.

PD requested 3 weeks to do this.

I am getting back together with PD end of the month.

I would be targeting a meeting with Teleflex following that but want to make sure the package is well developed so that this meeting is effective.

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

From: Engel, Jeff (J.R.)
Sent: Sunday, May 11, 2003 5:43 PM
To: Shepherd, Scott (S.A.)
Cc: Velliky, Dave (D.A.)
Subject: Teleflex

Scott - we were going to escalate the teleflex discussions to a more senior person there for me to talk to - where do we stand with that?

Jeff Engel
Executive Director
North American Vehicle Procurement Operations
Phone (313) 845-8392 Fax (313) 390-3123

From: Burrows, Jim (J.A.)
Sent: Thursday, October 17, 2002 4:51 PM
To: Shora, John (J.)
Cc: Stachis, Joseph (J.F.); Wnuk, John (J.G.); Sheffield, Drew (D.L.)
Subject: Teleflex 02 ETC Pedal P131 Possible Field Action

Responding to your voice mail. Are you looking for us to take some action to start ordering replacement pedals? Let us know how we can help.

Jim Burrows

Buyer - Cables, Pedals, & Parking Brakes
Global Chassis Commodity Management
jburrows1@ford.com
Phone: (313) 337-2505; Fax: (313) 323-2317

From: Burrows, Jim (J.A.)
Sent: Thursday, October 17, 2002 2:53 PM
To: Kevin McMahon (E-mail); Donna Polzin (E-mail); Mike Carr (E-mail)
cc: Wnuk, John (J.G.); Slachta, Joseph (J.F.); Sheffield, Drew (D.L.)
Subject: NE01-E-11400245-004 is approved

Orest said that he wanted a PO. We have received authorization direct from the program.

Program management has spoken with John Major the launch supervisor at KTP. This is authorized. Teleflex is to ship the fixed pedals using a deactivated adjustable pedal (volumes previously supplied) through the end of November. This concern increases the releases for the adjustable pedal.

Does this do it from your end? Please contact Joe Slachta if you need anything further.

Jim Burrows

Buyer - Cables, Pedals, & Parking Brakes
Global Chassis Commodity Management
jburrow3@ford.com
Phone: (313) 337-2505; Fax: (313) 323-2317

From: Settle, Frank (F.E.)
Sent: Thursday, September 11, 2003 3:50 PM
To: Johnson, Steven (S.M.)
Cc: Seroka, Mary Lynn (M.L.)
Subject: FW: 2001 7.3L accel pedal data

Steve, please try to find out what was discussed at the CCRG meeting and if we were asked to do some more analysis. I think Don Zambo was supposed to attend for ECI.

Frank E. Settle
Powertrain Supervisor
Enhanced Concern Identification Dept.
Phone 313-248-6280
CDSID FSETILL

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

From: West, Gregory (G.S.)
Sent: Thursday, September 11, 2003 2:30 PM
To: Oswald, Greg (G.G.); Liposky, Lawrence (L.J.); Settle, Frank (F.E.); Tolansky, Michael (M.); Johnson, Steven (S.M.)
Cc: West, Gregory (G.S.)
Subject: RE: 2001 7.3L accel pedal data

Per this morning's discussion was Steve going to run more specific AWS data or were we supposed to find someone to get that data?

If Steve can run the data I would like to discuss to help narrow our search.

(SD and Excursion, 2001.25-2003.25, 7.3L, fixed pedals, "engine to idle after hard acceleration").

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

From: Oswald, Greg (G.G.)
Sent: Wednesday, September 10, 2003 10:07 AM
To: Liposky, Lawrence (L.J.); West, Gregory (G.S.)
Subject: FW: 2001 7.3L accel pedal data

Larry/Greg,

Here is ECI data on the 2001 F-SD/Excursion/Econoline electronic throttle issue.

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

From: Settle, Frank (F.E.)
Sent: Monday, September 08, 2003 2:12 PM
To: Tolansky, Michael (M.); Oswald, Greg (G.G.)
Cc: Seroka, Mary Lynn (M.L.); Taaffe, Cynthia (C.A.)
Subject: FW: 2001 7.3L accel pedal data

Attached are some graphs to aid in this Wednesday's 9:00 teleconference. The agenda item is 2001 7.3L accelerator pedal assembly/throttle position sensor.

This item was discussed last week and the recommendation was to proceed with a 2nd level analysis. Based on the attached data, we will be looking for a recommendation regarding which vehicle lines to include in our report. We can also discuss which categories we should include in the final symptom pareto.

Frank E. Settle
Powertrain Supervisor
Enhanced Concern Identification Dept.
Phone 313-248-6280
CDSID FSETILL

PE83-044 17788

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

From: Johnson, Steven (S.M.)
Sent: Monday, September 08, 2003 11:02 AM
To: Settl, Frank (F.E.)
Subject: 2001 7.3L accel pedal data

Hi Frank,

Could you please forward the following information to Greg Oswalt and Mike Tokarsky.

Here is the data that I have for the 2001 Superduty/Excursion/Econoline 7.3L accelerator pedal issue discussed at last weeks CCM teleconference:

VOQ-5 total reports-all Superduty vehicles (1 fatality)
CQIS-35 total reports-34 Superduty, 1 Econoline (No significant events)
AWS-4382 total reports-4045 Superduty, 178 Econoline, 159 Excursion (No significant events)

I have parse'd out the customer symptoms using keyword searches for the AWS data. The bulk of the reports are captured in check engine light complaints. Even if the customer was having drivability issues, if the check engine light was illuminated, I categorized the reports into this file because of the overtress. I have attached several graphs in the Excel file FYI. Since Econoline uses a different pedal assembly than Superduty/Excursion, I have separated all of the graph data by these two vehicle categories.

<< File: 01 FH 7.3 accel pedal AWS graphs II.xls >>

I will put this item back on the CCM agenda for this Wednesday to determine the scope for the paper requested. If you have any preliminary questions, let me know.

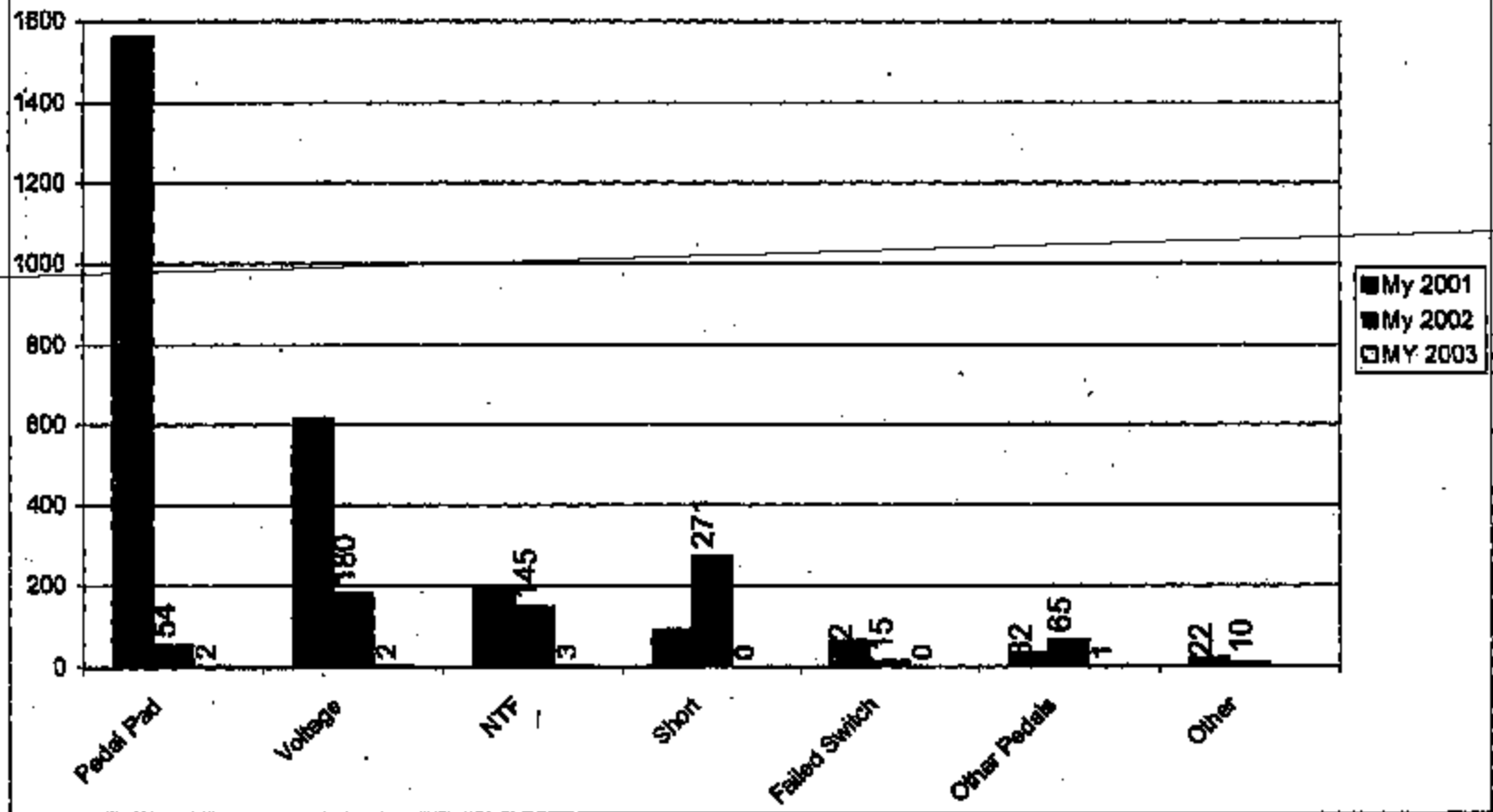
Thanks,

Steve Johnson

ECI concern analyst
sjohns82@ford.com
(313) 248-8113

PEB3-044 17781

Warranty Returns by Model Year 8/01/03 (1C)



2

TOTAL CLAIMS	10102
CLAIMS RELATED TO SYMPTOMS	872
PERCENT RELATED	8.7%

CLAIMS RELATED TO WENT TO IDLE/CUTS OUT/LOST POWER ON HARD ACCEL/PUSHED GAS PEDAL HARD

CCC	WENT TO IDLE	HARD ACCEL	NO ACCEL	PASSING	STALL	CUTS OUT	LACKS POWER	MASHED	CHECK ENG LIGHT ON HARD ACCEL	CHECK ENG LIGHT ON HARD ACCEL	CHECK ENGIN LIGHT WHILE PASSING	R22 & IDLE	HARD	HARD PEDAL PUSH	IDLE	IDLES ROUGH	TBD	TRMS TO STALL	TOTAL
Q80	87	35	13	10	2	1	5	4						1			1		139
Q96	47	48	14	9	4	7	1	2		1									133
B28	50	18	14	1	1	4	7	2	1		1	1				1		1	100
Q21	13	32	1	8	11	9		3											89
S42	20	24	2	4		1	2	4											67
D13	14	3														1			18
D41	6	5	2	3	1		1												17
D10	10	2	1																13
Q02	4	1	2		1														8
D11	3																		3
Q38	1	2																	3
Q03	1	1																	2
T90			1																1
A56	1																		1
Q89	1																		1
P68													1						1
P24		1																	1
P67		1																	1
P81	1																		1
P83	1																		1
H06			1																1
N18		1																	1
TOTAL	228	172	61	83	20	16	18	15	1	1	1	1	1	1	1	1	1	1	872

CUSTOMER CONCERN CODES (CCC)

Customer Concern Code (CCC)	Customer Concern Description	VFB Code
A02	RECEPTION QUALITY	V81
A04	AUDIO SOUND QUALITY	V81
A06	SPEAKER TROUBLES	V81
A07	OTHER AUDIO TROUBLES	V81
A18	CD PLAYER TROUBLES	V81
A17	CASSETTE PLAYER TROUBLES	V81
A18	FAMILY ENTERTAINMENT SYSTEM TROUBLES	V81
A25	SPEED CONTROL ENGAGEMENT TROUBLES	V41
A26	SPEED CONTROL DISENGAGEMENT TROUBLES	V41
A27	SPEED CONTROL DOES NOT MAINTAIN A CONSISTENT SPEED	V41
A34	HORN TROUBLES	V83
A35	COMPASS/THERMOMETER TROUBLES	V83
A37	SPEEDOMETER TROUBLES	V83
A40	TIRE PRESSURE MONITORING TROUBLES	V83
A59	TRIP COMP./NAVIGATION SYSTEMS TROUBLES	V81
A80	SATELLITE DIGITAL AUDIO REC. SYS. TROUBLES	V81
A85	OTHER ELECTRICAL ACCESSORY TROUBLES	V17
A86	CELLULAR PHONE TROUBLES	V81
A87	CIGARETTE LIGHTER/POWERPOINT TROUBLES	V17
A88	WIRING TROUBLES	V17
A89	ADMINISTRATIVE (PARTS RETURN/MAINT/MSBUILT/ETC.)	V89
B01	BODY PANEL DENTS, DINGS	V31
B02	BODY PANEL FITS POORLY	V31
B05	BODY PANELS HARD TO OPEN	V31
B06	BUMPER DENTS, DINGS	V75
B07	BUMPER FITS POORLY	V75
B09	BODY PANEL/HINGE SQUEAK/RATTLE	V31
B15	BODY PANEL HARD TO CLOSE	V31
B19	OTHER BODY PANEL TROUBLES (NOT INCLUDING TRIM)	V31
B43	DOOR TRIM PANEL - LOOSE, POOR FIT, WARPED, WRINKLED	V73
B44	DOOR TRIM PANEL - TEARS, SNAGS, CRACKS	V73
B45	DOOR TRIM PANEL - FADED, DISCOLORED	V73
B47	DOOR TRIM PANEL - BLISTERED/BUBBLED/PEELED	V73
B50	DOOR TRIM PANEL - SPLIT SEAMS	V73
B53	IP/DASHBOARD - LOOSE, POOR FIT, WARPED, WRINKLED	V71
B54	CENTER FLR CONSOLE - LOOSE, POOR FIT, WARPED, WRINKLED	V71
B62	MOLDINGS, EXTERIOR TRIM CORRODED	V75
B63	MOLDINGS, EXTERIOR TRIM LOOSE/MISSING	V75
B64	MOLDINGS, EXTERIOR TRIM POORLY ALIGNED OR FIT	V75
B65	WHEEL/HUBCAP TROUBLES	V75
B68	OTHER EXTERIOR TRIM TROUBLES	V75
B69	OTHER BUMPER TROUBLES	V75
B73	ROOF LINING MATERIAL - LOOSE, POOR FIT, WARPED, WRINKLED	V74
B74	CARPET/FLOOR MAT - LOOSE, POOR FIT, WARPED, WRINKLED	V74
B75	TRUNK/CARGO INTERIOR - LOOSE, POOR FIT, WARPED, WRINKLED	V74
B78	INTERIOR ODOR	V74
B81	IP/DASHBOARD - TEARS, SNAGS, CRACKS	V71
B82	IP/DASHBOARD - FADED, DISCOLORED	V71
B84	IP/DASHBOARD - BLISTERED/BUBBLED/PEELED	V71
B85	GLOVEBOX DOOR GAPS, FIT POOR, DIFFICULT TO OPEN/CLOSE	V71
B91	CENTER FLOOR CONSOLE - TEARS, SNAGS, CRACKS	V71
B92	CENTER FLOOR CONSOLE - FADED, DISCOLORED	V71
B94	CENTER FLOOR CONSOLE - BLISTERED/BUBBLED/PEELED	V71
B95	OTHER INSTRUMENT PANEL/CONSOLE TROUBLES	V71
C01	A/C SLOW TO COOL	V79
C02	A/C NOT COLD ENOUGH	V79
C03	HEATER-SLOW TO HEAT	V79
C04	HEATER-NOT HOT ENOUGH	V79
C05	A/C DOES NOT WORK	V79
C07	HEATER-DOES NOT WORK	V79
C09	HEATER, DEFROSTER OR A/C NOISE	V79
C12	W/SHIELD DEFROST/DEFOGGING DOES NOT WORK	V79
C15	SIDE WINDOW DEFROST/DEFOGGING DOES NOT WORK	V79
C19	REGISTER/VENT ADJUSTMENT TROUBLES	V79
C20	OTHER TEMPERATURE CONTROL TROUBLES	V79
C21	W/SHIELD DEFROST/DEFOGGING SLOW TO CLEAR/UNEVEN CLEARING	V79
C22	SIDE WDO DEFROST/DEFOGGING SLOW TO CLEAR/UNEVEN CLEARING	V79
C23	BACK WINDOW DEFROST/DEFOGGING TROUBLES	V79
C24	A/C WATER LEAK/CONDENSATION TROUBLES	V79
C25	DEAD BATTERY	V19
C26	WEAK OR LOW ELECTRICAL POWER	V19
C27	POWER SUPPLY TROUBLES	V19
C30	A/C HEATER/DEFROSTER ODOR	V79
C30	OTHER STEERING/HANDLING AND RIDE TROUBLES	V89
D02	ENGINE WOULD NOT START	V43
D03	ENGINE DIFFICULT OR SLOW TO START	V43

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D03	ENGINE DIFFICULT OR SLOW TO START	V43
D10	ENGINE IDLES TOO SLOW	V46
D11	ENGINE IDLES TOO FAST	V40
D13	ENGINE IDLES ROUGH	V40
D21	ENGINE STALLS	V42
D35	EXCESSIVE FUEL CONSUMPTION	V46
D36	ENGINE HESITATES/SURGES WHEN ACCELERATING	V41
D41	ENGINE HESITATES/SURGES AT STEADY SPEED	V41
D42	POOR PERFORMANCE/LACKS POWER	V41
D50	OTHER ENGINE TROUBLES	V44
F19	ENGINE BELT SLIPPING/SQUEALING	V44
E20	ENGINE BELT OFF/FRAYED/COMING APART/BROKEN	V44
E23	ENGINE OVERHEATS/RADIATOR TROUBLES	V44
E26	EXCESSIVE OIL CONSUMPTION	V44
E29	"CHECK ENGINE" LIGHT TROUBLE	V44
E40	ELECTRONIC MODULE TROUBLES	V17
E41	UNUSUAL EXHAUST SYSTEM ODOR	V44
E42	UNUSUAL EXHAUST SYSTEM NOISE	V44
E43	EXHAUST SYSTEM RUST/CORROSION/APPEARANCE	V44
E66	SLOW FUEL TANK FILL/SPITBACK	V25
E68	FUEL LEAK/ODOR	V25
E69	LOW OIL PRESSURE	V44
F04	THINNING PAINT (EXCLUDES TRIM/BUMPER)	V33
F05	SAGS/RUNS IN PAINT (EXCLUDES TRIM/BUMPER)	V33
F06	PEELED PAINT (EXCLUDES TRIM/BUMPER)	V33
F07	BUBBLES/BLISTERS IN PAINT (EXCLUDES TRIM/BUMPER)	V33
F10	PAINT SPRAY OVER BODY FINISH (EXCL. TRIM/BUMPER)	V33
F11	BODY RUST/CORROSION (NOT PERFORATION/EXCL. BUMPER)	V33
F12	STAINED/SPOTTED PAINT (EXCLUDES TRIM/BUMPER)	V33
F13	FADED/DULL PAINT (EXCLUDES TRIM/BUMPER)	V33
F15	DETAIL PAINT OR TAPE STRIPE COMING OFF (EXCL. BUMPER)	V33
F18	CHIPPED/SCRATCHED PAINT (EXCLUDES TRIM/BUMPER)	V33
F20	DIRT IN PAINT (EXCLUDES TRIM/BUMPER)	V33
F25	RUST PERFORATION	V01
F30	UNEVEN COLOR/COLOR DIFFERENT BETWEEN BODY PANELS	V33
F33	BUMPER FADED/DULL PAINT	V75
F34	BUMPER SAGS/RUNS IN PAINT	V75
F35	BUMPER THINNING PAINT	V75
F36	BUMPER STAINED/SPOTTED PAINT	V75
F37	BUMPER DIRT IN PAINT	V75
F38	UNEVEN COLOR/COLOR DIFFERENCES BTW. BUMPER PANELS	V75
F39	BUMPER RUST/CORROSION	V75
F41	BUMPER PEELED PAINT	V75
F90	INSUFFICIENT FLUID	V08
G02	GLASS BROKEN/CHIPPED/CRACKED/DISTORTED	V08
G05	WINDOW OPENING, CLOSING TROUBLES-MANUAL	V08
G07	WINDOW OPENING, CLOSING TROUBLES-POWER	V08
G09	GLASS NOISE (SQUEAK/RATTLE/SCRAPE)	V08
G29	OTHER INDICATOR/WARNING LIGHT TROUBLES	V83
G30	ODOMETER TROUBLES	V83
G31	ENGINE TEMP GAGE TROUBLES	V83
G32	INST. CLUSTER/MESSAGE CENTER TROUBLES	V83
H02	BRAKES GRAB OR LOCK-UP	V21
H04	PARKING BRAKE TROUBLES	V21
H05	EXCESSIVE "BRAKE PEDAL EFFORT" REQUIRED	V21
H06	VEHICLE PULLS LEFT WHILE BRAKING	V21
H07	VEHICLE PULLS RIGHT WHILE BRAKING	V21
H15	BRAKE PEDAL SPONGY	V21
H18	BRAKES TOO SENSITIVE	V21
H19	BRAKE-ABS WARNING LIGHT TROUBLES	V21
H20	OTHER BRAKE TROUBLES (INCLUDING AIR BRAKES)	V21
H21	STEERING HAS EXCESSIVE FREE PLAY/WANDER	V87
H22	STEERING REQUIRES EXTRA OR UNEVEN EFFORT	V87
H24	STRG WHL SPOKES NOT CORRECTLY POSITIONED WHEN FRNT	V88
H26	CONSTANT PULL TO LEFT	V88
H28	CONSTANT PULL TO RIGHT	V88
H39	TRACTION CONTROL/ADVANCE TRAC WARNING LIGHT TROUBLES	V21
H44	HARSH RIDE	V88
H45	MUSHY RIDE	V88
H50	STEERING GEAR/PUMP TROUBLES	V87
M82	IMPROPER TIRE WEAR	V09
J03	SUN/MOON/TOP/CONVERTIBLE ROOF FITS POORLY	V09
J04	SUN/MOON/TOP/CONVERTIBLE DIFFICULT TO OPEN/CLOS	V09
K01	TRANSFER CASE TROUBLES	V44
K02	AXLE WHINE/HOWL/GRAN	V44
K03	AXLE VIBRATION/SHAKE	V44
L06	EXT. DOOR LOCK CONTROLS-MANUAL	V07
L07	EXT. DOOR LOCK CONTROLS-POWER	V07
L08	EXTERIOR DOOR HANDLE TROUBLES	V07
L10	FUEL-FILLER DOOR TROUBLES	V07
L13	IGNITION SWITCH TROUBLES	V07
L14	ANTI-THEFT/ALARM SYSTEM TROUBLES	V07
L15	OTHER LOCK/MECHANISM TROUBLES	V07
L16	INT. DOOR LOCK CONTROLS - MANUAL	V07
L17	INT. DOOR LOCK CONTROLS - POWER	V07
L18	INTERIOR DOOR HANDLE TROUBLES	V07

L18	INTERIOR DOOR HANDLE TROUBLES	V07
L19	DOOR ALARM WARNING LIGHT TROUBLES	V07
L20	REMOTEKEYLESS ENTRY TROUBLES	V07
L22	HEADLAMP ALIGNMENT	V77
L23	KEY TROUBLES	V07
L25	LIGHTS NOT WORKING-INTERIOR	V77
L26	LIGHTS NOT WORKING-EXTERIOR	V77
L29	OTHER LIGHTING TROUBLES (INCL. LEAKS/CONDENSATION)	V77
L30	TURN SIGNAL TROUBLES	V77
L63	BRAKE FLUID LEAK	V21
L66	ENGINE LEAKS OIL	V44
L68	POWER STEERING FLUID LEAK	V87
L69	FUEL GAUGE TROUBLES	V25
L72	TRANSMISSION/CLUTCH FLUID LEAKS	V44
L85	UNDETERMINED ENGINE LEAK	V44
L87	COOLANT LEAK	V44
L88	FRONT/REAR AXLE OR DRIVESHAFT LEAKS	V44
M06	EXTERIOR MIRROR TROUBLES	V13
M06	INTERIOR MIRROR TROUBLES	V13
M10	OTHER MIRROR TROUBLES	V13
M11	UNUSUAL ENGINE NOISE AT IDLE	V49
M12	UNUSUAL ENGINE NOISE WHILE DRIVING	V48
M17	BRAKES NOISY	V21
M18	UNUSUAL TRANSMISSION NOISE	V48
M22	VEHICLE VIBRATES WHEN DRIVING BELOW 45 MPH	V88
M23	STEERING WHEEL VIBRATION/SHIMMY BELOW 45 MPH	V88
M24	STEERING WHEEL VIBRATION/SHIMMY ABOVE 45 MPH	V88
M25	VEHICLE VIBRATES WHEN DRIVING ABOVE 45 MPH	V88
M27	VIBRATION OR SHUDDER WHILE BRAKING	V21
M30	OVERHEAD CONSOLE SQUEAK/RATTLE	V71
M31	CENTER FLOOR CONSOLE SQUEAK/RATTLE	V71
M32	GLOVE BOX DOOR SQUEAK/RATTLE	V71
M33	INSTRUMENT PANEL/DASHBOARD SQUEAK/RATTLE	V71
M40	FRONT SIDE DOOR SQUEAK/RATTLE	V07
M41	REAR SIDE DOOR SQUEAK/RATTLE	V07
M42	TRUNK/BACK HATCH/REAR CARGO DOOR SQUEAK/RATTLE	V07
M43	SUNMOON/TOP CONVERTIBLE ROOF SQUEAK/RATTLE	V07
M50	SQUEAK/RATTLE VEHICLE EXTERIOR-FRONT	V30
M51	SQUEAK/RATTLE VEHICLE EXTERIOR-REAR	V30
M57	STEERING COLUMN/WHEEL SQUEAK/RATTLE	V88
M58	STEERING NOISY	V87
M59	OTHER SQUEAK/RATTLE (EXCLUDING WIND NOISE)	V30
P01	DIFFICULT TO OPERATE SHIFT LEVER, CHANGE GEARS	V47
P09	OTHER MANUAL TRANSMISSION TROUBLES	V47
P22	CLUTCH CHATTERS/GRABS/SLIPS/HERKS	V67
P23	CLUTCH REQUIRES TOO MUCH OR UNEVEN EFFORT	V47
P24	OTHER CLUTCH TROUBLES	V47
P31	MANUAL-4-WHEEL/ALL WHEEL DRIVE TROUBLES	V47
P51	DIFFICULT TO OPERATE SHIFT LEVER	V48
P59	OTHER AUTOMATIC TRANSMISSION TROUBLES	V48
P66	SHIFTS ROUGH OR JERKY WHILE DRIVING	V48
P67	SHIFTS OCCUR TOO EARLY, TOO LATE, TOO OFTEN	V48
P68	TRANSMISSION SHIFTS ROUGH OR JERKY FROM PARK	V48
P80	GEAR CHANGES TAKE TOO LONG TO COMPLETE	V48
P82	AUTOMATIC - 4-WHEEL/ALL-WHEEL DRIVE TROUBLES	V48
P83	NO FORWARD/REVERSE MOVEMENT IN GEAR	V48
R01	WATER LEAK AROUND WINDSHIELD	V37
R02	WATER LEAK AROUND FRONT SIDE DOOR/WINDOW	V37
R03	WATER LEAK AROUND REAR SIDE DOOR/WINDOW	V37
R04	WATER LEAK AROUND BACK WINDOW	V37
R05	WATER LEAK AROUND SLIDING REAR WINDOW	V37
R06	WATER LEAK AROUND TRUNK/HATCH/BACKLIFTGTRR CARGO DR	V37
R08	WATER LEAK AROUND NON-SLIDING REAR WINDOW	V37
R09	WATER LEAK AROUND SUNMOON/CONVERTIBLE/TOP ROOF	V37
R10	OTHER WATER LEAKS (SEALING ISSUES ONLY)	V37
R21	WIND NOISE AROUND WINDSHIELD	V11
R22	WIND NOISE AROUND FRONT SIDE DOOR/WINDOW	V11
R23	WIND NOISE AROUND REAR SIDE DOOR/WINDOW	V11
R24	WIND NOISE AROUND BACK WINDOW	V11
R25	WIND NOISE AROUND SLIDING REAR WINDOW	V11
R26	WIND NOISE AROUND TRUNK/HATCH/BACKLIFTGTRR CARGO DR	V11
R29	WIND NOISE AROUND SUNMOON/CONVERTIBLE/TOP ROOF	V11
R30	OTHER WIND NOISE TROUBLES (TURBULENCE)	V11
R31	OTHER GASKET/SEALING TROUBLES	V11
S03	FRONT SEAT LOOSE	V03
S04	REAR SEAT LOOSE	V03
S06	SEAT ADJUSTMENT OPERATION - FRONT MANUAL CNTRL	V03
S07	SEAT ADJUSTMENT OPERATION - REAR SEAT	V03
S08	SEAT LOOSE THIRD ROW	V03
S09	FRONT SEAT SQUEAK/RATTLE	V03
S15	SEAT ADJUSTMENT OPERATION TROUBLE-FRONT POWER CNTRL	V03
S17	REAR SEAT SQUEAK/RATTLE	V03
S21	SEAT BELT SOILED/DIRTY	V05
S25	SEAT BELT COIL/UNCOIL TROUBLES	V05
S26	SEAT BELT BUCKLE LATCHING TROUBLES	V05
S27	STEERING WHEEL TRIM APPEARANCE	V05

S27	STEERING WHEEL TRIM APPEARANCE	V05
S38	AIR BAG (SRS) TROUBLES	V05
S39	AIR BAG WARNING LIGHT TROUBLES	V05
S40	OTHER RESTRAINT TROUBLES	V05
S50	SEAT UPHOLSTERY - LOOSE, POOR FIT, WARPED, WRINKLED	V03
S62	SEAT UPHOLSTERY - TEARS, SNAGS, CRACKS	V03
S53	SEAT UPHOLSTERY - FADED, DISCOLORED	V03
S55	SEAT UPHOLSTERY - SPLIT SEAMS	V03
S66	HEATED/COOLED SEAT TROUBLES	V03
T02	ROOF LINING MATERIAL - TEARS, SNAGS, CRACKS	V74
T08	ROOF LINING MATERIAL - FADED, DISCOLORED	V74
T12	CARPET/FLOOR COVERING - TEARS, SNAGS, CRACKS	V74
T18	CARPET/FLOOR COVERING - FADED, DISCOLORED	V74
T15	CARPET/FLOOR COVERING - SPLITTING SEAMS	V74
T22	TRUNK/CARGO INTERIOR - TEARS, SNAGS, CRACKS	V74
T50	CUPHOLDER TROUBLES	V71
T51	SUN VISOR TROUBLES	V74
T62	ASHTRAY TROUBLES	V74
T53	INT MOLDING - LOOSE, POOR FIT, WARPED, WRINKLED	V74
T64	INTERIOR MOLDINGS - MISSING	V74
T56	INT FASTENERS - LOOSE, MISSING, POOR FIT, WARPED	V74
TA1	ENTIRE OR PARTIAL TREAD SEPARATION FROM TIRE	V88
TA2	TIRE SIDEWALL BLOWOUT OR SUDDEN AIR LOSS	V88
TA3	BUBBLE/BULGE(S) IN SIDEWALL	V88
TA4	SPLITS/CRACKS IN SIDEWALL/TREAD	V88
TA5	TIRE TREAD CHUNKS MISSING	V88
T82	FLAT TIRE (SELF-SEALING TIRES ONLY)	V88
T83	VIBRATION/OUT OF ROUND	V88
T86	SLOW LEAKS (NOT CAUSED BY WHEEL VALVE STEM)	V88
T87	PREMATURE TREAD WEAR	V88
T88	PULLS/DRIFTS (NOT CAUSED BY ALIGNMENT)	V88
T08	OTHER (REQUIRES DESCRIPTION)	V88
W03	FRONT WINDSHIELD WASHER TROUBLES	V15
W04	REAR WINDOW WASHER TROUBLES	V15
W05	FRONT WIPERS TROUBLES	V16
W08	REAR WINDOW WIPERS TROUBLES	V16
W10	OTHER WIPER/WASHER TROUBLES (INCLUDING LEAKS)	V15