

**INFORMATION Redacted PURSUANT TO THE FREEDOM OF
INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)**

From: Ruth, Richard (R.R.)
Sent: Thursday, August 17, 2006 10:54 AM
To: Clement, Charles (C.A.)
Subject: FW: 04 F150 Airbag deployment

Importance: High

Fresh copy per your request

Richard R. "Rick" Ruth
313-322-7059

From: Fonseca, Lourdes (L.C.)
Sent: Friday, August 04, 2006 3:29 PM
To: Ruth, Richard (R.R.); Clement, Charles (C.A.); Oswald, Greg (G.G.)
Subject: RE: 04 F150 Airbag deployment
Importance: High

Please halt any downloading, customer initially said he'd sign all of the paperwork, this morning he went into the dealership and refused to sign any of it (including the readout module authorization form). I think the best thing to do at this point is return the part to the dealership so that they can give the customer his part back. Please return the parts (module, etc...) to Durand Automotive Group attn Brad Fyish. Phone 802-463-3300. Sorry about the mix-up, at first the customer was willing to sign everything.

From: Ruth, Richard (R.R.)
Sent: Tuesday, July 25, 2006 9:54 AM
To: Clement, Charles (C.A.); Oswald, Greg (G.G.)
Cc: Fonseca, Lourdes (L.C.)
Subject: 04 F150 Airbag deployment

04 F150, VIN 1FTPW14574KB03029, Build date 10/09/03, 90000miles, Durand Auto Group, Svc Mgr James McDonald in Vermont 802 463 3300. Dealer says customer described event as pulled in gas station to refuel, turned key off, driver airbag allegedly deployed as he was exiting the driver door. Dealer took codes and got B2293 only, took PIDS and both DAB1 and DAB2 were 25.5 ohms. Dealer installed simulators and both DAB1 and DAB2 read 3.2 ohms (normal). Dealer did not find any visible signs of impact. Customer stated he is a physician and needed the use of his vehicle, at customer request Dealer installed a new driver airbag so customer would have a horn and no airbag sticking out, but did not connect new airbag pending results of investigation in to root cause. Customer is currently driving the vehicle.

I talked to dealer this AM with Consumer Affairs rep and requested that he order a new RCM and clockspring, get customer back in, install new RCM and clockspring and inspect wiring from DAB to RCM, repairing any chafing that he finds in wiring not being replaced. Asked dealer to ship deployed driver airbag, old RCM, and old clockspring to Charles Clement.

Physician reported bruising but no serious injury, customer is requesting repair at Ford expense even though vehicle is out of warranty.

Richard R. "Rick" Ruth
313-322-7059

From: Fonseca, Lourdes (L.C.)
Sent: Tuesday, July 25, 2006 8:55 AM
To: Ruth, Richard (R.R.)
Subject: Drabyn 1561432026

Rick,

I have been trying to look up code B2293 and can't find what it means. The vehicle in question is a 2004 F-150 truck. It is the only code the dealership pulled.

Have a great day!

Lourdes

Lourdes Fonseca-Nearon

Ford Motor Company

Consumer Affairs

Litigation Prevention Dept.

Legal Analyst- Product Liability-All U.S. Regions

Phone:313-845-5681

Fax:313-845-5668

From: Pappas, Bill (B.)
Sent: Tuesday, February 07, 2006 2:08 PM
To: Clark, Todd (T.N.); Tippy, David (D.J.)
Subject: FW: Assign. 06-??? 05 F150 Air Bag Code Inspection - L. B. Ford
Attachments: 6BBEL004a.jpg; 6BBEL004b.jpg; 6BBEL004c.jpg

Todd, Dave,

FYI,

Thanks,
Bill Pappas
Tough Truck Restraints
Tel # (313) 337-3043
Cell # (313) 805-3445
Text Page: bpappas

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

From: McDonald, Joseph (J.)
Sent: Tuesday, February 07, 2006 1:50 PM
To: McClenaghan, Dean (D.C.); Pappas, Bill (B.)
Subject: FW: Assign. 06-??? 05 F150 Air Bag Code Inspection - L. B. Ford

FYI

From: Hayduk, Mark (M.S.)
Sent: Thursday, February 02, 2006 2:29 PM
To: McDonald, Joseph (J.)
Cc: Hayduk, Mark (M.S.)
Subject: Assign. 06-??? 05 F150 Air Bag Code Inspection - L. B. Ford

Joe, input for this assign.

Pls. forward to DMCCLENA and BPAPPAS.

Photos are attached to the CQIS report and this email.

Clock spring is being returned to Dean McClenaghan.

Thanks.

Mark Hayduk

Field Quality Engineer - Pittsburgh, PA
Service Engineering Operations - FCSD
Ph: 724-941-6670
Cell: 724-413-9113
Fax: 724-941-6670

Attachments : 3

11/2/2009

PE09-046 0464

Report# : 6BBEL004 FQEIR **Received:** 02/02/2006
CCRG/EPRC: S **Reviewed Status:** **Date:** 02/02/2006
Vehicle: 2005,F150 4X4,SUP CRW,STYSD ,1FTRW14W65 [REDACTED] **Build Date:** 12/16/2004
Odometer : 18,581 M **Engine:** 4.6L ROM B **Calibration:** 5F616B0A
Transmission: 4R70E **Axle:** 3800F3.73C **A/C:** YES
Dealer: USA 01307 L. B. Smith Ford, Inc. **Phone#:** (717) 761-6700
City: Lemoyne **State:** Pennsylvania **Country :** USA
Originator: MARK HAYDUK
Symptom: 1 04 4 98 BODY,RESTRAINTS,FRT AIR BAG SYS,INDICATOR
Status:
VFG: V05 OCCUPANT RESTRAINT
Additional Symptom: B2293 AND P0581 - CLOCK SPRING
Fix:Y **Causal Component :** AIR BAG CLOCK SPRING -- RPL
Condition Code:

Region Code: MA

Region Name: Mid Atlantic

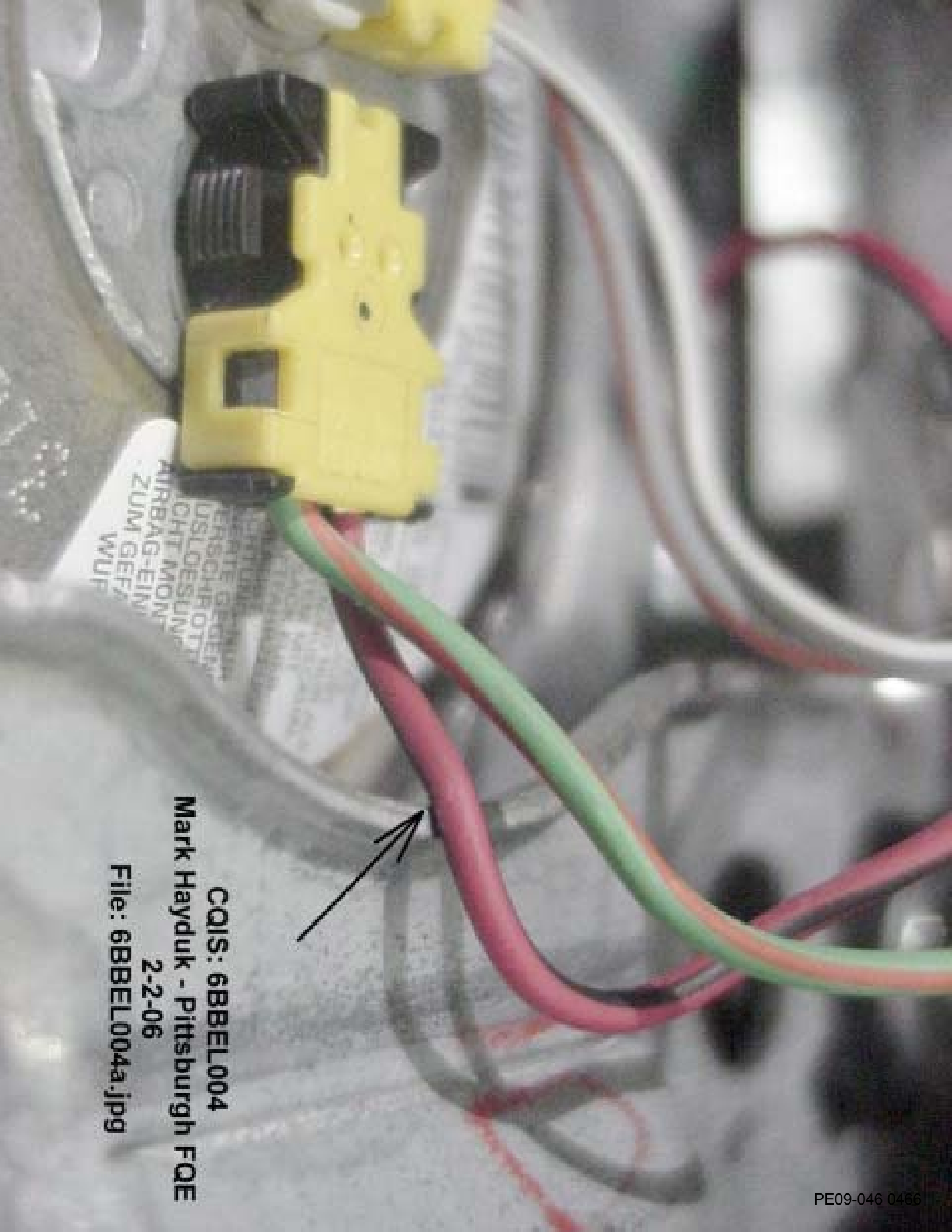
Comments :

CONCER 02/02/2006 02:04PM MARK HAYDUK MSS - FCSD - CQD - FQE
PITTSBURGH FQE MARK HAYDUK WAS REQUESTED TO REVIEW THIS VEHICLE WHICH
WAS BROUGHT TO THE DEALER WITH A COMPLAINT OF AN AIR BAG LIGHT ON.

TECH/C 02/02/2006 02:04PM MARK HAYDUK MSS - FCSD - CQD - FQE
TECH. FOUND P0581 (CRUISE CONTROL MULTI-FUNCTION INPUT CIRCUIT HIGH.)
AND B2293 (AIR BAG FAULT.). RESTRAINT SYSTEM PID DATA SHOWS FAULTS
FOR: 2293_29_CM, 2293_29_OD, 2293_21_CM AND 2293_21_OD. RESISTANCE
VALUES MEASURED WITH WDS FOR BOTH THE 1ST STAGE AND 2ND STAGE CIRCUITS
OF THE AIR BAG RANGED FROM 3.2 OHMS TO 7.1 OHMS WHEN TURNING THE WHEEL
AND OCCASIONALLY THE 1ST STAGE AND/OR 2ND STAGE RESISTANCE WOULD GO TO
25.5 OHMS. ALSO FOUND THE RED WITH BLACK STRIPED WIRE, GOING TO THE
BLACK CONNECTOR ON THE BACK OF THE STEERING WHEEL AIR BAG, TO BE
AGAINST THE EDGE OF THE STEEL BRACKET. THE WIRE COVER WAS DAMAGED BUT
DID NOT PENETRATE TO THE COPPER WIRES. THE BLACK COVER OF THE WIRES
PLUGGED INTO THE CLOCK SPRING CONNECTION ON THE PASS. SIDE OF THE
CLOCK SPRING SHOWED A WITNESS MARK FROM THE STEEL BRACKET PUSHING ON
IT, BUT THE COVER WAS NOT CUT THROUGH. TECH. INSTALLED A NEW CLOCK
SPRING, CLEARED CODES AND THE CONCERN WAS RESOLVED. PHOTOS ARE
ATTACHED TO THIS REPORT. CLOCK SPRING IS BEING RETURNED TO DEAN
MCCLLENAGHAN. MARK HAYDUK - PITTSBURGH FQE - 724-413-9113.

Please click on the link below to view the attachments associated with this report

http://www.gcqis.ford.com/gcqis/asp/DIVViewAttachment_Mainx.asp?ReportNumber=6BBEL004



WURDE GEGRÜNDET
ERSCHIEDEN
USLSCHROTT
SCHLIESSEN
LICHT MONTE
AIRBAG-EINBAU
ZUM GEFÄH
WUP



COIS: 6BBEL004
Mark Hayduk - Pittsburgh FOE
2-2-06
File: 6BBEL004a.jpg



COIS: 6BBEL004
Mark Hayduk - Pittsburgh FQE
2-2-06
File: 6BBEL004b.jpg



CAIS: 6BBEL004

Mark Hayduk - Pittsburgh FQE

2-2-06

File: 6BBEL004c.jpg

From: Wrestler, Sandy (S.J.)
Sent: Tuesday, January 31, 2006 6:22 PM
To: Klosek, Walter (W.)
Cc: Olson, Kathy (K.A.)
Subject: 06 P221 Clock springs

Walt, Kathy,

06 P221 DAB TRW Contacts are John Wilson (jwilso71) and Zyg Gregory (zgregory).

Thank you for the clock spring and wires.

Can we get 6 more of the wires mocked up w/Bently Harris material so that we can put 3 on Vibration test and one to each plant for the PVT to review and assess installation impact?

Also, how soon can we get cost and timing for the Bently Harris? Peter has asked us to get that Released this week. I will attend Change Control with you to support.

Sandra Jo Wrestler
Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

From: Steve.J Peterson [Steve.J.Peterson@TRW.COM]
Sent: Thursday, January 26, 2006 12:56 PM
To: Clement, Charles (C.A.); Kempf, Gregory (G.J.); Oswald, Greg (G.G.); Richei, Gordon (G.); Neutgens, Kurt (K.J.); Edmonds, Mark (M.); Mikolaiczik, Mark (M.A.); Medley, Steven (S.D.); Wrestler, Sandy (S.J.); Alexander, Vincent (V.J.)
Cc: McDaniel, Keith (R.K.); Gregory, Zygmunt (Z.)
Subject: RE: 06 P221 DAB Alert A11859535

I have directed the TRW Cookeville plant to proceed on this direction asap. Please add this verbiage to the alert. Thanks.

>>> "Alexander, Vincent (V.J.)" <valexa4@ford.com> 01/26/06 10:38 AM

>>>
TRW has evaluated this flock tape on surrogate restraint components.
It
has met the engineering specifications and completed PV successfully during heat age and life cycle.

Engineering recommends the flock tape and Matt O'Leary has concurred with our recommendation. TRW will be containing all modules this afternoon with flock tape from their manufacturing facility.

Vincent Alexander
Restraints Engineer
Cube: 2F-K40 Phone: 313-24-85837
Email: valexa4@ford.com
Cell Phone/Pager: 313-805-3380

> -----Original Message-----

> From: Neutgens, Kurt (K.J.)
> Sent: Wednesday, January 25, 2006 4:57 PM
> To: Wrestler, Sandy (S.J.); Edmonds, Mark (M.); Kempf, Gregory (G.J.); Richei, Gordon (G.); Mikolaiczik, Mark (M.A.); Medley, Steven
> (S.D.); Alexander, Vincent (V.J.)
> Cc: McDaniel, Keith (R.K.)
> Subject: RE: 06 P221 DAB Alert A11859535

>
> I'm concerned the flocked tape wont hold over time. Has anyone done
> any review of the adhesive for the flocked tape?
>
> Who's help do we need to get them the material that we are using
> today?
>
> Thanks again for your support!
>
>Quality perception is the #1 differentiator when a customer
makes
> a buying decision!

>
> Kurt Neutgens
> PVT Manager F150 KCAP / NAP
>
> PHONE (816) 935-4205 Cell (816) 414-5585 Desk
> FAX (816) 414-5585
> EMAIL kneutgen@ford.com
> Interoffice Address: KCAP Lincoln Center
> EMMP
> Class of 2001
> Excellence in Technical Business Leadership
>
> -----Original Message-----
> From: Wrestler, Sandy (S.J.)
> Sent: Wednesday, January 25, 2006 2:49 PM
> To: Edmonds, Mark (M.); Kempf, Gregory (G.J.); Richei, Gordon (G.);
> Mikolaiczik, Mark (M.A.); Neutgens, Kurt (K.J.); Medley, Steven
> (S.D.); Alexander, Vincent (V.J.)
> Cc: McDaniel, Keith (R.K.)
> Subject: 06 P221 DAB Alert A11859535
> Importance: High
>
> Alert has been modified to add tape around periphery of opening in
> horn plate that c/s wires pass through to squib.
>
> TRW has been unsuccessful in procuring enough of the mylar to
> support
> large areas/or application for more than a couple of days.
>
> They have proposed a flocked tape which is readily available - Vince
> will revise to in the Alert to this new material.
>
> Stock shipped out of TRW starting tomorrow should have this tape and
> should be identified with the Alert #.
>
>
>
> Sandra Jo Wrestler
> Supervisor, Ford NAE Restraints
> Steering Wheels, DAB and PAB
> SUV/BOF and PTAC
> PDC, 2F-K60, 313 805-3473
>

From: Clement, Charles (C.A.)
Sent: Tuesday, January 24, 2006 11:19 AM
To: Amin, Mike (M.J.); Patel, Rasik (R.N.)
Subject: FW: 06 P221 DAB

Importance: High

Charles A. Clement
N.A.E. Safety - Seats and Restraints
Campaign Prevent Specialist - Occupant Movement
Tough Truck/SUV/Body on Frame
Cell/Pager: 313-805-3402

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

From: Wrestler, Sandy (S.J.)
Sent: Tuesday, January 24, 2006 11:01 AM
To: 'steve.j.peterson@trw.com'; 'Steve Ahlquist'
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.); Clement, Charles (C.A.); Kim, Peter (P.K.); Wilson, John (J.)
Subject: 06 P221 DAB
Importance: High

Steve Peterson,

Thanks for the quick response last night.

After we spoke to you, Vincent Alexander, Charles Clement and I met with Peter Kim to bring him up to speed on the issue and the interim containment action.

Peter noted that he views this as a clear SDS violation and it's TRW's responsibility to correct it. There are several items we discussed with Peter as next steps:

- 1) Peter asked that we increase the tape locations on the Alert to all areas where there are sharp edges in proximity to the C/S wire. We identified 6 or 7 in total. Vincent has marked up a photo and I believe he has already sent this to you.
 - A) Please have your tech reps work with the plants to find out how much stock they have on and of the box tape 5L34-99297B12-AA (supplier code K055C, K-Automotive) and work out the plan to coordinate additional tape to address the additional taping locations identified on the photo (we may have to agree on priority locations and cover only some of them to start depending on stock on hand and additional material availability).
 - B) Additionally - we need you to work out the plan to move the Emergency Containment Alert - (mylar tape) out of the Ford Asy plants back to TRW Cookvile.
- 2) Begin developing an 8D. I have opened G8D #58362 in the Ford System. I will add John Wilson and Zyg Gregory to have write access. A separate 8D is fine to start with but it will need to eventually make it into the Ford G8D system. We need to understand how the issue got through but the TRW and Ford systems and have a solid plan to prevent recurrence.
- 3) Permanent Corrective Action - Please develop your permanent corrective action proposals based upon the items we've already initiated discussion on as well as any additional ideas.
- 4) Please plan to review all items noted above via written workplans, timing plans and design change proposals with Peter Kim at a meeting to be set up and held later this week in preparation for subsequent review with Mike Whitens - Interior CFE.
- 5) Lastly, I need you to go back through all current TRW S/W and DAB designs that are provided to Ford on current and future models and identify what if any similar conditions exist and any necessary corrective action plans. (I'm told 07 P356 may have a similar condition.) Please bring the results of this investigation to the meeting later this week with Peter Kim as well.

Thanks

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

Returned and Analyzed RCM Modules

#	Model	Model Year	Air Bag Warning Lamp Status	# of Key Cycles
1	F-150	2004	ON	256
2	F-150	2004	ON	256
3	F-150	2005	ON	256
4	F-150	2005	ON	256
5	F-150	2005	ON	256
6	F-150	2005	ON	256
7	F-150	2005	ON	46

From: Gurney, Chris (C.A.)
Sent: Friday, June 05, 2009 6:06 PM
To: Lilly, Ken (K.A.)
Subject: 2004-2005 F-150 Alleged Unintended Air Bag Deployment - Status Check

Ken, I am still working on the 2004-2005 F-150 Alleged Unintended Air Bag Deployment 1st level paper. I am about 90% done with the report. I still have to do formatting, date checking and one more "scan-check" to make sure it looks reasonable. All of the data collection is complete. Please give me another day or two. Also, by then, we will have heard back from Donna Crawley.

If you have any questions, please do not hesitate to call. Thanks.

Chris Gurney

**Ford Motor Company
Fairlane Plaza South
330 Town Center Drive, Suite 500
Dearborn, Michigan 48126
(313) 248-7439**

Wrestler, Sandy (S.J.)

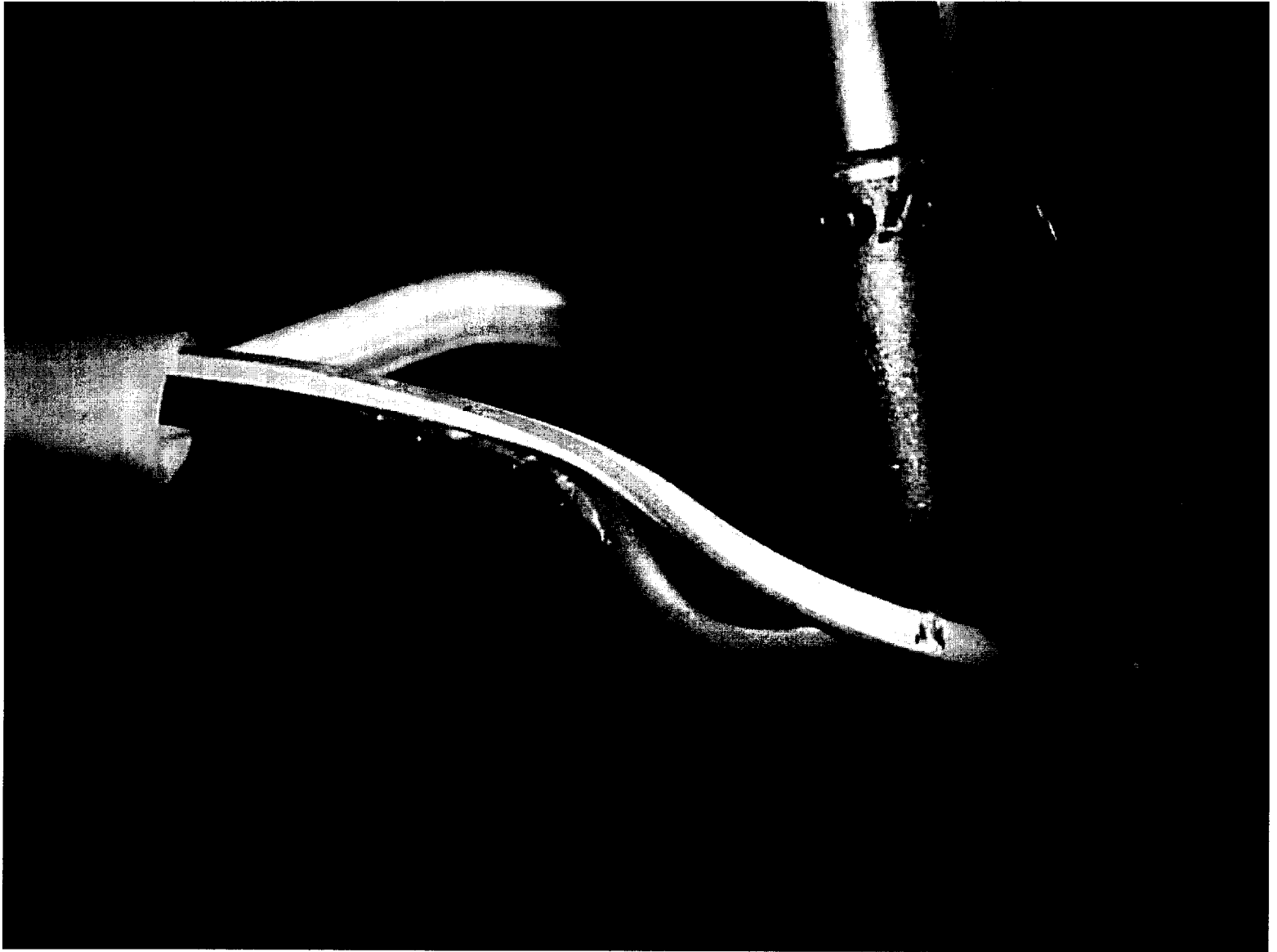
From: Ruth, Richard (R.R.)
Sent: Wednesday, January 18, 2006 2:23 PM
To: Clement, Charles (C.A.); Oswalt, Greg (G.G.)
Cc: Wrestler, Sandy (S.J.)
Subject: FW: 2005 F-150, VIN: 1FTRF12225NA87355 wiring photos
Importance: High

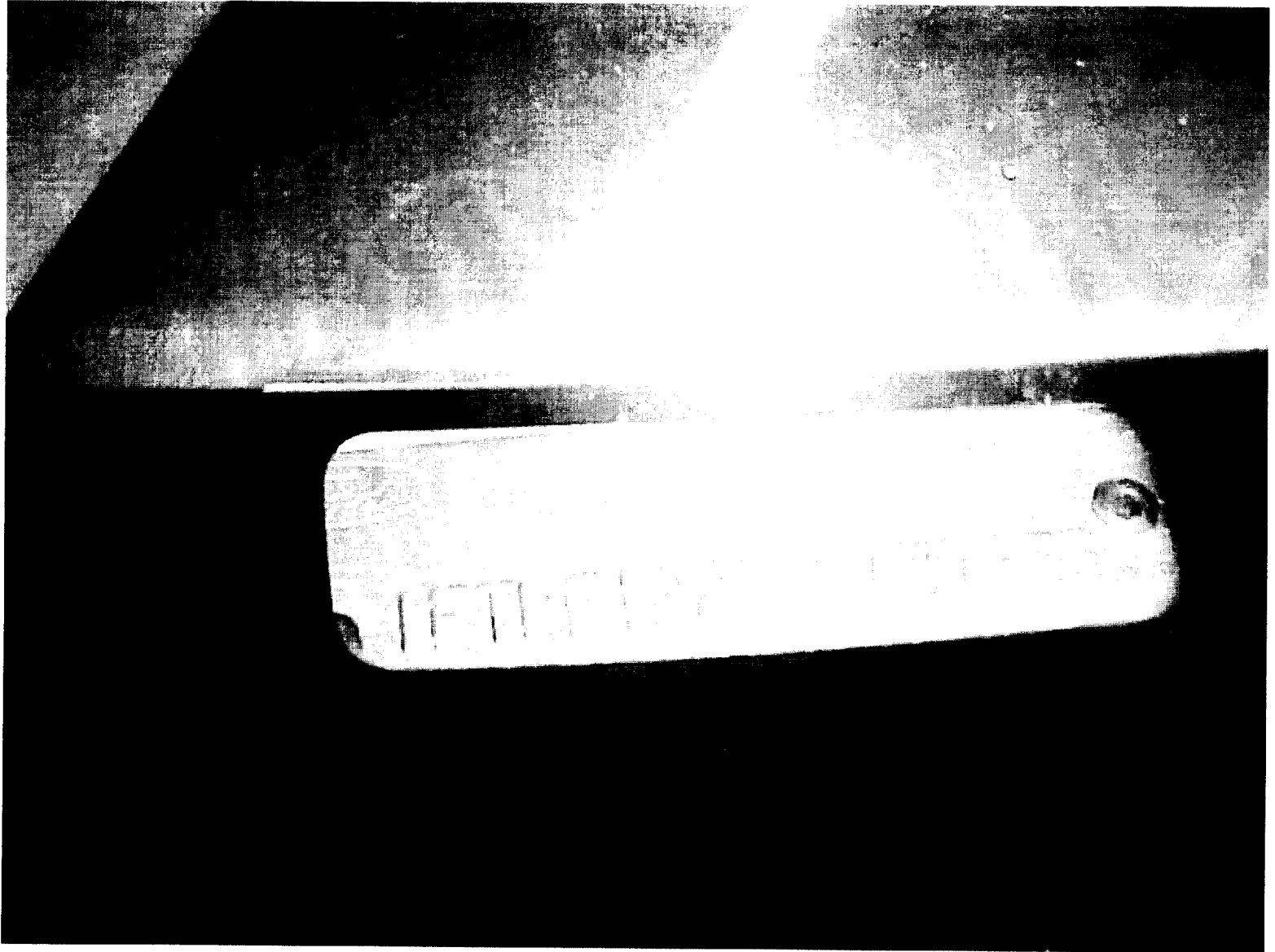
Photos of interest.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager 313 795 4880
rruth@ford.com

Ford Confidential





WARNING

- NEVER TRY TO REPAIR OR TEST THIS MODULE
- USE VEHICLE SHOP MANUAL TO DIAGNOSE PROBLEMS
- SEE AIR BAG MANUAL FOR HANDLING INSTRUCTIONS
- LAMPING OR MISHANDLING CAN RESULT IN PERSONAL INJURY

AVERTISSEMENT

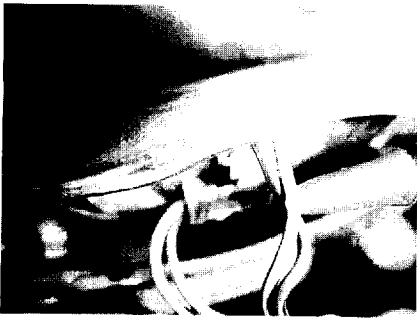
- NE JAMAIS TENTER DE RÉPARER NI DE TESTER CE MODULE
- UTILISER LE MANUEL DE RÉPARATION POUR DIAGNOSTIQUER LES PROBLÈMES
- CONSULTER LE MANUEL TECHNIQUE DES SACS À AIR POUR LES PROCÉDURES À EMPLOYER
- TOUTE ALTÉRATION OU MANIPULATION ERRONÉE RISQUE D'ENTRAÎNER DES BLESSURES

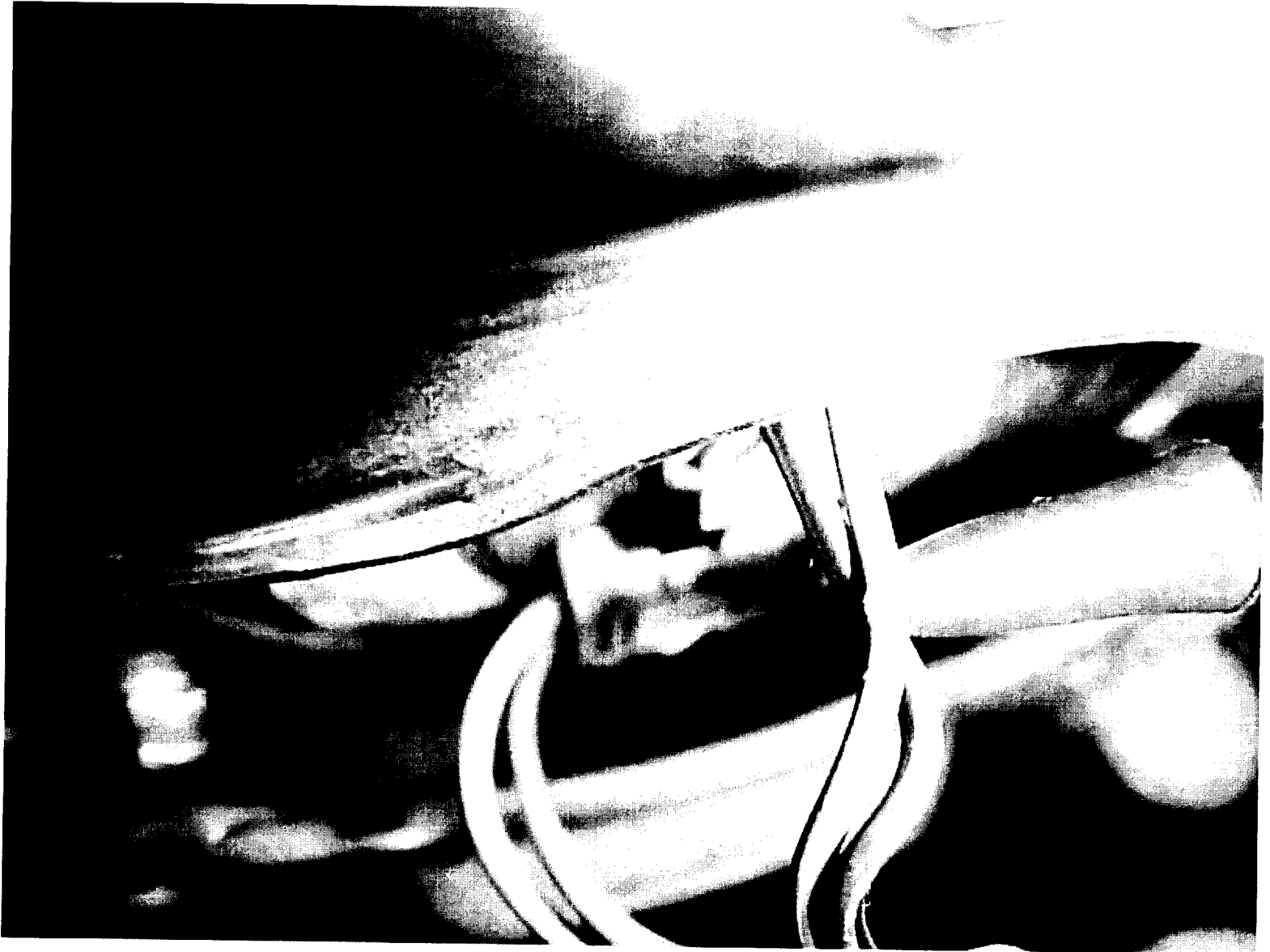
5L34 15043B13 CC3JR6 DP

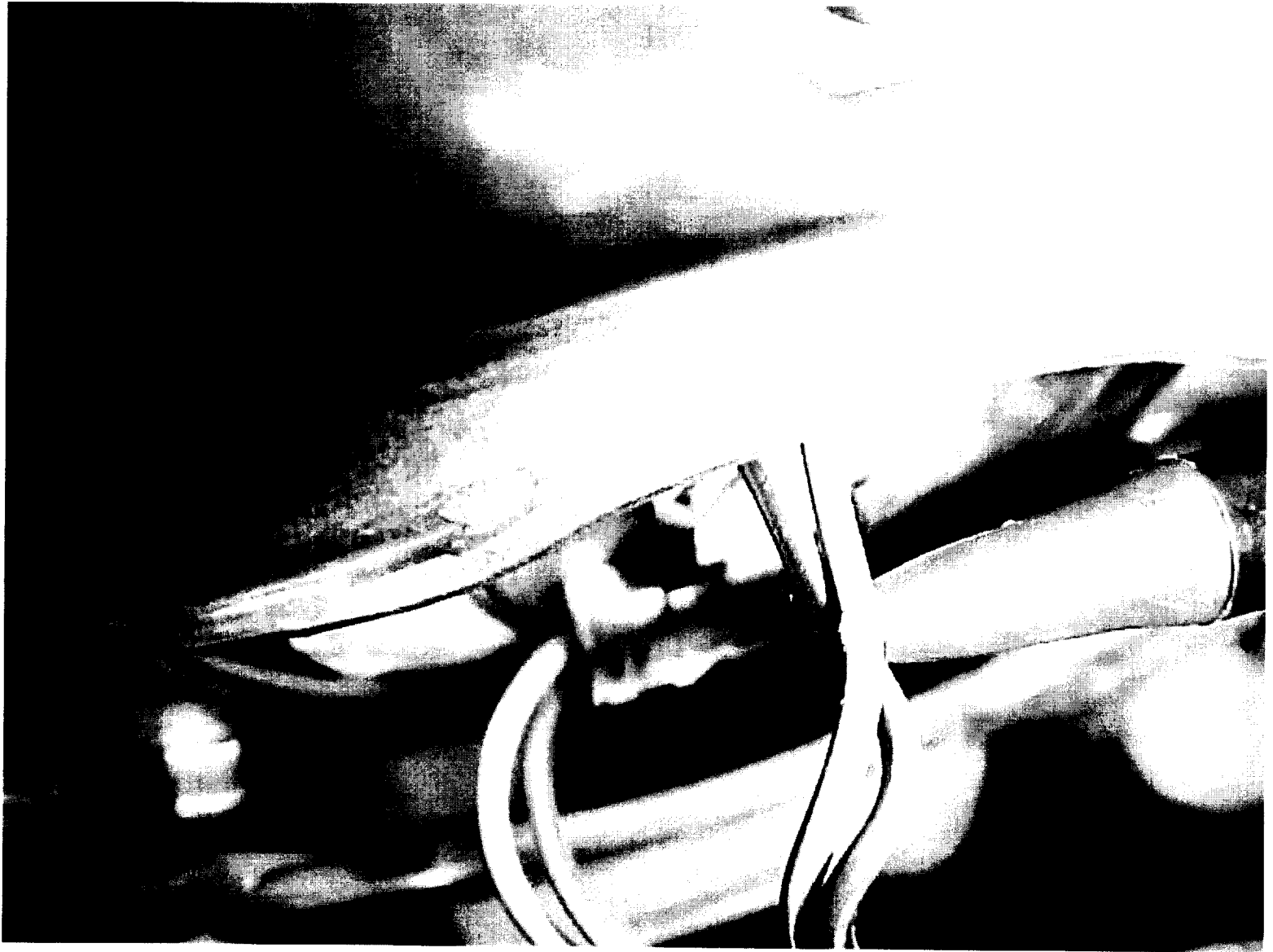


BF00710AJ









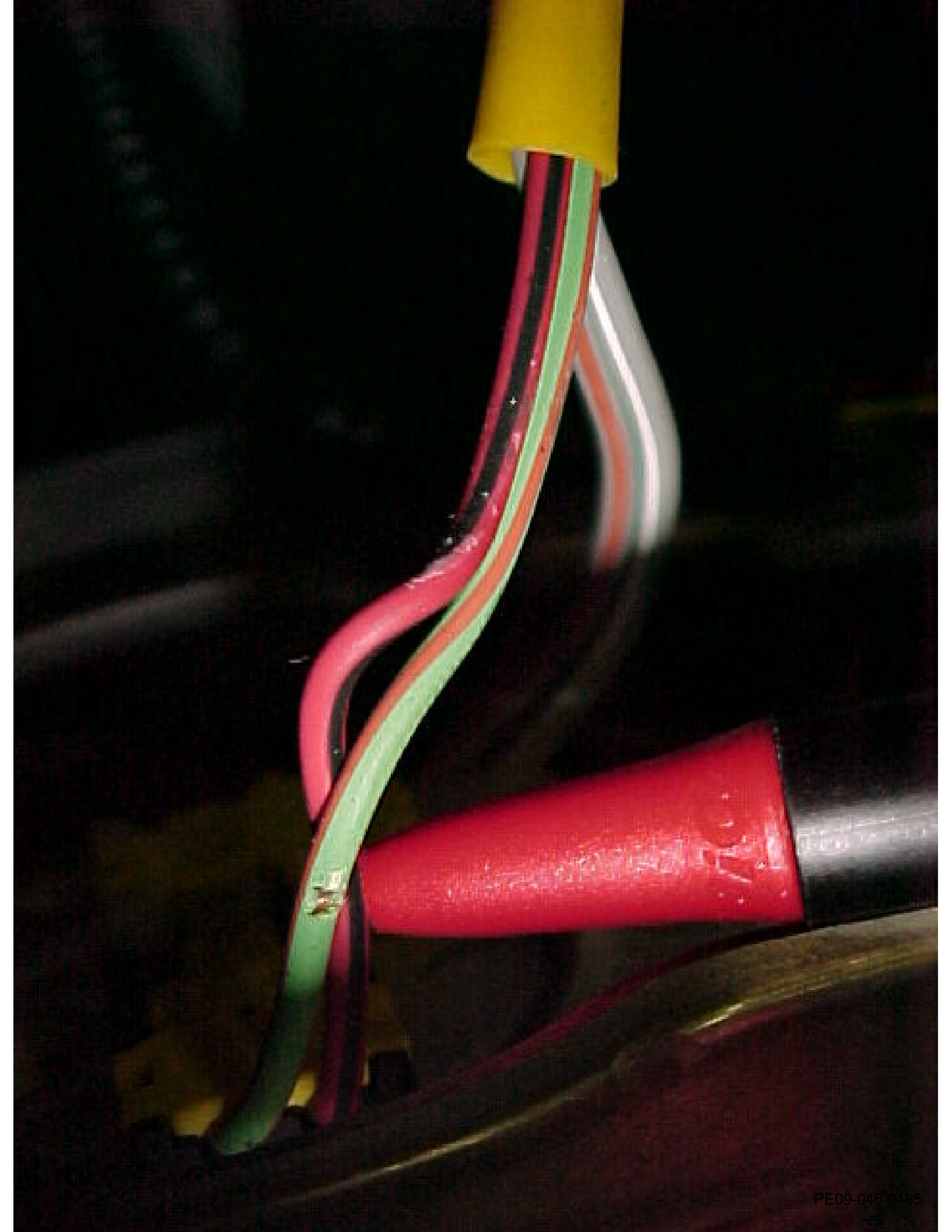
From: Ruth, Richard (R.R.)
Sent: Wednesday, January 18, 2006 2:23 PM
To: Clement, Charles (C.A.); Oswald, Greg (G.G.)
Cc: Wrestler, Sandy (S.J.)
Subject: FW: 2005 F-150, VIN: 1FTRF12225NA87355 wiring photos
Importance: High
Attachments: MVC-684F.JPG; MVC-687F.JPG; MVC-688F.JPG; MVC-689F.JPG; MVC-690F.JPG; MVC-691F.JPG

[Photos of interest.](#)


Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager XXXXXXXXXX
rruth@ford.com

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  **WARNING**

- NEVER TRY TO REPAIR OR TEST THIS MODULE.
- USE VEHICLE SHOP MANUAL TO DIAGNOSE PROBLEMS.
- SEE AIR BAG SERVICE MANUAL FOR HANDLING INSTRUCTIONS.
- TAMPERING OR MISHANDLING CAN RESULT IN PERSONAL INJURY.

  **AVERTISSEMENT**

- NE JAMAIS TENTER DE RÉPARER NI DE TESTER CE MODULE.
- UTILISER LE MANUEL DE RÉPARATION POUR DIAGNOSTIQUER LES PROBLÈMES.
- VOIR LE MANUEL DE SERVICE À L'AIR BAG POUR LES PROCÉDÉS DE MANÈGE.
- LE MANÈGE INAPPROPRIÉ PEUT CAUSER DES BLESSURES.
- LE MANÈGE INAPPROPRIÉ PEUT CAUSER DES BLESSURES.

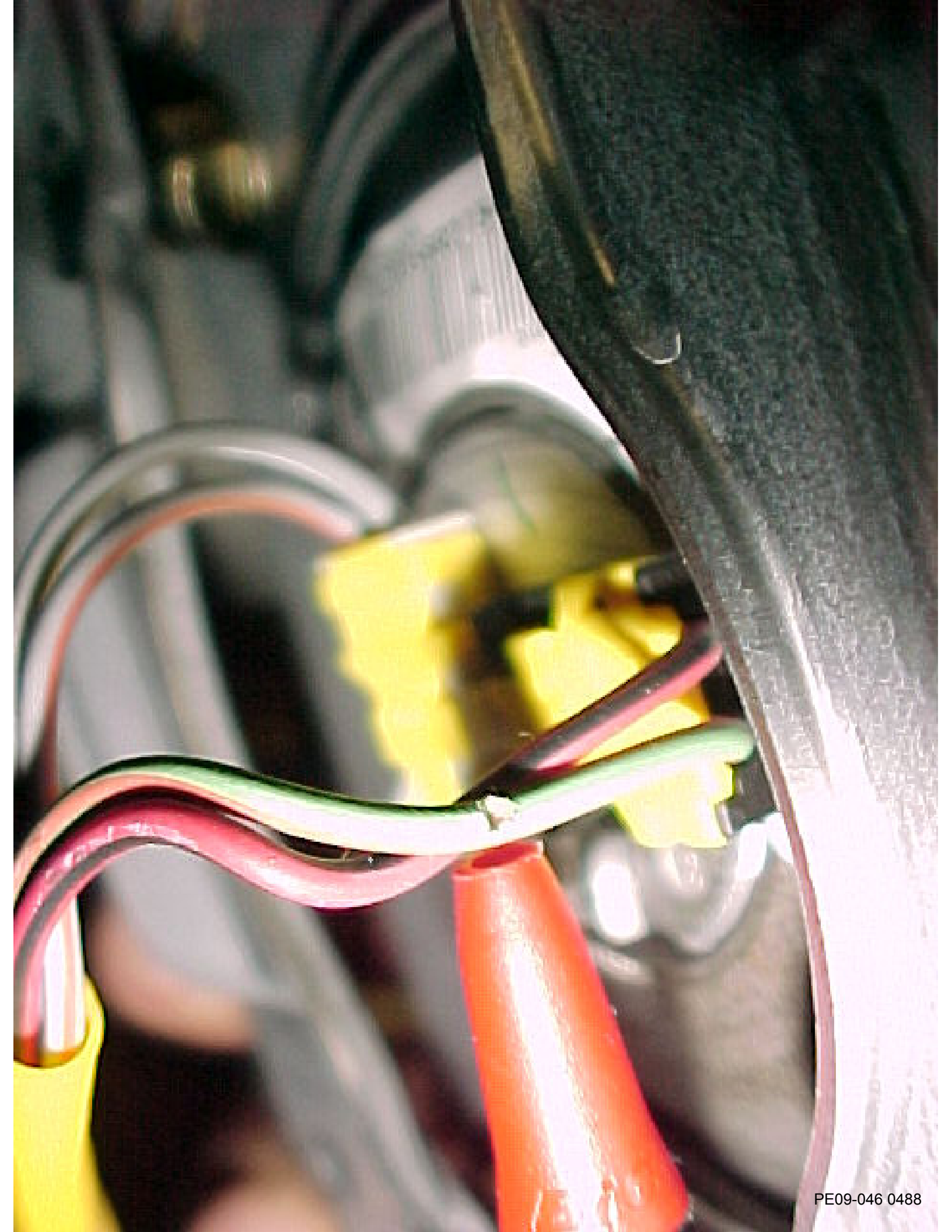


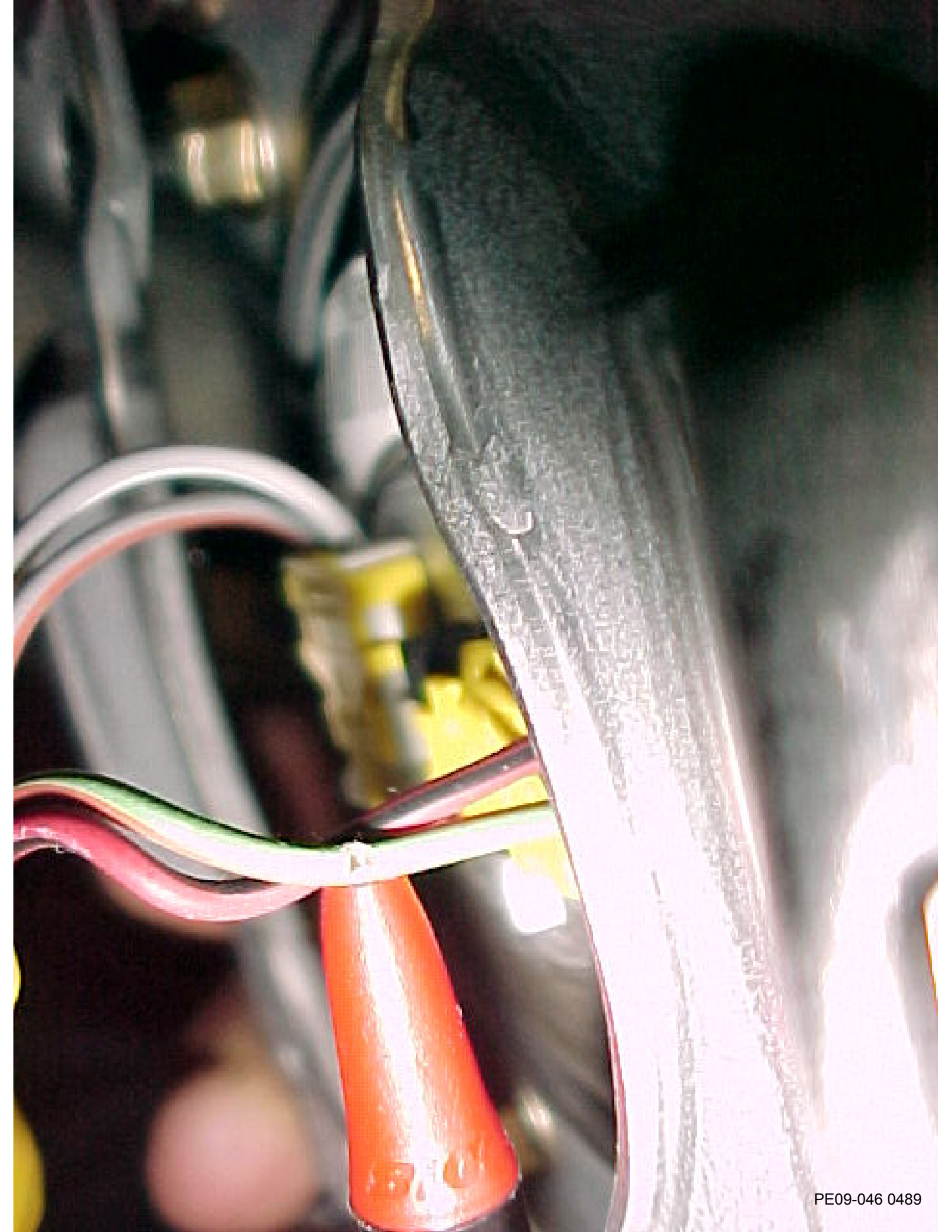
SL34 15043813 CCCJRB DP

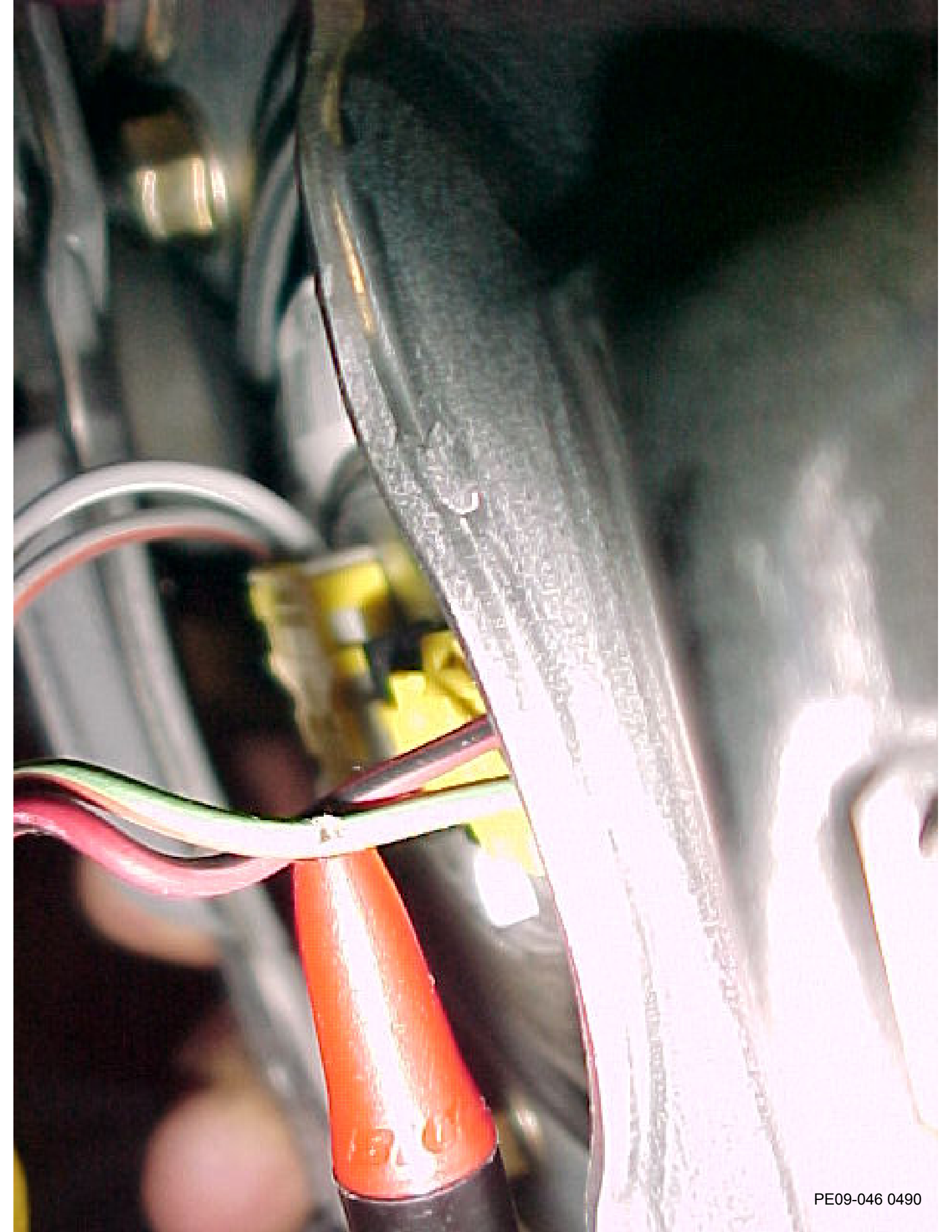


BF00710RJ









From: Wrestler, Sandy (S.J.)
Sent: Monday, February 13, 2006 1:12 PM
To: Lewis, Herman (.)
Subject: FW: 2006 P221 DAB
Follow Up Flag: Follow up
Flag Status: Flagged

Herman,

Please collect photos of all current Truck and SUVBOF DAB's and assess for sharp flanges.

Thanks

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Steve Ahlquist [mailto:Steve.Ahlquist@TRW.COM]
Sent: Monday, January 30, 2006 8:26 AM
To: Wrestler, Sandy (S.J.); Steve.J Peterson
Cc: Chascsa, Jim (JRCII.); Kim, Peter (P.K.); Gregory, Zygmunt (Z.); James Kerrigan; Manny Goodman
Subject: Re: 2006 P221 DAB

Sandy,

In addition to the programs mentioned other affected Ford DAB programs that TRW makes are:

U251 DAB

D186 DAB

Current U228 and current U222

Current P131

Steve Peterson and I looked at them. Our assessment is that these programs do not have sharp edges.

Steve

>>> "Wrestler, Sandy (S.J.)" <swrestle@ford.com> 1/27/2006 1:54 PM >>>

Steve, Steve,

How soon can we get feedback on other current TRW DAB's supplied to Ford regarding the presence of any sharp flanges similar to 06 P221 DAB? I know the 07 U222/8 P356 teams are working on resolution for those respective programs. I need to know about everything else.

Peter has requested that we go through everything we make with Jim Chascsa and look for the presence of this condition.

Can we have this review complete by our follow up meeting with Peter next Tuesday, 5/31/06?

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

10/9/2009

PE09-046 0491

From: Olson, Kathy (K.A.)
Sent: Thursday, May 04, 2006 9:26 AM
To: Drugalis, Patti (P.A.)
Cc: Klosek, Walter (W.)
Subject: AE00-E-11879049-001

Patti,

I've pulled the above mentioned notice to pull this clockspring change in early for service. The change itself will start in production at 07 J1, however, I was told that once these parts are available (5/27/06) they need to be used for all P221 service replacements. This is the first notice of this type that I have ever done, so please let me know what needs to be added, removed, etc. for clarity.

Thanks,
Kathy Olson
Switch Application Engineer
kolson5@ford.com
313-805-6870

From: Fasnacht, Robert (R.P.)
Sent: Friday, February 24, 2006 2:24 PM
To: Patel, Bharat (B.C.); Coleman, Al (A.); Palmer, Leigh (L.R.); Shockling, Jana (J.L.); Lewinson, Royston (R.O.)
Cc: Khan, Mohammod (M.); Hilding, Robert (R.J.); Clement, Charles (C.A.)
Subject: RE: Air Bag Bracket issue

Cutoff for interim action of clear mylar tape was rotation #5805 1/23/06.

Cutoffs with black felt tape from supplier follows by part number:
6L34 15043B13 AB32NCusing new stock with black felt tape as of Rot 2853 on 2/10/06.
6L34 15043B13 AB3JA6Rot. 3275 on 2/10/06.
6L34 15043B13 AB33TC...(black).....low runner, Rot 0944 on 2/23/06

Jana/Royston, Do you have timing on the permanent countermeasure? I believe the permanent action was to add a mesh sleeve to the wire.

-- **Bob Fasnacht**

From: Patel, Bharat (B.C.)
Sent: Friday, February 24, 2006 1:40 PM
To: Fasnacht, Robert (R.P.); Coleman, Al (A.); Palmer, Leigh (L.R.)
Cc: Khan, Mohammod (M.); Hilding, Robert (R.J.)
Subject: Air Bag Bracket issue

Can you provide the effective Date, Rotation Nos and Shift when you started implementing interim and permanent corrective action on the sharp edge of the bracket to prevent contact to the clock spring wiring ?

If you have implemented two different action at two different stages, pls. give those info. In the same format too.

Appreciate quick feedback,

Bharat C. Patel

VO Critical Concern Coordinator;

FAE-Underbody Powertrain Engineering Dept,
6200 Mercury Drive, Cube# HE010,
Mobile # (313) 805-0702

From: Coleman, Al (A.)
Sent: Thursday, February 02, 2006 10:47 AM
To: Palmer, Leigh (L.R.); Fasnacht, Robert (R.P.)
Cc: Patel, Bharat (B.C.); Khan, Mohammad (M.); Oswalt, Greg (G.G.); Clement, Charles (C.A.); Paglino, Jim (J.)
Subject: Air bag Bracket
Attachments: P1010002.JPG

Bob, Leigh attached is a picture of the new rework for the air bag bracket please have your IQ group record the first units that you start using the new part on.



P1010002.JPG (367
KB)

Allen "Al" Coleman

Government Regulations Coordinator

Dearborn Truck Plant

Phone: 313-84-52764

CDSID: acolema1



From: Wrestler, Sandy (S.J.)
Sent: Monday, February 06, 2006 5:25 PM
To: Alexander, Vincent (V.J.); Lewis, Herman (.); 'Steve Ahlquist'
Subject: FW: Air Bag Question

FYI. Treat confidentially.

Sandra Jo Wrestler
Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Ruth, Richard (R.R.)
Sent: Monday, February 06, 2006 1:11 PM
To: Papalia-Reid, Catherina (C.)
Cc: Oswald, Greg (G.G.); Clement, Charles (C.A.); Wrestler, Sandy (S.J.)
Subject: RE: Air Bag Question

Per our conversation this is a driver airbag only deployment. Code B2293 is expected after either the driver or passenger airbags have deployed, code B1884 is PAD warning lamp circuit failure and likely unrelated to this event, and C 1981 is driver seat track position sensor circuit fault and likely unrelated to this event. Customization can cause issues if the customer tapped in to any of the 4 driver airbag circuits, but if the customizer had any expertise they would not typically tap in to the circuits for the airbag. I would err on the side of believing the customer's story unless facts to the contrary present themselves.

You and I spoke to service manager Dennis and technician Marty at the Loman Ford, 820 Route 1 South, Iselin, NJ 08830 732-636-3200. Marty reported DRFAB stage 2 resistance as 25.5 ohms, out of normal range. I asked Marty to remove the DAB and inspect the wiring between the driver airbag and the Restraint Control Module, starting at the top of the circuit, looking for possible wire chafe to anything metallic that could yield a path to ground. If Marty finds a chafed wire, I have him to take a digital picture and e-mail it to you.

The build date on this is 11/24/04 at Norfolk. Reported mileage was approximately 60K.

OASIS RESULT:		See bottom of the OASIS result for	02/06/2006
1FTPX1259N [REDACTED]		contact ID	11:28:58
VEHICLE DESCRIPTION	BODY STYLE	ENGINE	
2005 F-SERIES LD</FONT	F-150 SUPER CAB STYLE SIDE 4X2	5.4L 3V SOHC	
TRANSMISSION	AXLE CODE	ENGINE CALIBRATION	
.	H9	5F613D0A	
WARRANTY START DATE	BUILD DATE	SALE MILEAGE	
02/22/2005	11/24/2004	00096	

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager [REDACTED]
rruth@ford.com

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

From: Papalia-Reid, Catherina (C.)
Sent: Monday, February 06, 2006 10:50 AM
To: Ruth, Richard (R.R.)
Subject: Air Bag Question

Good Morning Rick-

I have an inquiry for you regarding a vehicle that claims that air bags deployed without any impact. Vehicle is a 2005 F-150 (1FTPX12595N [REDACTED]) claims the vehicle was in park when the air bags deployed. I had the dealership inspect the vehicle and they do not see any body damage but they did find that the vehicle was customized. It has low profile tires, the height was lowered and the air foils are missing. The codes they pulled were B-2293, B1884 and C-1981. What do the codes mean and would the customization have an affect on the air bag function? Thank you for your help.

Catherina Papalia-Reid

Senior Legal Analyst
Phone: (313)845-5645
Fax: (313)845-5555
cpapalia@ford.com

⑧ Get ECI data from AWS for Lighters - what was repair.
 Dave Reigman to talk to ECI. Air Bag light in gen
 Also to do Data Search. 3/2/06

IN	LOCATION	VIN	BUILD DATE	MODEL YEAR	MODEL	DRIVE LINE	BUILD PLANT	MILES	Ford Eng. Reviewed Vehicle?	Ford Eng. Returned Parts?	CODE B-2193	Clock Spring Observations	
1		1FTPX14544	17-Sep-04	2004	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	DEARBORN TRUCK PLANT	32,401				DAB module reviewed by TRW. SW wire chafe @ clock spring end.	No damage to clock spring wires.
2	Eunice, LA	1FTRW12WX40	Dec-03	2004	DOUBLE CAB (CREW CAB)	2 WHL L/H REAR DRIVE	KANSAS CITY PLANT BUILD	11,605			Y		
3	Lafayette, IN	1FTPW145442	Jan-04	2004	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KANSAS CITY PLANT BUILD	26,400					
4	Essex, Ontario, CAN	1FTPW145145	May-04	2004	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KANSAS CITY PLANT BUILD	17					
5	Boston, MA	1FTRX14W02	May-04	2004	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	16,446	Y	Y		Cut wire (Grey/Orange & Grey/White) @ 4-way connector.	
6	Roselle Park, NJ	1FTPX12595	Nov-04	2005	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	45,000					
7		1FTRX12W152	Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	18,448					
8	Winston Salem, NC	1FTRX14W631	Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	23,300			Y		
9	Las Vegas, NV	1FTPX145X5	Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	35,485			Y	Damage to Green/Orange & Red/Black behind squib connector.	
10	Bloomington, IL	1FTPX14585	Jan-05	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	17,318			Y		
11	Tigard, OR	1FTRF14W159	Jan-05	2005	SINGLE CAB (REGULAR CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	23,564			Y		
12	Holyoke, MA	1FTRF12225	Jan-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	21,513			Y	DAB module reviewed by TRW. Chafe on Green/Orange wire @ 3 O'Clock	
13		1FTRF12215	Jan-05	2005	RC 4x2		NORFOLK PLANT BUILD	6,910			Y	Backward; part not available to review wiring.	
14	Maple Ridge, British Columbia, CAN	1FTRF12295	Jan-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	13,194					
15	City Unk, State Unk, CAN	1FTPX14585	Jan-05	2005	SC 4x4		NORFOLK PLANT BUILD	7,161			Y		
16	Clearwater, FL	1FTRF12215	Jun-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	17,000	Y	Y		Cut wire (Red/Black) @ 4-way connector.	
17	Miami, FL	1FTRF122X5	Dec-04	2005	Reg Cab 4, 2 x L		NORFOLK PLANT BUILD	28,397	Y	Y		Cut wire (Green/Orange & Red/Black) @ squib.	
18	Oaklahoma City, OK	1FTRF12235	Mar-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	10,537	Y	Y		Cut wire (Green/Orange) @ back of squib.	

⑤ Need Full DVP.

- ① Get 3/w vtr vs vms - Jim & I
- ② Want someone to look @ all 3 plants
- ③ Walt to F/R tear down c/s's & review c/s wires
- ④ Methode EOL test - what is fall/out.
- ⑥ Look @ P221 current armatures for sharp
- ⑦ Dave to provide list of veh. line...

From: McDonald, Joseph (J.)
Sent: Tuesday, February 07, 2006 1:50 PM
To: McClenaghan, Dean (D.C.); Pappas, Bill (B.)
Subject: FW: Assign. 06-??? 05 F150 Air Bag Code Inspection - L. B. Ford
Attachments: 6BBEL004a.jpg; 6BBEL004b.jpg; 6BBEL004c.jpg

FYI

From: Hayduk, Mark (M.S.)
Sent: Thursday, February 02, 2006 2:29 PM
To: McDonald, Joseph (J.)
Cc: Hayduk, Mark (M.S.)
Subject: Assign. 06-??? 05 F150 Air Bag Code Inspection - L. B. Ford

Joe, input for this assign.

Pls. forward to DMCCLENA and BPAPPAS.

Photos are attached to the CQIS report and this email.

Clock spring is being returned to Dean McClenaghan.

Thanks.

Mark Hayduk

Field Quality Engineer - Pittsburgh, PA
Service Engineering Operations - FCSD
Ph: 724-941-6670
Cell: [REDACTED]
Fax: 724-941-6670

Attachments : 3

Report# :	6BBEL004 FQEIR	Received:	02/02/2006
CCRG/EPRC:	S	Reviewed Status:	Date: 02/02/2006
Vehicle:	2005,F150 4X4,SUP CRW,STYSD ,1FTRW14W65F [REDACTED]	Build Date:	12/16/2004
Odometer :	18,581 M	Engine:	4.6L ROM B
Transmission:	4R70E	Axle:	3800F3.73C
Dealer:	USA 01307 L. B. Smith Ford, Inc.	A/C:	YES
City:	Lemoyne	Phone#:	(717) 761-6700
Originator:	MARK HAYDUK	State:	Pennsylvania
Symptom:	1 04 4 98 BODY,RESTRAINTS,FRT AIR BAG SYS,INDICATOR		
Status:			
VFG:	V05 OCCUPANT RESTRAINT		

Additional

10/12/2009

PE09-046 0499

Symptom: B2293 AND P0581 - CLOCK SPRING

Fix:Y **Causal Component :** AIR BAG CLOCK SPRING -- RPL

Condition Code:

Region Code: MA

Region Name: Mid Atlantic

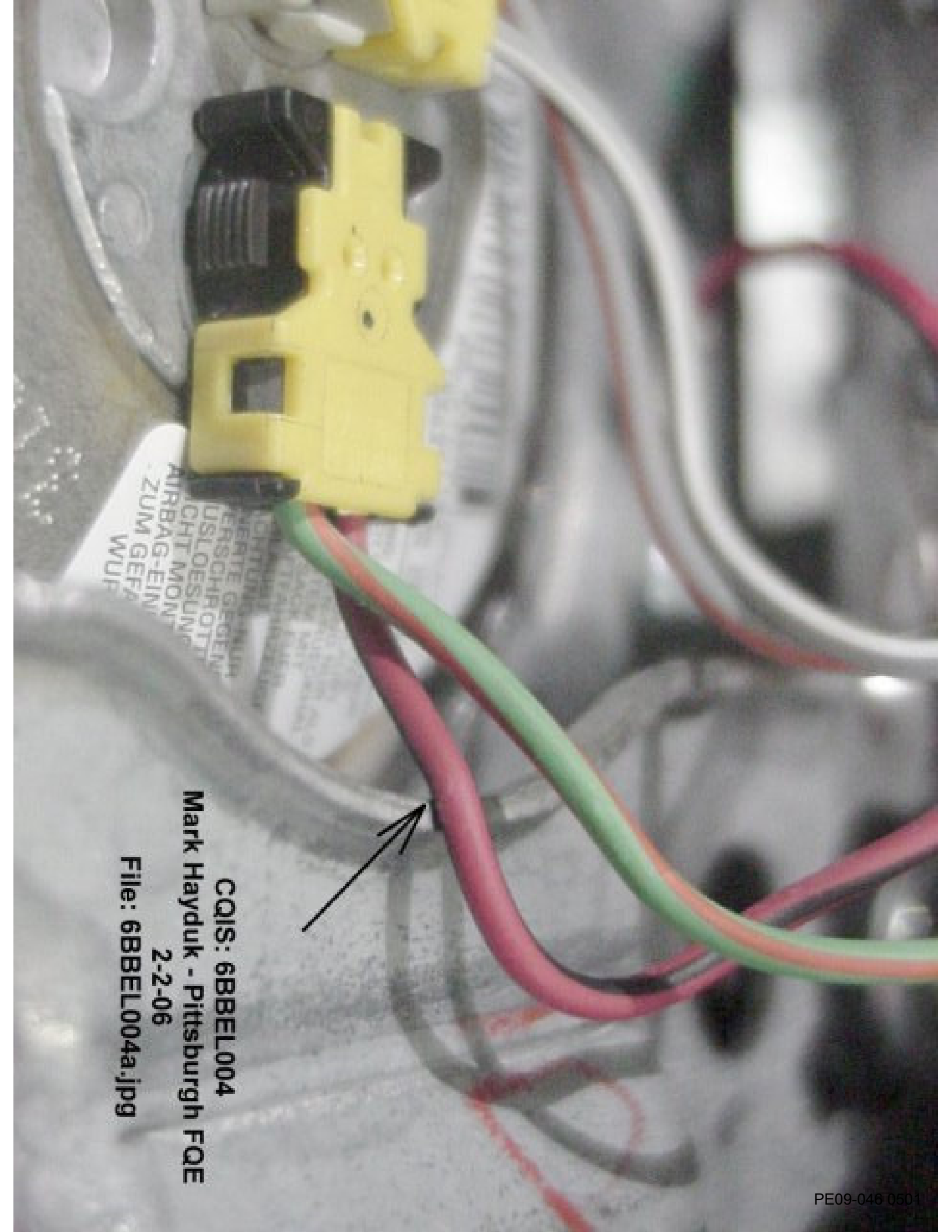
Comments :

CONCER 02/02/2006 02:04PM MARK HAYDUK MSS - FCSD - CQD - FQE
PITTSBURGH FQE MARK HAYDUK WAS REQUESTED TO REVIEW THIS VEHICLE WHICH
WAS BROUGHT TO THE DEALER WITH A COMPLAINT OF AN AIR BAG LIGHT ON.

TECH/C **02/02/2006 02:04PM MARK HAYDUK MSS - FCSD - CQD - FQE**
TECH. FOUND P0581 (CRUISE CONTROL MULTI-FUNCTION INPUT CIRCUIT HIGH.)
AND B2293 (AIR BAG FAULT.). RESTRAINT SYSTEM PID DATA SHOWS FAULTS
FOR: 2293_29_CM, 2293_29_OD, 2293_21_CM AND 2293_21_OD. RESISTANCE
VALUES MEASURED WITH WDS FOR BOTH THE 1ST STAGE AND 2ND STAGE CIRCUITS
OF THE AIR BAG RANGED FROM 3.2 OHMS TO 7.1 OHMS WHEN TURNING THE WHEEL
AND OCCASIONALLY THE 1ST STAGE AND/OR 2ND STAGE RESISTANCE WOULD GO TO
25.5 OHMS. ALSO FOUND THE RED WITH BLACK STRIPED WIRE, GOING TO THE
BLACK CONNECTOR ON THE BACK OF THE STEERING WHEEL AIR BAG, TO BE
AGAINST THE EDGE OF THE STEEL BRACKET. THE WIRE COVER WAS DAMAGED BUT
DID NOT PENETRATE TO THE COPPER WIRES. THE BLACK COVER OF THE WIRES
PLUGGED INTO THE CLOCK SPRING CONNECTION ON THE PASS. SIDE OF THE
CLOCK SPRING SHOWED A WITNESS MARK FROM THE STEEL BRACKET PUSHING ON
IT, BUT THE COVER WAS NOT CUT THROUGH. TECH. INSTALLED A NEW CLOCK
SPRING, CLEARED CODES AND THE CONCERN WAS RESOLVED. PHOTOS ARE
ATTACHED TO THIS REPORT. CLOCK SPRING IS BEING RETURNED TO DEAN
MCCLLENAGHAN. MARK HAYDUK - PITTSBURGH FQE - 724-413-9113.

Please click on the link below to view the attachments associated with this report

http://www.gcqis.ford.com/gcqis/asp/DIVViewAttachment_Mainx.asp?ReportNumber=6BBEL004



ZUM GEFA...
WUP...
AHRBAG-EIN...
NCHT MON...
USLOS...
ERSCHRO...
GERATE GEG...
CHTUNG...
LACHT MIT...
TZA...

CAIS: 6BBEL004
Mark Hayduk - Pittsburgh FOE
2-2-06
File: 6BBEL004a.jpg



COIS: 6BBEL004
Mark Hayduk - Pittsburgh FQE
2-2-06
File: 6BBEL004b.jpg

CQIS: 6BBEL004

Mark Hayduk - Pittsburgh FQE

2-2-06

File: 6BBEL004c.jpg



82195202

0103

Get vin on truck _____

- 1. Is the air bag light on? _____**
- 2. Did you get a 2293 code? _____**
- 3. Did you get a code for high res. for cruise control _____**
- 4. Can you check res. Across the drivers airbag squib line or the stage 1 and two with the wds. or ngs? Turn the wheel to see if res. Goes out of spec.**
- 5. Does the horn blow not work correctly _____**
- 6. Then check wires under air bad for chaffing**
- 7. If yes change clock spring send parts back to me with copy of r.o.**

8) Was light on prior to?

9) Was light/deployment within 1 minute or less of starting the car/truck?

10) Was light affected by applying brakes, pressing horn, turning steering wheel or changing tilt position?

11) Have there been any other horn or speed control issues/repairs with the truck?

12) Are there any aftermarket accessories on the truck?

13) Is the steering wheel equipped with redundant speed control switches?

14) Is the steering wheel equipped with redundant radio controls?

15) Have you ever experienced the horn honking when you did not press the horn?

16) What is steering wheel orientation when airbag light is on/or when it deployed? Straight, rotated xx degrees clockwise or counter clockwise, etc.

#	VIN	BUILD DATE	MY	MODEL	BUILD PLANT	RCM AVAILABILITY	VERBATUM SUMMARY	COMMANDED RESTRAINT DEPLOYMENT?	MODULE HISTORICAL DATA	RCM HARDWARE EVALUATION
1	1FTPX1454 4F [REDACTED]	9/17/2004	2004	F-150	DTP	Received	No info	No	2 keycycles stage 1 short to high faults, 256 keycycles stage 2 open, 256 keycycles stage 1 open, 111 keycycles stage 1 open, stage 1 short to ground. Module has been run through total hardware parameter check and passed all test. Deployment Asics have been removed and sent to supplier to evaluate that they are meeting all design requirements.	In Process
2	1FTRW12 WX4 [REDACTED]	12/10/03	2004	F-150	KCAP	N/A	D/side AB while driving on highway at 50mph in t/storm.	N/A	N/A	N/A
3	1FTPW145 44K [REDACTED]	1/15/04	2004	F-150	KCAP	N/A	D/side AB when starting vehicle.	N/A	N/A	N/A
4	1FTPW145 14K [REDACTED]	5/6/04	2004	F-150	KCAP	N/A	D/side A/B after RIL flashed . Tech found wires shorted to power at brake brkt.	N/A	N/A	N/A
5	1FTRX14W 04N [REDACTED]	5/12/04	2004	F-150	NAP	N/A	No info on Oasis	N/A	N/A	N/A
6	1FTPX1259 5N [REDACTED]	11/24/04	2005	F-150	NAP	Received- On hold per Rick Ruth	No info on Oasis	N/A	N/A	N/A
7	1FTRX12W 15N [REDACTED]	12/1/2004	2005	F-150	NAP	N/A	No info available	N/A	N/A	N/A
8	1FTRX14W 65N [REDACTED]	12/7/04	2005	F-150	NAP	N/A	D/side AB while driving and brake applied.	N/A	N/A	N/A
9	1FTPX145X 5N [REDACTED]	12/16/04	2005	F-150	NAP	N/A	D/side AB while driving out of the driveway.	N/A	N/A	N/A
10	1FTPX1458 5N [REDACTED]	1/4/05	2005	F-150	NAP	N/A	D/side AB while sitting still and veh put into reverse. Tech found wiring short in harness.	N/A	N/A	N/A

#	VIN	BUILD DATE	MY	MODEL	BUILD PLANT	RCM AVAILABILITY	VERBATUM SUMMARY	COMMANDED RESTRAINT DEPLOYMENT?	MODULE HISTORICAL DATA	RCM HARDWARE EVALUATION
11	1FTRF14W 5N [REDACTED]	1/11/05	2005	F-150	NAP	N/A	D/side AB sitting, trans in park after start up.	N/a	N/A	N/A
12	1FTRF1222 5N [REDACTED]	1/12/05	2005	F-150	NAP	Received	D/side AB while driving.	No	256 keycycles stage 2 short to ground, 1 keycycle stage 2 short to high, 2 keycycle stage 1 open, 27 keycycles stage 2 open. Module has been run through total hardware parameter check and passed all test. Deployment Asics have been removed and sent to supplier to evaluate that they are meeting all design requirements.	In Process
13	1FTRF1221 5N [REDACTED]	1/24/2005	2005	5/15/2005	NAP	N/A	D/side AB, does not state when.	N/A	N/A	N/A
14	1FTRF1229 5N [REDACTED]	1/27/05	2005	F-150	NAP	N/A	D/side AB while idling.	N/A	N/A	N/A
15	1FTPX1458 5N [REDACTED]	1/28/2005	2005		NAP	N/A	D/side AB while driving 5km.	N/A	N/A	N/A
16	1FTRF1221 5N [REDACTED]	6/21/2005	2005	F-150	NAP	Module not received- Historical info downloaded at vehicle location Module is in Transit		No	256+ keycycle stage 2 short to ground, 256+ keycycles stage 1 short to ground, 2 keycycles stage 1 open, 16 keycycles stage 2 open	N/A
17	1FTRF122X 5N [REDACTED]	#####	2005	F-150		N/A	D/side AB got in the vehicle and turned on the key	N/A	Received Pid codes from vehicle by tech, recorded Pids 21 OD & CM, 22 CM, & 23 CM. Pid 21 Open loop driver stage 2, Pid 22 stage 2 shorted to high, Pid 23 stage 2 shorted to ground.	N/A

CONFIDENTIAL

#	LOCATION	VIN	BUILD DATE	MODEL YEAR	MODEL	DRIVE LINE	BUILD PLANT	MILES	Ford Eng. Reviewed Vehicle?	Ford Eng. Reviewed Returned Parts?	CODE B-2293	Clock Spring Observations
1		1FTPX14544	17-Sep-04	2004	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	DEARBORN TRUCK PLANT	32,401				No damage to clock spring wires.
2	Eunice, LA	1FTRW12W40	10-Dec-03	2004	DOUBLE CAB (CREW CAB)	2 WHL L/H REAR DRIVE	KANSAS CITY PLANT BUILD	11,605			Y	
3	Lafayette, IN	1FTPW145442	15-Jan-04	2004	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KANSAS CITY PLANT BUILD	26,400				
4	Essex, Ontario, CAN	1FTPW145145	6-May-04	2004	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KANSAS CITY PLANT BUILD	17				
5	Boston, MA	1FTRX14W02	12-May-04	2004	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	16,446	Y	Y	Y	Cut wire (Grey/Orange & Grey/White) @ 4-way connector.
6	Roselle Park, NJ	1FTPX12595	24-Nov-04	2005	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	45,000				
7		1FTRX12W12	1-Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	18,448				
8	Winston Salem, NC	1FTRX14W61	7-Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	23,300			Y	
9	Las Vegas, NV	1FTPX145X5	16-Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	35,485			Y	DAB module reviewed by TRW. Damage to Green/Orange & Red/Black behind squib connector.
10	Bloomington, IL	1FTPX14585	4-Jan-05	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	17,318			Y	
11	Tigard, OR	1FTRF14W19	11-Jan-05	2005	SINGLE CAB (REGULAR CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	23,564			Y	
12	Holyoke, MA	1FTRF12225	12-Jan-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	21,513			Y	DAB module reviewed by TRW. Chafe on Green/Orange wire @ 3 O'Clk
13		1FTRF12215	24-Jan-05	2005	RC 4x2		NORFOLK PLANT BUILD	6,910			Y	Backwound; part not available to review wiring.
14	Maple Ridge, British Columbia, CAN	1FTRF12295	27-Jan-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	13,194				
15	City Unk, State Unk, CAN	1FTPX14585	28-Jan-05	2005	SC 4x4		NORFOLK PLANT BUILD	7,161			Y	
16	Clearwater, FL	1FTRF12215	21-Jun-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	17,000	Y	Y	Y	Cut wire (Red/Black) @ 4-way connector.
17	Miami, FL	1FTRF122X5	17-Dec-04	2005			NORFOLK PLANT BUILD	26,397	Y	Y	Y	Cut wire (Green/Orange & Red/Black) @ squib.
18	Oaklahoma City, OK	1FTRF12235	16-Mar-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	10,537	Y	Y		Cut wire (Green/Orange) @ back of squib.

18,100

CONFIDENTIAL

#	LOCATION	VIN	BUILD DATE	MODEL YEAR	MODEL	DRIVE LINE	BUILD PLANT	MILES	Ford Eng. Reviewed Vehicle?	Ford Eng. Reviewed Returned Parts?	CODE (B-2293)	Clock Spring Observations	
1		1FTPX14544	17-Sep-04	2004	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	DEARBORN TRUCK PLANT	32,401				DAB module reviewed by TRW. S/W wire chafe @ clock spring end.	No damage to clock spring wires.
2	Eunice, LA	1FTRW12W40	10-Dec-03	2004	DOUBLE CAB (CREW CAB)	2 WHL L/H REAR DRIVE	KANSAS CITY PLANT BUILD	11,605			Y		
3	Lafayette, IN	1FTPW14542	15-Jan-04	2004	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KANSAS CITY PLANT BUILD	26,400					
4	Essex, Ontario, CAN	1FTPW14515	6-May-04	2004	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KANSAS CITY PLANT BUILD	17					
5	Boston, MA	1FTRX14W02	12-May-04	2004	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	16,446	Y	Y		Cut wire (Grey/Orange & Grey/White) @ 4-way connector.	
6	Roselle Park, NJ	1FTPX12593	24-Nov-04	2005	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	45,000					
7		1FTRX12W12	1-Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	18,448					
8	Winston Salem, NC	1FTRX14W61	7-Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	23,300			Y		
9	Las Vegas, NV	1FTPX145X3	16-Dec-04	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	35,485			Y	DAB module reviewed by TRW. Damage to Green/Orange & Red/Black behind squib connector.	
10	Bloomington, IL	1FTPX14585	4-Jan-05	2005	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	17,318			Y		
11	Tigard, OR	1FTRF14W19	11-Jan-05	2005	SINGLE CAB (REGULAR CAB)	4 WHL L/H PART TIME DRIVE	NORFOLK PLANT BUILD	23,564			Y		
12	Holyoke, MA	1FTRF12225	12-Jan-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	21,513			Y	DAB module reviewed by TRW. Chafe on Green/Orange wire @ 3 O'Clk	
13		1FTRF12213	24-Jan-05	2005	RC 4x2		NORFOLK PLANT BUILD	6,910			Y	Backwound; part not available to review wiring.	
14	Maple Ridge, British Columbia, CAN	1FTRF12295	27-Jan-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	13,194					
15	City Unk. State Unk. CAN	1FTPX14585	28-Jan-05	2005	SC 4x4		NORFOLK PLANT BUILD	7,161			Y		
16	Clearwater, FL	1FTRF12213	21-Jun-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	17,000	Y	Y		Cut wire (Red/Black) @ 4-way connector.	
17	Miami, FL	1FTRF122X3	17-Dec-04	2005			NORFOLK PLANT BUILD	28,397	Y	Y		Cut wire (Green/Orange & Red/Black) @ squib.	
18	Oklahoma City, OK	1FTRF12235	16-Mar-05	2005	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NORFOLK PLANT BUILD	10,537	Y	Y		Cut wire (Green/Orange) @ back of squib.	

18,100

From: Pappas, Bill (B.)
Sent: Monday, February 13, 2006 3:45 PM
To: Spoto, Thomas (T.A.)
Subject: FW: J37 F150 Clearwater Field Report

Attachments: J37 F150 CLEARWATER FLORIDA FIELD REPORT.xls



J37 F150
CLEARWATER FLORIDA Tom,
FYI,

Thanks,
Bill Pappas
Tough Truck Restraints
Tel # (313) 337-3043
Cell # [REDACTED]
Text Page: bpappas

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

From: Steven.Binder@Autoliv.com [mailto:Steven.Binder@Autoliv.com]
Sent: Monday, February 13, 2006 10:31 AM
To: Pappas, Bill (B.)
Subject: J37 F150 Clearwater Field Report

AUTOLIV ELECTRONICS AMERICA
Bill,

Attached is the field report you requested.

(See attached file: J37 F150 CLEARWATER FLORIDA FIELD REPORT.xls)

Regards,
Steven Binder
Field Investigation Engineer
(248) 223-8079

RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J37	TYPE	ARM461	<p style="text-align: center;">(Faults are listed in the order in which they were detected)</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 6 Key-ons since fault has not been present</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 12 Key-ons since fault has not been present</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 13 Key-ons with the fault present 0 Key-ons since fault has not been present</p>	
ID	Clearwater Florida	PART #	Data not supplied		
REPORT DATE	February 13, 2006	SERIAL #	Data not supplied		
CUSTOMER CONTACT		VEHICLE INFORMATION			
NAME	Bill Pappas	MODEL YR	Data not supplied		
COMPANY	Ford	NAME	F150		
POSITION	Ford Design Release Engineer	CODE	P221		
PHONE	313 805-3445	VIN	1FTRF12215N [REDACTED]		
EMAIL	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
<ol style="list-style-type: none"> 1. There was a flash code 19, driver front airbag fault, present when the restraint control module was powered on in the vehicle. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column. 					

From: Clark, Todd (T.N.)
Sent: Thursday, February 09, 2006 10:10 AM
To: Pappas, Bill (B.); Tippy, David (D.J.)
Subject: FW: Clearwater, Florida

Todd N. Clark

Supervisor, Crash Sensors
NAE Safety
Ford Motor Company
Tel: 313.805.5601

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

From: Ruth, Richard (R.R.)
Sent: Thursday, February 09, 2006 9:31 AM
To: Oswald, Greg (G.G.); Clement, Charles (C.A.)
Cc: Wrestler, Sandy (S.J.); Clark, Todd (T.N.); Spoto, Thomas (T.A.)
Subject: Clearwater, Florida

Some additional information received through Wanetta Hill in Consumer Affairs - Customer was in Nov. 11, 2005 for airbag light being on - dealer ordered clockspring - for unexplained reasons it never came in, so dealer never called customer to come back in for repair - customer did not call again either until incident occurred Jan 30. Incident is reported to have occurred while starting the vehicle.

Still trying to get through to service manager - left messages last night and this morning after our meeting.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager XXXXXXXXXX
rruth@ford.com

Wrestler, Sandy (S.J.)

From: Klosek, Walter (W.)
Sent: Friday, March 03, 2006 11:54 AM
To: Tippy, David (D.J.); Chascsa, Jim (JRCII.); Oswald, Greg (G.G.); Wrestler, Sandy (S.J.)
Cc: Matulonis, Bob (R.W.)
Subject: Clockspring Tape.

I examined the clockspring from Oklahoma and found no issues with the tape which could possibly result in a short to High.

The following steps were taken in the examination:

- Removed shorting bars from down lead connector.
- Checked each airbag pin for short to all of the other pins in the connectors with an ohm meter. Meter showed an open circuit in all combinations.
- Drilled out the rivets.
- Separated the housing to get access to the tape.
- Wiped the grease off the tape.
- Examined both side of the tape for damage--NO DAMAGE to the plastic and no delamination. Traces all in proper position.

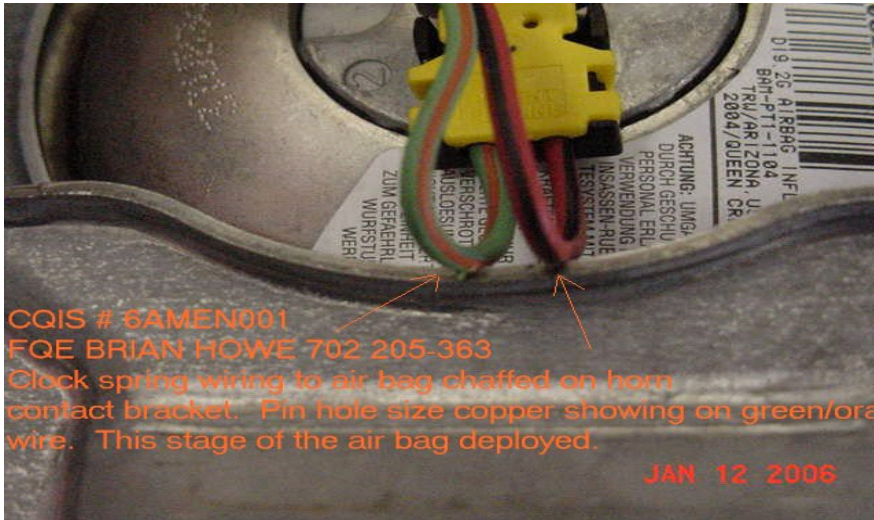
I can't remember if this vehicle had the short to high codes but if it did they didn't come from the tape. If you would like to see the part give me a call and we can look at it together. The way I see it there are two potential ways for such a short to occur. The tape would have to be delaminated to allow the flat wires within to come in contact with each other. In this case that condition was not present. You have also suggested that there may be a cut in the plastic there were no cuts in this part. Additionally, even one cut in the plastic covering would not result in a short since the wires are laminated between two plastic layers, it would take two cuts on opposite sides of the tape which would then have to line up as the tape was wound/unwound and the tape would also have to shift position vertically to allow the traces to be offset.

Give me a call and we can take a look at the tape together.

From: Klosek, Walter (W.)
Sent: Wednesday, February 01, 2006 7:08 AM
To: Wrestler, Sandy (S.J.)
Subject: Clockspring

I left the other three clocksprings on you chair yesterday. One of them had the sheathing on the Air Bag Leads which you wanted to look at. The sheathing was added by one of our engineers to show what it would look like I suspect that Vo would have an issue with plugging in the connectors since the leads are fairly stiff. I also spoke to the supplier about getting the quote done I was promised that I would have the estimate by Thursday. I suspect that the cost will be substantial since adding the protection will really complicate their process. In any event we should know Thursday.

FQE Support – F150 Airbag



From: Wrestler, Sandy (S.J.)
Sent: Thursday, February 09, 2006 1:45 PM
To: Clark, Todd (T.N.); Pappas, Bill (B.)
Subject: Data

Importance: High
Sensitivity: Confidential

Attachments: 2004-06 F150 Airbag.xls



2004-06 F150
Airbag.xls (235 K...

Sandra Jo Wrestler
Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

#	SOURCE	VIN	BUILD DATE	MY	MODEL	STYLE	DRIVE	BUILD PLANT	Warranty Start Date	ODO.
1	52144KMS Alex Snider	1FTPX14544		2004		4x4		DTP		
2	ECI	1FTRW12WX4	12/10/03	2004	F-150	DOUBLE CAB (CREW CAB)	2 WHL L/H REAR DRIVE	KCAP	Jan/2004/28	11,605
3	ECI	1FTPW14544K	1/15/04	2004	F-150	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KCAP	Mar/2004/31	26,400
4	ECI	1FTPW14514K	5/6/04	2004	F-150	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KCAP	May/2004/18	17
5	ECI	1FTRX14W04N	5/12/04	2004	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Dec/2004/19	16,446
6	ECI	1FTPX12595N	11/24/04	2005	F-150	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NAP	Feb/2005/22	60,000
7	AWS K. Olson	1FTRX12W15N	12/1/2004	2005	F-150	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NAP	12/31/2004	18,448
8	ECI	1FTRX14W65N	12/7/04	2005	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/31	23,300
9	ECI	1FTPX145X5N	12/16/04	2005	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/12	35,485
10	ECI	1FTPX14585N	1/4/05	2005	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/19	17,318
11	ECI	1FTRF14W15	1/11/05	2005	F-150	SINGLE CAB (REGULAR CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/20	23,564
12	ECI	1FTRF12225N	1/12/05	2005	F-150	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NAP	Mar/2005/10	21,513
13	CQIS	1FTRF12215N	1/24/2005	2005	5/15/2005	RC 4x2		NAP	1 04 4 57	6,910
14	ECI	1FTRF12295N	1/27/05	2005	F-150	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NAP	Apr/2005/07	13,194
15	CQIS	1FTPX14585N	1/28/2005	2005		SC 4x4		NAP	1 04 4 57 7 03 2 70	7,161
16	CUDL report # 1603950306	1FTRF12215N	6/21/2005	2005	F-150			NAP		

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
1	Set up Deep Dive of design on Monday, 2/20 - need to make a decision and move forward.	Sandy Wreslter	2/15/2006	Open	2/17/06 - Mtg. scheduled for Monday, 2/20/06 5 - 7PM in Bldg. #1, Room 12C079. 2/23/06. Final design still being feased	
2	Brief review of 07 U22X overmold design - hands on review w/Peter Kim	Ken Landis	2/15/2006	2/16/2006	2/16/06 - Meeting scheduled for 2/17/06 2:30PM Peter's Office.	2/16/06
3	Test Matrix: 1) Weibull matrix summary 2) Added other D186 type design 3)Update on U222 Design Solution.	Sandy Wreslter	2/16/06	2/16/06	2/16/06 - Matrix sent out. 2/27/06 Mike W. and PK requested samples of S type flange that is coined and tiered, not upstanding like the present design(surrogate sample to be provided((a) 1.2 thick flat plate(U222)will be deburred vs.(b) 1.5 plate, will be coined(competitor))(due 2/28/06).Per Steve Peterson(TRW) , recommend for design solution: Rotate igniters goto S type flange and add Bently Harris to clock spring leads for inflator. John Viera requested contaminant plans w/timing on final solutions. 2/28/06 Coined plate samples onsite at Ford. To be reviewed w/ Ford 3/1/06.. Would be representative of what P221 would be. TRW recommends S type post Job 1 change for U222 w/flock tape need no cost CR. Feasibility for final solution review on 3/1/06. High level Gantt chart due for all scenarios on 3/1/06	2/16/06
4	Run additional deployment testing of current production. 1) Fire 1st stage only 2) Fire 2nd stage only	Jim Karrigan	2/16/06	2/18/06	No Cut Wires Observed	2/27/06
5	Get clarification on Test Duration from Ellen Barnes (X hours or until failure, what constitutes failure, all in sample set fail or first one to fail in sample set, etc.)	Vincent Alexander Jim Chascsa	2/16/06	2/17/06	Run 20 hrs 3 samples with the 4 configurations. 2/23/06 Sample size to be 10 per Jim Chsc. Configurations are: 1. Current plate w/bare wires. 2. Flocked plate w/bare wires. 3. Current plate w/bently harrised wires. 4. Final design (tbd) 2/27/06 Will Refer to Jim Kerrigan's updated test matrix. 2/27/06 With a upturned flange and Bentley Harris no breech of wire after 50hrs. Jim Chasc to check w/ Ellen Barnes to see if we go further than 5 times life	

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
6	Tool timing to invert flange on horn plate.	Zyg Gregory	2/16/06	Open	2/16/06 - Zyg spoke to Dickie Grabler today and asked for them to cooperate and provide timing - they want to be supportive but have requested a formal quote. **** Zyg was requested to seek assistance from TRW upper management to impress upon Dickie Grabler the urgency. 2/24/06 Will not invert flange. Current flange to have gimp(maybe?) 2/27/06 Still on hold-	
7	Horn Connector design (for inverted flange horn plate design) 1) Need material 2) Need assy feas 3) Need durability assessment 4) Need drop test	Jim Karrigan	2/16/06	2/23/06	2/16/06 - No update from plastic design proposal JPEGs sent yesterday. 2/23/06. Not pursuing inverted flange. Looking at snap on horn connector to plate 2/27/06	

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
8	Inflator igniter orientation change from current (perpendicular) to parallel.	Steve Ahlquist	2/16/06	Open	<p>2/14/06 Update: 1) Low volume equipment. - 4 weeks tooling (build additional nests) - can support P221 and P397 volumes. 2) Flex Cell - High volume cell - 16 weeks to updates cell. Account managers at TRW are working with other customers to determine feasibility. 2/15/06 Update: Initial feedback from supplier #G - Seem amenable - one of their products has requested this change in the past. 2/16/06 - No update from yesterdays input: 2/23/06- Project is a go, management needs to work out cost obligation(TRW & Ford).</p> <p>2/27/28 No tool timing update, For plant trials 200 parts ,30 per shift at each plant., timing for sample tbd. Parts are to be saleable units. TRW to get timing for parts to write an alert so we can coordinate clock spring change for combined trials at assembly plants. Looking at P221 only. TRW needs to clarify scenrio support for these required trial. Ford indicate that want this change as soon as possible. 2/28/06 . TRW to put together a one pager that lays out the plan to convert line for both mainstream production and what it takes to provide trial samples for plant runs . This p</p>	
9	Gimp design - servicable snap in feature.	Steve Ahlquist	2/16/06		<p>2/16/06 - No update. Jim K. thinks designer is assigned. 2/23/06- Gimp w/current flange is feasible. Inverted flange is not due to tolerance stackups. 2/27/06 No updates _!!!! Ford has expressed concerns about having enough resources to fease out design proposals. Need to have designs in CAD..w/solution viabilities worked out for proposal elimination or acceptance.!!!!!! PK has expressed concern about who is who from TRW relative to solving this issue.Who's the Lead?? S. Peterson indicated that S. Ahlquist was the technical program lead for this issue</p>	
10	Tumbled plate - flatness capability	Jim Karrigan	2/16/06	3/10/06	2/27//06 Production run to check softness of plate	
11	Flange removed and edge coined CAE analysis for affect on plate stiffness/flatness.	Jim Karrigan	2/16/06	3/3/06	<p>2/16/06 - Need to initiate CAE. 2/27/06Replace w/ s(upturned) flange in testing</p>	

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
12	Flange removed and local gussets added if plate stiffness is degraded significantly by removing flange.	Jim Karrigan	2/16/06	3/10/06	2/16/06 - Need to initiate CAE.	
13	Die cut flange for current production interim fix robustness improvement.	Jim Karrigan	2/16/06	2/23/06	2/16/06 - Argent due in Monday, 2/20 w/samples/proposal. 2/23/06 Reviewed w/J.Chsc. On 2/28/06 will review w/Cookville 2/27/06 What is cost & timing if we accept	
14	Tumbled plate - finish: 1) Steve to check requirements/TRW lessons learned 2) Vince to check w/TS's and materials	Steve Ahlquist Vince Alexander	2/16/06	2/22/04	2/16/06 - Need to determine if post plating of horn plate would be required after tumbling since the tumbling process would remove the finish. 2/22/06-Plates will require post process finishing	2/22/06
15	Jim Chascsa to review MESA report on returned inflator	Jim Chascsa	2/17/06	2/23/04	Jim Chasc. Reviewed on 2/21/06	
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**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

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**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
1	Set up Deep Dive of design on Monday, 2/20 - need to make a decision and move forward.	Sandy Wreslter	2/15/2006	2/17/2006	2/17/06 - Mtg. scheduled for Monday, 2/20/06 5 - 7PM in Bldg. #1, Room 12C079.	
2	Brief review of 07 U22X overmold design - hands on review w/Peter Kim	Ken Landis	2/15/2006	2/16/2006	2/16/06 - Meeting scheduled for 2/17/06 2:30PM Peter's Office.	2/16/06
3	Test Matrix: 1) Weibull matrix summary 2) Added other D186 type design.	Sandy Wreslter	2/16/06	2/16/06	2/16/06 - Matrix sent out.	2/16/06
4	Run additional deployment testing of current production. 1) Fire 1st stage only 2) Fire 2nd stage only	Jim Karrigan	2/16/06	2/17/06	Note (Hit Alt and Enter at same time to toggle to next line in cell to enter new date and comment.)	
5	Get clarification on Test Duration from Ellen Barnes (X hours or until failure, what constitutes failure, all in sample set fail or first one to fail in sample set, etc.)	Vincent Alexander Jim Chascsa	2/16/06	2/17/06		
6	Tool timing to invert flange on horn plate.	Zyg Gregory	2/16/06		2/16/06 - Zyg spoke to Dickie Grabler today and asked for them to cooperate and provide timing - they want to be supportive but have requested a formal quote. **** Zyg was requested to seek assistance from TRW upper management to impress upon Dickie Grabler the urgency	
7	Horn Connector design (for inverted flange horn plate design) 1) Need material 2) Need assy feas 3) Need durability assessment 4) Need drop test	Jim Karrigan	2/16/06		2/16/06 - No update from plastic design proposal JPEGs sent yesterday.	
8	Inflator igniter orientation change from current (perpendicular) to parallel.	Steve Ahlquist	2/16/06		2/14/06 Update: 1) Low volume equipment. - 4 weeks tooling (build additional nests) - can support P221 and P397 volumes. 2) Flex Cell - High volume cell - 16 weeks to update cell. Account managers at TRW are working with other customers to determine feasibility. 2/15/06 Update: Initial feedback from supplier #G - Seem amenable - one of their products has requested this change in the past. 2/16/06 - No update from yesterdays input.	
9	Gimp design - servicable snap in feature.	Steve Ahlquist	2/16/06		2/16/06 - No update. Jim K. thinks designer is assigned.	
10	Tumbled plate - flatness capability	Jim Karrigan	2/16/06		2/16/06 - Need to collect data.	
11	Flange removed and edge coined CAE analysis for affect on plate stiffness/flatness.	Jim Karrigan	2/16/06		2/16/06 - Need to initiate CAE.	
12	Flange removed and local gussets added if plate stiffness is degraded significantly by removing flange.	Jim Karrigan	2/16/06		2/16/06 - Need to initiate CAE.	
13	Die cut flange for current production interim fix robustness improvement.	Jim Karrigan	2/16/06		2/16/06 - Argent due in Monday, 2/20 w/samples/proposal.	
14	Tumbled plate - finish: 1) Steve to check requirements/TRW lessons learned 2) Vince to check WTS's and materials	Steve Ahlquist Vince Alexander	2/16/06		2/16/06 - Need to determine if post plating of horn plate would be required after tumbling since the tumbling process would remove the finish.	

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
15	Jim Chascsa to review MESA report on returned infator	Jim Chascsa	2/17/06			
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2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX

3/8/06

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
2	Brief review of G7 U22X overmold design - hands on review w/Peter Kim	Ken Landis	2/15/2006	2/16/2006	2/16/06 - Meeting scheduled for 2/17/06 2:30PM Peter's Office.	2/16/06
3	Test Matrix: 1) Weibull matrix summary 2) Added other D186 type design 3)Update on P221, U222, Design Solution.	Sandy Wresler	2/16/06	2/16/06	- Matrix sent out. 2/27/06 Mike W. and PK requested samples of S type flange that is coined and tiered, not upstanding like the present design(surrogate sample to be provided((a)1.2 thick flat plate(U222)will be deburred vs.(b) 1.5 plate, will be coined(competitor))(due 2/28/06).Per Steve Peterson(TRW) , recommend for design solution: Rotate igniters goto S type flange and add Bentley Harris to clock spring leads for inflator. John Viera requested contaminant plans w/timing on final solutions. 2/28/06 Coined plate samples onsite at Ford. To be reviewed w/ Ford 3/1/06.. Would be representative of what P221 would be. TRW recommends S type flange be implemented for a post Job 1 change for U222 w/flock tape. Need a no cost CR. Feasibility(1 pager) for final solution review on 3/1/06. High level Gantt chart due for all scenarios on 3/1/06 3/3/06 For U222 Charles C. and Ken L. to get CR worded to release flock tape and Bentley Harris. 3/3/06 Rouaa N. indicated that Mike W. approved the coined edge sample. 3/3/06 CCRG requested we discuss changes w/ all affected CNE's 3/3/06 Need to get a comprehensive CR plan. Jim C. Ken L. Vince A.3/6/03 Need meeting w/ programs ASAP!!! 3/6/06 CR plan is completed , getting approvals. 3/6/06 Meeting w/CNE's is ongoing. 3/6/06 S flange and inflator change to be on same CR, Wire changes to be separate 3/7/05Ken Landis and Jim Chsc. to verify that P356x&P221 clock wire have sufficient lenght due to new igniter orientation.	3/1/06 3/6/06 3/6/06 3/6/06 3/6/06
5	Get clarification on Test Duration from Ellen Barnes (X hours or until failure, what constitutes failure, all in sample set fail or first one to fail in sample set, etc.)	Vincent Alexander Jim Chascsa	2/16/06	2/17/06	Run 20 hrs 3 samples with the 4 configurations. 2/23/06 Sample size to be 10 per Jim Chsc. Configurations are: 1.Current plate w/bare wires. 2. Flocked plate w/bare wires. 3. Current plate w/bentley harrised wires. 4. Final design (tbd) 2/27/06 Will Refer to Jim Kerrigan's updated test matrix. 2/27/06 With a upturned flange and Bentley Harris no breach of wire after 50hrs. Jim Chasc to check w/ Ellen Barnes to see if we go further than 5 times life 3/7/06 Need to get a correlation of what testing relates to 150K miles. Jim Chsc to get latest test matrix from Jim Kerrigan and compile all test data to date to see what it says relative to life expectancy(Per Rouaa N.) 3/6/06 Jim K. indicated that we have a Bentley Harris & current base plate that has gone up to 75hrs, 1 @ 40hrs. 3 @20hrs..Need to run Bentley Harris & coined flange base plate. Sandy W. to get TRW a another clock spring w Bentley H. Peter K wants to review module DVP asap. Meeting to discuss , at working level, DVP on 3/7/06 3/7/06 Jim K indicated that mocked up plate(P221) w/Bentley Harris has gone 40hrs experienced plate crack.Ken Landis to get w/TRW to get U222 parts tested(plates/Bentley harris) jim Kerrigan to Provide Jpeg of cracke part.Additional parts to be tested. Jim Chsc and V.Alexander to review before testing continues.	3/6/06 3/6/06

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
7	Horn Connector design for S flange 1) Need material 2) Need assy feas 3) Need durability assessment 4) Need drop test	Jim Karrigan	2/16/06	3/7/06	2/16/06 - No update from plastic design proposal JPEGs sent yesterday. 2/23/06. Not pursuing inverted flange. Looking at snap on horn connector to plate 3/7/06 Need to follow up w/S flange J Kerrigan to send Jpegs of proposal 3/7/06 Need to aet timina for CAE on P221 and U222	
8	Inflator igniter orientation change from current (perpendicular) to parallel.	Steve Ahlquist	2/16/06	Open	2/14/06 Update: 1) Low volume equipment. - 4 weeks tooling (build additional nests) - can support P221 and P397 volumes. 2) Flex Cell - High volume cell - 16 weeks to updates cell. Account managers at TRW are working with other customers to determine feasibility. 2/15/06 Update: Initial feedback from supplier #G - Seem amenable - one of their products has requested this change in the past. 2/16/06 - No update from yesterdays input: 2/23/06- Project is a go, management needs to work out cost obligation(TRW & Ford). 2/27/28 No tool timing update, For plant trials 200 parts ,30 per shift at each plant., timing for sample tbd. Parts are to be saleable units. TRW to get timing for parts to write an alert so we can coodinate clock spring change for combined trials at assembly plants. Looking at P221 only. TRW needs to clarify scenrio support for these required trial. Ford indicate that want this change as soon as possible. 2/28/06 . TRW to put together a one pager that lays out the plan to convert lines(for all affected programs) for both mainstream production and what it takes to provide trial samples for plant runs . Plans due 3/1/06 3/3/06 CCRG requested we get CR for igniter change going. Ergonomic issue . 3/6/06 Jim C. still has some open issues relative how this rotation is being handled, Jeff K from TRW is responding . 3/7/06 TRW is cutting soft tool to produce Trials part not modifying existing line tools. TRW would like to have Alerts by 3/10/06 to begin producing trial parts.	3/6/06
11	S -Flange & edge coined CAE analysis for affect on plate stiffness/flatness.	Jim Karrigan	2/16/06	3/13/06	2/16/06 - Need to initiate CAE. 3/6/06 Replace w/ s- flange in testing and horn connector	
12	Flange removed and local gussets added if plate stiffness is degraded significantly by removing flange.	Jim Karrigan	2/16/06	3/10/06	2/16/06 - Need to initiate CAE.	

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
13	Die cut flock for current production	Jim Karrigan	2/16/06	3/7/06	2/16/06 - Argent due in Monday, 2/20 w/samples/proposal. 2/23/06 Reviewed w/J.Chsc. On 2/28/06 will review w/Cookeville 2/27/06 What is cost & timing if we accept 2/28/06 Need update on die cut flock 3/7/06 Single piece die cut not desired by Cookeville. Looking at multi-piece. Cookeville update on 3/7/06. Environmentals w/flock report out due 3/8/06	
15	Jim Chascsa to review MESA report on returned inflator	Jim Chascsa	2/17/06	3/6/06	Jim Chasc. Reviewed on 2/21/06	3/3/06
16					<i>CLOSED</i>	
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3/3/06

2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
1	Set up Deep Dive of design on Monday, 2/20 - need to make a decision and move forward.	Sandy Wreslter	2/15/2006	Open	2/17/06 - Mtg. scheduled for Monday, 2/20/06 5 - 7PM in Bldg. #1, Room 12C079. 2/23/06. Final design still being feased	
2	Brief review of 07 U22X overmold design - hands on review w/Peter Kim	Ken Landis	2/15/2006	2/16/2006	2/16/06 - Meeting scheduled for 2/17/06 2:30PM Peter's Office.	2/16/06
3	Test Matrix: 1) Weibull matrix summary 2) Added other D186 type design 3) Update on U222 Design Solution.	Sandy Wreslter	2/16/06	2/16/06	2/16/06 - Matrix sent out. 2/27/06 Mike W. and PK requested samples of S type flange that is coined and tiered, not upstanding like the present design(surrogate sample to be provided((a)1.2 thick flat plate(U222)will be deburred vs.(b) 1.5 plate, will be coined(competitor))(due 2/28/06).Per Steve Peterson(TRW) , recommend for design solution: Rotate igniters goto S type flange and add Bentley Harris to clock spring leads for inflator. John Viera requested contaminent plans w/timing on final solutions.	2/16/06
4	Run additional deployment testing of current production. 1) Fire 1st stage only 2) Fire 2nd stage only	Jim Karrigan	2/16/06	2/18/06	No Cut Wires Observed	2/27/06
5	Get clarification on Test Duration from Ellen Barnes (X hours or until failure, what constitutes failure, all in sample set fail or first one to fail in sample set, etc.)	Vincent Alexander Jim Chascsa	2/16/06	2/17/06	Run 20 hrs 3 samples with the 4 configurations. 2/23/06 Sample size to be 10 per Jim Chsc. Configurations are: 1. Current plate w/bare wires. 2. Flocked plate w/bare wires. 3. Current plate w/bently harrised wires. 4. Final design (tbd) 2/27/06 Will Refer to Jim Kerrigan's updated test matrix. 2/27/06 With a upturned flange and Bentley Harris no breech of wire after 50hrs. Jim Chasc to check w/ Ellen Barnes to see if we go further than 5 times life <i>J.C. Durability</i>	
6	Tool timing to invert flange on horn plate.	Zyg Gregory	2/16/06	Open	2/16/06 - Zyg spoke to Dickie Grabler today and asked for them to cooperate and provide timing - they want to be supportive but have requested a formal quote. **** Zyg was requested to seek assistance from TRW upper management to impress upon Dickie Grabler the urgency. 2/24/06 Will not invert flange. Current flange to have gimp(maybe?) 2/27/06 Still on hold-	<i>Hold</i>

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
7	Horn Connector design (for inverted flange horn plate design) 1) Need material 2) Need assy feas 3) Need durability assessment 4) Need drop test	Jim Karrigan	2/16/06	2/23/06	2/16/06 - No update from plastic design proposal JPEGs sent yesterday. 2/23/06. Not pursuing inverted flange. Looking at snap on horn connector to plate 2/27/06	<i>Hold</i>
8	Inflator igniter orientation change from current (perpendicular) to parallel.	Steve Ahlquist	2/16/06	Open	2/14/06 Update: 1) Low volume equipment. - 4 weeks tooling (build additional nests) - can support P221 and P397 volumes. 2) Flex Cell - High volume cell - 16 weeks to updates cell. Account managers at TRW are working with other customers to determine feasibility. 2/15/06 Update: Initial feedback from supplier #G - Seem amenable - one of their products has requested this change in the past. 2/16/06 - No update from yesterdays input: 2/23/06- Project is a go, management needs to work out cost obligation(TRW & Ford). 2/27/28 No tool timing update, For plant trials 200 parts ,30 per shift at each plant., timing for sample tbd. Parts are to be saleable units. TRW to get timing for parts to write an alert so we can coodinate clock spring change for combined trials at assembly plants. Looking at P221 only. TRW needs to clarify scenrio support for these required trial. Ford indicate that want this change as soon as possible.	
9	Gimp design - servicable snap in feature.	Steve Ahlquist	2/16/06		2/16/06 - No update. Jim K. thinks designer is assigned. 2/23/06- Gimp w/current flange is feasible. Inverted flange is not due to tolerance stackups. 2/27/06 No updates_!!!! Ford has expressed concerns about having enough resources to fease out design proposals. Need to have designs in CAD .w/solution viabilities worked out for proposal elimination or acceptance.!!!!!! PK has expressed concern about who is who from TRW relative to solving this issue.Who's the Lead?? S. Peterson indicated that S. Ahlquist was the technical	<i>Close</i>
10	Tumbled plate - flatness capability	Jim Karrigan	2/16/06	3/10/06	2/27/06 Production run to check softness of plate	<i>Hold</i>
11	Flange removed and edge coined CAE analysis for affect on plate stiffness/flatness.	Jim Karrigan	2/16/06	3/3/06	2/16/06 - Need to initiate CAE. 2/27/06 Replace w/ s(upturned) flange in testing	<i>Antine</i>
12	Flange removed and local gussets added if plate stiffness is degraded significantly by removing flange.	Jim Karrigan	2/16/06	3/10/06	2/16/06 - Need to initiate CAE. Run FEA on is flange	<i>-</i>

**2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX**

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
13	Die cut flange for current production interim fix robustness improvement. <i>HA compl. - no issue lifecycle</i>	Jim Karrigan	2/16/06	2/23/06	2/16/06 - Argent due in Monday, 2/20 w/samples/proposal. 2/23/06 Reviewed w/J.Chsc. On 2/28/06 will review w/Cookville 2/27/06 What is cost & timing if we accept	<i>concern about adj. now looking @ 3pc wider</i>
14	Tumbled plate - finish: 1) Steve to check requirements/TRW lessons learned 2) Vince to check w/TS's and materials	Steve Ahlquist Vince Alexander	2/16/06	2/22/04	2/16/06 - Need to determine if post plating of horn plate would be required after tumbling since the tumbling process would remove the finish. 2/22/06-Plates will require post process finishing	2/22/06 e
15	Jim Chasca to review MESA report on returned inflator	Jim Chasca	2/17/06	2/23/04	Jim Chasc. Reviewed on 2/21/06	e
16	<i>U251 need eval. of etc infl re-orientation</i>					
17	<i>Need clock spring for U251</i>					
18						
19	<i>Need PVP loan for Monday</i>					
20						
21	<i>Need more clock springs for testing - Drop off the one Rowan has</i>					
22						
23	<i>Horn top is pierced a plate for 1st flange & inflator Monday</i>					
24						
25	<i>Manual line plan</i>					
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2005MY EN/FN Horn Corrosion
OPEN ISSUES MATRIX

#	ASSIGNMENT	RESPONSIBLE	OPEN	DUE	STATUS	CLOSED
51						

if 20 hrs = 1k - need lowest miles

150k equivalent

5hr = 30 min = 1k miles

1k = .5 hrs = 75 hrs to 150k
1K = .5 hr vs 7x75 hrs

Zyg talked to Al Coleman @ DTP

Flocked tape 1130 100% P221

Pair some built @ Mylar @ Coakville - maybe 1 palette
Lincolns -

Die Cut flock - need Coakville input & timing.

both 06P221

1074222

- Samples of coined plate avail. on Zygo desk.
- 06 P221 need to do pkg study on P221.
 - 07 U222 propose flock tape for pre-builds

7/19 time for S-type flange.

Technical issue speed control - stack wire loom change.

Feas due tomorrow.

16 weeks

~~the date~~ 4/7 current PPAP timing of 07U222 pgn.

no change to Ford Gantt chart same as before

Igniter Orientation

manual line - interim 6 wks to help out short term
 auto line - 16 wks upgrade. Right a change over.

TRW proposal:

F Series 07

U222 - 07

U251 - 07

Would all need to go parallel

need pkg study!

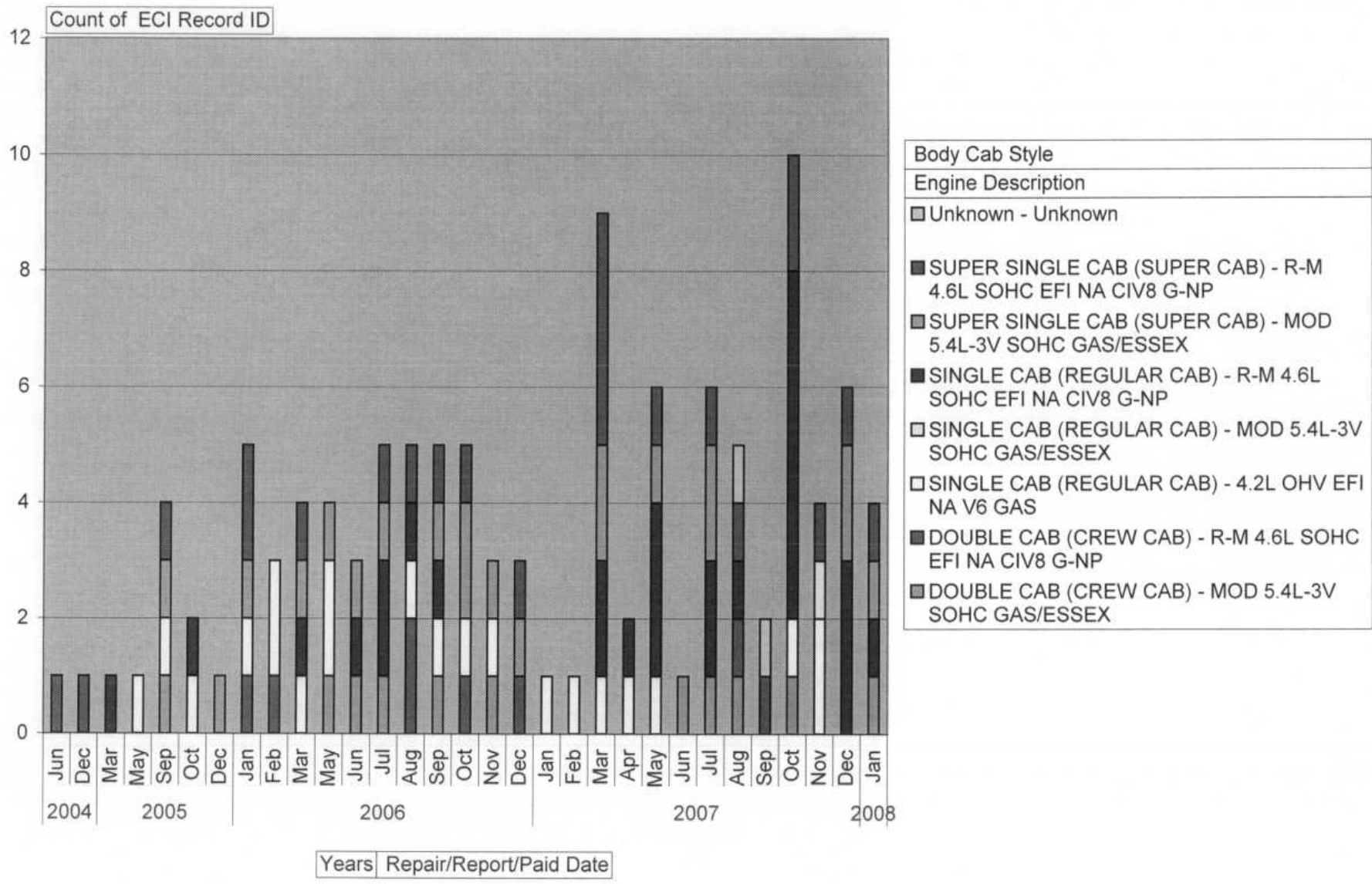
P356 single stage & pgn. can't come off manual line long term

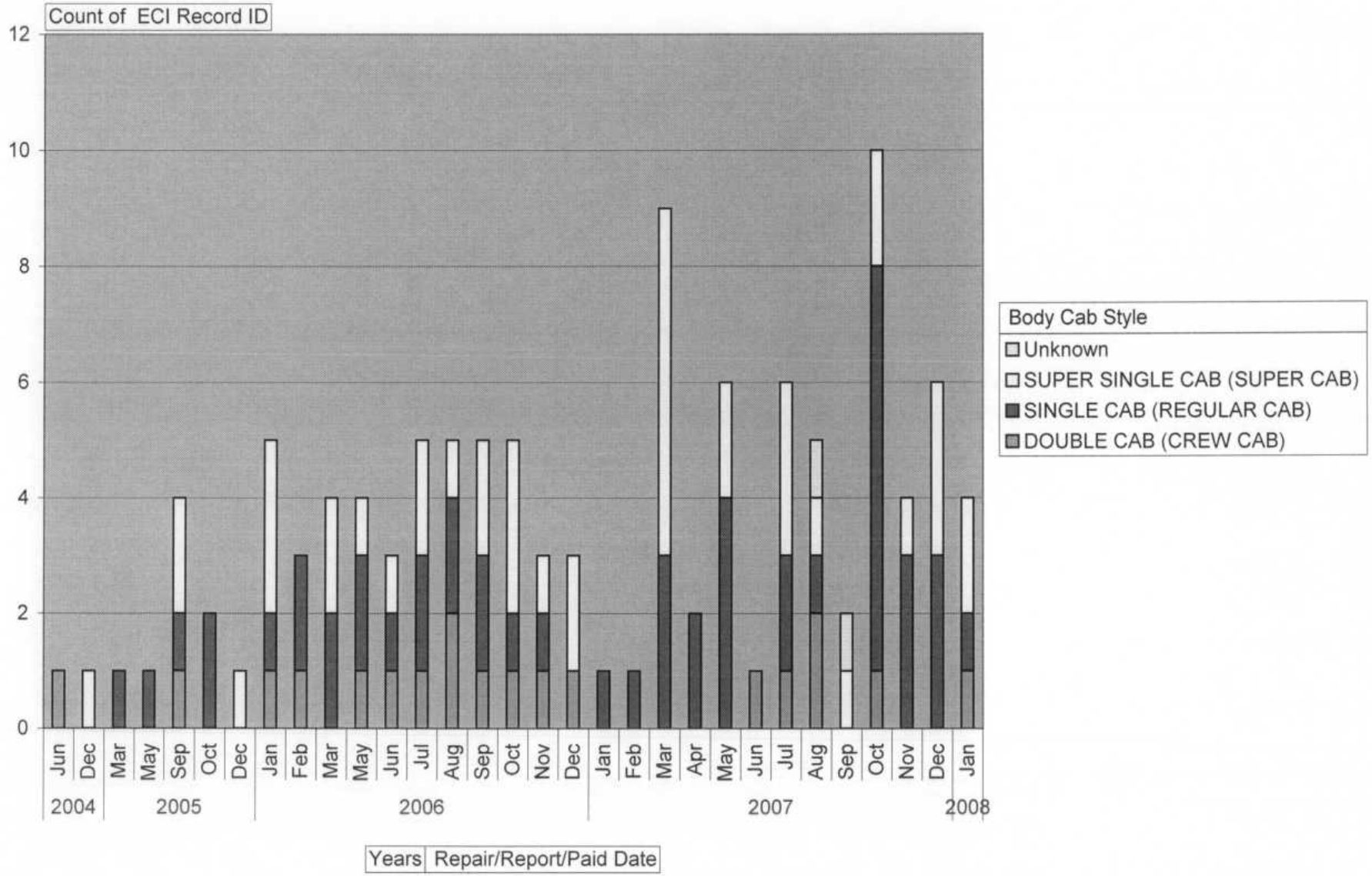
Would have to get G & C to agree also.

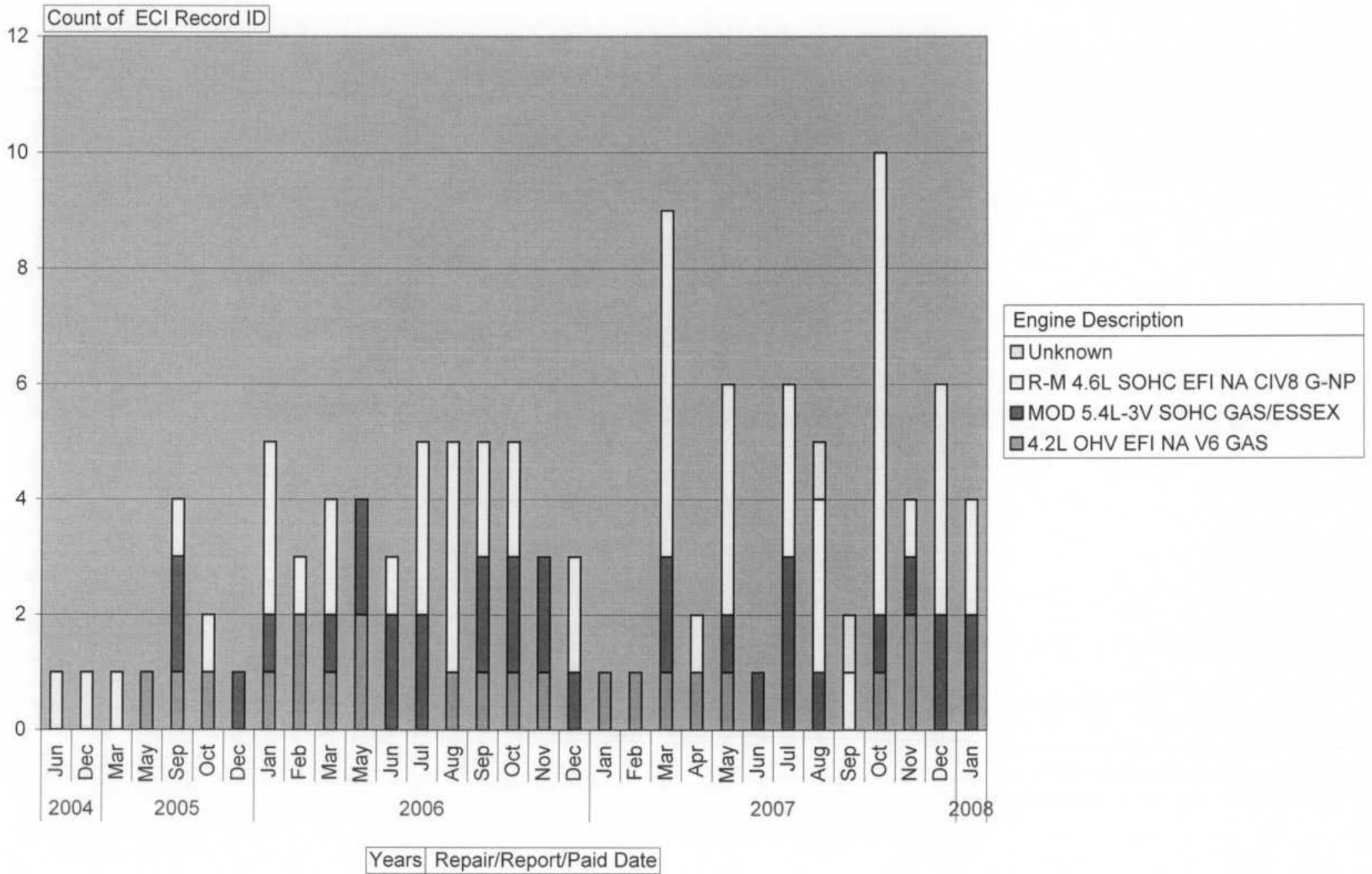
TRW would want \$48k tooling (1/3) for all 3 programs.

Functional Trial parts - 6 to 8 wks man. line.

to get sooner would have to do shorting clip install & elec check off line - ~ 2 weeks
 Amish is writing up a plan.







From: Ruth, Richard (R.R.)
Sent: Wednesday, January 18, 2006 11:31 AM
To: Clement, Charles (C.A.); Oswald, Greg (G.G.)
Cc: Wrestler, Sandy (S.J.)
Subject: FW: RE: Driver's side air bag deployment, 2005 F-150, VIN: 1FTRF12225NA87355

FYI. Build date 1/12/05, at Norfolk. Mileage 21,513.
CUDL report 1365870186 just put in. This has not transferred to CQIS yet but should.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager 313 795 4880
rruth@ford.com

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

From: Taylor, Alma (A.)
Sent: Wednesday, January 18, 2006 9:52 AM
To: Ruth, Richard (R.R.)
Subject: RE: Driver's side air bag deployment, 2005 F-150, VIN: 1FTRF12225N [REDACTED]

Hello Rick,

I need your assistance. The driver alleges that the driver's side airbag deployed for no apparent reason. According to the information received, the driver backed up, then he put this vehicle into "drive" and traveling at 10-15 mph the airbag deployed. The driver was wearing a seatbelt. This morning I had Lou at Marcotte Ford pull any codes. The only code pulled was a "B-2293". Please advise, thanks.

Respectfully,

Alma Taylor

**Litigation Prevention/CVO
Consumer Affairs**
Phone: 313 317-1862
Fax: 313 845-5555

Ford Confidential

From: Spoto, Thomas (T.A.)
Sent: Monday, February 06, 2006 7:55 AM
To: Tippy, David (D.J.); Wrestler, Sandy (S.J.); Clement, Charles (C.A.); Klosek, Walter (W.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: RE: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB

We need this document this morning.

Tom Spoto
P221/P397/P415 EE System Engineering Supervisor
Ph/Fax: 313-845-5322
Txt Pg: [REDACTED]

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

From: Tippy, David (D.J.)
Sent: Monday, February 06, 2006 7:14 AM
To: Spoto, Thomas (T.A.); Wrestler, Sandy (S.J.); Clement, Charles (C.A.); Klosek, Walter (W.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: RE: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB

I am unable to locate the paper I had describing the diagnostic.

Autoliv is searching for it.

Regards,
David Tippy
Restraint Electronics Technical Expert

Ford Motor Company

Phone: 313-805-6911 email: dtippy@ford.com

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

From: Spoto, Thomas (T.A.)
Sent: Friday, February 03, 2006 5:14 PM
To: Wrestler, Sandy (S.J.); Clement, Charles (C.A.); Klosek, Walter (W.); Tippy, David (D.J.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: RE: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB

Dave, when can you get the flow chart you promised me? I want to test out a few scenarios at the breadboard, per our discussion yesterday. Pls call me. Thxs.

Tom Spoto
P221/P397/P415 EE System Engineering Supervisor
Ph/Fax: 313-845-5322
Txt Pg: [REDACTED]

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

From: Wrestler, Sandy (S.J.)
Sent: Friday, February 03, 2006 4:41 PM
To: Spoto, Thomas (T.A.); Clement, Charles (C.A.); Klosek, Walter (W.); Tippy, David (D.J.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB
Importance: High

Tom,

As we discussed, TRW is working on getting us an electrically correct - non deployable 06 P221 DAB module and/or SQUIB for use on the bread board to try and re-create this condition.

We need to remember to simulate both 1) chaff on the clock spring SQUIBs wires and 2) the chaff on the Steering Wheel speed/redundant control wire.

Hopefully we'll have that early next week.

Kathy said she'd help set it up once we get the DAB or SQUIBs

~~~~~

Walt,

Did you by chance get the clock springs with the Bently Harris on them yet?

Also, you gave me cost, do you have timing?

~~~~~

Thanks all

Sandra Jo Wrestler
Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

From: Ruth, Richard (R.R.)
Sent: Wednesday, February 08, 2006 5:54 PM
To: Oswalt, Greg (G.G.); Clement, Charles (C.A.)
Cc: Wrestler, Sandy (S.J.)

Build date 6/21/05 Norfolk. Driver airbag only. Mileage not yet known. Location Clearwater, Florida. Contact svc manager Vince Romano. 727-535-3673. No injuries. Vince is gone for the day, I have left instructions for him to have a tech take PIDS on DAB circuits in the morning. I will follow through with getting parts for analysis unless you direct otherwise. Pls call with who I should send parts to.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager [REDACTED]
rruth@ford.com

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

From: Hill, Wannetta (W.)
Sent: Wednesday, February 08, 2006 4:25 PM
To: Ruth, Richard (R.R.)
Subject: [Customer](#) Michael Spangler, [CUDL report #](#) 1603950306

The above customer states while starting his vehicle the airbag deployed on its own. The dealership, Walker Ford--04947, inspected the undercarriage of the vehicle and did not detect any damage. The vehicle was towed to their dealership and the battery was disconnected. The dealership was only able to retrieve the B2293 airbag codes. No other codes were available. The vehicle is a 2005 F-Series 1FTRF12215N [REDACTED] Please assistance with addressing the customer's concern.

Wannetta Hill

Litigation Prevention Analyst
Phone (313)845-5670; Fax(313)845-5668
e-mail whill2@ford.com

Wrestler, Sandy (S.J.)

From: Ruth, Richard (R.R.)
Sent: Wednesday, February 08, 2006 5:54 PM
To: Oswalt, Greg (G.G.); Clement, Charles (C.A.)
Cc: Wrestler, Sandy (S.J.)

Build date 6/21/05 Norfolk. Driver airbag only. Mileage not yet known. Location Clearwater, Florida. Contact svc manager Vince Romano. 727-535-3673. No injuries. Vince is gone for the day, I have left instructions for him to have a tech take PIDS on DAB circuits in the morning. I will follow through with getting parts for analysis unless you direct otherwise. Pls call with who I should send parts to.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager [REDACTED]
rruth@ford.com

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

From: Hill, Wannetta (W.)
Sent: Wednesday, February 08, 2006 4:25 PM
To: Ruth, Richard (R.R.)
Subject: Customer Michael Spangler, CUDL report # 1603950306

The above customer states while starting his vehicle the airbag deployed on its own. The dealership, Walker Ford--04947, inspected the undercarriage of the vehicle and did not detect any damage. The vehicle was towed to their dealership and the battery was disconnected. The dealership was only able to retrieve the B2293 airbag codes. No other codes were available. The vehicle is a 2005 F-Series 1FTRF12215N [REDACTED]. Please assistance with addressing the customer's concern.

Wannetta Hill

Litigation Prevention Analyst
Phone (313)845-5670; Fax(313)845-5668
e-mail whill2@ford.com

From: Ruth, Richard (R.R.)
Sent: Tuesday, October 17, 2006 4:41 PM
To: Taylor, Alma (A.)
Cc: McClenaghan, Dean (D.C.); Clement, Charles (C.A.)
Subject: RE: RE: Enterprise, 2005 F-150, VIN: 1FTRX12W55N [REDACTED], driver's air bag deployment

Alma, this data says only one of the two stages of the driver airbag is deployed, this would be consistent with an intermittent short to ground on the D_BAGL2 (stage 2) return wire. While the RCM is not the cause, we still want to read it out to see how much warning the customer was given prior to the event.

Richard R. "Rick" Ruth
313-322-7059

From: Taylor, Alma (A.)
Sent: Tuesday, October 17, 2006 10:40 AM
To: Ruth, Richard (R.R.)
Subject: RE: Enterprise, 2005 F-150, VIN: 1FTRX12W55N [REDACTED], driver's air bag deployment

Hello Rick,

Bay Area Ford the following:

D_ABAGR	3.0	OHMS
D_PRTNR	2.2	"
D_ABAGR	3	"
D_BAGL2	25.5	"
LTCURT	25.5	"
P_ABAGR	2.4	"
P_PRTNR	2.2	"
P_ABAGR	2.4	"
P_BAGL2	2.4	"
RTCURT	25.5	"

I'm waiting for Enterprise to return the signed Authorization form in order to remove the RCM.

Respectfully,

Alma Taylor

Litigation Prevention/CVO

Consumer Affairs

Phone: 313 317-1862

Fax: 8886839898

Ford Confidential

From: Ruth, Richard (R.R.)
Sent: Tuesday, October 17, 2006 4:41 PM
To: Taylor, Alma (A.)
Cc: McClenaghan, Dean (D.C.); Clement, Charles (C.A.)
Subject: RE: RE: Enterprise, 2005 F-150, VIN: 1FTRX12W55N [REDACTED], driver's air bag deployment

Alma, this data says only one of the two stages of the driver airbag is deployed, this would be consistent with an intermittent short to ground on the D_BAGL2 (stage 2) return wire. While the RCM is not the cause, we still want to read it out to see how much warning the customer was given prior to the event.

Richard R. "Rick" Ruth
313-322-7059

From: Taylor, Alma (A.)
Sent: Tuesday, October 17, 2006 10:40 AM
To: Ruth, Richard (R.R.)
Subject: RE: Enterprise, 2005 F-150, VIN: 1FTRX12W55N [REDACTED], driver's air bag deployment

Hello Rick,

Bay Area Ford the following:

D_ABAGR	3.0	OHMS
D_PRTNR	2.2	"
D_ABAGR	3	"
D_BAGL2	25.5	"
LTCURT	25.5	"
P_ABAGR	2.4	"
P_PRTNR	2.2	"
P_ABAGR	2.4	"
P_BAGL2	2.4	"
RTCURT	25.5	"

I'm waiting for Enterprise to return the signed Authorization form in order to remove the RCM.

Respectfully,

Alma Taylor

Litigation Prevention/CVO

Consumer Affairs

Phone: 313 317-1862

Fax: 8886839898

Ford Confidential

From: Steven.Binder@Autoliv.com
Sent: Friday, March 10, 2006 6:54 PM
To: Pappas, Bill (B.)
Subject: F150 Field Reports

Attachments: J39 05 F150 RCM SN 24A703295734 FIELD REPORT.xls; J41 04 F150 ETRACKER 3108170 FIELD REPORT.xls; J42 05 F150 ETRACKER 3108384 FIELD REPORT.xls; J43 05 F150 ETRACKER 3108398 FIELD REPORT.xls; J45 05 F150 ETRACKER 3108288 FIELD REPORT.xls; J46 05 F150 ACCELERATION & DELTA V PLOTS.DOC; J46 05 F150 ETRACKER 3108150 FIELD REPORT.xls



J39 05 F150 RCM



J41 04 F150



J42 05 F150



J43 05 F150



J45 05 F150



J46 05 F150



J46 05 F150

SN 24A70329573... TRACKER 3108170 FRACKER 3108384 FRACKER 3108398 FRACKER 3108288 FCELERATION & DEL'RACKER 3108150 F

AUTOLIV ELECTRONICS AMERICA
Bill,

Attached are the Field Reports for the following events.

(See attached file: J39 05 F150 RCM SN 24A703295734 FIELD REPORT.xls) (See attached file: J41 04 F150 ETRACKER 3108170 FIELD REPORT.xls) (See attached file: J42 05 F150 ETRACKER 3108384 FIELD REPORT.xls) (See attached file: J43 05 F150 ETRACKER 3108398 FIELD REPORT.xls) (See attached file: J45 05 F150 ETRACKER 3108288 FIELD REPORT.xls) (See attached file: J46 05 F150 ACCELERATION & DELTA V PLOTS.DOC) (See attached file: J46 05 F150 ETRACKER 3108150 FIELD REPORT.xls)

Regards,
Steven Binder
Field Investigation Engineer
(248) 223-8079

RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J39	TYPE	ARM481+	BATTERY_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 256 or greater key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present Fault cleared PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT 4 Key-ons with the fault present 92 Key-ons since fault has not been present DRIVER_SEAT_TRACK_OPEN_OR_SHORT_TO_BATTERY 256 or greater key-ons with the fault present 15 Key-ons since fault has not been present FRONT_PASSENGER_BELT_TENSION_CIRCUIT_FAULT 256 or greater key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 3 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 2 Key-ons with the fault present Fault cleared DRIVER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY 256 or greater key-ons with the fault present Fault cleared HISTORICAL FAULTS PASSENGER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY GEM_SHORT_TO_BATTERY_FAULT	
ID	RCM SERIAL NUMBER 24A703295734	PART #	5L34-14B321-AA		
REPORT DATE	March10,2006	SERIAL #	24A703295734		
CUSTOMER CONTACT		VEHICLE INFORMATION			
NAME	Bill Pappas	MODEL YR	05		
COMPANY	Ford	NAME	F150		
POSITION	Ford Design Release Engineer	CODE	P221		
PHONE	313 805-3445	VIN	Data not supplied		
EMAIL	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column. 					

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1 OF 1

PE09-046 0543

RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J41	TYPE	ARM481+	(Faults are listed in the order in which they are detected)	
ID	ETRACKER 3108170	PART #	4L3A-14B321-AH		
REPORT DATE	March 10, 2006	SERIAL #	24A71103903B		
CUSTOMER CONTACT		BUILD DATE		<p>DRIVER_FRONT_AIRBAG_STAGE_1_LEAK_LOW_FAULT 256 or greater key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 256 or greater key-ons with the fault present 0 Key-ons since fault has not been present</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 3 Key-ons with the fault present Fault cleared</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present</p>	
NAME		VEHICLE INFORMATION			
NAME	Bill Pappas	MODEL YR	04		
COMPANY	Ford	NAME	F150		
POSITION	Ford Design Release Engin	CODE	P221		
PHONE	313 805-3445	VIN	1FTRX14WO4N [REDACTED]		
EMAIL	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column. 					

RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J42	TYPE	ARM461+	(Faults are listed in the order in which they are detected)	
ID	ETRACKER 3108384	PART #	5L34-14B321-DD		
REPORT DATE	March 10, 2006	SERIAL #	24A703418143		
CUSTOMER CONTACT		BUILD DATE		DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 46 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 5 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present	
NAME		VEHICLE INFORMATION			
COMPANY	Bill Pappas	MODEL YR	05		
POSITION	Ford	NAME	F150		
PHONE	Ford Design Release Engin	CODE	P221		
EMAIL	313 805-3445	VIN	1FTRF12235N [REDACTED]		
	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.					

RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J43	TYPE	ARM461+	(Faults are listed in the order in which they are detected)	
ID	ETRACKER 3108398	PART #	5L34-14B321-DD		
REPORT DATE	March 10, 2005	SERIAL #	24A706760533		
CUSTOMER CONTACT		BUILD DATE		DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 9 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 15 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 16 Key-ons with the fault present 0 Key-ons since fault has not been present	
NAME		VEHICLE INFORMATION			
COMPANY	Bill Pappas	MODEL YR	05		
POSITION	Ford	NAME	F150		
PHONE	Ford Design Release Engin	CODE	P221		
EMAIL	313 805-3445	VIN	1FTRF12215N [REDACTED]		
	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.					

RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J45	TYPE	ARM481+	DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present 61 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 3 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 5 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared HISTORICAL FAULTS PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT	
ID	ETRACKER 3108288	PART #	5L34-14B321-AA		
REPORT DATE	March 10, 2005	SERIAL #	24A702184144		
CUSTOMER CONTACT		BUILD DATE	October 19, 2004		
		VEHICLE INFORMATION			
NAME	Bill Pappas	MODEL YR	05		
COMPANY	Ford	NAME	F150		
POSITION	Ford Design Release Engin	CODE	P221		
PHONE	313 805-3445	VIN	1FTRX14W75F [REDACTED]		
EMAIL	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.					

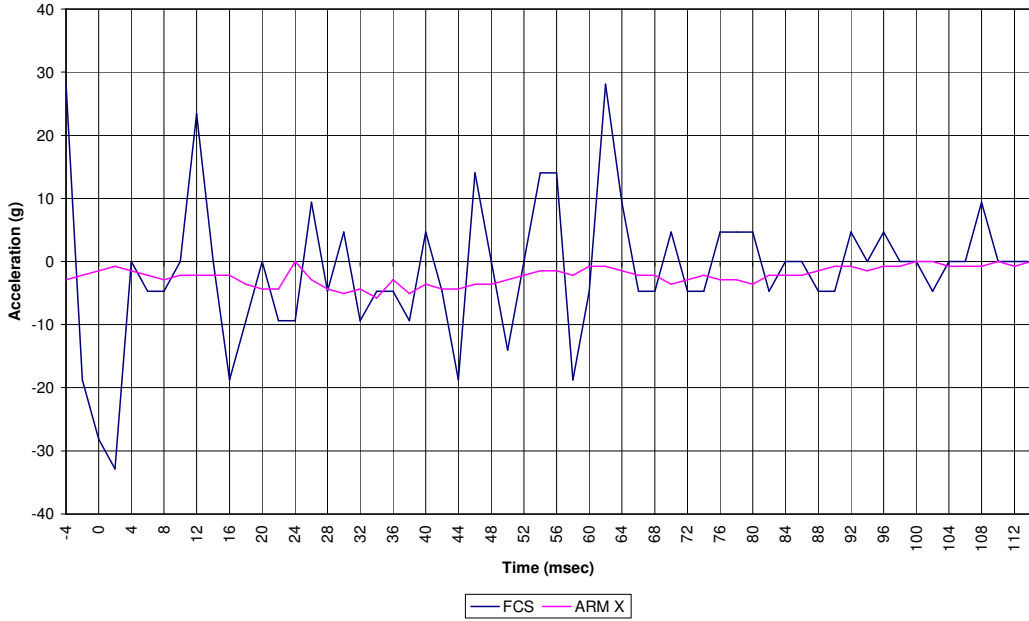
CONFIDENTIAL AND PROPRIETARY

1 OF 1

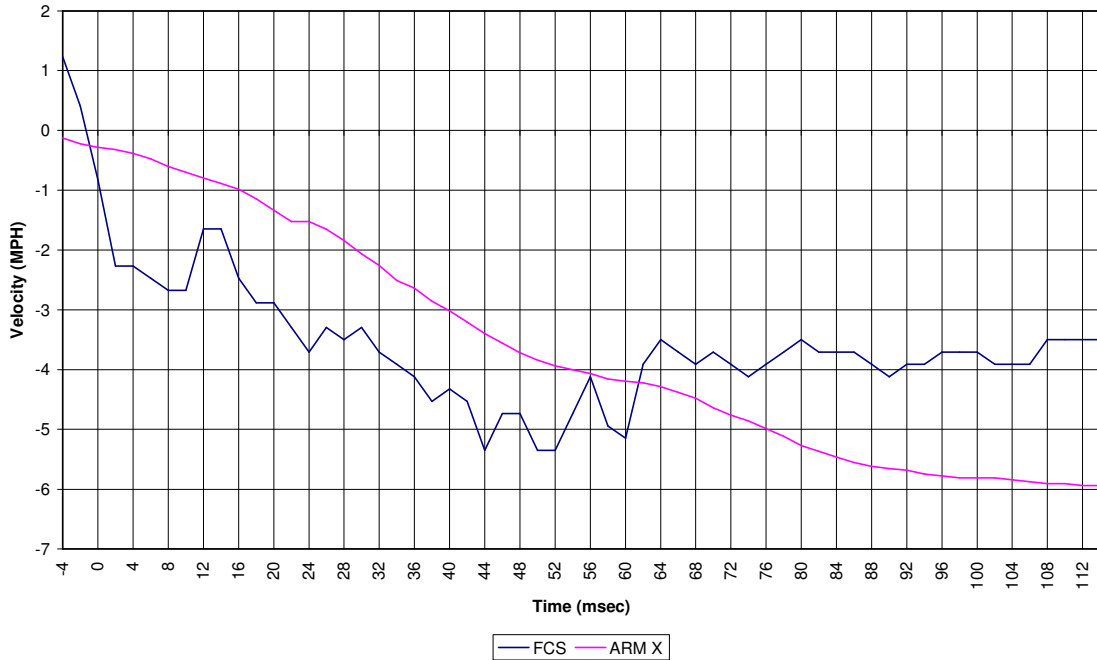
PE09-046 0547

J46 05 F150 Acceleration and Delta Velocity Plots Acceleration and Delta Velocity Charts

Frontal Algorithm Acceleration Crash Data
(0msec = Algorithm Wakeup)



Frontal Algorithm Velocity Crash Data
(0msec = Algorithm Wakeup)



RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J46	TYPE	ARM461+	DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 98 Key-ons with the fault present 4 Key-ons since fault has not been present	
ID	ETRACKER 3108150	PART #	5L34-14B321-AC		
REPORT DATE	March 10, 2006	SERIAL #	24A70388112K		
CUSTOMER CONTACT		BUILD DATE		DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_LOW_FAULT 92 Key-ons with the fault present 4 Key-ons since fault has not been present BATTERY_LOW_FAULT 256 or greater key-ons with the fault present 56 Key-ons since fault has not been present FCS_COMMUNICATION_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present CASE_GROUND_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_SEAT_TRACK_OPEN_OR_SHORT_TO_BATTERY 1 Key-ons with the fault present 0 Key-ons since fault has not been present PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY 1 Key-ons with the fault present 0 Key-ons since fault has not been present OCS_COMMUNICATION_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present PASSENGER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY 1 Key-ons with the fault present 0 Key-ons since fault has not been present	
NAME		VEHICLE INFORMATION			
NAME	Bill Pappas	MODEL YR	05		
COMPANY	Ford	NAME	F150	BATTERY_LOW_FAULT 256 or greater key-ons with the fault present 56 Key-ons since fault has not been present FCS_COMMUNICATION_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present CASE_GROUND_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_SEAT_TRACK_OPEN_OR_SHORT_TO_BATTERY 1 Key-ons with the fault present 0 Key-ons since fault has not been present PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY 1 Key-ons with the fault present 0 Key-ons since fault has not been present OCS_COMMUNICATION_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present PASSENGER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY 1 Key-ons with the fault present 0 Key-ons since fault has not been present HISTORICAL FAULTS *BPS_VOLTAGE_LOW_FAULT *CHARGE_PUMP_LOW_FAULT *SATELLITE_VOLTAGE_LOW_FAULT *ASIC_1_VZ_12_FAULT *ASIC_1_VZ_34_FAULT *ASIC_2_VZ_12_FAULT *ASIC_1_MISBUILD_FAULT	
POSITION	Ford Design Release Engin	CODE	P221		
PHONE	313 805-3445	VIN	1FTRF122X5N [REDACTED]		
EMAIL	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded restraint deployment. 3. The significant velocity crash recording threshold (-3.9mph) was met 38ms after frontal algorithm wakeup. The frontal safing criteria was met 27ms after frontal algorithm wakeup. There was between 3 to 4 minutes from key-on until frontal algorithm wakeup. 4. The system status was the following at the time of the event: <ul style="list-style-type: none"> - Driver Seat Track "Normal" - Driver "Buckled" - Passenger "Unbuckled" - Passenger Seat "Empty" 5. There were no faults present at the time of the event. 6. The internal faults listed on the next column and page are designated by "*" in front of them. These faults can be caused by a low battery condition. 7. The historical faults are listed in the next column and next page. 					

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PE09-046 0549

RESTRAINT CONTROL MODULE ANALYSIS

HISTORICAL FAULTS CONTINUED

*ASIC_1_EVZ2_FAULT

*ASIC_2_EVZ2_FAULT

PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT

DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT

PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

DRIVER_PRETENSIONER_RESISTANCE_HIGH_FAULT

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

1. The vehicles below, identified by the Georgia Power vehicle identification numbers, had the following restraint control module analysis:

12521	13543	15569	22560	24549	31534
12532	13544	21533	22566	25531	31535
12543	13563	21537	23573	25533	31537
12553	14531	21566	23576	25535	31538
12556	14532	21599	23578	25538	31541
12557	14536	22534	24410	25539	31542
12558	14537	22541	24522	25541	32531
12618	14539	22543	24539	25652	33548
13538	14544	22544	24545	31531	35547
13542	15549	22547	24548	31532	

- A. There were no flash codes when the vehicles were powered on.
 - B. The restraint control modules did not record any crash data.
 - C. There were no internal faults recorded in the restraint control modules.
 - D. There were no historical faults recorded in the restraint control modules.
2. The vehicle listed below, identified by the Georgia Power vehicle identification number 25532, had the following restraint control module analysis:

- A. There were no flash codes when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded in the restraint control module.
- D. The following historical faults were recorded by the restraint control module. The faults are listed in the order in which they were detected.

BATTERY_LOW_FAULT

- 1 Key-ons with the fault present
- Fault cleared

BATTERY_HIGH_FAULT

- 5 Key-ons with the fault present
- 2 Key-ons since fault has not been present

Historical Faults Recorded While in Low or High Battery

OCS_COMMUNICATION_FAULT

GEM_SHORT_TO_BATTERY_FAULT

3. The vehicle listed below, identified by the Georgia Power vehicle identification number 35549, had the following restraint control module analysis:

- A. There was a flash code 19 present, Driver Front Airbag Fault, when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. The following historical faults were recorded by the restraint control module:

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 19 Key-ons with the fault present
- 6 Key-ons since fault has not been present

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 1 Key-ons with the fault present
- Fault cleared

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 12 Key-ons with the fault present
- Fault cleared

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 1 Key-ons with the fault present
- Fault cleared

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 5 Key-ons with the fault present
- Fault cleared

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 4 Key-ons with the fault present
- Fault cleared

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 2 Key-ons with the fault present
- Fault cleared

BATTERY_LOW_FAULT

- 11 Key-ons with the fault present
- Fault cleared

DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

- 1 Key-ons with the fault present
- Fault cleared

DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT

- 256 or greater key-ons with the fault present
- 0 Key-ons since fault has not been present

HISTORICAL FAULTS - Internal faults designated by a "*". These internal faults can be caused by a low battery condition.

*BPS_VOLTAGE_LOW_FAULT
*CHARGE_PUMP_LOW_FAULT
*SATELLITE_VOLTAGE_LOW_FAULT
*ASIC_1_VZ_12_FAULT
*ASIC_1_VZ_34_FAULT
*ASIC_2_VZ_12_FAULT
*ASIC_1_EVZ2_FAULT
*ASIC_2_EVZ2_FAULT
CASE_GROUND_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT
DRIVER_PRETENSIONER_RESISTANCE_HIGH_FAULT
OCS_COMMUNICATION_FAULT
OCS_MODULE_FAULT

4. The vehicle listed below, identified by the Georgia Power vehicle identification number 21539 , had the following restraint control module analysis:

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

20 Key-ons with the fault present
Fault cleared

HISTORICAL FAULTS recorded while in a low battery condition - Internal faults designated by a "*". These internal faults can be caused by a low battery condition.

*BPS_VOLTAGE_LOW_FAULT
*CHARGE_PUMP_LOW_FAULT
*SATELLITE_VOLTAGE_LOW_FAULT
*ASIC_1_VZ_12_FAULT
*ASIC_1_VZ_34_FAULT
*ASIC_2_VZ_12_FAULT
*ASIC_1_EVZ2_FAULT
*ASIC_2_EVZ2_FAULT
CASE_GROUND_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT
PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT
OCS_COMMUNICATION_FAULT
DRIVER_SEAT_TRACK_OUT_OF_RANGE

- 5. The vehicle listed below, identified by the Georgia Power vehicle identification number 13549, had the following restraint control module analysis:
 - A. There were no flash codes when the vehicle was powered on.
 - B. The restraint control module did not record any crash data.
 - C. There were no internal faults recorded in the restraint control module.
 - D. The following historical faults were recorded by the restraint control module. The faults are listed in the order in which they were detected.

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

DRIVER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY

17 Key-ons with the fault present

Fault cleared

PASSENGER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY

17 Key-ons with the fault present

Fault cleared

DRIVER_SEAT_TRACK_OPEN_OR_SHORT_TO_BATTERY

17 Key-ons with the fault present

Fault cleared

PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT

17 Key-ons with the fault present

Fault cleared

DRIVER_PRETENSIONER_RESISTANCE_HIGH_FAULT

17 Key-ons with the fault present

Fault cleared

OCS_COMMUNICATION_FAULT

17 Key-ons with the fault present

Fault cleared

BATTERY_LOW_FAULT

1 Key-ons with the fault present

Fault cleared

6. The vehicle listed below, identified by the Georgia Power vehicle identification number 31540, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

1 Key-ons with the fault present

Fault cleared

HISTORICAL FAULTS recorded while in a low battery condition - Internal faults designated by a "*". These internal faults can be caused by a low battery condition.

*BPS_VOLTAGE_LOW_FAULT

*CHARGE_PUMP_LOW_FAULT

*SATELLITE_VOLTAGE_LOW_FAULT

*ASIC_1_VZ_12_FAULT

*ASIC_1_VZ_34_FAULT

*ASIC_2_VZ_12_FAULT

*ASIC_1_EVZ2_FAULT

*ASIC_2_EVZ2_FAULT

CASE_GROUND_HIGH_FAULT

PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT

DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT

PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT

PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT

PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT

OCS_COMMUNICATION_FAULT

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

7. The vehicle listed below, identified by the Georgia Power vehicle identification number 31549 , had the following restraint control module analysis:

- A. There was a flash code 42, Front Crash Sensor Fault, present when the vehicle was powered on.
- B. The restraint control module did not record a commanded restraint deployment.
- C. The significant velocity crash recording threshold (-3.9mph) was met 23ms after frontal algorithm wakeup. The frontal safing criteria was met 9ms after frontal algorithm wakeup.
There was between 11 to 12 minutes from key-on until frontal algorithm wakeup.
- D. The system status was the following at the time of the event:
 - Driver Seat Track "Normal"
 - Driver "Buckled"
 - Passenger "Unbuckled"
 - Passenger Seat "Empty"
- E. There were no faults present at the time of the event.
- F. There were no internal faults recorded in the restraint control module.
- G. The following historical faults were recorded by the restraint control module:

FCS_COMMUNICATION_FAULT

- 1 Key-ons with the fault present
- 0 Key-ons since fault has not been present

BATTERY_LOW_FAULT

- 8 Key-ons with the fault present
- Fault cleared

FCS_COMMUNICATION_FAULT

- 1 Key-ons with the fault present
- Fault cleared

FCS_COMMUNICATION_FAULT

- 1 Key-ons with the fault present
- Fault cleared

FCS_COMMUNICATION_FAULT

- 1 Key-ons with the fault present
- Fault cleared

FCS_COMMUNICATION_FAULT

- 6 Key-ons with the fault present
- Fault cleared

FCS_COMMUNICATION_FAULT

- 5 Key-ons with the fault present
- Fault cleared

BATTERY_LOW_FAULT

- 1 Key-ons with the fault present
- Fault cleared

FCS_COMMUNICATION_FAULT

- 1 Key-ons with the fault present
- Fault cleared

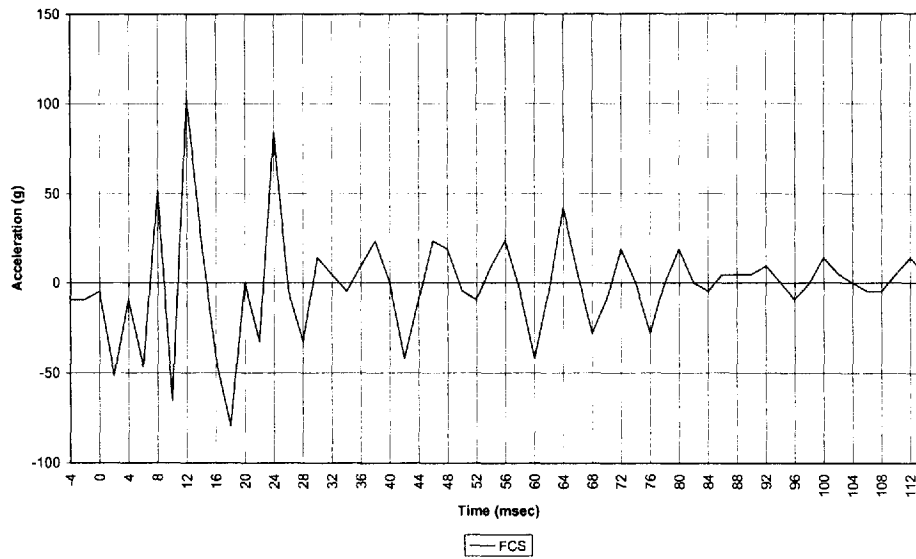
BATTERY_LOW_FAULT

- 1 Key-ons with the fault present
- Fault cleared

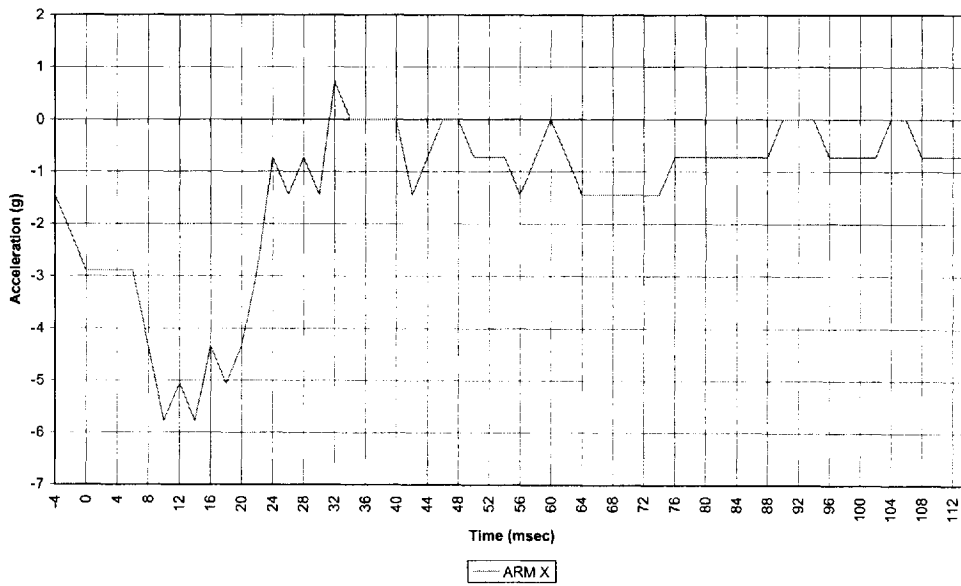
F150 GEORGIA POWER QUALITY AUDIT SUMMARY

H. The accelerations and delta velocity plots are below.

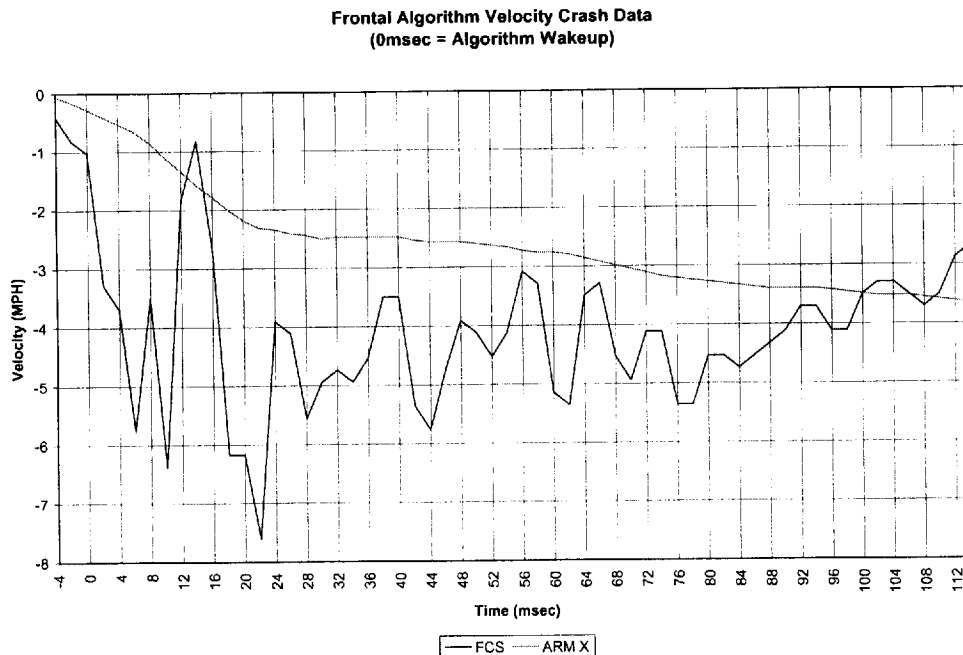
Frontal Algorithm Acceleration Crash Data
(0msec = Algorithm Wakeup)



Frontal Algorithm Acceleration Crash Data
(0msec = Algorithm Wakeup)



F150 GEORGIA POWER QUALITY AUDIT SUMMARY



8. The vehicle listed below, identified by the Georgia Power vehicle identification number 31543 , had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 2 Key-ons with the fault present
- Fault cleared

Historical Faults Recorded While in Low Battery

OCS_COMMUNICATION_FAULT

9. The vehicle listed below, identified by the Georgia Power vehicle identification number 14521, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module:

DRIVER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY

- 1 Key-ons with the fault present
- Fault cleared

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

10. The vehicle listed below, identified by the Georgia Power vehicle identification number 13545, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module:

FCS_COMMUNICATION_FAULT

- 1 Key-ons with the fault present
Fault cleared

11. The vehicle listed below, identified by the Georgia Power vehicle identification number 12552, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 2 Key-ons with the fault present
Fault cleared

Historical Faults Recorded While in Low Battery

OCS_COMMUNICATION_FAULT

12. The vehicle listed below, identified by the Georgia Power vehicle identification number 13555, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 2 Key-ons with the fault present
Fault cleared

HISTORICAL FAULTS recorded while in a low battery condition - Internal faults designated by a "*". These internal faults can be caused by a low battery condition.

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

*BPS_VOLTAGE_LOW_FAULT
*CHARGE_PUMP_LOW_FAULT
*SATELLITE_VOLTAGE_LOW_FAULT
*ASIC_1_VZ_12_FAULT
*ASIC_1_VZ_34_FAULT
*ASIC_2_VZ_12_FAULT
*ASIC_1_EVZ2_FAULT
*ASIC_2_EVZ2_FAULT
CASE_GROUND_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT
PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT
OCS_COMMUNICATION_FAULT
DRIVER_SEAT_TRACK_OUT_OF_RANGE

13. The vehicle listed below, identified by the Georgia Power vehicle identification number 14566, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module. The faults are listed in the order in which they were detected.

PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT

- 1 Key-ons with the fault present
Fault cleared

PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT

- 2 Key-ons with the fault present
Fault cleared

14. The vehicle listed below, identified by the Georgia Power vehicle identification number 14560, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module:

PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT

- 1 Key-ons with the fault present
Fault cleared

F150 GEORGIA POWER QUALITY AUDIT SUMMARY

15. The vehicle listed below, identified by the Georgia Power vehicle identification number 13525, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. The restraint control module did not record any internal faults.
- D. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 4 Key-ons with the fault present
Fault cleared

HISTORICAL FAULTS recorded while in a low battery condition
OCS_COMMUNICATION_FAULT

From: Oswalt, Greg (G.G.)
Sent: Friday, January 20, 2006 2:48 PM
To: Clement, Charles (C.A.)
Subject: FW: F150 VIN

Attachments: VIN 1.xls; VIN 2.xls

Greg Oswalt

Critical Concern Manager
BoF - Pick-up Truck & Commercial Vehicle
PDC - GC-A59, MD 266

 313-390-1160, Cell Ph. 313-805-3808

 goswalt@ford.com

Honesty is the best image.

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

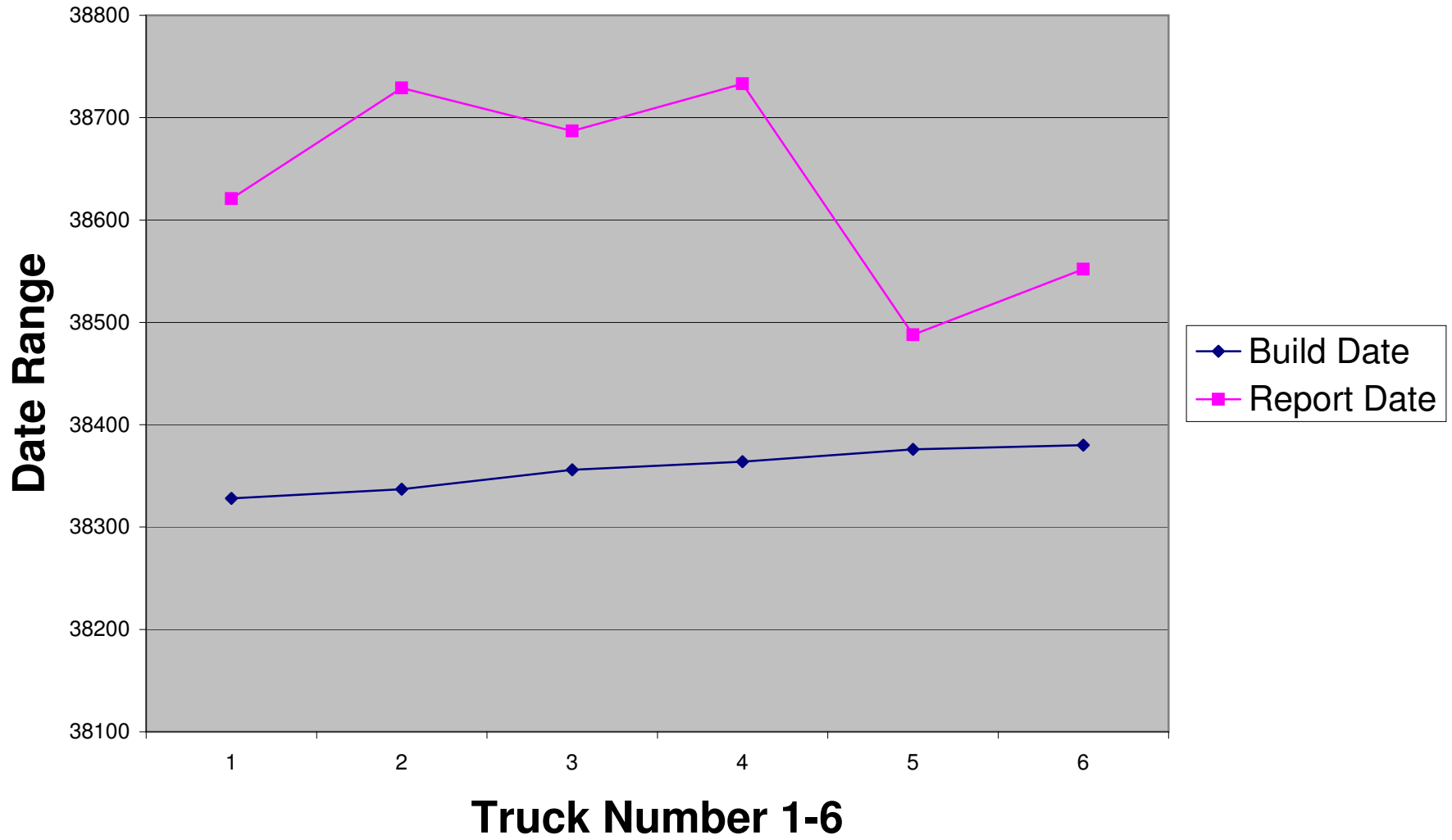
From: Colatruglio, Vince (V.E.)
Sent: Friday, January 20, 2006 1:05 PM
To: Oswalt, Greg (G.G.)
Subject: F150 VIN



VIN 1.xls (23 KB) VIN 2.xls (46 KB)

Vince Colatruglio
FCSD Customer Service Engineering
Dearborn Truck Plant - PVT
313-845-2158

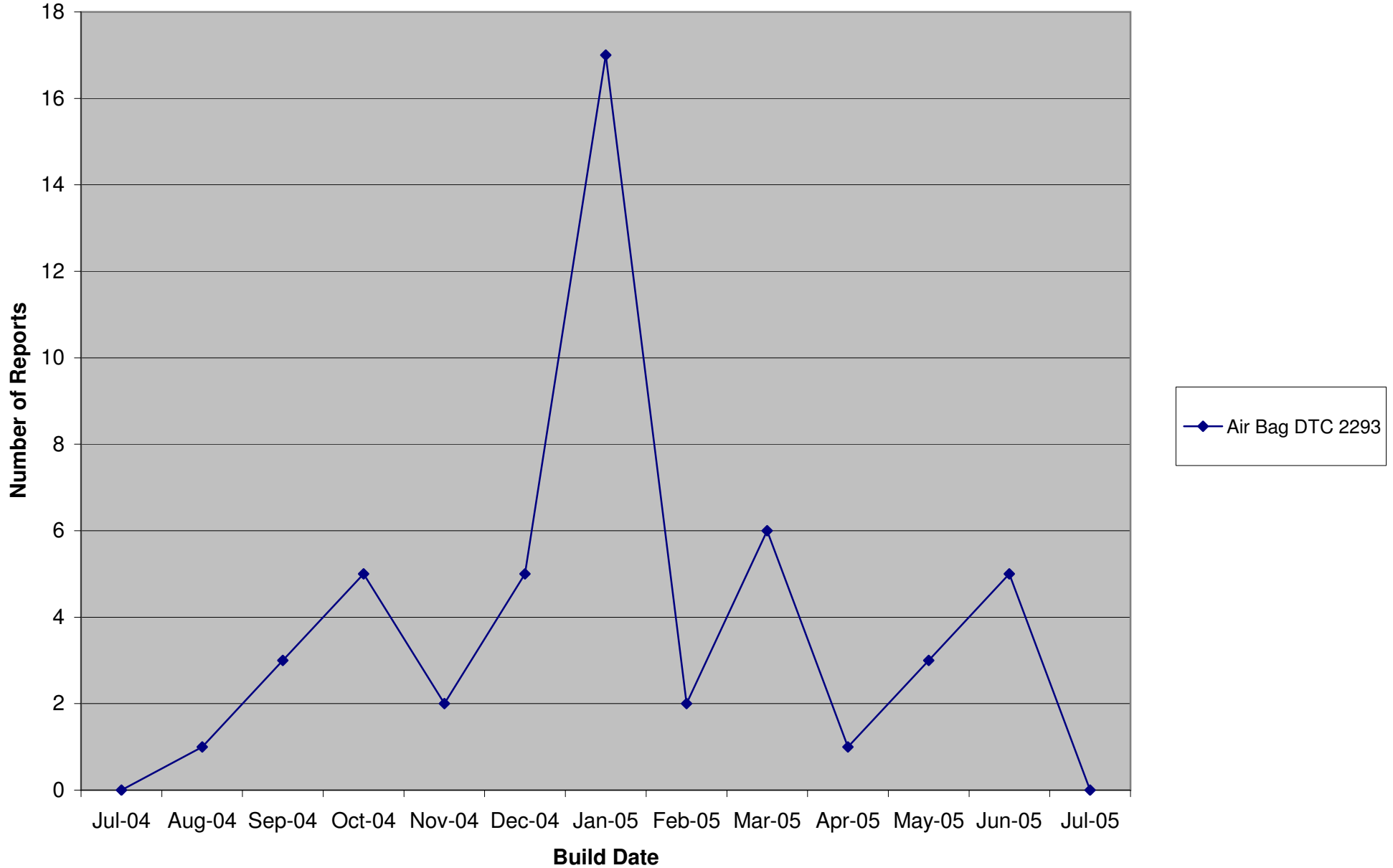
F-150 ????????????????



VIN
1FTPX14585N [REDACTED]
1FTRF12225N [REDACTED]
1FTRF12215N [REDACTED]
1FTPX14585N [REDACTED]
1FTRX14W65N [REDACTED]
1FTPX145X5N [REDACTED]
1FTPX14544 [REDACTED]

5.4L - MIL Codes P0172 / P0175 "CQIS Data"

CQIS Folder Report Count by Build Date



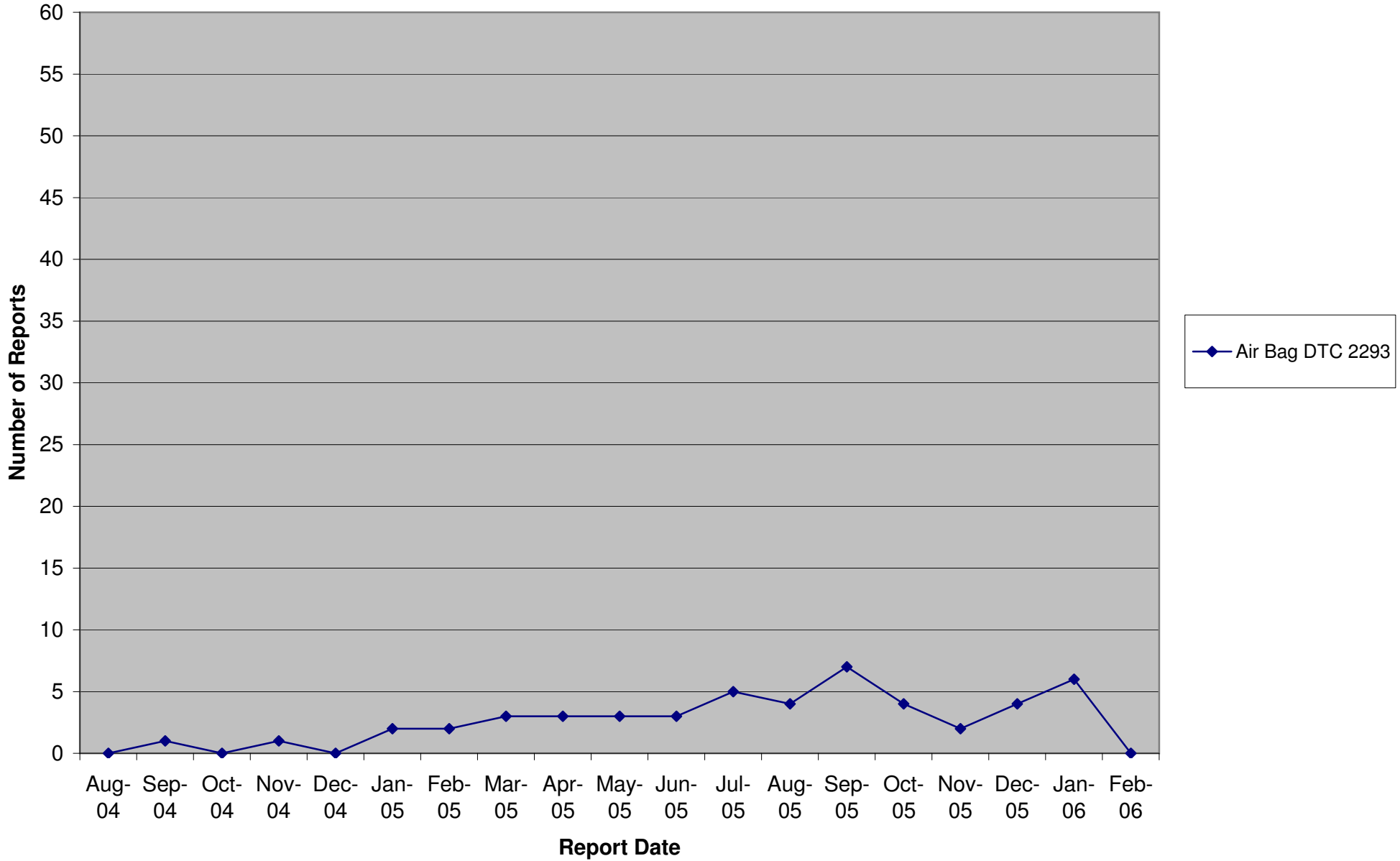
PVT Folder Report

Select by Build Date

Folder	Description	Report Count	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05				
	Tire Wear Concerns		0	1	3	5	2	5	17	2	6	1	3	5	0				

5.4L - MIL Codes P0172 / P0175 "CQIS Data"

CQIS Folder Report Count by Report Date



PVT Folder Report

Select by Report Date																					
Folder	Description	Report Count	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06
	Tire Wear Concerns	50	0	1	0	1	0	2	2	3	3	3	3	5	4	7	4	2	4	6	0

VM
1FTPW1 2560
1FTPW1 453
1FTPX1 2500
1FTPW1 4530
1FTRX1 2W25
1FTPW1 2570
1FTPW1 4530
1FTFR 12290
1FTPW1 2550
1FTPW1 4580
1FTPW1 4570
1FTPW1 2500
1FTPX1 4570
1FTPX1 4550
1FTPW1 4570
1FTPW1 4530
1FTPW1 4530
1FTPW1 4540
1FTPW1 4500
1FTFR 04W60
1FTRX1 4W25
1FTFR 12W60
1FTPX1 4540
1FTRX1 2W50
1FTRX1 2W25
1FTPX1 4550
1FTPX1 450
1FTFR 125X0
1FTFR 12110
1FTFR 1201
1FTFR 12290
1FTFR 12250
1FTPX1 4580
1FTFR 1220
1FTPX1 4570
1FTFR 1224
1FTRX1 2W7
1FTRX1 2W30
1FTRX1 4W60
1FTRX1 4W40
1FTFR 12250
1FTPX1 4550
1FTPX1 0550
1FTPX1 4580
1FTPX1 4580
1FTPX1 450
1FTPX1 45X
1FTPX1 45X
1FTPX1 45X
1FTFR 1220

From: Hilding, Robert (R.J.)
Sent: Friday, April 21, 2006 1:43 PM
To: Oswald, Greg (G.G.); Spoto, Thomas (T.A.); Wrestler, Sandy (S.J.); Klosek, Walter (W.); Pappas, Bill (B.); Clark, Todd (T.N.); Alexander, Vincent (V.J.)
Cc: Gniewek, Kenneth (K.J.)
Subject: F-150 Airbag agenda for 4/28 meeting

Team,

Here is the agenda for the 4/28 meeting.
Please be prepared to discuss the following:

Wiring (Tom Spoto)

- Analysis of field vehicles
- Any false grounds/sneak circuits?

Clocksprings (Walt Klosek)

- Summary of field return analysis
- Warranty analysis
 - Pareto by symptom code
 - R/1000
- Part change timing for production and service

RCM (Todd/Bill)

- Does wire chafe always illuminate airbag light?
- With wire chafe, will system attempt to fire airbag during an accident?

Airbag (Sandy/Vince)

- Trend chart(s)
 - MOP for airbag light/2293 code, overlay w/deployments
 - Incidents by plant
- Testing status
- Plant trial results
- Part change timing for production and service

Robert Hilding - rhilding@ford.com

Ford Truck Critical Concerns
cell) 313-805-3807 PDC GC-A61 MD-266
Integrity is what you do when no one is watching

From: Hilding, Robert (R.J.)
Sent: Wednesday, May 03, 2006 1:31 PM
To: Clement, Charles (C.A.); Wrestler, Sandy (S.J.); Alexander, Vincent (V.J.); Spoto, Thomas (T.A.); Klosek, Walter (W.); Gniewek, Kenneth (K.J.); Clark, Todd (T.N.); Pappas, Bill (B.)
Cc: Oswalt, Greg (G.G.)
Subject: F-150 Inadvertant DAB agenda for May 5

Attachments: May 5 Agenda.doc

Attached is the preliminary agenda for Friday's meeting. Please let me know if you wish to make changes, etc.



May 5 Agenda.doc
(31 KB)

Robert Hilding - rhilding@ford.com

Ford Truck Critical Concerns

cell) PDC GC-A61 MD-266

Integrity is what you do when no one is watching

May 5 Agenda

2004-2006 F-150 Inadvertent DAB deployment

Problem Description

C. Clement

- Background (what, how ,why)
 - Unique to P221 – dual stage perpendicular igniter
 - Enabler - Squib chafe must be present
 - Air bag light illumination/2293 code
- Preliminary root cause discussion

Data Analysis

S. Wrestler

- Field Audit
- Trend Charts
- Summary

Investigation:

Wiring

T. Spoto

Clockspring

W. Klosek

RCM diagnosis

T. Clark

Testing

V. Alexander

Production/Service changes

Horn plate

V. Alexander

- Flocking tape
- S flange tooling

Clockspring

W. Klosek

- polyester mesh
- squib reorientation

ASO

K. Gniewek

Next Steps

Confidentiality: Confidential

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STEP 1 =====

Tracking Number 3011826
VIN 1FTPX12595N
Model Year 2005
Vehicle F-150
Vehicle Build Date Nov-24-2004
Mileage 19,198
CQIS / CUDL #
Incident Date Feb-03-2006
Alleged Description Customer alleges driver airbag unintended deployment.
 (Orlando, FL)
Alleged Concern Unintended Deployment
DTC B2293

Last Revised RTUSTANO
 Mar-30-2006
Date Entered RTUSTANO
 Feb-16-2006

[View Issue History](#)

[Edit](#)

Attachments

[Autoliv Report - J39](#)

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-AA
Shipped to Supplier Feb-15-2006

STEP 3 =====

System Front
Engineering Comments 3/30/06 (RTUSTANO) - There were no flash codes present when the RCM was powered on at Autoliv. The RCM did not record a commanded deployment.

 The historical faults are listed in the attached report. The historical faults and technician comments indicate a short in the vehicle wiring existed which in some instances may result in an inadvertant airbag deployment.

 J-39

 3/8/06 (RTUSTANO) - Received approval to analyze the returned module.

 2/16/06 (RTUSTANO) - Approval to analyze module has not been received. All module analysis is on hold pending approval to proceed.

Affected Engineers BPAPPAS
Closed Date Mar-30-2006
Closed By RTUSTANO

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS	
ID #	J39	TYPE	ARM481+	BATTERY_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 256 or greater key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present Fault cleared PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT 4 Key-ons with the fault present 92 Key-ons since fault has not been present DRIVER_SEAT_TRACK_OPEN_OR_SHORT_TO_BATTERY 256 or greater key-ons with the fault present 15 Key-ons since fault has not been present FRONT_PASSENGER_BELT_TENSION_CIRCUIT_FAULT 256 or greater key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 3 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 2 Key-ons with the fault present Fault cleared DRIVER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY 256 or greater key-ons with the fault present Fault cleared HISTORICAL FAULTS PASSENGER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY GEM_SHORT_TO_BATTERY_FAULT	
ID	RCM SERIAL NUMBER 24A703295734	PART #	5L34-14B321-AA		
REPORT DATE	March10,2006	SERIAL #	24A703295734		
CUSTOMER CONTACT		VEHICLE INFORMATION			
NAME	Bill Pappas	MODEL YR	05		
COMPANY	Ford	NAME	F150		
POSITION	Ford Design Release Engineer	CODE	P221		
PHONE	313 805-3445	VIN	Data not supplied		
EMAIL	bpappas@ford.com	MILEAGE	Data not supplied		
RESTRAINT CONTROL MODULE ANALYSIS					
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.					

CONFIDENTIAL AND PROPRIETARY

1 OF 1

PE09-046 0573

Chascsa, Jim (JRCII.)

From: Gregory, Zygmunt (Z.)
Sent: Thursday, March 02, 2006 10:23 AM
To: Wrestler, Sandy (S.J.); Chascsa, Jim (JRCII.)
Subject: FW: Ford DAB Functional Trials - Inflator Build Plan

Attached plan for trial parts parallel initiators.

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

From: Steve Ahlquist [mailto:Steve.Ahlquist@TRW.COM]
Sent: Wednesday, March 01, 2006 4:35 PM
To: Lynch, Jim (J.); Gregory, Zygmunt (Z.); Andrew Smydra; AnnMarie Mcmillan; Fred Vandervennet; James Kerrigan; Jim Lynch; Steve.J Peterson
Subject: Fwd: Ford DAB Functional Trials - Inflator Build Plan

Please see attached info to support the alert needed at Ford for the functional trials for both P221/P397 and U22X.

>>> Jeffrey Kutchey 3/1/2006 3:07 PM >>>
Steve,

To support the Ford Functional Build trials of the parallel igniter orientation, inflators will be built over the next two weeks according to the following:

Final inflator assemblies built per production BOM on standard process
Igniter assemblies built per production BOM on standard process
Igniter sub-assemblies built per production BOM on standard process with the following exceptions

- Deviated to use igniter housing with parallel orientation igniter socket
- Shorting clip installation accomplished using either soft tooling or as a post-processing rework operation.

Note that the final inflator part numbers for these units will be the same as current production product. Therefore, some degree of administrative control will need to be exercised in the module facilities to control usage of these parts. The inflator pallet and individual totes will be labeled with the deviation number identified.

I created an internal document to communicate this plan to the plant - copy is attached.

Thanks,
Jeff

DI9.2G with Parallel Orientation Igniters
Ford Vehicle Plant Functional Trials

Ford P221, U251, U222, and U228 require production-built inflator assemblies for vehicle plant functional line trials.

Inflator Assembly

- Built to print except using deviated igniter assembly (igniter orientation)
- Program, Inflator Part Number, Quantity to Build:
 - P221, U251: **30376553A**, Qty 300
 - U222, U228: **30376555A**, Qty 300
- Unique lot (each p/n) with standard quality checks and build traceability
- Shipped with DEV167381 label on packaging and each tote for identification

Igniter Assembly

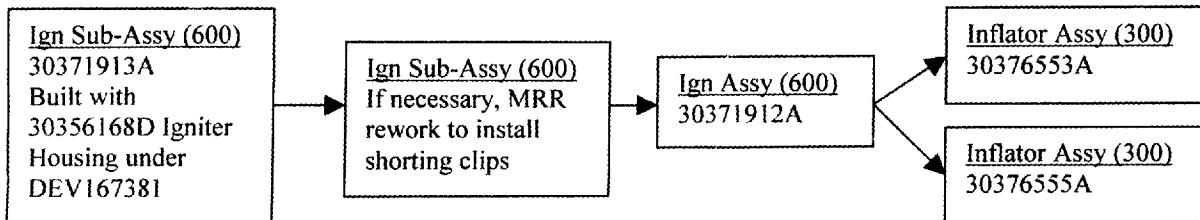
- Built to print except using deviated igniter sub-assembly
- Program, Part Number, Quantity to Build:
 - All Programs, **30371912A**, Qty 600
- Unique lot with standard quality checks and build traceability

Igniter Sub-Assembly

- DEV167381 – Replace igniter housing 30361066C (perpendicular) with 30356168D (parallel)
- Build with **new low-volume parallel orientation shorting clip installation tooling** or by ~~perpendicular shorting clip installation~~ if acceptable tooling is not available.
- If post-processing rework is necessary for shorting clip installation, **igniter sub-assembly lot to be placed on MRR**
- If necessary, post-processing rework to install FCI Code C (primary) and Code A (secondary) shorting clips. Rework is a manual operation completed using tool specifically designed to complete this operation. Units will be inspected by Quality Engineer for damage to the shorting clip and/or initiator pins before final acceptance and disposition of MRR.
- Program, Part Number, Quantity to Build:
 - All Programs, **30371913A**, Qty 600
- Unique lot with standard quality checks and build traceability

How is done by?

→ from what station to what station?



From: Hassinger, Chris (C.V.)
Sent: Friday, January 27, 2006 9:32 AM
To: Klosek, Walter (W.)
Subject: FW: DURIS DEFECT Incident - F150 301W890 (387G1): Airbag light on (#529196)

This is the third time we have seen this here at APG. This vehicle was untouched at APG. Do you have any responsibility for these?

Chris Hassinger

Durability Systems Engineer and EESE APG Resident
EDS, Power Supply, and Suspension Controls

Desk Phone: 928-753-7315 **Cell Phone:** 313-805-8208

"They'll talk to ya and talk to ya and talk to ya about individual freedom. But they see a free individual, it's gonna scare 'em."

Shipping Address: **Please eMail Tracking # and carrier**

Ford Motor Company
One Proving Ground Road
Yucca, AZ 86438

From: Pappas, Bill (B.)
Sent: Friday, January 27, 2006 4:32 AM
To: Bledsoe, Jeff (J.M.)
Cc: Hassinger, Chris (C.V.); Clark, Todd (T.N.)
Subject: RE: DURIS DEFECT Incident - F150 301W890 (387G1): Airbag light on (#529196)

Jeff,

Please route this issue to Sandy Wrestler/Vince Alexander (Driver Airbag) and Walt Klosek (Clockspring). They should be lead.

Thanks,

Bill Pappas

Tough Truck Restraints

Tel # (313) 337-3043

Cell # (313) 805-3445

Text Page: bpappas

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

From: Bledsoe, Jeff (J.M.)
Sent: Thursday, January 26, 2006 5:59 PM
To: Pappas, Bill (B.); Clark, Todd (T.N.)
Cc: Hassinger, Chris (C.V.)
Subject: RE: DURIS DEFECT Incident - F150 301W890 (387G1): Airbag light on (#529196)

The insulation on the red wire w/ black stripe was worn through to copper allowing a short to ground at the airbag assembly housing. The yellow protective sleeve was bunched up and was not providing any protection where the wire was chaffing on the assembly housing. I attached photos to the incident.

Who owns the airbag module and the attached wires?

From: Pappas, Bill (B.)

Sent: Thursday, January 26, 2006 9:25 AM
To: Bledsoe, Jeff (J.M.); Clark, Todd (T.N.)
Cc: Hassinger, Chris (C.V.)
Subject: RE: DURIS DEFECT Incident - F150 301W890 (387G1): Airbag light on (#529196)

Jeff,
Check the clock spring wiring behind the Driver Airbag.

Thanks,

Bill Pappas

Tough Truck Restraints

Tel # (313) 337-3043

Cell #

Text Page: bpappas

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

From: Bledsoe, Jeff (J.M.)
Sent: Thursday, January 26, 2006 11:00 AM
To: Pappas, Bill (B.); Clark, Todd (T.N.)
Cc: Hassinger, Chris (C.V.)
Subject: DURIS DEFECT Incident - F150 301W890 (387G1): Airbag light on (#529196)

FYI. The pinpoint for this was not done correctly so we are redoing it now. So far we know the light was set by B2293 and D_ABAG2 = STG.

DURIS Incident 529196 is available via the link below:

CPSC: 01.20.05

Program and Sub Program: P221 - 2007 P221 CP

Originator: JBLEDSONE Date Issued: 26-JAN-2006 10:58:10

Security Classification: Confidential Record Type: Transient/Unofficial

The data in these reports should be treated as confidential and protected accordingly. This is a transient/unofficial record when extracted to Excel or Printed.

<http://www.duris.ford.com/pls/duris/incident.report?incidentcode=529196>

From: Murphy, John (J.W.)
Sent: Tuesday, March 07, 2006 8:41 AM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Cc: Crafts, Bill (W.E.)
Subject: FW: F150 Clocksprings reviewed by J. Murphy

Attachments: F150 Clockspring Warranty Returns evaluated by J. Murphy.xls



F150 Clockspring
Warranty Retu...

Walt/Roy,

Attached is the spread sheet of the F150 Clocksprings that I looked at down in Carthage. The last 3 columns, to the right, are the results from the review of the parts.

Regards,
John W. Murphy
Ford Motor Company
Core Switch Engineer - Multifunction Switches
(313) - 805-6867
AVT5 - Cube: 1G008
E-mail: Jmurph93@ford.com

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

From: Cox, Mark [mailto:MCox@methode-aecd.com]
Sent: Friday, March 03, 2006 4:22 PM
To: Murphy, John (J.W.); Bartlett, Darrin; Gibson, Scott; Khan, Rehan
Subject: F150 Clocksprings reviewed by J. Murphy

John,

Attached Excel file contains warranty data from the F150 Clocksprings you reviewed yesterday; and I did pull the U152 & U222 Clocksprings out of the list. The second tab is a picture of the one F150 Clockspring with material removed from the insulation, but as shown it did not get through to the wire.

<<F150 Clockspring Warranty Returns evaluated by J. Murphy.xls>>

Let me know if you have questions.

Thanks,

Mark Cox
Sr. Engineer
Warranty Systems
Methode-AECD, Carthage

Phone: (217) 357-3941, ext. 22396

Mobile:

Notice: This message is confidential and intended for the private use of the Addressee only. If this e-mail was sent to you in error, please notify the originator at the address above and delete the message without reading its contents.



From: Pappas, Bill (B.)
Sent: Tuesday, February 28, 2006 3:38 PM
To: Clement, Charles (C.A.)
Cc: Bauch, David (D.J.)
Subject: Updated P221 list.

Attachments: P221.xls

Charles,
Info per request.



P221.xls (22 KB)

Thanks,

Bill Pappas

Tough Truck Restraints

Tel # (313) 337-3043

Cell

Text Page: bpappas

#	VIN	BUILD DATE	MY	MODEL	BUILD PLANT	RCM AVAILABILITY	VERBATUM SUMMARY	COMMANDED RESTRAINT DEPLOYMENT?	MODULE HISTORICAL DATA	RCM HARDWARE EVALUATION
1	1FTPX14544F [REDACTED]	9/17/2004	2004	F-150	DTP	Received	No info	No	2 keycycles stage 1 short to high faults, 256 keycycles stage 2 open, 256 keycycles stage 1 open, 111 keycycles stage 1 open, stage 1 short to ground. Module has been run through total hardware parameter check and passed all test. Deployment Asics have been removed and sent to supplier to evaluate that they are meeting all design requirements.	In Process
2	1FTRW12WX4K [REDACTED]	12/10/03	2004	F-150	KCAP	N/A	D/side AB while driving on highway at 50mph in t/storm.	N/A	N/A	N/A
3	1FTPW14544K [REDACTED]	1/15/04	2004	F-150	KCAP	N/A	D/side AB when starting vehicle.	N/A	N/A	N/A
4	1FTPW14514K [REDACTED]	5/6/04	2004	F-150	KCAP	N/A	D/side A/B after RIL flashed . Tech found wires shorted to power at brake brkt.	N/A	N/A	N/A
5	1FTRX14W04N [REDACTED]	5/12/04	2004	F-150	NAP	N/A	No info on Oasis	N/A	N/A	N/A
6	1FTPX12595N [REDACTED]	11/24/04	2005	F-150	NAP	Received- On hold per Rick Ruth	No info on Oasis	N/A	N/A	N/A
7	1FTRX12W15N [REDACTED]	12/1/2004	2005	F-150	NAP	N/A	No info available	N/A	N/A	N/A
8	1FTRX14W65N [REDACTED]	12/7/04	2005	F-150	NAP	N/A	D/side AB while driving and brake applied.	N/A	N/A	N/A

9	1FTPX145X 5N [redacted]	12/16/04	2005	F-150	NAP	N/A	D/side AB while driving out of the driveway.	N/A	N/A	N/A
10	1FTPX1458 5N [redacted]	1/4/05	2005	F-150	NAP	N/A	D/side AB while sitting still and veh put into reverse. Tech found wiring short in harness.	N/A	N/A	N/A
11	1FTRF14W 15N [redacted]	1/11/05	2005	F-150	NAP	N/A	D/side AB sitting, trans in park after start up.	N/a	N/A	N/A
12	1FTRF1222 5N [redacted]	1/12/05	2005	F-150	NAP	Received	D/side AB while driving.	No	256 keycycles stage 2 short to ground, 1 keycycle stage 2 short to high, 2 keycycle stage 1 open, 27 keycycles stage 2 open. Module has been run through total hardware parameter check and passed all test. Deployment Asics have been removed and sent to supplier to evaluate that they are meeting all design requirements.	In Process
13	1FTRF1221 5N [redacted]	1/24/2005	2005	5/15/2005	NAP	N/A	D/side AB, does not state when.	N/A	N/A	N/A
14	1FTRF1229 5N [redacted]	1/27/05	2005	F-150	NAP	N/A	D/side AB while idling.	N/A	N/A	N/A
15	1FTPX1458 5N [redacted]	1/28/2005	2005		NAP	N/A	D/side AB while driving 5km.	N/A	N/A	N/A
16	1FTRF1221 5 [redacted]	6/21/2005	2005	F-150	NAP	Module not received- Historical info downloaded at vehicle location Module is in Transit		No	256+ keycycle stage 2 short to ground, 256+ keycycles stage 1 short to ground, 2 keycycles stage 1 open, 16 keycycles stage 2 open	N/A

17	1FTRF122X 5N 	#####	2005	F-150		N/A	D/side AB got in the vehicle and turned on the key	N/A	Received Pid codes from vehicle by tech, recorded Pids 21 OD & CM, 22 CM, & 23 CM. Pid 21 Open loop driver stage 2, Pid 22 stage 2 shorted to high, Pid 23 stage 2 shorted to ground.	N/A
----	--	-------	------	-------	--	-----	--	-----	--	-----

From: Jason Hubbard [jhubbard@stonehamford.com]
Sent: Wednesday, February 22, 2006 5:06 PM
To: Clement, Charles (C.A.)
Subject: Stoneham Ford air bag F-series
Attachments: HPIM0148.JPG; HPIM0146.JPG; HPIM0147.JPG; HPIM0145.JPG

Here are the pictures of the f-series with the deployed air bag at Stoneham Motor Co. Taken on 2/22/2006

2008/02/22 9:11 am

30 60 90 120
20 40 80 160
1000 RPM

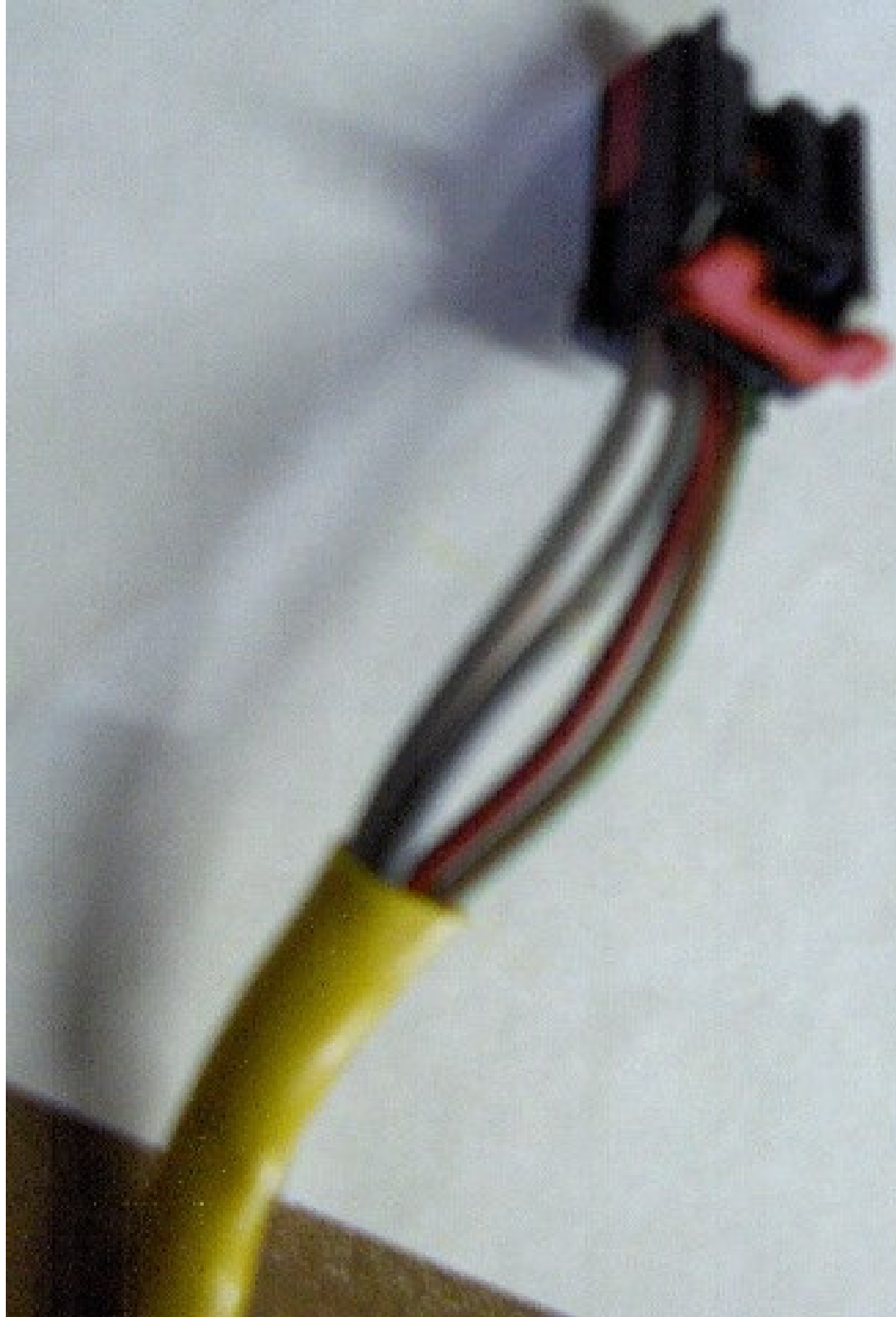
PE09-046 0586



2006/02/22 9:07 am



2008/02/22 9:09 am



2008/02/22 9:09 AM



From: Lentini, Craig (C.A.)
Sent: Thursday, February 16, 2006 9:06 AM
To: Oswald, Greg (G.G.)
Cc: McClenaghan, Dean (D.C.); Pappas, Bill (B.); Clement, Charles (C.A.); Spoto, Thomas (T.A.)
Subject: RE: Report Summary for the CQIS Report#6BOBO011

I doubt any repairs have started yet....let me know quickly if someone wants to go down and visit this dealer (its in sunny Miami!)

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

From: Oswald, Greg (G.G.)
Sent: Thursday, February 16, 2006 7:20 AM
To: Lentini, Craig (C.A.)
Cc: McClenaghan, Dean (D.C.); Pappas, Bill (B.); Clement, Charles (C.A.); Spoto, Thomas (T.A.)
Subject: RE: Report Summary for the CQIS Report#6BOBO011

Craig,
Has the vehicle been disassembled. If not the team may want to go and look. If they have already started removing parts we would like back the air bag module, clockspring, and RCM.
Charles/Bill/Tom: FYI.....Do you want to look at this vehicle? ANY other parts you may want, 14401, etc?

Greg Oswald

Critical Concern Manager

BoF - Pick-up Truck & Commercial Vehicle

PDC - GC-A59, MD 266

 313-390-1160, Cell Ph.

 goswalt@ford.com

Honesty is the best image.

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

From: Lentini, Craig (C.A.)
Sent: Wednesday, February 15, 2006 5:32 PM
To: Oswald, Greg (G.G.)
Subject: FW: Report Summary for the CQIS Report#6BOBO011

Do you want to help with diagnostics or do you want me to just get the RCM back?

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

From: Johnson, David (D.J.)
Sent: Wednesday, February 15, 2006 4:24 PM
To: Oswald, Greg (G.G.); Kizyma, Dave (D.E.); Lentini, Craig (C.A.)
Subject: FW: Report Summary for the CQIS Report#6BOBO011

FYI...


Regards,


David J. Johnson

Manager - Recall & Service Programs
FCSD Service Engineering Operations

10/12/2009

PE09-046 0590

ph: (313) 33-72487 

fax: (313) 33-72487 

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

From: Bersuder, Lee (L.C.)
Sent: Wednesday, February 15, 2006 3:33 PM
To: Johnson, David (D.J.)
Cc: Kiser, Kurt (K.W.)
Subject: FW: Report Summary for the CQIS Report#6BOBO011

Potential clockspring?

Lee Bersuder

**Hotline Operations Manager,
BCE, SUV, Truck, & Car
Cube 153
Diagnostic Service Center I
1700 Fairlane Drive
Allen Park, Mich 48101
313-317-6320**

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

From: Kahn, Jason (J.)
Sent: Wednesday, February 15, 2006 3:28 PM
To: Bersuder, Lee (L.C.)
Subject: Report Summary for the CQIS Report#6BOBO011

Drivers air bag deployed.

Attachments : 0

Report# :	6BOBO011 NHL	Received:	02/15/2006
CCRG/EPRC:		Date:	
Vehicle:	2005,F150 4X2,REG CAB,STYSD ,1FTRF122X5N <input type="text"/>	Build Date:	12/17/2004
Odometer :	26,397 M	Engine:	4.2L EFI
Transmission:	4R70E	Axle:	3800F3.55L
Dealer:	USA 04893 Midway Ford	A/C:	YES
City:	Miami	Phone#:	(305) 266-4357
State:	Florida	Country :	USA
Originator:	ALBERT BELLAS		
Symptom:	1 04 4 57 BODY,RESTRAINTS,FRT AIR BAG SYS,DEPLOYMENT		
Status:			
VFG:	V05 OCCUPANT RESTRAINT		
Additional Symptom:	B2293 BAG DEPLOYED		
Fix:	Causal Component :		
Condition Code:			

Hotliner: ABARNE14

Phone: 313 317-9373

Regn Cd: FL Florida

Engineering:

Phone:

TAR:

Dlr Contact: ALBERT BELLAS**Phone:** 305 266-4357**Title Cde:** T**Comments :**

REPAIR 02/15/2006 02:31PM ANDREW BARNES MSS - FCSD - TECH SVC HOTLINE
CUSTOMER STATES THAT THEY GOT IN THE VEHICLE AND TURNED THE KEY ON AND
THE DRIVERS AIR BAG DEPLOYED. HE DOES HAVE A CODE B2293 IN THE RCM.
HAS NOT PERFORMED ANY OTHER DIAG YET. SEEKING KNOWNS OR ADVICE.

RECOMM 02/15/2006 02:31PM ANDREW BARNES MSS - FCSD - TECH SVC HOTLINE
ADVISED THE TECH NOT TO PERFORM ANY OTHER REPAIR OR DAIG AND TO FILL
OUT THE DEALER REQUEST FOR CONSUMER AFFAIRS FORM AND THEN WAIT TO BE
CONTACTED.

From: Ruth, Richard (R.R.)
Sent: Friday, July 21, 2006 5:39 PM
To: Oswald, Greg (G.G.); Clement, Charles (C.A.)
Subject: FW: Report Summary for the CQIS Report#6GMB5011

I called Karl Buchwald at the dealership. Alleged inadvertent, No B1231, DAB Stage 2 only. At my request Dealer inspected wiring harness from DAB to RCM and found chafe on green wire with orange stripe (my EVTMM thought it should be red-orange, circuit 1517, the color must have changed) about 1" from the back of the driver airbag module. 05 F150 built in March 05. 34903 miles.

I instructed dealer that a new clockspring and new airbag would be required to repair.

Do we want parts?

Richard R. "Rick" Ruth
313-322-7059

From: Taylor, Alma (A.)
Sent: Friday, July 21, 2006 3:12 PM
To: Ruth, Richard (R.R.)
Subject: Report Summary for the CQIS Report#6GMB5011

Rick, the driver indicated that he was driving when the airbag light began to flash. he pulled into a gas station, placed the gearshift into "park", and that's when the driver's airbag deployed. I've asked the dlr to pull PIDS and check for chafed wires. Please advise, thanks

Attachments : 0

Report# :	6GMB5011 NHL	Received:	07/13/2006
CCRG/EPRC:	S	Reviewed Status:	Date: 07/20/2006
Vehicle:	2005,F150 4X2,REG CAB,STYSD ,1FTRF12W45N 	Build Date:	03/18/2005
Odometer :	34,903 M	Engine:	4.6L ROM B
Transmission:	4R70E	Axle:	3800F3.73L
Dealer:	USA 05438 HOMER HELLER FORD	Calibration:	5F616E0A
City:	Escondido	A/C:	YES
Originator:	MICHAEL ALLEN	Phone#:	(760) 745-3361
Symptom:	1 04 4 57 BODY,RESTRAINTS,FRT AIR BAG SYS,DEPLOYMENT	State:	California
Status:		Country :	USA
VFG:	V05 OCCUPANT RESTRAINT		
Additional Symptom:	AIR BAG DELOYED NO CRASH		
Fix:	Causal Component :		
Condition Code:			

Hotliner: WTRIPLE1

Phone: 000 248-8202

Regn Cd: CA California

Engineering:**Phone:****TAR:****Dlr Contact:** MICHAEL ALLEN**Phone:** 760 745-3361**Title Cde:** T**Comments :**

- REPAIR** 07/13/2006 03:57PM WESLEY TRIPLETTE MSS - FCSD - TECH SVC HOTLINE
CUSTOMER INDICATES THAT THE AIR BAG LIGHT CAME ON. STATES THAT HE CONTINUED DRIVING AND PULLED INTO A FUEL STATION AND PUT THE VEHICLE INTO PARK AND THE DRIVER AIR BAG DEPLOYED. THERE IS NO DAMAGE TO THE VEHICLE AND THE ONLY CODE STORED IS A B2293. UNSURE IF THE DRIVER WAS INJURED. THIS HAPPENED 2 DAYS AGO.
- RECOMM** 07/13/2006 03:57PM WESLEY TRIPLETTE MSS - FCSD - TECH SVC HOTLINE
ADVISED THE REPORT WILL BE FORWARDED TO SAFETY TEAM. ADVISED TO REPAIR THE VEHICLE AS NECESSARY. ADVISED IF SAFETY TEAM NEEDS MORE INFORMATION THEY WILL BE IN CONTACT. ISM 02-08-056 AIR BAG HANDLING PROCEDURE, COLLECT INFO. **SEE UPDATE AT END OF TEXT**
- REPAIR** 07/20/2006 10:49AM WILLIAM LEIBENGOOD MSS - FCSD - TECH SVC HOTLINE
DEALER STATES DRIVER AIR BAG DEPLOYED WHILE DRIVING. CUSTOMER ALLEDGING INJURY. ONLY B2293 IS PRESENT. NO OTHER DTC'S. ENGINE WAS RUNNING VEHICLE WAS ROLLING. SEAT BELT WAS ATTACHED.
- RECOMM** 07/20/2006 10:49AM WILLIAM LEIBENGOOD MSS - FCSD - TECH SVC HOTLINE
ADVISE DEALER TO SUBMIT THE "REQUEST FOR CUSTOMER AFFAIRS REVIEW" FORM & SUBMIT. TECH TO ADVISE.
- ADD-ON** 07/20/2006 10:51AM WILLIAM LEIBENGOOD MSS - FCSD - TECH SVC HOTLINE
FORWARDED TO SME FOR REVIEW

From: Clement, Charles (C.A.)
Sent: Tuesday, January 24, 2006 9:41 AM
To: Wrestler, Sandy (S.J.); Alexander, Vincent (V.J.); Kim, Peter (P.K.)
Subject: FW: Report Summary for the CQIS Report#6AMEN001
Importance: High

FYI

Charles A. Clement
N.A.E. Safety - Seats and Restraints
Campaign Prevent Specialist - Occupant Movement
Tough Truck/SUV/Body on Frame
Cell/Pager:

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

From: Clement, Charles (C.A.)
Sent: Tuesday, January 24, 2006 9:36 AM
To: Klosek, Walter (W.)
Cc: Vegh, Paul (P.F.); Pappas, Bill (B.)
Subject: FW: Report Summary for the CQIS Report#6AMEN001
Importance: High

Walt, can you confirm if the proceeding statement is valid: "The 2005's are routed differently due to clock spring connection at top" ...?

See FQE verbatim

Charles A. Clement
N.A.E. Safety - Seats and Restraints
Campaign Prevent Specialist - Occupant Movement
Tough Truck/SUV/Body on Frame
Cell/Pager:

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

From: Ruth, Richard (R.R.)
Sent: Friday, January 13, 2006 5:22 PM
To: Clement, Charles (C.A.); Oswald, Greg (G.G.)
Cc: Carene, Jim (J.D.)
Subject: Report Summary for the CQIS Report#6AMEN001

You may have seen this already through CQIS channels, but in case you had not I wanted you to be aware of this 2005 F150 inadvertent driver airbag deployment with no injuries reported, where the deployment was attributed to one of the airbag wires between the clock spring and the bag itself rubbing on a metal bracket on the back side of the airbag module. There are excellent photos attached to the CQIS report. Norfolk build on 12/16/04. I believe that only one of the two stages deployed, presenting a relatively low risk of injury.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126

Phone 313-322-7059 Fax 313-337-8256 Pager
rruth@ford.com

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

10/9/2009

PE09-046 0595

Message

From: Bacina, Paul (P.R.)
Sent: Friday, January 13, 2006 4:06 PM
To: Ruth, Richard (R.R.)
Cc: Howe, Brian (B.T.)
Subject: FW: Report Summary for the CQIS Report#6AMEN001

[Paul Bacina, 313-59-43901](#)

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

From: Howe, Brian (B.T.)
Sent: Friday, January 13, 2006 11:58 AM
To: Lentini, Craig (C.A.); McDonald, Joseph (J.); Bacina, Paul (P.R.)
Subject: Report Summary for the CQIS Report#6AMEN001

Paul, this is the 2005 F-150 I called you on. We found the clock spring wiring chaffing on the horn contact bracket. We inspected 2 '04's and 1 '05, and they all have the one side of the clock spring wiring contacting the horn contact housing. The 2005's are routed differently due to clock spring connection at top. Is there a routing procedure called out to avoid contact on the sharp edge of the horn contact bracket?

Attachments : 6

Report# :	6AMEN001 FQEIR	Received:	01/13/2006
CCRG/EPRC:	Reviewed Status:	Date:	
Vehicle:	2005,F150 4X4,SUP CAB,STYSD ,1FTPX145X5N <input type="text"/>	Build Date:	12/16/2004
Odometer :	35,485 M	Engine:	5.4L 3V
Transmission:	4R75E	Axle:	3800F3.73L
Dealer:	USA 05534 Friendly Ford	A/C:	YES
City:	Las Vegas	State:	Nevada
Originator:	BRIAN HOWE	Phone#:	(702) 877-6541
Symptom:	1 04 4 57 BODY,RESTRAINTS,FRT AIR BAG SYS,DEPLOYMENT		
Status:			
VFG:	V05 OCCUPANT RESTRAINT		
Additional Symptom:	UNINTENDED DEPLOYMENT DRIVERS		
Fix:	Causal Component :	AIR BAG CLOCK SPRING -- RPL	
Condition Code:			

Region Code: CA

Region Name: California

Comments :

CONCER 01/13/2006 11:36AM BRIAN HOWE2 MSS - FCSD - CQD - FQE
CUSTOMER STATES HE STARTED CAR DROVE APPROX. 20 FEET, AND DRIVERS SIDE AIR BAG DEPLOYED.

TECH/C 01/13/2006 11:36AM BRIAN HOWE2 MSS - FCSD - CQD - FQE
I INSPECTED THE TRUCK ON 1/6/06 AND FOUND THE DRIVERS SIDE AIR BAG WAS DEPLOYED. THE DRIVERS SIDE SEAT PRETENSIONER WAS NOT DEPLOYED, NOR WAS THE PASSENGER BAG OR PRETENSIONER. NO PHYSICAL DAMAGE TO TRUCK THAT

PE09-046 0596

10/9/2009

INDICATED A RECENT IMPACT WAS EVIDENT. I REQUESTED THE TECH TO REMOVE AIR BAG AND CHECK SERIAL NO.S ON THE BAG, WHICH DID MATCH WITH NAVIS (BE348203G); SO WE KNEW IT WAS THE ORIGINAL AIR BAG. THIS TRUCK HAS NO WARRANTY HISTORY, SO IT HAS NEVER BEEN IN FOR A REPAIR. WHEN TECH REMOVED THE AIR BAG, HE NOTICED THE WIRING FROM THE CLOCK SPRING TO ONE STAGE OF THE BAG WAS CHAFFING ON THE SIDE OF THE HORN CONTACT BRACKET. A PIN HOLE SIZE COPPER WIRE ON THE GREEN WITH ORANGE WIRE MADE A GROUND TO THE HORN CONTACT. THE HORN CONTACT BRACKET HAS A SHARP EDGE ON THE CUT OUT THAT CAN CHAFE THE WIRING. WE CHECKED THE RCM AND OTHER WIRING AND FOUND NO OTHER AREAS OF CONCERN. IT APPEARS THIS GROUNDING SET OFF THE ONE SIDE OF THE AIR BAG. TECH ALSO CHECKED AND FOUND THAT WHEN HORN IS PUSHED, VOLTAGE IS PRESENT AT HORN CONTACT BRACKET. CUSTOMER DID NOT INDICATE HE PUSHED THE HORN AND THE AIR BAG WENT OFF. POSSIBLY WHEN THE RESTRAINTS SYSTEM SENT THE PROVE OUT SIGNAL AT START UP, THE GROUNDED WIRE SET OFF THAT SIDE OF THE BAG. THE WIRING THAT COMES OUT OF THE AIR BAG WITH THE BLACK COLOR CODED CONNECTOR (GREEN/ORANGE & RED/BLACK) ARE AIMED AT THE RIGHT SIDE OF THE HORN CONTACT HOUSING. THEY HAVE TO MAKE A SHARP BEND TO AVOID CONTACTING THE BRACKET. WE INSPECTED ANOTHER 2005 F-150, AND FOUND THE WIRING ON THAT TRUCK IS ALSO CONTACTING THE HORN CONTACT BRACKET. WE ALSO CHECKED 2 2004 MODELS, AND THEY ALSO MAKE CONTACT. HOWEVER, THE 2004'S HAVE THE CLOCK SPRING CONNECTION AT THE 6 O'CLOCK POSITION WHICH ALLOWS FOR MORE ROOM TO ROUTE WIRES AWAY FROM THE HORN CONTACT HOUSING. THE 2005'S ARE AT THE 12 O'CLOCK POSITION, AND THE ROUTING OF THE GREEN/ORANGE AND RED/BLACK IS MORE LIKELY TO CONTACT THE HORN CONTACT BRACKET. SEE PHOTO'S IN CQIS OF THE ORIGINAL TRUCK WITH CHAFFED WIRES AND OF THE 3 OTHER TRUCKS WE CHECKED FOR POSITIONING OF THE WIRING. NEW AIR BAG WAS INSTALLED AND TRUCK FIXED. TECH ROUTED THE WIRES UNDER THE HORN CONTACT TO AVOID ANY CONTACT. AIR BAG IS AVAILABLE FOR INSPECTION. CONTACT FQE BRIAN HOWE 702 205-3634 FOR ADDITIONAL INFO OR THE PART.

Please click on the link below to view the attachments associated with this report

http://www.gcqis.ford.com/gcqis/asp/DIVViewAttachment_Mainx.asp?ReportNumber=6AMEN001

From: Bauch, David (D.J.)
Sent: Wednesday, August 30, 2006 4:20 PM
To: Clement, Charles (C.A.)
Subject: RE: P221 Electronic Copy

Attachments: F-Series P221 Diagnostic.ppt



F-Series P221
Diagnostic.ppt (...)

From: Clement, Charles (C.A.)
Sent: Wednesday, August 30, 2006 4:15 PM
To: Bauch, David (D.J.)
Subject: P221 Electronic Copy

Dave can you send me your electronic copy of your presentation that we gave to the Chiefs/ASO/OGC regarding the P221 DAB chafe wire.

Charles A. Clement
N.A.E. Safety - Seats and Restraints
Campaign Prevent Specialist - Occupant Movement
Tough Truck/SUV/Body on Frame
Cell/Pager

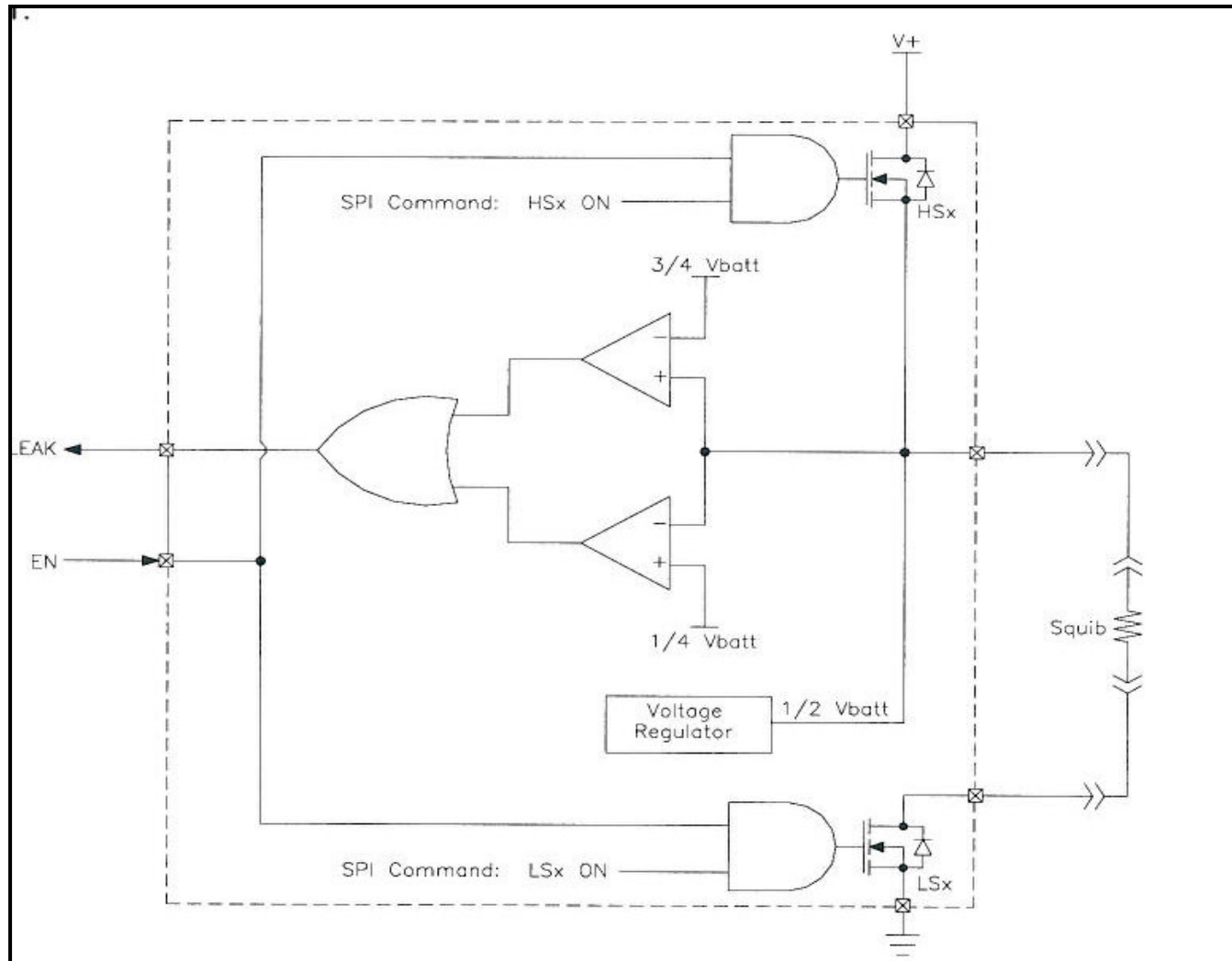


RCM Airbag Wire Short Diagnostic's



RCM 300 Airbag Diagnostics -Draft-

Deployment and Leakage Detection Circuit





RCM Airbag Wire Short Diagnostic's -Draft-

Diagnosis short on high potential or low potential side of the airbag circuits.

Diagnostics have detected over 9000 shorts on the drive side airbag circuits

The RCM module upon calculating a airbag deployment commended will attempt to deploy airbags with a short present on the airbag circuits.

All vehicles that deployed a driver front airbag showed fault code indicating a short on the driver side airbag circuits before airbag deployment (all vehicles where we received modules for analysis).



From: Cox, Mark [MCox@methode-aecd.com]
Sent: Thursday, February 23, 2006 2:45 PM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Cc: Horejsi, Joe
Subject: RE: P221 Clocksprings
Attachments: F150 Clockspring - Only Airbag Light Failures.xls

Walt & Roy,

The attached data contains only returns with Customer Complaint of "Airbag Light On". To make a cleaner report I formatted the worksheet titled "Methode Analysis" such that only the chart will print.

Let me know if this is not what you expected, or if you need additional info.

Thanks,

Mark Cox
Sr. Engineer
Warranty Systems
Methode-AECD, Carthage

Phone: (217) 357-3941, ext. 22396

Mobile:

Notice: This message is confidential and intended for the private use of the Addressee only. If this e-mail was sent to you in error, please notify the originator at the address above and delete the message without reading its contents.

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

From: Gibson, Scott
Sent: Wednesday, February 15, 2006 2:33 PM
To: 'Klosek, Walter (W.); 'Sutherland, Roy (R.W.)'
Cc: Cox, Mark; Horejsi, Joe
Subject: FW: P221 Clocksprings

Walt,

Here is the response I sent to Roy regarding your questions. The complete file of our P221 clockspring analysis/database is attached. The information is stored in a new database an an old database file which explains the two tabs in the Excel document. The pie chart of Methode's analysis is all P221 04 model year and forward. Let me know if you need anything else for this.

Thanks,

Scott Gibson
Quality Engineer
Methode Electronics AECD
111 W. Buchanan Street
Carthage, IL 62341
sgibson@methode-aecd.com
ph. 217-357-3941 x22134

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

From: Gibson, Scott
Sent: Tuesday, February 07, 2006 3:54 PM
To: 'Sutherland, Roy (R.W.); Cox, Mark
Cc: Horejsi, Joe
Subject: RE: P221 Clocksprings

Roy,

I will sure try:

1. Mark and I will work to provide analysis of all parts from P221 returns by this Thursday.
2. Methode warranty will begin to compare build date of vehicle vs build date of clockspring and note build date discrepancies. We have already been reporting when a squib harness is missing and will continue to do so. FYI, I think that most of the time we get the right clockspring back but the tech's generally reuse the old squib harness as it is hard to unplug from the airbag cannister. Getting the new clockspring back does occur but it is rare. In the case of the P221 it sounds like this could be a very bad idea.
3. The end of line test does test isolation resistance, for all clocksprings Methode produces.
4. We will support all proposed design changes to the best of our ability. Please work through Joe H. on these.

Hope I've answered all the questions. I will call you to discuss the P221 concern.

Thanks,

Scott Gibson
Quality Engineer
Methode Electronics AECD
111 W. Buchanan Street
Carthage, IL 62341
sgibson@methode-aecd.com
ph. 217-357-3941 x22134

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

From: Sutherland, Roy (R.W.) [mailto:rsutherl@ford.com]
Sent: Tuesday, February 07, 2006 2:34 PM
To: Mark Cox (E-mail); Scott Gibson (E-mail)
Cc: Joe Horejsi (E-mail)
Subject: FW: P221 Clocksprings

Scott/Mark,

Can either of you help answer Walt's questions?

Thanks,

Roy Sutherland Jr.

Ford Core Clockspring & Steering Wheel Switch D&R Engineer
Email: rsutherl@ford.com
Phone: 313-62-16386
Cell:
Bldg#5, Cube 1D009

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

From: Klosek, Walter (W.)
Sent: Tuesday, February 07, 2006 3:30 PM
To: Horejsi, Joseph (J.F.); Joe' Horejsi (E-mail)
Cc: Sutherland, Roy (R.W.); Crafts, Bill (W.E.)
Subject: P221 Clocksprings

Joe,

As you know there is an issue with damage to the clocksprings on the P221. This is getting a lot of visibility and I need some help to get a number of questions answered which have come up.

Warranty Return Analysis:

Roy asked for the results of the analysis of all returned parts there has been no update since the
PE09-046 0604

initial sheet was provided.

- Need results of the analysis of ALL returned parts. A couple of weeks ago a sheet was provided which listed a number of parts but not all were analyzed. Additionally a significant portion of those which had been analyzed to some degree listed the failure mode as missing squib connectors. I cross checked a couple of those and found that the manufactured date listed in the chart was actually later than the vehicle production date. This implies that there was an issue with the squib connector/wire and the service technician took a short cut by removing the pigtail from the new clockspring and returning the new part rather than removing the entire clockspring. The production dates for the clockspring need to be checked against the production date for the vehicle to identify this situation rather than just saying that the squib is missing. Even in parts which have the squib installed the dates have to be checked and noted if there is a time sequence problem. I suspect there is in some cases.
- Since the failures result in airbag issues the analysis has to go beyond a simple visual inspection and running the part through the end of line tester. In the series of meetings I've attended on the air bag issues the question of internal shorts between traces in the tape have come up several times. The analysis of the returned parts has to include an evaluation of isolation resistance between the tracks. If the EOL tester checks for this condition that should be sufficient if not a separate test needs to be done on each returned part.

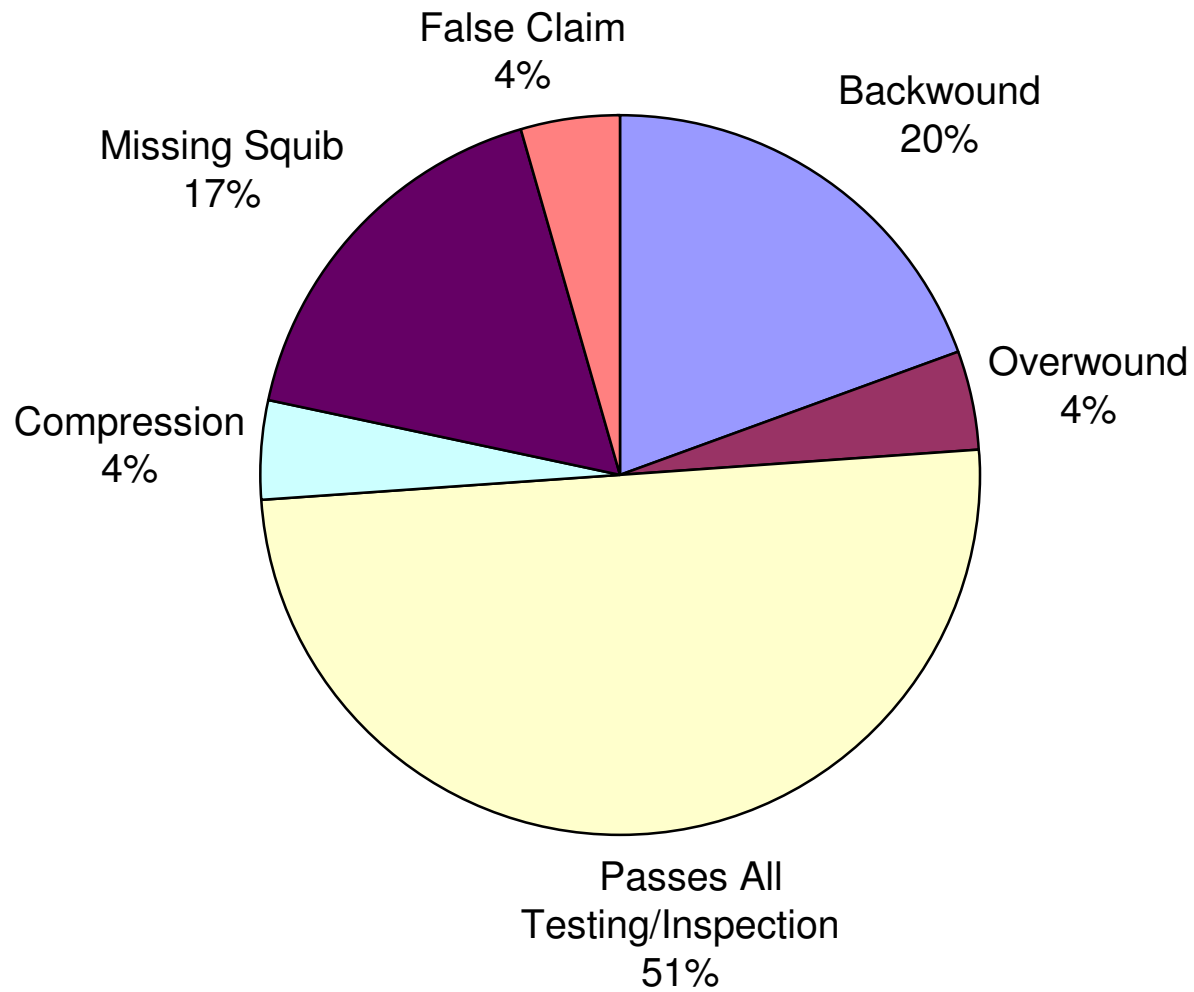
Proposed Design Changes:

There has been a request to have the Bentley Harris tubing added to the airbag leads. You've provided some samples which will start vibration testing @ TRW. I've also let DTP take a look at one to see if there will be any assembly issues they are not enthusiastic about the change but the end result is a request to do a 1000 piece trial at each plant for a total of 3000 parts. I need to get a cost and timing to supply these trial parts. I also need to know what it would take to get 100 airbag Squib pigtails for a fleet evaluation quickly.

Your help on this would be greatly appreciated as quickly as possible or I will get a lot of help. Maybe the best way to get the warranty return questions answered would be to set up a meeting with the appropriate person to make sure that there is no misunderstanding and that we don't go through this several times.

Give me a call 313-805-6839

F150 Clockspring - Methode Analysis of Warranty Parts Received with Customer Complaint of "Airbag Light On"



From: Kempf, Gregory (G.J.)
Sent: Monday, February 13, 2006 8:23 AM
To: Freitag, Kyle (K.C.); Olson, Kathy (K.A.); Richei, Gordon (G.)
Cc: Ooms, David (D.E.); Lewinson, Royston (R.O.); Klosek, Walter (W.); Wrestler, Sandy (S.J.); Kim, Peter (P.K.)
Subject: RE: ***HOT*** - 5f2t clockspring

I can't seem to find an alert number to approve in this note. Does anyone know the alert number?

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

From: Mikolaiczik, Mark (M.A.)
Sent: Sunday, February 12, 2006 8:35 AM
To: Freitag, Kyle (K.C.); Olson, Kathy (K.A.); Kempf, Gregory (G.J.); Richei, Gordon (G.)
Cc: Ooms, David (D.E.); Lewinson, Royston (R.O.); Klosek, Walter (W.); Wrestler, Sandy (S.J.); Kim, Peter (P.K.)
Subject: RE: ***HOT*** - 5f2t clockspring

I concur with approving the trial alert.

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

From: Freitag, Kyle (K.C.)
Sent: Fri 2/10/2006 1:19 PM
To: Olson, Kathy (K.A.); Kempf, Gregory (G.J.); Richei, Gordon (G.); Mikolaiczik, Mark (M.A.)
Cc: Ooms, David (D.E.); Lewinson, Royston (R.O.); Klosek, Walter (W.); Wrestler, Sandy (S.J.); Kim, Peter (P.K.)
Subject: RE: ***HOT*** - 5f2t clockspring

Greg/ Richei
Please Approve

DTP agrees with that Sample Size

Kyle Freitag

Electrical Engineering
P221 F-150
Location Dearborn Truck Plant
3001 Miller Road
Dearborn MI 48121
Phone 313-215-9337
TEXT KFREITA2

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

From: Olson, Kathy (K.A.)
Sent: Friday, February 10, 2006 12:15 PM
To: Kempf, Gregory (G.J.); Richei, Gordon (G.); Mikolaiczik, Mark (M.A.)
Cc: Ooms, David (D.E.); Freitag, Kyle (K.C.); Lewinson, Royston (R.O.); Klosek, Walter (W.); Wrestler, Sandy (S.J.); Kim, Peter (P.K.)
Subject: FW: ***HOT*** - 5f2t clockspring
Importance: High

P221 PVT Management,

Methode is pulling an Alert to make and ship clocksprings with wire protection. Sample parts were reviewed at DTP and it was determined that a 1,000 piece trial would be necessary at all 3 P221 plants to confirm that there would be no ergo issues. At this time, Methode has enough material to build approximately 900 parts (approximately 300 for each plant).

Methode is putting together their workplan to determine timing to provide 1,000 pieces.

I sent you all text pages, but understand that you may be tied up in the VQR meeting today. When you get this message, will you please approve or reject a 300 piece per plant trial of these clocksprings?

Thanks,
Kathy Olson
Switch Application Engineer
kolson5@ford.com
313-31-77868

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

From: Wrestler, Sandy (S.J.)
Sent: Thursday, February 09, 2006 6:01 PM
To: Klosek, Walter (W.)
Cc: Matulonis, Bob (R.W.); Kim, Peter (P.K.); Olson, Kathy (K.A.)
Subject: RE: ***HOT*** - 5f2t clockspring
Importance: High

The result of our review with Director Marcy Fisher today was an agreement that we really need the wire protection implemented very quickly.

Can we write the CR and start working on approvals and CAD while Methode gets the parts for plant trial. Do you have estimated timing on the parts yet?

Don't forget to communicate to the D&R that we've got to tape down the ends. After looking further at it, I really think they need to tape both ends of the BH on both wires.

Marcy and Peter seemed to think we might be able to get the plant trial quantity reduced or expedited due to the urgency.

Thanks

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Klosek, Walter (W.)
Sent: Wednesday, February 01, 2006 10:35 AM
To: Wrestler, Sandy (S.J.)
Cc: Matulonis, Bob (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Sandy,

It looks like Methode will be able to get the 6 parts you are looking for hopefully on Thursday. The attachments show picture of what it will look like -- They even managed to find yellow tubing. As I said before aside from the cost which we should know soon my biggest concern is the ability to plug in the connector at line rate with the added stiffness

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

From: Horejsi, Joe [<mailto:joe.horejsi@methode.com>]
Sent: Wednesday, February 01, 2006 9:55 AM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Walt/Roy,

Attached are pictures with the Bentley Harris tubing. Walt, I will be able to get (6) clocksprings for you to do vibe testing. If you have any questions or concerns give me call.

Regards,

Joseph Horejsi
Program Manager
KBA Automotive Group
Methode Electronics, Inc
248.603.2141

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

From: Henderson, Brent

Sent: Tuesday, January 31, 2006 11:03 AM

To: Horejsi, Joe

Cc: Bolen, Pat; Gibson, Scott

Subject: RE: ***HOT*** - 5f2t clockspring

Joe -

It appears to be feasible. I have attached some pictures indicating what the part would look like with the tubing added. I will put this part in the mail to your attention today. The part I am sending was just laying around my desk, so don't use it any vehicle.

Brent

From: Freitag, Kyle (K.C.)
Sent: Tuesday, February 07, 2006 7:58 AM
To: Neutgens, Kurt (K.J.); Wrestler, Sandy (S.J.); Ooms, David (D.E.); Lewinson, Royston (R.O.)
Cc: Klosek, Walter (W.); Mikolaiczik, Mark (M.A.)
Subject: RE: ***HOT*** - 5f2t clockspring

Not yet
Need some additional Testing.
Once Complete Parts will be sent.

Kyle C. Freitag

Electrical/ Climate PVT P221
Location DTP
Cell
Desk 313-33-79665
CDS KFREITA2

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

From: Neutgens, Kurt (K.J.)
Sent: Tuesday, February 07, 2006 7:44 AM
To: Wrestler, Sandy (S.J.); Ooms, David (D.E.); Lewinson, Royston (R.O.)
Cc: Klosek, Walter (W.); Freitag, Kyle (K.C.); Mikolaiczik, Mark (M.A.)
Subject: RE: ***HOT*** - 5f2t clockspring

Do we have parts at KCAP & NAP?

Thanks again for your support!

...Quality perception is the #1 differentiator when a customer makes a buying decision!

Kurt Neutgens
PVT Manager F150 KCAP / NAP

[PHONE](#) (816) 935-4205 Cell (816) 414-5585 Desk
[FAX](#) (816) 414-5585
[EMAIL](mailto:kneutgen@ford.com) kneutgen@ford.com
[Interoffice Address:](#) KCAP Lincoln Center

EMMP

Class of 2001
Excellence in Technical Business Leadership

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

From: Freitag, Kyle (K.C.)
Sent: Tuesday, February 07, 2006 7:23 AM
To: Mikolaiczik, Mark (M.A.); Wrestler, Sandy (S.J.)
Cc: Neutgens, Kurt (K.J.); Klosek, Walter (W.); Ooms, David (D.E.); Lewinson, Royston (R.O.)
Subject: RE: ***HOT*** - 5f2t clockspring

30 Piece Trail is a good Start
Electrical PVT and Plant Personal are requesting 1 Full Day of Production at all three Plants (3000 Pieces)

This is going to have Ergo impact.

Kyle C. Freitag

Electrical/ Climate PVT P221
Location DTP
Cell
Desk 313-33-79665
CDS KFREITA2

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

From: Mikolaiczik, Mark (M.A.)
Sent: Monday, February 06, 2006 2:46 PM
To: Wrestler, Sandy (S.J.)
Cc: Neutgens, Kurt (K.J.); Freitag, Kyle (K.C.); Klosek, Walter (W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Sandy, Please note that all plants will require a 30 piece trial prior to implementation. Please make sure you incorporate the trials in your workplan.

Mark Mikolaiczik
Dearborn Truck PVT Manager
Office: (313) 845-1408
Cell:

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

From: Freitag, Kyle (K.C.)
Sent: Monday, February 06, 2006 2:44 PM
To: Mikolaiczik, Mark (M.A.)
Cc: Lucarelli, Raymond (Ray.)
Subject: RE: ***HOT*** - 5f2t clockspring

Have one Part
For Ray Luc to Review and see if it is Build able.

Have an answer Tomorrow

Kyle C. Freitag

Electrical/ Climate PVT P221
Location DTP
Cell
Desk 313-33-79665
CDS KFREITA2

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

11/3/2009

PE09-046 0611

Message

From: Mikolaiczik, Mark (M.A.)
Sent: Monday, February 06, 2006 2:30 PM
To: Freitag, Kyle (K.C.)
Subject: FW: ***HOT*** - 5f2t clockspring

[Do you have trial clock spring parts?](#)

Mark Mikolaiczik
Dearborn Truck PVT Manager
Office: (313) 845-1408
Cell:

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

From: Wrestler, Sandy (S.J.)
Sent: Monday, February 06, 2006 11:09 AM
To: Mikolaiczik, Mark (M.A.)
Cc: Klosek, Walter (W.)
Subject: RE: ***HOT*** - 5f2t clockspring

[Carl Freitag picked up a couple of parts from Walt Klosek on Friday.](#)

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Mikolaiczik, Mark (M.A.)
Sent: Monday, February 06, 2006 9:24 AM
To: Wrestler, Sandy (S.J.)
Cc: Edmonds, Mark (M.); Bailey, Crystal (C.L.)
Subject: RE: ***HOT*** - 5f2t clockspring

[Sandy, Please contact Mark Edmonds and Crystal Bailey when you have the trial parts ready. Is it safe to assume the parts will be saleable?](#)

Mark Mikolaiczik
Dearborn Truck PVT Manager
Office: (313) 845-1408
Cell:

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

From: Wrestler, Sandy (S.J.)
Sent: Monday, February 06, 2006 8:33 AM
To: Mikolaiczik, Mark (M.A.)
Subject: RE: ***HOT*** - 5f2t clockspring

[Awesome!](#)

[Thx](#)

11/3/2009

PE09-046 0612

Message

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
 Steering Wheels, DAB and PAB
 SUV/BOF and PTAC
 PDC, 2F-K60, 313 805-3473

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

From: Mikolaiczik, Mark (M.A.)
Sent: Friday, February 03, 2006 5:37 PM
To: Wrestler, Sandy (S.J.)
Subject: RE: ***HOT*** - 5f2t clockspring

Hello Sandy, I received your message. The protection in the attached files looked great. We need to make sure that they do not add too much difficulty when making the connection. We will help you prove out your plan as soon as you can get us trial parts.

Mark Mikolaiczik
 Dearborn Truck PVT Manager
 Office: (313) 845-1408
 Cell:

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

From: Wrestler, Sandy (S.J.)
Sent: Thursday, February 02, 2006 6:22 PM
To: Mikolaiczik, Mark (M.A.)
Subject: FW: ***HOT*** - 5f2t clockspring

Mark,

I'd like to talk to you about some long term permanent corrective actions. Walt Klosek Electrical owns the Clock spring so this would be a change to his part in addition to the change to address the flange itself on the DAB. I left you a phone message on this subject as well.

We are working with TRW to modify the plate to address the sharp edge. However, it's very likely that the clock spring wire will always be able to contact some portion of the metal horn plate. Hence, we think that no matter how friendly we make the plate edge we're going to have to add some protection to the clock spring wire. This will make the squib installation more difficult I'm sure.

I've asked Walt to get a part for each plant to evaluate with this Bently Harris nylon mesh abraision resistive material.

I wanted to discuss our status w/you to get some feedback and hopefully some help greasing the skids with the plants so that they'll at least talk to us and consider/evaluate this.

Please give me a call tomorrow so we can chat.

Thanks

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
 Steering Wheels, DAB and PAB
 SUV/BOF and PTAC
 PDC, 2F-K60, 313 805-3473

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

From: Klosek, Walter (W.)

PE09-046 0613

11/3/2009

Message

Sent: Wednesday, February 01, 2006 10:35 AM
To: Wrestler, Sandy (S.J.)
Cc: Matulonis, Bob (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Sandy,
It looks like Methode will be able to get the 6 parts you are looking for hopefully on Thursday. The attachments show picture of what it will look like -- They even managed to find yellow tubing. As I said before aside from the cost which we should know soon my biggest concern is the ability to plug in the connector at line rate with the added stiffness

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

From: Horejsi, Joe [mailto:joe.horejsi@methode.com]
Sent: Wednesday, February 01, 2006 9:55 AM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Walt/Roy,

Attached are pictures with the Bentley Harris tubing. Walt, I will be able to get (6) clocksprings for you to do vibe testing. If you have any questions or concerns give me call.

Regards,

Joseph Horejsi
Program Manager
KBA Automotive Group
Methode Electronics, Inc
248.603.2141

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

From: Henderson, Brent
Sent: Tuesday, January 31, 2006 11:03 AM
To: Horejsi, Joe
Cc: Bolen, Pat; Gibson, Scott
Subject: RE: ***HOT*** - 5f2t clockspring

Joe -

It appears to be feasible. I have attached some pictures indicating what the part would look like with the tubing added. I will put this part in the mail to your attention today. The part I am sending was just laying around my desk, so don't use it any vehicle.

Brent

11/3/2009

PE09-046 0614

From: Olson, Kathy (K.A.)
Sent: Friday, February 10, 2006 10:55 AM
To: Matulonis, Bob (R.W.); Klosek, Walter (W.)
Cc: 'jhorejsi@methode-aecd.com'
Subject: RE: ***HOT*** - 5f2t clockspring

Bob,
Joe Horejsi from Methode will be writing the CR for the clockspring change for P221 today. He will also initiate the Alert for trial pieces. Methode only has enough material to make approx 900 (approx 300 per plant) clocksprings. The plants have requested 1,000 pieces each for their trials. The PVT engineers that I spoke with cannot make the call to accept less than 300 pieces. I have paged Greg Kemp, KCAP PVT Supervisor, and Mark Mikolaiczik, DTP PVT Manager, to ask if they would accept or reject the smaller trial size. I believe both are in a VQR meeting all day at DTP. I will also send them an e-mail.


Thanks,
Kathy Olson
Switch Application Engineer
kolson5@ford.com
313-31-77868

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

From: Matulonis, Bob (R.W.)
Sent: Friday, February 10, 2006 6:57 AM
To: Klosek, Walter (W.); Olson, Kathy (K.A.)
Cc: Matulonis, Bob (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Walt / Kathy,

I assume that your in agreement with the proposed change (at least to the clockspring). Please advise status / workplan to implement, or if there are other concerns. thanks.

Bob Matulonis
Manager - EESE Switch Engineering

rmatulon@ford.com

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

From: Kim, Peter (P.K.)
Sent: Thursday, February 09, 2006 8:13 PM
To: Matulonis, Bob (R.W.)
Cc: Olson, Kathy (K.A.); Klosek, Walter (W.); Wrestler, Sandy (S.J.); Clement, Charles (C.A.)
Subject: RE: ***HOT*** - 5f2t clockspring

Bob,
we really need to release the nylon shield asap. Pls advise. Thx.

Peter K. Kim
Restraint Manager
pkim2@ford.com, Bld 1 - 11C124, (313) 32-31156

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

From: Wrestler, Sandy (S.J.)
Sent: Thursday, February 09, 2006 6:01 PM
To: Klosek, Walter (W.)

Message

Cc: Matulonis, Bob (R.W.); Kim, Peter (P.K.); Olson, Kathy (K.A.)**Subject:** RE: ***HOT*** - 5f2t clockspring**Importance:** High

The result of our review with Director Marcy Fisher today was an agreement that we really need the wire protection implemented very quickly.

Can we write the CR and start working on approvals and CAD while Methode gets the parts for plant trial. Do you have estimated timing on the parts yet?

Don't forget to communicate to the D&R that we've got to tape down the ends. After looking further at it, I really think they need to tape both ends of the BH on both wires.

Marcy and Peter seemed to think we might be able to get the plant trial quantity reduced or expedited due to the urgency.

Thanks

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints

Steering Wheels, DAB and PAB

SUV/BOF and PTAC

PDC, 2F-K60, 313 805-3473

From: Chris Reilly [Chris.Reilly@TRW.COM]
Sent: Tuesday, April 04, 2006 10:46 AM
To: Dubaisi, Adnan (A.N.); Shockling, Jana (J.L.); Black, Scott (S.J.)
Cc: Ooms, David (D.E.); Lewinson, Royston (R.O.); Alexander, Vincent (V.J.); Klosek, Walter (W.); Gregory, Zygmunt (Z.)
Subject: Re: FW: P221 DAB Trial - parallel ignitors

Adnan,

The modules for both assembly plants are all flint. Additionally, I want to clarify that the modules for KCAP will ship from Cookeville this afternoon and will arrive at KCAP by Thursday morning. The modules for NAP will ship from Cookeville on Wednesday morning and arrive at NAP by Thursday afternoon.

Jana - The CR # you requested: C11878832

Chris J. Reilly
TRW Automotive - Cookeville
1400 Salem Road
Cookeville, TN 38506-6221
931-528-4440
FAX: -4314
Chris.Reilly@TRW.com

>>> "Dubaisi, Adnan (A.N.)" <adubaisi@ford.com> 4/4/2006 9:19:23 AM >>>

Jana/Scott,

Thanks for supporting the DAB/Clock spring plant trials.

I talked to Walter and confirmed that the new clock springs will be at both plants KCAP and NAP this afternoon. Please coordinate with Dave Ooms (KCAP) and Roy Lewinson (NAP).

Per Chris Reilly, the 60 DAB modules, per plant, with parallel igniters will be at KCAP this afternoon, and at NAP tomorrow morning.

Chris: Are the modules all same color and were they sent to attn. of Jana and Scott? Please advise.

Please let me know if you have any question. Again, your support is appreciated.

Regards,

Adnan Dubaisi
NAE - Body Interior, Restraints
P221/P131 DAB/SW OPD
Tel: 313-805-3408
Email: adubaisi@ford.com

From: Alexander, Vincent (V.J.)
Sent: Tuesday, April 04, 2006 9:00 AM
To: Dubaisi, Adnan (A.N.)
Subject: FW: P221 DAB Trial - parallel ignitors

From: Alexander, Vincent (V.J.)
Sent: Tuesday, April 04, 2006 8:59 AM
To: 'Chris Reilly'; Steve Ahlquist
Cc: dubaisi@ford.com; Gregory, Zygmunt (Z.); Donna Hastings; James Kerrigan; Kathy Riedel; Steve.J Peterson; Black, Scott
PE09-046 0617

11/3/2009

(S.J.); Shockling, Jana (J.L.)

Subject: RE: P221 DAB Trial - parallel ignitors

Chris-- Please send out the remaining modules to KCAP and NAP. 60 per plant.

KCAP goes to attn: Scott Black and NAP goes to attn: Jana Shockling.

Please include tracking info.

Thanks.

Vincent Alexander

Restraints Engineer

Cube: 2F-K40 Phone: 313-24-85837

Email: valexan4@ford.com

Cell Phone/Pager:

From: Chris Reilly [mailto:Chris.Reilly@TRW.COM]

Sent: Thursday, March 23, 2006 10:58 AM

To: Alexander, Vincent (V.J.); Steve Ahlquist

Cc: dubaisi@ford.com; Gregory, Zygmunt (Z.); Donna Hastings; James Kerrigan; Kathy Riedel; Steve.J Peterson

Subject: Re: P221 DAB Trial - parallel ignitors

Steve and Vince,

The 60 engineering modules with the parallel electrical connectors have been shipped to Dearborn this morning. The following information can be used to track the shipment:

ILGI Trucking

Trailer #: 441082

Packing Slip: 119385

The skid has been marked with 8.5"x11" fliers with the following verbiage:

Dearborn
Assembly Plant
Attention
Crystal Bailey

Trial Functional Build
Inflator Connector
Orientation

ALERT
A11875070

Chris J. Reilly
TRW Automotive - Cookeville
1400 Salem Road
Cookeville, TN 38506-6221
931-528-4440

11/3/2009

PE09-046 0618

FAX: -4314

Chris.Reilly@TRW.com

>>> Steve Ahlquist 3/23/2006 8:00:28 AM >>>

Vincent,

Can you tell me again the name of the DTAP person that we should put on the boxes of the parallel ignitor trial parts (60 pieces)? As I understand our plan, we will build and ship these pieces only to Dearborn - and hold off on shipping to NAP and KCAP until after the results of this first trial. Per our discussion, we will target having these parts in Dearborn by this Monday, 27MR06 to allow coordination of this trial with the Bently Harris Clockspring change. Also, is someone notifying Dearborn?

Best regards,

Steve

From: Spoto, Thomas (T.A.)
Sent: Monday, February 06, 2006 7:55 AM
To: Tippy, David (D.J.); Wrestler, Sandy (S.J.); Clement, Charles (C.A.); Klosek, Walter (W.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: RE: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB

We need this document this morning.

Tom Spoto
P221/P397/P415 EE System Engineering Supervisor
Ph/Fax: 313-845-5322
Txt Pg:

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

From: Tippy, David (D.J.)
Sent: Monday, February 06, 2006 7:14 AM
To: Spoto, Thomas (T.A.); Wrestler, Sandy (S.J.); Clement, Charles (C.A.); Klosek, Walter (W.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: RE: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB

I am unable to locate the paper I had describing the diagnostic.

Autoliv is searching for it.

Regards,
David Tippy
Restraint Electronics Technical Expert

Ford Motor Company

Phone: 313-805-6911 email: dtippy@ford.com

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

From: Spoto, Thomas (T.A.)
Sent: Friday, February 03, 2006 5:14 PM
To: Wrestler, Sandy (S.J.); Clement, Charles (C.A.); Klosek, Walter (W.); Tippy, David (D.J.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: RE: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB

Dave, when can you get the flow chart you promised me? I want to test out a few scenarios at the breadboard, per our discussion yesterday. Pls call me. Thxs.

Tom Spoto
P221/P397/P415 EE System Engineering Supervisor
Ph/Fax: 313-845-5322
Txt Pg:

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

From: Wrestler, Sandy (S.J.)
Sent: Friday, February 03, 2006 4:41 PM
To: Spoto, Thomas (T.A.); Clement, Charles (C.A.); Klosek, Walter (W.); Tippy, David (D.J.); Olson, Kathy (K.A.)
Cc: Gregory, Zygmunt (Z.); Alexander, Vincent (V.J.)
Subject: Electrically correct - non deployable 06 P221 DAB module and/or SQUIB
Importance: High

Tom,

As we discussed, TRW is working on getting us an electrically correct - non deployable 06 P221 DAB module and/or SQUIB for use on the bread board to try and re-create this condition.

We need to remember to simulate both 1) chaff on the clock spring SQUIBs wires and 2) the chaff on the Steering Wheel speed/redundant control wire.

Hopefully we'll have that early next week.

Kathy said she'd help set it up once we get the DAB or SQUIBs

~~~~~

Walt,

Did you by chance get the clock springs with the Bently Harris on them yet?

Also, you gave me cost, do you have timing?

~~~~~

Thanks all

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

Wrestler, Sandy (S.J.)

From: Ruth, Richard (R.R.)
Sent: Wednesday, January 18, 2006 11:31 AM
To: Clement, Charles (C.A.); Oswalt, Greg (G.G.)
Cc: Wrestler, Sandy (S.J.)
Subject: FW: RE: Driver's side air bag deployment, 2005 F-150, VIN: 1FTRF12225NA87355

FYI. Build date 1/12/05, at Norfolk. Mileage 21,513.
CUDL report 1365870186 just put in. This has not transferred to CQIS yet but should.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager [REDACTED]
rruth@ford.com

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

From: Taylor, Alma (A.)
Sent: Wednesday, January 18, 2006 9:52 AM
To: Ruth, Richard (R.R.)
Subject: RE: Driver's side air bag deployment, 2005 F-150, VIN: 1FTRF12225N [REDACTED]

Hello Rick,

I need your assistance. The driver alleges that the driver's side airbag deployed for no apparent reason. According to the information received, the driver backed up, then he put this vehicle into "drive" and traveling at 10-15 mph the airbag deployed. The driver was wearing a seatbelt. This morning I had Lou at Marcotte Ford pull any codes. The only code pulled was a "B-2293". Please advise, thanks.

Respectfully,

Alma Taylor
Litigation Prevention/CVO
Consumer Affairs
Phone: 313 317-1862
Fax: 313 845-5555

Ford Confidential

From: Wrestler, Sandy (S.J.)
Sent: Friday, March 03, 2006 3:51 PM
To: Klosek, Walter (W.)
Subject: RE: Clockspring Tape.

Yes. I'll try to stop by after my 1:1 w/Peter at 4:30 today if you leave them out!

Thanks

Any Idea when you will be ready to release the CR for Nylon Mesh? I'm sure I'll be pinged on it today in my 1:1

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Klosek, Walter (W.)
Sent: Friday, March 03, 2006 1:23 PM
To: Wrestler, Sandy (S.J.)
Subject: RE: Clockspring Tape.

The only other complete clockspring that I know of is the one from Clearwater which is the SCI-Lab. Roy is out today he has the contact. we'll get that one back Monday and look at it. In most of the cases we only got the pigails back but I'll double check.

Parts--I have 9 more complete clocksprings with the mesh by my desk--Do you want those

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

From: Wrestler, Sandy (S.J.)
Sent: Friday, March 03, 2006 12:35 PM
To: Klosek, Walter (W.); Tippy, David (D.J.); Chascsa, Jim (JRCII.); Oswald, Greg (G.G.)
Cc: Matulonis, Bob (R.W.)
Subject: RE: Clockspring Tape.

Walt, did you get a chance to look at the other clock springs that were returned as well?

Also, TRW is out of Clock Springs with the Nylon Mesh. In yesterday's meeting you said you should have some more on Monday - I know we wanted to direct those at the fleet but since the fleet visit is delayed until the week of the 13th can we have 10 or 15 for TRW?

Please advise. Thanks

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Klosek, Walter (W.)
Sent: Friday, March 03, 2006 11:54 AM
To: Tippy, David (D.J.); Chascsa, Jim (JRCII.); Oswald, Greg (G.G.); Wrestler, Sandy (S.J.)
Cc: Matulonis, Bob (R.W.)
Subject: Clockspring Tape.

I examined the clockspring from Oklahoma and found no issues with the tape which could possibly result in a

short to High.

The following steps were taken in the examination:

- Removed shorting bars from down lead connector.
- Checked each airbag pin for short to all of the other pins in the connectors with an ohm meter. Meter showed an open circuit in all combinations.
- Drilled out the rivets.
- Separated the housing to get access to the tape.
- Wiped the grease off the tape.
- Examined both side of the tape for damage--NO DAMAGE to the plastic and no delamination. Traces all in proper position.

I can't remember if this vehicle had the short to high codes but if it did they didn't come from the tape. If you would like to see the part give me a call and we can look at it together. The way I see it there are two potential ways for such a short to occur. The tape would have to be delaminated to allow the flat wires within to come in contact with each other. In this case that condition was not present. You have also suggested that there may be a cut in the plastic there were no cuts in this part. Additionally, even one cut in the plastic covering would not result in a short since the wires are laminated between two plastic layers, it would take two cuts on opposite sides of the tape which would then have to line up as the tape was wound/unwound and the tape would also have to shift position vertically to allow the traces to be offset.

Give me a call and we can take a look at the tape together.

From: Klosek, Walter (W.)
Sent: Tuesday, April 04, 2006 12:38 PM
To: Lewinson, Royston (R.O.); Ooms, David (D.E.); Freitag, Kyle (K.C.)
Cc: Olson, Kathy (K.A.)
Subject: RE: Clockspring changes to add protection

To address the same issue Restraints is also trying to implement a change to the air bag which would rotate one of the connectors (the one that points off to the side and forces the wires against the steel plate) so that they both point up and down dressing the wires down the middle of the airbag and away from the sharp edges. Their concern is a cross carline change which is still going through the approval process. The alert for the trial covers both the air bags and the clockspring. What I am asking for is to run the trial on only 30 parts and use the rest for the FEU build which would prove out the assembly feas for both the old and the new airbags and allow the clocksprings to be in the FEU drive vehicles which is what the VO guys are asking for.

From: Lewinson, Royston (R.O.)
Sent: Tuesday, April 04, 2006 9:57 AM
To: Klosek, Walter (W.); Ooms, David (D.E.); Freitag, Kyle (K.C.)
Cc: Lewinson, Royston (R.O.); Olson, Kathy (K.A.)
Subject: RE: Clockspring changes to add protection

Walt,

What new airbag are we talking about?

Regards,
Royston O. Lewinson
NAP-PVT Electrical Engineer
Phone: (757) 494-2337 / Dial Net 635-2337
Fax: (757) 494-2363 / Dial Net 635-2363
Email: rlewinso@ford.com
Text Page: [@myairmail.com](mailto:myairmail.com)

From: Klosek, Walter (W.)
Sent: Tuesday, April 04, 2006 9:46 AM
To: Ooms, David (D.E.); Lewinson, Royston (R.O.); Freitag, Kyle (K.C.)
Cc: Olson, Kathy (K.A.)
Subject: Clockspring changes to add protection

Dave, Royston,
I need a little help in getting the concern for adding protection to the clockspring pigtailed reauthorized. Yesterday Kathy Olson sent each of you 60 parts for a plant trial of the new pigtailed with the woven polyester shiething. The intent was to use these for a trial with the new airbag. The original request from all plants was to have 60 parts or 30/shift for each plant. In trying to get the concern/containment plan for this change approved one of the the big issues is how to support the FEU builds. The supplier can't make any more parts in time for the FEU builds since they don't have enough of the material. One suggestion is to divert some of the trial parts to support the FEU builds I'm not totally familiar with the numbers of vehicles in the build but it seems that this would be feasible especially in light of the result of the trial done at Dearborn last week which essentially had no issues and actually made the installation easier.

Can you please let me know if you think that my proposal is feasible.

Kyle,
For your plant I can probably divert some parts I have which were going to be used for a different test to support the FEU build.

It would be great if you could all respond to me before 1:30 so that I can try to get the concern resurrected from the dead at the change control meeting

From: Kim, Peter (P.K.)
Sent: Tuesday, January 31, 2006 10:41 AM
To: Matulonis, Bob (R.W.)
Cc: Wrestler, Sandy (S.J.); Klosek, Walter (W.)
Subject: RE: 06 P221 DAB

Friendlier surface; getting details from TRW.

Peter K. Kim

Restraint Manager
pkim2@ford.com, Bld 1 - 11C124, (313) 32-31156

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

From: Matulonis, Bob (R.W.)
Sent: Tuesday, January 31, 2006 8:48 AM
To: Kim, Peter (P.K.)
Cc: Wrestler, Sandy (S.J.); Klosek, Walter (W.)
Subject: RE: 06 P221 DAB

Can you please elaborate on the robustness actions on the steel.

Bob Matulonis
Manager - EESE Switch Engineering
Cell
rmatulon@ford.com

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

From: Kim, Peter (P.K.)
Sent: Monday, January 30, 2006 6:09 PM
To: Matulonis, Bob (R.W.)
Cc: Wrestler, Sandy (S.J.); Klosek, Walter (W.)
Subject: RE: 06 P221 DAB

Bob,
agree on short term and not a PCA. The short term will be done in conjunction with some robustness action on the sheet edge. Thx.

Peter K. Kim

Restraint Manager
pkim2@ford.com, Bld 1 - 11C124,

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

From: Matulonis, Bob (R.W.)
Sent: Monday, January 30, 2006 8:12 AM
To: Klosek, Walter (W.)
Cc: Wrestler, Sandy (S.J.); Kim, Peter (P.K.)
Subject: RE: 06 P221 DAB

Peter,

I'm just coming up to speed on this and other issues so I may be confusing things a bit. But my understanding is that there is no rolled edge on the column steel and there should be. Even with the Bentley material I would be concerned with

the robustness. This may still be a short term improvement but not an PCA.

Walt,

Please provide me the status / next steps and clarify if I've made any incorrect assumptions.

Bob Matulonis
Manager - EESE Switch Engineering
Cel [REDACTED]
rmatulon@ford.com

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

From: Kim, Peter (P.K.)
Sent: Saturday, January 28, 2006 1:32 PM
To: Matulonis, Bob (R.W.)
Cc: Wrestler, Sandy (S.J.)
Subject: RE: 06 P221 DAB

Hi Bob,

We currently have a situation that needs immediate interim fix due to its safety nature (pls call me if you need more info). I need this nylon convolute released asap and supplied to the plants asap. Can you pls have your folks work with Sandy on this. Thx.

Sandy, pls ensure the convolute does not present "other" issues. thx.

Peter K. Kim

Restraint Manager
pkim2@ford.com, Bld 1 - 11C124, (313) 32-31156

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

From: Wrestler, Sandy (S.J.)
Sent: Friday, January 27, 2006 2:02 PM
To: Kim, Peter (P.K.)
Cc: Matulonis, Bob (R.W.)
Subject: FW: 06 P221 DAB

Peter,

Matulonis, Bob (R.W.) is manager now. I had .cc'd Don Turner on a previous note (he's listed in CDS as Walt's manager) and he asked that I send them Bob in the future.

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Wrestler, Sandy (S.J.)
Sent: Friday, January 27, 2006 2:01 PM
To: Klosek, Walter (W.)
Cc: Kim, Peter (P.K.); Alexander, Vincent (V.J.)
Subject: 06 P221 DAB

Walt,

I know you're working on it but can you tell us how soon we can expect to get feedback on the cost and timing on the Bently Harris on the Clock Spring wire for the 06 P221?

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

From: Tippy, David (D.J.)
Sent: Monday, February 06, 2006 2:01 PM
To: Spoto, Thomas (T.A.); Wu, Cathy (C.); Pappas, Bill (B.); 'Jeffery.Hammoud@Autoliv.com';
Wrestler, Sandy (S.J.)
Subject: RE: RCM Diagnosis specification
Attachments: Autoliv ARM 300-400 Driver Tests US6597181.pdf

See attached. As you'll see, this is a patent but it should reflect the actual implementation sufficiently, if not exactly.

Let me know if you have any questions.



Autoliv ARM
300-400 Driver Tes..

Regards,
David Tippy
Restraint Electronics Technical Expert

Ford Motor Company

Phone: 313-805-6911 email: dtippy@ford.com

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

From: Spoto, Thomas (T.A.)
Sent: Monday, February 06, 2006 12:18 PM
To: Wu, Cathy (C.); Tippy, David (D.J.); Pappas, Bill (B.); 'Jeffery.Hammoud@Autoliv.com'; Wrestler, Sandy (S.J.)
Subject: RE: RCM Diagnosis specification

Dave/Bill/Jeff, I have phone calls into all of you, requesting the specification and diagnostic flow chart. I need this information ASAP.

Tom Spoto
P221/P397/P415 EE System Engineering Supervisor
Ph/Fax: 313-845-5322
Txt Pg:

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

From: Wu, Cathy (C.)
Sent: Monday, February 06, 2006 12:05 PM
To: Tippy, David (D.J.); Pappas, Bill (B.)
Cc: Spoto, Thomas (T.A.)
Subject: RCM Diagnosis specification

Per Tom Spoto's request, please provide RCM diagnosis spec. to Tom. Thanks

Regards,

Cathy Wu

Ford Motor Company
P221 EESE Systems Engineer
Cube: PDC 2H-L72, MD:313
Dearborn Desk Phone:313 390-5338
E-mail: cwu3@ford.com
Pager:

Every body preserves in its state of rest or of uniform motion in a straight line, except in so far as it is compelled to change that state by impressed force

-----Isacc Newton

”

(12) **United States Patent**
Boran et al.

(10) **Patent No.:**

(45) **Date of Patent:**

Jul. 22, 2003

(54) **HIGH AND LOW SIDE DRIVER TESTS FOR AIRBAG MODULE**

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5,187,465 A * 2/1993 Stonerook et al. 340/438

(75) Inventors: **Colm Peter Boran**, Novi, MI (US);
Paul Douglas Bingham, Canton, MI (US);
Steven John Bigham, Canton, MI (US);
David Matthew Mantey, Canton, MI (US)

OTHER PUBLICATIONS

Infineon Technologies, *Dual Firing Airbac IC Data Sheet*,
Ver. 1.61, Nov., 2000.

(73) Assignee: **Autoliv ASP, Inc.**, Ogden, UT (US)

* cited by examiner

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 62 days.

Primary Examiner—N. Le

Assistant Examiner—Vincent Q. Nguyen

(74) *Attorney, Agent, or Firm*—Brinks Hofer Gilson & Lione; Sally J. Brown; James D. Erickson

(21) Appl. No.: **09/999,742**

(22) Filed: **Oct. 31, 2001**

(65) **Prior Publication Data**

US 2002/0050826 A1 May 2, 2002

Related U.S. Application Data

(60) Provisional application No. 60/244,683, filed on Oct. 31, 2000.

(51) **Int. Cl.⁷** **G01R 27/14**

(52) **U.S. Cl.** **324/525**; 340/438; 324/525;
324/537; 324/712; 324/713; 324/158.1

(58) **Field of Search** 340/438; 324/711,
324/713, 691, 712, 158.1, 525, 511, 512,
537

(56) **References Cited**

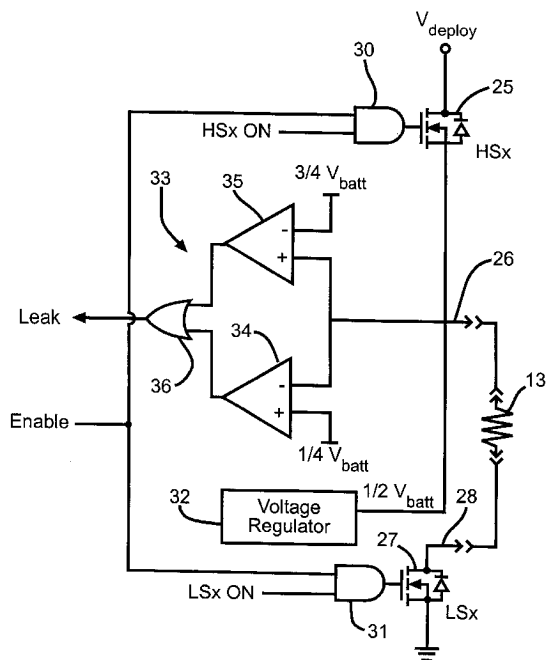
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(57) **ABSTRACT**

A method of testing a high-side driver and a low-side driver in an airbag squib circuit includes preliminary testing of squib resistance and squib leakage for a plurality of trials. Next, one of the drivers is turned on while keeping the other one of the drivers off. A current-limited power supply supplies an intermediate voltage to a squib terminal and the voltage at the terminal is continuously compared with a predetermined voltage range which includes the intermediate voltage. The one driver is turned off in response to the voltage at the point being outside the predetermined voltage range, thereby detecting that the one driver is operating properly. If the voltage at the point remains in the predetermined voltage range for a predetermined time period, then the one driver is turned off and an indication is made that the one driver has failed. If the first driver passed, then the other driver is tested in the same manner.

12 Claims, 4 Drawing Sheets



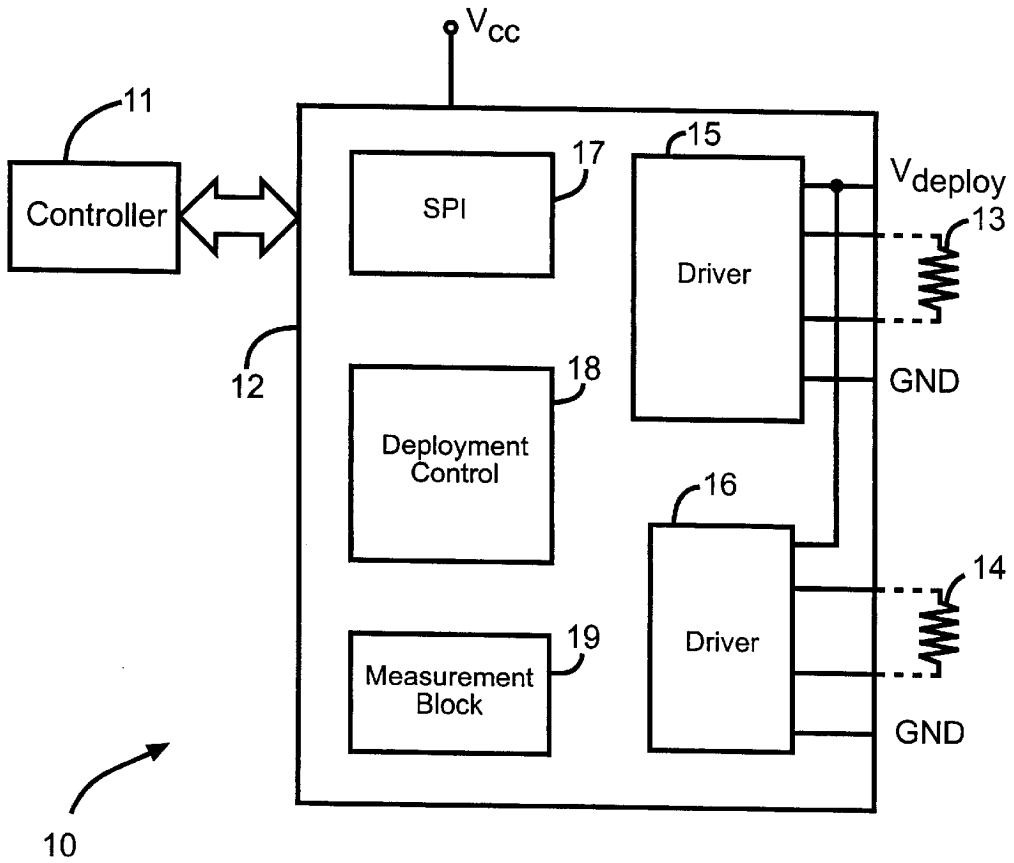


FIG. 1

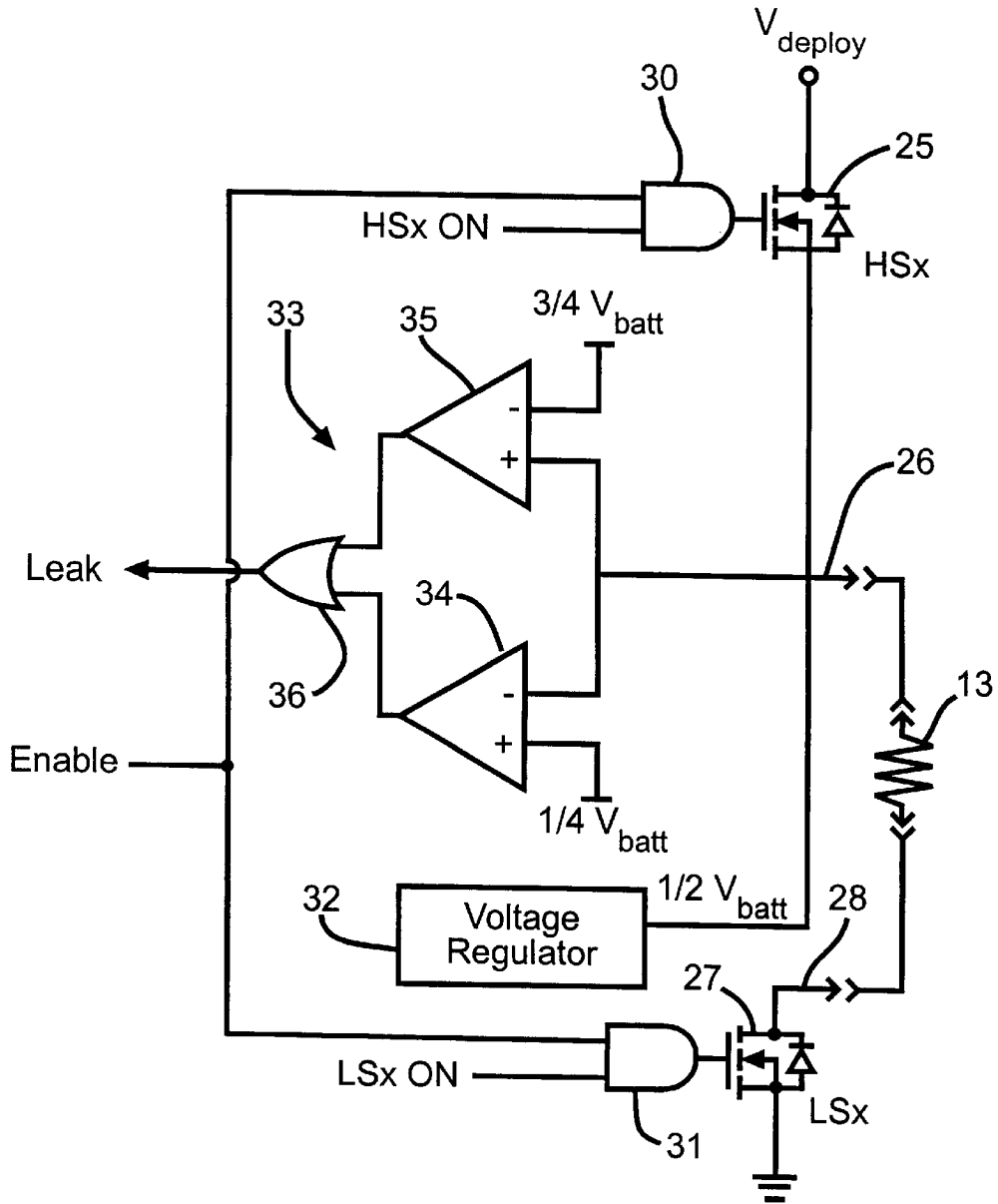


FIG. 2

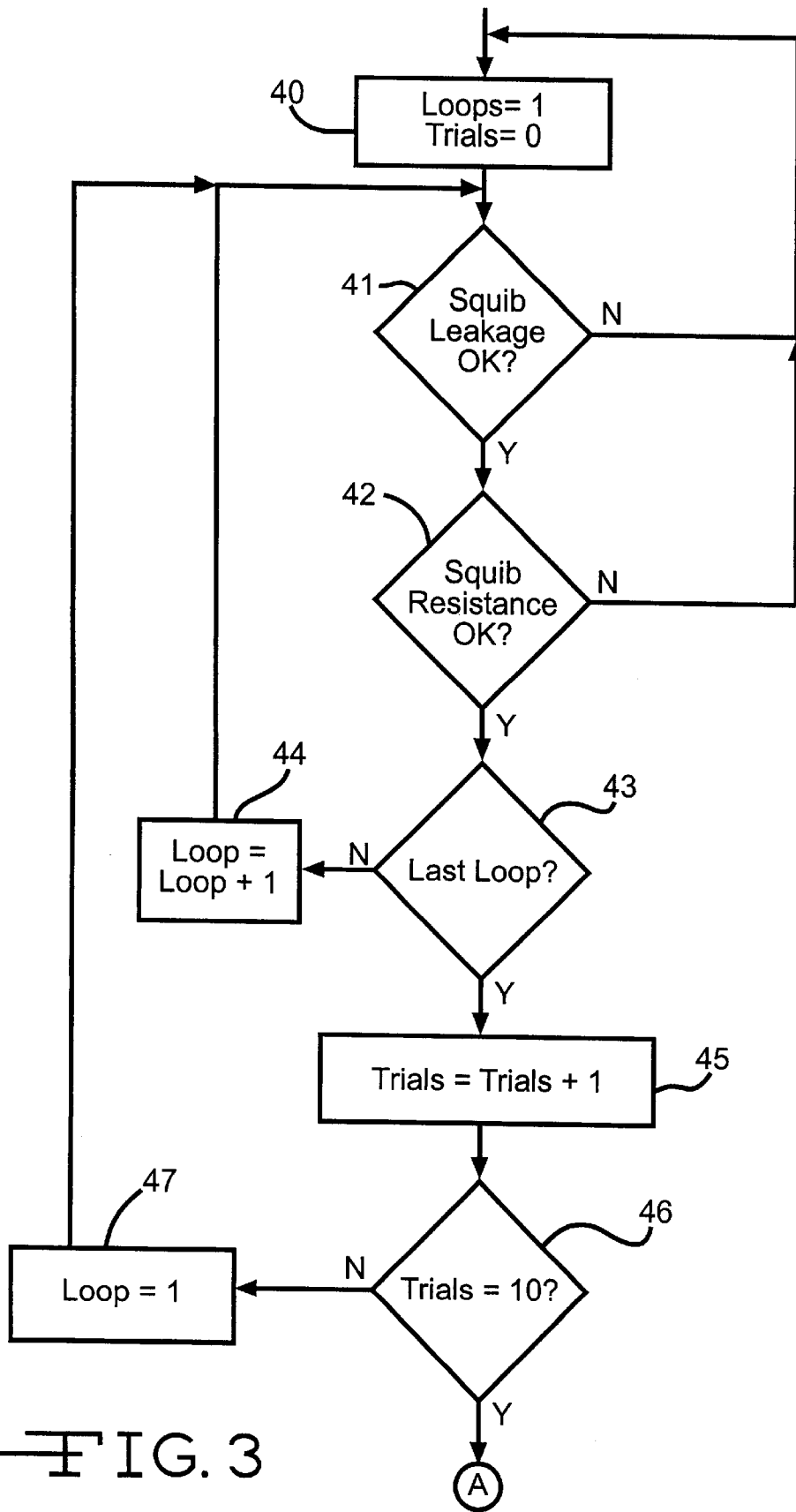


FIG. 3

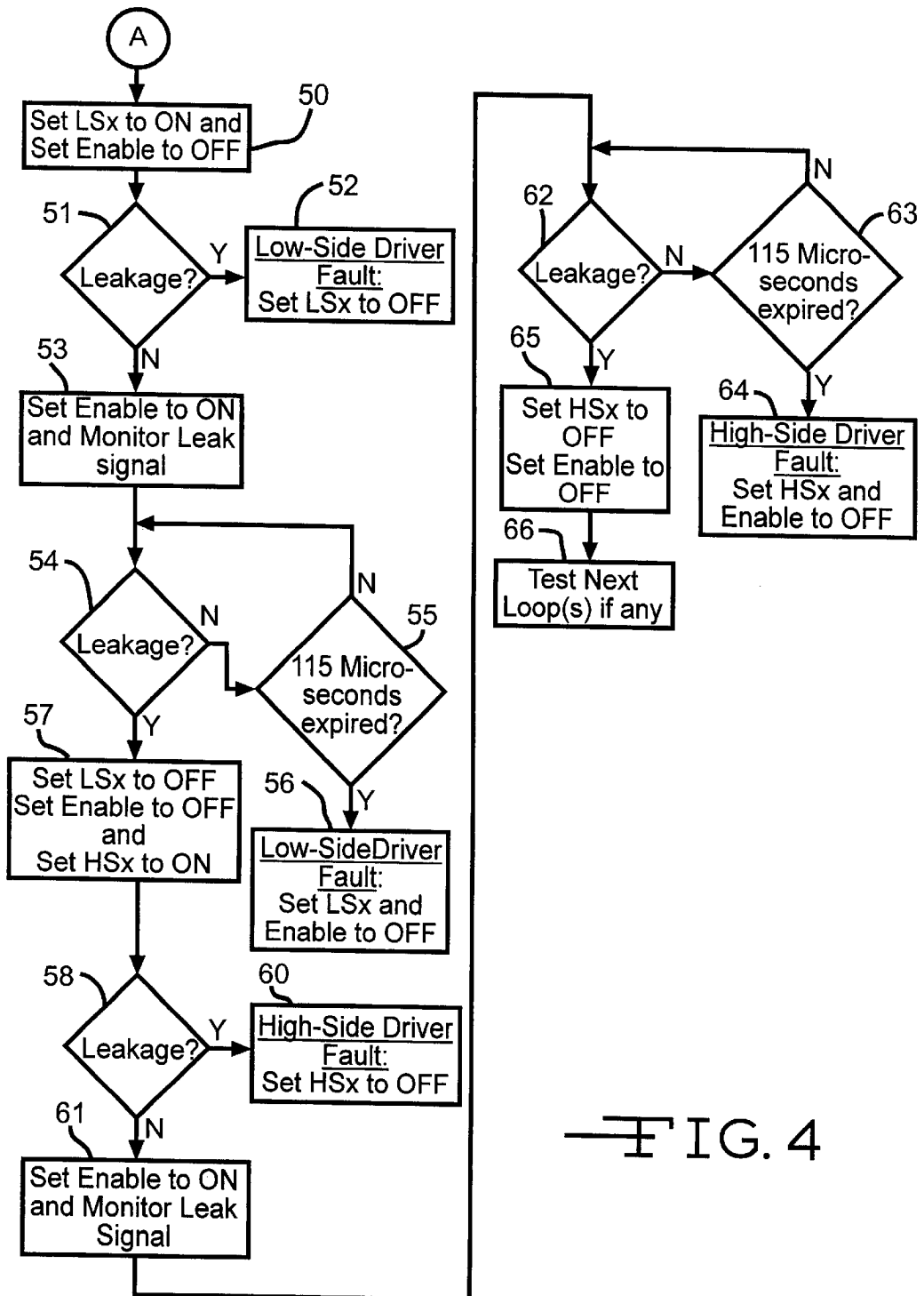


FIG. 4

HIGH AND LOW SIDE DRIVER TESTS FOR AIRBAG MODULE

This application claims the benefit of Provisional application Ser. No 60/244,683, filed Oct. 31, 2000.

BACKGROUND OF THE INVENTION

The present invention relates in general to circuits for deploying airbag igniters or squibs, and, more specifically, to circuit diagnostics for testing proper operation of drivers that supply electrical energy to ignite the squibs.

The main components of an airbag supplemental restraint system used in motor vehicles include an inflatable bag, a propellant source (e.g., sodium azide pellets), an igniter or squib to initiate burning of the propellant source, at least one crash sensor, and an electronic control module for determining when to deploy an airbag and sending a deployment pulse to the igniter. The airbag, propellant, and igniter are contained in an airbag module (e.g., within a steering wheel for a driver airbag). The sensor can be packaged separately or can be contained within the electronic control module.

The control module performs self-diagnostic monitoring of the supplemental restraint system each time the system is turned on (e.g., every time a vehicle is started). Any potential performance problems are identified and a warning light is illuminated so that the driver knows that the system needs to be serviced.

It is known to perform diagnostic monitoring of the electrical connection of the squib elements, squib resistances, and electrical leakage in the squib circuits, among other tests. When performing electrical testing involving the squibs, care must be taken to avoid application of any current to a squib that could cause inadvertent deployment of the airbag. Due to the cost of replacing an airbag module and the loss of supplemental protection until replacement occurs, diagnostic monitoring should not increase the chances of inadvertent deployment.

A very desirable test to be able to perform is a driver test in which a squib driver circuit can be activated in a test mode without igniting the squib. Such a test can verify that a semiconductor switch in series with the squib element itself will conduct as intended during an actual deployment event. However, such a test has been problematic since the activation of the switch partially completes the deployment circuit. If certain other faults exist, or if switch activation is not implemented properly, unintended deployments can occur.

SUMMARY OF THE INVENTION

The present invention has the advantage that high-side and low-side drivers in series with a squib element can be tested while avoiding inadvertent airbag deployment.

In one aspect, the present invention provides a method of testing a high-side driver and a low-side driver in an airbag squib circuit. The airbag squib circuit includes a squib element coupled between the high-side driver and the low-side driver. The high-side driver controllably provides a high-side voltage to one side of the squib element and the low-side driver controllably provides a low-side voltage to the other side of the squib element. A resistance of the squib element is tested for a resistance value within a predetermined resistance range. A current leakage associated with said squib element is tested to determine whether it is over a leakage threshold. An intermediate voltage from a weak power supply is supplied to a point in the airbag squib circuit

between the high-side driver and the low-side driver. One of the drivers is turned on while keeping the other one of the drivers off. A voltage at the point is continuously compared with a predetermined voltage range which includes the intermediate voltage. The one driver is turned off in response to the voltage at the point being outside the predetermined voltage range, thereby detecting that the one driver is operating properly. If the voltage at the point remains in the predetermined voltage range for a predetermined time period, then the one driver is turned off and an indication is made that the one driver has failed.

Unless there is a failure, the other driver is then turned on while keeping the one driver off. A voltage at the point is continuously compared with the predetermined voltage range. The other driver is turned off in response to the voltage at the point being outside the predetermined voltage range, thereby detecting that the other driver is operating properly. If the voltage at the point remains in the predetermined voltage range for the predetermined time period, then the other driver is turned off and an indication is made that the other driver has failed.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram showing an electronic controller and integrated circuit for an airbag supplemental restraint system.

FIG. 2 is a schematic diagram showing apparatus for performing the high-side and low-side driver tests of the present invention.

FIG. 3 is a flowchart showing a preferred method of determining that certain conditions are not present that would prevent a high-side and a low-side driver test.

FIG. 4 is a flowchart of a preferred embodiment of the driver test of the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to FIG. 1, a control module 10 includes a microcontroller 11 coupled to an airbag firing application-specific integrated circuit (ASIC) 12. ASIC 12 is connected to a pair of remote squib elements 13 and 14 through appropriate vehicle wiring. Microcontroller 11 is connected to a crash sensor (not shown) such as an accelerometer to determine when a particular crash condition is occurring in which an airbag should deploy. ASIC 12 can be comprised of a TLE6712 Dual Firing Airbag IC available from Infineon Technologies AG of Munich, Germany, for example.

Each squib element is connected in a respective deployment loop comprising a driver circuit for providing an igniting pulse to its respective squib in response to an appropriate command from microcontroller 11. A two loop ASIC is shown in FIG. 1, although the present invention can be used advantageously with any number of loops. A first loop for squib element 13 includes a supply of a deployment voltage V_{deploy} , a first driver 15, and a connection to ground GND. A second loop for squib element 14 includes a connection to V_{deploy} , a second driver 16, and a connection to ground GND. V_{deploy} may be a direct connection to a high capacity supply, such as a vehicle storage battery V_{batt} or a source of stepped up battery voltage, to ensure sufficient energy for a deployment event. ASIC 12 also receives a regulated voltage V_{cc} for supplying power (e.g., 5 volts) to on-chip components.

ASIC 12 further includes a serial peripheral interface (SPI) block 17 for receiving and decoding commands from

microcontroller 11. The commands include a deployment command for each loop, and measurement and self-diagnostic test commands, for example. Deployment control block 18 includes logic to control the proper sequence of events to ignite a squib element via the driver(s) 15 and 16. Measurement block 19 performs various diagnostic measurements, such as squib resistance measurements as known in the art.

Each driver within a deployment loop comprises a high-side and a low-side semiconductor switch as shown in FIG. 2 such that both switches must be turned on in order to complete an igniting circuit through the squib element. FIG. 2 shows only one deployment loop, although the invention is applicable to any number of deployment loops. In this one deployment loop, a MOSFET 25 has one output connected to a power supply terminal V_{deploy} and its other output connected to a first squib terminal 26. A MOSFET 27 has one output connected to ground and its other output connected to a second squib terminal 28. Squib terminals 26 and 28 are connected to squib element 13 by a vehicle wiring harness and connectors.

The gate terminal (i.e., input) of MOSFET 25 is connected to the output of an AND-function 30 and the gate terminal of MOSFET 27 is connected to the output of an AND-function 31. Each AND-function has one input connected to receive an Enable signal, which may be provided as a separate control signal from the microcontroller, for example. A second input of AND-function 30 receives a \otimes high-side switch on \otimes signal (HSx ON signal), which may be provided in response to a corresponding SPI command from the microcontroller, for example. A second input of AND-function 31 receives a \otimes low-side switch on \otimes signal (LSx ON signal). The \otimes in HSx ON and LSx ON is an index to refer to each deployment loop in the ASIC. The Enable signal and the HSx ON and LSx ON signals must have a high logic level in order to turn on each respective MOSFET.

Not shown in FIG. 2 is the conventional circuitry within measurement block 19 of FIG. 1 which performs squib resistance measurements. This circuitry is also connected to squib terminals 26 and 28 and it typically is comprised of a self-calibrating circuit that measures a voltage drop across a squib element. A normal resistance for a squib element is typically about 2 ohms. A resistance measurement greater than about 4 ohms or less than about 1 ohm usually indicates a fault in the squib element. Ignition of a typical squib element requires about 1 amp of current in an ignition pulse. Resistance testing is typically performed using about 50 milliamps passing through the squib element.

FIG. 2 shows circuit elements used in the present invention for testing both 1) squib leakage, and 2) high-side and low-side driver performance. A voltage regulator 32 nominally provides an intermediate voltage to squib terminal 26 (although it could alternatively be connected to squib terminal 28). In a preferred embodiment, the intermediate voltage is $\frac{1}{2} V_{batt}$. Regulator 32 has a very limited (i.e., weak) current capacity so that it can only keep the voltage on squib terminal 26 at $\frac{1}{2} V_{batt}$ if nothing else in the circuit is pulling squib terminal 26 to ground, battery voltage, or some other voltage. The maximum current from regulator 32 is insufficient to ignite the squib element.

The voltage present at squib terminal 26 (or alternatively terminal 28) is compared to a predetermined voltage range (which includes the nominal voltage from regulator 32) by a detector 33 comprising a comparator 34, a comparator 35, and an OR-function 36. Terminal 26 is connected to the

inverting input of comparator 34 and to the noninverting input of comparator 35. The noninverting input of comparator 34 is connected to a first reference voltage, equal to about $\frac{1}{4} V_{batt}$ in this preferred embodiment. The inverting input of comparator 35 is connected to a second reference voltage, equal to about $\frac{3}{4} V_{batt}$ in this preferred embodiment. The outputs of comparators 34 and 35 are connected to respective inputs of OR-function 36. The output of OR-function 36 provides a Leak signal. Detector 33 establishes a predetermined voltage range from $\frac{1}{4} V_{batt}$ to $\frac{1}{3} V_{batt}$. During a squib leakage test, regulator 32 is turned on and if the voltage appearing at squib terminal 26 stays at about $\frac{1}{2} V_{batt}$ then the outputs of comparators 34 and 35 stay at a low logic level. Because of the low logic level input signals to OR-function 36, the Leak signal stays at a low logic level, thereby indicating that there is no squib leakage (e.g., no shorts to ground or to battery). If the voltage is either pulled high (i.e., over $\frac{3}{4} V_{batt}$) or low (i.e., under $\frac{1}{4} V_{batt}$) outside the predetermined range, then one of the comparator outputs switches to a high logic level and the Leak signal also goes high, thereby indicating a squib leakage fault. The Leak signal is sent to the microcontroller which keeps track of specific fault occurrences and generates a fault indication, such as turning on a malfunction-indicator light.

The present invention makes use of voltage regulator 32 and the Leak signal to perform high-side driver and low-side driver testing, provided that the squib resistance and squib leakage tests are passed. If these tests are not passed then 1) the risk of an inadvertent deployment being caused when just one of the switches is closed would be increased, and 2) a driver test would have little incremental value since the deployment loop will already be faulted.

Assuming the resistance and leakage tests are passed, then voltage regulator 32 is turned on (if not already on) and one driver is turned on to test it. If the switch logic and MOSFET perform as intended, then squib terminal 26 will have a path either to V_{deploy} or to ground which overcomes the ability of regulator 32 to keep the terminal at $\frac{1}{2} V_{batt}$. Consequently, the Leak signal will go to a high logic level to indicate proper functioning of the respective driver.

To most effectively limit the possibility of inadvertent airbag deployment during a driver test, the present invention utilizes the overall method shown in FIGS. 3 and 4.

Preliminary to the actual driver tests, the present invention tests all deployment loops in use on an ASIC for proper squib resistance and absence of squib leakage. For high reliability, these tests are conducted a plurality of times (e.g., 10 times) for each deployment loop in a round-robin fashion. If at any time, a resistance test or a leakage test indicates a fault, then the 10 testing rounds are re-started. This re-starting continues indefinitely until 10 consecutive rounds of resistance and leakage tests are passed for all deployment loops.

In step 40, an index \otimes Loop \otimes for keeping track of a deployment loop being tested is initialized to one and an index \otimes Trial \otimes for keeping track of successful testing rounds is initialized to zero. In step 41, a squib leakage test is performed for the current deployment loop identified by index Loop (e.g., loop 1 for the first execution of step 41). If leakage is detected (i.e., the test is failed) then a return is made to step 40 to begin a new attempt to make it through 10 rounds of tests without a failure. If the leakage test is passed, then the resistance of the squib element in the current deployment loop identified by index Loop is measured in step 42 and compared to its permissible values. If the squib resistance fails the test, the method returns to step

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40. If the resistance test is passed, then a check is made in step 43 to determine whether Loop equals the number of loops being used in the ASIC (i.e., whether the last loop has been tested). If not, then Loop is incremented by 1 in step 44 and a return is made to step 41. If the current loop was the last loop, then the index Trials is incremented by one in step 45. A check is made in step 46 to determine if Trials equals 10 (i.e., if 10 consecutive successful round-robin test trials have been completed). If not, then Loop is reset to 1 in step 47 and a return is made to step 41. Otherwise, the method progresses to the driver test phase via a point A.

Specific driver testing of a preferred embodiment is shown in FIG. 4 for one deployment loop. The low-side driver is tested first. In step 50, the LSx ON signal goes high in response to an SPI command from the microcontroller while the Enable signal remains or is set to OFF (i.e., logic low). If the AND-function logic element is functioning properly then there should be no change in the state of the low-side switch. A check is made in step 51 to determine if the Leak signal goes high during a predetermined delay period (preferably equal to about 1 millisecond, for example). If it did, then a low-side driver fault is indicated in step 52 and the LSx ON signal is reset to a low level.

If the Leak signal stayed low in step 51, then the Enable signal is turned on by the microcontroller in step 53, a time counter is started, and the microcontroller begins to continuously monitor the Leak signal for a transition to a high logic level. An important goal of the present invention is to minimize the amount of time that a driver switch is turned on. Therefore, the microcontroller repeatedly and rapidly inspects the Leak signal. If a particular inspection determines that the Leak signal has not gone high, then a check is made in step 55 to determine whether the time counter has reached a predetermined time period (preferably equal to about 115 microseconds, for example). A properly operating driver would normally trigger the leak detector circuit in less than about 50 microseconds, but to allow for process variations, capacitance on a squib line, or other factors, a time period of 115 microseconds is allowed. If 115 microseconds have not yet expired, then a return is made to step 54. If 115 microseconds have elapsed, then a low-side driver fault is indicated in step 56 and the LSx ON signal and the Enable signal are reset to OFF.

As soon as a Leak signal having gone to a high logic level is detected in step 54, the microcontroller immediately takes the Enable signal to its unasserted (i.e., OFF) level in step 57. This turns off the low-side driver and removes ground from the squib terminal. At this point, the low-side driver has passed the driver test and the LSx ON signal is changed to low via an SPI command.

Also in step 57, the HSx ON signal is changed to high via an SPI command in order to initiate testing of the high-side driver. The Leak signal is inspected by the microcontroller in step 58 to verify no turning on of the high-side switch without the Enable signal being asserted. If the Leak signal is detected then a high-side driver fault is indicated in step 60 and the HSx ON signal is reset low.

If no Leak signal is detected in step 60, then the high-side driver is turned on and tested in steps 61-64 in the same manner as the low-side driver. If proper driver operation is detected in step 62, then the Enable signal and the HSx ON signal are reset to OFF and the weak voltage regulator is turned off in step 65. Any remaining high-side and low-side drivers to be tested in other loops are then tested in step 66 in the same manner. Thereafter, normal operation of the ASIC proceeds.

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The present invention achieves a variable turn-on time for each driver. In other words, a driver is on only for as long as necessary to verify its proper operation. The transition of the Leak signal initiates the turning off of the corresponding driver. Therefore, any application of current to a corresponding squib is kept as short as possible. Furthermore, the requirement for a plurality of consecutive successful resistance and leakage tests increases the likelihood of being able to conduct a driver test without an inadvertent airbag deployment.

What is claimed is:

1. A method of testing a high-side driver and a low-side driver in an airbag squib circuit, said airbag squib circuit including a squib element coupled between said high-side driver and said low-side driver, said high-side driver controllably providing a high-side voltage to one side of said squib element and said low-side driver controllably providing a low-side voltage to the other side of said squib element, said method comprising the steps of:

testing a resistance of said squib element for a resistance value within a predetermined resistance range;

testing for a current leakage associated with said squib element;

if said resistance and current leakage tests are passed, then supplying an intermediate voltage from a weak power supply to a point in said airbag squib circuit between said high-side driver and said low-side driver;

turning on one of said drivers while keeping the other one of said drivers off;

continuously comparing a voltage at said point with a predetermined voltage range including said intermediate voltage;

turning off said one driver in response to said voltage at said point being outside said predetermined voltage range, thereby detecting that said one driver is operating properly;

if said voltage at said point remains in said predetermined voltage range for a predetermined time period, then turning off said one driver and indicating that said one driver has failed;

turning on said other driver while keeping said one driver off;

continuously comparing a voltage at said point with said predetermined voltage range;

turning off said other driver in response to said voltage at said point being outside said predetermined voltage range, thereby detecting that said other driver is operating properly;

if said voltage at said point remains in said predetermined voltage range for said predetermined time period, then turning off said other driver and indicating that said other driver has failed.

2. The method of claim 1 further comprising the step of: repeating said current leakage testing for a plurality of trials until a predetermined number of consecutive trials show an absence of current leakage over said leakage threshold, wherein said high-side driver and said low-side driver are only tested if said predetermined number is obtained.

3. The method of claim 1 further comprising the step of: repeating said resistance testing for a plurality of trials until a predetermined number of consecutive trials show a resistance value within said predetermined resistance range, wherein said high-side driver and said low-side driver are only tested if said predetermined number is obtained.

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4. The method of claim 1 wherein said intermediate voltage is substantially equal to one-half of said high-side voltage, wherein said predetermined range is from about one-fourth of said high-side voltage to about three-fourths of said high-side voltage, and wherein said low-side voltage is substantially equal to ground. 5

5. The method of claim 1 wherein said predetermined time period is substantially equal to about 115 microseconds.

6. Apparatus for firing an airbag squib comprising: 10
 a high-side voltage supply terminal for coupling to a high-side voltage;

a high-side semiconductor switch having an input terminal and a pair of output terminals, one of said output terminals being coupled to said high-side voltage supply terminal and the other of said output terminals being coupled to a first squib terminal; 15

a ground terminal for coupling to ground;
 a low-side semiconductor switch having an input terminal and a pair of output terminals, one of said output terminals being coupled to said ground terminal and the other of said output terminals being coupled to a second squib terminal; 20

a first logic element having first and second inputs and an output, said output coupled to said input terminal of said high-side semiconductor switch, said first input receiving an enable signal and said second input receiving a high-side activate signal; 25

a second logic element having first and second inputs and an output, said output coupled to said input terminal of said low-side semiconductor switch, said first input receiving said enable signal and said second input receiving a low-side activate signal; 30

a voltage regulator coupled to one of said first or second squib terminals, said voltage regulator providing a current-limited power supply having a nominal voltage which is intermediate of said high-side voltage and said ground; 35

a voltage detector coupled to a selected one of said first or second squib terminals for detecting whether a resultant voltage on said selected squib terminal is within a predetermined voltage range including said nominal voltage; and 40

a controller for 1) activating said voltage regulator, 2) generating said enable signal and said high-side activate signal to turn on said high-side semiconductor switch while keeping said low-side semiconductor switch turned off, 3) continuously monitoring said 45

8

resultant voltage using said voltage detector, 4) ceasing said enable signal or said high-side activate signal to turn off said high-side semiconductor switch in response to said resultant voltage being outside said predetermined voltage range, thereby detecting that said high-side semiconductor switch and said first logic element are operating properly, and 5) if said resultant voltage remains in said predetermined voltage range for a predetermined time period, then ceasing said enable signal or said high-side activate signal to turn-off said high-side semiconductor switch and indicating a failure.

7. The apparatus of claim 6 wherein said controller is further adapted for 1) generating said enable signal and said low-side activate signal to turn on said low-side semiconductor switch while keeping said high-side semiconductor switch turned off, 2) continuously monitoring said resultant voltage using said voltage detector, 3) ceasing said enable signal or said low-side activate signal to turn off said low-side semiconductor switch in response to said resultant voltage being outside said predetermined voltage range, thereby detecting that said low-side semiconductor switch and said second logic element are operating properly, and 4) if said resultant voltage remains in said predetermined voltage range for a predetermined time period, then ceasing said enable signal or said low-side activate signal to turn-off said low-side semiconductor switch and indicating a failure.

8. The apparatus of claim 6 wherein said controller is further adapted to perform a leakage test wherein said controller 1) activates said voltage regulator, 2) checks that said resultant voltage remains within said predetermined voltage range, and 3) repeats item 2 until said resultant voltage stays within said predetermined voltage range for a consecutive, predetermined number of trials.

9. The apparatus of claim 6 wherein said controller is further adapted to perform a squib resistance test wherein said controller 1) checks that a resistance of said squib element remains within a predetermined resistance range, and 2) repeating item 1 until said resistance is within said predetermined voltage range for a consecutive, predetermined number of trials.

10. The apparatus of claim 6 wherein said first and second logic elements are comprised of AND-functions.

11. The apparatus of claim 6 wherein said nominal voltage is substantially equal to one-half of said high-side voltage.

12. The apparatus of claim 6 wherein said predetermined time period is substantially equal to about 115 microseconds.

* * * * *

From: Ruth, Richard (R.R.)
Sent: Thursday, February 23, 2006 9:39 AM
To: Oswalt, Greg (G.G.); Clement, Charles (C.A.)
Cc: Wrestler, Sandy (S.J.)
Subject: FW: Prestige Ford of Edmond - Airbag Deployment

Update - the dealer has removed the airbag already and installed simulators. At this point, I'm thinking having the dealer take digital pictures and send parts may be the quickest thing to do. Your thoughts

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager
rruth@ford.com

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

From: Macoit, Andrew (A.D.)
Sent: Wednesday, February 22, 2006 11:59 PM
To: Ruth, Richard (R.R.)
Subject: Prestige Ford of Edmond - Airbag Deployment

Rick,
I called Mike Bristow (Serv Mgr) at Prestige Ford and was able to get some additional information (although the technician had already gone home).

Customer had just turned his Key to "On" and the driver's airbag deployed. The driver wasn't hurt but definitely had airbag markings on him.

Customer didn't say anything regarding the airbag light illuminating.

Tech removed both RCM and Airbag (using simulators). Mike will find out if the Tech pulled the PID Data or not as well as any codes.

I'll be driving back to Dallas tomorrow morning. If you need to contact Mike please call him at 405-475-9606 or Mobile 405-659-9870

ANDREW MACOIT
FORD MOTOR COMPANY

FIELD SERVICE ENGINEER
FCSD SOUTHWEST REGION
MOBILE:

AMACOIT1@FORD.COM
NON EST AD ASTRA MOLLIS E TERRIS VIA

From: Horejsi, Joe [joe.horejsi@methode.com]
Sent: Wednesday, February 15, 2006 8:38 AM
To: Klosek, Walter (W.)
Cc: Sutherland, Roy (R.W.); Crafts, Bill (W.E.)
Subject: FW: pix of P221 stuff
Attachments: newtubingtape021406.xls

Walt,

Attached is a digital picture of the BH tubing with 4 spot tapes. Please let me know what you think. I should get the 20 parts today per your request, any other questions give me a call.

Regards,

Joe Horejsi

Methode Electronics, Inc.

248.603.2141

<<newtubingtape021406.xls>>

P221 Clockspring with expandable protective tubing and tape (4 places)



From: Gibson, Scott [SGibson@methode-aecd.com]
Sent: Tuesday, February 14, 2006 12:25 PM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Cc: Horejsi, Joe
Subject: pictures of P221 clockspring/harness

Attachments: 021406pix.pdf



021406pix.pdf
(296 KB)

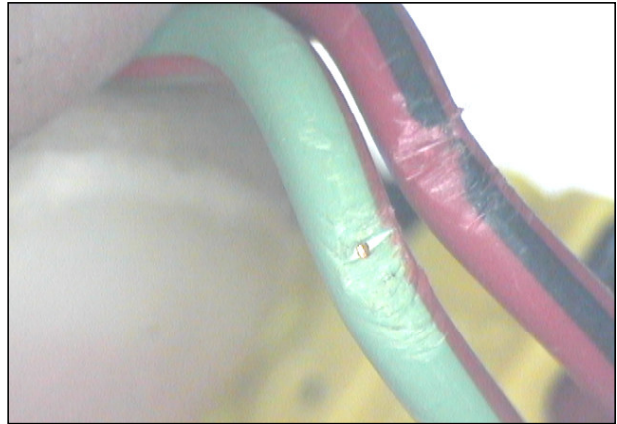
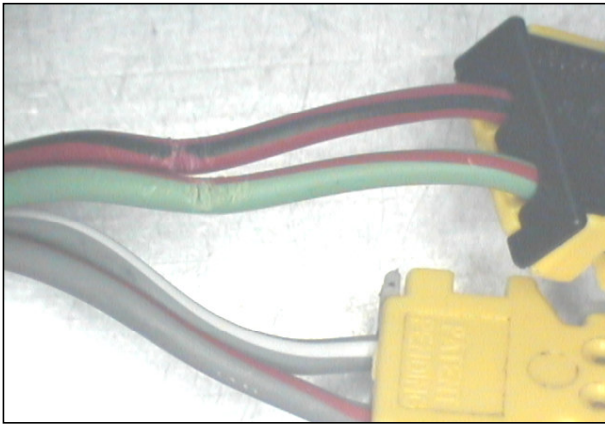
<<021406pix.pdf>>

Parts will go in the overnight to Joe today.

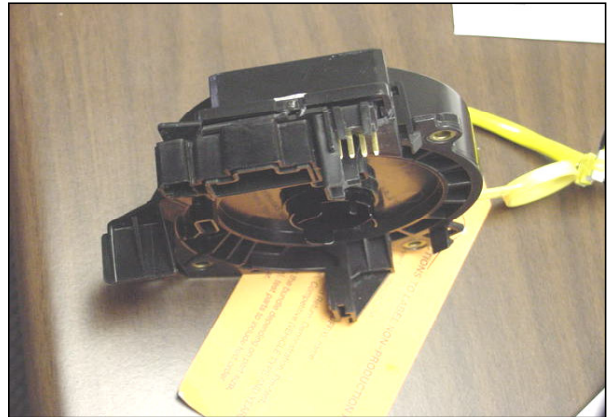
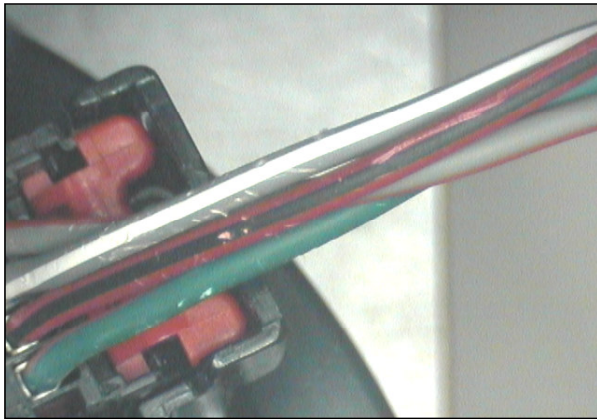
Thanks,

Scott Gibson
Quality Engineer
Methode Electronics AECD
111 W. Buchanan Street
Carthage, IL 62341
sgibson@methode-aecd.com
ph. 217-357-3941 x22134

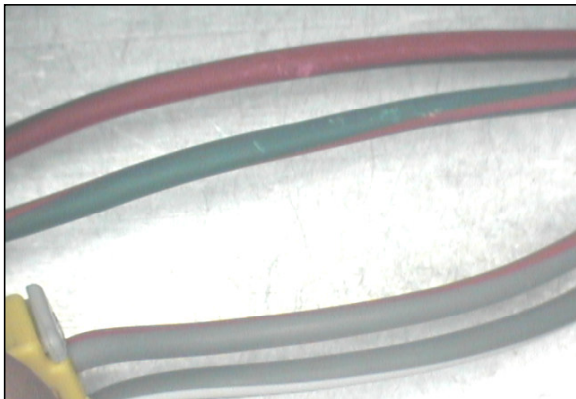
1. VIN NA74168, Pinched wires near FCI connector on red/black and green/orange wires.



2. Part labeled unknown VIN - abrasions on harness near clockspring side of harness - left picture. Download connector area (plastic) is badly damaged/broken - right picture.



3. VIN FA40851 Slight abrasions to wires near FCI connector





COIS# 6GXEU0001

FOE Brian Howe 702 205-3634

Unintended airbag deployment Passenger side view

JUL 21 2006

COIS# 6GXEU001

FOE Brian Howe 702 205-3634

Unintended airbag deployment from view



JUL 21 2006

COIS# 6GXEU001

FQE Brian Howe 702 205-3634

Unintended airbag deployment Drivers side view



JUL 21 2006



COALS# 6GXEU001

FOAE Brian Howe 702 205-3634

Unintended airbag deployment. Damaged bumper area. Dealer verified damage was old and has been noted on previous repair visits.

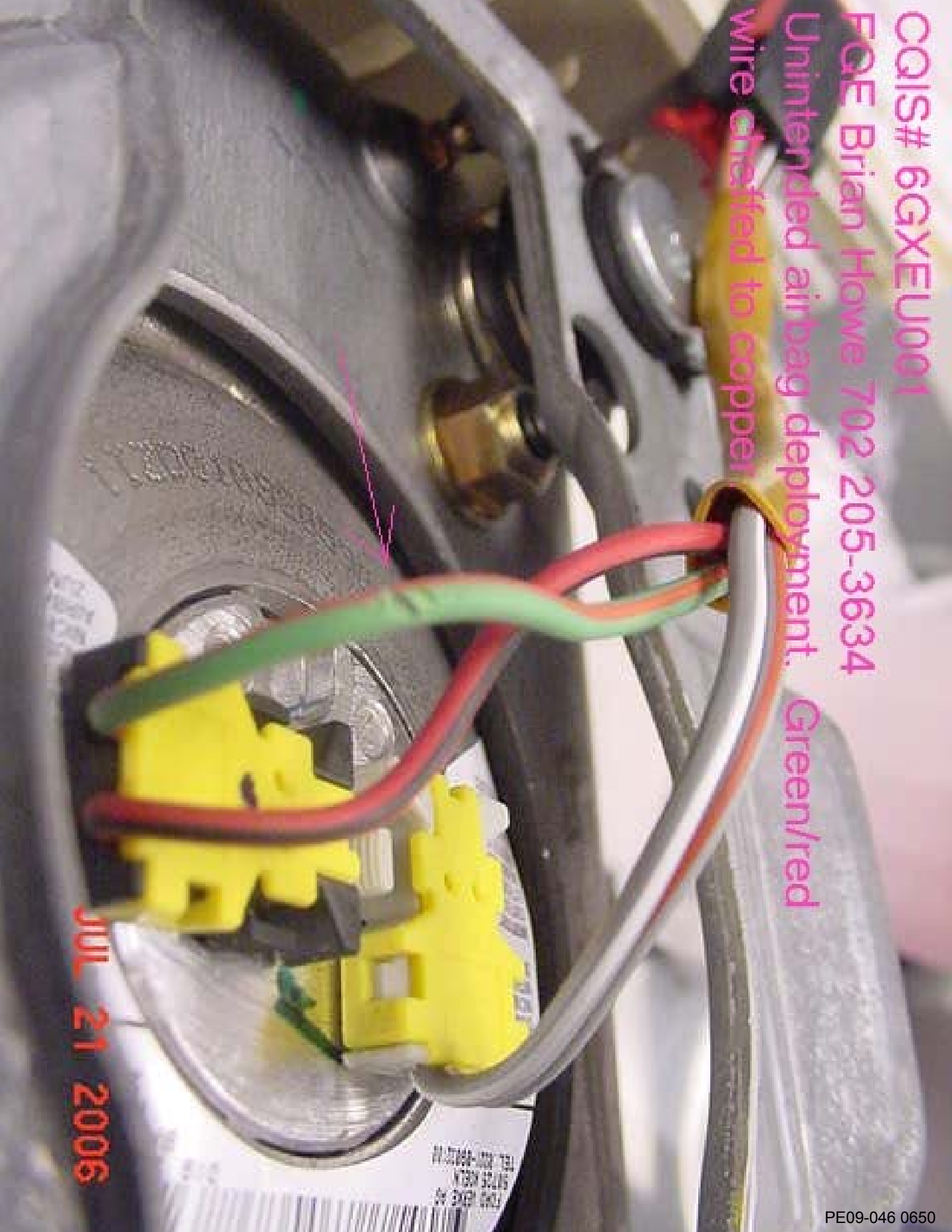
JUL 21 2006

COALS# 6GXEU001

FQE Brian Howe 702 205-3634

Unintended airbag deployment. Green/red

wire chaffed to copper



COIS# 6GXEU001
FOE Brian Howe 702 205-3634
Unintended airbag deployment
Wire chafed to copper
Green/red

JUL 21 2006

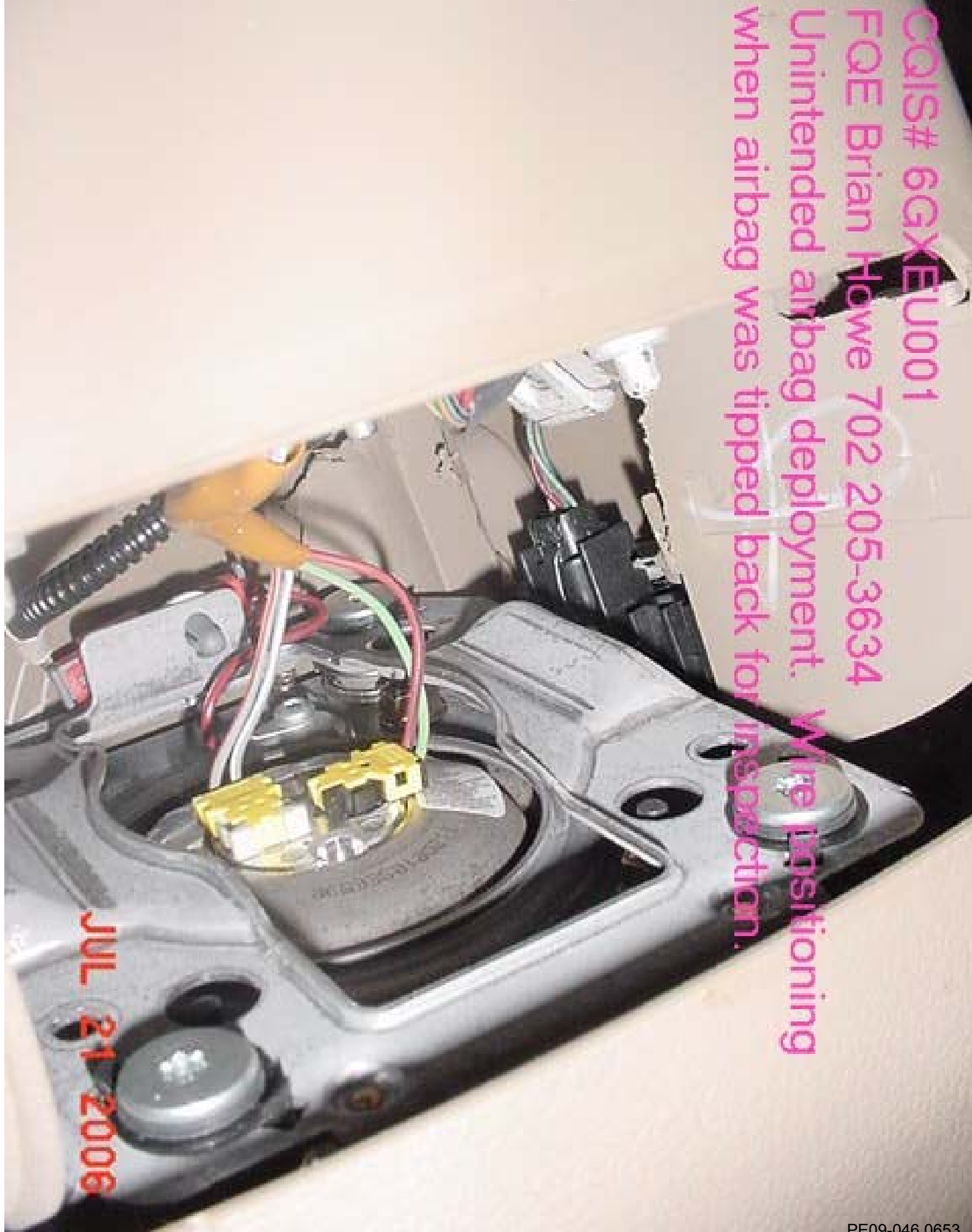
CGIS# 6GXEU001
FOE Brian Howe 702 208 3634
Unintended airbag deployment. Wire positioning
where green/red wire contacts horn bracket.

JUL 21 2006

COIS# 6GXEU001

FOE Brian Howe 702 205-3634

Unintended airbag deployment. Wire positioning when airbag was tipped back for inspection.



JUL 21 2006

MFD. BY FORD MOTOR CO.

DATE: 01/05

FRONT GAWR: 3750LB

1700KG

P235/75R17

17X7.5J

AT 240 kPa/35

GAWR: 7200LB / 3265KG

REAR GAWR: 3850LB

WITH 1746KG

TIRES P235/75R17

RIMS 17X7.5J

PSI COLD AT 240 kPa/35

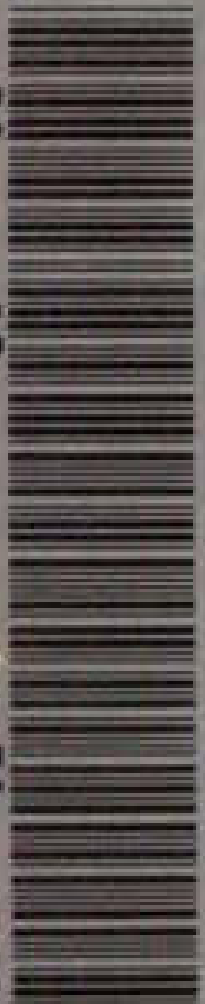
PSI COLD

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 1FTPX14525N

TYPE: TRUCK

F0001
T0573



CCIS# 6GXE
 F0001
 INT TR TP/PS R AXLE TR SPR 5F613
 1452 2005 3634 6 86 B UMM EOA
 Unintended airbag deployment 120VIN255899 UTC 2USA-1520472-AA

JUL 21 2006



COIS# 6GXEJ001

FOE Brian Howe 702 205-3634

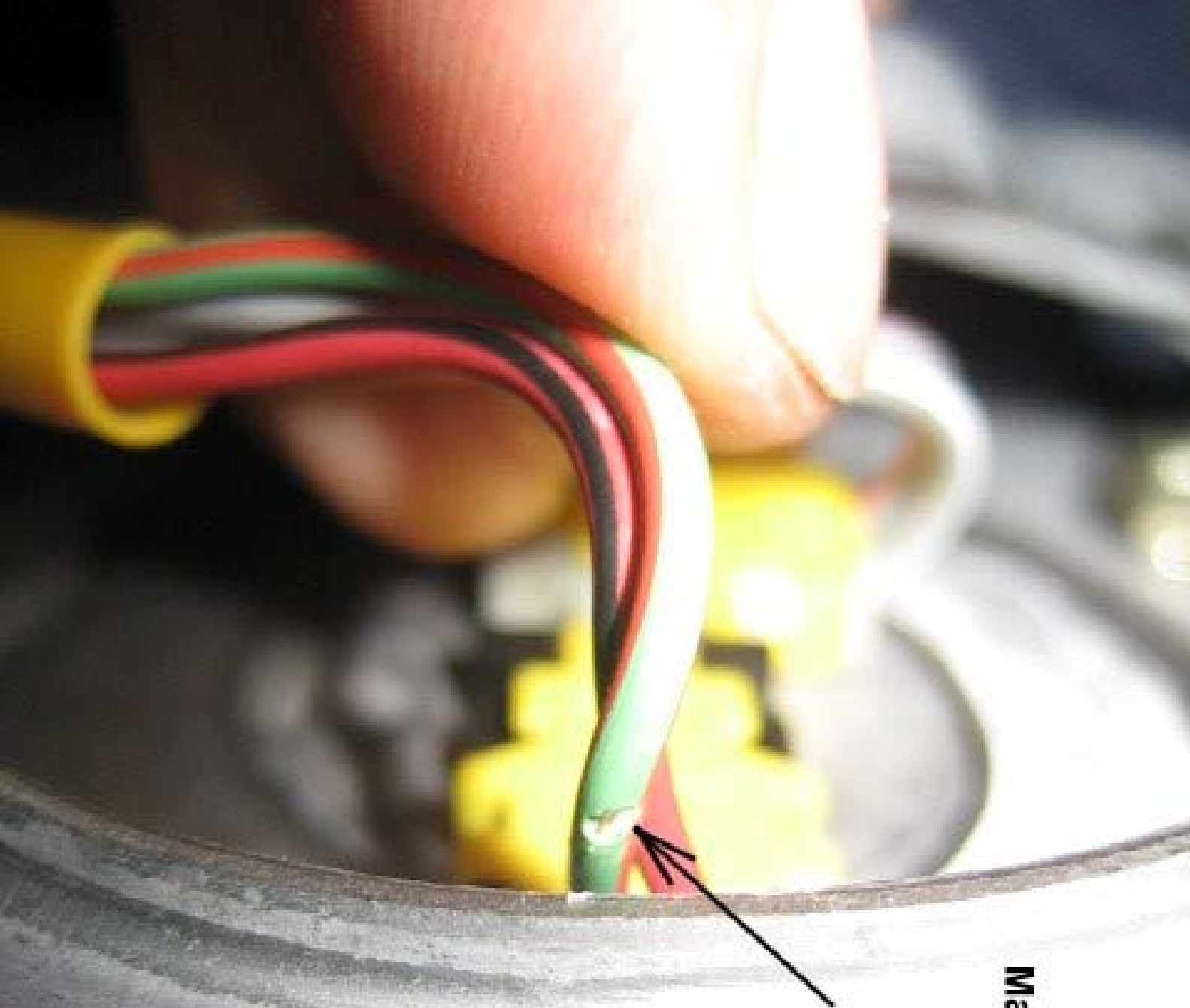
Unintended airbag deployment rear view

JUL 21 2006

CAIS: 7JDB7001
10-4-07
Mark Hayduk - Pittsburgh FQE
File: 7JDB7001a.jpg



CAIS: 7JDB7001
10-4-07
Mark Hayduk - Pittsburgh FQE
File: 7JDB7001b.jpg



CAIS: 7JDB7001

10-4-07

Mark Hayduk - Pittsburgh FQE

File: 7JDB7001c.jpg

COIS: 7JDB7001

10-4-07

Mark Hayduk - Pittsburgh FQE

File: 7JDB7001d.jpg

From: Ruth, Richard (R.R.)
Sent: Friday, January 13, 2006 4:16 PM
To: Clement, Charles (C.A.)
Cc: Oswald, Greg (G.G.)
Subject: FW: photos of interest
Attachments: IMG_0702.jpg; IMG_0705.jpg

[resending per your request](#)

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

From: Ruth, Richard (R.R.)
Sent: Friday, December 23, 2005 9:45 AM
To: Kirschke, Kevin (K.E.)
Cc: Carene, Jim (J.D.); Clement, Charles (C.A.); Chasca, Jim (JRCII.); McCormick, Paul (P.B.)
Subject: photos of interest

Kevin, at the request of consumer affairs I became involved in analyzing an alleged inadvertent airbag deployment on a 2005 F150. Only one of the two stages had deployed, and there was no B1231 code. Working with the service tech, it was discovered that the wire coming out of the back of the airbag had rubbed against the metal mounting bracket on the back of the airbag, causing an intermittent short to ground. I have not heard of any other similar incidents, and no injuries resulted from this deployment. I had the tech take the attached pictures to document it. Please call me to discuss this. This came in through Alma Taylor ATAYLO29 in Fleet Service, Consumer Affairs. It is a Hertz vehicle.

2005 F150 VIN 1FTPX14585NA85296 17,318 miles Build date 1/04/2005 Norfolk

Dir: Dennison Ford, Bloomington, IL Tech: Jeff Hubert (309) 663-1331 X259.

CUDL 3207233415 - she thinks this drops in to G-CQIS 5LOAB222

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager
rruth@ford.com

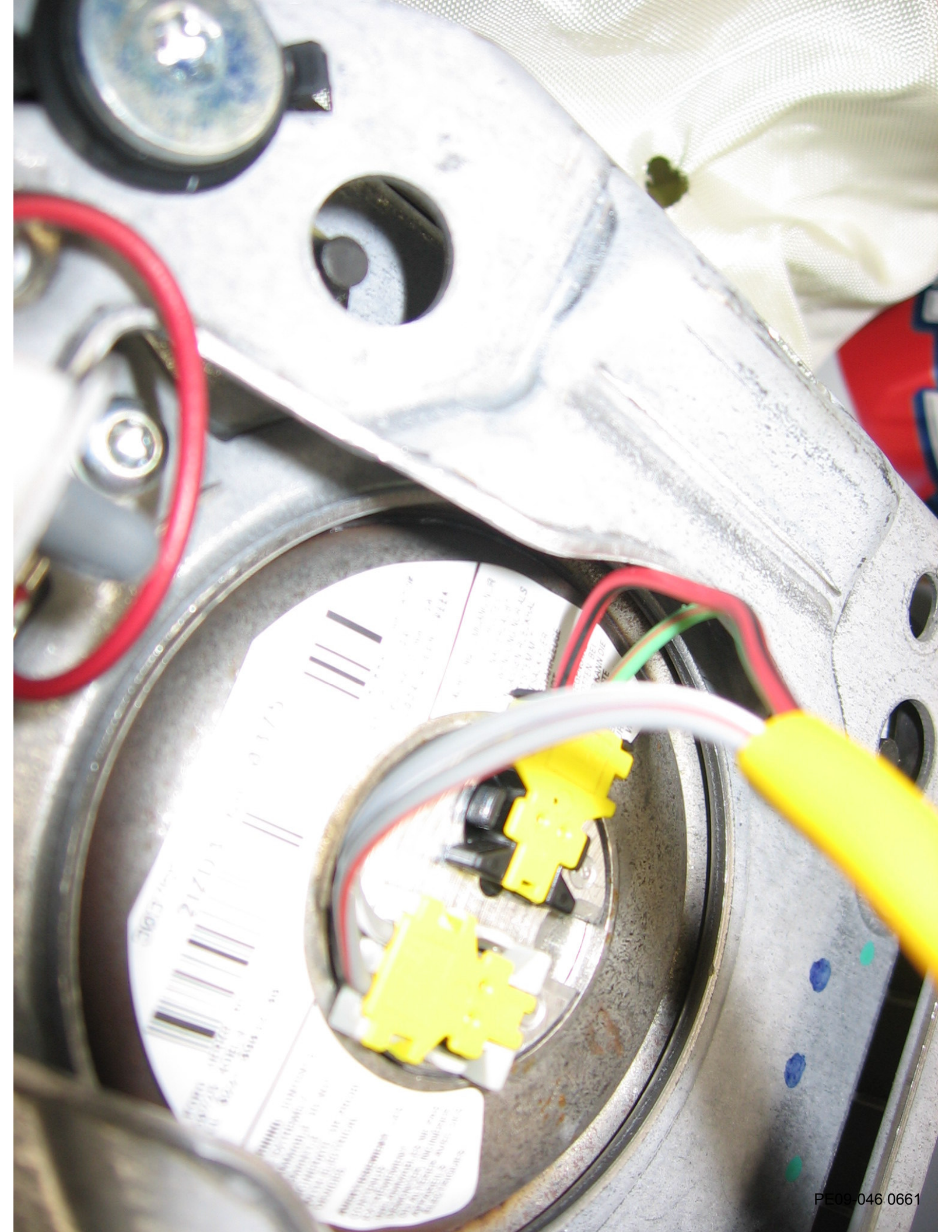
-----Original Message-----

From: bimmerkraz@netscape.net [mailto:bimmerkraz@netscape.net]
Sent: Tuesday, December 20, 2005 12:04 PM
To: Ruth, Richard (R.R.)
Subject: 05 F-150 uncommanded airbag deployment

Here's the pictures I took of the wire rubbing on the airbag frame. Sorry the pictures aren't to detailed. Any questions call Jeff Hubrich (309) 663-1331 X259.

Try the New Netscape Mail Today!

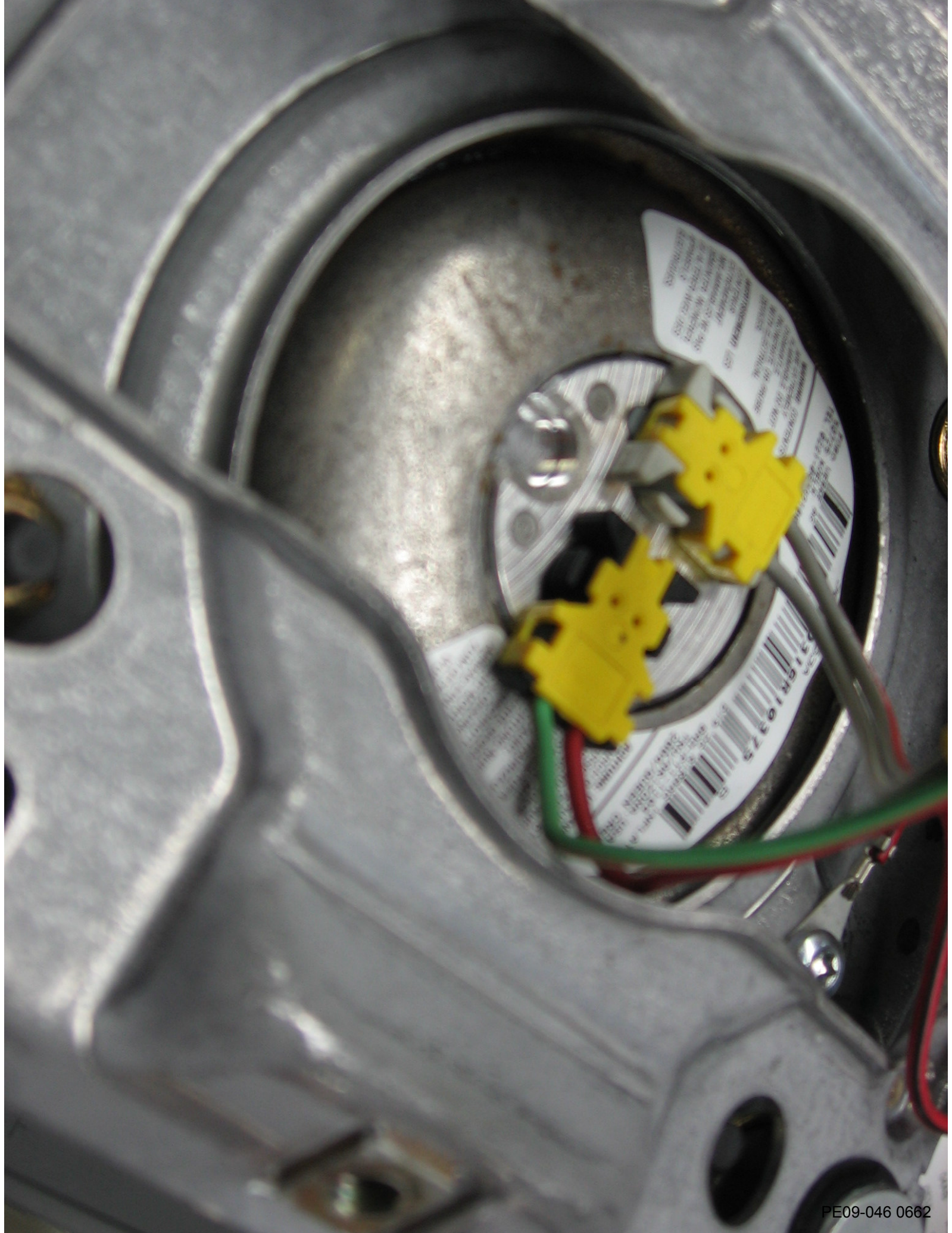
Virtually Spam-Free | More Storage | Import Your Contact List
<http://mail.netscape.com>



21203 510175

MANUFACTURED BY: [illegible]
PART NO.: [illegible]
DATE: [illegible]

WARRANTY INFORMATION:
This part is warranted for [illegible]
against defects in material and
workmanship for a period of [illegible]
months from the date of purchase.
This warranty does not include
labor, taxes, or shipping charges.
For more information, contact [illegible]



From: Alexander, Vincent (V.J.)
Sent: Monday, January 23, 2006 4:40 PM
To: Palmer, Leigh (L.R.); Patel, Bharat (B.C.); Richei, Gordon (G.); Vegh, Paul (P.F.); Oswald, Greg (G.G.); Clement, Charles (C.A.); Wrestler, Sandy (S.J.); Mikolaiczik, Mark (M.A.); Kizyma, Dave (D.E.)
Subject: RE: photo's alternative proposal
Attachments: DSCF0041.JPG; DSCF0042.JPG; DSCF0043.JPG; DSCF0044.JPG; DSCF0045.JPG



DSCF0041.JPG
(342 KB)



DSCF0042.JPG
(334 KB)



DSCF0043.JPG
(342 KB)



DSCF0044.JPG
(329 KB)



DSCF0045.JPG
(338 KB)

Vincent Alexander

Restraints Engineer

Cube: 2F-K40 Phone: 313-24-85837

Email: valexan4@ford.com

Cell Phone/Pager

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

From: Palmer, Leigh (L.R.)
Sent: Monday, January 23, 2006 4:33 PM
To: Patel, Bharat (B.C.); Richei, Gordon (G.); Vegh, Paul (P.F.); Alexander, Vincent (V.J.)
Subject: photo

<< File: airbag tape.jpg >>

Leigh Palmer
Government Regulations Coordinator
Kansas City Assembly Plant

Tel. (816) 459-1310

Pager

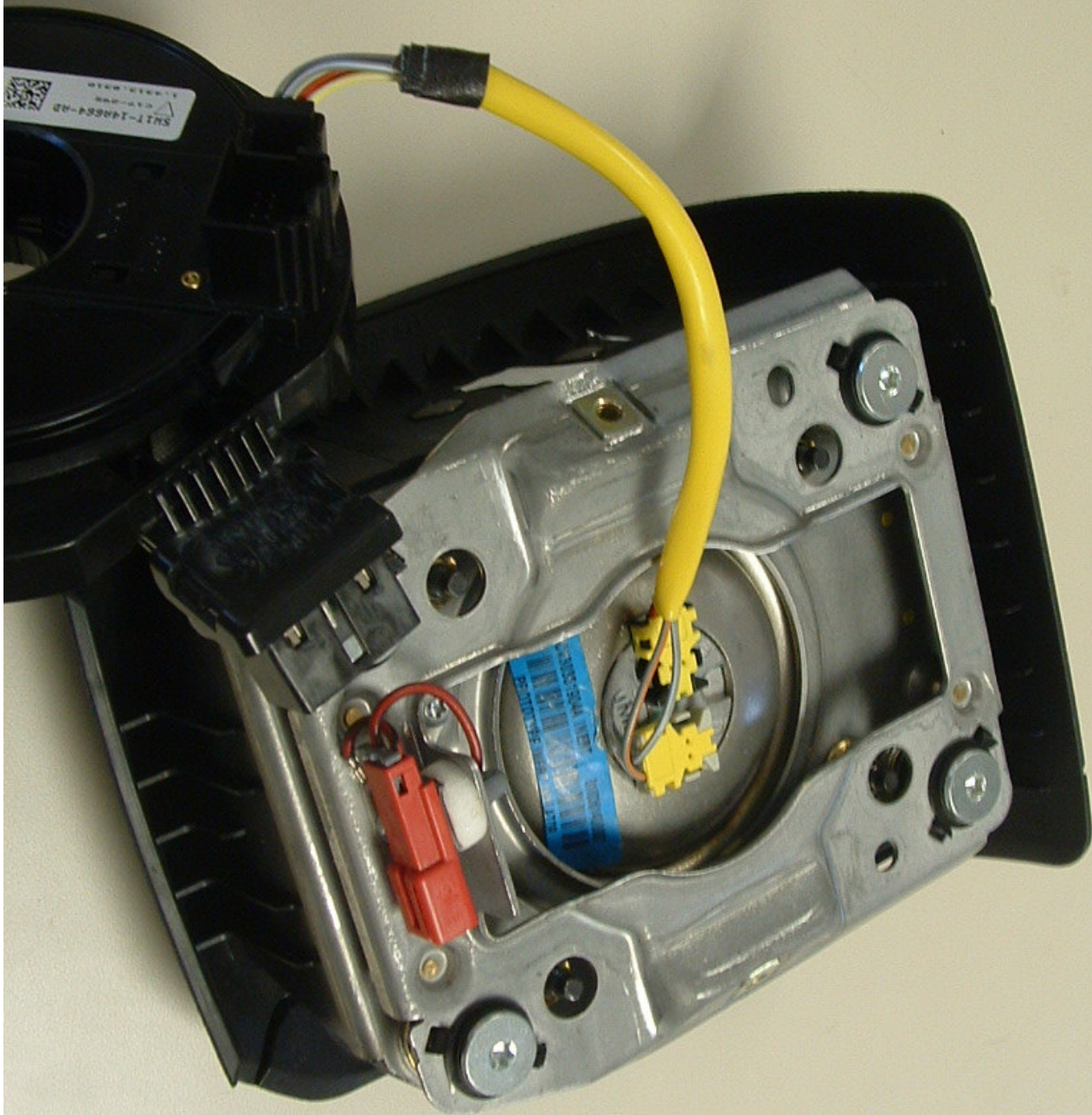
mailto:lpalmer2@ford.com

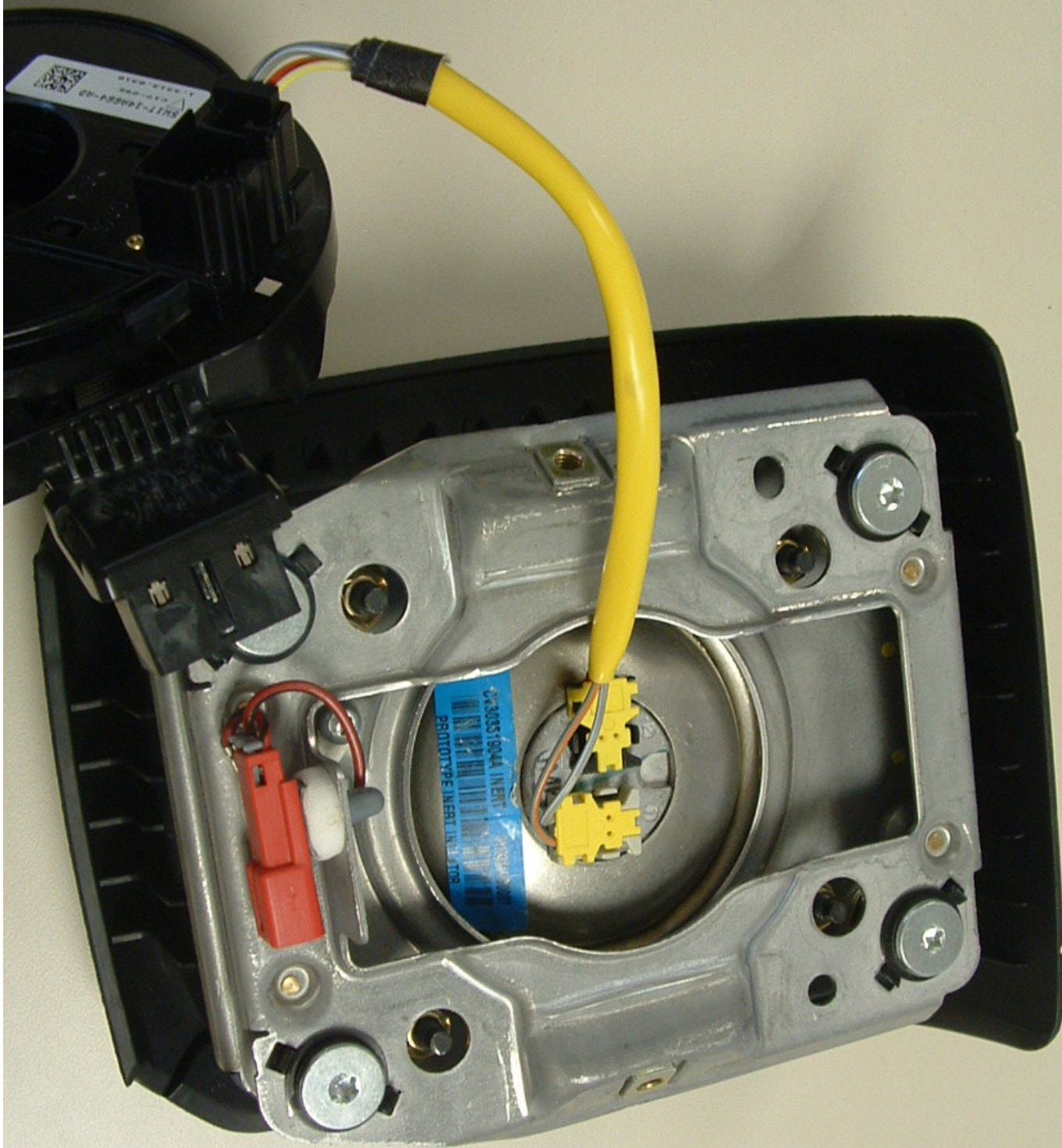


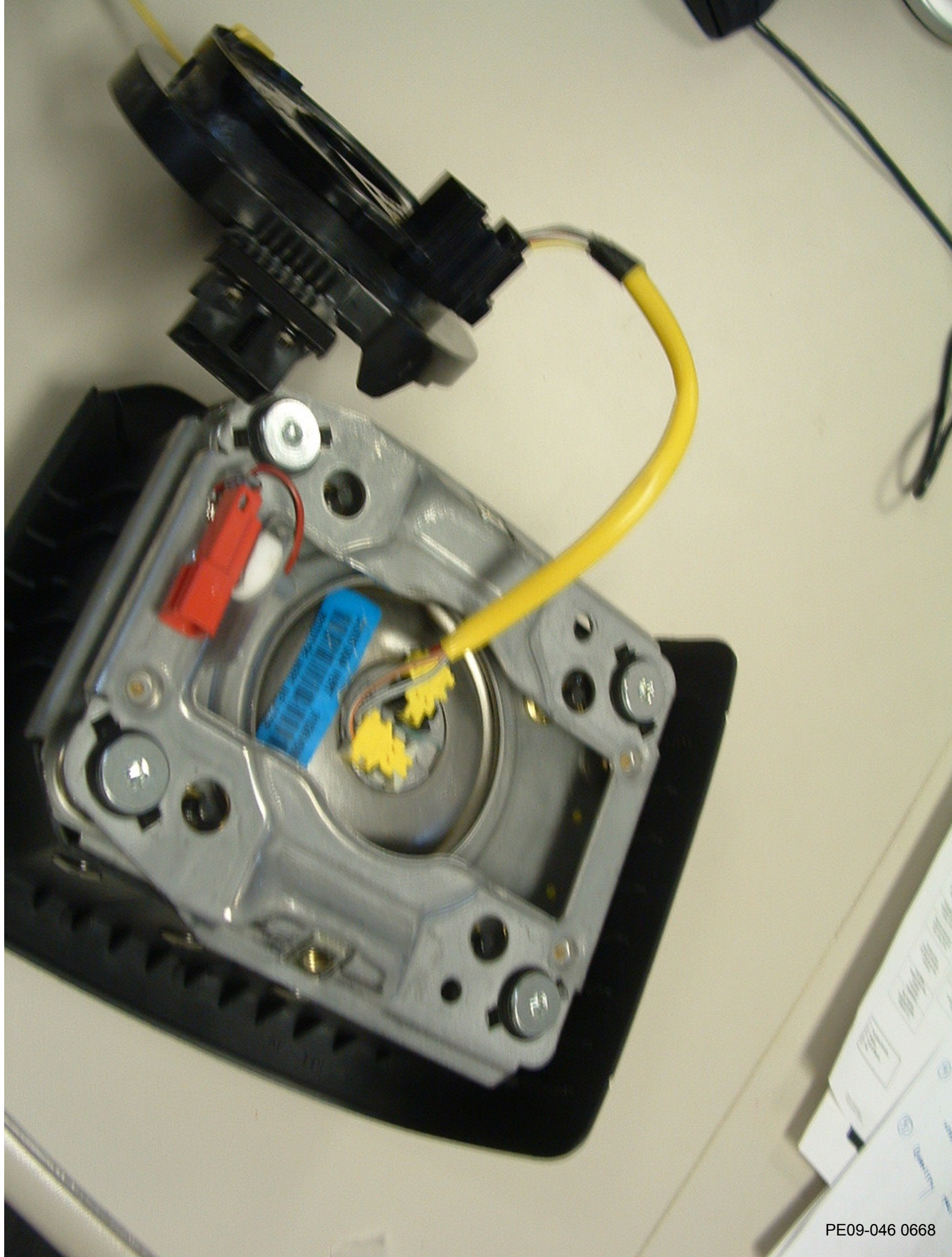
0272-50000-70
QR Code
Part Number
Date of Issue

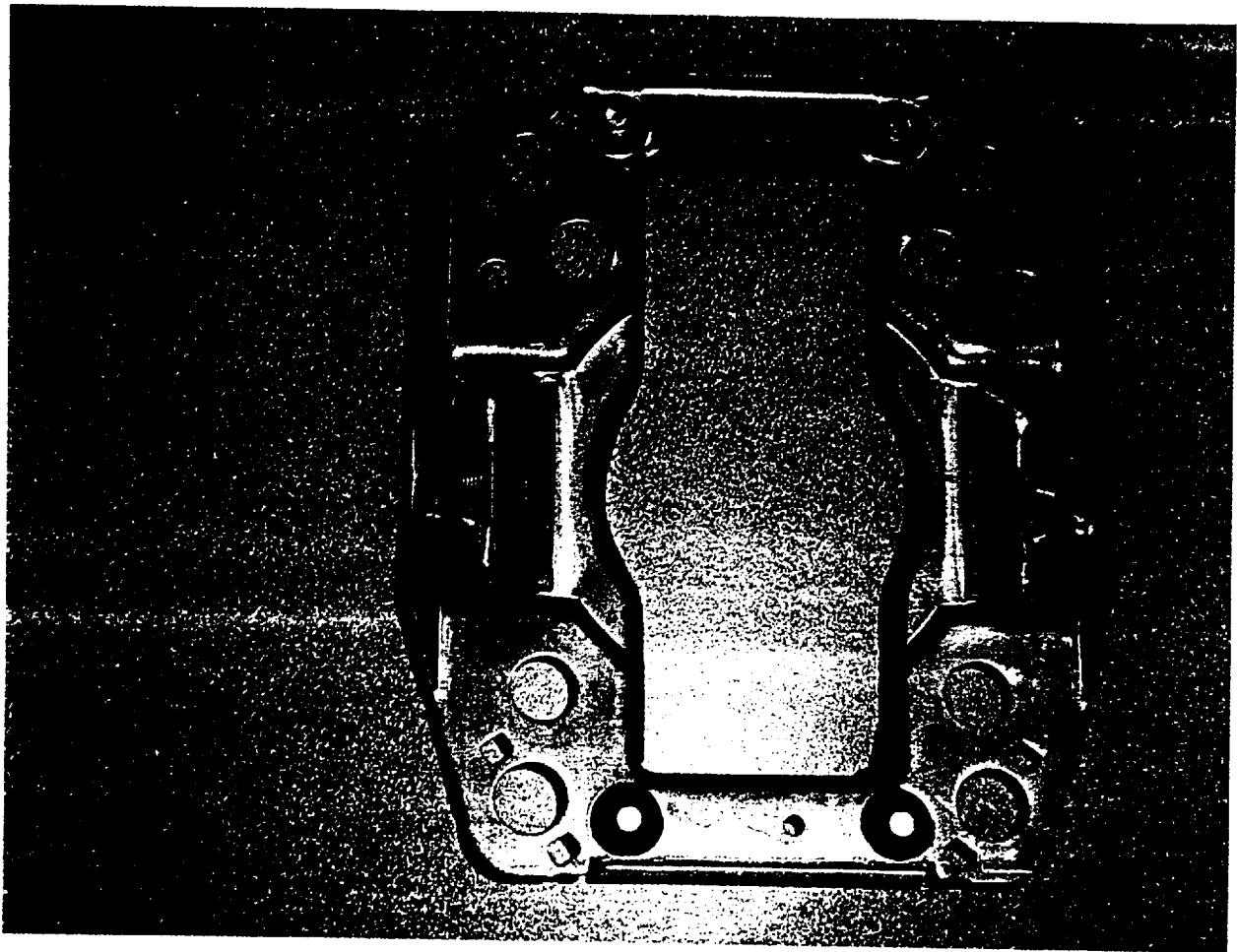


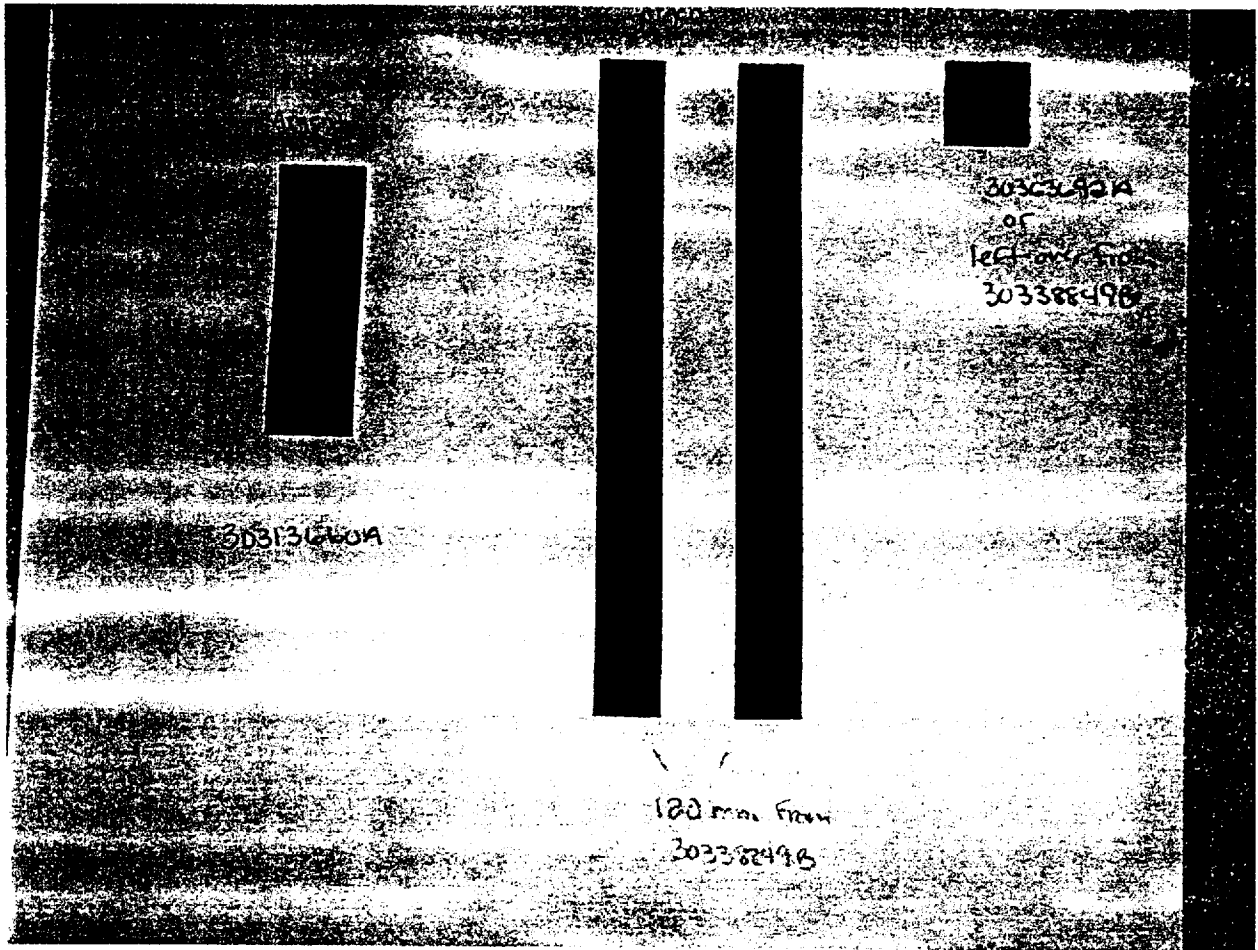
2017-2-18 10:00:00
QR Code
2017-2-18 10:00:00



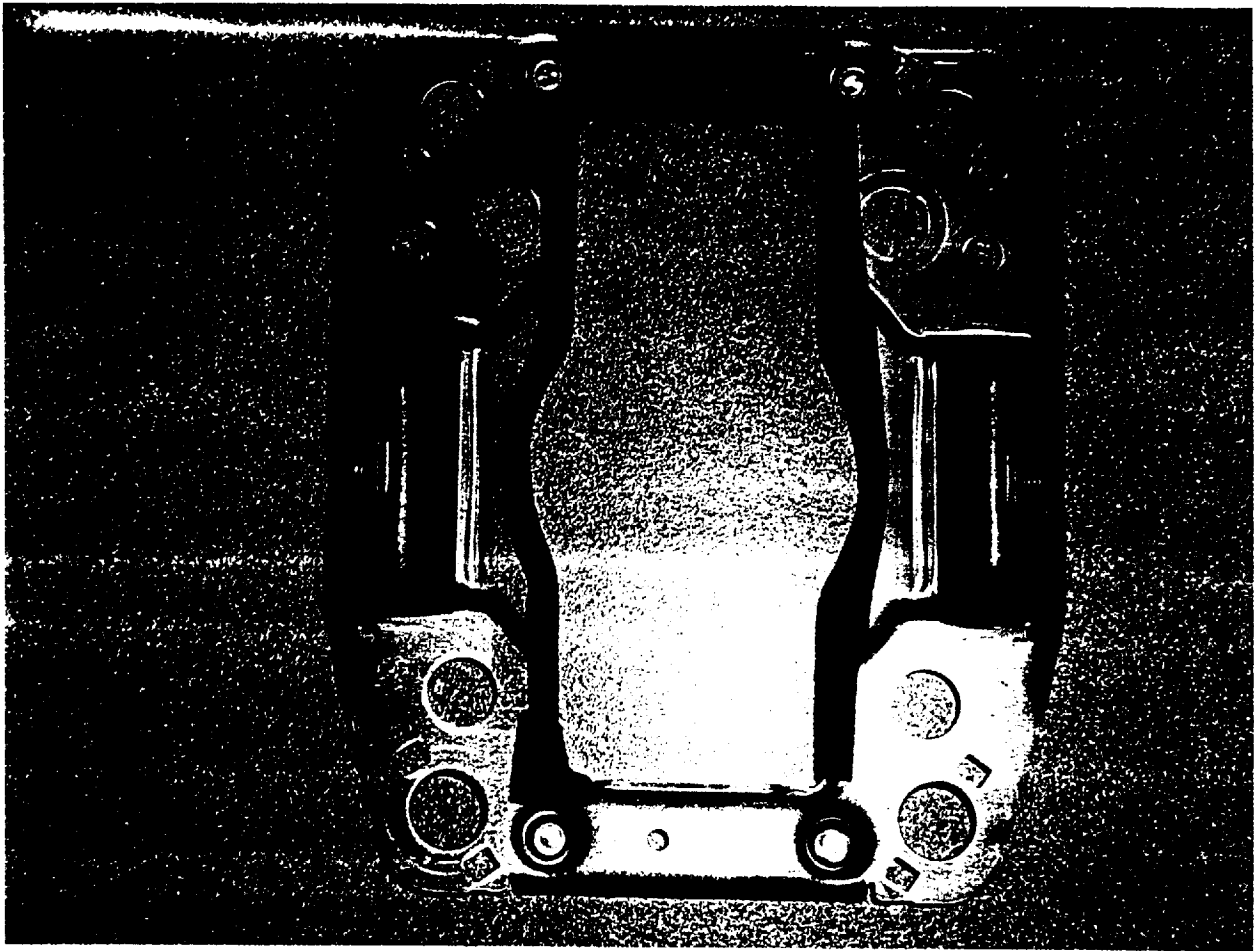








Test Plan (6) Heat Age Modes (400hrs 107c)
(6) Life Cycle " (Temp-Hum/Vibration)
Per ES-FSUB-54043B13.AA



From: Alexander, Vincent (V.J.)
Sent: Monday, March 20, 2006 3:47 PM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.); Olson, Kathy (K.A.)
Cc: Kim, Peter (P.K.); Wrestler, Sandy (S.J.); Clement, Charles (C.A.)
Subject: P221 Plant Trial

Clockspring team-- Need your assistance in identifying when your nylon mesh clockspring leads will be ready for a plant trial for P221 (60 pcs per plant). The re-oriented airbag modules are complete and sitting on TRW's dock awaiting my shipment order. I am trying to coordinate the trials as discussed. Please provide timing.

Once trials are deemed a success, when do you anticipate implementation?

Appreciate your assistance.

Vincent Alexander

Restraints Engineer

Cube: 2F-K40 Phone: 313-24-85837

Email: valexan4@ford.com

Cell Phone/Pager

From: Alexander, Vincent (V.J.)
Sent: Wednesday, January 18, 2006 3:57 PM
To: Alexander, Vincent (V.J.)
Cc: Wrestler, Sandy (S.J.); Clement, Charles (C.A.)
Subject: P221 Old Duris

Attachments: Picture (Device Independent Bitmap)

COMMON DURABILITY INCIDENT REPORTING - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <http://www.duris.ford.com/plsql/incident.report?incidentcode=509146>

Detailed Incidents Report

Incident: 509146

Program: P221

Sub Program: 2006 P221 1PP

307W573 - FORD - F150 - - REG CAB - 4.2L - 4R70E - RWD

Vehicle [307W573](#)

D Incident Air bag light (No:509146)

Initial IR Only -- #1 Shift -- around 3:20AM -- Pratt for Herthel -- Driver reports during the 1st Accel Dura Rd the air bag light started flashing a 1-9 code. Pratt verified the air bag light on and Garage Senior issue work request.

Date: 15-JUL-05 **Odo:** 5271 M **Test:** R387G1 **% Comp:**

CPSC: [18.03.01](#) **Crcr:** 2759572 **Status:** CLOSED

PMT: 5B Wiring

Meets ARL: N **Serviceability:** N

Reported: CHASSING; GBOWE; TSPOTO; KOLSON2 [BOKEEFE FSALEEM JCOMIEZ JVANLOON](#)
[MMERIDET](#)

Update No: **Status:** CLOSED

Shipped To: **Shipping Date:** **Invoice No:**

Action [Found short to ground air bag #2 C-2293](#)

Pulled code C-2293. Found a short to ground at the drivers side air bag #2 Green/Orange wire. Wire had shorted to the metal air bag bracket. Placed tape over the nick in the wire. Cleared code and return back to test. Also related to IR# 508957. See attached photos.

Date: 15-JUL-05 **Odo:** 5271 M

Parts

Pics/Docs

Replies



LAST UPDATED ON 26-JUL-05 BY [CHASSING](#)

Start

PE09-046 0673

Vincent Alexander

Restraints Engineer

Cube: 2F-K40 Phone: 313-24-85837

Email: valexan4@ford.com

Cell Phone/Pager:

DRAFT
 P21 Georgia Power Fleet
 Inspection

- ① ON
- ② CHAFE
- ③ WITNESS

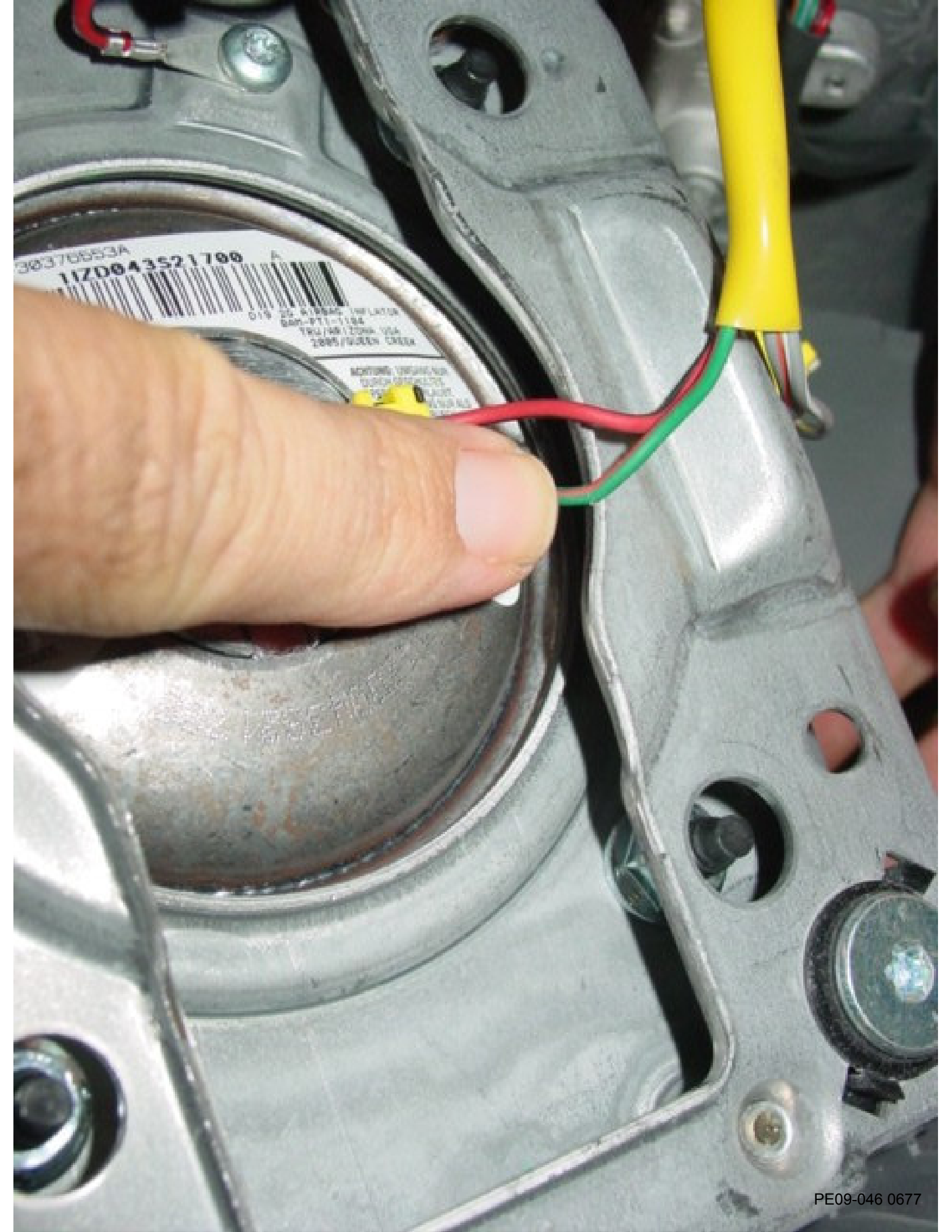
VIN	GA Power #	Mileage	Build Month	CONDITION Wire Damage	DESCRIPTION Type of damage	Location	Other/Comments	<u>LIGHT ON</u>
1FTRF12245N		31921	01-05	none		Atlanta		
1FTRF12285N		31532	02-05	none		Atlanta		
1FTRF12275N		31537	02-05	none				
1FTRF14W85		25710	11-04	none		Atlanta		
1FTRF122X6N		21629	02-06	none		Lawrenceburg	FLOCKED	
1FTRF12286N		23610	02-06	none		Lawrenceburg	FLOCKED	
1FTRF1226NE		21631	02-06	none		Lawrenceburg	FLOCKED	
1FTRF12275N		14532	02-05	none		Lawrenceburg		
1FTRF12205N		13538	01-05	YES - G/O	unknown	Lawrenceburg		
1FTRF14W35		14536	03-05	YES - G/O & R/B	unknown			
1FTRF12295N		13542	01-05	none		Lawrenceburg		
1FTRF12265N		13544	06-05	none		Lawrenceburg		
1FTRF12275N		14531	01-05	none		Lawrenceburg		
1FTRX12W95		24410	09-04	none		Lawrenceburg		
1FTRF12295N		13549	01-05	YES - G/O	unknown	Lawrenceburg		
1FTRF12265N		22534	04-05	YES - G/O	unknown	Lawrenceburg		
1FTRF12295N		13543	01-05	none		Lawrenceburg		
1FTRF12235N		13563	04-05	YES - R/B	unknown	Lawrenceburg		
1FTRF12236N		12618	02-06	none		Lawrenceburg	FLOCKED	
1FRTF12205N		14530	01-05	YES - G/O	unknown	Lawrenceburg		
1FTRF12205N		14530	01-05	YES - G/O	unknown	Lawrenceburg		
1FTRF122X5N		35549	11-04	YES - G/O & R/B	unknown	Lawrenceburg		
1FTRF12215N		14544	11-04	none		Lawrenceburg		
1FTRX12W85		21537	30075	YES - G/R	unknown	Lawrenceburg		
1FTRX12WX5		21539	52817	none		Lawrenceburg		
1FTRF12265N		35547	20426	none		Minola		
1FRTX12W95		22547	22416	YES - BOTH	unknown	Minola	REAR DOOR CREATES BLIND SPOT	
1FTRF12275N		12558	29991	YES - BOTH	unknown	Minola		
1FRTF12295N		25532	22215	YES - STAGE 1	unknown	Minola	WITNESS MARK AT STEERING WHEEL attachment screw	
1FTRF12285N		12543	17159	none		Minola		
1FTRX12WX5		21533	15251	YES -R/B	witness	Minola	small marks on wires	
1FTRF12275N		25535	17983	none		Minola		
1FTRF12215N		24548	34525	none		Minola		
1FTRF12255N		25531	24203	none		Minola		
1FRTF12235N		24549	26072	none		Minola		
1FTRF12225N		24539	37827	YES - BOTH	unknown	Minola		
1FTRF12205N		25533	25225	none		Minola		
1FTRF122X5N		25541	17081	none		Forest Park	MANY COMPLAINTS	
1FTRF12295K		25539	14599	YES -R/B	unknown	Forest Park		
1FTRF12205K		33548	13711	No		Forest Park		
1FTRF12245N		23576	12270	Yes	witness marks	Forest Park	witness marks	
1FTRF12235N		24522	25431	Yes	cut	Forest Park	Cut R/B	
1FTRF12245N		23578	24540	No		Forest Park		
1FTRX12W65		15549	26425	Yes -R/B	witness marks	Forest Park	witness marks, Brakes are noisy	
1FTRX12W35		13555	20288	No		Forest Park		

N - NORFOLK
 K - KC
 Atlanta trip.xls
 F - OTP

P221 Georgia Power Fleet
Inspection

VIN	GA Power #	Mileage	Build Month	Wire Damage	Type of damage	Location	Other/Comments
1FTRF12245N		12552	10009	05-05	Yes- G/O	witness marks	Forest Park witness marks
1FTRF12215N		12553	12648	05-05	No		Forest Park
1FTRF12275N		12521	12579	04-05	Yes - Both	witness marks	Forest Park witness marks Mirrors cause blind spot because they are big
1FTRF14W85N		22560	13098	07-05	No		Forest Park
1FTRF14WX5N		22566	7505	07-05	No		Forest Park
1FTRF14W55N		21566	12619	07-05	No	witness marks	Forest Park Witness on insulation
1FTRF14W35N		14566	12570	05-05	Yes - G/O	witness marks	Forest Park witness marks
1FTRF14W15N		22565	11425	07-05	No		Forest Park witness marks, Would like more tire clearance/larger tires
1FTRX14W65N		14560	44742	10-04	Yes - R/B	witness marks	Forest Park
1FTRF12295N		12556	13039	03-05	No		Forest Park
1FTRF12275N		13525	12105	04-05	Yes - Cut R/B	cut	Forest Park Cut R/B
1FTRF12245N		23573	15155	05-05	Yes - G/O	witness marks	Forest Park Slight witness G/O
1FTRF12225N		21599	27079	11-04	No		Forest Park
1FTRF12235N		12557	9097	04-05	Yes	witness marks	Forest Park Witness on insulation and G/O
1FTRF12205N		22541	21054	03-05	Yes	witness marks	Ponce Witness on G/O
1FTRF12245N		22544	21177	03-05	No		Ponce
1FTRF12225N		12532	21469	01-05	No		Ponce
1FTRF122X5N		25538	15582	04-05	No		Ponce
1FTRF12225N		31543	14496	11-04	Yes	cut	Athens O/G. R/B cut
1FTRF12295N		22543	26150	03-05	Yes	unknown	Shallow Ford Gray/White clock sping end
1FTRF14W75N		14573	15431	05-05	No		Shallow Ford
1FTRF12205N		13545	44330	01-05	Yes	unknown	Shallow Ford R/B
1FTRF12295N		24545	12157	04-05	Yes	witness marks	Shallow Ford G/O witness mark
1FTRF12285N		31538	11328	11-04	No		Athens
1FTRF12245N		31541	17282	11-04	Yes	witness marks	Athens Witness on O/G and R/B Airbag light is flashing and has a code for crash sensor fault negative cable loose to battery
1FTRF14W15N		31549	26863	11-04	No		Athens
1FTRF14W85N		15569	21124	04-05	Yes	unknown	Athens Both
1FTRF12265N		31540	23971	11-04	Yes	unknown	Athens R/B
1FTRF14W85N		32531	15802	05-05	No		Athens
1FTRF122X5N		31535	8408	02-05	Yes	unknown	Athens R/B
1FTRF12265N		31531	6107	02-05	No		Athens
1FTRF14WX5N		31534	22074	11-04	Yes	witness marks	Athens witness marks on both

→ VEH. IN ACCIDENT



30370553A
11Z0043521700



DIV 20 A 1984C 1HF L415A
San-PT1-1184
TRU/AB/12000 10A
2005/0000N CRKKA

NOTHING TO BE DONE
HERE

From: Clement, Charles (C.A.)
Sent: Tuesday, January 24, 2006 9:41 AM
To: Pappas, Bill (B.)
Cc: Clark, Todd (T.N.); Alexander, Vincent (V.J.); Wrestler, Sandy (S.J.); Kim, Peter (P.K.); Oswald, Greg (G.G.)
Subject: P221 Deployment Strategy
Importance: High
Attachments: Report Summary for the CQIS Report#6AMEN001; FW: RE: Driver's side air bag deployment, 2005 F-150, VIN: 1FTRF12225N [redacted] FW: 2005 F-150, VIN: 1FTRF12225N [redacted] wiring photos

Bill, can you confirm the P221 RCM deployment strategy/logic to these field issues?



Report Summary
for the CQIS Re...



FW: RE: Driver's
side air bag ...



FW: 2005 F-150,
VIN: 1FTRF122...

Charles A. Clement
N.A.E. Safety - Seats and Restraints
Campaign Prevent Specialist - Occupant Movement
Tough Truck/SUV/Body on Frame
Cell/Pager [redacted]

From: Ruth, Richard (R.R.)
Sent: Friday, January 13, 2006 5:22 PM
To: Clement, Charles (C.A.); Oswalt, Greg (G.G.)
Cc: Carene, Jim (J.D.)
Subject: Report Summary for the CQIS Report#6AMEN001

You may have seen this already through CQIS channels, but in case you had not I wanted you to be aware of this 2005 F150 inadvertent driver airbag deployment with no injuries reported, where the deployment was attributed to one of the airbag wires between the clock spring and the bag itself rubbing on a metal bracket on the back side of the airbag module. There are excellent photos attached to the CQIS report. Norfolk build on 12/16/04. I believe that only one of the two stages deployed, presenting a relatively low risk of injury.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
 500 Parklane Towers West, 3 Parklane Boulevard
 Dearborn, MI 48126
 Phone 313-322-7059 Fax 313-337-8256 Pager
 rruth@ford.com

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

From: Bacina, Paul (P.R.)
Sent: Friday, January 13, 2006 4:06 PM
To: Ruth, Richard (R.R.)
Cc: Howe, Brian (B.T.)
Subject: FW: Report Summary for the CQIS Report#6AMEN001

[Paul Bacina, 313-59-43901](#)

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

From: Howe, Brian (B.T.)
Sent: Friday, January 13, 2006 11:58 AM
To: Lentini, Craig (C.A.); McDonald, Joseph (J.); Bacina, Paul (P.R.)
Subject: Report Summary for the CQIS Report#6AMEN001

Paul, this is the 2005 F-150 I called you on. We found the clock spring wiring chaffing on the horn contact bracket. We inspected 2 '04's and 1 '05, and they all have the one side of the clock spring wiring contacting the horn contact housing. The 2005's are routed differently due to clock spring connection at top. Is there a routing procedure called out to avoid contact on the sharp edge of the horn contact bracket?

Attachments : 6

Report# :	6AMEN001 FQEIR	Received:	01/13/2006
CCRG/EPRC:		Date:	
Vehicle:	2005,F150 4X4,SUP CAB,STYSD ,1FTPX145X5N 	Build Date:	12/16/2004
Odometer :	35,485 M	Calibration:	5F613S0A
Engine:	5.4L 3V	A/C:	YES
Transmission:	4R75E	Phone#:	(702) 877-6541
Axle:	3800F3.73L	Country :	USA
Dealer:	USA 05534 Friendly Ford		
City:	Las Vegas		
State:	Nevada		
Originator:	BRIAN HOWE		
Symptom:	1 04 4 57 BODY,RESTRAINTS,FRT AIR BAG SYS,DEPLOYMENT		
Status:			

VFG: V05 OCCUPANT RESTRAINT

Additional Symptom: UNINTENDED DEPLOYMENT DRIVERS

Fix: **Causal Component :** AIR BAG CLOCK SPRING -- RPL

Condition Code:

Region Code: CA

Region Name: California

Comments :

CONCER 01/13/2006 11:36AM BRIAN HOWE2 MSS - FCSD - CQD - FQE
CUSTOMER STATES HE STARTED CAR DROVE APPROX. 20 FEET, AND DRIVERS SIDE AIR BAG DEPLOYED.

TECH/C 01/13/2006 11:36AM BRIAN HOWE2 MSS - FCSD - CQD - FQE
I INSPECTED THE TRUCK ON 1/6/06 AND FOUND THE DRIVERS SIDE AIR BAG WAS DEPLOYED. THE DRIVERS SIDE SEAT PRETENSIONER WAS NOT DEPLOYED, NOR WAS THE PASSENGER BAG OR PRETENSIONER. NO PHYSICAL DAMAGE TO TRUCK THAT INDICATED A RECENT IMPACT WAS EVIDENT. I REQUESTED THE TECH TO REMOVE AIR BAG AND CHECK SERIAL NO.S ON THE BAG, WHICH DID MATCH WITH NAVIS (BE348203G); SO WE KNEW IT WAS THE ORIGINAL AIR BAG. THIS TRUCK HAS NO WARRANTY HISTORY, SO IT HAS NEVER BEEN IN FOR A REPAIR. WHEN TECH REMOVED THE AIR BAG, HE NOTICED THE WIRING FROM THE CLOCK SPRING TO ONE STAGE OF THE BAG WAS CHAFFING ON THE SIDE OF THE HORN CONTACT BRACKET. A PIN HOLE SIZE COPPER WIRE ON THE GREEN WITH ORANGE WIRE MADE A GROUND TO THE HORN CONTACT. THE HORN CONTACT BRACKET HAS A SHARP EDGE ON THE CUT OUT THAT CAN CHAFE THE WIRING. WE CHECKED THE RCM AND OTHER WIRING AND FOUND NO OTHER AREAS OF CONCERN. IT APPEARS THIS GROUNDING SET OFF THE ONE SIDE OF THE AIR BAG. TECH ALSO CHECKED AND FOUND THAT WHEN HORN IS PUSHED, VOLTAGE IS PRESENT AT HORN CONTACT BRACKET. CUSTOMER DID NOT INDICATE HE PUSHED THE HORN AND THE AIR BAG WENT OFF. POSSIBLY WHEN THE RESTRAINTS SYSTEM SENT THE PROVE OUT SIGNAL AT START UP, THE GROUNDED WIRE SET OFF THAT SIDE OF THE BAG. THE WIRING THAT COMES OUT OF THE AIR BAG WITH THE BLACK COLOR CODED CONNECTOR (GREEN/ORANGE & RED/BLACK) ARE AIMED AT THE RIGHT SIDE OF THE HORN CONTACT HOUSING. THEY HAVE TO MAKE A SHARP BEND TO AVOID CONTACTING THE BRACKET. WE INSPECTED ANOTHER 2005 F-150, AND FOUND THE WIRING ON THAT TRUCK IS ALSO CONTACTING THE HORN CONTACT BRACKET. WE ALSO CHECKED 2 2004 MODELS, AND THEY ALSO MAKE CONTACT. HOWEVER, THE 2004'S HAVE THE CLOCK SPRING CONNECTION AT THE 6 O'CLOCK POSITION WHICH ALLOWS FOR MORE ROOM TO ROUTE WIRES AWAY FROM THE HORN CONTACT HOUSING. THE 2005'S ARE AT THE 12 O'CLOCK POSITION, AND THE ROUTING OF THE GREEN/ORANGE AND RED/BLACK IS MORE LIKELY TO CONTACT THE HORN CONTACT BRACKET. SEE PHOTO'S IN CQIS OF THE ORIGINAL TRUCK WITH CHAFFED WIRES AND OF THE 3 OTHER TRUCKS WE CHECKED FOR POSITIONING OF THE WIRING. NEW AIR BAG WAS INSTALLED AND TRUCK FIXED. TECH ROUTED THE WIRES UNDER THE HORN CONTACT TO AVOID ANY CONTACT. AIR BAG IS AVAILABLE FOR INSPECTION. CONTACT FQE BRIAN HOWE 702 205-3634 FOR

ADDITIONAL INFO OR THE PART.

Please click on the link below to view the attachments associated with this report

http://www.gcqis.ford.com/gcqis/asp/DIViewAttachment_Mainx.asp?ReportNumber=6AMEN001

From: Ruth, Richard (R.R.)
Sent: Wednesday, January 18, 2006 11:31 AM
To: Clement, Charles (C.A.); Oswald, Greg (G.G.)
Cc: Wrestler, Sandy (S.J.)
Subject: FW: RE: Driver's side air bag deployment, 2005 F-150, VIN: 1FTRF12225N [REDACTED]

FYI. Build date 1/12/05, at Norfolk. Mileage 21,513.
CUDL report 1365870186 just put in. This has not transferred to CQIS yet but should.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager [REDACTED]
rruth@ford.com

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

From: Taylor, Alma (A.)
Sent: Wednesday, January 18, 2006 9:52 AM
To: Ruth, Richard (R.R.)
Subject: RE: Driver's side air bag deployment, 2005 F-150, VIN: 1FTRF12225N [REDACTED]

Hello Rick,

I need your assistance. The driver alleges that the driver's side airbag deployed for no apparent reason. According to the information received, the driver backed up, then he put this vehicle into "drive" and traveling at 10-15 mph the airbag deployed. The driver was wearing a seatbelt. This morning I had Lou at Marcotte Ford pull any codes. The only code pulled was a "B-2293". Please advise, thanks.

Respectfully,

Alma Taylor

**Litigation Prevention/CVO
Consumer Affairs**
Phone: 313 317-1862
Fax: 313 845-5555

Ford Confidential

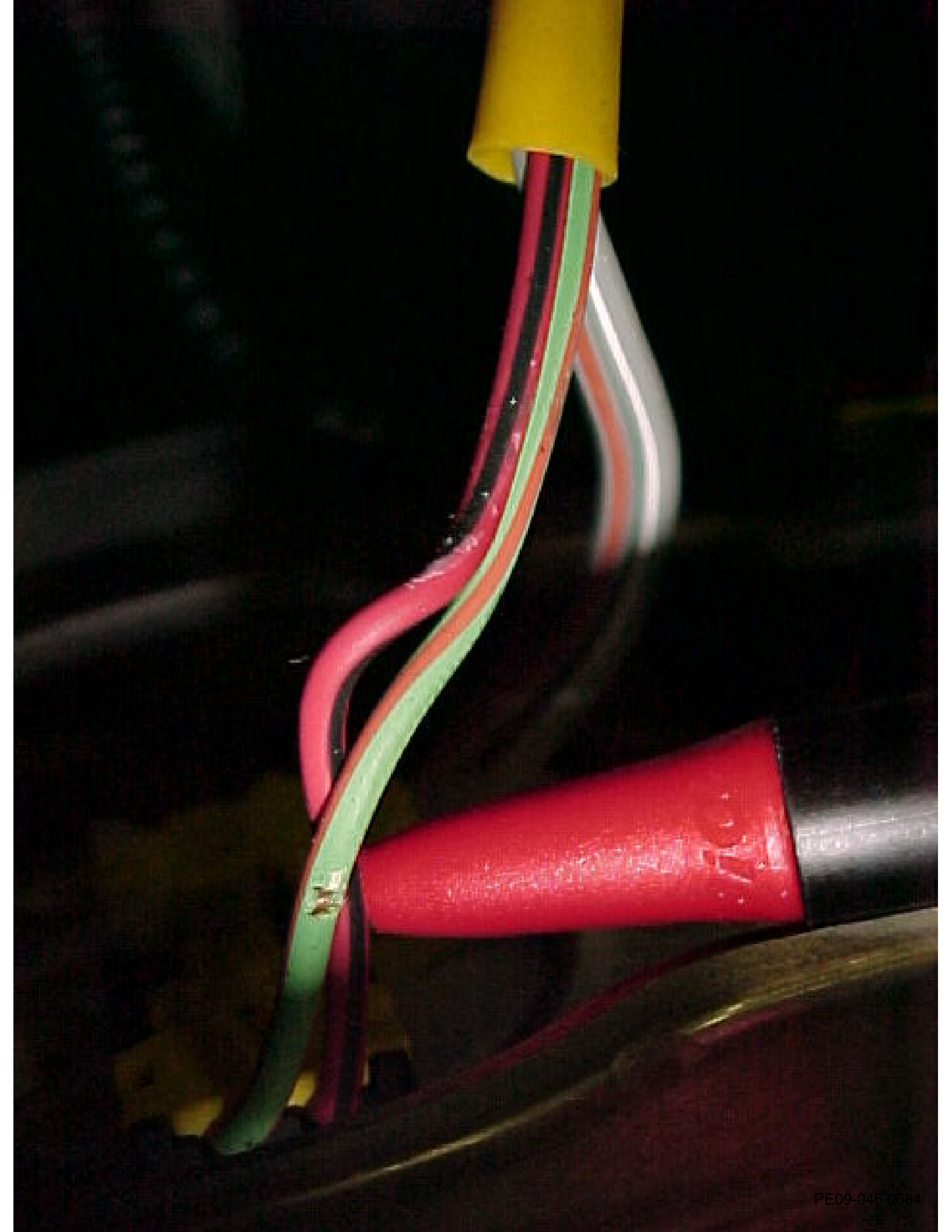
From: Ruth, Richard (R.R.)
Sent: Wednesday, January 18, 2006 2:23 PM
To: Clement, Charles (C.A.); Oswald, Greg (G.G.)
Cc: Wrestler, Sandy (S.J.)
Subject: FW: 2005 F-150, VIN: 1FTRF12225N [redacted] wiring photos
Importance: High
Attachments: MVC-684F.JPG; MVC-687F.JPG; MVC-688F.JPG; MVC-689F.JPG; MVC-690F.JPG; MVC-691F.JPG

[Photos of interest.](#)

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager [redacted]
rruth@ford.com


Ford Confidential





  **WARNING**

- NEVER TRY TO REPAIR OR TEST THIS MODULE.
- USE VEHICLE SHOP MANUAL TO DIAGNOSE PROBLEMS.
- SEE AIR BAG SERVICE MANUAL FOR HANDLING INSTRUCTIONS.
- TAMPERING OR MISHANDLING CAN RESULT IN PERSONAL INJURY.

  **AVERTISSEMENT**

- NE JAMAIS TENTER DE RÉPARER NI DE TESTER CE MODULE.
- UTILISER LE MANUEL DE RÉPARATION POUR DIAGNOSTIQUER LES PROBLÈMES.
- VOIR LE MANUEL DE SERVICE À L'AIR BAG POUR LES PROCÉDÉS.
- NE PAS TAMPONNER NI MANIPULER INAPPROPRIÉMENT CE MODULE.
- TOUTE MANIPULATION INAPPROPRIÉE PEUT CAUSER DES BLESSURES.

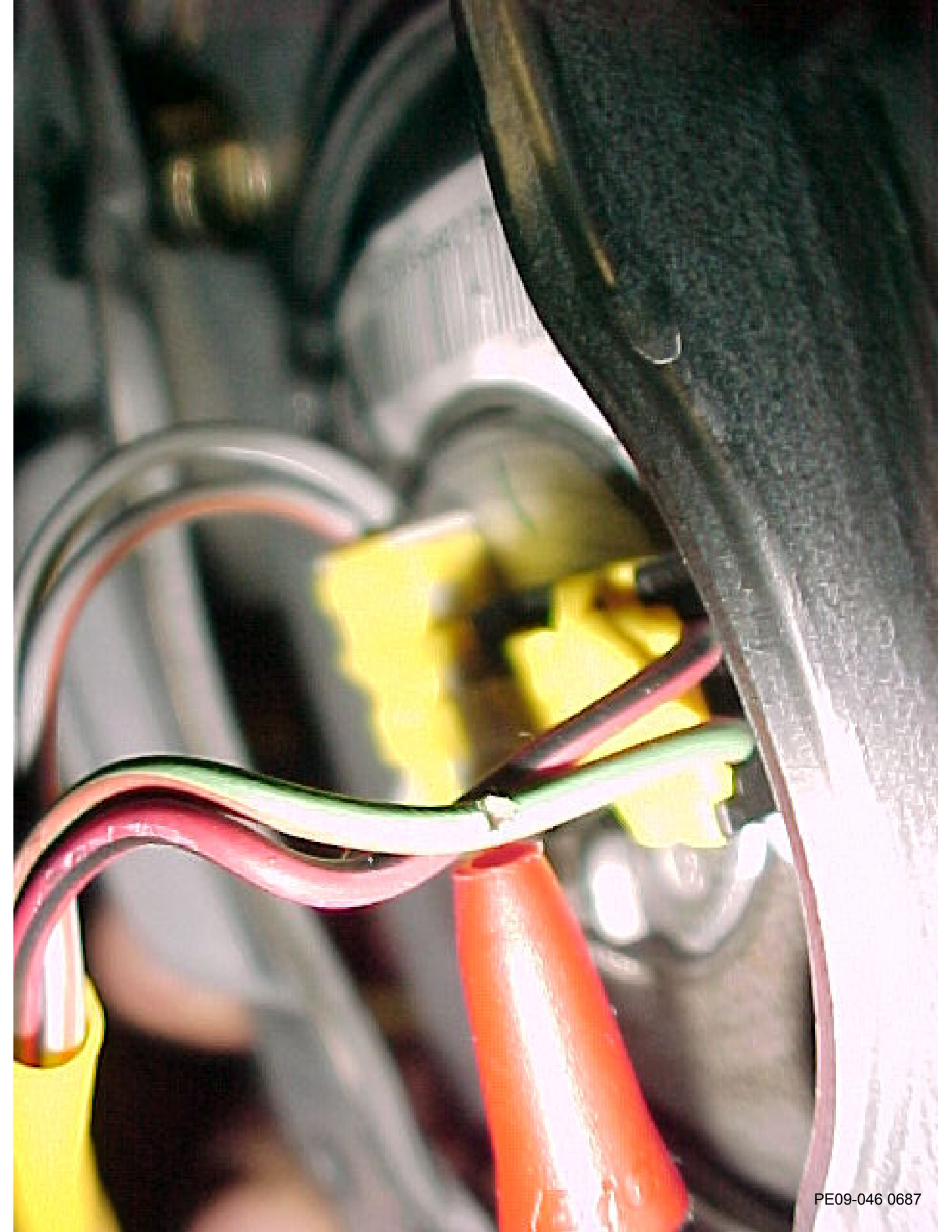


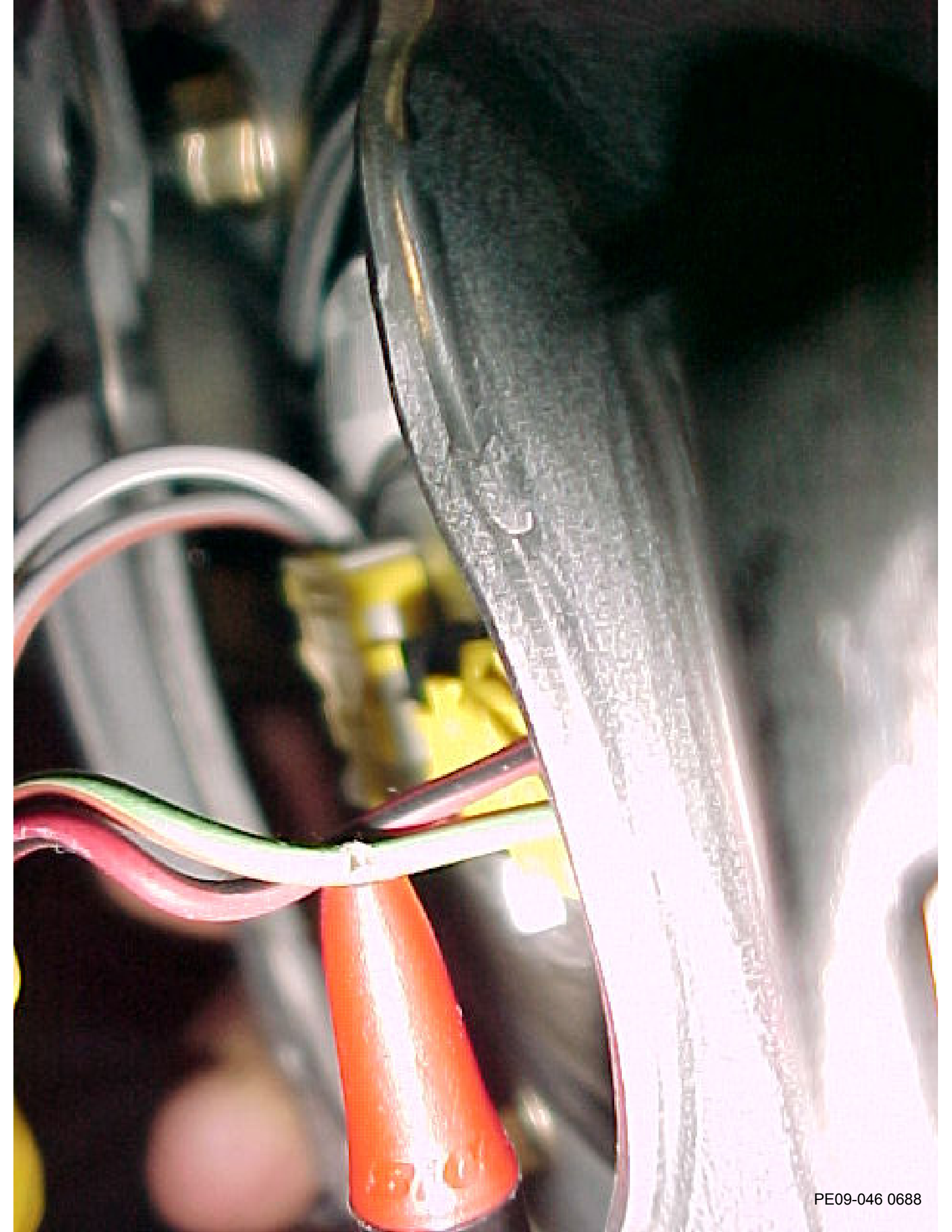
5L34 15043813 CCCJRB DP

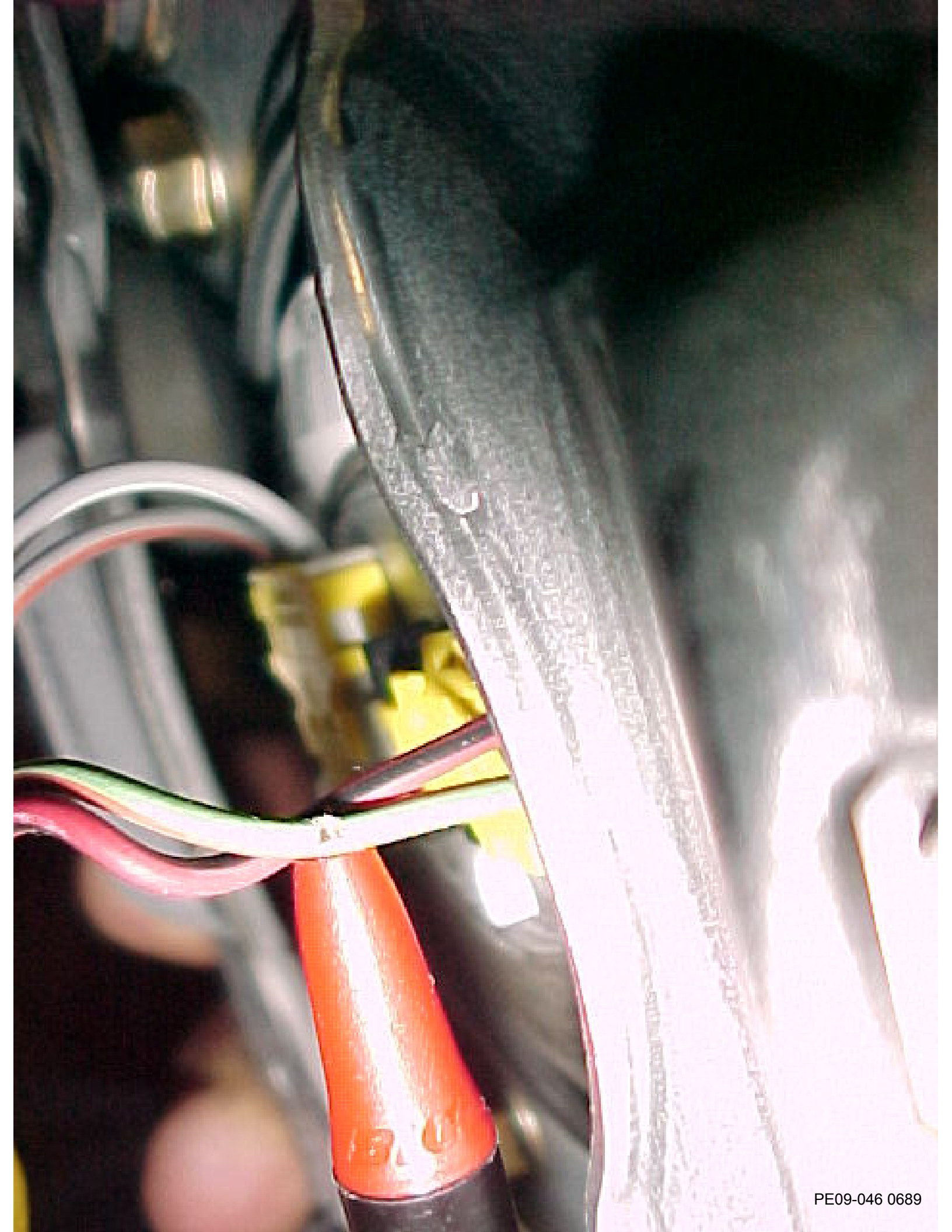


BF00710RJ









From: Gibson, Scott [SGibson@methode-aecd.com]
Sent: Thursday, February 09, 2006 4:03 PM
To: Sutherland, Roy (R.W.)
Subject: RE: P221 clockspring

Roy,

VIN number is 1FTRX02W85K It is not one of the parts that Joe sent down; it was just part of our regular warranty returns for analysis.

Regarding the clockspring and 2 jumpers that were sent down, I would like to talk to you about them. I'll call you to discuss.

Regards,

Scott Gibson
Quality Engineer
Methode Electronics AECD
111 W. Buchanan Street
Carthage, IL 62341
sgibson@methode-aecd.com
ph. 217-357-3941 x22134

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

From: Sutherland, Roy (R.W.) [mailto:rsutherl@ford.com]
Sent: Thursday, February 09, 2006 2:23 PM
To: Gibson, Scott
Subject: RE: P221 clockspring

Scott,

Is there a Vin number associated with the clockspring? When I look up the claim number I get different vehicles. Also, was this the part that was sent down earlier this week that had the other two jumpers wire with it?

Regards,
Roy Sutherland Jr.
Ford Core Clockspring & Steering Wheel Switch D&R Engineer
Email: rsutherl@ford.com
Phone: 313-62-16386
Cell:
Bldg#5, Cube 1D009

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

From: Gibson, Scott [mailto:SGibson@methode-aecd.com]
Sent: Thursday, February 09, 2006 3:13 PM
To: Sutherland, Roy (R.W.)
Cc: Cox, Mark; Horejsi, Joe; Bolen, Pat; Henderson, Brent
Subject: P221 clockspring

Roy,

Attached is a picture of a P221 clockspring which has the pinched wires that you have been looking for. Airbag light on is the claim

problem description. It is the only one that I found like this in the parts that we've analyzed on the P221 platform. The claim number is 095905. Let me know if you would like me to send to you.

Thanks,

Scott Gibson
Quality Engineer
Methode Electronics AECD
111 W. Buchanan Street
Carthage, IL 62341
sgibson@methode-aecd.com
ph. 217-357-3941 x22134

<<Claim095905.jpg>>



From: Klosek, Walter (W.)
Sent: Friday, January 27, 2006 3:15 PM
To: Sutherland, Roy (R.W.)
Subject: RE: P221 Clockspring Info

Roy,
There is a good reason why Methode is not seeing cut wires. I checked a couple of the claims where the squib wires were missing and the production date on the returned part is later than the vehicle build date. This implies that the technician removed the wires from a new Clock spring and replaced the pigtail only and then returned the new clockspring.

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

From: Sutherland, Roy (R.W.)
Sent: Thursday, January 26, 2006 9:53 AM
To: Klosek, Walter (W.)
Subject: FW: P221 Clockspring Info

Clockspring return data.

Regards,

Roy Sutherland Jr.

Ford Core Clockspring & Steering Wheel Switch D&R Engineer

Email: rsutherl@ford.com

Phone: 313-62-16386

Cell:

Bldg#5, Cube 1D009

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

From: Cox, Mark [mailto:MCox@methode-aecd.com]
Sent: Thursday, January 26, 2006 9:20 AM
To: Sutherland, Roy (R.W.)
Subject: RE: P221 Clockspring Info

Roy,

Attached Excel file contains all 04-06MY 5L2T version clocksprings rec'd / analyzed by Methode through 1/25/06. Again, we just rec'd a huge shipment from WPRC and I am sure there will be more to add to this list.

Thanks,
Mark

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

From: Sutherland, Roy (R.W.) [mailto:rsutherl@ford.com]
Sent: Wednesday, January 25, 2006 3:00 PM
To: Cox, Mark
Subject: RE: P221 Clockspring Info

Mark,

Do you also have a breakdown of past 04-06MY P221 clocksprings that have been returned from the field and what the analysis of each part was?

Thanks,
Roy Sutherland

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

From: Cox, Mark [mailto:MCox@methode-aecd.com]
Sent: Wed 1/25/2006 2:38 PM
To: Sutherland, Roy (R.W.)
Cc:
Subject: P221 Clockspring Info

Roy,

The attached Excel file contains P221 Clockspring: a) switch history, and b) TIS Chart. Also, I checked with my Tech's and there are quite a few P221 Clocksprings in the shipment from WPRC. We are in the process of breaking the shipment down (8 boxes!!) so I'll let you know more details later.

<<P221 Clockspring Switch History & TIS Chart (1-25-06).xls>>

Let me know if you have any questions.

Thanks,

Mark Cox
Sr. Engineer
Warranty Systems
Methode-AECD, Carthage

Phone: (217) 357-3941 ext. 22396

Mobile:

Notice: This message is confidential and intended for the private use of the Addressee only. If this e-mail was sent to you in error, please notify the originator at the address above and delete the message without reading its contents.

TAG_NUM	VIN	VEH_LINE_DESC	PART_NAME	ENG PART #	CUST CONCERN CODE	CUST CONCERN CODE DESC	CONDITION CODE	CONDITION CODE DESC	SAMPLE #	DATE TO METHODE	DATE CODE	DATE OF MANUFAC TURE	METHODE'S ANALYSIS	RESPON SIBILITY	DEALER COMMENTS	EOL	AUDIT	VISUAL	FAILURE CATEGORY
017619911	5LMEU78H3[REDACTED]	AVIATOR	CLOCKSPRING	5L2T14A664AA	N58	STEERING NOISY OTHER LIGHTING TROUBLES (INCL. LEAKS/CONDENSATION)	42	DOES NOT OPERATE PROPERLY	48	12-May-05	02345	11-Dec-02	CHARGEBACK, SQUIB MISSING	DDI					SQUIB MISSING/LOSE/BROKEN
017944503	1FTPW14545[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	L29		12	IMPROPER ASSEMBLY	46	27-Jul-05	05145	25-May-05	PASSES MECHANICAL AND ELECTRICAL SPECIFICATIONS	IND		N/A	PASS	PASS	NO TROUBLE FOUND
017882829	1FTPW14566[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	A34	HORN TROUBLES	42	DOES NOT OPERATE PROPERLY	58	03-Aug-05	05110	20-Apr-05	PASSES MECHANICAL AND ELECTRICAL SPECIFICATIONS	IND		PASS	PASS	PASS	NO TROUBLE FOUND
017896326	1FTPX14565[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	N33	INSTRUMENT PANEL/DASHBOARD SQUEAK/RATTLE	42	DOES NOT OPERATE PROPERLY	24	05-Aug-05	05069	10-Mar-05	PASSES MECHANICAL AND ELECTRICAL SPECIFICATIONS	IND		PASS	PASS	PASS	NO TROUBLE FOUND
018005791	1FTPW14595[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	C50	OTHER STEERING/HANDLING AND RIDE TROUBLES			77	12-Aug-05	05090	31-Mar-05	CHARGEBACK, SQUIB MISSING, DEALER DAMAGE	DDI					SQUIB MISSING/LOSE/BROKEN
017903001	1FTPW12588[REDACTED]	F150 4X2	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES	42	DOES NOT OPERATE PROPERLY	47	17-Aug-05	05060	01-Mar-05	PASSES MECHANICAL AND ELECTRICAL SPECIFICATIONS	IND		N/A	PASS	PASS	NO TROUBLE FOUND
018065542	1FTRX12WX[REDACTED]	F150 4X2	CLOCKSPRING	5L2T14A664AA	A25	ENGAGEMENT TROUBLES	28	OPEN CIRCUIT	65	01-Sep-05	05090	31-Mar-05	CHARGEBACK, SQUIB MISSING	DDI					SQUIB MISSING/LOSE/BROKEN
018065832	1FAFP52U[REDACTED]	TAURUS	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES	42	DOES NOT OPERATE PROPERLY	55	02-Sep-05	05076	17-Mar-05	CHARGEBACK, SQUIB MISSING, DEALER DAMAGE	DDI					SQUIB MISSING/LOSE/BROKEN
018087502	1FTPW14525[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	S38	AIR BAG (SRS) TROUBLES	42	DOES NOT OPERATE PROPERLY	70	13-Sep-05	05166	15-Jun-05	CHARGEBACK. SQUIB MISSING	DDI					SQUIB MISSING/LOSE/BROKEN
018129452	1FTPW14505[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	N59	OTHER SQUEAK/RATTLE (EXCLUDING WIND NOISE)	41	STICKS/BIND S/GRABS	35	13-Sep-05	05131	11-May-05	CHARGEBACK. SQUIB MISSING	DDI					SQUIB MISSING/LOSE/BROKEN
018291850	1FTPW14555[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES			63	15-Oct-05	05146	26-May-05	CHARGEBACK. SQUIB MISSING	DDI					SQUIB MISSING/LOSE/BROKEN
018552375	1FTPW12555[REDACTED]	F150 4X2	CLOCKSPRING	5L2T14A664AA	N58	STEERING NOISY	42	DOES NOT OPERATE PROPERLY	27	22-Dec-05	05123	03-May-05							
018566526	1FTPW1453[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	L23	KEY TROUBLES	X2	POOR/NOT MADE	38	22-Dec-05	05091	01-Apr-05							
018576595	1FTPX04594[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	A25	ENGAGEMENT TROUBLES	42	DOES NOT OPERATE PROPERLY	47	23-Dec-05									
018593876	1FMZU85W8[REDACTED]	EXPLORER 4X4	CLOCKSPRING	5L2T14A664AA	A25	ENGAGEMENT TROUBLES	42	DOES NOT OPERATE PROPERLY	74	26-Dec-05									
018594098	1FTPW145X[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES	42	DOES NOT OPERATE PROPERLY	75	26-Dec-05									
018598752	1FTPW14544[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	A85	OTHER ELECTRICAL ACCESSORY TROUBLES	42	DOES NOT OPERATE PROPERLY	76	26-Dec-05									
018601377	1FMZU62K94[REDACTED]	EXPLORER 4X2	CLOCKSPRING	5L2T14A664AA	N50	SQUEAK/RATTLE VEHICLE EXTERIOR-FRONT	42	DOES NOT OPERATE PROPERLY	77	26-Dec-05									
018606085	1FTRX12544[REDACTED]	F150 4X2	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES	28	OPEN CIRCUIT	78	26-Dec-05									
018649598	1FTPW1454[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	N57	STEERING COLUMN/WHEEL SQUEAK/RATTLE	42	DOES NOT OPERATE PROPERLY	64	08-Jan-06									
018645979	1FTRW12W8[REDACTED]	F150 4X2	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES	42	DOES NOT OPERATE PROPERLY	63	21-Jan-06									
018620899	1FTPX12524[REDACTED]	F150 4X2	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES	42	DOES NOT OPERATE PROPERLY	54	21-Jan-06									
018621132	1FTPX1456[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	N57	STEERING COLUMN/WHEEL SQUEAK/RATTLE	42	DOES NOT OPERATE PROPERLY	55	21-Jan-06									
018626505	1FMDU74K4L[REDACTED]	EXPLORER 4X4	CLOCKSPRING	5L2T14A664AA	S39	AIR BAG WARNING LIGHT TROUBLES	41	STICKS/BIND S/GRABS	56	21-Jan-06									
018632796	1FTRX02W8[REDACTED]	F150 4X2	CLOCKSPRING	5L2T14A664AA	A25	ENGAGEMENT TROUBLES	42	DOES NOT OPERATE PROPERLY	57	21-Jan-06									
018633263	1FTPX1456[REDACTED]	F150 4X4	CLOCKSPRING	5L2T14A664AA	N58	STEERING NOISY	42	DOES NOT OPERATE PROPERLY	58	21-Jan-06									
018631512	1FMDU77K4[REDACTED]	EXPLORER 4X4	CLOCKSPRING	5L2T14A664AA	A25	ENGAGEMENT TROUBLES	28	OPEN CIRCUIT	60	24-Jan-06	05115	25-Apr-05							

From: Horejsi, Joe [joe.horejsi@methode.com]
Sent: Friday, February 10, 2006 1:37 PM
To: Olson, Kathy (K.A.)
Cc: Klosek, Walter (W.); Matulonis, Bob (R.W.); Horejsi, Joe; Sutherland, Roy (R.W.); Crafts, Bill (W.E.)
Subject: RE: P221 Clockspring CR/Alert

Kathy,

I just spoke to Walt regarding a question I had about the concern I'm writing for adding the protective sleeves (C11865953) to the a/b harness of the P221 clockspring. He stated that another issue has arisen down in Florida where the harness was cut at the other end (closer to the connector), with that said, he wants to hold off on writing the concern. I have left it at 'W' status for now.

He also wants me to quote using the Bentley Harris tubing to replace the existing PVC tubing, as well as the additional two pieces with 5 areas to spot tape. If you have any questions or concerns give me a call at your earliest convenience.

Regards,

Joseph Horejsi
Program Manager
KBA Automotive Group
Methode Electronics, Inc
248.603.2141

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

From: Olson, Kathy (K.A.) [mailto:kolson5@ford.com]
Sent: Friday, February 10, 2006 12:04 PM
To: Horejsi, Joe
Cc: Klosek, Walter (W.); Matulonis, Bob (R.W.)
Subject: P221 Clockspring CR/Alert

Joe,

Per our conversation this morning, please pull the concern and alert for the addition of the wire protection (w/4 spot tapes) for the P221 program and forward the CR number.

Please initiate the Alert for the trial parts and forward that number also. I'm trying to get concurrence to ship a smaller sample size to the plants, but from conversations with the PVT engineers, the plants will need some pressure if/before they will agree to less than 1,000 pieces. I'm waiting for direction from PVT management.

Also, after much conversation, it has been determined that Methode will get paid for trial parts if the piece price for these parts is added to the Alert. We need to make sure that the Alert and the costs for these parts are approved by the program. This is enough to bring to purchasing for payment.

Thanks,
Kathy Olson
Switch Application Engineer
kolson5@ford.com
313-31-77868

From: Pappas, Bill (B.)
Sent: Wednesday, February 15, 2006 8:47 AM
To: Trupiano, Rita (M.P.); Klosek, Walter (W.)
Cc: Dionyssopoulos, Stavros (S.); Chekuri, Vijitha (V.); Spoto, Thomas (T.A.); Woods, Lisa (L.)
Subject: RE: P221 Airbag Deployment

Rita,
I am the D & R on the P221 and aware of the issue. We are currently investigating the issue and root cause has not been determined. The P356 has a different module and horn/plate assembly and we don't believe that there is an issue on that program.

Thanks,
Bill Pappas
Tough Truck Restraints
Tel # (313) 337-3043
Cell
Text Page: bpappas

-----Original Message-----
From: Trupiano, Rita (M.P.)
Sent: Wednesday, February 15, 2006 8:26 AM
To: Klosek, Walter (W.); Pappas, Bill (B.)
Cc: Dionyssopoulos, Stavros (S.); Chekuri, Vijitha (V.); Spoto, Thomas (T.A.); Woods, Lisa (L.)
Subject: P221 Airbag Deployment
Importance: High

Walt/Bill,

I spoke with Tom Spoto (P221 supv) yesterday regarding the 15 or so vehicles P221 has in which air bags have deployed due to chafing of the airbag circuits on the horn plate. P356 follows a similar horn plate design that incorporates a flanged edge. Is our program susceptible to this?

Bill, you may want to consult your TS on this subject, as he is abreast on the issue. Is root cause of deployment initiated by RCM itself during self-test? These are the types of things we need to know.

Please advise.

Thanks,

Rita Trupiano
Ford Motor Company
P356 Electrical Systems
313.805.7564
mtrupia1@ford.com

From: Tippy, David (D.J.)
Sent: Monday, February 06, 2006 2:20 PM
To: Spoto, Thomas (T.A.); Mince, Robert (R.W.)
Subject: RE: P221 Air Bag Discussion

The failure mode is the wiring chafing on the sharp metal resulting in an intermittent or undetectable short. The failure effect is that the diagnostics are fooled into running the driver test.

Regards,
David Tippy
Restraint Electronics Technical Expert
Ford Motor Company
Phone: 313-805-6911 email: dtippy@ford.com

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

From: Spoto, Thomas (T.A.)
Sent: Monday, February 06, 2006 7:59 AM
To: Tippy, David (D.J.); Mince, Robert (R.W.)
Subject: RE: P221 Air Bag Discussion

Dave, we need your participation or someone that is very knowledgeable about the Autoliv product and circuitry. The failure mode is pointing towards the module diagnostics. If this is the primary failure mode I will need assistance today to test at the breadboard.

Tom Spoto
P221/P397/P415 EE System Engineering Supervisor
Ph/Fax: 313-845-5322
Txt

-----Original Appointment-----

From: Tippy, David (D.J.)
Sent: Monday, February 06, 2006 6:56 AM
To: Spoto, Thomas (T.A.)
Subject: Tentative: P221 Air Bag Discussion
When: Monday, February 06, 2006 11:00 AM-12:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Conf Call Call In - x36737 or 1-800-367-3840 p/c74752103

Tom,
I've been told to drop everything and work on the Freescale microprocessor shortage.
If I am able to call in, I will, but I'd say it is unlikely

Dave Tippy

From: Oswalt, Greg (G.G.)
Sent: Thursday, February 23, 2006 7:48 AM
To: Pappas, Bill (B.); Clark, Todd (T.N.); Spoto, Thomas (T.A.); Klosek, Walter (W.); Clement, Charles (C.A.); Wrestler, Sandy (S.J.); Alexander, Vincent (V.J.)
Cc: McClenaghan, Dean (D.C.)
Subject: FW: Opportunity to get info

Team,
Here is another one, what do you want to do with getting data? Another NAP build.

Greg Oswalt
Critical Concern Manager
BoF - Pick-up Truck & Commercial Vehicle
PDC - GC-A59, MD 266
☎ 313-390-1160, Cell Ph. 313-805-3808
✉ goswalt@ford.com

Honesty is the best image.

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

From: Ruth, Richard (R.R.)
Sent: Wednesday, February 22, 2006 6:06 PM
To: Oswalt, Greg (G.G.); Clement, Charles (C.A.)
Cc: Wrestler, Sandy (S.J.)
Subject: Opportunity to get info

Per Andy Macoit, Dallas Region FSE, 214-289-8859 cell, inquiry just received from dealer on 1FTRF12235N 05 F150 Norfolk build 3/16/2005 10,537 miles

Prestige Ford of Edmond, OK 405-475-9600 (Near Oklahoma City)

Service Manager Mike Bristo 405-475-9606 direct, 405-659-9870 cell

Dealer has removed RCM but has not started other repairs yet to Andy's knowledge

No known injury - firefighter at drive in restaurant eating at time of event

Codes and PIDS not known yet, Time relative to key on not known yet,

Lamp status prior to event not known yet

Andy instructing dealer report codes and PIDS and any other info known at this time, not to remove bag until receiving further instructions from Ford

This is not yet in CQIS or MORS or CUDL to my knowledge - dealer call is only notification so far.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager
rruth@ford.com

FLA :

BILL PAPPAS - RCM 805-3445

~~STEVE~~ ^{OK} BINDER - ~~AUTO~~LIVE - RCM

JIM CHASCSA - RESTRAINTS TS - 805-5896

TOM SPOTO - EEEF - ELECT. DIST.

WALT KLOSEK - CLOCK SPRING - 805-6839

DEAN McCLENABHAN - CRITICAL CONCERN

B2293

DAB DEPTH STATUS

" RESISTANCE AB CONTACT

" "

Active

L2 2.90

25.5 ohms

DABR 25. ?

DAB PRETENS.

FLAG CODE KEYS

STD SW - NO
SCOR CC

DAB ? DAB 2 STG

ALL OTHER FLAGS	} NONE
	: :
	: :
	: :

Wrestler, Sandy (S.J.)

Subject: F-150 Air bag/Clockspring Wire Chafing
Location: PDC 1B-A40

Start: Mon 2/13/2006 4:00 PM
End: Mon 2/13/2006 4:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Required Attendees: Oswait, Greg (G.G.); Spoto, Thomas (T.A.); Ailes, Sheran (S.A.); Tippy, David (D.J.); Ruth, Richard (R.R.); Chascsa, Jim (JRCII.); Pappas, Bill (B.); Clement, Charles (C.A.); Vegh, Paul (P.F.); Wrestler, Sandy (S.J.); Alexander, Vincent (V.J.); Souchock, Peter (P.D.); Kizyma, Dave (D.E.); Gniewek, Kenneth (K.J.); Klosek, Walter (W.); McClenaghan, Dean (D.C.); PDC Conf Rm 1B-A40 (45)

Review F-150 (1FTRF12215N [REDACTED]) vehicle data from Clearwater, FL.

16,000 MILES

No PRIOR REPAIR

1 line each stage Cr visible

grey/wh
Red / blk) only 1st stage fired
not reaching open

Top of wires on "S"
45° chaffing - not
90° like clamp would be

From: McClenaghan, Dean (D.C.)
Sent: Monday, February 13, 2006 1:18 PM
To: Pappas, Bill (B.)

Importance: High
Sensitivity: Confidential

Attachments: MVC-001F.JPG; MVC-002F.JPG; MVC-003F.JPG; MVC-004F.JPG; MVC-006F.JPG



MVC-001F.JPG (261 KB)



MVC-002F.JPG (240 KB)



MVC-003F.JPG (247 KB)



MVC-004F.JPG (225 KB)



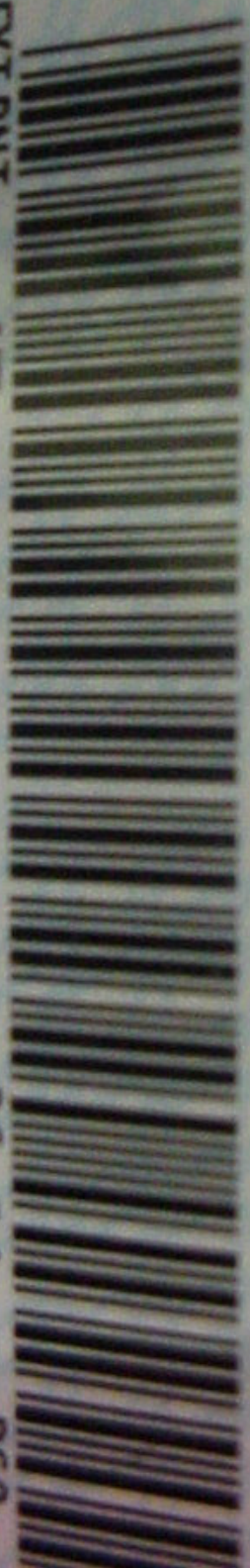
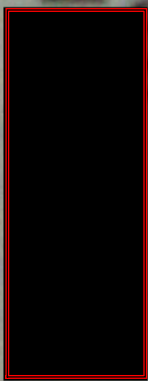
MVC-006F.JPG (227 KB)



PE09-046 0703

1428KG
P235/70R17
17X7.5J
AT 260 kPa/ 38 PSI COLD
MIN TIRE P235/70R17
RIMS 17X7.5J
AT 260 kPa

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL
VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF
MANUFACTURE SHOWN ABOVE
VIN: 1FTRF12215N
TYPE: TRUCK



EXT PNT: YZ RC: 24 DSO:
WB INT TR TP/PS R AXLE TR SPR
145 AE 7 H9 A PPRR
1200506222074 UTC - 5USA-







Print Page Click Here

OASIS RESULT:
1FTRX14W75N [REDACTED]

See bottom of the OASIS result for contact ID

03/14/2006
10:08:19

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▶ VEHICLE INFORMATION

VEHICLE DESCRIPTION 2005 F-SERIES LD	BODY STYLE F-150 SUPER CAB STYLE SIDE 4X4	ENGINE 4.6L SOHC (ROMEO)
TRANSMISSION 4R70E	AXLE CODE H9	ENGINE CALIBRATION 5F616C0A

▶ GENERAL WARRANTY INFORMATION

WARRANTY START DATE 11/11/2005	WARRANTY END DATE 11/11/2005	SALE MILEAGE 00001
-----------------------------------	---------------------------------	-----------------------

▶ ARN MESSAGES

ATTENTION TECHNICIANS AND SERVICE MANAGERS: BEFORE ADDRESSING FRONT BRAKE ROUGHNESS, SEE TSB 06-2-05. BEFORE ADDRESSING VEHICLE VIBRATION, REFER TO TSB 06-02-05. BEFORE REPLACING POWER FOLD MIRROR, REFER TO TSB 06-02-05.

▶ WARNING MESSAGES

LESS THAN TWO DEALER APPROVED AWA REPAIR VISITS PAID TO DATE

▶ OUTSTANDING FIELD SERVICE ACTIONS

NO CAMPAIGN MESSAGE(S) FOUND

▶ EXTENDED COVERAGES

NO ESP INFORMATION AVAILABLE

▶ REPAIR HISTORY

03/10/2006

DEALER: Gentilini Ford, Inc.

WARRANTY CLAIM NUMBER: 033289

ODOMETER: 006123M

PART NUMBER	PART DESCRIPTION	QUANTITY	LABOR OP	CONDITION CODE	CONDITION DESC
5L1Z 14A664A	AIR BAG CLOCK SPRING	001	14056D	X1	POOR GROUND
		000	14056D6		
		000	14200A1		

SHORT TO GROUND IN SQUIB WIRING FROM AIR BAG CONTACT. RAN SELF TESTS, ON DEM AND AND CONTINUOUS CODES B2293 WITH LFC 19. REMOVED DRIVER'S AIR BAG AND IN STALLED TESTERS 418-F395 PER PINPOINT TESTS. CODE CLEARED. RAN WIRE DIAG ON N CIRCUIT FOR 14A664. FOUND SHORT TO GROUND IN HARNESS FOR 14A664, GREY W/ RED. REPLACED AIR BAG CONTACT ASSEMBLY.

NOTE CITED WIRE

Print Page Click Here

OASIS RESULT:
1FTRX14W75N [REDACTED]

See bottom of the OASIS result for
contact ID

03/14/2006
10:08:19

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▶ **VEHICLE INFORMATION**

VEHICLE DESCRIPTION
2005 F-SERIES LD

BODY STYLE
F-150 SUPER CAB STYLE SIDE
4X4

ENGINE
4.6L SOHC (ROMEO)

TRANSMISSION
4R70E

AXLE CODE
H9

ENGINE CALIBRATION
5F616C0A

▶ **GENERAL WARRANTY INFORMATION**

WARRANTY START DATE
11/11/2005

BUILD DATE
08/04/2005

SALE MILEAGE
00001

▶ **ARN MESSAGES**

ATTENTION TECHNICIANS AND SERVICE MANAGERS:
BEFORE ADDRESSING FRONT BRAKE ROUGHNESS/SHUDDER WHILE BRAKING, SEE TSB 05-21-19
BEFORE ADDRESSING VEHICLE VIBRATION CONCERNS, SEE TSB 05-26-24
BEFORE REPLACING POWER FOLD MIRROR, PLEASE REFER TO TSB 06-02-05

▶ **WARNING MESSAGES**

LESS THAN TWO DEALER APPROVED AWA REPAIR VISITS PAID TO DATE

▶ **OUTSTANDING FIELD SERVICE ACTIONS**

NO CAMPAIGN MESSAGE(S) FOUND

▶ **EXTENDED COVERAGES**

NO ESP INFORMATION AVAILABLE

▶ **REPAIR HISTORY**

03/10/2006

DEALER: Gentilini Ford, Inc.

WARRANTY CLAIM NUMBER: 033289

ODOMETER: 006123M

PART NUMBER	PART DESCRIPTION	QUANTITY	LABOR OP	CONDITION CODE	CONDITION DESC
5L1Z 14A664A	AIR BAG CLOCK SPRING	001*	14056D	X1	POOR GROUND
		000	14056D6		
		000	14200A1		

SHORT TO GROUND IN SQUIB WIRING FROM AIR BAG CONTACT. RAN SELF TESTS, ON DEM AND AND CONTINUOUS CODES B2293 WITH LFC 19. REMOVED DRIVER'S AIR BAG AND IN STALLED TESTERS 418-F395 PER PINPOINT TESTS. CODE CLEARED. RAN WIRE DIAG O N CIRCUIT FOR 14A664. FOUND SHORT TO GROUND IN HARNESS FOR 14A664, GREY W/ RED. REPLACED AIR BAG CONTAQCT ASSEMBLY.

NOTE CHAFED WIRE

Wrestler, Sandy (S.J.)

From: Ruth, Richard (R.R.)
Sent: Wednesday, February 08, 2006 5:54 PM
To: Oswald, Greg (G.G.); Clement, Charles (C.A.)
Cc: Wrestler, Sandy (S.J.)
Subject: 1FTRF12215N [REDACTED]

Build date 6/21/05 Norfolk. Driver airbag only. Mileage not yet known. Location Clearwater, Florida. Contact svc manager Vince Romano. 727-535-3673. No injuries. Vince is gone for the day, I have left instructions for him to have a tech take PIDS on DAB circuits in the morning. I will follow through with getting parts for analysis unless you direct otherwise. Pls call with who I should send parts to.

Richard R. Ruth, P.E.

Manager, Design Analysis Vehicle Dynamics and Interior
500 Parklane Towers West, 3 Parklane Boulevard
Dearborn, MI 48126
Phone 313-322-7059 Fax 313-337-8256 Pager [REDACTED]
rruth@ford.com

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

From: Hill, Wannetta (W.)
Sent: Wednesday, February 08, 2006 4:25 PM
To: Ruth, Richard (R.R.)
Subject: Customer Michael Spangler, CUDL report # 1603950306

The above customer states while starting his vehicle the airbag deployed on its own. The dealership, Walker Ford--04947, inspected the undercarriage of the vehicle and did not detect any damage. The vehicle was towed to their dealership and the battery was disconnected. The dealership was only able to retrieve the B2293 airbag codes. No other codes were available. The vehicle is a 2005 F-Series 1FTRF12215N [REDACTED]. Please assistance with addressing the customer's concern.

Wannetta Hill

Litigation Prevention Analyst
Phone (313)845-5670; Fax(313)845-5668
e-mail whill2@ford.com

From: McClenaghan, Dean (D.C.)
Sent: Monday, May 08, 2006 8:42 AM
To: Clement, Charles (C.A.)
Cc: Oswald, Greg (G.G.)
Subject: FW: Midway Ford- Airbag repair
Attachments: gus.pdf

get your visa out

From: Batista, Gustavo (G.P.)
Sent: Friday, May 05, 2006 4:21 PM
To: McClenaghan, Dean (D.C.)
Subject: Midway Ford- Airbag repair

Hi Dean;

My apologies for the long wait...I went on vacation and than the dealer service manager went on vacation after that. Finally attached you will find the Repair Order for the Airbag issue you guys solved here in Miami.

The total amount is: \$ 2,844.16 which was all done under warranty rate. Please forward me the credit card info..so I can notify the dealership.

Thanks for your assistance
Have a great day
-Gus

FORD MIDWAY MALL Inc.
 8155 WEST FLAGLER STREET
 TELEPHONE (305) 266-3000
 MIAMI, FLORIDA 33144
 DIRECT LINE TO PARTS - 264-6947 OR 264-6948
 FAX NUMBER - 266-3468

011922 AIRBAG 375230

ACCOUNTING

MIAMI, FL [REDACTED]
 HOME [REDACTED]

PAGE 1

COUNTY REGISTRATION: MVR 93100201
 STATE REGISTRATION: MV-08012

SERVICE ADVISOR: 433 PEDRO A CACERES

YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN/OUT	TAG
05	FORD F150 PICKUP	1FTRF122X5N [REDACTED]		26397/26397	T8499

DEL DATE	PROG DATE	WARR EXP	PROMISED	PO NO.	RATE	PAYMENT	INV DATE
06MAR05	IS		18:00 14FEB06		81.00	CASH	13MAR06

RO OPENED: 16:21 14FEB06 READY: 15:16 13MAR06
 OPTIONS: STK:5FS108 DLR:124013 ENG:4.2L_ENGIEN
 TRN:AUTOMATIC

LINE	OPCODE	TECH	TYPE	A/HRS	S/HRS	COST	SALE	COMP	LIST	NET	TOTAL
------	--------	------	------	-------	-------	------	------	------	------	-----	-------

A CUSTOMER STATES AIR BAG EXPLODED BY ITSELF CK AND ADVISE
 CAUSE: RE

14056D AIR BAG RESTRAINT SYSTEM - DIAGNOSIS - L
 490 BELLAS, ALBERT LIC#: 5804
 WF-40 28.32 0.60 1110 4292 (N/C)

1 5L3Z*14B321*DA SENSOR
 ASY - AIR BAG 14922 20891 0 (N/C)

1 5L3Z*14401*BB WIRING
 ASY - MAIN 18235 25529 0 (N/C)

1 5L3Z*14A005*AA WIRING
 ASY 18929 26501 0 (N/C)

1 6L3Z*15043B13*AC MODULE 47849 66989 0 (N/C)

1 5L1Z*14A664*A COVER AND CONTACT PLATE ASY 3495 4893 0 (N/C)

1 4L3Z*3600*BAA WHEEL ASY - STEERING 9563 13388 0 (N/C)

1 4L3Z*3530*AAA SHROUD ASY - STEERING COLUMN 1757 2460 0 (N/C)

14056DSL AIR BAG ASSEMBLY-DRIVER OR PASSENGER - REPLACE (43B13/44A74) - L
 490 BELLAS, ALBERT LIC#: 5804
 WF-40 0.00 0.20 370 1431 (N/C)

14056D6 AIR BAG SLIDING CONTACT - REPLACE (14A664) - L
 490 BELLAS, ALBERT LIC#: 5804
 WF-40 0.00 0.40 740 2862 (N/C)

3600A STEERING WHEEL - REPLACE (3600) - L
 490 BELLAS, ALBERT LIC#: 5804
 WF-40 0.00 0.80 1480 5723 (N/C)

14056D1A RESTRAINT CONTROL MODULE (RCM) - REPLACE (14B056/14B321) - L
 490 BELLAS, ALBERT LIC#: 5804
 WF-40 0.00 0.20 370 1431 (N/C)

3564A SHROUD STEERING COLUMN - REPLACE

LIMITED WARRANTY: The only warranties applying to the part(s) installed in accordance with this estimate are those that may be offered by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of products or service sold under the terms of this estimate. Parts and labor are guaranteed for 12 months or 12,000 miles, whichever comes first. Seller does not guarantee that the work performed in accordance with this estimate will correct any problem specified on the description of the complaint.

DESCRIPTION	TOTALS
LABOR AMOUNT	
PARTS AMOUNT	
GAS, OIL, LUBE	
SUBLET AMOUNT	
MISC. CHARGES	
TOTAL CHARGES	
LESS INSURANCE	
SALES TAX	
PLEASE PAY THIS AMOUNT	

SIGNATURE

TERMS: DUE UPON RECEIPT

CALL TOLL FREE 1-800-ADP-ADP TO REORDER CATALOG # 800151

FORD MIDWAY MALL Inc.

8155 WEST FLAGLER STREET

TELEPHONE (305) 266-3000

MIAMI, FLORIDA 33144

DIRECT LINE TO PARTS - 264-6947 OR 264-6948

FAX NUMBER - 266-3468

7011922

375230

ACCOUNTING

MIAMI, FL
HOME

PAGE 2

COUNTY REGISTRATION: MVR 93100201

STATE REGISTRATION: MV-08012

SERVICE ADVISOR: 433 PEDRO A CACERES

YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN/OUT	TAG
05	FORD F150 PICKUP	1FTRF122X5N		26397/26397	T8499

DEL DATE	PROD DATE	WARR EXP	PROMISED	PO NO	RATE	PAYMENT	INV DATE
06MAR05	IS		18:00 14FEB06		81.00	CASH	13MAR06

16:21 14FEB06 15:16 13MAR06
 OPTIONS: STK:5FS108 DLR:124013 ENG:4.2L ENGIEN
 TRN:AUTOMATIC

LINE	OPCODE	TECH	TYPE	A/HRS	S/HRS	COST	SALE	COMP	LIST	NET	TOTAL

490 BELLAS, ALBERT LIC#: 5804
 WF-40 0.00 0.70 1295 5008 (N/C)

MT MT14A005
 490 BELLAS, ALBERT LIC#: 5804
 WF-40 0.00 14.40 26640 103018 (N/C)

PC: 840 42
 PART#: 5L3Z*14A005*AA

COUNT: 114750 160651 TPARTS
 CLAIM TYPE:
 AUTH CODE:

32005 123765 TLABOR

26397 AS PER FORD ENGINEERS SPENT 2 DAYS DISASSEMBLING VEHICLE AS PER
 REQUEST FROM ENG. REPLACED AIR BAG DRIVERS SIDE CLOCKS PRING, STEERING
 WHEEL, MODULE, BODY MAIN AND DASH HARNESSSES REPLACED STEERING COLUMN
 SHROUDS ALL AS PER CHARLES A. CLEMENT

B MULTI-POINT INSPECTION
 99P MULTI-POINT INSPECTION

490 BELLAS, ALBERT LIC#: 5804
 CF 0.00 0.00 0 0 0.00 0.00

CUSTOMER TOOK VEHICLE ON WE THANK YOU FOR YOUR PATRONAGE:
 2-15-06 AND DEALER REL EASED PLEASE HELP US ACHIEVE EXCELLENCE IN SERVICE
 VEH. UNDER NO RESPONSABILITY IF YOU ARE NOT COMPLETELY SATISFIED WITH YOUR
 TO THE CUSTO MER. CUSTOMER VISIT TODAY CALL OUR CUSTOMER SERVICE MANAGER
 WILL BRING VEH. AT A LATTER AT:305-266-3000 EXT:2428
 DATE FOR POSSIBLE INSPECTION
 FROM FORD MOTOR CO. HARD COPY
 SIGNED AND DATED. SEE HARD
 COPY FOR D RTAILS.

DATE	START	FINISH	DURATION	TYPE	TECH	LINE(S)	CHG
02-15-06	09:42	09:46	0.07	W	490	A	
02-20-06	14:35	24:00	9.41	W	490	A	
02-21-06	00:00	07:48	7.80	W	490	A	

DESCRIPTION	TOTALS
LABOR AMOUNT	
PARTS AMOUNT	
GAS, OIL, LUBE	
SUBLET AMOUNT	
MISC. CHARGES	
TOTAL CHARGES	
LESS INSURANCE	
SALES TAX	
PLEASE PAY THIS AMOUNT	

LIMITED WARRANTY: The only warranties applying to the part(s) installed in accordance with this estimate are those that may be offered by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of products or service sold under the terms of this estimate. Parts and labor are guaranteed for 12 months or 12,000 miles, whichever comes first. Seller does not guarantee that the work performed in accordance with this estimate will correct any problem specified on the description of the complaint.

SIGNATURE

TERMS: DUE UPON RECEIPT

CALL TOLL FREE 1-800-ADP-ADP TO REORDER CATALOG # 6001851

FORD MIDWAY MALL Inc.

8155 WEST FLAGLER STREET
TELEPHONE (305) 266-3000
MIAMI, FLORIDA 33144

DIRECT LINE TO PARTS - 264-6947 OR 264-6948
FAX NUMBER - 266-3468

7011922

375230

ACCOUNTING

MIAMI, FL
HOME:

PAGE 3

COUNTY REGISTRATION: MVR 93100201
STATE REGISTRATION: MV-08012

SERVICE ADVISOR: 433 PEDRO A CACERES

COLOR	YEAR	MAKE/MODEL	VIN	LICENSE	MILEAGE IN/OUT	YAG	
OXFORD WHI	05	FORD F150 PICKUP	1FTRF122X5N		26397/26397	T8499	
DEL DATE	PROD DATE	WARR EXP	PROMISED	PO NO.	RATE	PAYMENT	INV DATE
06MAR05 IS			18:00 14FEB06		81.00	CASH	13MAR06

A.S. OPENED READY OPTIONS: STR:5FS108 DLR:124013 ENG:4.2L ENGIEN
TRN:AUTOMATIC
16:21 14FEB06 15:16 13MAR06

LINE	OPCODE	TECH	TYPE	A/HRS	S/HRS	COST	SALE	COMP	LIST	NET	TOTAL
		09:09		09:10		0.02	W 490		A		
03-03-06		08:30		11:02		2.53	W 490		A		
03-04-06		10:33		15:19		4.77	W 490		A		
03-09-06		08:57		12:40		3.72	W 490		A		

ACCOUNT	SALE	COST	CONTROL	ACCOUNT	SALE	COST	CONTROL
57200	123765	32005		54600	160651	114750	
57000	0	0		11400	284416	*****	
10100	0	*****					

COST WARRANTY SALE PRICE

COST, SALE, & COMP TOTALS 146755 284416 0

LIMITED WARRANTY: The only warranties applying to the part(s) installed in accordance with this estimate are those that may be offered by the manufacturer. The seller hereby expressly disclaims all warranties, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of products or service sold under the terms of this estimate. Parts and labor are guaranteed for 12 months or 12,000 miles, whichever comes first. Seller does not guarantee that the work performed in accordance with this estimate will correct any problem specified on the description of the complaint.

SIGNATURE

TERMS: DUE UPON RECEIPT

DESCRIPTION	TOTALS
LABOR AMOUNT	0.00
PARTS AMOUNT	0.00
GAS, OIL, LUBE	0.00
SUBLET AMOUNT	0.00
MISC. CHARGES	0.00
TOTAL CHARGES	0.00
LESS INSURANCE	0.00
SALES TAX	0.00
PLEASE PAY THIS AMOUNT	0.00

From: Ruth, Richard (R.R.)
Sent: Friday, December 08, 2006 4:11 PM
To: Clement, Charles (C.A.); McClenaghan, Dean (D.C.)
Subject: FW: RE: Midway College, 2005 F-150, VIN: 1FTRF12WX5N [REDACTED] 33,663 miles

Code was B2293. I have spoken to the technician at the dealership and given him diagnostic instructions, when he finds root cause he will send digital photos and parts. Alma Taylor will handle from consumer affairs.

Richard R. "Rick" Ruth
313-322-7059

From: Ruth, Richard (R.R.)
Sent: Thursday, December 07, 2006 5:52 PM
To: Taylor, Alma (A.)
Subject: RE: RE: Midway College, 2005 F-150, VIN: 1FTRF12WX5N [REDACTED] 33,663 miles

B1293 - No such code. Do they mean B2293? That is what I would expect with a deployed driver airbag.
B1884 = PAD warning lamp circuit failure (not likely to be related to this event)
B1318 = low voltage (not likely to be related to this event)

The main point is no B1231 - I should talk to this dealer with you.

Richard R. "Rick" Ruth
313-322-7059

From: Taylor, Alma (A.)
Sent: Thursday, December 07, 2006 1:49 PM
To: Ruth, Richard (R.R.)
Subject: RE: Midway College, 2005 F-150, VIN: 1FTRF12WX5N [REDACTED] 33,663 miles
Importance: High

Hello Rick,

This vehicle's driver's airbag deployed for no apparent reason. According to the information provided, the driver started this vehicle and moved about 10 ft before the airbag deployed. Nolan Ford of Georgetown was unable to find impact damage. They pulled the following codes: B1293, B1884, and B1318. I requested the PIDS. Their response was there are, "no other current saved codes". Please advise, thanks.

Respectfully,

Alma Taylor

Litigation Prevention/CVO

Consumer Affairs

Phone: 313 317-1862

Fax: 8886839898

Ford Confidential

From: Wrestler, Sandy (S.J.)
Sent: Monday, February 06, 2006 3:38 PM
To: Alexander, Vincent (V.J.); Lewis, Herman (.)
Cc: Klosek, Walter (W.); Olson, Kathy (K.A.); Clement, Charles (C.A.)
Subject: FW: ***HOT*** - 5f2t clockspring

Note requirements for trial of bentley harris material on clock spring.


Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Mikolaiczik, Mark (M.A.)
Sent: Monday, February 06, 2006 2:46 PM
To: Wrestler, Sandy (S.J.)
Cc: Neutgens, Kurt (K.J.); Freitag, Kyle (K.C.); Klosek, Walter (W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Sandy, Please note that all plants will require a 30 piece trial prior to implementation. Please make sure you incorporate the trials in your workplan.

Mark Mikolaiczik
Dearborn Truck PVT Manager
Office: (313) 845-1408
Cell: 



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

From: Freitag, Kyle (K.C.)
Sent: Monday, February 06, 2006 2:44 PM
To: Mikolaiczik, Mark (M.A.)
Cc: Lucarelli, Raymond (Ray.)
Subject: RE: ***HOT*** - 5f2t clockspring

Have one Part
For Ray Luc to Review and see if it is Build able.

Have an answer Tomorrow

Kyle C. Freitag

Electrical/ Climate PVT P221
Location DTP
Cell 
Des 
CDS KFREITA2

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

From: Mikolaiczik, Mark (M.A.)
Sent: Monday, February 06, 2006 2:30 PM
To: Freitag, Kyle (K.C.)
Subject: FW: ***HOT*** - 5f2t clockspring

Do you have trial clock spring parts?

Mark Mikolaiczik
Dearborn Truck PVT Manager
Office: (313) 845-1408
Cell: [REDACTED]

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

From: Wrestler, Sandy (S.J.)
Sent: Monday, February 06, 2006 11:09 AM
To: Mikolaiczik, Mark (M.A.)
Cc: Klosek, Walter (W.)
Subject: RE: ***HOT*** - 5f2t clockspring

Carl Freitag picked up a couple of parts from Walt Klosek on Friday.

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Mikolaiczik, Mark (M.A.)
Sent: Monday, February 06, 2006 9:24 AM
To: Wrestler, Sandy (S.J.)
Cc: Edmonds, Mark (M.); Bailey, Crystal (C.L.)
Subject: RE: ***HOT*** - 5f2t clockspring

Sandy, Please contact Mark Edmonds and Crystal Bailey when you have the trial parts ready. Is it safe to assume the parts will be saleable?

Mark Mikolaiczik
Dearborn Truck PVT Manager
Office: (313) 845-1408
Cell: [REDACTED]

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

From: Wrestler, Sandy (S.J.)
Sent: Monday, February 06, 2006 8:33 AM
To: Mikolaiczik, Mark (M.A.)
Subject: RE: ***HOT*** - 5f2t clockspring

Awesome!

10/9/2009

PE09-046 0717

Thx

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB
SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Mikolaiczik, Mark (M.A.)
Sent: Friday, February 03, 2006 5:37 PM
To: Wrestler, Sandy (S.J.)
Subject: RE: ***HOT*** - 5f2t clockspring

Hello Sandy, I received your message. The protection in the attached files looked great. We need to make sure that they do not add too much difficulty when making the connection. We will help you prove out your plan as soon as you can get us trial parts.

Mark Mikolaiczik
Dearborn Truck PVT Manager
Office: (313) 845-1408
Cell: [REDACTED]

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

From: Wrestler, Sandy (S.J.)
Sent: Thursday, February 02, 2006 6:22 PM
To: Mikolaiczik, Mark (M.A.)
Subject: FW: ***HOT*** - 5f2t clockspring

Mark,

I'd like to talk to you about some long term permanent corrective actions. Walt Klosek Electrical owns the Clock spring so this would be a change to his part in addition to the change to address the flange itself on the DAB. I left you a phone message on this subject as well.

We are working with TRW to modify the plate to address the sharp edge. However, it's very likely that the clock spring wire will always be able to contact some portion of the metal horn plate. Hence, we think that no matter how friendly we make the plate edge we're going to have to add some protection to the clock spring wire. This will make the squib installation more difficult I'm sure.

I've asked Walt to get a part for each plant to evaluate with this Bently Harris nylon mesh abraision resistive material.

I wanted to discuss our status w/you to get some feedback and hopefully some help greasing the skids with the plants so that they'll at least talk to us and consider/evaluate this.

Please give me a call tomorrow so we can chat.

Thanks

Sandra Jo Wrestler

Supervisor, Ford NAE Restraints
Steering Wheels, DAB and PAB

10/9/2009

PE09-046 0718

SUV/BOF and PTAC
PDC, 2F-K60, 313 805-3473

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

From: Klosek, Walter (W.)
Sent: Wednesday, February 01, 2006 10:35 AM
To: Wrestler, Sandy (S.J.)
Cc: Matulonis, Bob (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Sandy,
It looks like Methode will be able to get the 6 parts you are looking for hopefully on Thursday. The attachments show picture of what it will look like -- They even managed to find yellow tubing. As I said before aside from the cost which we should know soon my biggest concern is the ability to plug in the connector at line rate with the added stiffness

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

From: Horejsi, Joe [mailto:joe.horejsi@methode.com]
Sent: Wednesday, February 01, 2006 9:55 AM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Walt/Roy,

Attached are pictures with the Bentley Harris tubing. Walt, I will be able to get (6) clocksprings for you to do vibe testing. If you have any questions or concerns give me call.

Regards,

Joseph Horejsi
Program Manager
KBA Automotive Group
Methode Electronics, Inc
248.603.2141

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

From: Henderson, Brent
Sent: Tuesday, January 31, 2006 11:03 AM
To: Horejsi, Joe
Cc: Bolen, Pat; Gibson, Scott
Subject: RE: ***HOT*** - 5f2t clockspring

Joe -

It appears to be feasible. I have attached some pictures indicating what the part would look like with the tubing added. I will put this part in the mail to your attention today. The part I am sending was just laying around my desk, so don't use it any vehicle.

Brent

From: Horejsi, Joe [joe.horejsi@methode.com]
Sent: Wednesday, February 01, 2006 9:55 AM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring
Attachments: MVC-024S.JPG; MVC-023S.JPG; MVC-022S.JPG

Walt/Roy,

Attached are pictures with the Bentley Harris tubing. Walt, I will be able to get (6) clocksprings for you to do vibe testing. If you have any questions or concerns give me call.

Regards,

Joseph Horejsi
Program Manager
KBA Automotive Group
Methode Electronics, Inc
248.603.2141

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

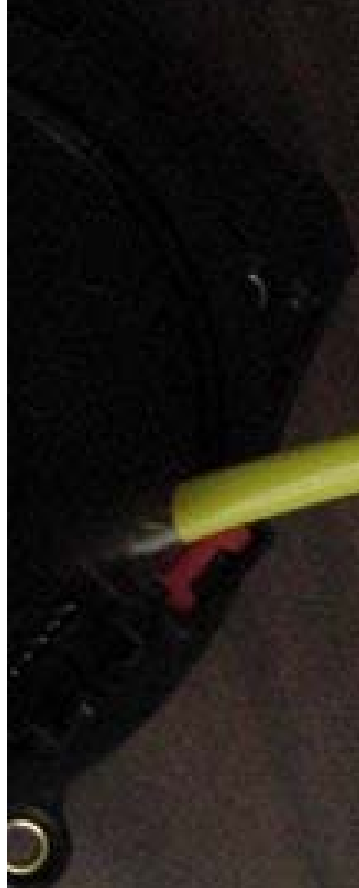
From: Henderson, Brent
Sent: Tuesday, January 31, 2006 11:03 AM
To: Horejsi, Joe
Cc: Bolen, Pat; Gibson, Scott
Subject: RE: ***HOT*** - 5f2t clockspring

Joe -

It appears to be feasible. I have attached some pictures indicating what the part would look like with the tubing added. I will put this part in the mail to your attention today. The part I am sending was just laying around my desk, so don't use it any vehicle.

Brent







From: Larimore, Jonathan (J.P.)
Sent: Friday, January 27, 2006 4:40 PM
To: Klosek, Walter (W.)
Subject: FW: SSM approval for Airbag-Clockspring Procedure - Request for additional information - Reply Arnie

Walt, not sure if this is the same group you're working with on the P221 or if the info would help.

Jonathan Larimore

EESE Interior Harmony

jlarimor@ford.com

(313)805-6844 cell & text pager

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

From: Smith, Gary (G.W.)
Sent: Friday, January 27, 2006 11:01 AM
To: Campbell, Arnie (A.T.); Sprunger, Jon (J.L.)
Cc: Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.); Spears, Christopher (C.W.); Hage, Kam (H.); Armstrong, Dave (D.); Larimore, Jonathan (J.P.); Livernois, Stephen (S.M.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information - Reply Arnie

This can not be put in the WSM as it stands

WSM can not assume that a B2293 is for driver airbag. Code is bitmapped.

Is this hard fault or continuous code concern.

Are the clockspring Engineer aware of this just throw clockspring at it and not testing for it first.

When driver airbag is being replaced is a clockspring also being replaced on the same work order or later on a different work order for the same vehicle.

Gary Smith

Service Info. Specialist WSM

Technical Support Operations / FCSD

Tel: 313-390-7481

gsmith53@ford.com

Fax: 313-390-8727

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

From: Campbell, Arnie (A.T.)
Sent: Friday, January 27, 2006 9:55 AM
To: Sprunger, Jon (J.L.); Smith, Gary (G.W.)
Cc: Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.); Spears, Christopher (C.W.); Campbell, Arnie (A.T.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information - Reply Arnie

Jon;

I have talked to Gary Smith in the workshop section and he is going to review what is currently in the Shop Manuals and then he suggested that we (Engineering -Chris, the technical writers, Gary and myself) sit down and discuss what is currently available for diagnosis. I agree with you comments that we should be certain that the shop manual procedure is worded in such a way as to help with diagnosis and that once that is completed we may be able to issue a SSM to reinforce the shop manual content. Thanks for your comments and advice on this one.

Arnie Campbell

Program Manager - FCSD/SEO

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

From: Sprunger, Jon (J.L.)
Sent: Thursday, January 26, 2006 3:36 PM
To: Spears, Christopher (C.W.)
Cc: Campbell, Arnie (A.T.); Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information

Chris/Arnie,

Was the Workshop Manual team approached about the possibility of working this diagnostic procedure into the Workshop Manual? I believe they could still potentially update back to 2002 MY.

Sincerely,

Jon Sprunger
Global Technical Communications - FCSD
TSB/SSM Processing
Phone: (313)32-32272
Fax: (313)24-86449
jsprunge@ford.com

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

From: Spears, Christopher (C.W.)
Sent: Thursday, January 26, 2006 1:27 PM
To: Sprunger, Jon (J.L.)
Cc: Campbell, Arnie (A.T.); Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information

In response to Jon's questions:

1. Is this for a specific set of vehicles with a clock spring issue?

No, simply because this is a warranty issues that affects several of our vehicle lines from Car/Truck. There are documented procedures to follow as stated below.

2. Is this a general procedure they want used when servicing air bag systems on all vehicles?

Yes, this affects proper diagnosis of the driver airbag which is assumed suspect of airbag warning lights (CCC: S39).

3. What type of model year range are we talking about?

2002-2006 All Models (Focus, Lincoln LS, Thunderbird, Continental, Windstar, Freestar, Freestyle, Five Hundred, Montego, Crown Victoria, Grand Marquis, Town Car, Fusion, Milan, Zephyr, Escape, Mariner, Explorer, Mountaineer, Aviator, Expedition, Navigator, Excursion, Econoline, F-Series Under 8500, F-Series Over 8500, & Ranger.)

I hope I didn't miss anywhere. I think that about covers everything we build.

From: Larimore, Jonathan (J.P.)
Sent: Friday, January 27, 2006 4:40 PM
To: Klosek, Walter (W.)
Subject: FW: SSM approval for Airbag-Clockspring Procedure - Request for additional information - Reply Arnie

Walt, not sure if this is the same group you're working with on the P221 or if the info would help.

Jonathan Larimore
EESE Interior Harmony
jlarimor@ford.com
cell & text pager

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

From: Smith, Gary (G.W.)
Sent: Friday, January 27, 2006 11:01 AM
To: Campbell, Arnie (A.T.); Sprunger, Jon (J.L.)
Cc: Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.); Spears, Christopher (C.W.); Hage, Kam (H.); Armstrong, Dave (D.); Larimore, Jonathan (J.P.); Livernois, Stephen (S.M.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information - Reply Arnie

This can not be put in the WSM as it stands

WSM can not assume that a B2293 is for driver airbag. Code is bitmapped.

Is this hard fault or continuous code concern.

Are the clockspring Engineer aware of this just throw clockspring at it and not testing for it first.

When driver airbag is being replaced is a clockspring also being replaced on the same work order or later on a different work order for the same vehicle.

Gary Smith

Service Info. Specialist WSM
Technical Support Operations / FCSD
Tel: 313-390-7481
gsmith53@ford.com
Fax: 313-390-8727

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

From: Campbell, Arnie (A.T.)
Sent: Friday, January 27, 2006 9:55 AM
To: Sprunger, Jon (J.L.); Smith, Gary (G.W.)
Cc: Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.); Spears, Christopher (C.W.); Campbell, Arnie (A.T.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information - Reply Arnie

Jon;

I have talked to Gary Smith in the workshop section and he is going to review what is currently in the Shop Manuals and then he suggested that we (Engineering -Chris, the technical writers, Gary and myself) sit down and discuss what is currently available for diagnosis. I agree with you comments that we should be certain that the shop manual procedure is worded in such a way as to help with diagnosis and that once that is completed we may be able to issue a SSM to reinforce the shop manual content. Thanks for your comments and advice on this one.

Arnie Campbell
Program Manager - FCSD/SEO

PE09-046 0724

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

From: Sprunger, Jon (J.L.)
Sent: Thursday, January 26, 2006 3:36 PM
To: Spears, Christopher (C.W.)
Cc: Campbell, Arnie (A.T.); Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information

Chris/Arnie,

Was the Workshop Manual team approached about the possibility of working this diagnostic procedure into the Workshop Manual? I believe they could still potentially update back to 2002 MY.

Sincerely,

Jon Sprunger
Global Technical Communications - FCSD
TSB/SSM Processing
Phone: (313)32-32272
Fax: (313)24-86449
jsprunge@ford.com

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

From: Spears, Christopher (C.W.)
Sent: Thursday, January 26, 2006 1:27 PM
To: Sprunger, Jon (J.L.)
Cc: Campbell, Arnie (A.T.); Kula, Paul (P.K.); Clement, Charles (C.A.); Pearsall, Norm (N.C.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure - Request for additional information

In response to Jon's questions:

1. Is this for a specific set of vehicles with a clock spring issue?

No, simply because this is a warranty issues that affects several of our vehicle lines from Car/Truck. There are documented procedures to follow as stated below.

2. Is this a general procedure they want used when servicing air bag systems on all vehicles?

Yes, this affects proper diagnosis of the driver airbag which is assumed suspect of airbag warning lights (CCC: S39).

3. What type of model year range are we talking about?

2002-2006 All Models (Focus, Lincoln LS, Thunderbird, Continental, Windstar, Freestar, Freestyle, Five Hundred, Montego, Crown Victoria, Grand Marquis, Town Car, Fusion, Milan, Zephyr, Escape, Mariner, Explorer, Mountaineer, Aviator, Expedition, Navigator, Excursion, Econoline, F-Series Under 8500, F-Series Over 8500, & Ranger.)

I hope I didn't miss anywhere. I think that about covers everything we build.

Here's an updated chart for Top 25 VO5 Restraints warranty concerns by 2006 CY, the ones highlighted in red are not restraint parts.

<< OLE Object: Microsoft Excel Chart >>

Chris W. Spears

**NAE Safety Systems Quality
Quality Engineer
e-mail: cspears5@ford.com**

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

From: Campbell, Arnie (A.T.)
Sent: Wednesday, January 25, 2006 8:30 AM
To: Spears, Christopher (C.W.)
Cc: Sprunger, Jon (J.L.); Campbell, Arnie (A.T.)
Subject: FW: SSM approval for Airbag-Clockspring Procedure - Request for additional information

Chris;

Could you please review the questions in the below e-mail and respond to Jon and cc with the answers. This information is required in order to move forward on a possible release of a TSB. Thanks

Arnie Campbell

Program Manager - FCSD/SEO
FBP-3, Suite 245A

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

From: Sprunger, Jon (J.L.)
Sent: Tuesday, January 24, 2006 4:27 PM
To: Campbell, Arnie (A.T.)
Subject: RE: SSM approval for Airbag-Clockspring Procedure

Arnie,

Looks like it might need to be a TSB (rather than SSM) just because of length. Is this for a specific set of vehicles with a clock spring issue, or a general procedure they want used when servicing air bag systems on all vehicles? What type of model year range are we talking about?

Sincerely,

Jon Sprunger
Global Technical Communications - FCSD
TSB/SSM Processing
Phone: (313)32-32272
Fax: (313)24-86449
jsprunge@ford.com

PE09-046 0726

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

From: Campbell, Arnie (A.T.)
Sent: Tuesday, January 24, 2006 10:12 AM
To: Sprunger, Jon (J.L.)
Cc: Campbell, Arnie (A.T.)
Subject: FW: SSM approval for Airbag-Clockspring Procedure

Jon;

My restraint team has been working on this SSM and have gone through OGC and Campaign Prevent team and now would like to release this as a SSM and they are asking me who could help put it into the system because it covers all vehicle lines. Could you please identify a person who could work with Chris to get this SSM released. Once again thanks for your kind assistance.

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

From: Spears, Christopher (C.W.)
Sent: Monday, January 23, 2006 4:57 PM
To: Campbell, Arnie (A.T.)
Cc: Pearsall, Norm (N.C.); Kula, Paul (P.K.)
Subject: FW: SSM approval for Airbag-Clockspring Procedure

FYI...Could we have your support on this one.

Chris W. Spears

NAE Safety Systems Quality
Quality Engineer
e-mail: cspears5@ford.com

C

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

From: Spears, Christopher (C.W.)
Sent: Thursday, January 19, 2006 3:03 PM
To: Christensen, Kris (K.S.)
Cc: Clement, Charles (C.A.); Kula, Paul (P.K.)
Subject: SSM approval for Airbag-Clockspring Procedure

Kris: Do you know when this procedure will be approved from FCSD?

There have been issues regarding driver airbag replacement and we need your help going forward with an SSM action that alleviates the Restraints community from NTFs (No trouble found) airbags. Below are some of the conditions exhibited by all vehicle lines.

Draft Only:

1. Retrieve all Continuous DTCs stored in the RCM and run the RCM On-Demand Self Test to retrieve all hard fault DTCs. See Section 501-20B in the appropriate Workshop Manual.
2. Is B1932 or B2293 the only DTC present?
 - Yes: proceed to Step 3.
 - No: follow the diagnostic sequence provided in Section **501-20B** of the appropriate Workshop Manual.
3. Depower the Air Bag system. See Section **501-20B** of the appropriate Workshop Manual.
4. Install a new clock spring. See Section **501-20B** of the appropriate Workshop Manual.
5. Repower the Air Bag System. See Section **501-20B** of the appropriate Workshop Manual.
6. Start the engine and turn the steering wheel lock to lock 10 times.
7. Perform a Continuous Self Test and an On-Demand Self Test. See Section **501-20B** of the appropriate workshop manual.
8. Are there any DTCs??

- Yes, service as necessary following the appropriate workshop manual.
No, release the vehicle.

Chris W. Spears

**NAE Safety Systems Quality
Quality Engineer
e-mail: cspears5@ford.com**
C

From: Horejsi, Joe [joe.horejsi@methode.com]
Sent: Wednesday, February 15, 2006 8:38 AM
To: Klosek, Walter (W.)
Cc: Sutherland, Roy (R.W.); Crafts, Bill (W.E.)
Subject: FW: pix of P221 stuff
Attachments: newtubingtape021406.xls

Walt,

Attached is a digital picture of the BH tubing with 4 spot tapes. Please let me know what you think. I should get the 20 parts today per your request, any other questions give me a call.

Regards,

Joe Horejsi

Methode Electronics, Inc.

248.603.2141

<<newtubingtape021406.xls>>

P221 Clockspring with expandable protective tubing and tape (4 places)



272

From: Sutherland, Roy (R.W.)
Sent: Wednesday, February 22, 2006 11:02 AM
To: Klosek, Walter (W.)
Subject: FW: !!! Hot Request
Attachments: Simple Vin Summary from R. Sutherland 16 Feb 2006.xls

Walt,
 Here is the Methode response.

Regards,
Roy Sutherland Jr.
 Ford Core Clockspring & Steering Wheel Switch D&R Engineer
 Email: rsutherl@ford.com
 Phone: 313-62-16386
 Cell: _____
 Bldg#5, Cube 1D009

-----Original Message-----
From: Cox, Mark [mailto:MCox@methode-aecd.com]
Sent: Wednesday, February 22, 2006 10:53 AM
To: Sutherland, Roy (R.W.); Gibson, Scott
Cc: Horejsi, Joe
Subject: RE: !!! Hot Request

Roy,
 We have rec'd 2 of the parts on this list which are highlighted in BLUE. I have also added the details from our database to the 2nd tab of this spreadsheet. Note that one of the returns was backwound and the other was just rec'd and is in process.

Let me know if you need anything else.

Thanks,
 Mark

-----Original Message-----
From: Sutherland, Roy (R.W.) [mailto:rsutherl@ford.com]
Sent: Wednesday, February 22, 2006 9:08 AM
To: Mark Cox (E-mail); Scott Gibson (E-mail)
Cc: Joe Horejsi (E-mail)
Subject: !!! Hot Request
Importance: High

Mark/Scott,
 I have an attached list of serviced P221 clocksprings. Please look through all of your warranty return information to find out if you have received these parts back. Please let me know which parts you have received back and what the Methode analysis indicated for each switch,

Thanks,
Roy Sutherland Jr.
 Ford Core Clockspring & Steering Wheel Switch D&R Engineer
 Email: rsutherl@ford.com
 Phone: 313-62-16386
 Cell: _____

!!! Hot Request

Page 2 of 2

Bldg#5, Cube 1D009

<<Simple Vin Summary 16 Feb 2006.xls>>

11/3/2009

PE09-046 0732

# Original Order	# By MY and Build Date	SOURCE	VIN	BUILD DATE	MY MODEL	STYLE	DRIVE	BUILD PLANT	Warranty Start Date	ODO.
4	1	52144KMS Alex Snider	1FTPX14544F		2004	4x4		DTP		
12	2	ECI	1FTRW12WX4	12/10/03	F-150	DOUBLE CAB (CREW CAB)	2 WHL L/H REAR DRIVE	KCAP	Jan/2004/28	11,605
2	3	ECI	1FTPW14544K	1/15/04	F-150	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KCAP	Mar/2004/31	26,400
1	4	ECI	1FTPW14514K	5/6/04	F-150	DOUBLE CAB (CREW CAB)	4 WHL L/H PART TIME DRIVE	KCAP	May/2004/18	17
13	5	ECI	1FTRX14W04K	5/12/04	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Dec/2004/19	16,446
3	6	ECI	1FTPX12595N	11/24/04	F-150	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NAP	Feb/2005/22	60,000
15	7	AWS K. Olson	1FTRX12W15N	12/1/2004	F-150	SUPER SINGLE CAB (SUPER CAB)	2 WHL L/H REAR DRIVE	NAP	12/31/2004	18,448
14	8	ECI	1FTRX14W65N	12/7/04	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/31	23,300
7	9	ECI	1FTPX145X5N	12/16/04	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/12	35,485
5	10	ECI	1FTPX14585N	1/4/05	F-150	SUPER SINGLE CAB (SUPER CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/19	17,318
11	11	ECI	1FTRF14W15N	1/11/05	F-150	SINGLE CAB (REGULAR CAB)	4 WHL L/H PART TIME DRIVE	NAP	Jan/2005/20	23,564
9	12	ECI	1FTRF12225N	1/12/05	F-150	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NAP	Mar/2005/10	21,513
8	13	CCIS	1FTRF12215N	1/23/2005	5/15/2005	RC 4x2		NAP	1 04 4 57	6,910
10	14	ECI	1FTRF12295N	1/27/05	F-150	SINGLE CAB (REGULAR CAB)	2 WHL L/H REAR DRIVE	NAP	Apr/2005/07	13,194
6	15	CCIS	1FTPX14585N	1/28/2005	2005	SC 4x4		NAP	1 04 4 57 7 03 2 70	7,161
16	16	CUDL report # 1603950306	1FTRF12215N	6/21/2005	2005			NAP		

275

From: Klosek, Walter (W.)
Sent: Wednesday, February 01, 2006 10:36 AM
To: Olson, Kathy (K.A.)
Subject: FW: ***HOT*** - 5f2t clockspring
Attachments: MVC-024S.JPG; MVC-023S.JPG; MVC-022S.JPG

forgot to send to you--sorry

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

From: Klosek, Walter (W.)
Sent: Wednesday, February 01, 2006 10:35 AM
To: Wrestler, Sandy (S.J.)
Cc: Matulonis, Bob (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Sandy,

It looks like Methode will be able to get the 6 parts you are looking for hopefully on Thursday. The attachments show picture of what it will look like -- They even managed to find yellow tubing. As I said before aside from the cost which we should know soon my biggest concern is the ability to plug in the connector at line rate with the added stiffness

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

From: Horejsi, Joe [mailto:joe.horejsi@methode.com]
Sent: Wednesday, February 01, 2006 9:55 AM
To: Klosek, Walter (W.); Sutherland, Roy (R.W.)
Subject: FW: ***HOT*** - 5f2t clockspring

Walt/Roy,

Attached are pictures with the Bentley Harris tubing. Walt, I will be able to get (6) clocksprings for you to do vibe testing. If you have any questions or concerns give me call.

Regards,

Joseph Horejsi
Program Manager
KBA Automotive Group
Methode Electronics, Inc
248.603.2141

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

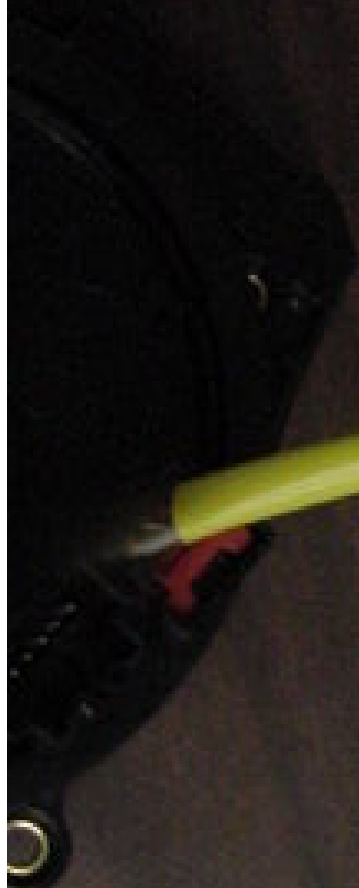
From: Henderson, Brent
Sent: Tuesday, January 31, 2006 11:03 AM
To: Horejsi, Joe
Cc: Bolen, Pat; Gibson, Scott
Subject: RE: ***HOT*** - 5f2t clockspring

Joe -

It appears to be feasible. I have attached some pictures indicating what the part would look like with the tubing added. I will put this part in the mail to your attention today. The part I am sending was just laying around my desk, so don't use it any vehicle.

Brent

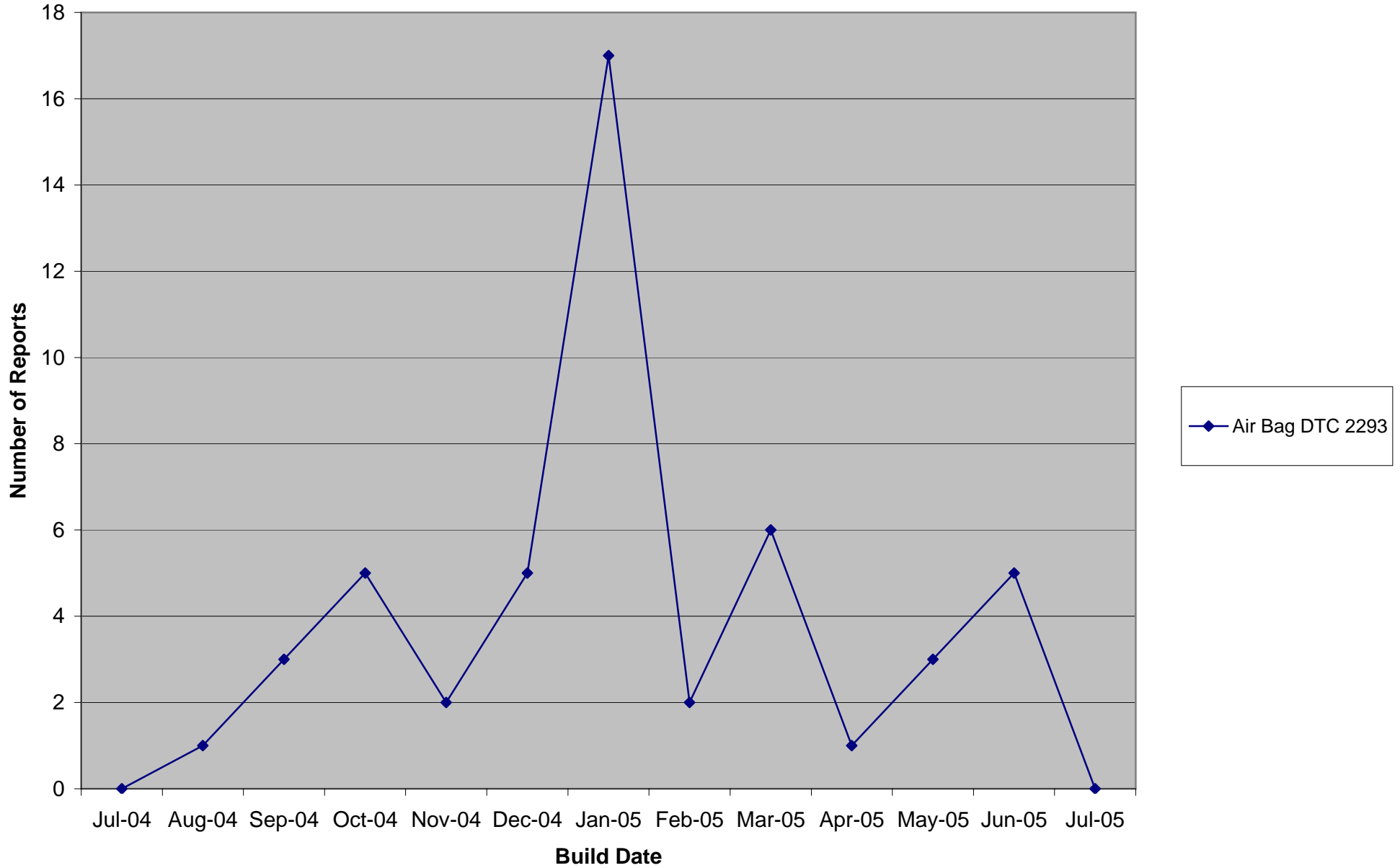






5.4L - MIL Codes P0172 / P0175 "CQIS Data"

CQIS Folder Report Count by Build Date



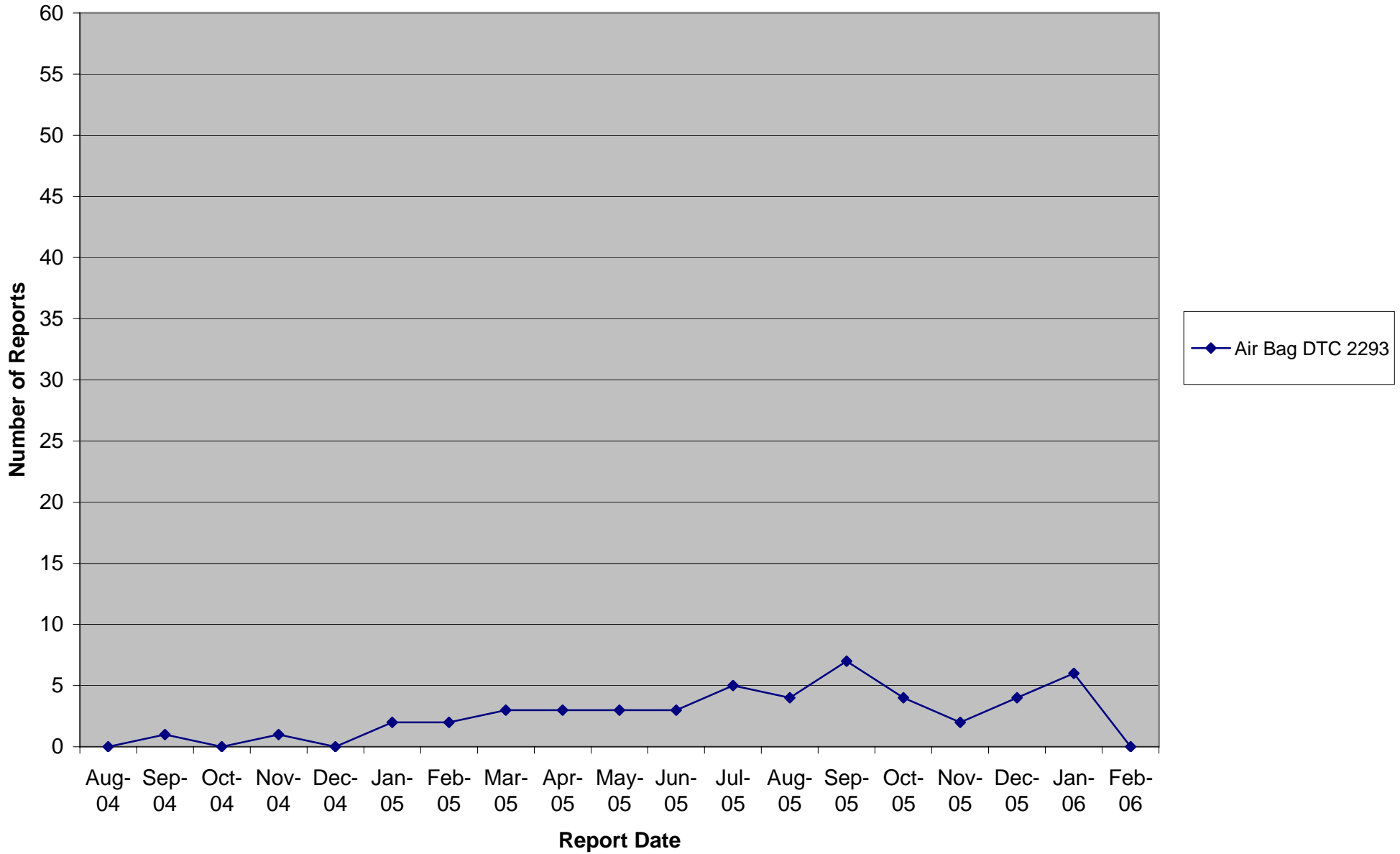
PVT Folder Report

Select by Build Date

Folder	Description	Report Count	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05				
	Tire Wear Concerns		0	1	3	5	2	5	17	2	6	1	3	5	0				

5.4L - MIL Codes P0172 / P0175 "CQIS Data"

CQIS Folder Report Count by Report Date



PVT Folder Report

Select by Report Date																					
Folder	Description	Report Count	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06
	Tire Wear Concerns	50	0	1	0	1	0	2	2	3	3	3	3	5	4	7	4	2	4	6	0

283

DEALER/ TECH. CIRCUM STANCE

MY

DEPLOY CODE ED? RCM

SYMPTO CUST. M

REPORT BUILD PLANT N

REPORT # DATE 1/19/2006

INCIDENT DATE

ODO. 6383

BUILD DATE 5/26/2005

MODEL 2005 SC 4x4

VIN
1FTRX14W45N

From: Oswalt, Greg (G.G.)
Sent: Tuesday, April 25, 2006 8:55 AM
To: Clement, Charles (C.A.)
Subject: Fleet Summary

Attachments: Fleet Summary.xls

Charles,
Attached is the fleet summary document.



Fleet Summary.xls
(53 KB)

Greg Oswalt
Critical Concern Manager
BoF - Pick-up Truck & Commercial Vehicle
PDC - GC-A59, MD 266
☎ 313-390-1160, Cell Ph.
✉ goswalt@ford.com

Honesty is the best image.

P221 Georgia Power
Fleet Inspection

VIN	Fleet #	Mileage	Build Month	Did Wire Exhibit Cond	Condition Description	Location	Other Wire Comments
1FTRX12W95	24410	24525	09-04	No		Lawrenceburg	
1FTRX14W65	14560	44742	10-04	Yes - R/B	4	Forest Park	
1FTRF1225N	31543	14496	11-04	Yes - Both	2	Athens	O/G & R/B
1FTRF12285N	31538	11328	11-04	Yes - R/B	4	Athens	
1FTRF12245N	31541	17282	11-04	Yes - Both	3	Athens	O/G - 3, R/B - 3 Vehicle involved in accident. Airbag light is flashing and has a code for crash sensor fault negative cable loose to battery
1FTRF14W15	31549	26863	11-04	No		Athens	
1FTRF12265N	31540	23971	11-04	Yes - R/B	3	Athens	
1FTRF14WX5	31534	22074	11-04	Yes	4	Athens	witness marks on both
1FTRF14W85	31542	25710	11-04	Yes - Both	4	Atlanta	
1FTRF122X5N	25541	17081	11-04	Yes - G/O & R/B	4	Forest Park	
1FTRF12225N	21599	27079	11-04	No		Forest Park	
1FTRF122X5N	35549	22389	11-04	Yes - G/O & R/B	1	Lawrenceburg	G/O - 1, R/B - 4 airbag light on
1FTRF12215N	14544	28412	11-04	No		Lawrenceburg	
1FRF12295N	25532	22215	11-04	Yes - W/O & GW	4	Minola	Witness mark at Steering Wheel attachment screw
1FTRF12275N	25535	17983	11-04	No		Minola	
1FTRF12215N	24548	34525	11-04	Yes - R/B	3	Minola	
1FTRF12255N	25531	24203	11-04	No		Minola	
1FRF12235N	24549	26072	11-04	Yes - Both	3	Minola	GAW - 3, W/O - 4, R/B - 4
1FTRF12225N	24539	37827	11-04	Yes - Both	3	Minola	R/B - 3, G/O - 3
1FTRF12205N	25533	25225	11-04	Yes - R/B	4	Minola	
1FTRX12W65	15549	26425	12-04	Yes - R/B	4	Forest Park	
1FTRX12W35	13555	20288	12-04	No		Forest Park	
1FTRX12W85	21537	30075	12-04	Yes - G/R	2	Lawrenceburg	R/B - 2, G/O - 3
1FTRX12WX5	21539	52817	12-04	No		Lawrenceburg	
1FTRF12245N	14521	31921	01-05	No		Atlanta	
1FTRF12205N	13538	9846	01-05	Yes - G/O	4	Lawrenceburg	
1FTRF12295N	13542	19238	01-05	No		Lawrenceburg	
1FTRF12275N	14531	16926	01-05	No		Lawrenceburg	
1FTRF12295N	13549	18071	01-05	Yes - G/O	3	Lawrenceburg	
1FTRF12295N	13543	44053	01-05	No		Lawrenceburg	
1FTRF12205N	14530	17120	01-05	Yes - G/O	4	Lawrenceburg	
1FTRF12265N	35547	20426	01-05	No		Minola	
1FTRF12225N	12532	21469	01-05	Yes - Both	4	Ponce	R/B - 4, G/O - 4
1FTRF12205N	13545	44330	01-05	Yes - R/B	4	Shallowford	
1FTRF122X5N	31535	8408	02-05	Yes - Both	3	Athens	R/B - 3, G/O - 3
1FTRF12265N	31531	6107	02-05	No		Athens	
1FTRF12285N	31532	17971	02-05	No		Atlanta	
1FTRF12275N	14532	14290	02-05	No		Lawrenceburg	
1FTRF12275N	31537	22590	02-05	Yes - R/B	4		
1FTRF12295N	12566	13039	03-05	No		Forest Park	

P221 Georgia Power
Fleet Inspection

VIN	Fleet #	Mileage	Build Month	Did Wire Exhibit Cond	Condition Description	Location	Other Wire Comments
1FRTX12W95N	22547	22416	03-05	Yes - Both	2	Minola	R/B - 2
1FTRF12275N	12558	29991	03-05	Yes - R/B	3	Minola	
1FTRF12285N	12543	17159	03-05	No		Minola	
1FTRX12WX5N	21533	15251	03-05	Yes - R/B	4	Minola	
1FTRF12205N	22541	21054	03-05	Yes - G/O	4	Ponce	
1FTRF12245N	22544	21177	03-05	No		Ponce	
1FTRF12295N	22543	26150	03-05	Yes	4	Shallowford	Gray/White clock spring end
1FTRF14W35N	14536	32492	03-05	Yes - R/B	3		R/B - 3
1FTRF14W85N	15569	21124	04-05	Yes - Both	3	Athens	
1FTRF12275N	12521	12579	04-05	Yes - G/O	3	Forest Park	
1FTRF12275N	13525	12105	04-05	Yes - R/B	2	Forest Park	
1FTRF12235N	12557	9097	04-05	Yes	4	Forest Park	Witness on insulation and G/O
1FTRF12265N	22534	14679	04-05	Yes - G/O	2	Lawrenceburg	
1FTRF12235N	13563	15039	04-05	Yes - R/B	3	Lawrenceburg	
1FTRF122X5N	25538	15582	04-05	No		Ponce	
1FTRF12295N	24545	12157	04-05	Yes - G/O	3	Shallowford	
1FTRF14W85N	32531	15802	05-05	No		Athens	
1FTRF12245N	23576	12270	05-05	Yes - G/O	4	Forest Park	Also R/B at clockspring
1FTRF12235N	24522	25431	05-05	Yes - R/B	2	Forest Park	
1FTRF12245N	23578	24540	05-05	No		Forest Park	
1FTRF12245N	12552	10009	05-05	Yes - G/O	4	Forest Park	
1FTRF12215N	12553	12648	05-05	No		Forest Park	
1FTRF14W35N	14566	12570	05-05	Yes - G/O	3	Forest Park	
1FTRF12245N	23573	15155	05-05	Yes - G/O	4	Forest Park	
1FTRF14W75N	14573	15431	05-05	Yes - G/O	4	Shallowford	
1FTRF12265N	13544	11381	06-05	No		Lawrenceburg	
1FTRF14W85N	22560	13098	07-05	No		Forest Park	
1FTRF14WX5N	22566	7505	07-05	No		Forest Park	
1FTRF14W55N	21566	12619	07-05	No		Forest Park	
1FTRF14W15N	22565	11425	07-05	No		Forest Park	
1FTRF12295K	25539	14599	08-05	Yes - R/B	4	Forest Park	
1FTRF12205K	33548	13711	08-05	No		Forest Park	FLOCKED
1FTRF122X6N	21629	4	02-06	No		Lawrenceburg	FLOCKED
1FTRF12286N	23610	4	02-06	No		Lawrenceburg	FLOCKED
1FTRF1226N	21631	4	02-06	No		Lawrenceburg	FLOCKED
1FTRF12236N	12618	3	02-06	No		Lawrenceburg	FLOCKED

VIN - 11th digit
N - Norfolk
K - KCAP
F - DTP

Condition Description
1 - cut w/copper visible
2 - cut insulation
3 - insulation chafed
4 - witness mark from touch condition

Wire Description:
R/B - Red & Black (stage 2)
G/O - Green & Orange (stage 2)
G/W - Gray & White (stage 1)
G/R - Gray & Red (stage 1)

P221 Georgia Power
Fleet Inspection

VIN	Fleet #	Mileage	Build Month	Did Wire Exhibit Cond	Condition Description	Location	Other Wire Comments
1FTRW12W641	TV 8083	33092	09-03	Yes - R/B	4	TV	
1FTPX14554N	AC 8018	45849	09-03	No		AC COLLINS	gray pvc for speed control has witness marks
1FTRX12W14N	TV 6368	27850	10-03	Yes -R/B	2	TV	
1FTPW12544K	TV 4241	43760	02-04	Yes - W/G	3	TV	
1FTPW12554K	AC 9061	51276	02-04	Yes -G/O	3	AC COLLINS	
1FTRX12W14N	C 4857	20330	04-04	Yes -G/O	4	CHAMPION	very slight
1FTRX12W65N	C 4753	23352	08-04	Yes - R/B	3	CHAMPION	20 mm, pictures 17, 18, 19
1FTRF12W64K	AC 3790	28377	08-04	No		AC COLLINS	
1FTRW12W55I	AC 3151	33046	09-04	Yes -R/B	4	AC COLLINS	22 mm picture 31, new cable
1FTRF12WX5N	1034	21456	10-04	No		CPE	
1FTRF12W25N	1035	19042	10-04	Yes -G/O	4	CPE	witness, blown fuse
1FTRF12W55N	1037	16232	10-04	Yes -R/B	3	CPE	
1FTRF12W05N	1044	10974	10-04	Yes -R/B	3	CPE	
1FTRF12275N	1923	12612	10-04	No		CPE	
1FTPW12545K	AC 5279	32413	11-04	Yes -R/B	3	AC COLLINS	
1FTRF12265K	1047	22729	11-04	No		CPE	
1FTRF12245N	1049	16146	11-04	Yes - G/O	3	CPE	
1FTRF122X3N	1051	20407	11-04	No		CPE	
1FTRF12235N	1060	10782	11-04	Yes -R/B	4	CPE	
1FTRF12285K	1063	19237	11-04	Yes -R/B	2	CPE	CUT
1FTRF12235N	1080	18884	11-04	Yes -R/B	3	CPE	
1FTRF12255N	1085	20472	11-04	Yes -O/G	2	CPE	clockspring
1FTRW12W15I	TV 7754	35324	12-04	Yes -R/B	3	TV	
1FTRX12W45N	AC 6065	5234	12-04	No		AC COLLINS	
1FTRF12265K	1079	2286	12-04	No		CPE	22 mm pictures 23, 24
1FTRF12W25N	AC 6186	17398	01-05	Yes -O/G, G/O & R/B	3	AC COLLINS	clockspring end, pictures 21, 22, cable replaced, O/G, G/O -3, R/B-4
1FTPW14595K	AC 8967	38466	03-05	No		AC COLLINS	
1FTRW12W64	AC 5428	15203	08-05	Yes -R/B	3	AC COLLINS	20 mm, pictures 27, 28, 29, 30
1FTRF12298N	1342	7125	08-05	No		AC COLLINS	pictures 25, 26
1FTRF12286N	1205	8186	08-05	No		CPE	
1FTRF12246N	1216	7452	08-05	No		CPE	
1FTRF12266N	1225	4651	08-05	No		CPE	
1FTRF12286N	1247	6392	08-05	Yes -O/G	4	CPE	clockspring end
1FTRF12216N	1285	8614	08-05	Yes - G/O	3	CPE	clockspring end G/O - 3, W/G - 4
1FTRF12236N	1291	6663	08-05	No		CPE	
1FTRF12256N	1296	8575	08-05	No		CPE	
1FTRF12276N	1335	?	08-05	Yes - G/O	4	CPE	
1FTRF12206N	1343	6983	08-05	No		CPE	
1FTRF12236N	1350	7741	08-05	No		CPE	
1FTRF12256N	1385	11186	08-05	Yes -R/B	4	CPE	witness R/B, witness on pvc
1FTRF12276N	1430	9432	08-05	No		CPE	

P221 Georgia Power
Fleet Inspection

VIN	Fleet #	Mileage	Build Month	Did Wire Exhibit Cond	Condition Description	Location	Other Wire Comments
1FTRF12206	1481	9713	08-05	No		CPE	blown fuse for power point
1FTRF12228	1517	8502	08-05	Yes -G/O	3	CPE	3 on pvc also
1FTRF12246	1550	9965	08-05	Yes -O/G	3	CPE	witness marks on pvc
1FTRF122X6	1616	8324	08-05	No		CPE	witness on pvc clockspring end outside wires
1FTRF12266	1640	6578	08-05	Yes - R/B	4	CPE	clockspring end, G/O - 4, O/G - 4
1FTRF12286	1677	7815	08-05	Yes - R/B	3	CPE	
1FTRF122X6	1700	67638 ?	08-05	No		CPE	witness G/O clockspring end

Wire Description:

- R/B - Red & Black (stage 2)
- G/O - Green & Orange (stage 2)
- G/W - Gray & White (stage 1)
- G/R - Gray & Red (stage 1)

Confidentiality: Confidential

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STEP 1 =====

Tracking Number 6631852

VIN 1FTRF12W65N_____

Model Year 2005

Vehicle F150

Vehicle Build Date

Mileage 55843

CQIS / CUDL #

Incident Date

Alleged Description Customer alleges that airbag deployed while vehicle was idleing. 4/7/2008
EKEMNITZ

Alleged Concern Unintended Deployment
DTC

Last Revised

EKEMNITZ
Apr-09-2008

Date Entered

EKEMNITZ
Apr-07-2008

[View Issue History](#)

[Edit](#)

Attachments

✳ [Autoliv Report](#)

STEP 2 =====

Supplier Autoliv

Part Number 5L34-14B321-DD

Shipped to Supplier Apr-08-2008

STEP 3 =====

System Front

Engineering Comments Autoliv review of module data shows no active or internal faults. Memory dump shows historical leakage faults on driver airbag. Lamp would have been active. RCM did not command or deploy airbag and performed as designed. 4/9/08
EKEMNITZ

Affected Engineers

Closed Date Apr-09-2008

Closed By EKEMNITZ

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS										
ID #	J103	TYPE	ARM461+											
ID	ETRACKER 6631852	PART #	5L34-14B321-DD	DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT										
REPORT DATE	April 9, 2008	SERIAL #	24A308386443	2 Key-ons with the fault present Fault cleared										
CUSTOMER CONTACT		BUILD DATE	February 22, 2005	DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT										
NAME	Erich Kernnitz	VEHICLE INFORMATION		1 Key-ons with the fault present Fault cleared										
COMPANY	Ford	MODEL YR	05	DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT										
POSITION	Engineer	NAME	F150	194 Key-ons with the fault present Fault cleared										
PHONE	313-805-6051	CODE	P221	DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT										
EMAIL	ekernnitz@ford.com	VIN	1FTRF12W65N	17 Key-ons with the fault present Fault cleared										
		MILEAGE	Data not known at time of report.	DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT										
RESTRAINT CONTROL MODULE ANALYSIS														
<ol style="list-style-type: none"> 1. There were no active faults present when the restraint control module was powered on. 2. The restraint control module did not record a commanded restraint deployment. 3. The restraint control module did not record any crash or acceleration data. 4. There were no internal faults recorded in the restraint control module. 5. The historical faults are listed in the next column. 														
<table style="width: 100%; border: none;"> <tr> <td style="width: 20%;">DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT</td> <td style="width: 80%;">13 Key-ons with the fault present Fault cleared</td> </tr> <tr> <td>BATTERY_LOW_FAULT</td> <td>3 Key-ons with the fault present Fault cleared</td> </tr> <tr> <td>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT</td> <td>108 Key-ons with the fault present 19 Key-ons since fault has not been present</td> </tr> <tr> <td>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT</td> <td>30 Key-ons with the fault present 0 Key-ons since fault has not been present</td> </tr> <tr> <td>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_HIGH_FAULT</td> <td>1 Key-ons with the fault present 18 Key-ons since fault has not been present</td> </tr> </table>					DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT	13 Key-ons with the fault present Fault cleared	BATTERY_LOW_FAULT	3 Key-ons with the fault present Fault cleared	DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT	108 Key-ons with the fault present 19 Key-ons since fault has not been present	DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT	30 Key-ons with the fault present 0 Key-ons since fault has not been present	DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_HIGH_FAULT	1 Key-ons with the fault present 18 Key-ons since fault has not been present
DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT	13 Key-ons with the fault present Fault cleared													
BATTERY_LOW_FAULT	3 Key-ons with the fault present Fault cleared													
DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT	108 Key-ons with the fault present 19 Key-ons since fault has not been present													
DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT	30 Key-ons with the fault present 0 Key-ons since fault has not been present													
DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_HIGH_FAULT	1 Key-ons with the fault present 18 Key-ons since fault has not been present													

Confidentiality: Confidential

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STEP 1 =====

Tracking Number 4712236
VIN 1FTRF12W05N
Model Year 2005
Vehicle F150
Vehicle Build Date Jun-09-2005
Mileage
CQIS / CUDL #
Incident Date

Last Revised EKEMNITZ
Mar-20-2007
Date Entered EKEMNITZ
Mar-14-2007

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Alleged Description Customer Alleges.... Need more information on alleged concern. 3/14/07
EKEMNITZ
Alleged inadvertant deployment. EKEMNITZ 3/20/07
Alleged Concern Unintended Deployment
DTC B1318, B2293

Attachments

• [Autoliv Report](#)

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-DD
Shipped to Supplier Mar-16-2007

STEP 3 =====

System Front
Engineering Comments Autoliv Report shows RCM did not command deployment. There were multiple key cycles with the airbag warning lamp lit due to a leakage fault on the driver airbag. RCM functioned as designed to provide warning lamp for leakage. 3/20/07 EKEMNITZ

Affected Engineers

Closed Date Mar-20-2007
Closed By EKEMNITZ

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS
ID #	J78	TYPE	ARM461+	DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 87 Key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_1_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 86 Key-ons since fault has not been present BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 3 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared 95 Key-ons since fault has not been present BATTERY_LOW_FAULT 2 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 2 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 3 Key-ons with the fault present Fault cleared HISTORICAL FAULTS OCS_COMMUNICATION_FAULT
ID	ETRACKER 4712236	PART #	5L34-14B321-DD	
REPORT DATE	March 19, 2007	SERIAL #	24A309702733	
CUSTOMER CONTACT		BUILD DATE	May 31, 2005	
NAME	Erich Kemnitz	VEHICLE INFORMATION		
COMPANY	Ford	MODEL YR	05	
POSITION	Engineer	NAME	F150	
PHONE	313-805-6051	CODE	P221	
EMAIL	ekemnitz@ford.com	VIN	1FTRF12W05M	
		MILEAGE	Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS				
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded restraint deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.				

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STEP 1 =====

Tracking Number 4679504
VIN 1FTRF12W75N
Model Year 2005
Vehicle f150

Vehicle Build Date

Mileage

CGIS / CUDL #

Incident Date

Alleged Description Customer alleges that airbags deployed without any impact.

Alleged Concern Unintended Deployment

DTC

Last Revised

EKEMNITZ
Mar-09-2007

Date Entered

EKEMNITZ
Mar-07-2007

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Attachments

✱ [Autoliv Report](#)

STEP 2 =====

Supplier Autoliv

Part Number 5L34-14B321-DD

Shipped to Supplier Mar-08-2007

STEP 3 =====

System Front

Engineering Comments Autoliv report shows leakage faults on the driver stage 2 for 256+ key cycles. Airbag lamp would have been lit. The RCM did not command the deployment, and there were no internal faults with the RCM. The RCM performed as designed. 3/9/07 EKEMNITZ

Affected Engineers

Closed Date Mar-09-2007

Closed By EKEMNITZ

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID #	ARM461+	<p>(Faults are listed in the order in which they are detected)</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 42 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_HIGH_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present</p>
ID	5L34-14B321-DD	
REPORT DATE	March 8, 2007	
SERIAL #	24A702036413	
BUILD DATE	January 17, 2005	
CUSTOMER CONTACT	VEHICLE INFORMATION	
NAME	Erich Kemnitz	
COMPANY	Ford	
POSITION	Engineer	
PHONE	313-805-6051	
EMAIL	ekemnitz@ford.com	
	MODEL YR	
	05	
	NAME	
	F150	
	CODE	
	P221	
	VIN	
	1FTRF12W75N	
	MILEAGE	
	Data not supplied	
	RESTRAINT CONTROL MODULE ANALYSIS	
<p>1. There were no flash codes present when the restraint control module was powered on.</p> <p>2. The restraint control module did not record a commanded restraint deployment.</p> <p>3. There were no internal faults recorded in the restraint control module.</p> <p>4. The historical faults are listed in the next column.</p>		

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STEP 1 =====

Tracking Number 4664829
VIN 1FTRX12W25N
Model Year 2005
Vehicle F150

Last Revised EKEMNITZ
Mar-28-2007
Date Entered EKEMNITZ
Mar-05-2007

Vehicle Build Date
Mileage
CGIS / CUDL #
Incident Date

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Alleged Description Alleged inadvertant frontal deployment.
Alleged Concern Unintended Deployment
DTC TBD

Attachments

• [Autoliv Report](#)

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-AC
Shipped to Supplier Mar-05-2007

STEP 3 =====

System Front

Engineering Comments Autoliv report shows leakage faults on stage 2 of the driver bag. No faults in RCM. RCM did not deploy the bag. Lamp was active for multiple key cycles before deployment. RCM performed as designed. 3/28/07 EKEMNITZ

Affected Engineers

Closed Date Mar-28-2007
Closed By EKEMNITZ

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID # J73	TYPE ARM461+	<p>(Faults are listed in the order in which they are detected)</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 142 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 8 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_HIGH_FAULT 256 or greater key-ons with the fault present Fault cleared</p> <p>BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 21 Key-ons with the fault present 15 Key-ons since fault has not been present</p> <p>DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 256 or greater key-ons with the fault present 0 Key-ons since fault has not been present</p> <p>DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present</p>
ID ETRACKER 4664829	PART # 5L34-14B321-AC	
REPORT DATE March 6, 2007	SERIAL # 24A30764183K	
CUSTOMER CONTACT	BUILD DATE January 6, 2005	
NAME Erich Kemnitz	VEHICLE INFORMATION	
COMPANY Ford	MODEL YR 05	
POSITION Engineer	NAME F150	
PHONE 313-805-6051	CODE P221	
EMAIL ekemnitz@ford.com	VIN 1FTRX12W25N	
	MILEAGE Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS		
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded restraint deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column. 		

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STEP 1 =====

Tracking Number 4191090
VIN 1FTPX14596K
Model Year 2006
Vehicle F150
Vehicle Build Date
Mileage
CQIS / CUDL #
Incident Date

Last Revised EKEMNITZ
Nov-29-2006

Date Entered EKEMNITZ
Nov-17-2006

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Alleged Description Alleged airbag deployment. Need further detail from module or dealer to determine if issue was a deployment or non-deployment.

Alleged Concern Other
DTC

Attachments

[Autoliv Report](#)

STEP 2 =====

Supplier Autoliv
Part Number 6L34-14B321-BA
Shipped to Supplier Nov-28-2006

STEP 3 =====

System Front
Engineering Comments The system did not command a deployment. Fault history shows leakage faults present well before bag deployed. 11/29/06 EKEMNITZ

Affected Engineers
Closed Date Nov-29-2006
Closed By EKEMNITZ

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID # J64	TYPE ARM/461+	<p>(Faults are listed in the order in which they are detected)</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 60 Key-ons with the fault present Fault cleared</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 10 Key-ons with the fault present Fault cleared</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 2 Key-ons with the fault present 7 Key-ons since fault has not been present</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 7 Key-ons with the fault present 0 Key-ons since fault has not been present</p> <p>PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 7 Key-ons with the fault present 0 Key-ons since fault has not been present</p>
ID ETRACKER 4191090	PART # 6L34-14B321-BA	
REPORT DATE November 29, 2006	SERIAL # 24A716572831	
CUSTOMER CONTACT	BUILD DATE June 7, 2006	
NAME Eric Kemnitz	VEHICLE INFORMATION	
COMPANY Ford	MODEL YR 06	
POSITION Engineer	NAME F150	
PHONE 313-805-6051	CODE P221	
EMAIL ekemnitz@ford.com	VIN 1FTPX14596K	
	MILEAGE Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS		
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded restraint deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column. 		

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STEP 1 =====

Tracking Number 4071962

VIN 1FTRX12W55N

Model Year 2005

Vehicle F150

Vehicle Build Date

Mileage

CQIS / CUDL #

Incident Date

Alleged Description Customer alleges inadvertant deployment.

Alleged Concern Unintended Deployment

DTC TBD

Last Revised

EKEMNITZ

Nov-01-2006

Date Entered

EKEMNITZ

Oct-31-2006

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Attachments

• [Autoliv Report](#)

STEP 2 =====

Supplier Autoliv

Part Number 5L34-14B321-AC

Shipped to Supplier Oct-31-2006

STEP 3 =====

System Front

Engineering Comments Autoliv analysis show RCM is fault free and did not command a deployment.

Historical faults shows driver stage two leakage faults. EKEMNITZ 11/1/06

Affected Engineers

Closed Date Nov-01-2006

Closed By EKEMNITZ

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID # J63	TYPE ARM461+	(Faults are listed in the order in which they are detected) DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 173 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 4 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 43 Key-ons with the fault present 17 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 18 Key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_HIGH_FAULT 1 Key-ons with the fault present 16 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present FCS_COMMUNICATION_FAULT 2 Key-ons with the fault present 0 Key-ons since fault has not been present
ID ETRACKER 4071962	PART # 5L34-14B321-AC	
REPORT DATE November 1, 2006	SERIAL # 24A30805982K	
CUSTOMER CONTACT	BUILD DATE February 1, 2005	
NAME Eric Kemnitz	VEHICLE INFORMATION	
COMPANY Ford	MODEL YR 05	
POSITION Engineer	NAME F150	
PHONE 313-805-6051	CODE P221	
EMAIL ekemnitz@ford.com	VIN 1FTRX12W55N	
	MILEAGE Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS		
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column. 		

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STEP 1 =====

Tracking Number 3945010
VIN 1FTRF122X5K4
Model Year 2005
Vehicle f150

Last Revised EKEMNITZ
Oct-05-2006

Date Entered EKEMNITZ
Oct-03-2006

Vehicle Build Date
Mileage 43680

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CQIS / CUDL #
Incident Date

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Alleged Description Customer alleges that drivers airbag deployed while vehicle was at a stop sign.
10/3/06 EKEMNITZ

Attachments

Alleged Concern Unintended Deployment
DTC B2293

* [Autoliv Report](#)

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-DD
Shipped to Supplier Oct-04-2006

STEP 3 =====

System Front

Engineering Comments Autoliv report shows multiple key cycles with driver stage 2 leakage faults prior to deployment. The RCM did not command deployment of bag. RCM functioned as designed to diagnose system faults.

Affected Engineers

Closed Date Oct-05-2006

Closed By EKEMNITZ

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID #	TYPE	(Faults are listed in the order in which they are detected)
J61	ARM461+	DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT
ID	PART #	247 Key-ons with the fault present
ETRACKER 3945010	5L34-14B321-DD	9 Key-ons since fault has not been present
REPORT DATE	SERIAL #	DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
October 5, 2006	24A307444343	3 Key-ons with the fault present
CUSTOMER CONTACT	BUILD DATE	Fault cleared
	December 14, 2004	DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
NAME	VEHICLE INFORMATION	10 Key-ons with the fault present
Eric Kemnitz	MODEL YR	0 Key-ons since fault has not been present
Ford	05	DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
POSITION	NAME	2 Key-ons with the fault present
Engineer	F150	0 Key-ons since fault has not been present
PHONE	CODE	
313-805-6051	P221	
EMAIL	VIN	
ekemnitz@ford.com	1FTRF122X5K1	
	MILEAGE	
	Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS		
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded restraint deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column. 		

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STEP 1 =====

Tracking Number 3108398
VIN 1FTRF12215M7 _____
Model Year 2005
Vehicle F-150
Vehicle Build Date Jun-21-2005
Mileage 16,763
CQIS / CUDL #
Incident Date Feb-02-2006
Alleged Description Customer alleges front airbag deployed without incident.
Warranty Claim # 186312
Alleged Concern Unintended Deployment
DTC

Last Revised RTUSTANO
Mar-23-2006

Date Entered RTUSTANO
Mar-09-2006

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Attachments

• [Autoliv Report - J43](#)

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-DD
Shipped to Supplier Mar-10-2006

STEP 3 =====

System Front
Engineering Comments 3/23/06 (RTUSTANO) - There were no flash codes present when the RCM was powered on at Autoliv. The RCM did not record a commanded deployment.

There were no internal faults recorded in the module. The historical faults are listed in the attached report. The historical faults and technician comments indicate a short in the vehicle wiring existed which in some instances may result in an inadvertant airbag deployment.

J-43

Affected Engineers BPAPPAS
Closed Date Mar-23-2006
Closed By RTUSTANO

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID # J43	TYPE ARM461+	(Faults are listed in the order in which they are detected) DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 9 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 15 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 16 Key-ons with the fault present 0 Key-ons since fault has not been present
ID ETRACKER 3108398	PART # 5L34-14B321-DD	
REPORT DATE March 10, 2005	SERIAL # 24A706760533	
CUSTOMER CONTACT	BUILD DATE June 7, 2005	
NAME Bill Pappas	VEHICLE INFORMATION	
COMPANY Ford	MODEL YR 05	
POSITION Ford Design Release Engineer	NAME F150	
PHONE 313 805-3445	CODE P221	
EMAIL bpappas@ford.com	VIN 1FTRF12215N	
	MILEAGE Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS		
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.		

Confidentiality: Confidential

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STEP 1 =====

Tracking Number 3108384
VIN 1FTRF12235N
Model Year 2005
Vehicle F-150
Vehicle Build Date Mar-16-2005
Mileage 10,537
CQIS / CUDL #
Incident Date Feb-23-2006

Last Revised RTUSTANO
Mar-23-2006

Date Entered RTUSTANO
Mar-09-2006

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* [Autoliv Report - J42](#)

Alleged Description Customer alleges front airbag deployed without incident.
RO# 79902

Alleged Concern Unintended Deployment
DTC

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-DD
Shipped to Supplier Mar-10-2006

STEP 3 =====

System Front
Engineering Comments 3/23/06 (RTUSTANO) - There were no flash codes present when the RCM was powered on at Autoliv. The RCM did not record a commanded deployment.

There were no internal faults recorded in the module. The historical faults are listed in the attached report. The historical faults indicate a short in the vehicle wiring existed which in some instances may result in an inadvertant airbag deployment.

J-42

Affected Engineers BPAPPAS
Closed Date Mar-23-2006
Closed By RTUSTANO

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID # J42	TYPE ARM461+	(Faults are listed in the order in which they are detected) DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 46 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 5 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared 0 Key-ons since fault has not been present
ID ETRACKER 3108384	PART # 5L34-14B321-DD	
REPORT DATE March 10, 2006	SERIAL # 24A703418143	
CUSTOMER CONTACT	BUILD DATE March 3, 2005	
NAME Bill Pappas	VEHICLE INFORMATION	
COMPANY Ford	MODEL YR 05	
POSITION Ford Design Release Engineer	NAME F150	
PHONE 313 805-3445	CODE P221	
EMAIL bpappas@ford.com	VIN 1FTRF12235N	
	MILEAGE Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS		
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.		

Confidentiality: Confidential

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STEP 1 =====

Tracking Number 3108289
VIN 1FTRX14W75F
Model Year 2005
Vehicle F-150
Vehicle Build Date Nov-02-2004
Mileage 11,547
CQIS / CUDL #
Incident Date Feb-09-2006
Alleged Description Customer alleges front airbag deployed without incident.
Alleged Concern Unintended Deployment
DTC B2293

Last Revised RTUSTANO
Mar-23-2006

Date Entered RTUSTANO
Mar-09-2006

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Attachments

[Autoliv Report - J45](#)

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-AA
Shipped to Supplier Mar-10-2006

STEP 3 =====

System Front

Engineering Comments 3/23/06 (RTUSTANO) - There were no flash codes present when the RCM was powered on at Autoliv. The RCM did not record a commanded deployment.

There were no internal faults recorded in the module. The historical faults are listed in the attached report. The historical faults and technician comments indicate a short in the vehicle wiring existed which in some instances may result in an inadvertant airbag deployment.

J-45

Affected Engineers BPAPPAS
Closed Date Mar-23-2006
Closed By RTUSTANO

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION	RESTRAINT CONTROL MODULE	HISTORICAL FAULTS
ID # J45	TYPE ARM481+	DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present 61 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared BATTERY_LOW_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_LEAK_LOW_FAULT 256 or greater key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 3 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 2 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 5 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared HISTORICAL FAULTS PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT
ID ETRAKCR 3108288	PART # 5L34-14B321-AA	
REPORT DATE March 10, 2005	SERIAL # 24A702184144	
CUSTOMER CONTACT	BUILD DATE October 19, 2004	
NAME Bill Pappas	VEHICLE INFORMATION	
COMPANY Ford	MODEL YR 05	
POSITION Ford Design Release Engin	NAME F150	
PHONE 313 805-3445	CODE P221	
EMAIL bpappas@ford.com	VIN 1FTRX14W75F	
	MILEAGE Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS		
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.		

Confidentiality: Confidential

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STEP 1 =====

Tracking Number 3108258
VIN 1FTRX14W65N
Model Year 2005
Vehicle F-150
Vehicle Build Date Dec-07-2004
Mileage 23,300
CQIS / CUDL #
Incident Date Feb-14-2006
Alleged Description Customer Alleges Front Airbag deployed without incident.
Warranty Claim # 271785
Alleged Concern Unintended Deployment
DTC B2293

Last Revised RTUSTANO
Mar-30-2006
Date Entered RTUSTANO
Mar-09-2006

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• [Autoliv Report - J44](#)

STEP 2 =====

Supplier Autoliv
Part Number 5L34-14B321-AC
Shipped to Supplier Mar-10-2006

STEP 3 =====

System Front
Engineering Comments 3/30/06 (RTUSTANO) - There were no flash codes present when the RCM was powered on at Autoliv. The RCM did not record a commanded deployment.

There were no internal or historical faults recorded in the module.

Further investigation shows the returned RCM has a build date of 8/15/2005. The vehicle OASIS report says the vehicle was originally built 12/7/2004. There are no other repairs listed in OASIS indicating that the RCM was previously replaced. Conclusion is that the wrong module was returned for analysis.

However, technician comments indicate a short in the vehicle wiring existed which in some instances may result in an inadvertant airbag deployment.

J-44
Affected Engineers BPAPPAS
Closed Date Mar-30-2006
Closed By RTUSTANO

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS
ID #	J44	TYPE	ARM461+	There were no historical faults recorded
ID	ETRACKER 3108258	PART #	5L34-14B321-AC	
REPORT DATE	March 20, 2006	SERIAL #	24A31044693K	
CUSTOMER CONTACT		BUILD DATE	August 15, 2005	
NAME	Bill Pappas	VEHICLE INFORMATION		
COMPANY	Ford	MODEL YR	05	
POSITION	Ford Design Release Engineer	NAME	F150	
PHONE	313 805-3445	CODE	P221	
EMAIL	bpappas@ford.com	VIN	1FTRX14W65N	
		MILEAGE	Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS				
<ol style="list-style-type: none"> 1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. There were no historical faults recorded in the restraint control module. 				

Confidentiality: Confidential

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STEP 1 =====

Tracking Number 3108170
VIN 1FTRX14W04N

Model Year 2004

Vehicle F-150

Vehicle Build Date May-12-2004

Mileage 18,413

CQIS / CUDL #

Incident Date Feb-17-2006

Alleged Description Customer alleges Front Airbag deployed without incident.

Alleged Concern Unintended Deployment

DTC B2293

Last Revised RTUSTANO
Mar-23-2006

Date Entered RTUSTANO
Mar-09-2006

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Attachments

• [Autoliv Report - J41](#)

STEP 2 =====

Supplier Autoliv

Part Number 4L3A-14B321-AH

Shipped to Supplier Mar-10-2006

STEP 3 =====

System Front

Engineering Comments 3/23/06 (RTUSTANO) - There were no flash codes present when the RCM was powered on at Autoliv. The RCM did not record a commanded deployment.

There were no internal faults recorded in the module. The historical faults are listed in the attached report. The historical faults and technician comments indicate a short in the vehicle wiring existed which in some instances may result in an inadvertant airbag deployment.

J-41

Affected Engineers BPAPPAS

Closed Date Mar-23-2006

Closed By RTUSTANO

Confidentiality: Confidential

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RESTRAINT CONTROL MODULE ANALYSIS

REPORT INFORMATION		RESTRAINT CONTROL MODULE		HISTORICAL FAULTS
ID #	J41	TYPE	ARM481+	(Faults are listed in the order in which they are detected) DRIVER_FRONT_AIRBAG_STAGE_1_LEAK_LOW_FAULT 256 or greater key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 256 or greater key-ons with the fault present 0 Key-ons since fault has not been present DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 3 Key-ons with the fault present Fault cleared PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present Fault cleared DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT 1 Key-ons with the fault present 0 Key-ons since fault has not been present
ID	ETRACKER 3108170	PART #	4L3A-14B321-AH	
REPORT DATE	March 10, 2006	SERIAL #	24A71103903B	
CUSTOMER CONTACT		BUILD DATE	May 4, 2004	
NAME		VEHICLE INFORMATION		
COMPANY	Bill Pappas	MODEL YR	04	
POSITION	Ford	NAME	F150	
PHONE	Ford Design Release Engin	CODE	P221	
EMAIL	313 805-3445	VIN	1FTRX14W04N	
	bpappas@ford.com	MILEAGE	Data not supplied	
RESTRAINT CONTROL MODULE ANALYSIS				
1. There were no flash codes present when the restraint control module was powered on. 2. The restraint control module did not record a commanded deployment. 3. There were no internal faults recorded in the restraint control module. 4. The historical faults are listed in the next column.				

From: Steven.Binder@Autoliv.com
Sent: Thursday, March 30, 2006 1:41 PM
To: Pappas, Bill (B.)
Subject: F150 Houston Quality Audit Summary

Attachments: J50 F150 HOUSTON QUALITY AUDIT SUMMARY.doc



J50 F150 HOUSTON
QUALITY AUDIT...

AUTOLIV ELECTRONICS AMERICA

Bill,

Please see attached.

(See attached file: J50 F150 HOUSTON QUALITY AUDIT SUMMARY.doc)

Regards,
Steven Binder
Field Investigation Engineer
(248) 223-8079

F150 HOUSTON QUALITY AUDIT SUMMARY

1. The vehicles below, identified by the following vehicle identification numbers, had the following restraint control module analysis:

1034	1060	1285	1430	ac3151	c4857
1035	1063	1291	1481	ac3790	tv4241
1037	1079	1296	1517	ac5279	tv8083
1044	1080	1335	1550	ac5428	
1047	1085	1342	1616	ac6186	
1049	1216	1343	1640	ac8018	
1051	1225	1385	1677	c4753	

- A. There were no flash codes when the vehicles were powered on.
- B. The restraint control modules did not record any crash data.
- C. There were no internal faults recorded in the restraint control modules.
- D. There were no historical faults recorded in the restraint control modules.

2. The vehicle listed below, identified by the vehicle identification number 1247, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 6 Key-ons with the fault present
- Fault cleared

HISTORICAL FAULTS recorded while in a low battery condition - Internal faults designated by a "*". These internal faults can be caused by a low battery condition.

- *BPS_VOLTAGE_LOW_FAULT
- *BPS_CAPACITANCE_LOW_FAULT
- *BPS_CAPACITANCE_HIGH_FAULT
- *CHARGE_PUMP_LOW_FAULT
- *SATELLITE_VOLTAGE_LOW_FAULT
- *ASIC_1_VZ_12_FAULT
- *ASIC_1_VZ_34_FAULT
- *ASIC_2_VZ_12_FAULT
- *ASIC_1_EVZ2_FAULT
- *ASIC_2_EVZ2_FAULT
- CASE_GROUND_HIGH_FAULT
- PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
- DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
- PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
- DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
- PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT
- DRIVER_PRETENSIONER_RESISTANCE_HIGH_FAULT
- OCS_COMMUNICATION_FAULT

F150 HOUSTON QUALITY AUDIT SUMMARY

3. The vehicle listed below, identified by the vehicle identification number 1923, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 1 Key-ons with the fault present
Fault cleared

HISTORICAL FAULTS recorded while in a low battery condition - Internal faults designated by a "*". These internal faults can be caused by a low battery condition.

*BPS_VOLTAGE_LOW_FAULT
*CHARGE_PUMP_LOW_FAULT
*SATELLITE_VOLTAGE_LOW_FAULT
*ASIC_1_VZ_12_FAULT
*ASIC_1_VZ_34_FAULT
*ASIC_2_VZ_12_FAULT
*ASIC_1_EVZ2_FAULT
*ASIC_2_EVZ2_FAULT
CASE_GROUND_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
DRIVER_FRONT_AIRBAG_STAGE_1_RESISTANCE_HIGH_FAULT
PASSENGER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
DRIVER_FRONT_AIRBAG_STAGE_2_RESISTANCE_HIGH_FAULT
PASSENGER_PRETENSIONER_RESISTANCE_HIGH_FAULT
DRIVER_PRETENSIONER_RESISTANCE_HIGH_FAULT
OCS_COMMUNICATION_FAULT

4. The vehicle listed below, identified by the vehicle identification number 1350, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 1 Key-ons with the fault present
Fault cleared

Historical Fault Recorded While in Low Battery
OCS_COMMUNICATION_FAULT

F150 HOUSTON QUALITY AUDIT SUMMARY

5. The vehicle listed below, identified by the vehicle identification number ac6065, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module:

BATTERY_LOW_FAULT

- 1 Key-ons with the fault present
Fault cleared

Historical Fault Recorded While in Low Battery

OCS_COMMUNICATION_FAULT

6. The vehicle listed below, identified by the vehicle identification number 1205, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module.

DRIVER_BUCKLE_SWITCH_OPEN_OR_SHORT_TO_BATTERY

- 1 Key-ons with the fault present
Fault cleared

7. The vehicle listed below, identified by the vehicle identification number tv7754, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module.

PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT

- 3 Key-ons with the fault present
Fault cleared

8. The vehicle listed below, identified by the vehicle identification number tv6368, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.

F150 HOUSTON QUALITY AUDIT SUMMARY

- C. The following historical faults were recorded by the restraint control module.

ANGULAR_RATE_SENSOR_DEFLECTION_FAULT

- 1 Key-ons with the fault present
Fault cleared

(Note: ARM400+ Non-Rollover Module Robustness Change was implemented on the beginning of the week of 10/20/03. Fault will not occur on modules built after this date.)

9. The vehicle listed below, identified by the vehicle identification number ac9061, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module. The faults are listed in the order in which they were detected.

PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT

- 26 Key-ons with the fault present
Fault cleared

PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT

- 73 Key-ons with the fault present
Fault cleared

10. The vehicle listed below, identified by the vehicle identification number ac8967, had the following restraint control module analysis:

- A. There were no flash codes present when the vehicle was powered on.
- B. The restraint control module did not record any crash data.
- C. There were no internal faults recorded by the restraint control module.
- D. The following historical faults were recorded by the restraint control module.

PAD_LAMP_SHORT_TO_GROUND_OR_OPEN_FAULT

- 1 Key-ons with the fault present
Fault cleared