

**PE03-044**  
**FORD**  
**5/13/2005**  
**APPENDIX I**  
**BOOK 20 OF 28**  
**PART 4 OF 4**

From: Sheffield, Drew (D.L.)  
Sent: Wednesday, October 23, 2002 9:10 AM  
To: Slachta, Joseph (J.F.)  
Cc: Wnuk, John (J.G.)  
Subject: FW: RE: Follow Up Pi31 backup program for fixed ETC Pedal(Teleflex)

Joe, Pls try to pull all this together today -- contacted FCSD, P131, etc to finalize a plan for supply. Thanks

Drew Sheffield  
Purchasing Manager, Brake Systems  
Global Chassis Commodity Management  
(313)337-6408, fax 390-2353

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

From: Mike Carr [mailto:mcarr@tfxauto.com]  
Sent: Wednesday, October 23, 2002 8:58 AM  
To: Kevin McMahon  
Cc: Slachta Joseph (J.F.); Paul - Troy Rutter; Charlie - Troy Meier; Greg Mausolf; Sheffield Drew (D.L.); Wnuk John (J.G.); Orest Iwasiuk; Dick Westfall; Mike Carr; shadley@tfxauto.com; srinehart@tfxauto.com  
Subject: Re: RE: Follow Up Pi31 backup program for fixed ETC Pedal(Teleflex)

Kevin,  
Kendallville has received build quantities from Ford. We are currently in the process of modifying the MRP and releases to our vendors to support the requirements.  
Regards Mike.

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

From: "Kevin McMahon" <kmcmahon@tfxauto.com>  
Date: Wednesday, October 23, 2002 7:35 am  
Subject: RE: Follow Up Pi31 backup program for fixed ETC Pedal (Teleflex)

> Joe,  
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> releases generated by our customers. The sooner we receive official  
> notification from Ford, the better the chance of us meeting your  
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> Finally, we would appreciate the opportunity to meet with  
> purchasing and  
> engineering together to discuss the possibility of extending the

> releases. Please advise.

> Thank you,

> Kevin

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

> From: Slachta, Joseph (J.F.) [mailto:jslachta@ford.com]

> Sent: Tuesday, October 22, 2002 2:40 PM

> To: Paul - Troy Rutter

> Cc: 'Kevin McMahon'; Sheffield, Drew (D.L.); Wnuk, John (J.G.);

> Slachta, Joseph (J.F.)

> Subject: RE: Follow Up P131 backup program for fixed ETC

> Pedal (Teleflex)

> Paul,

> The releases have not been changed over to Teleflex yet and  
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> PS&L Recall Manager to obtain additional information on the recall  
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> information that I received last week is that it could affect a  
> total of 98K

> units, both 2002 and 2003 MY.

> I'm also working with Greg West of PD to determine if they will  
> consider extending the business beyond November.

> JOSEPH F. SLACHTA

> BUYER, BRAKE SYSTEMS

> GLOBAL CHASSIS COMMODITY MANAGEMENT

> QMP, MD 607

> PHONE 313 594-1200 FAX 313 323-2317

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

> From: Kevin McMahon [mailto:kmcmahon@tfxauto.com]

> Sent: Tuesday, October 22, 2002 10:16 AM

> To: Slachta Joseph (J.F.)

> Cc: Drew Sheffield (D.L.); Paul - Troy Rutter

> Subject: RE: Follow Up P131 backup program for fixed ETC

> Pedal (Teleflex)

> Joe,

> For now, Paul Rutter will be the contact person. We are working on  
> quantifying the premium costs.

> Do you have any updates on the quantity of parts that are due  
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> Williams parts AND the 137 Time in Service parts. Please help  
> clarify as

> soon as possible.

> As for the message we received from Drew regarding extending the

> businessbeyond 4 weeks, should we work with Drew directly?

> Thank you for your assistance,

> Kevin

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

> From: Slachta, Joseph (J.F.) [mailto:jslachta@ford.com]

> Sent: Friday, October 18, 2002 5:25 PM

> To: 'kmcMahon@tfxauto.com'

> Cc: Sheffield, Drew (D.L.); Wnuk, John (J.G.); Slachta, Joseph (J.F.)

> Subject: FW: Follow Up P131 backup program for fixed ETC

> Pedal(Teleflex)

> Kevin,

> We want to free Jim Burrows up so he can work on his new assignment

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> Below is

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> organization I

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> I believe that you ship your adjustable ETC pedal to KTP in returnable

> containers. Do you have enough returnables to support this

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> using location I would pay for the difference between returnables

> and expendable

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> my intent to pay for any premium cost that you incur to expedite

> components from your sub-supplier on this same Lump Sum PO.

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> program please contact me.

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> BUYER, BRAKE SYSTEMS

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> PHONE 313 594-1200 FAX 313 323-2317

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

> From: Sheffield, Drew (D.L.)

> Sent: Friday, October 18, 2002 3:33 PM

> To: 'Kevin McMahon'; Sheffield, Drew (D.L.); Shepherd, Scott (S.A.)  
> Cc: Orest Iwasiuk; Slachta, Joseph (J.F.); Wnuk, John (J.G.); Burrows,  
> Jim (J.A.)  
> Subject: RE: Follow Up

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> FYI -- no change in status today regarding P131 -- program increased  
> commitments to Teleflex to support all of November requirements.

> My buyers

> will continue working with P131 PD as well as FCSB to ensure a  
> coordinated plan and will take any input from Teleflex into  
> consideration. I expect

> that by COB Monday, we will be back to Teleflex with clear  
> direction on

> Ford's total requirements. We understand the difficult situation  
> faced by

> Teleflex and will do what we can to explore win/win opportunities

> (for ex,

> we may be able to convince the program to extend the request

> beyond 4 weeks,

> etc. -- stay tuned)

>  
> Thank you for your support and in recently kicking off suppliers  
> to meet

> P131 supply.

>  
> p.s.

> To ensure you get one message from Ford re this particular supply

> issue, I

> have asked Joe Slachta to lead this initiative as your CBG P131 buyer.

>  
> Drew Sheffield

> Purchasing Manager, Brake Systems

> Global Chassis Commodity Management

> (313)337-6408, fax 390-2353

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>  
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---

From: Mike Carr [mccarr@tfxauto.com]  
Sent: Wednesday, October 23, 2002 9:33 AM  
To: mccarr@tfxauto.com  
Cc: Kevin McMahon; Slachta Joseph (J.F.); Paul - Troy Rutter; Charlie - Troy Meier; Greg Mausolf; Sheffield Drew (D.L.); Wnuk John (J.G.); Orest Iwasluk; Dick Westfall; Mike Carr; shadley@tfxauto.com; srinehart@tfxauto.com  
Subject: Re: RE: Follow Up Pi31 backup program for fixed ETC Pedal(Teleflex)

Kevin,  
I would just like to clarify that we haven't seen releases as yet. I was referring to an email recieved from Dan Adams @ KTP.  
Regards Mike.

----- Original Message -----  
From: <mccarr@tfxauto.com>  
Date: Wednesday, October 23, 2002 7:49 am  
Subject: Re: RE: Follow Up Pi31 backup program for fixed ETC Pedal (Teleflex)

> Kevin,  
> Kendallville has recieved build quantities from Ford. We are  
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>> From: Slachta, Joseph (J.F.) [mailto:jslachta@ford.com].  
>> Sent: Tuesday, October 22, 2002 2:40 PM  
>> To: Paul - Troy Rutter  
>> Cc: 'Kevin McMahon'; Sheffield, Drew (D.L.); Wnuk, John (J.G.);  
>> Slachta, Joseph (J.F.)  
>> Subject: RE: Follow Up Pi31 backup program for fixed ETC  
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>> Paul,  
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>> JOSEPH F. SLACHTA  
>> BUYER, BRAKE SYSTEMS  
>> GLOBAL CHASSIS COMMODITY MANAGEMENT  
>> OMP, MD 507  
>> PHONE 313 594-1200 FAX 313 323-2317  
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>> Sent: Tuesday, October 22, 2002 10:16 AM  
>> To: Slachta Joseph (J.F.)  
>> Cc: Drew Sheffield (D.L.); Paul - Troy Rutter  
>> Subject: RE: Follow Up Pi31 backup program for fixed ETC  
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>> Thank you for your assistance,

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> > From: Slachta, Joseph (J.F.) [mailto:jslachta@ford.com]  
> > Sent: Friday, October 18, 2002 5:25 PM  
> > To: 'kcmahon@tfxauto.com'  
> > Cc: Sheffield, Drew (D.L.); Wnuk, John (J.G.); Slachta, Joseph  
> > (J.F.)> Subject: FW: Follow Up Pi31 backup program for fixed ETC  
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> > JOSEPH F. SLACHTA  
> > BUYER, BRAKE SYSTEMS  
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> > QMP, MD 607  
> > PHONE 313 594-1200 FAX 313 323-2317



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> > Sent: Friday, October 18, 2002 3:33 PM  
> > To: 'Kevin McMahon'; Sheffield, Drew (D.L.); Shepherd, Scott (S.A.)  
> > Cc: Orest Iwasiuk; Slachta, Joseph (J.F.); Wnuk, John (J.G.);  
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> > (313)337-6408, fax 390-2353  
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**From:** Slachta, Joseph (J.F.)  
**Sent:** Wednesday, October 23, 2002 9:57 AM  
**To:** Kevin McMahon; Slachta, Joseph (J.F.); Paul - Troy Rutter  
**CC:** Charlie - Troy Meier; Greg Mausolf; Sheffield, Drew (D.L.); Wnuk, John (J.G.); Orest Iwasuk; Dick Westfall; Mike Carr; Shore, John (J.); Stevens, Dave (D.E.)  
**Subject:** RE: Follow Up Pi31 backup program for fixed ETC Pedal(Teleflex)

Kevin,

I faxed to Paul Rutter yesterday a screen print of releases for the Williams Control part that shows weekly requirements throught the week of 11/25. The total is for 10,763 parts. Because a formal release to Teleflex on your part won't be available until Monday, 10/28/03 you can use this note as formal authorization from Ford Motor Company to support this incremental volume on your part throught 11/25/02. I saw a note from Mike Carr that Teleflex is obtaining build quantities from Ford and I would direct you to build to their direction.

As mentioned in my previous note, I've placed a call to John Shore, PS&L Recall Manager in a effort to obtain information on the recall/time in service parts. At this time I can't direct you not to ship against your service releases. I will contact Dave Stevens, the Director of Service Purchasings in a effort to obtain additional information but Teleflex should have a account manager that contacts service and I would recommend that Teleflex should contact their service buyer/service analyst.

I'm attempting to get a reading from our Engineering if it is possible to obtain a extension beyond November and I'll keep you in the loop. To me the big question is how will Teleflex be able to support this November and beyond(take a look at the release I sent to Paul)and incremental parts for service(per your bte 1,500 weekly)which could total 7,400 parts per week starting in December???

JOSEPH F. SLACHTA  
BUYER, BRAKE SYSTEMS  
GLOBAL CHASSIS COMMODITY MANAGEMENT  
OMP, MD 607  
PHONE 313 594-1200 FAX 313 323-2317

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Subject: RE: Follow Up

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Thank you for your support and in recently kicking off suppliers to meet P131 supply.

P.S.  
To ensure you get one message from Ford re this particular supply issue, I have asked Joe Slachta to lead this initiative as your CBG P131 buyer.

Drew Sheffield  
Purchasing Manager, Brake Systems  
Global Chassis Commodity Management  
(313)337-6408, fax 390-2353

**[REDACTED]**

---

**From:** Slachta, Joseph (J.F.)  
**Sent:** Monday, October 28, 2002 2:03 PM  
**To:** Kaercher, Don (D.F.)  
**CC:** Sheffield, Drew (D.L.); Wruk, John (J.G.); Shore, John (J.); Jaeger, Sharon (S.A.); Baint, Gary (G.S.); Stevens, Dave (D.E.); Slachta, Joseph (J.F.)  
**Subject:** RE: Teleflex Recall on P131 ETC pedal

Don,  
I agree with your below note. I have instructed Teleflex to fill the release for the 1500 part as soon as possible.

**JOSEPH F. SLACHTA**  
**BUYER, BRAKE SYSTEMS**  
**GLOBAL CHASSIS COMMODITY MANAGEMENT**  
**QMP, MD 607**  
**PHONE 313 584-1200 FAX 313 323-2317**

—Original Message—

**From:** Kaercher, Don (D.F.)  
**Sent:** Thursday, October 24, 2002 5:35 PM  
**To:** Stevens, Dave (D.E.); Slachta, Joseph (J.F.)  
**Cc:** Sheffield, Drew (D.L.); Wruk, John (J.G.); Shore, John (J.); Jaeger, Sharon (S.A.); Baint, Gary (G.S.)  
**Subject:** FW: Teleflex Recall on P131 ETC pedal

Joseph, my department is involved in this issue (we handle all Field Service Actions [FSA] from Recalls to Field Fixes). John Shore is the manager handling this issue, and Sharon Jaeger the parts Specialist. I think it is important to understand that is not a recall, but Potential Field Action still under investigation at this time. Engineering is still reviewing warranty data, although our demand for service parts continues to increase. Regardless, it is an issue. My understanding is that Teleflex is shipping us 1500 now (currently we have about 200 backorders) and then we will reduce releases to the 100 or so level until Williams Controls is up and running and Teleflex determines a plan for increasing their weekly yield.

This should resolve short term issues, and if long term there isn't enough to go around then we need to look at options together, i.e. additional hours (shifts or OT), additional tooling, etc. Does this agree with your understanding?

***Don Kaercher***

*Ford Motor Company*  
*FCSD PS&L QSF/Recall/Top 100 Dept. Mgr.*  
*NPDC 1310C Text Pager: (734) 797-5993*  
*e-mail: [dkaerche@ford.com](mailto:dkaerche@ford.com)*

**Phone:** (734) 266-9793 **Fax:** (734) 266-1166

**From:** Slachta, Joseph (J.F.)  
**Sent:** Wednesday, October 23, 2002 10:49 AM  
**To:** Stevens, Dave (D.E.)

Cc: Shore, John (J.); Sheffield, Drew (D.L.); Whuk, John (J.G.); Slachta, Joseph (J.F.)  
Subject: Teleflex Recall on P131 ETC pedal.

Dave,

I left a message on your voice mail on this issue. In a nutshell, we are asking Teleflex to help us out of a jam with the ETC pedal on the P131 on a fixed ETC accel Pedal. The fixed pedal is sourced to Williams Controls but they have not been able to support production because of capability issues and Job#1 is Nov. 4th. The only fix that we have at this time is to obtain the adjustable ETC pedal from Teleflex(T0710) and disable the adjustable feature and use to support production. At the same time we have been given the heads up from John Shore, PS&L Recall manager that the Teleflex part is going to be recalled(approximately 98K units)and Teleflex has advised us that they have received releases from service for 1,500 parts/week.

I'm attempting to get a better understanding of and timing for the recall because until we can get Williams into production we don't believe that Teleflex will be able to support their total(including Williams)production requirements plus large incremental requirements for the recall.

I have a call into John Shore to obtain additional information on the recall but any information that you may have on this recall and names of individuals that may be able to help would be greatly appreciated.

JOSEPH F. SLACHTA  
BUYER, BRAKE SYSTEMS  
GLOBAL CHASSIS COMMODITY MANAGEMENT  
QMP, MD 607  
PHONE 313 594-1200 FAX 313 323-2317

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**From:** Blitinger, Rebecca (R.J.)  
**Sent:** Thursday, October 31, 2002 11:53 AM  
**To:** Wnuk, John (J.G.)  
**Subject:** RE: P131/U137 adjustable accel pedal field warranty

John, This will have to go out a week or so ... Bill is just not in the office. I am working on a project for Bill now and will get to this later today or tomorrow.

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

**From:** Wnuk, John (J.G.)  
**Sent:** Thursday, October 31, 2002 11:51 AM  
**To:** Blitinger, Rebecca (R.J.)  
**Subject:** RE: P131/U137 adjustable accel pedal field warranty

Rebecca: My meeting is to review 05 sourcing and overall pedal strategy with the P131 team. Invitees would be Bill, Scott Shepherd, Drew Sheffield, Larry Liposky, Greg West and myself. It would only need to be for a half hour.

John Wnuk  
Buyer - Cables, Pedals, & Parking Brakes  
Global Chasels Commodity Management  
Phone: (313) 337-2506 Fax: (313) 323-2317  
EMAIL: jwnuk@ford.com  
Office: QMP 111-3

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

**From:** Blitinger, Rebecca (R.J.)  
**Sent:** Thursday, October 31, 2002 10:43 AM  
**To:** Wnuk, John (J.G.)  
**Subject:** FW: P131/U137 adjustable accel pedal field warranty

Is that what your win is about?

If so, I am planning to schedule for November 6, 11:30-Noon. If you want to be included on the notice, send me names.

If this isn't the same subject, let me know and I will have to offer you dates the week of November 11. Please advise.

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

**From:** Blitinger, Rebecca (R.J.)  
**Sent:** Thursday, October 31, 2002 9:36 AM  
**To:** West, Gregory (G.S.)  
**Subject:** RE: P131/U137 adjustable accel pedal field warranty

Apologies ... plan for 11:30-Noon. I forgot I have to give Bill time to travel back from Lear.

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

**From:** Blitinger, Rebecca (R.J.)  
**Sent:** Thursday, October 31, 2002 9:33 AM  
**To:** West, Gregory (G.S.)  
**Subject:** RE: P131/U137 adjustable accel pedal field warranty

Please plan for November 6, 11:00-11:30. I will send a notice when I get a free moment. Thank you.

P.S. - Bill is now travelling on November 11

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

**From:** West, Gregory (G.S.)  
**Sent:** Thursday, October 31, 2002 8:13 AM  
**To:** Blitinger, Rebecca (R.J.)  
**Subject:** RE: P131/U137 adjustable accel pedal field warranty

first choice would be 11/11 at 7am



second would be 11/6, anytime.  
Thanks

-----Original Message-----  
From: Birtinger, Rebecca (R.J.)  
Sent: Tuesday, October 29, 2002 3:07 PM  
To: West, Gregory (G.S.)  
Subject: RE: P131/U137 adjustable accel pedal field warranty

Gregory,

Here are some dates/times for Bill to meet with Teleflex.

November 6: 30 minutes between 9:00-12:00 p.m.  
November 11: 7:00-7:30 a.m.  
November 13: 30 minutes between 10:30-Noon

Maybe you can pick out a couple of different choices and then rank them in order. Thank you, Rebecca

-----Original Message-----  
From: West, Gregory (G.S.)  
Sent: Tuesday, October 29, 2002 7:52 AM  
To: Birtinger, Rebecca (R.J.)  
Subject: RE: P131/U137 adjustable accel pedal field warranty

Thanks Rebecca.

-----Original Message-----  
From: Birtinger, Rebecca (R.J.)  
Sent: Monday, October 28, 2002 9:20 AM  
To: West, Gregory (G.S.)  
Subject: FW: P131/U137 adjustable accel pedal field warranty

Gregory, See Bill's note below. When I get a moment, I will send you some dates/times and you can check with Teleflex.  
Thank you, Rebecca

-----Original Message-----  
From: Osborne, William (W.H.)  
Sent: Saturday, October 26, 2002 1:49 PM  
To: Birtinger, Rebecca (R.J.)  
Subject: RE: P131/U137 adjustable accel pedal field warranty

30 minutes, not urgent.

-----Original Message-----  
From: Birtinger, Rebecca (R.J.)  
Sent: Wednesday, October 23, 2002 1:52 PM  
To: Osborne, William (W.H.)  
Subject: FW: P131/U137 adjustable accel pedal field warranty

Bill, See note below. Do you want this? If so, what is your time for this and how long should the meeting be? Thank you.

-----Original Message-----  
From: West, Gregory (G.S.)  
Sent: Wednesday, October 23, 2002 1:45 PM  
To: Birtinger, Rebecca (R.J.)  
Subject: P131/U137 adjustable accel pedal field warranty

At the 9/18 PDQR Bill requested a review with our supplier (Teleflex) to discuss the pedals failures and permanent corrective actions. We are now prepared to do that. The meeting should include:

Greg Thompson  
at Brennan  
Larry Liposky  
Greg West  
Mike Kramer

Thanks

**From:** Slachta, Joseph (J.F.)  
**Sent:** Thursday, January 23, 2003 10:43 AM  
**To:** 'prutter@foxauto.com'  
**Cc:** Lerma, Jim (J.); Charney, Matthew (M.R.); Stevens, Dave (D.E.); Sheffield, Drew (D.L.); Fisher, Jean (J.M.); Mimikos, Marcy (M.A.); Ritchie, Kathleen (KLR); Slachta, Joseph (J.F.); Wnuk, John (J.G.)  
**Subject:** FORD LEAN MFG. REVIEW OF P131 ADJUSTABLE ETC PEDAL.

Paul,

This is to advise you that Jim Lerma and Matt Charney of our Lean Manufacturing Organization and I are going to your Kendallville, In. plant tomorrow to review the welding and assembly operation on the P131 Adjustable ETC Pedal. The purpose of this visit is to work with your production team and plant management to alleviate the current production constraint that exist on these lines in a effort to enable Teleflex to support the Ford Customer Service Division requirements for the upcoming field action and meet you daily production requirements for KTP.

The parts involved in the field action are 2C45-9F836-DF, 3C34-9F836-BE, 2C34-9726-ED and 2C34-9726-CG.

Please advise the appropriate management at Kendallville of our visit tomorrow. We plan to arrive at your plant at approximately 10:00 am. If you are available tomorrow and can make the trip also your support will be appreciated.

JOSEPH F. SLACHTA  
BUYER, BRAKE SYSTEMS  
GLOBAL CHASSIS COMMODITY MANAGEMENT  
VPO MD440  
PHONE 313 594-1200 FAX SAME AS PHONE

---

**From:** Evangelista, Elio - Troy [eevangelist@TFXAuto.com]  
**Sent:** Tuesday, March 20, 2001 5:18 PM  
**To:** Phil Beuckelaers (E-mail); Lisa Pevzuskas (E-mail); Douglas Veit (E-mail); Richard Stanton (E-mail)  
**Cc:** Braniff, Greg - Troy; Foreman, Mike - Kendallville; Franklin, Ben - Kendallville; Funk, Mike - Lyons; Gannon, Denise - Kendallville; Helt, Shannon - Troy; Harwood, Robert - Kendallville; Luegge, Rayann - Kendallville; Phipps, Dawn - Troy; Roderick, Linda - Kendallville; Telfer, Bill - Troy; Boscarino, Ed - Kendallville; Brinkruff, Dave - Kendallville; Da Silva, Carlos - Troy; Davis, John - Troy; Niester, Conrad F. - Troy; Smith, Rex - Troy; Trombley, Tom - Warren; Ular, Brian - Troy; Wilson, Glen - Troy; Wright, Tim - Kendallville  
**Subject:** open issues - APQP - U137 Adjustable pedal program

Attached is the open issues for the U137 adjustable pedal program. They have been updated per 3/20/01  
<<U137\_2002\_APQP\_Open\_Issue.doc>>

**Elio Evangelista**  
**Program Manager - Pedal Systems**  
**Teleflex Automotive Group**

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**From:** Wnuk, John (J.G.)  
**Sent:** Monday, June 23, 2003 2:28 PM  
**To:** 'kmcrahan@fzauto.com'  
**Cc:** Sheffield, Drew (D.L.); Patel, Mona (M.S.); Figurski, Patrick (P.M.); Lipoeky, Lawrence (L.J.); West, Gregory (G.S.)  
**Subject:** MY02/03 P131/U137 Wiring Clarification Letter



P131\_TelefonRedl  
Action1.doc..

**John Wnuk**  
Buyer - Cables, Pedals, & Parking Brakes  
Global Chassis Commodity Management  
Phone/ Fax: (313) 337-2505  
EMAIL: jwnuk@ford.com  
Office: VPO 3E010

PE03-044 19818

## FORD APQP OPEN ISSUES

**Program:** U137/P131

**Description:** Brake, Accel & ETC Adjustable Pedals

**Program Manager:** Elio Evangelista

**P/N:** 2C34 2450 BA (026T-G0128); 2C34 2450FA (026T-G0129); 2C34 9F836 CA (026T-G0133); 2C34 9726 CA (026T-G0132);  
2C34 9G662 AA (026T-G0142); 2C34 9G662 BA (026T-G0143)

**Ford Engineer:** Lisa Petruskas

**TFX Engineer:** Greg Braniff

**Account Manager:** Conrad Niester

Issue #	Description	Date Opened	Responsible	Update / Status	Date Due	Date Closed
3	Production Packaging	1/23/01	E. Boecario D. Nation T. Chesna	Finalize packaging to new level and confirm packaging plan with KTP & Dearborn <i>Finalize packaging plans with Todd Chesna (313) 323-9800 &amp; Dave Nation (502) 339-3995</i> <i>Proposals submitted to Ford. Initial plans call for cardboard until final reusable complete and tested. Trials not scheduled until after FEU build. Packaging design sent out for review/approval 2/27/01..</i>	TBD	
4	Run @Rate -- FEU build	1/23/01	E. Evangelista	Propose plan for supporting 300 pc build/Run@Rate for FEU build <i>Plan proposed to support this request, reference letter dated 2/7/01</i> <i>Phil requesting that additional parts then proposed plan be run. Need to determine acceptable plan.</i>	4/13/01	
5A		3/13/01	B. Franklin/ G. Braniff	Summarize data, show average & range. <i>Also show data from LN93 program</i>	4/3/01	
8	CC/SC list - ETC	1/23/01	G. Braniff B. Franklin	Provide CC/SC list on BTC program <i>List complete and submitted, need Ford engineering sign-off</i> <i>Lisa reviewed, needs correction, Greg to update and resubmit</i> <i>Resubmitted 2/27/01. Per meeting 3/13/01 item reopened until Ford signoff</i>	2/9/01	
9	Material Flow between Gas & Diesel parts	1/23/01	M. Foreman	Provide information of how Teleflex will keep separate the material flow between different components on Gas & Diesel parts	4/13/01	

Author: Elio Evangelista  
Filename: U137\_2002\_APQP\_Open\_Issue.doc

Last printed: 11/17/03  
Last Updated: 11/17/03

Created on: 1/24/01  
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PER3-044 22275

## FORD APQP OPEN ISSUES

**Program:** U137/P131

**Description:** Brakes, Accel & ETC Adjustable Pedals

**Program Manager:** Elio Evangelista

**P/N:** 2C34 2450 EA (026T-G0128); 2C34 2450FA (026T-G0129); 2C34 9F836 CA (026T-G0133); 2C34 9726 CA (026T-G0132);  
2C34 9G662 AA (026T-G0142); 2C34 9G662 BA (026T-G0143)

**Ford Engineer:** Lisa Petrauskas

**TFX Engineer:** Greg Braniff

**Account Manger:** Conrad Niester

Issue #	Description	Date Opened	Responsible	Update / Status	Date Due	Date Closed
10	Visual aids on line	1/23/01	M. Foreman	Ensure visual aids & "rabbit" present before line run.	4/13/01	
12	Control Plan - Finalize	1/23/01	B. Franklin	Finalize control plans prior to builds (need signatures by Ford Eng. & STA)	4/13/01	
13	ETC fixturing	1/23/01	M. Foreman	Complete fixturing for Etc assembly - spring assembly nest	4/13/01	
16	Noise testing w/o motor	1/31/01	G. Braniff B. Franklin	Provide a plan on how Teleflex will noise test parts if motor assemblies are not part of brake assemblies <i>Parts for 1PP will be noise tested and used as base line. Formal plan will be issued for production intent Need to summarize data (avg. &amp; range)</i>	4/13/01	
19	1PP support	1/31/01	E. Evangelista	Lisa is asking for 1PP support at KTP for following time period 3/19/01 thru 3/26/01 build support at KTP - Greg to support 3/19-3/20, Elio to support balance. 4/2/01 thru 4/6/01 Nova Audit - Will be available as needed 4/12/01 Management review - Elio to support		

Author: Elio Evangelista  
Filename: U137\_2002\_APQP\_Open\_Issue.doc

Last printed: 11/17/03  
Last Updated: 11/17/03

Created on: 1/24/01  
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PE03-044 22278

## FORD APQP OPEN ISSUES

**Program:** U137/P131

**Description:** Brake, Accel & ETC Adjustable Pedals

**Program Manager:** Elio Evangelista

**P/N:** 2C34 2450 EA (026T-G0128); 2C34 2450FA (026T-G0129); 2C34 9F836 CA (026T-G0133); 2C34 9726 CA (026T-G0132); 2C34 9G662 AA (026T-G0142); 2C34 9G662 BA (026T-G0143)

**Ford Engineer:** Lisa Petrauskas

**TFX Engineer:** Greg Braniff

**Account Manger:** Conrad Niester

Issue #	Description	Date Opened	Responsible	Update / Status	Date Due	Date Closed
25	RD - missing grease on accel pivot	2/20/01	G. Braniff R. Carias B. Franklin	Provide RD on how grease was missing on AP3 parts (2003 ETC) <i>Investigate O.S. # shipped under and build instructions (prints, control plan) to determine how missed.</i>	3/3/01	
26	Pedal effort curve	2/20/01	G. Braniff R. Carias	Verify parts for 1PF in both 5 <sup>th</sup> & 95 <sup>th</sup> position that we meet curve.	3/10/01	
27	Screw - motor assembly	2/20/01	G. Braniff E. Evangelista	Investigate using Ford approved screw on motor assembly instead of current released one. <i>Screw choices selected, 8008344 808942 or W504167-5436. Need to determine a source ASAP to capture for FEU build Concern # 11202334 Based on meeting between Elio &amp; Phil target N611042-S309 or W505157 (main choice). May not be able to capture for FEU.</i>	4/3/01	
28	Plant support - Cuscutlan Assembly Plant	2/27/01	E. Evangelista	Determine who/how Teleflex will support tryouts April 17 <sup>th</sup> 2001 (2002 1PF) June 25 <sup>th</sup> , 2001 (2002 4P) July 23 <sup>rd</sup> , 2001 (2002 system fill)	TBD	
29	Review documentation at Kendallville	3/13/01	Team	Visit to Kendallville scheduled for 4/5/01	4/5/01	
30	FEU run@rats	3/13/01	Team	Kendallville FEU build 4/13/01 - 4/19/01	4/19/01	

PE03-844 22277

Author: Elio Evangelista

Filename: U137\_2002\_APQP\_Open\_Issue.doc

Last printed: 11/17/03

Last Updated: 11/17/03

Created on: 1/24/01

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## NYE INSTRUMENT GREASE 706D

An Advanced Polyol Ester-Based Grease for Bearings,  
Gear Trains and Related Instrument Applications

Temperature Range: -54°C to +150°C

Through use of a complex polyol ester as a base fluid, this lithium soap-gelled grease affords good lubricity, impressive high temperature stability, and low evaporation loss when compared with traditional wide temperature instrument greases, especially in thin film applications.

### TYPICAL PROPERTIES OF THE BASE OIL

Viscosity at	100°C	3.7 centistokes
	40°C	18.5 centistokes
	-17.8°C	360 centistokes
	-54°C	36,000 centistokes
Viscosity Index		123
Flash Point		240°C
Fire Point		270°C
Pour Point		-60°C
Neutralization Number		0.12 mg. KOH/g
Corrosion and Oxidation Stability, per FTM 5308		
a. Conditions of Test		72 hours at 175°C
b. Viscosity increase during test		+0.1%
c. Neutralization number change during test		+0.11 mg KOH/g
d. Appearance during test		Reddish-brown, no precipitate
e. Evaporation during test		1.5%
f. Loss of weight of test metals, mg/cm <sup>2</sup>		
(1) Nickel		0.00
(2) Aluminum		0.00
(3) Copper		0.00 (moderate tarnish, 2A)
(4) Brass		0.00 (bright yellow)
(5) Steel		0.00 (green)
(6) Bronze		0.00 (greenish yellow)
Evaporation, 24 hours at 100°C		None
Shell 4-Ball Wear Test, steel-on-steel		
a. Conditions of test		40 kg load, 1 hr, 600 rpm, 25°C
b. Wear Scar diameter		0.61 mm

Nye Instrument Grease 706D

**TYPICAL PROPERTIES OF THE GREASE**

Unworked Penetration	260
Worked Penetration, 60 strokes	269
Dropping Point	180°C
Evaporation, 24 hours at 100°C	< 0.1%
Oil Separation, 24 hours at 100°C	3.5%
Specific Gravity, 25°C	0.95
Copper Corrosion, 24 hours at 120°C	Moderate Tarnish (2E)
Neutralization Number	0.72 mg KOH/g
Neutralization Number after 24 hours at 120°C	0.53 mg KOH/g

**CAUTION:**

Ester-based lubricants have a tendency to adversely affect certain vulnerable plastics, paints, and elastomers. This lubricant should only be used with substrates of known or proven compatibility. Contact NYE LUBRICANTS, INC. if questions persist.

**SPECIFICATIONS:**

The typical properties shown on this product data sheet should not be used as a basis for preparing specifications. Please contact NYE LUBRICANTS, INC. for assistance and recommendations pertaining to specification limits and requirements.

**SAFETY:**

Nye Instrument Grease 706D is not known to cause harmful effects. However, thermal degradation can liberate toxic fumes. Avoid contamination of tobacco products, or heating the grease above 200° Centigrade. Refer to our product Material Safety Data Sheet for detailed safety information.

**PACKAGING:**

1-ounce tubes, 2-ounce and 1-pound jars, and 7-pound and 35-pound pails.

(9708)

# Material Safety Data Sheet

Nye Instrument Grease 706D

MSDS No. 706D

Date of Preparation: 1/4/99

Revision: 1

## Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Nye Instrument Grease 706D

General Use: Lubricating Grease

Manufacturer: Nye Lubricants, Inc.

P.O. Box 8927

New Bedford, MA 02742-8927 U.S.A.

Telephone: (508) 996-6721 (8:00AM - 5:00PM ET weekdays)

Nights and weekends (Medical Emergencies ONLY): CHEMTREC (800) 424-9300

## Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Product formulation is Proprietary		
NO ingredients are known to be hazardous under normal usage.		

## Section 3 - Hazards Identification

### ☆☆☆☆ Emergency Overview ☆☆☆☆

Summary of risks: There is no experience with overexposure. Prolonged or repeated skin or eye contact may cause irritation. Inhalation of vapor or oil mist from material at high temperatures may irritate respiratory passages. Limit for airborne concentration of oil mist in air is 5mg/m<sup>3</sup> per OSHA 29 CFR 1910.1000. Exercise ordinary, common-sense measures of industrial hygiene when using this product.

HMIS  
H 1  
F 0  
R 0  
PPPT  
?acc. 2

### Potential Health Effects

Primary Entry Routes: Skin, eyes, inhalation at high temperatures (over 250°C).

Target Organs: Skin, eyes, respiratory passages at high temperatures (over 250°C).

Acute Effects: Possible skin and eye irritation. Possible respiratory passage irritation at high temperatures (over 250°C).

Carcinogenicity: IARC, NTP, and OSHA do not list Nye Instrument Grease 706D or its ingredients as carcinogens.

Medical Conditions Aggravated by Long-Term Exposure: None known.

Chronic Effects: None known.

## Section 4 - First Aid Measures

Inhalation: Move to fresh air and refer to a physician for treatment.

Eye Contact: Wash thoroughly; contact physician if irritation persists.

Skin Contact: Wash thoroughly with soap and water.

Ingestion: Not expected to be a problem. However, if ingested, immediately give 1 to 2 glasses of water and call a physician.

Do not induce vomiting.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Special Precautions/Procedures: Avoid contamination of cigarettes or other tobacco products.

## Section 5 - Fire-Fighting Measures

Flash Point: over 400°F (204°C)

Flash Point Method: COC

LEL: N/A

UEL: N/A

Extinguishing Media: CO<sub>2</sub>, Foam, Dry Chemical, Water Spray

Unusual Fire or Explosion Hazards: None

Hazardous Combustion Products: Carbon Monoxide and small amount of other toxic fumes.

Fire-Fighting Instructions: Avoid smoke inhalation. Water or foam may cause frothing. Do not release runoff from fire control methods to sewers or waterways.



**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

### Section 6 - Accidental Release Measures

**Spill/Leak Procedures:** Wipe or scrape up grease spillage and place it in a container for disposal.

**Containment:** Do not release into sewers or waterways.

**Cleanup:** Wash walking surfaces thoroughly with detergent and water to reduce slipping hazard.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120). Consult applicable state and local regulations.

### Section 7 - Handling and Storage

**Handling Precautions:** Exercise ordinary care in handling industrial lubricants. No special handling precautions are necessary. Avoid contamination of cigarettes or other tobacco products. Wash hands thoroughly before eating or smoking. Users should be alert to the possibility that very small percentages of the population may display unexpected allergic reactions to otherwise innocuous industrial lubricants and raw materials.

**Storage Requirements:** Do not store in open or unlabeled containers. Store away from strong oxidizing agents or combustible material.

**Regulatory Requirements:** None

### Section 8 - Exposure Controls / Personal Protection

**Ventilation:** No special requirements under ordinary conditions of use with adequate ventilation.

**Respiratory Protection:** Not required unless oil mist, smoke or vapors are generated at high temperatures.

**Protective Clothing/Equipment:** Wear chemically protective gloves, and aprons to prevent prolonged or repeated skin contact.

Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133).

Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### Section 9 - Physical and Chemical Properties

**Vapor Pressure:** Negligible

**Vapor Density (Air=1):** Heavier than air.

**Formula Weight:** Not calculated

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** N/A

**pH:** Neutral

**Water Solubility:** Insoluble

**Boiling Point:** Not volatile

**Dropping Point:** over 260°C

**% Volatile:** None

**Evaporation Rate:** Slower than diethyl ether

### Section 10 - Stability and Reactivity

**Stability:** Nyc Instrument Grease 706D is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Strong oxidizing materials

**Conditions to Avoid:** Pyrolysis

**Hazardous Decomposition Products:** Thermal oxidative decomposition of Nyc Instrument Grease 706D can produce carbon monoxide as well as small amounts of other toxic fumes.

### Section 11 - Toxicological Information

**Toxicity Data:** None; not considered to be a hazardous material.

### Section 12 - Ecological Information

**Environmental Fate and Effects:** No data has been established for this product.

### Section 13 - Disposal Considerations

**Disposal:** Contact a licensed waste-disposal contractor for detailed recommendations.

**Disposal Regulatory Requirements:** Many states classify waste lubricants as "hazardous", which means disposal only by a licensed firm. Follow applicable Federal, state, and local regulations.

**Section 14 - Transport Information**

DOT Transportation Data (49 CFR 172.101): Not Restricted

**Section 15 - Regulatory Information****TSCA:**

All components comply with TSCA.

**EPA Regulations:**

SARA 311/312 Codes: N/A

SARA Toxic Chemical (40 CFR 372.65): N/A

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not Listed, Threshold Planning Quantity (TPQ): N/A

**OSHA Regulations:**Air Contaminant (29 CFR 1910.1000): Oil mist in air if heated above 250°C. Limit for airborne concentration is 5mg/m<sup>3</sup>.**Section 16 - Other Information**

Prepared By: GBM

Disclaimer: While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Nye Lubricants, Inc. makes no warranty with respect thereto and disclaims all liability with respect thereon.

**LIST OF ITEMS THAT MUST HAPPEN TO  
DELIVER U137 ADJUSTABLE PEDAL ASSEMBLIES**

1-24-00

Item	Task Name	Finish Date
1	Component order - parts that needed to be redesigned due to interference issues. Parts due in by finish date.  <ul style="list-style-type: none"> <li>• Brake track rod / extension plate weldments</li> <li>• Motor brackets</li> </ul>	1-24-00 1-24-00
2	SWOV Control Plan - Internal Teleflex paperwork to build/check assemblies  <ul style="list-style-type: none"> <li>• Accel MTC version</li> <li>• Accel ETC version</li> <li>• Brake Diesel version</li> <li>• Brake MTC version</li> </ul>	1-25-00 done 1-25-00 1-25-00
3	Accel ETC version  <ul style="list-style-type: none"> <li>• Build Accelerator ETC sub assemblies</li> <li>• Ship to ETC supplier</li> <li>• ETC supplier receive sub assemblies</li> <li>• ETC supplier finish build</li> <li>• ETC supplier ship to Teleflex</li> <li>• Teleflex to finish assembly</li> </ul>	1-28-00 1-28-00 1-31-00 2-10-00 2-11-00 2-15-00
4	Brake Diesel Version  <ul style="list-style-type: none"> <li>• Build assemblies - note assemblies do not need to be complete until Accel ETC pedals complete</li> </ul>	2-4-00
5	Accel MTC version  <ul style="list-style-type: none"> <li>• Build assemblies</li> </ul>	1-31-00
6	Brake MTC version  <ul style="list-style-type: none"> <li>• Build assemblies</li> </ul>	1-31-00
7	Need Order from Ford for the 10 GAS and 10 Diesel assemblies.	1-31-00
	Once assemblies complete and order received parts will be delivered.	

*find out who Bill Mollen reports to*

*\* need to push Diesel pedal due to*

FE03-044-A 3327

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WILLIAMS CONTROLS - 2003.28 RUN-AT-RATE PREPARATION SCHEDULE Revised: 6/13

Day	Date	Action	Responsibility	Complete?	Follow-up &	Date
Monday	6/3	Transfer final product to...				
Tuesday	6/4	...				
Wednesday	6/5	...				
Thursday	6/6	Transfer glass screen...				
Friday	6/7	...				
Saturday	6/8	Transfer glass screen...				
Sunday	6/9	Transfer into sensor...				
Monday	6/9	Courier delivery to AEB				
Tuesday	6/9	Shoot glass screen	S. Bundy	Y	D. Silanpaa	6/9
Wednesday	6/9	Build trial elements with glass overaid (88)	S. Bundy	Y	D. Silanpaa	6/9
Thursday	6/9	Print production LTCC	S. Bundy	Y	D. Silanpaa	6/9
Friday	6/9	Produce production elements (1120)	S. Bundy	Y	D. Silanpaa	6/9
Saturday	6/9	Solder dispenser trial with glass overaid	F. Torres	Y	D. Silanpaa	6/9
Sunday	6/9	Produce production sensors (300)	A. Poirier	Y	D. Silanpaa	6/9
Monday	6/9	Sensor EOL hardware/software changeover	P. Tena	Y	D. Silanpaa	6/11
Tuesday	6/9	Rework punch die (create larger locating hole at bottom lead stake location)	Bay Tool	Not required	F. Torres/ K. Anderson	6/14
Wednesday	6/9	Produce additional sensor assemblies (38)	Team	Y	Team	6/10
Thursday	6/9	Identify correlation setup for Sensor EOL base	Team	Y	Team	6/10
Friday	6/9	Produce 30 ETC with 40% yield at ETC EOL	Team	Y	Team	6/10
Saturday	6/10	Transfer sensor assembly to sensor EOL	S. Bundy/Silanpaa		D. Silanpaa	
Sunday	6/10	Correct Sensor EOL 5000 issues	F. Torres		D. Silanpaa	6/11
Monday	6/12	Produce 30 ETC with 75% yield at ETC EOL	Team		D. Silanpaa	6/12
Tuesday	6/13	Verification of Sensor EOL Correlation Adjust.	Team		D. Silanpaa	6/13
Wednesday	6/13	Run 50 sensors through sensor EOL 5 assembly --- ETC to verify correlation	Team		Team	6/13
Thursday	6/13	Produce LTCC (Run @ Rate)	Team		D. Silanpaa	6/13
Friday	6/14	Sensor Run @ Rate	Team		D. Silanpaa	6/14
Saturday	6/14	Line Prove out Run @ Rate	Team			6/14
Sunday	6/15	...			D. Silanpaa	6/15
Monday	6/16	Open			D. Silanpaa	6/16
Tuesday	6/17	Open			D. Silanpaa	6/17
Wednesday	6/18	Run @ Rate (ETC) for Customer	Team		D. Silanpaa	6/18

P003-044 2771

**Device Transmittal**

FOR ALL E.C. MONITOR BUILD - APD  
 FIXED & ADJUSTABLE ACCELERATION CONTROLS

Vehicle Make:  Model Year:  Vehicle Ltr:

Device Name:

Subsystem Name:

Ford Device Engineer:

Phone Number:

Signature:

Location/Cube:

Control Number:

Issue Date:

Revised Date:

FWW Systems Engineer:

Phone Number:

Device Part Number:  Device Connector P/N:

Device Supplier:  Device Connector Suppl:

WHI Issue Number:  Device Connection Type:

WHI Location Code:

**Device Connection View:**



**WHI Connection View:**



Ford Connector P/N:  Ref. Conn App Form No:

Connector Supplier:  Connector Description:

Ford Spacer P/N:  Does Connector meet basic SOE Requirements? Yes  No

\*Electronic App will have a Ford Part Number, if Connector Application Form must be submitted

Circuit	Circuit Function	Mounting	Mount Type	Max. Std. Res.	Current						Term Temp		Terminal Dimensions			Cable Type Part Code	Circuit Number	Terminal Part Number	Term Suppl Type	Wire Gauge	Wire Spec	Low Energy Ckt?		
					Min	Max	Min	Max	Min	Max	Temp	Temp	Width	Thick	Lead									
A	Wired																							
B	Wired																							
C	Wired																							
D	Wired																							
E	Wired																							
F	Wired																							
G	Wired																							
H	Wired																							
J	Wired																							
K	Wired																							

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

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

Ford Conn Des Engineer:  Phone Number:  Signature:  Location/Cube:

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

Ford Core App Engineer:  Phone Number:  Signature:  Location/Cube:

PEC-044 28185







3C44-8H336-A0 2003 International  
Design Transmitt... ETC Device ...

PE83-644 28163

**Beuckelaere, Phillip (P.R.)**

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**From:** Walsh, Thomas (T.J.)  
**Sent:** Tuesday, August 08, 2000 3:43 PM  
**To:** Engel, Denise (D.L.); Beuckelaere, Phillip (P.R.)  
**Subject:** FW: Design & Device transmittals for 2003 AP3 electronic throttle controls

Denise, please set up a 30 minute meeting with Phil Guys, Don Silanpa, Phil B. and I.  
**Subject: Electronic Throttle Control Roles and Responsibilities - 2003 MY**  
Phil Guy's office is OK.

**Phil B.:**

- 1) I assume you, Don Silanpa and his Superior are in agreement on this issue. If not, I suggest you talk to them first. Not much point in having the meeting if they are not going to support the proposal.
- 2) Have a 1-page summary (nothing fancy) to frame the issue, pros/cons of alternatives (as is, we do, they do) and recommended action.

*Tom (T.J.) Walsh*

Superduty F-Series/Excursion Platform Chassis Manager  
PDC 2B-A80, MD 101  
Phone: (313) 323-0815  
Fac(313) 621-4541  
e-mail: TWALSH@Ford.com

—Original Message—

**From:** Beuckelaere, Phillip (P.R.)  
**Sent:** Saturday, August 05, 2000 9:58 AM  
**To:** Walsh, Thomas (T.J.)  
**Subject:** FW: Design & Device transmittals for 2003 AP3 electronic throttle controls

Tom,

The following note from Don Silanpa prompts me to request that we consider having the 2003 change to the ETC handled entirely by PTT. It makes no sense to me for us to have two D&R areas handling the same change. Don has taken the initiative to help coordinate the two suppliers interface with the wiring. Why not formalize the process? Would you support having some discussion with Phil Guys on this? Your Thoughts?

Phillip R. Beuckelaere  
Super Duty/Excursion OPD  
(313) 317-2345  
pbeuckel@ford.com

—Original Message—

**From:** Silanpa, Don (D.L.)  
**Sent:** Tuesday, August 01, 2000 9:20 AM  
**To:** 'twalsh@ford.com'; 'tjino@wiscn.com'; Beuckelaere, Phillip (P.R.); Petruskas, Lisa (L.E.)  
**Subject:** Design & Device transmittals for 2003 AP3 electronic throttle controls

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

Don Silanpa  
Ford Motor Company  
(313) 845-3829  
dsilanpa@ford.com

FE83-044 28182



## Assignments Currently Being Worked

### 1) Adjustable Pedals

- Current part numbers for 2001MY (ref C11058581):
  - 1C35-2450-AB; 2001MY adjustable brake pedal for vacuum boost brakes
  - 1C35-2450-BB; 2001MY adjustable brake pedal for hydroboost brakes
  - 1C35-9726-AB; 2001MY adjustable accelerator pedal for gas engine
  - 1C35-9F836-AB; 2001MY adjustable accelerator pedal for diesel engine (a.k.a ETC)
- Part numbers for 2002MY pedals with memory:
  - 2C34-2450-AA; 2002MY adjustable brake pedal with memory for vacuum boost brakes
  - 2C34-2450-BA; 2002MY adjustable pedals with memory for hydro boost brakes
- Part number for 2003MY adjustable accelerator for 6.0L Diesel:
  - 3C34-9F836-AA; 2003MY adjustable accelerator pedal for 6.0L Diesel (ETC)
- Issues:
  - Teleflex redesigning 2001 ETC accelerator pedal to correct deficiency in ETC module plastic along with addressing mating connector incompatibility problem.
  - Teleflex can not support 2002 CP builds with ETC pedals until 5/17/00.
  - Teleflex is awaiting Ford PO for parts to support durability & development testing.
  - Awaiting Teleflex DVP for adjustable pedals with memory.
  - Target agreement for 2003 accelerator pedal is late.
  - Need drawing from Teleflex for 2003 ETC pedal in order to release 3C34-9F836-AA drawing.

### 2) Cost Reductions

- See latest CRID for list of cost reduction ideas.
- All parts with the exception of adjustable pedals are in Vanborn Warehouse & available for delivery to Carron & Company to update vehicles.
- F250/350 Front brake callipers with phenolic pistons and new brake shudder retention clips are at Akebono ready to be shipped to Carron & Company. Contact (Sean Barrett 248-489-7464).
- Cost Reduction Durability Vehicle BOM is up to date on Saperduty web page.

### 3) Open Concerns

- C11059237 - Brake shudder fixes to front brake callipers
- C11072256 - Cost Reduction change - incorporate phenolic pistons in front callipers.
- C11079786 - Brake shudder fixes to incorporate texture 2 finish on front 4x4 rotors.

### 4) Front 4x4 Hub Retention Not Issue

- TRW ongoing investigation

### 5) Brake Noise High Mileage Issue

- Weekly Noise team meetings at Akebono
- Concerns will need to be pulled for production incorporation of fix.

### 6) Field Issue of Premature Rear Lining Wear In Severe Duty Environment

- TSB 99-13-6 Released for 1999 and 2000 MY F250/350/Extension upto build date of Jan 1, 2000.
- TSB TBD Released for 1999 and 2000 F450/550 (Note: F550 17,500 lb GVW only)
- Some fleets are still experiencing issue however majority of them have seen 300-400% improvement in lining life as result of TSB incorporation.
- Need to follow-up with Chris McCormick from TRW (734-266-3991) or Jim Stephens from PMI (248-828-8068) for contact with lining supplier PMI for samples of PMI 3001 for field evaluations.
- Need to contact Federal Mogul (Earl Brown 248-354-1359) for shoe plate drawings to get some F250/350 rear linings with PMI 3001 material for field evaluation.
- Recommend 200 vehicle sets of F250/350 rear linings & 100 vehicle sets of F450/550 rear linings for field evaluations and brake development testing.

### 7) F250/350 Front Brake Caliper Rattle Issue

- Follow up with Akebono (Sean Barrett 248-489-7464) on issue.

PEB3-844 23182

## P131/U137 Adjustable Pedal Program

### Next Steps

- Program Schedule To Be Reviewed At Weekly PMT Meetings.
- Teleflex Has Assigned Full Time Program Manager To P131/U137 Pedal Program.
- Mini Design Review On ETC Held On 2/11/00 With RVT ETC Expert(s). F/U Meeting To Be Scheduled For This Week.
- Finalizing Parts Requirements To Support All Vehicle Test Needs.
- Awaiting 8D On Durability Test Malfunction Of ETC Pedal

## P131/U137 Adjustable Pedal Program Issues

- Continued Teleflex Slippage Of Program Timing Dates
- Component DV Testing (Phase 1) Start Date Has Slipped to 2/15/00
- Current Teleflex Program Timing Leaves Little Contingency For Resolution Of Test Failures
- Part Availability For Vehicle Evaluation(s)/Testing
- Teleflex Redesigned ETC (Phase 2) - New Parts Not Available Until 3/31/00.
- Durability Test Malfunction Of Phase 1 ETC Adjustable Accelerator After Only 3 Weeks Of Testing

REC-011 23160

02/14/00

Roger Barbosa/RBARBOS1 X07710

3



## P131/U137 Adjustable Pedal Program

- Production incorporation - 1/2/01 (MY2001 Added Starter, slippage from previous 12/1/00 date)
- Current Full PSW Date: 12/1/00 (slippage from previous 9/1/00 Date)
- Initial Design Release Done On C10947275
- New Design Changes Documented On C11058581(Authorized 2/10/00)
- Updated FMEA Under Review By Engineering (see attached package)
- Updated DVPR Not Available For Review Yet, Availability Date TBD
- Phase I Component DV Test Program: 2/15/00 - 3/28/00
- Phase II (ETC Redesign) DV Test Program: 4/3/00 - 5/12/00
- Phase II Design parts for vehicle tests available 3/31/00
- Phase I Design Parts Currently On Vehicle Test (Durability & FMVSS 105 Tests)

PERC-014 23008

02/14/00

Roger Barbosa/RBARBOS1 X07710

2

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**From:** Barbosa, Roger (R.)  
**Sent:** Monday, January 27, 2003 11:17 AM  
**To:** West, Gregory (G.S.); Petrauskas, Lisa (L.E.)  
**Cc:** Rend, Tony (A.J.)  
**Subject:** Request for info regarding P131 ETC

Greg, after speaking with you this morning regarding issues with the P131 ETC, I searched through my hard drive and came across the attached files regarding adjustable pedals and/or ETC. I don't know if any of this info helps but it may provide you information on dates. Please note I left the brake group in April 2000.

Lisa: prior to leaving the group I left all my folders in my old desk. I'm positive there was a folder related to the adjustable pedal. Was there any info in that folder regarding the BD for the ETC durability issue?



adjustablepedals1.d  
esrvv1.ppt



braketransition.doc



CI1059996CONTRL  
#.xls

Roger Barbosa  
Lincoln Body Engineering Supervisor  
Overhead Systems, Interior Door & Garnish Trim  
Rotunda Court 3, Office G33  
Tel: 313-59-46784  
Pager: 313-795-2609  
Email: RBARBOS1@FORD.COM

# P131/U137 Adjustable Pedal Program

Supplier: Teleflex Inc.

Presenter: Roger Barbosa P131/U137 Chassis OPD

800-44-2388

02/14/00

Roger Barbosa/RBARBOS1 X07710

1

## **Next Steps: Future Business**

### **Golden Sensor**

- **Designs that the sensor supplier provides an assembly the is pre trimmed and has contact force pre set.**
- **Designs that do not require lubricant.**
- **Designs that the rotor actuation is decoupled from the pedal side loads.**

### **Supplier Evaluation/Development**

- **Team consisting of:**
  - **Purchasing**
  - **STA**
  - **Engineering**
- **Sending survey to 12 current worldwide ETC suppliers with commercial and technical questionnaire developed by the team.**
- **The team will visit the engineering and manufacturing sites of the top six companies based on the survey rate them design, quality, program management along with other applicable items.**
- **The end result will be to name 4 suppliers by June that will get all future ETC pedal assembly business.**

## **Lessons Learned: Lube Migration**

- 1. 2002 Super Duty/Excursion 7.3L Adjustable Accel Pedal**
  - Sensor design consisted of two wiper tracks, one was a hard ink (Pot track) that required dry operation and the other was a soft ink (Switch track) that required a lubricant.**
  - Supplier was aware that if they lube accidentally got on the Pot track failure would occur yet did not spec out a non migrating lube or required quantity of lube to be applied.**
- 2. Migration of lubricant from the switch track to the Pot track acts as an adhesive, collecting wear debris from the Pot track. This wear debris erodes the contact fingers from the rotor arm during normal operation resulting in loss of pedal function due to irregular signal output.**
- 3. Lubricant is made of oil and thickener, it take time for the oil to separate from the thickener, more time for the oil to migrate across to the Pot track and then approximately 200,000 cycles for failure to begin to occur.**
- 4. The time for the separation and migration, which is temperature and lube quantity dependent, is why we didn't see pedal failures on bench or vehicle durability.**

**ETC Team Design Review**  
**Current Issues: Williams**

**1. Capability:**

- Not capable of trimming
- Don't understand pedal hardware stack

**2. ES testing that the pedal does not pass**

- Overload, bracket change in process (PSW 2/21/03)
- Water intrusion, fix not identified

**3. Tolerances**

- 70% EOL yield with today's "end of life" tolerances on print. WMCO would not be capable of supporting KTP production if ES testing drift was subtracted from end of life tolerances and therefore the pedal is susceptible to high mileage warranty.

ETC Team Design Review  
**Hardware: Williams Sensor**

PERC-044 7981

**ETC Team Design Review**  
**Hardware: Williams Sensor**

FE03-044 703B



**ETC Team Design Review**  
**Hardware: Teleflex Sensor**

PCIS-044 7123

**ETC Team Design Review**  
**Hardware: Williams Package**

**Williams**

- Blah blah

# Pedal 0117



PERC-044 0475

# Pedal 0113



PERC-BAK 6A7A

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**From:** Avtar Kalsi [akalsi@fcauto.com]  
**Sent:** Wednesday, August 21, 2002 12:54 PM  
**To:** Larry Liposki; Greg West; Greg Braniff  
**Subject:** Life test tear down.ppt



Life test tear  
down.ppt

Larry,

Attached please two three track life test torn down parts. As you would notice fingers on all three tracks on both pedals are in a perfectly good condition.

I just left a message for Wabash VP of engineering to expedite the plan for further root cause analysis. Our president has sent e-mail to Wabash's president to pay extra attention to this issue. I'll forward the information to you as soon as I receive something from them.

Thanks for your patience.  
Avtar

### Action Item 50A

Contact pad profile measurements from post KLT tested parts

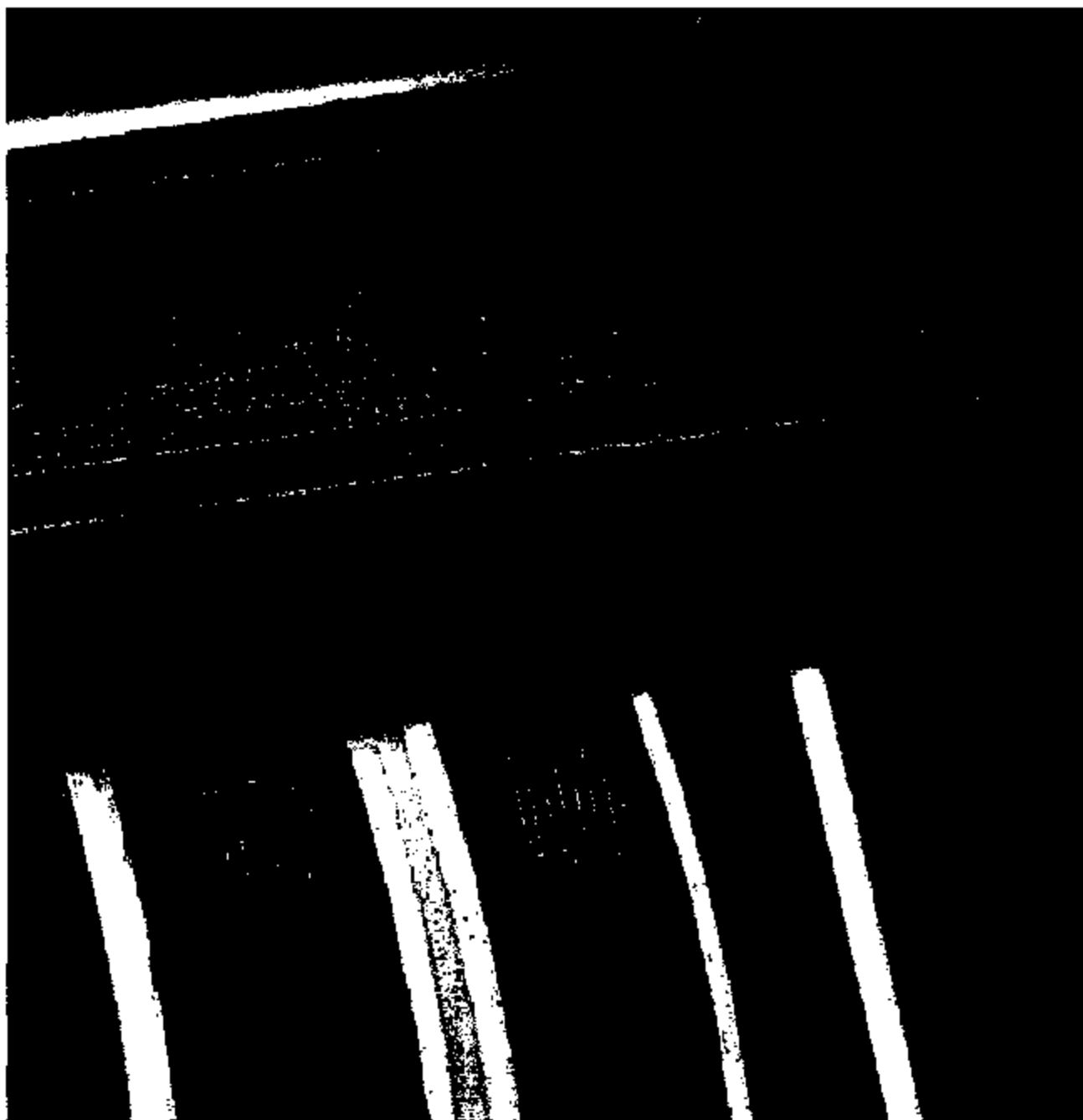
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	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Front	Back	Front	Back	Front	Back	Front	Back
Pad B	0.0306	0.0321	0.0618	0.0381	0.0644	0.0291	0.0522	0.0498	0.0330	0.0310	0.0207	0.0096	0.0039	0.0210	0.0129	0.0120	0.0058	0.0424	0.0319
Pad B	0.0317	0.0520	0.0858	0.0718	0.0803	0.0508	0.0848	0.0644	0.0457	0.0267	0.0300	0.0185	0.0049	0.0233	0.0126	0.0152	0.0142	0.0555	0.0408
Pad B	0.0276	0.0341	0.0617	0.0335	0.0382	0.0321	0.0611	0.0474	0.0318	0.0177	0.0182	0.0191	0.0079	0.0171	0.0098	0.0143	0.0074	0.0287	0.0248
Pad B	0.0151	0.0180	0.0288	0.0222	0.0200	0.0067	0.0342	0.0233	0.0315	0.0213	0.0209	0.0143	0.0048	0.0168	0.0061	0.0143	0.0071	0.0219	0.0114
Pad A	0.0654	0.0827	0.1220	0.1358	0.0818	0.0749	0.0391	0.0517	0.0875	0.0828	0.0995	0.0611	0.0801	0.0572	0.0689	0.0417	0.0493	0.0535	0.0851
Pad A	0.1081	0.1251	0.1098	0.1130	0.1132	0.1148	0.0872	0.0797	0.1320	0.1283	0.1449	0.1017	0.1184	0.0849	0.1038	0.0803	0.0885	0.0944	0.1081
Pad A	0.0869	0.1157	0.1094	0.1332	0.0884	0.0657	0.0439	0.0578	0.1282	0.1183	0.1929	0.1291	0.1690	0.0494	0.0785	0.0372	0.0547	0.0568	0.0895
Pad A	0.0504	0.0831	0.0671	0.0978	0.0416	0.0407	0.0245	0.0410	0.1285	0.1028	0.2212	0.1405	0.1714	0.0380	0.0474	0.0260	0.0288	0.0417	0.0575

	Conforming 7471		Nonconforming 52	Nonconforming 3398		Nonconforming 5214		Nonconforming 8223		Nonconforming 5232		Conforming 1498		Nonconforming 1888		Nonconforming 1905		Conforming 33-	
	Front	Back	Front	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back
Pad B	0.0245	0.0118	0.0317	0.0258	0.0121	0.0150	0.0010	0.0125	0.0100	0.0854	0.0638	0.1002	0.0898	0.0267	0.0197	0.0	0.0297	0.0383	
Pad B	0.0277	0.0251	0.0506	0.0495	0.0300	0.0231	0.0048	0.0187	0.0038	0.1199	0.0807	0.1184	0.0720	0.0251	0.0198	0.0	0.0180	0.0383	
Pad B	0.0242	0.0186	0.0185	0.0171	0.0202	0.0104	0.0033	0.0112	0.0139	0.0619	0.0634	0.0897	0.0583	0.0294	0.0225	0.0	0.0254	0.0242	
Pad B	0.0193	0.0128	0.0081	0.0112	0.0102	0.0073	0.0128	0.0111	0.0105	0.0353	0.0374	0.0834	0.0378	0.0229	0.0175	0.0	0.0230	0.0227	
Pad A	0.1124	0.1009	0.0459	0.0543	0.0625	0.0474	0.0591	0.0793	0.0893	0.0948	0.1126	0.0568	0.0773	0.0589	0.0862	0.0	0.0208	0.0818	
Pad A	0.1647	0.1307	0.0801	0.0841	0.0868	0.0819	0.0873	0.1154	0.1160	0.1347	0.1447	0.0739	0.1108	0.0878	0.0886	0.0	0.0230	0.1362	
Pad A	0.1761	0.1461	0.0564	0.0444	0.0636	0.0454	0.0441	0.0851	0.0882	0.0974	0.1184	0.1332	0.1318	0.0883	0.0960	0.0	0.0183	0.1882	
Pad A	0.1788	0.1398	0.0355	0.0328	0.0344	0.0297	0.0207	0.0365	0.0457	0.0761	0.0893	0.1610	0.1580	0.0814	0.1048	0.0	0.0176	0.1613	

	Conforming 848		Conforming 852		Conforming 845		Conforming 847		Nonconforming 843		Nonconforming 885		Conforming 841		Conforming 886		Conforming 844		Nonconforming 46	
	Front	Back	Front	Back	Front	Back	Fr.	Back	Front	Back	Front	Back	Fr.	Back	Front	Back	Front	Back	Front	Back
Pad B	0.0255	0.0160	0.0333	0.0242	0.0598	0.0476	0.	0.0247	0.0531	0.0335	0.0433	0.0303	0.	0.0221	0.0248	0.0121	0.0548	0.0413	0.0396	0.0267
Pad B	0.0318	0.0116	0.0607	0.0328	0.0743	0.0507	0.	0.0297	0.0771	0.0492	0.0333	0.0254	0.	0.0332	0.0200	0.0070	0.0475	0.0346	0.0406	0.0224
Pad B	0.0228	0.0125	0.0329	0.0174	0.0482	0.0289	0.	0.0202	0.0430	0.0291	0.0298	0.0239	0.	0.0184	0.0212	0.0062	0.0395	0.0254	0.0390	0.0238
Pad B	0.0198	0.0097	0.0230	0.0147	0.0359	0.0465	0.	0.0182	0.0298	0.0235	0.0248	0.0244	0.	0.0235	0.0185	0.0054	0.0342	0.0262	0.0302	0.0189
Pad A	0.0407	0.0277	0.0549	0.0570	0.0598	0.0422	0.	0.0451	0.0367	0.0353	0.0575	0.0465	0.	0.0188	0.0482	0.0371	0.0269	0.0215	0.0455	0.0522
Pad A	0.0340	0.0303	0.0902	0.0804	0.0868	0.0835	0.	0.0678	0.0358	0.0284	0.0804	0.0657	0.	0.0172	0.0580	0.0544	0.0225	0.0197	0.0342	0.0383
Pad A	0.0188	0.0167	0.0586	0.0582	0.0363	0.0356	0.	0.0385	0.0178	0.0128	0.0416	0.0352	0.	0.0119	0.0322	0.0364	0.0181	0.0151	0.0195	0.0128
Pad A	0.0144	0.0181	0.0357	0.0484	0.0243	0.0213	0.	0.0267	0.0120	0.0104	0.0274	0.0228	0.	0.0118	0.0212	0.0288	0.0178	0.0125	0.0101	0.0103



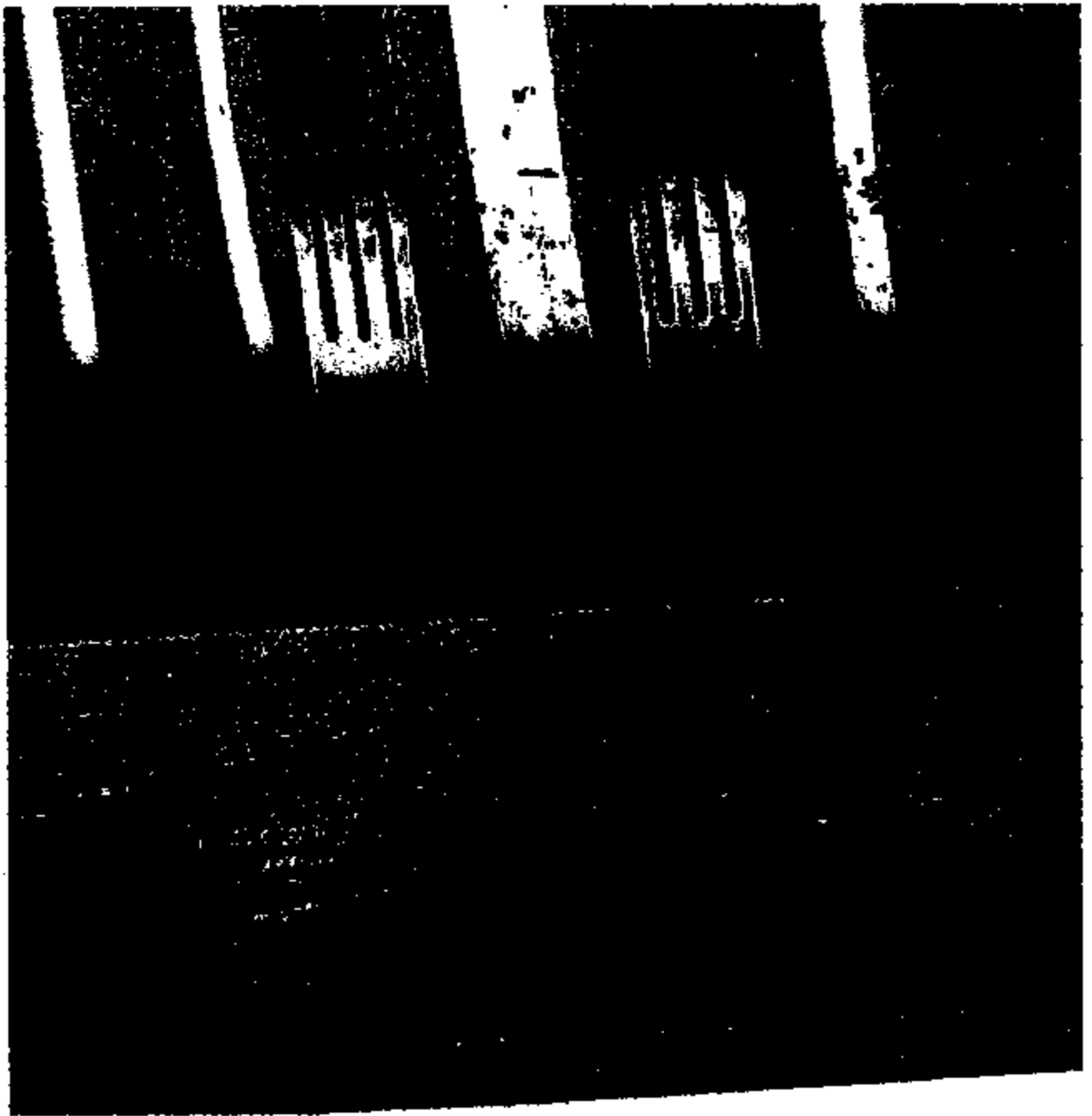
FEB-844 6318

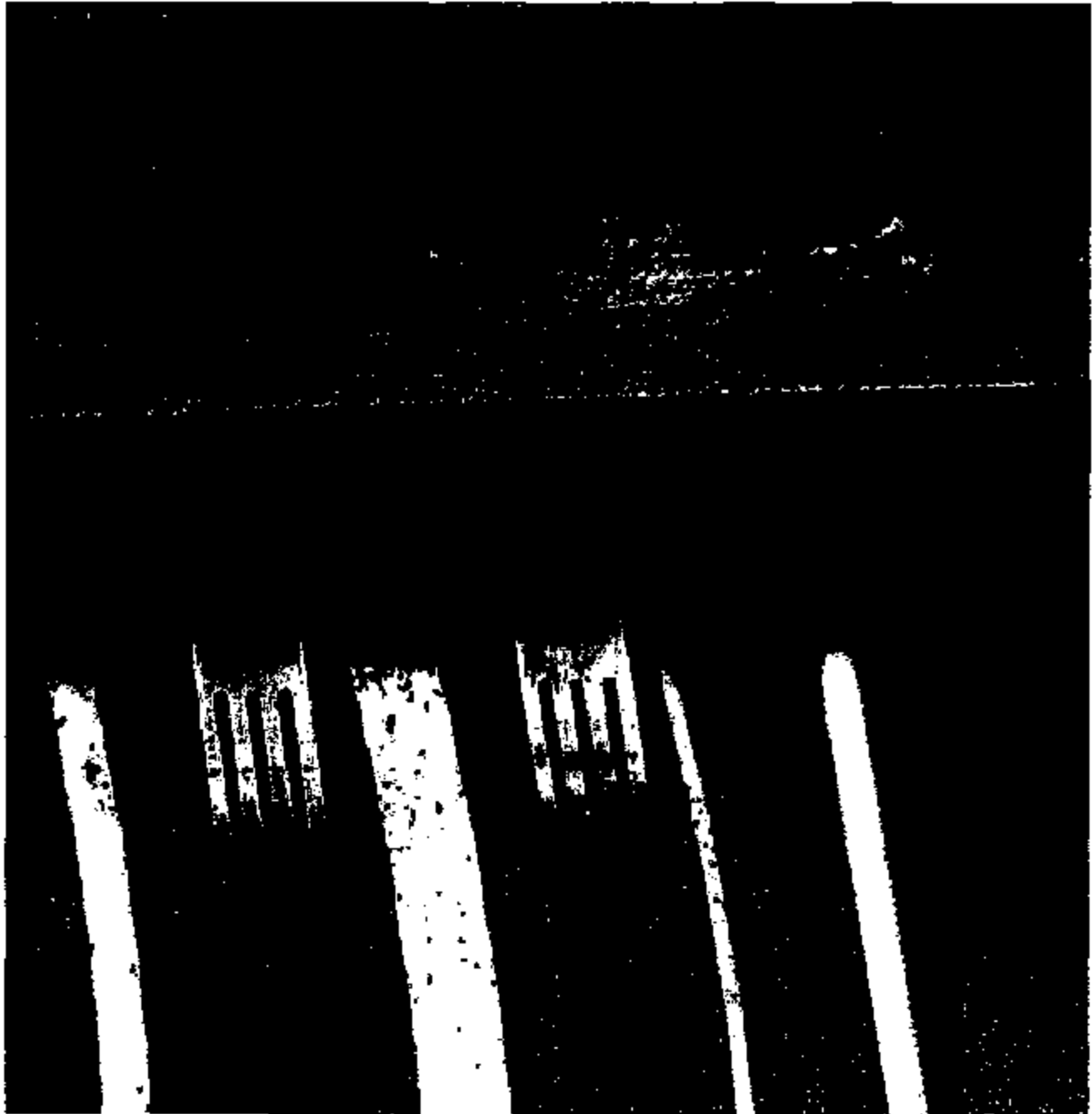


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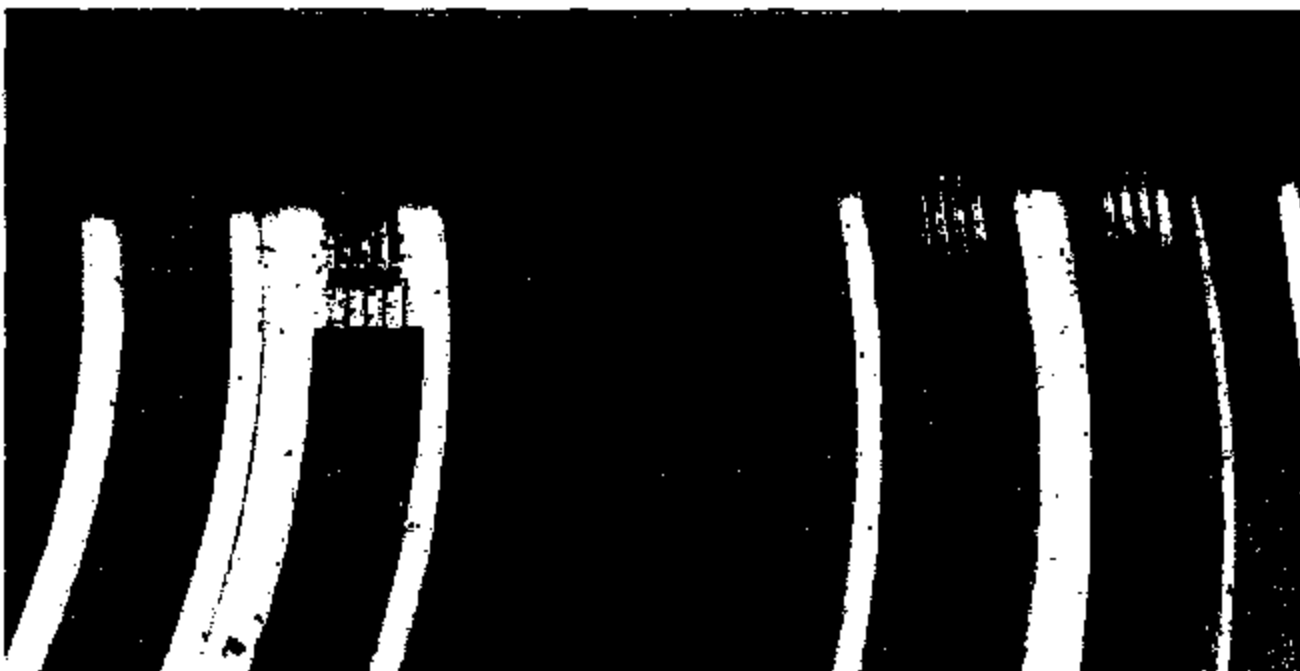
FEB-64 8388







PER3-044 6387



385

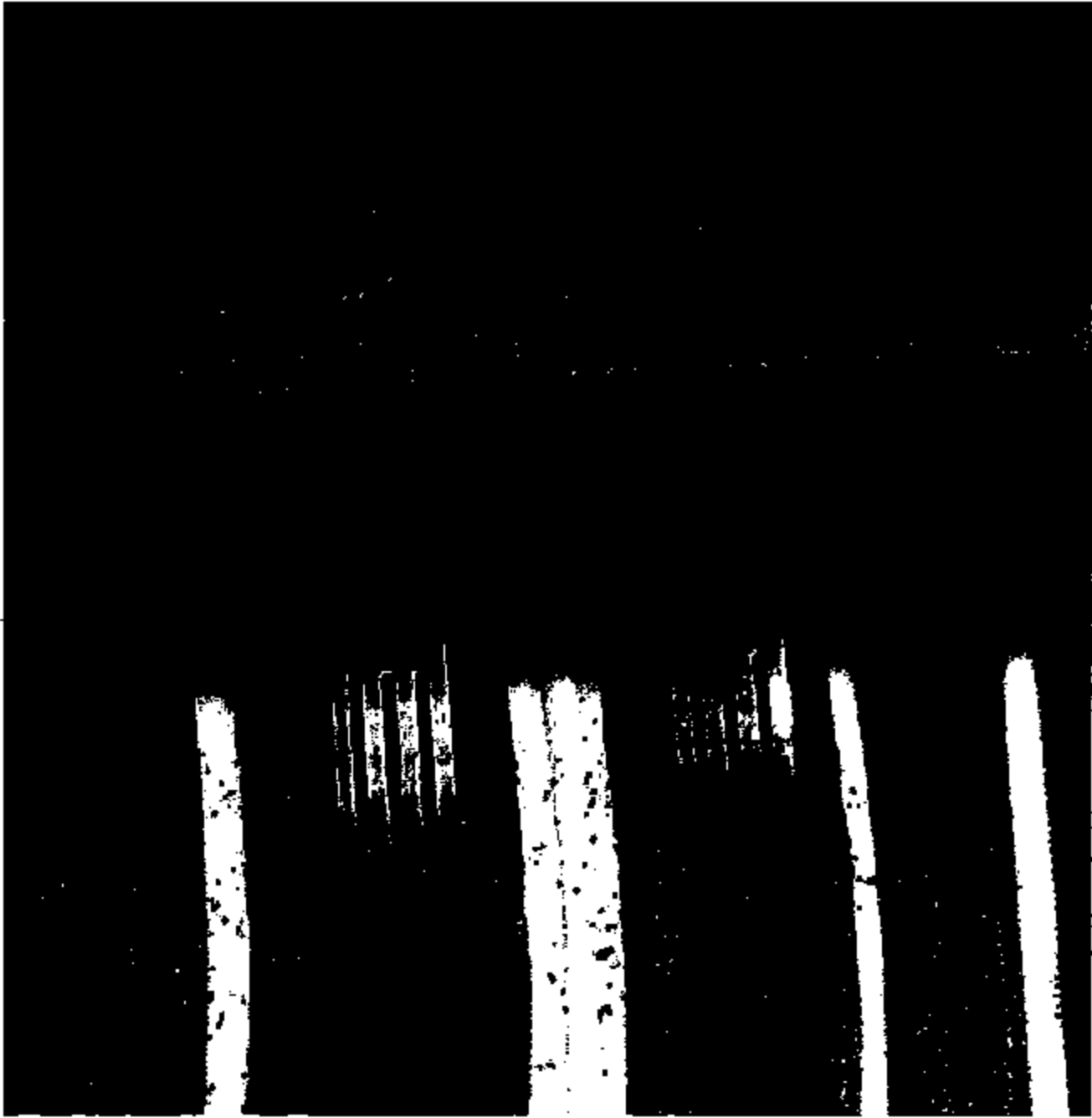
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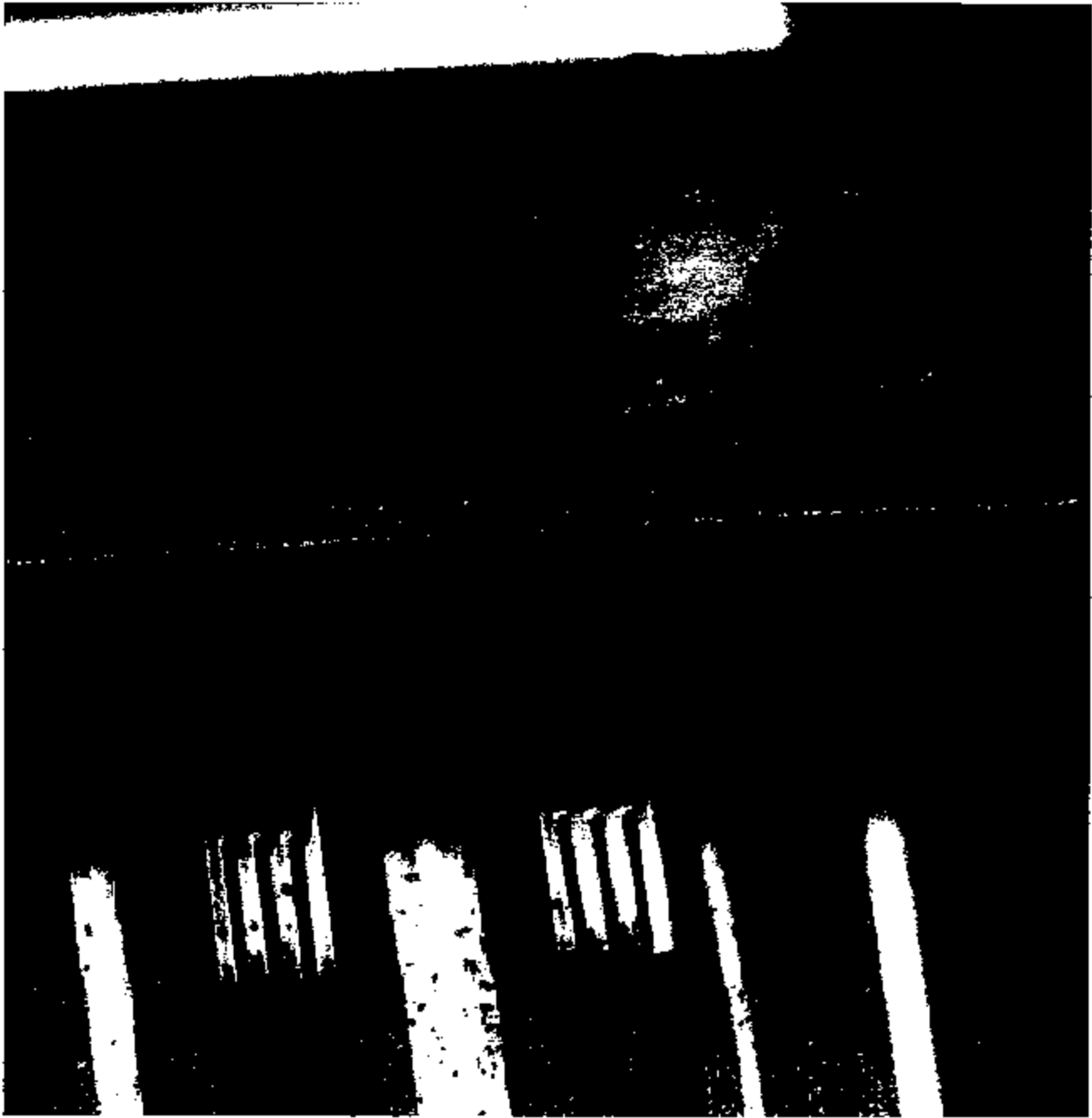


FEB-844 8305



PE93-844 E304



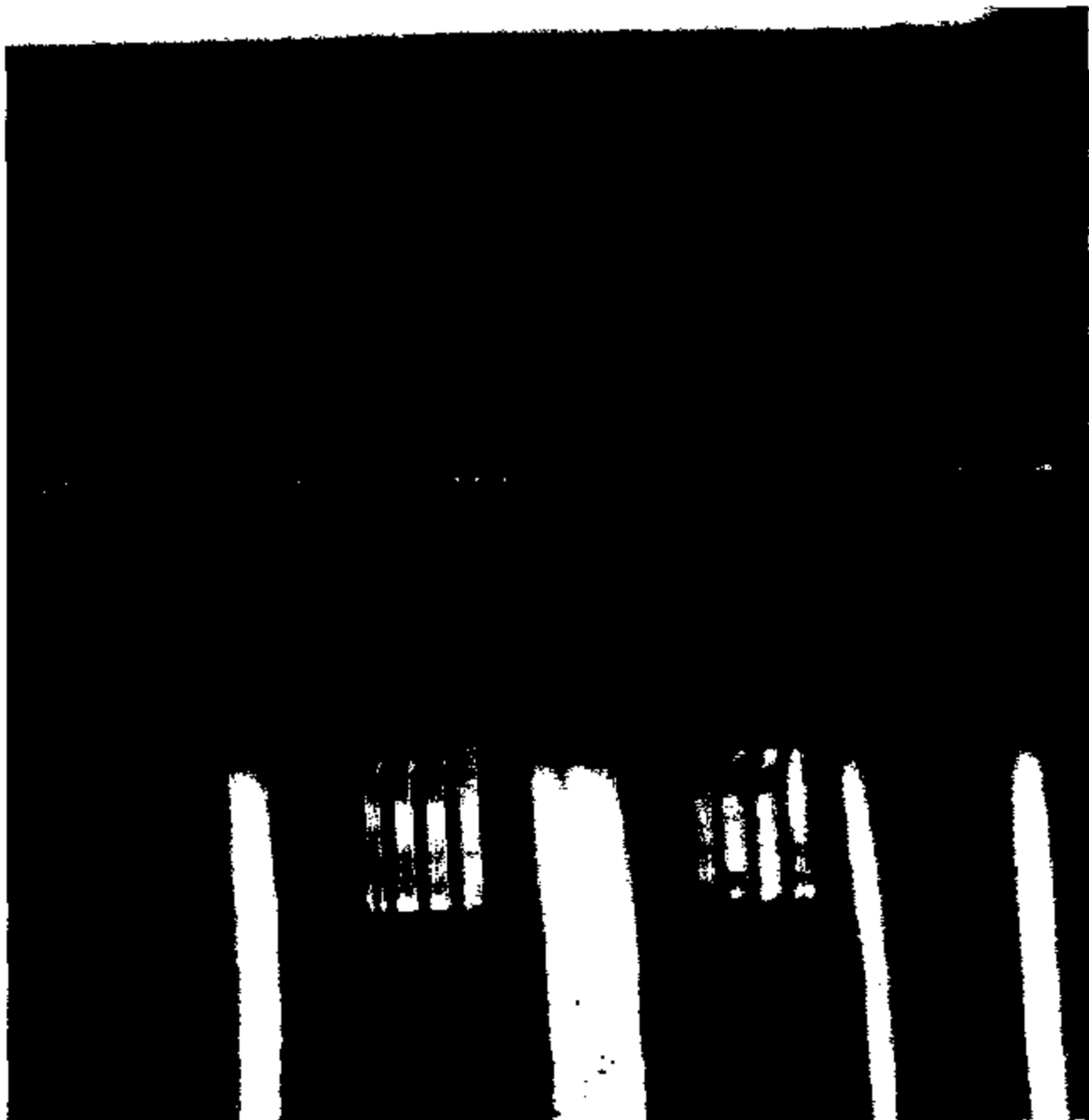


PE83-044 5382

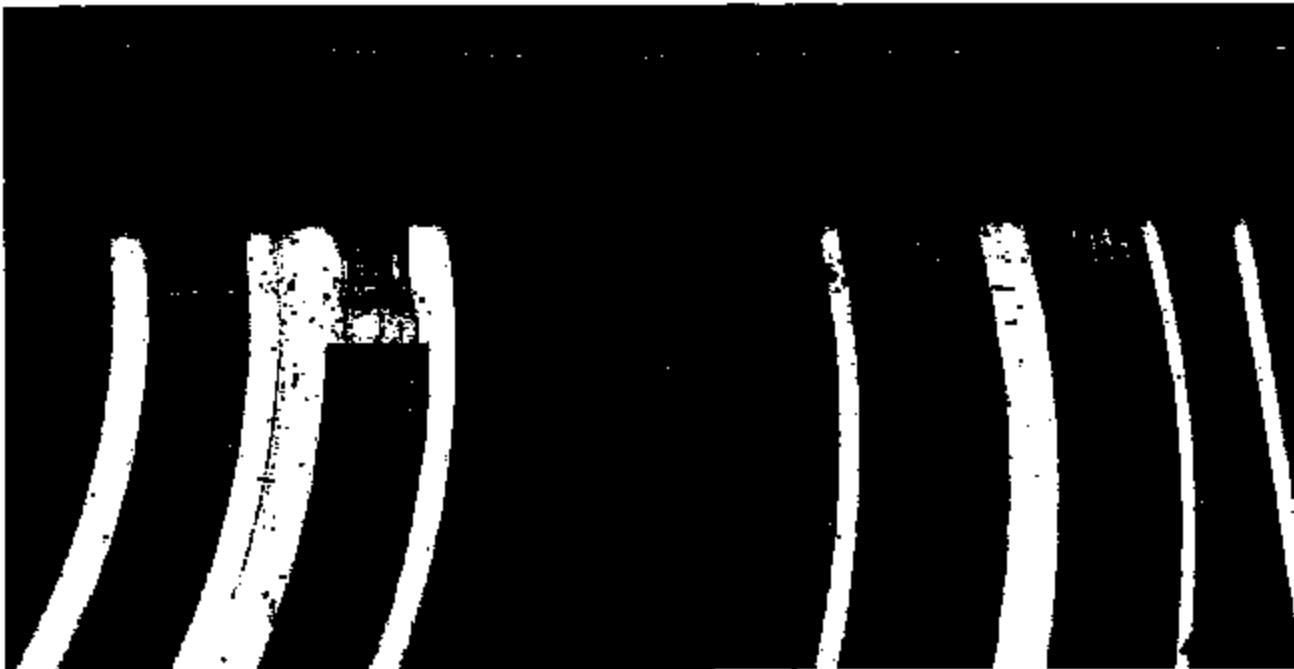


FEBS-844 6381





PEB3-844 8300



FE83-844 8258

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From: Zulkarnain Khan [zkhan1@thcauto.com]  
Sent: Tuesday, October 01, 2002 4:28 PM  
To: zkhan1@thcauto.com  
Subject: U-137 Adj ETC with Phenolic

- 
- 774901a.jpg    774901b.jpg    774902a.jpg    774902b.jpg    774903a.jpg    774903b.jpg    774904a.jpg
- 774904b.jpg    774905a.jpg    774905b.jpg    774906a.jpg    774906b.jpg

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**From:** Zulqarnain Khan [zkhan1@fcauto.com]  
**Sent:** Tuesday, October 01, 2002 4:37 PM  
**To:** gwesl2@ford.com; liposky@ford.com; kszolan@fcauto.com; giranff@fcauto.com;  
bpietrzak@wabeshtech.com  
**Subject:** Fwd: U-137 Adj ETC with Phenolic after 2M cycles.



U-137 Adj ETC with  
Phenolic

Attached, are the digital pictures of six pedals with phenolic after 2M cycles.

Khan

- vi. SREA dated 9/5/00: Allow changes to spec for switch point idle voltage. Action: Tomas Pino scheduling possible completion by 11/30 with drawing change.
- vii. SREA dated 10/28/00: Change idle force spec and wide open throttle spec on drawing. Signed by Don Sillaripaa. Action: Debbie Davis to send SREA to Emmett Ryan.
- viii. Master List for 8Ds given to Don Sillaripaa for his files.

11. Action: Tomas Pino to update the P diagram needs to include dirt, dust, and mechanical tolerance stack up vs. mechanical slop.

12. Agenda item FPDS implementation was given to Don Sillaripaa from Walt Bronson. See handout F.

13. Agenda item FPDS training status stated that four WC employees have completed the first FPDS training (8/2000). FSS training has one WC employee finished (9/2000) and three others scheduled for November 30, 2000 training date.

14. Agenda item Q1 timing: see handout G. Williams Controls received their QS9000 registration on October 20, 2000. Copy of registration is handout H.

15. Review of Williams Pedal Systems of production line and prototype testing area was conducted by Ken Pyte, AJ Poirier, and Walt Bronson.

change to the Ford KTP line as it uses the same returnable pallet that the previous supplier had chosen.

Action: Franco Torres with Drew Homovec to complete via requoia for implementation of returnable prior to Christmas 2000. Need alternate packout (expendables in case of non return of returnables to WC).

Action: Jerry Miers: boundary samples to be signed off for aesthetic issues with KTP.

8. Agenda Item Detail Drawing Specification closure for 2001 1/4. Action: Tomas Pino to close out 3D by updating the PDGS file and put in detail drawing on Ford Data Collector. Need details on racetrack(ovals) on drawing with the specific updates on from SREAs and 8Ds incorporated into the update.
9. Agenda Item close outs on the 2001 1/4 design were from Dan Johnston on hysteresis and pedal effort forces.
  - a. WC will use 8 degrees of pedal travel which is the measurement from Ford. LT26 Pedal effort curve was displayed but not available for handout for target purposes.
  - b. SREA was written and signed by Jerry Miers for WC and Don Sillanpaa to be included in #10.d.vii.
  - c. Ford uses two foot rotations 2 degrees, 8 degrees of foot rotation as check points. Physical target: 13.5 but up to 17 max.
10. Agenda Item 8Ds and SREAs were next on the agenda.
  - a. 8D #0022 was handed over in the last revision dated 10/25/00 to Don Sillanpaa. Action: WC to continue with close out.
  - b. 8D #0023 has not been revised since 9/27/00. WC's sister division is working on this issue. Action: WC to continue with investigation.
  - c. 8D #0024 was signed off and closed on 10/26/00.
  - d. SREA list follows:
    - i. SREA dated 7/17/00: ES testing on parts built at non-production facility. Alert is still valid.
    - ii. SREA dated 7/26/00: Re-PV via mini PV to remove alert.
    - iii. SREA dated 7/26/00: Exceptions to Dust test, Thermal Shock Endurance, and Thermal Shock Resistance tests. Action: Ken Bitner and Dan Johnston of WC will investigate and review Dust test suggestions and request via SREA its findings. Action: Don Sillanpaa scheduling possible completion by 11/30.
    - iv. SREA dated 7/28/00: specification typos with on Thermal Shock Endurance discrepancies. Action: Don Sillanpaa scheduling possible completion by 11/30.
    - v. SREA dated 8/25/00: Allow production shipment in conjunction with 8D #0023 for light rain/splash specifications.

5. New change of personnel at Ford: Jim Antal has been replaced with Rob Iorio (pronounced eye-oreo), telephone number (313) 337-9824.
6. Agenda Item: 2003 Design Status for prototype build timing and issues was discussed next.
- a. Timing was discussed that there may be possible delay of Job 1 as Ford has lost some time due to other issues. The caveat was to stay on target with known timing but to expect a possible delay. See handout C1-one page. Note that the changes in 6d are not on K.
  - b. There is a count of 16 nonadjustable pedals of 7 pin for 2003. All Excursion vehicles (14) for 2002 are adjustable pedals (not WC product).
  - c. Non adjustable and adjustable have the same mounting points.
  - d. Timing for CP build is May 12, 2001 with parts submitted in Ford plant on April 23, 2001.
  - e. AP3 submitted wiring harness in 9 pin which has been reworked into 7 pin.
  - f. Sign off in CAD for FC2002 has been done by Don Silanpaa.
  - g. AP2 for timing of build schedules is not available yet. This is for fixed 6L pedal, three track sensor.
  - h. Specs for PWM and Cummins through Yazaki?
  - i. Keep in mind 5 pin design issues for safety-Action Tomas Pigo and Walt Bronson.
  - j. Spare parts throughout prototyping: suggest inventory of spare parts of the prototypes. Action: Walt Bronson to decide if, where and how many.
  - k. There will be orders for experimental parts from Don S. for limit travel, WOT Stop, etc, which will probably consist of one part for each characteristic wanted. Timing unknown, but probably before the 30 days of testing on 2/22/01-4/4/01.
  - l. Handout D (consists of 4 pages) is the 2003 P131 General Development AP3 test Vehicle Schedule-Preliminary. Most specific thing is that Don S. will be conducting testing on line item #41 for 30 days on 2/22/01-4/4/01. FMVSS testing will be conducted during this time with 3 track sensor, AP3 truck. Adjustable pedals are being tested per line item #80(5/11/01-5/24/01).
  - m. Handout E (consist of 5 pages) is the 2003 P131 CP Test Vehicle Schedule which has one day of testing for Accelerator Controls, line item #15, on 8/16/01.
7. Agenda Item Returnable Shipping Status was discussed out of order on the agenda. Franco Torres reported that WC has set up for 224 parts in a returnable pallet for Ford. A pallet of parts is being tested within WC for issues for this packaging set up. The returnable will be an invisible

## Minutes

### FORD P-131 STATUS UPDATE

October 26, 2000 8AM-5PM

Location: WC Tech Conf. Rm. and Williams Pedal Systems

#### Attendees:

WC Tech Center: Don Sillanpaa-Ford; WC: Walt Bronson,  
Dan Johnston, Debbie Davis, Tomas Pino,

Pedal Plant: Jerry Miers, Franco Torres, and Ken  
Pyle(at plant)

cc: Drew Homovec, Ken Bitner

1. Used agenda from Ford's Accelerator Controls Team Meeting submitted by Don Sillanpaa, Ford's Product Design Engineer. See handout marked "A" with seven pages.

2. Williams Controls received returned part from AC Collins Ford, in Pasadena, Texas on October 25, 2000. The initial problem is that it is a Teleflex part. Drew Homovec will contact our Ford Buyer on how to take care of this situation.

Action: Drew needs learn where to put the cut off date when Williams Controls started shipping Pedal and Sensor Assemblies to Ford for return issues and have it done.

In addition Drew needs to find out how to return this part to Teleflex and get it off Williams Controls records within Ford.

3. Using the agenda the first issue discussed is PD-Q1 status vs. Objective.

Don S. reported that Ford held an Accelerator Controls Review on 9/15/00. Enclosed is the PD-Q1 Peer Design Review Handbook, QSA-PD(Quality System Assessment for Product Development), and the score for Accelerator Team, (handouts marked as B1,2, and 3). PD-Q1 consists of the checkpoints within the program. It is used for robust design engineering and is a commonization effort on how to develop product within Ford.

See comments and recommendations for continuous improvement.

Issues within PD-Q1 as described by Don S. included that there was WC person on build out at Ford and new timing for 2003. Williams Controls presented the P diagram for Williams 2001 ¼ and 2003 Electronic Throttle Controls, a copy of the QS9000 registration certificate, and the updated 10/5/2000 DFMEA(handout marked C1 with 14 pages) version to Ford's Don S as updates.

4. Website for Accelerator Controls should be assessed by WC for information. This website will have lots of information WC should be accessing. See how to gain access through Jim Conrad or Ford Buyer.



**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**REVISION DATE:  
REVISED BY:10/27/00  
L. Hudson

Y NUM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE	DATE Completed
	<ul style="list-style-type: none"> <li>they don't work</li> <li>describe the new sensor and the reasoning behind it's design</li> <li>explain how the sensor works</li> </ul>				
<b>2003 PMT ISSUES</b>					
3	ASSEMBLY DRAWING- UPDATED	<ul style="list-style-type: none"> <li>Mark up provided to Lisa 8-8-00</li> <li>I-DEAS model to be available 10-10-00</li> </ul>	BT / AK	8-18-00 9/11/00	
4	DFMEA		AK	8-4-00	8-4-00
5			AK	8-4-00	8-4-00
6		N	LP		
7		C	LP		
8			EE	8-11-00	
9		<ul style="list-style-type: none"> <li>price and tooling</li> <li>Prototype and production tooling quoted 7-28-00.</li> <li>Production piece price quoted 7-14-00.</li> <li>Prototype piece price required</li> </ul>	LW	8-4-00	

PERS-044-R-0049

# Teleflex

## U137 ADJUSTABLE PEDAL / ETC FORD OPEN ISSUES

REVISION DATE: 10/27/00  
REVISED BY: L. Hudson

Y/NUM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE	DATE COMPLETED
21	BOD SWITCH PIGTAIL INTERFERENCE - Pigtail to switch mating connector contacts track rod guide tube during travel.	<ul style="list-style-type: none"> <li>Identified at 10/17 KTP trial. Still looking for resolution. Pigtail length changes and right-angle connector options rejected. 6-way BOD PPAP summer 01. (10/25/00)</li> </ul>	Ford / TFX	10/31/00	New
22	DAMAGED PART AT RYP - Part dropped at KTP 10/18 trial by PVT. Lower-right corner of bracket and insert broken off.	<ul style="list-style-type: none"> <li>Pedals are not impact-resistant. Waiver of drop test required to avoid complete re-design. All other programs have waived requirement. (10/25/00)</li> </ul>	Ford / TFX	10/31/00	New
23	LT-26 TESTING	<ul style="list-style-type: none"> <li>Gas parts pass. Diesel parts show effort spike at 17.4° rotation. Arm interference with bracket identified. Notch added for arm clearance 10/16/00. Need concern released for -AD steel level. Testing timing TBD. (10/25/00)</li> </ul>	Ford / TFX	???	New
<b>2002 PMT ISSUES</b>					
5	2002 ASSEMBLY PRINT <ul style="list-style-type: none"> <li>add note indicating exception to the impact test for the sensor</li> </ul>	7-20-00 Need to add <ul style="list-style-type: none"> <li>Drawing complete. Transfer upon conclusion of pricing discussions.</li> <li>-AB &amp; -BB levels to be released with: pigtail length noted as reference, new sensor (9/28/00)</li> <li>-AC &amp; -BC levels to be released with: new motor mount (9/28/00)</li> </ul>	LH	2/1/00	
8	WIRE HARNESS FOR PROTOTYPES	(9/13/00) 20 ordered from Yazaki. Due 9/21/00. (9/20/00) Motor pigtail lengths for 2002 & 2001: 2001 wants extra 3' from current 5', 2002 wants 12' total length. Issues with SDS - 300mm takeout length requires retention clip. TFX and Ford would like to use one length for both MY. TBD following eval on design aid & in discussion with AFL.	LH	9/21/00 9/27/00	
10	DVP Plan	DV testing to include 13,000 cycle adjustment test in ambient. PV DVP&R and full SDS requirements delivered to Lisa 9/20/00 for review. Lifecycle to be run in chamber. Structural tests to use surrogate 2001 data. (9/20/00)	LH / LP	9/27/00	
11	MEMORY SENSOR REVIEW / PRESENTATION <ul style="list-style-type: none"> <li>describes Teleflex's existing two sensors and why</li> </ul>	<ul style="list-style-type: none"> <li>Design Review 10/11. Item transferred from 2001 list. (9/28/00)</li> </ul>	BT / LP	10/11/00	

U137 FORD OPEN ISSUES (10-26-00).doc

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**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: 10/27/00  
REVISED BY: L. Hudson

YIMR NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE	DATE COMPLETED
		<p>Control pedal feel adversely affected. Curves copies to Bill Teller 9/20/00. All excel vehicle tests need to be redone with new motor position, bracket, and cable. To be scheduled once part timing is available. (9/20/00)</p> <ul style="list-style-type: none"> <li>New parts delivered. Testing in progress (10/25/00).</li> </ul>		TBD	
14	<p><b>SAFETY</b></p> <ul style="list-style-type: none"> <li>Feedback required on crash tests</li> </ul>	<ul style="list-style-type: none"> <li>Crash tests thus far (with no crash dummies) indicate no crash issues with the pedal.</li> <li>Additional testing required with crash dummies. Timing?</li> <li>Tests performed without wiring dummy, not required for program. (9/25/00)</li> <li>One additional test, timing TBD</li> </ul>	LP	8-22-00 8-15-00	
17	<p><b>MOTOR BRACKET CHANGE</b></p> <ul style="list-style-type: none"> <li>Motor position change required for dissal packaging and to improve cable routing.</li> </ul>	<ul style="list-style-type: none"> <li>New motor position uploaded to data collector. Rejected by Ford. (9/13/00)</li> <li>Revised motor position uploaded to data collector. Rejected by KTP. (9/19/00)</li> <li>New motor position verbally OK'd for prototypes by Steve Buss, KTP. Cost and timing for parts TBD, but required for design aid tryout before 10/17 KTP trial. Need to evaluate prototype brackets ASAP to kick off production tools. New bracket may require extra station on TFX assembly line. (9/20/00)</li> <li>Motor bracket released. No issues with prototypes at 10/17 KTP trial. (10/25/00)</li> </ul>	LH / LP / KTP	10/1/00	10/17/00
18	<p><b>ASSEMBLY DRAWING CHANGES</b></p> <ul style="list-style-type: none"> <li>Add (REF) dimension for motor pigtail length</li> <li>Dimension wiring attachment hole onassy.</li> </ul>	<ul style="list-style-type: none"> <li>Will be incorporated on next release.</li> <li>To be added to -AC drawing and released as a revision by 9/22/00. Copy to be delivered 9/22. Motor position, bracket, and new cable to be released as -AD. Need concern # for -AD. (9/20/00)</li> </ul>	LH / AV	9/22/00	
19	<p><b>IP ASSIST TOOL INTERFERENCE</b></p> <p>Assist tool hits excel track rod during installation of IP.</p>	<ul style="list-style-type: none"> <li>Visit to KTP 9/19/00 to verify issue and determine plan. Orbow to redesign arm of tool to provide clearance. Package data sent to Orbow data collector 9/20/00. 2 assemblies delivered to Orbow 9/20/00. TFX will support efforts.</li> <li>No issues between tool and pedal identified at KTP 10/17 trial. (10/29/00)</li> </ul>	Ford / TFX	9/20/00	10/17/00
20	<p><b>ETC PEDAL INTERFERENCE</b></p> <ul style="list-style-type: none"> <li>ETC pedal hits carpet at WOT, forward position</li> </ul>	<ul style="list-style-type: none"> <li>Identified on all excel vehicles so far. CAD data shows 4.3mm clearance to carpet (J. Asbury) save requires more investigation. (10/25/00)</li> </ul>	Ford / TFX	10/25/00	10/25/00

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**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: 10/27/00  
REVISED BY: L. Hudson

TRIM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE COMPLETED:
<b>2001 PMT ISSUES</b>					
4	2001 PROTOTYPE DVPR	<ul style="list-style-type: none"> <li>7-11-00 dvpr will be updated once the two additional test are complete ( hub retention test and accel cable retainer test)</li> <li>7-20-00 DVPR updated and will be delivered to Lisa on 7-21-00 - Complete</li> <li>Avtar to provide updated prototype ETC DVP DVPR with ETC test results emailed 10/25/00. (10/25/00)</li> </ul>	AK	7-24-00 8-4-00	10/25/00
5	2001 PRODUCTION DVPR • review with Ford	<ul style="list-style-type: none"> <li>7-11-00 AF and AK to review with Ford</li> <li>Lori to provide feedback</li> <li>TFX received signed DVP&amp;R</li> <li>Combined DVP&amp;R emailed 10/28/00. (10/28/00)</li> </ul>	LP	7-10-00 8-4-00	
6	PROGRAM MANAGEMENT REVIEW MEETING	<ul style="list-style-type: none"> <li>7-11-00 Elio in file; process of scheduling.</li> <li>7-18-00 Elio set meeting for 7-25-00</li> <li>Meeting to be 10-10-00</li> <li>10-10 meeting cancelled. New date TBD. (10/25/00)</li> </ul>	EE	7-10-00 7-28-00 8-20-00	
7	NOISE TESTING OF U137 ASSEMBLIES • determine procedure, cost and timing to test assemblies at KandalMills	<ul style="list-style-type: none"> <li>7-11-00 Discuss parameters with Adam Bertola.</li> <li>7-14-00 Per Adam B. The Windstar program is under going full-blown DV testing due to the changes being made to the worm and drive gear. These are common components to all APs, and therefore the Windstar DV data can be used as surrogate data. The U137 should only undergo noise testing, which will involve fabricating fixtures for the sound chamber and then testing in the chamber.</li> <li>When components are available, noise test U137 pedals in KandalMills.</li> <li>6-Sigma project status to be delivered 11/1/00. (10/25/00)</li> </ul>	BT	10-23-00	
8	PHIL TO TALK WITH JIM CONRAD TO DETERMINE IF FORD ASSISTANCE IS AVAILABLE IN COMPLETING DVP TESTING	<ul style="list-style-type: none"> <li>Need testing update from Ford.</li> <li>Full BDS requirement list and full 2002 DVP&amp;R delivered to Lisa for review. Some required Ford tests might not be on DVP&amp;R. Need status on remainder. (8/20/00)</li> </ul>	LP	??	
13	FMVSS124 • Need to perform this test on vehicle ASAP with a gas version accel pedal	<ul style="list-style-type: none"> <li>Lisa to schedule</li> <li>Update needed (8/11/00)</li> <li>Accel adjust cable pulling on pedal per Jim</li> </ul>	LP	8-11-00	

U137 FORD OPEN ISSUES (10-25-00).doc

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PERS-844-R-4348

**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: 9/22/00  
REVISED BY: L. Hudson

ITEM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
10	DVP Plan	<ul style="list-style-type: none"> <li>old &amp; in discussion with AFL.</li> <li>DV testing to include 13,000 cycle adjustment test in ambient. PV DVP&amp;R and full SDS requirements delivered to Use 9/20/00 for review. Lifecycle to be run in chamber. Structural tests to use surrogate 2001 data. (9/23/00)</li> </ul>	LH / LP	9/27/00	
***** 2003 PMT ISSUES *****					
3	ASSEMBLY DRAWING-UPATED	<ul style="list-style-type: none"> <li>Mark up provided to Use 8-9-00</li> <li>I-DEAS model to be available 10-10-00</li> </ul>	BT / AK	8-18-00 09/11/00	
6	Nature's Diagram	Need feedback from Bin.	LP		
7	Functional Targets	Complete requirements list.	LP		
8	Containment Plan	<ul style="list-style-type: none"> <li>Timing and signoff required</li> </ul>	EE	8-11-00	
9	Quote	<ul style="list-style-type: none"> <li>Quote required for prototype and production piece price and tooling</li> <li>Prototype and production tooling quoted 7-25-00.</li> <li>Production piece price quoted 7-14-00.</li> <li>Prototype piece price required</li> </ul>	LW	8-4-00	

P002-011-A 10/04

**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**REVISION DATE:  
REVISED BY:9/22/00  
L. Hudson

Y NUM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
***** 2002 PMT ISSUES *****					
					9-25-00
					9-11-00
					9-11-00
3	WIRE HARNESS FOR PROTOTYPES	(8/13/00) 20 ordered from Yazaki. Due 9/21/00. (8/20/00) Motor pigtail lengths for 2002 & 2001: 2001 wants extra 3" from current 6", 2002 wants 12" total length. Issues with SDS - 300mm takeout length requires retention clip. TFX and Ford would like to use one length for both MY. TBD following eval on design	LH	9/21/00 9/27/00	

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P880-044-R 4/98

**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: 8/22/00  
REVISED BY: L. Hudson

TAJID NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
		<ul style="list-style-type: none"> <li>Accel adjust cable pulling on pedal per Jim Corrad, pedal feel adversely affected. Curve copies to Bill Teller 8/20/00. All accel vehicle tests need to be re-done with new motor position, bracket, and cable. To be scheduled once part timing is available. (8/20/00)</li> </ul>		TBD	
				8-4-00	7-26-00
				TBD	8/10/00
17	<p><b>MOTOR BRACKET CHANGE</b></p> <ul style="list-style-type: none"> <li>Motor position change required for diesel packaging and to improve cable routing</li> </ul>	<ul style="list-style-type: none"> <li>New motor position uploaded to data collector. Rejected by Ford. (8/3/00)</li> <li>Revised motor position uploaded to data collector. Rejected by KTP. (9/16/00)</li> <li>New motor position for verbally OK'ed for prototypes by Steve Bliss, KTP. Cost and timing for parts TBD, but required for design and try-out before 10/17 KTP trial. Need to evaluate prototype brackets ASAP to lock off production tools. New bracket may require extra station on TFX assembly line. (8/20/00)</li> </ul>	J. P. P. / KTP	10-1-00	
18	<p><b>ASSEMBLY DRAWING CHANGES</b></p> <ul style="list-style-type: none"> <li>Add (REF) dimension for motor pegail length</li> <li>Dimension wiring attachment hole on ass'y.</li> </ul>	<ul style="list-style-type: none"> <li>Will be incorporated on next release.</li> <li>To be added to -AC drawing and released as a revision by 8/22/00. Copy to be delivered 8/22. Motor position, bracket, and new cable to be released as -AD. Need concern # for -AD. (8/20/00)</li> </ul>	L. Hudson	9/22/00	
19	<p><b>IP ASSIST TOOL INTERFERENCE</b></p> <p>Assist tool hits accel track rod during installation of IP.</p>	<ul style="list-style-type: none"> <li>Visit to KTP 8/16/00 to verify issue and determine plan. Oxbow to redesign arm of tool to provide clearance. Package data sent to Oxbow data collector 8/20/00. 2 assemblies delivered to Oxbow 8/20/00. TFX will support efforts.</li> </ul>	Ford / TFX	8/20/00	8/20/00

# Teleflex

## U137 ADJUSTABLE PEDAL / ETC FORD OPEN ISSUES

REVISION DATE:  
REVISED BY:

5/22/00  
L. Hudson

Y NUM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
	assemblies at Kendallville	<ul style="list-style-type: none"> <li>7-14-00 Per Adam B. The Windstar program is under going full-blown DV testing due to the changes being made to the worm and drive gear. These are common components to all APS, and therefore the Windstar DV data can be used as surrogate data. The U137 should only undergo noise testing, which will involve fabricating fixtures for the sound chamber and then testing in the chamber.</li> <li>When components are available, noise test U137 pedals in Kendallville.</li> </ul>			
8	PHIL TO TALK WITH JIM CONRAD TO DETERMINE IF FORD ASSISTANCE IS AVAILABLE IN COMPLETING DVP TESTING	<ul style="list-style-type: none"> <li>Need testing update from Ford.</li> <li>Full SDS requirement list and full 2002 DVP&amp;R delivered to Lisa for review. Some required Ford tests might not be on DVP&amp;R. Need status on remainder. (8/20/00)</li> </ul>	LP	??	
13	FMVSS124 ◆ Need to perform this test on vehicle ASAP with a gas version accel pedal	<ul style="list-style-type: none"> <li>Lisa to schedule</li> <li>Update needed (8/11/00)</li> </ul>	LP	5-11-00	

U137 FORD OPEN ISSUES (5-20-00).doc

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FORD-041-8-0001



**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**REVISION DATE:  
REVISED BY:8/22/00  
L. Hudson

Y NUM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
<b>2001 PMT ISSUES</b>					
		<ul style="list-style-type: none"> <li>7-11-00 Jfr Cook is no longer the Brake clutch engineer. Contact Vicky MacCain 820-785-7823</li> <li>7-14-00 Earl M'ee from Teleflex will be flying out to APS on 7-17-00 to monitor the installation of the pedal assemblies</li> <li>7-17-00 Tiller has been placed on hold due to no ETC contracts at APS.</li> </ul>			
		<ul style="list-style-type: none"> <li>7-11-00 Need to set-up meeting.</li> <li>7-14-00 If meeting can't be arranged then AF will attempt to put together an informational package on the senior and forward.</li> </ul>			
		<ul style="list-style-type: none"> <li>7-11-00 AF to update DFMEA per reviews</li> <li>7-11-00 LP and AF to set-up meeting to finish DFMEA.</li> </ul>			
		<ul style="list-style-type: none"> <li>7-11-00 dvr will be updated once the two additional test are complete ( hub retention test and axial cable retainer test)</li> </ul>			
6	PROGRAM MANAGEMENT REVIEW MEETING	<ul style="list-style-type: none"> <li>7-11-00 Elio in the process of scheduling.</li> <li>7-18-00 Elio set meeting for 7-25-00</li> <li>Meeting to be 10-10-00</li> </ul>	ES	7-18-00 7-25-00 8-20-00	
7	NOISE TESTING OF U137 ASSEMBLIES * determine procedure, cost and timing to test	<ul style="list-style-type: none"> <li>7-11-00 Discuss parameters with Adam Bercla.</li> </ul>	BT	10-23-00	

U137 FORD OPEN ISSUES (8-20-00).doc

1 of 8

PE03-044-A 45004

ETC FIX  
INSOLTS



2001  
1C35-9F83L-A  
1C35-9726-A



2002

LOWER WOOD  
HOLE APPROX



1C35-2450-A  
1C35-2450-B

2C34-2450-A  
2C34-2450-B

**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Thursday, July 20, 2000

REVISED BY: ALAN FARRAH

TRIM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
4	DFMEA		AK	8-4-00	
5	DVPR		AK	8-4-00	
	<i>Interface Plan</i>				
	<i>Frame Layout</i>				
	<i>Mounting Plan</i>	<i>CH119895</i>			

FORM 344-A 4/98

**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Thursday, July 20, 2000

REVISED BY: ALAN FARRAH

Y NUM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
	PROTOTYPES WITH MEMORY	diesel, 20 acel gas, 20 brake gas, and 20 brake diesel have been ordered.		7-18-00	
2	ENSURE PROTOTYPES HAVE THE ADDITIONAL 8 INCHES OF WIRING HARNESS.	<ul style="list-style-type: none"> <li>7-11-00 AF submitted e-mail to Teleflex prototype superintendent with the 8 inch requirement.</li> </ul>	RC / BT <i>2001</i>	7-28-00	
4	2002 DPMEA TO FORD <ul style="list-style-type: none"> <li>once reviews and sign off of the 2001 dimes happens the 2002 will be updated</li> </ul>		AF <i>Get back to supply</i>	7-28-00	<i>adon with part</i>
5	COST RESOLUTION NEEDED FOR MEMORY SENSOY	<ul style="list-style-type: none"> <li>7-11-00 Larry Wyatt has meeting with Cory Chevis on 7-12-00 at 2 pm to review cost breakdown.</li> <li>7-14-00 Another meeting schedule for Monday 7-17-00.</li> <li>7-20-00 Status update??</li> </ul>	LW	7-19-00 7-17-00 TBD	
6	PROTOTYPES ON HOLD DUE TO COST ISSUES	<ul style="list-style-type: none"> <li>7-11-00 Elio place prototypes on hold per Phil on 7-7-00.</li> </ul>	EE / PB	TBD	
8	2002 ASSEMBLY PRINT <ul style="list-style-type: none"> <li>add note indicating exception to the impact test for the sensor</li> </ul>	7-20-00 Need to add	BT <i>print</i>	8-00	
<b>2003 PMT ISSUES</b>					
1	LISA TO ORDER AP3 ASSEMBLIES	<i>if order</i>	LP	7-18-00	
2	PIN OUT STRATEGY NEEDS TO BE RESOLVED BETWEEN FORD, TELEFLEX AND WILLIAMS.	<ul style="list-style-type: none"> <li>7-14-00 The design transmittal will be completed and forwarded to Barb Rossman once the pin out strategy is determined</li> </ul>	AV / DS	7-18-00	
3	ASSEMBLY DRAWING- UPATED	<i>Jim A</i>	BT	8-11-00	

U137 Ford-2 OPEN 7-12-00

2 of 4

PENG-044-B 4584

**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Thursday, July 20, 2000

REVISED BY: ALAN FARRAH

ITEM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
	assemblies at Kendallville	under going full-blown DV testing due to the changes being made to the worm and drive gear. These are common components to all APS, and therefore the Windsor DV data can be used as surrogate data. The U137 should only undergo noise testing, which will involve fabricating fixtures for the sound chamber and then testing in the chamber. • When components are available, noise test U137 pedals in Kendallville			
8	PHIL TO TALK WITH JIM CONRAD TO DETERMINE IF FORD ASSISTANCE IS AVAILABLE IN COMPLETING DVP TESTING	<i>- FMS 124 Jim Conrad / done</i>	<i>LP</i>	<i>??</i>	
11	KSR BRACKET WITH WIRING HARNESS HOLE IS IN TELEFLEXES COURT • need to release prints with the hole change .	<ul style="list-style-type: none"> <li>7-14-00 Lisa indicated that KSR is Teleflex's supplier and we need to coordinate the hole change.</li> <li>AFL confirmed extra hole in bracket is for 2002 memory wiring.</li> <li>Confirming coordinates with KSR, <i>2002 memory &amp; wiring harness</i></li> </ul>	BT	8-4-00	
12	NEED TO MODIFY ASSY PRINTS TO HAVE LATEST CHANGES • brake mounting brake wiring harness hole • brake mounting brake mounting hole locations • motor wiring harness with 8 additional inches • accel bracket with inserts • see marked up prints	<ul style="list-style-type: none"> <li>7-14-00 Need to ensure correct concerns are with each issue.</li> <li>7-20-00 Need concern to correct ETC pin out on the drawing.</li> </ul>	BT/AK	8-4-00	
13	<i>Returnable</i>	<i>emissions accel - 2001 issue - cold room GAS DIESEL - Teleflex delaware a.</i>			<i>SEE: Conrad's</i>
14	<i>Good.</i>	<i>2002 PMT ISSUES</i>			<i>1</i>
1	DETERMINE QUANTITIES FOR 2002 CP	• 7-11-00 LP to verify quantities. Currently 30 accel	LP	7-16-00	<i>10 pedals 10 pedals.</i>

U137 ford-2 OPEN 7-12-00



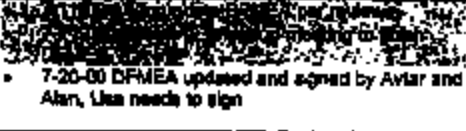
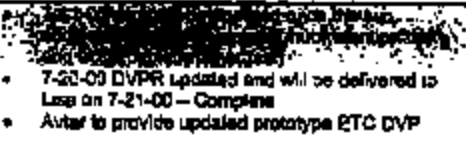

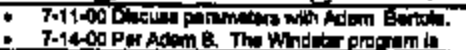
2 of 4

FORM 8-94-A 4/95

**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Thursday, July 20, 2000

REVISED BY: ALAN FARRAH

TRAC NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
<b>2001 PMT ISSUES</b>					
1	TELEFLEX REPRESENTATIVE TO INSTALL ETC PEDAL AT APG.		BT	7-17-00 7-18-00 7-21-00 7-28-00	
2	MEMORY SENSOR REVIEW / PRESENTATION • describe Teleflex's existing two sensors and why they don't work • describe the new sensor and the reasoning behind it's design • explain how the sensor works		BT / LP <i>Malissa Burns Jim Burrows</i>	7-14-00 7-18-00 7-21-00 TBD	
3	UPDATE AND CONTINUE DFMEA REVIEW		LP	7-18-00 7-21-00 <i>7/28/00</i>	
4	2001 PROTOTYPE DVPR		AK <i>21108962 - ETC/S 21106777 - MFDL-Taxi + Seed drawing</i>	7-28-00	
5	2001 PRODUCTION DVPR • review with Ford and once accepted combine prototype data	<i>John@kps - Phil</i>	AF / AK <i>quinto Levi</i>	7-19-00	
6	PROGRAM MANAGEMENT REVIEW MEETING		<i>Green - need pass. SE</i>	7-18-00 7-28-00 TBD	
7	NOISE TESTING OF U137 ASSEMBLIES • determine procedure, cost and timing to test		BT	TBD	

U137 ford-2 OPEN 7-12-00

1 of 4

*- to sign*

**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Thursday, July 25, 2000

REVISED BY: ALAN FARRAH

ITEM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE	DATE COMPLETED
1	2002 ASSEMBLY PRINT • add note indicating exception to the Impact test for the sensor	7-20-00 Need to add • Drawing complete. Transfer upon conclusion of pricing discussions.	BT	8-4-00 8-11-00	
<b>2003 PMT ISSUES</b>					
2	PIN OUT STRATEGY NEEDS TO BE RESOLVED BETWEEN FORD, TELEPLEX AND WILLIAMS.	• 7-14-00 The design transmittal will be completed and forwarded to Barb Rossmen once the pin out strategy is determined • Don to create and send to Teleflex for concurrence	AK / DS	7-31-00 8-11-00	
3	ASSEMBLY DRAWING- UPDATED		BT	8-11-00	
6	Interface Diagram		LP		
7	Functional Targets		LP		
8	Containment Plan	• Timing and signoff required	BE	8-11-00	
9	Quote	• Quote required for prototype and production piece price and tooling • Prototype and production tooling quoted 7-28-00. • Production piece price quoted 7-14-00. • Prototype piece price required	LW	8-4-00	

F803-844-A 4361

# Teleflex

## U137 ADJUSTABLE PEDAL / ETC FORD OPEN ISSUES

REVISION DATE: Thursday, July 20, 2000

REVISED BY: ALAN FARRAH

ISSUE NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE COMPLETED:
		<ul style="list-style-type: none"> <li>Additional testing required with crash dummies. Timing?</li> </ul>			
16	ENSURE PROTOTYPES HAVE THE ADDITIONAL 8 INCHES OF WIRING HARNESS.	<ul style="list-style-type: none"> <li>7-11-00 AP submitted e-mail to Teleflex prototype supervisor with the 8 inch requirement.</li> <li>Will confirm during next prototype build</li> <li>All drawings changed 5-7-00</li> </ul>	RC / BT	TBD	
<b>2002 PNT ISSUES</b>					
4	2002 DFMEA TO FORD <ul style="list-style-type: none"> <li>once reviews and sign off of the 2001 dfmea happens the 2002 will be updated</li> </ul>	<ul style="list-style-type: none"> <li>Need 2001 DFMEA approved by Lee</li> </ul>	LP	8-9-00	
5	COST RESOLUTION NEEDED FOR MEMORY SENSORY	<ul style="list-style-type: none"> <li>7-11-00 Larry Wyatt has meeting with Cory Cheyle on 7-12-00 at 2 pm to review cost breakdown.</li> <li>7-14-00 Another meeting schedule for Monday 7-17-00.</li> <li>7-20-00 Status updates??</li> </ul>	LW	7-13-00 7-17-00 TBD	
6	PROTOTYPES ON HOLD DUE TO COST ISSUES	<ul style="list-style-type: none"> <li>7-11-00 Elio place prototypes on hold per Phil on 7-7-00.</li> </ul>	BE / PB	TBD	



**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Thursday, July 20, 2000

REVISED BY: ALAN FARRAH

ITEM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
	assemblies at Kendallville  <i>John Volk</i> <i>Vince</i>	under going full-blown DV testing due to the changes being made to the worm and drive gear. These are common components to all APS, and therefore the Windstar DV data can be used as surrogated data. The U137 should only undergo noise testing, which will involve fabricating fixtures for the sound chamber and then testing in the chamber. • When components are available, noise test U137 pedals in Kendallville			
6	PHIL TO TALK WITH JIM CONRAD TO DETERMINE IF FORD ASSISTANCE IS AVAILABLE IN COMPLETING DVP TESTING		LP	??	
12	NEED TO MODIFY ASSY PRINTS TO HAVE LATEST CHANGES • brake mounting brake wiring harness hole • brake mounting brake mounting hole locations • motor wiring harness with 6 additional inches • accel bracket with inserts • see marked up prints	• 7-14-00 Need to ensure correct concerns are with each issue. • 7-20-00 Need concern to correct ETC pin out on the drawing. • Assembly drawings complete. They will be transferred upon closure of cost issues.	BT/AK	8-4-00	
13	FIVS124 • Need to perform this test on vehicle ASAP with a gas version accel pedal	• Use to schedule	LP	8-11-00	
14	Crash • Feedback required on crash tests	• Crash tests thus far (with no crash dummies) indicate no crash issues with the pedal.	LP	8-11-00	

U137 FORD OPEN ISSUES

2 of 4

# Teleflex

## U137 ADJUSTABLE PEDAL / ETC FORD OPEN ISSUES

REVISION DATE: Thursday, July 20, 2000

REVISED BY: ALAN FARRAH

TRAC NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE COMPLETED:
<b>2001 PMT ISSUES</b>					
		<ul style="list-style-type: none"> <li>7-11-00 Jim Cooke is no longer in the durability engine. Contact Mary McGinn 920-739-7523.</li> <li>7-14-00 Earl Miller from Telex AF by flying out to APG on 7-17-00 to monitor the evaluation of the pedal assemblies.</li> <li>7-17-00 This has been placed on hold due to no ETC conditions at APG.</li> </ul>			
2	<b>MEMORY SENSOR REVIEW / PRESENTATION</b> <ul style="list-style-type: none"> <li>describe Teleflex existing two sensors and why they don't work</li> <li>describe the new sensor and the reasoning behind it's design</li> <li>explain how the sensor works</li> </ul>	<ul style="list-style-type: none"> <li>7-11-00 Need to see-up meeting.</li> <li>7-14-00 If meeting can't be arranged then AF will attempt to put together an informational package on the sensor and forward.</li> <li>7-19-00 AF to review with Lisa on 7-21-00.</li> </ul>	BT, LP	7-14-00 7-19-00 7-21-00 TBD	
3	<b>UPDATE AND CONTINUE DFMEA REVIEW</b>	<ul style="list-style-type: none"> <li>7-11-00 AF to update DFMEA per reviews</li> <li>7-11-00 LP and AF to see-up meeting to finish DFMEA.</li> <li>7-20-00 DFMEA updated and signed by Avtar and Alan, Lisa needs to sign</li> <li>LP to provide to Teleflex 8-4</li> </ul>		7-19-00 7-21-00 8-4-00	
		<ul style="list-style-type: none"> <li>7-11-00 door will be updated once the two additional lead wire complete (hub retention test and door test) test.</li> </ul>			
5	<b>2001 PRODUCTION DVPR</b> <ul style="list-style-type: none"> <li>review with Ford</li> </ul>	<ul style="list-style-type: none"> <li>7-11-00 AF and AK to review with Ford</li> <li>LP to provide feedback</li> </ul>	LP	7-19-00 8-4-00	
6	<b>PROGRAM MANAGEMENT REVIEW MEETING</b>	<ul style="list-style-type: none"> <li>7-11-00 Elio in the process of scheduling.</li> <li>7-19-00 Elio set meeting for 7-26-00</li> </ul>	EE	7-19-00 7-26-00 TBD	Set 12/21
7	<b>NOISE TESTING OF U137 ASSEMBLIES</b> <ul style="list-style-type: none"> <li>determine procedure, cost and timing to test</li> </ul>	<ul style="list-style-type: none"> <li>7-11-00 Discuss parameters with Adam Bericla.</li> <li>7-14-00 Per Adam B. The Windstar program is</li> </ul>	BT	TBD	

U137 FORD OPEN ISSUES

1 of 4

FEB-04-A 4928

# Teleflex

## U137 ADJUSTABLE PEDAL / ETC FORD OPEN ISSUES

REVISION DATE: Wednesday, July 12, 2000  
REVISOR BY: ALAN FARRAH

FROM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
	SOUND DURING THE RTP TRIAL	<i>Done</i>			
		<i>ensure proper install.</i>			
<i>A KSR: Note in Budget</i>					
<i>CRD/Docman</i>					
<b>2002 PMT ISSUES</b>					
1	DETERMINE QUANTITIES FOR 2002 CP PROTOTYPES WITH MEMORY	<ul style="list-style-type: none"> <li>7-11-00 LP to verify quantities. Currently 30 accel diesel, 20 accel gas, 20 brake gas, and 20 brake diesel have been ordered.</li> </ul>	LP	7-15-00	<i>Qty</i>
2	ENSURE PROTOTYPES HAVE THE ADDITIONAL 6 INCHES OF WIRING HARNESS.	<ul style="list-style-type: none"> <li>7-11-00 AF submitted e-mail to Teleflex prototype supervisor with the 6 inch requirement.</li> </ul>	RC / AF	7-28-00	
3	2002 DVPR WITH MEMORY TO FORD		AF	7-18-00	
4	2002 DPMEA TO FORD <ul style="list-style-type: none"> <li>once review and sign off of the 2001 dimes happens the 2002 will be updated</li> </ul>		AF	7-28-00	
5	COST RESOLUTION NEEDED FOR MEMORY SENSOR	<ul style="list-style-type: none"> <li>7-11-00 Larry Wyatt has meeting with Cory Charle on 7-12-00 at 2 pm to review cost breakdown.</li> </ul>	LW	7-12-00	
6	PROTOTYPES ON HOLD DUE TO COST ISSUES	<ul style="list-style-type: none"> <li>7-11-00 Ego place prototypes on hold per Phil on 7-7-00.</li> </ul>	EE / PB	??	
7	BRAKE PEDAL HAD NOISE ISSUE (CLICKING SOUND) DURING THE RTP TRIAL	<ul style="list-style-type: none"> <li>7-11-00 Teleflex to investigate once vehicles are at Camion and Company</li> </ul>	Teleflex	??	
<b>2003 PMT ISSUES</b>					
1	USA TO ORDER APJ ASSEMBLIES		LP	??	<i>Att</i>
<i>talk to Joe Wash</i>					
<i>need to kick 30 suppliers</i>					

PERS-044-A 4500

9 of 21, 2000 Alan is leaving Teleflex / Attari@Carver

Teleflex		U137 ADJUSTABLE PEDAL / ETC FORD OPEN ISSUES		REVISION DATE:	Wednesday, July 12, 2000	
				REVISED BY:	ALAN FARRAH	
TRIM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:	
<b>2001 PMT ISSUES</b>						
1	TELEFLEX REPRESENTATIVE TO INSTALL ETC PEDAL AT APG.	<ul style="list-style-type: none"> <li>7-11-00 Jim Cook is no longer the brake durability engineer. Contact Marty McCain 520-763-7623</li> </ul>	AF	7-14-00		
2	MEMORY SENSOR REVIEW / PRESENTATION <ul style="list-style-type: none"> <li>describe Teleflex existing two sensors and why they don't work</li> <li>describe the new sensor and the reasoning behind it's design</li> <li>explain how the sensor works</li> </ul>	<ul style="list-style-type: none"> <li>7-11-00 Need to set-up meeting.</li> </ul>	AF / LP	7-14-00		
3	UPDATE AND CONTINUE DFMEA REVIEW	<ul style="list-style-type: none"> <li>7-11-00 AF to update DFMEA per reviews</li> <li>7-11-00 LP and AF to set-up meeting to finish DFMEA.</li> </ul>	AF	7-19-00		
4	2001 PROTOTYPE DVPR	<ul style="list-style-type: none"> <li>7-11-00 dvpr will be updated once the two additional test are complete ( hub rotation test and accel cable retainer test)</li> </ul>	AF	7-19-00		
5	2001 PRODUCTION DVPR <ul style="list-style-type: none"> <li>review with Ford and once accepted combine prototype data</li> </ul>	<ul style="list-style-type: none"> <li>7-11-00 AF and AK to review with Ford</li> </ul>	AF / AK	7-19-00		
6	PROGRAM MANAGEMENT REVIEW MEETING	<ul style="list-style-type: none"> <li>7-11-00 Ello in the process of scheduling.</li> </ul>	EE	7-19-00		
7	NOISE TESTING OF U137 ASSEMBLIES <ul style="list-style-type: none"> <li>determine procedure, cost and timing to test assemblies at Kendallville</li> </ul>	<ul style="list-style-type: none"> <li>7-11-00 Discuss parameters with Adam Bertola.</li> </ul> NO YES	AF	7-19-00		
8	PHIL TO TALK WITH JIM CONRAD TO DETERMINE IF THERE IS FORD ASSISTANCE AVAILABLE IN COMPLETING DVP TESTING	PHIBS 12A	PB	??		
9	U137 ADJUSTMENT TIME IS ABOVE THE 4.5 +/- .3 SECOND SPEC. <ul style="list-style-type: none"> <li>need to gather adjustment time information from all adjustable pedal programs</li> <li>calculate adjustment time</li> </ul>	<ul style="list-style-type: none"> <li>7-11-00 In process of gathering data.</li> </ul>	AF	7-19-00		
10	BRAKE PEDAL HAD NOISE ISSUE (CLICKING)					

U137 Inv-1 OPEN 7-12-00

1 of 2

PE83-044-9 4087

**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Wednesday, July 12, 2000

REVISED BY: ALAN FARRAH

ITEM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE:	DATE Completed:
	SOUND) DURING THE KTP TRIAL				
<b>2002 PMT ISSUES</b>					
1	DETERMINE QUANTITIES FOR 2002 CP PROTOTYPES WITH MEMORY	<ul style="list-style-type: none"> <li>7-11-00 LP to verify quantities. Currently 30 accel diesel, 20 accel gas, 20 brake gas, and 20 brake diesel have been ordered.</li> </ul>	LP	7-15-00	
2	ENSURE PROTOTYPES HAVE THE ADDITIONAL 8 INCHES OF WIRING HARNESS.	<ul style="list-style-type: none"> <li>7-11-00 AF submitted e-mail to Teleflex prototype supervisor with the 8 inch requirement.</li> </ul>	RC / AF	7-28-00	
3	2002 DVPR WITH MEMORY TO FORD		AF	7-18-00	
4	2002 DFMEA TO FORD <ul style="list-style-type: none"> <li>once reviews and sign off of the 2001 dfmea happens the 2002 will be updated</li> </ul>		AF	7-28-00	
6	COST REDUCTION NEEDED FOR MEMORY SENSORY	<ul style="list-style-type: none"> <li>7-11-00 Larry Wyatt has meeting with Cory Chevie on 7-12-00 at 2 pm to review cost breakdown.</li> </ul>	LW	7-12-00	
8	PROTOTYPES ON HOLD DUE TO COST ISSUES	<ul style="list-style-type: none"> <li>7-11-00 Ello place prototypes on hold per Phil on 7-7-00.</li> </ul>	EE / PB	??	
7	BRAKE PEDAL HAD NOISE ISSUE (CLICKING SOUND) DURING THE KTP TRIAL	<ul style="list-style-type: none"> <li>7-11-00 Teleflex to investigate once vehicles are at Canton and Company</li> </ul>	Teleflex	??	
<b>2003 PMT ISSUES</b>					
1	LIA TO ORDER AP3 ASSEMBLIES		LP	??	

**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
FORD OPEN ISSUES**

REVISION DATE: Wednesday, July 12, 2000

REVISED BY: ALAN FARRAH

ITEM NO.	ISSUE DESCRIPTION	ISSUE STATUS	RESPONSIBILITY	DATE DUE	DATE COMPLETED
<b>2001 PMT ISSUES</b>					
1	TELEFLEX REPRESENTATIVE TO INSTALL ETC PEDAL AT APG.	• 7-11-00 Jim Cook is no longer the brake durability engineer. Contact Marty MacCain 520-753-7623	AF	7-14-00	
2	MEMORY SENSOR REVIEW / PRESENTATION • describe Teleflex existing two sensors and why they don't work • describe the new sensor and the reasoning behind it's design • explain how the sensor works	• 7-11-00 Need to set-up meeting.	AF / LP	7-14-00	
3	UPDATE AND CONTINUE DFMEA REVIEW	• 7-11-00 AF to update DFMEA per reviews • 7-11-00 LP and AF to set-up meeting to finish DFMEA.	AF	7-18-00	
4	2001 PROTOTYPE DVPR	• 7-11-00 dvpr will be updated once the two additional test are complete ( hub retention test and steel cable retainer test)	AF	7-18-00	
5	2001 PRODUCTION DVPR • review with Ford and once accepted combine prototype data	• 7-11-00 AF and AK to review with Ford	AF / AK	7-18-00	
6	PROGRAM MANAGEMENT REVIEW MEETING	• 7-11-00 Eln in the process of scheduling.	EE	7-18-00	
7	NOISE TESTING OF U137 ASSEMBLIES • determine procedure, cost and timing to test assemblies at Kandalville	• 7-11-00 Discuss parameters with Adam, Beriole.	AF	7-18-00	
8	PHIL TO TALK WITH JIM CONRAD TO DETERMINE IF THERE IS FORD ASSISTANCE IS AVAILABLE IN COMPLETING DVP TESTING		PH	??	
9	U137 ADJUSTMENT TIME IS ABOVE THE 4.5 +/- .5 SECOND SPEC. • need to gather adjustment time information from all adjustable pedal programs • calculate adjustment time	• 7-11-00 in process of gathering data.	AF	7-18-00	
10	BRAKE PEDAL HAD NOISE ISSUE (CLICKING)				

U137 Iss-1 OPEN 7-12-00

1 of 2

P833-044-R 4589

**Teleflex**

**U137 ADJUSTABLE PEDAL / ETC  
PROTOTYPE BUILD ISSUES**

REVISION DATE: 9/12/00  
REVISED BY: L. Hudson

NO.	DESCRIPTION	SOLUTION	RESOLUTION	DATE DUE	DATE Completed:
	operation. Warren has raised this issue already.		from Hurley.		

FD33-044-A 4545

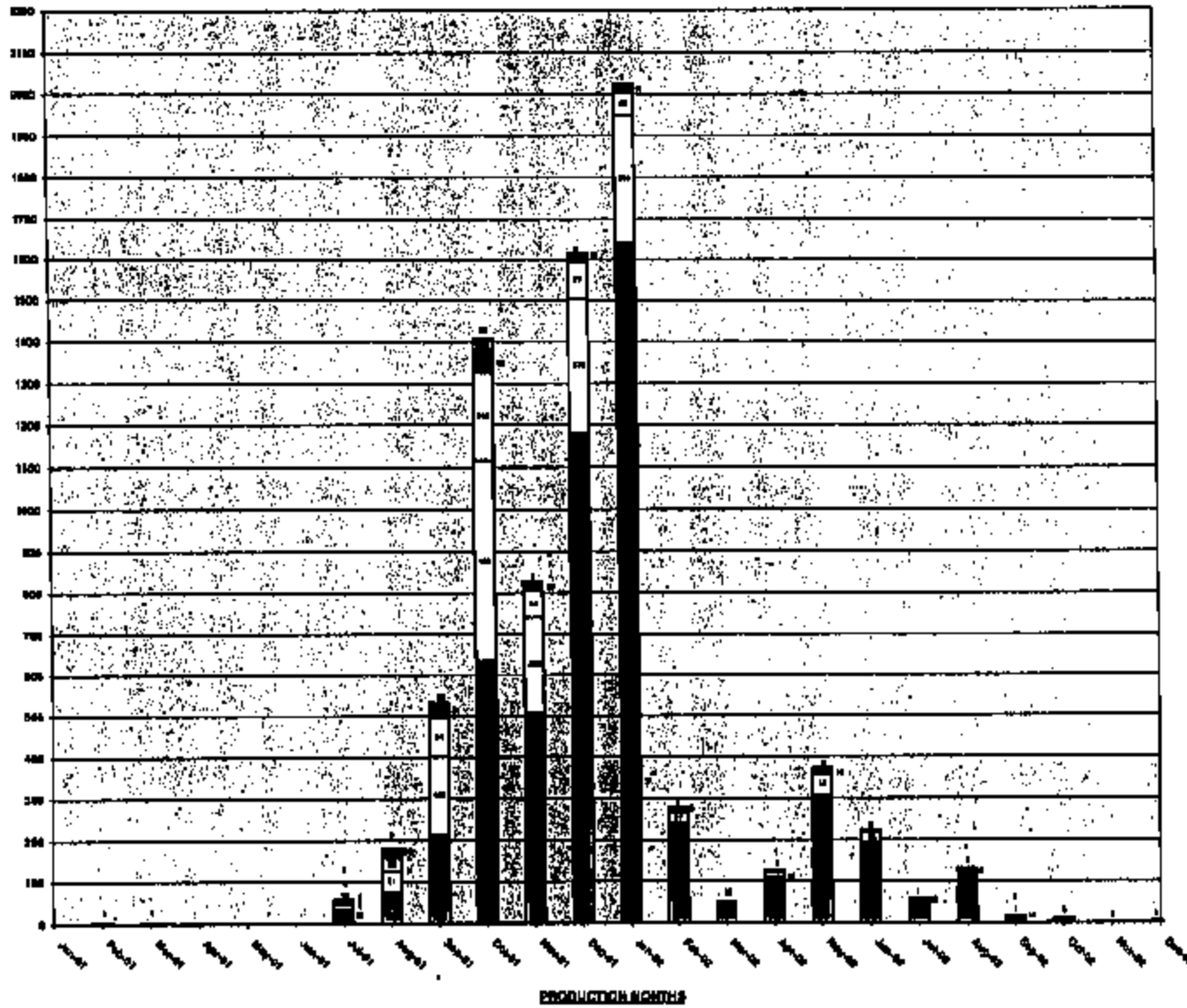
**Teleflex****U137 ADJUSTABLE PEDAL / ETC  
PROTOTYPE BUILD ISSUES**REVISION DATE:  
REVISED BY:9/12/00  
L. Hudson

NO.	DESCRIPTION	SOLUTION	RESOLUTION	DATE DUE:	DATE Completed:
1	Accel guide rods do not match print. Will not fit in weld fixture. 4 <sup>th</sup> time for same problem.	Talked with Bill T. and Charlie M. Cahrie informed U137 team months ago that guide rod design could not be built on current production tooling. Extension plate hole needs to be modified. KV to mill 48" clearance for 4 <sup>th</sup> time.	Accel extension plate has been modified. EDWC submitted 9/11/00 and drawing released. ECNs# 30239.		9/11/00
2	Accel pad pins bending when assembled. Also epoxies shearing off.	D186 accel pin hole .194" dia. U137 accel pin hole .187 dia. Holes reamed out to .194" dia.	Will verify hole dimension on U137 fixed accel arm and revise adjustable print to match.	9/12/00	
3	Hush panel bolt hole too small in accel bracket. Screw base breaks in 2 every time bolt assembled. This problem has been present and noted on every build to date.	Hole reamed out to 7/32 dia. for 5 <sup>th</sup> or 6 <sup>th</sup> time. Found out that hush panel bolt deleted from production.	Hush panel bolt deletion confirmed. Will modify hole size on next major revision to ETC housing if necessary.		9/11/00
4	Accel print 1G35-9F836-AB shipping position called out incorrectly.		Shipping position is full-rearward (fully extended). Will modify assembly drawing to reflect change.	9/29/00	
5	Accel pedal binds after pivot pin pressed. Need to back off supporting ribs. This has been identified on every build with no resolution.	Modify ribs.	Possibly a change that was made to production mold that didn't get changed on prototype mold. Will confirm with ETC group.	9/15/00	
6	Accel puck hits accel bracket before pedal to idle position. Same condition for months and months. Pedals are assembled. Need direction.		Rev. 6 includes clearance for this condition. Released 9/14/00. MWD# 2980.	9/15/00	9/14/00
7	Accel pivot pin hole still too small for prototype or production pin press operation.	Current hole size .378" dia. Current knurl .400" dia. -.025" interference requires 5600lb. force to press. Reducing interference to .015". Bill Teller informed and will investigate.	Will compare pin size vs. hole and modify one or the other depending on which tool is finished.	9/22/00	
8	Intermediate housings received again. Yes, you guessed it, pivot holes undersized again (8 <sup>th</sup> time). Had to ream holes again.	Reamed holes	Possibly a change that was made to production mold that didn't get changed on prototype mold. Will confirm with ETC group.	9/15/00	
9	Accel brackets need lead-in for ease of stand-offs. Would greatly help production.		Rev. 6 includes 1.5mm x 45° chamfers for inserts. Released 9/14/00. MWD# 2980.	9/15/00	9/14/00
10	New spring pocket geometry on accel extension plate like the accel bracket before pedal in WOT. Need to remove more material. Called Troy for direction.		Possibly a change that was made to production mold that didn't get changed on prototype mold. Will confirm with ETC group.	9/15/00	
11	9/28/00 Pivot tube undersized (14.1, 14.0), 2 samples. Potential tooling issue. OD tolerance of tube allows ID to be shrunk during bulge	Revise OD tolerance to match GMT360 scheme, which hasn't demonstrated issues.	Contact Mike Hurley (ACI) and revise tolerance. No production quotes are in Troy at this time. Get	9/28/00	



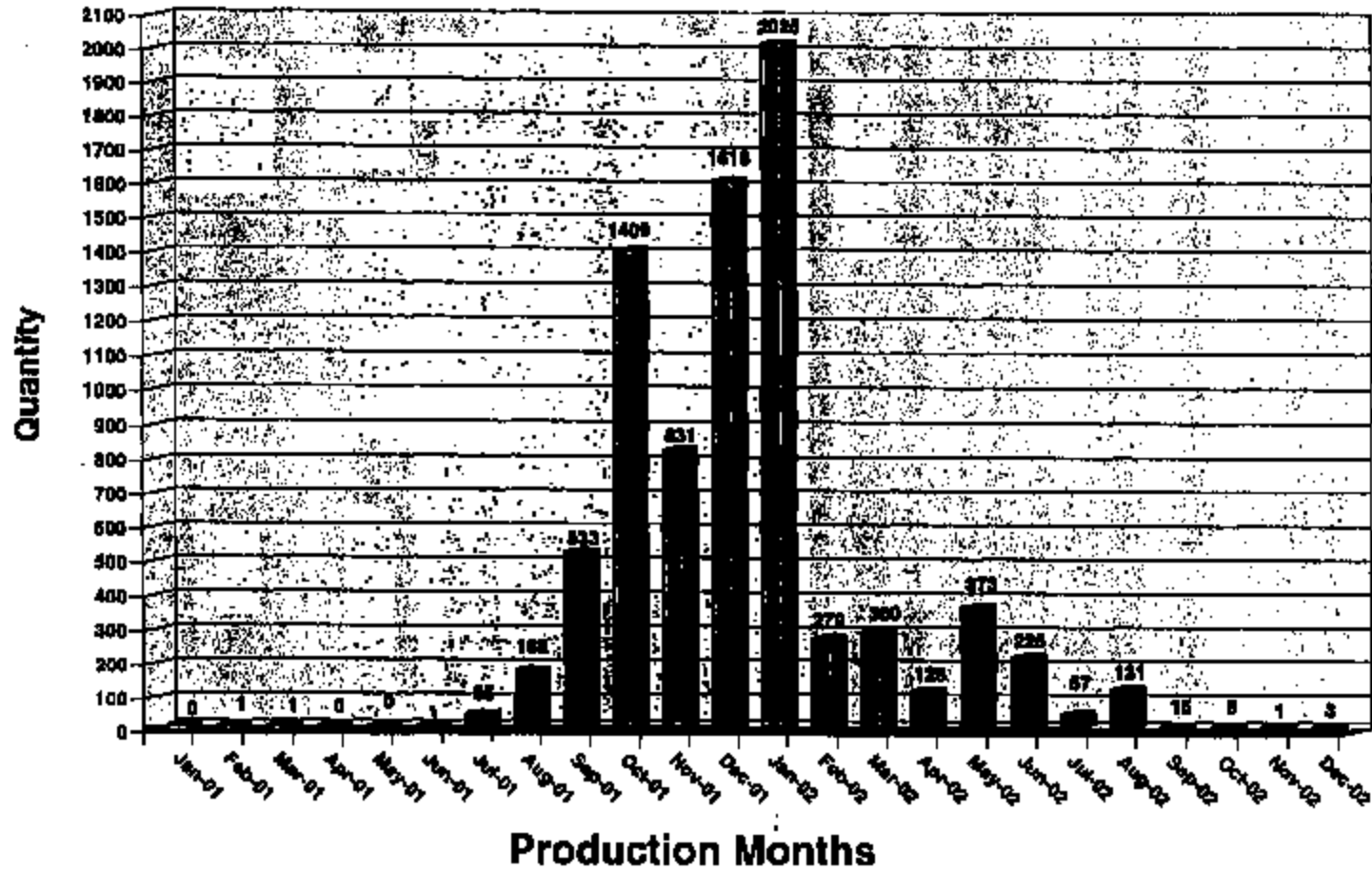
WARRANTY PER MILEAGE

- 50,001+ Miles
- 40,001-50,000 Miles
- 30,001-40,000 Miles
- 20,001-30,000 Miles
- 10,001-20,000 Miles
- 0-10,000 Miles



PERC-044 2005B

### Warranty Data Per Month





have prompted a "time in service" notice. In addition, excluding any returns prior to January 2002, the data in no way indicates a progressively deteriorating condition for the remaining 13 months.

It is also our opinion that there were two unique failure modes. The first relating to the failures associated with the wire harness. This was by far the majority and did have a finite beginning and end point. The second being the vehicle dynamics associated with lube migration / potentiometer failure. This data indicate that the magnitude of returns would not have prompted a service notice.

In view of this information we request that no financial burden be directed towards Teleflex, the field action be removed from the Kendallville quality record, and we be allowed to move forward with our daily business relationship.

Sincerely,

Kevin McMahon  
V.P. Sales, Marketing, and Engineering



To: Ford Motor Company

Attn: Mr. Scott Shepard, Mr. John Wauk

Re: 2C34-9F836-DC Superduty/Excursion Adjustable Pedal Sensor

Date: April 29, 2003

Teleflex has continued with the investigation of pedal failure in light of the recent information provided in your letter of April 15, 2003 and data available through the AWS system.

Our determination is as follows:

As the supplier under FSS, we view our responsibility to provide a discrete component that meets the TA, SOW, and ES specification. In addition, we also make the assumption that the Ford released engineering specification is fully and completely representative of vehicle dynamic conditions. As we have stated in the past, all our testing at production release and production validation indicated that we were in full compliance with all requirements of the ES.

Ford confirmed in your response that there were no abnormalities or anomalies within the vehicle that in any way would imply that the ES test was not fully representative.

Teleflex testing conducted between August and October of 2002 did show that it was possible (under controlled conditions in excess of the ES - vibration, heat and with the part inverted) to migrate the lube from the switch to the potentiometer track. It was found that the failure was similar to that found in some of the returned material. We need to point out that there was a need to exceed the dynamic conditions in your specification.

We have attached graphs on data, which was available from your AWS system. What you will note is an analysis of returned vehicles built between January 2001 and December 2002. This is a good approximation of the full period of production. The data shows 8,173 pedals were serviced. Of these, 6,656 were built in the period SOP to January 2002. During this time interval approximately 25,000 units of production were built. This equates to a failure rate of 266 per thousand. For the time period of February 2002 to December 2002 there were 1,517 warranties over approximately 75,000 units of production. A failure rate of 20 per thousand.

The graph indicates that a significant event or change took place in January of 2002. During the course of this investigation, which has been ongoing since our meeting in early February, we were apprised of a wire harness issue that had been determined to be the root cause of burned switches in the pedal. Our tear down analysis had identified the switch failure, and this was key to helping Ford locate and resolve the wire harness problem. We were advised in several of your responses that the wire harness change was made on a temporary basis in December 2001 and permanently in January of 2002.

After the harness change was made, the warranty dropped to approximately 20 units per thousand. Our history of return analysis would indicate that the actual number of pedal failures would be of some lesser amount. With the failure rate noted subsequent to the harness change, this in our estimation would not

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Troy, MI 48063-1122  
(248) 618-3800  
FAX (248) 618-3810 or 3820  
www.teleflex.com

A Division of Teleflex Incorporated (USA)

PE83-044 20005

FORM 944 12/81

Financials

## Adjustable Pedals - Proposal for U137/P131 draft 11/12/98

### Proposal

- Implement adjustable pedals for 2001 MY U137, and P131 Lariat with automatic transmission.
  - Answer customer requirement for adjustable pedals.
  - Provide 75mm of pedal adjustment, improve ergonomics and comfort for mid to smaller drivers.
  - Common feature offering compared with UN93/U173 SUVs, and PN99/PN102 Lariat Pickups.
- Source the 2001 MY U137/P131 adjustable pedal system to Teleflex.
  - Same Teleflex pedal adjustment system as on UN93, adapted to existing U137/P131 handpoints.
  - Maintain complete interchangeability with c/o non-adjustable pedal systems.
  - Proposal developed assuming a wholly outsourced engineering program, sourced to Teleflex:
    - ⇒ System integrator (responsible for packaging, vehicle build, test planning, overall DVP).
    - ⇒ Program team leader (lead PMT, maintain status & risks, present QOS, handle signoffs).

### Timing

- 2001 J#1 for manually controlled system without memory, and control switch located on column or side of seat. FPDS/Supplier APQP timing and Supplier workplan - see Timing tab.
- Later timing required for memory system due to requirement for memory module, which is not yet packaged in U137/P131.
- Later timing, or tie-in with interior freshening required for IP location similar to UN93/U173 due to lack of package space and the potential need to redesign the IP in order to contain the UN93/U173 control.
- Control switch location is TBD at this time, and will require further work to locate and package.

### Volumes and Capacity

- |  | FPV     |
|--|---------|
| ■ U137 @ 78% (68,000)                    | 53,040  |
| ■ P131 Lariat @ 16% N.A. (350,000)       | 52,500  |
| ■ Total annual volumes (2001 and beyond) | 105,540 |
- Volumes were recently re-assessed to the above figures by Ford Marketing based on customer acceptance of the same system on UN93/U173, and expected usage on PN99 Lariat.
  - Independent research by Active/Lapeer lends support for volume projections; verbatim - see Capacity tab.
  - U137/P131 volumes included in Commodity Strategy developed by Core Purchasing - see Capacity tab.

Financials - see Financials tab.

Quality - TBD pending data from UN93. Quote & SOW requires 100% warranty responsibility by supplier.

### Sourcing Decision

- Three sources considered based on recommendations from AVT, Purchasing, and U137 Engineering:
  - Teleflex, formerly ConCorp - supplier of adjustable pedals for UN93/U173, PN99/PN102, U152, WH128, DH101, and current supplier of U137/P131 throttle controls.
  - Active/Lapeer, supplier of Dodge Viper adjustable pedal system, and supplier of adjustable pedal system for Chrysler R2 Caravan/Voyager replacement program.
  - KBR, supplier of adjustable pedals for C212, ENFN, partner with Ford for Adjustable pedal technology, and current supplier of U137/P131 brake pedal & bracket assemblies.
- Teleflex was selected as the recommended source based on:
  - High program confidence based on Teleflex experience with same system for UN93/U173.
    - ⇒ Proven system especially important given proposal to outsource U137/P131 program.
    - ⇒ Lessons learned/team experience from Purchasing, STA, Teleflex; improve confidence.
  - System acceptance and familiarity by UN93 customers, and service similarity at dealers.
  - Best quote for variable cost and investment - see Financials tab.
- Sourcing evaluation matrix completed - see Source Evaluation tab.
- SOW developed by TVC Chassis Engrg. to support sourcing study for fully outsourced program - SOW tab.

### Recommendation and Next Steps

- Initiate PDL for adjustable pedals program for 2001 MY U137/P131.
- Review/concur with outsourcing recommendation. Work with Teleflex to support 12/4/98 freeze.
- Plan follow up program to add memory feature and UN93/U173 switch located on IP.

**STA TRIP REPORT: WILLIAMS CONTROL (0638E)**

**SARASOTA, FL.  
MAY 28-31, 2002**

**MEETING ATTENDEES:** Jerry Mize  
Ken Pyle  
Don Silarosa  
Emmett Ryan

**Purpose:** Conduct Run at Rate for P/N 3C44-9F836-AA

**Requirement:** Supplier needs to provide 17 sample parts to Kentucky Truck Plant by June 3, 2002.

**Site Report:**

Arrived Tuesday 5/28/02. The art work for the component with electrical resistance had just been revised. It was necessary to do a trial run to evaluate performance of electrical characteristics for verification of Engineering drawing requirements. Twenty units were built and tested at Williams Control Engineering Lab (plant production electrical tester still being de-bugged- 6/29/02). Test results more fine tuning of the artwork was required. The artwork was revised the evening of 5/28/02.

The process to make elements from the revised artwork was conducted Thursday, 5/30/02 on 30 components resistive elements.

The Electronic Throttle Controls were built and tested at Williams Controls Lab and will be shipped to KTP on Friday 5/31/02.

The Run at Rate has to be postponed until the Production Process is fully implemented as follows:

1. PSW the 7 pin housing
2. Elongate the 3<sup>rd</sup> hole in the Element and PSW for 3-Track
3. Build a new tester for the Sensor component
4. Complete de-bug of the electrical tester for final Electronic Throttle Control

Tentative schedule for Corrective Action completion is 6/17/02, with Run at Rate on 6/18/02.

APQP sheet updated as of 5/30/02 and faxed to Program STA Manager Mary Wood APQP status rating is "RED" for the following items:

7. Sub-contractor APQP status
8. Facilities, tools & Gauges
10. Prototype build
22. Production Validation Testing
23. Parts Submission Warranty

**REVIEW OF Q-1 ATTAINMENT PLAN:**

Williams Control is qualified for the Q1 Award with these exceptions:

- \* Need endorsements from Kentucky Truck Plant, Cuautlan Mexico Assembly Plant and 2003 .26 P131 STA Program Manager. Endorsements will be available by 7/11/02.
- \* Need ISO 1400 Certification, estimated this will be available April 2003.

Emmett Ryan, Chase's Commodity Engineer

Phone: 313 323-1290

Fax: 313 390-3448

Email: [eryan@ford.com](mailto:eryan@ford.com)

Cc: [icommton@ford.com](mailto:icommton@ford.com)

[skpocorb@ford.com](mailto:skpocorb@ford.com)

[mwood22@ford.com](mailto:mwood22@ford.com)

[gwest@ford.com](mailto:gwest@ford.com)

[spasky@ford.com](mailto:spasky@ford.com)

[eryan@ford.com](mailto:eryan@ford.com)

---

**From:** Miers, Jerry [jmiers@wmc.com]  
**Sent:** Friday, May 31, 2002 9:03 AM  
**To:** jcompton@ford.com; 'akronob@ford.com'; 'mwood@ford.com'; 'liposky@ford.com';  
'gwest@ford.com'; 'eryan@ford.com'  
**Cc:** Pyle, Ker; Sillanpaa, Dor; Vetal, Ron; Bronson, Walt; Homovec, Drew; Smarch, Tina  
**Subject:** STA Trip Report Williams Pedal Systems



STA TRIP REPORT  
05-31-02.doc

Attached you will find the trip report developed during Emmett Ryan's visit of 05/28 thru 05/31.

<<STA TRIP REPORT 05-31-02.doc>>



*Ford Motor Company*

Ford Motor Company

John G. Wnuk  
Buyer  
Global Chassis Commodity Management  
5500 Auto Club Drive  
Dearborn, MI 48126

June 23, 2003

Mr. Kevin McMahon  
V.P. Sales, Marketing, and Engineering  
Teleflex Automotive Group  
650 Stephenson Highway  
Troy, MI 48063

Re: MY02/03 P131/U137 ETC Accelerator Pedal Field Action #03B03

Dear Kevin:

Teleflex raised a theory that an electrical issue related to wiring, not a pedal concern, was the cause for unacceptable failure rate on 2002 Model Year F-Series Super Duty and Excursions equipped with ETC pedals. We took your ideas seriously and conducted a very thorough warranty data review and product reviews to determine the contribution of the wiring concern to the extremely high warranty repair data. Our reviews and analyses included not only the Teleflex pedal assembly, but also the related wiring components. We would like to share our conclusions from our analysis with you.

Observations/conclusions:

- The wire chaffing issue at the left hand side shock tower effected vehicles from Job #1 2002 through 12/1/2002.
- All F-Series Super Duty/Excursion with 7.3L engines were affected including 4x4 and 4x2.
- The following ETC pedal circuits were could have been affected by the chaffing:
  - o Pin 6 circuit 640 (RD/YE) Voltage supplied in Start and Run (overload protected)
  - o Pin 7 circuit 1285 (RD/LG). Idle validation switch, signal
  - o Pin 8 circuit 355 (GY/WH) Accelerator pedal position sensor, signal
  - o Pin 9 circuit 357 (YEN/WH) Accelerator pedal position sensor, ground
  - o Pin 10 circuit 351 (BN/RD) Reference voltage
- All circuits except 640 routes near the shock tower.
- We determined that there might be three P-codes associated with wiring shorts of ETC pedal circuits through conducting a fault analysis during the product reviews. They are:
  - o P0221, P0122, P0123
- We identified 83 total confirmed claims on the 2C3Z-9F936-\*\* Teleflex adjustable pedal assembly for failures related to shorts at the shock tower based on our reviews and analysis. This is from a population of 7925 warranty claims.

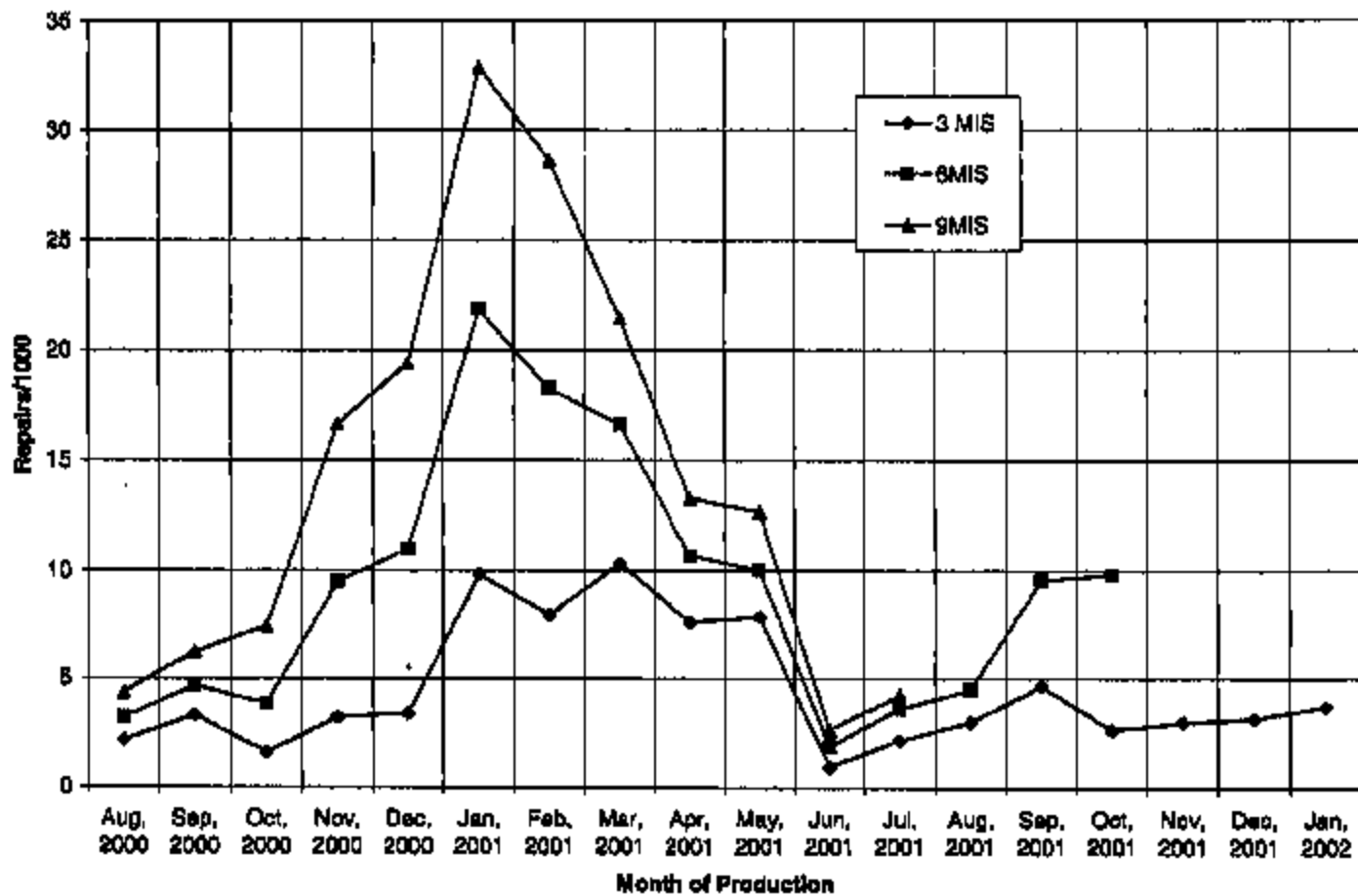
We look forward to discussing this further at our June 26 meeting.

Sincerely,

*John G. Wnuk*

	3 MIS	6MIS	9MIS	12MIS
Aug, 2000	2.18	3.22	4.35	
Sep, 2000	3.31	4.68	6.24	
Oct, 2000	1.58	3.84	7.45	
Nov, 2000	3.21	9.5	18.85	
Dec, 2000	3.39	11.01	19.39	
Jan, 2001	9.84	21.84	32.86	
Feb, 2001	7.97	18.28	28.83	
Mar, 2001	10.34	16.63	21.43	
Apr, 2001	7.63	10.71	13.31	
May, 2001	7.88	10.04	12.69	
Jun, 2001	0.84	1.88	2.65	
Jul, 2001	2.18	3.62	4.25	
Aug, 2001	3.01	4.51		
Sep, 2001	4.68	9.58		
Oct, 2001	2.66	9.81		
Nov, 2001	3			
Dec, 2001	3.16			
Jan, 2002	3.73			
Feb, 2002				
Mar, 2002				
Apr, 2002				
May, 2002				

>8500 ETC Diesel Pedal Warranty



PE00-044 259619

---

**From:** Conrad, James (J.A.)  
**Sent:** Tuesday, June 25, 2002 11:32 AM  
**To:** Burrows, Jim (J.A.)  
**Subject:** ETC Pedal Warranty

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Jim,

Here is the 2001 and 2002 warranty in the format Bill Ickes used originally. The big bulge starting in Aug, 2000, was caused primarily by the accelerator pedal pad falling off. This is at least the third time this has happened to Teleflex that I know of. The injured pin holding the pad on was out of spec. Interestingly, the dealers are using the Williams pedal as the replacement, if the part number listed on the claims is correct. The sudden increase in the 6 MIS warranty line between Aug and Sep, 2001, appears to be caused by PCM and wiring problems being binned against the pedal.



MOP pedal  
warranty.xls

*Jim Conrad*

Accelerator Controls & Air Induction Subsystems  
Powertrain Subsystems Engineering Technology Dept.  
GCE / P&AE - Core & Adv P/T Engrg. (CAPE)  
Location: FPC-A Mail Drop: #3 Cube: 1AK15  
E-MAIL: jconrad1@ford.com  
Phone: (313) 33-76483 Fax: (313) 62-18020  
<<http://om1001.fpc.ford.com/1362/indexgcc.html>>

- **Background**
  - General statement
  - Address ES and expectations
- **AWS warranty data**
  - R/1000 spike, Teleflex vs Williams Controls
  - 4x4 vs 4x2, Teleflex
- **KTP electrical history**
  - 14401 chaffing description, photo's
  - 14401 change history
  - Clean date for 14401 chaffing on the 4x4 was 12/15/01
- **Reliability charts used during 14D process**
- **Original report that determined the cause of failure from the Ford Research Lab.**
- **General data**
  - DOE from Teleflex done while trying to determine root cause.
  - Teleflex (Kendallville) process sheet, which indicated a failure mode for too much lube applied.
  - Teleflex lube application was a manual operation until January of 2003 when Ford purchased an automated lube applicator after determining quantity and location were critical features. The quantity of lube to be applied was determined by Teleflex and Wabash.
  - Evidence gathering on original 2C34-9F836-DA pedals that were never installed in trucks (warehoused only). Parts sent to Central labs to determine if lube migrated to the Pot track and the quantity of lube applied.
  - Request submitted to WPRC collect warranty return parts from vehicles built August through December of 2001.

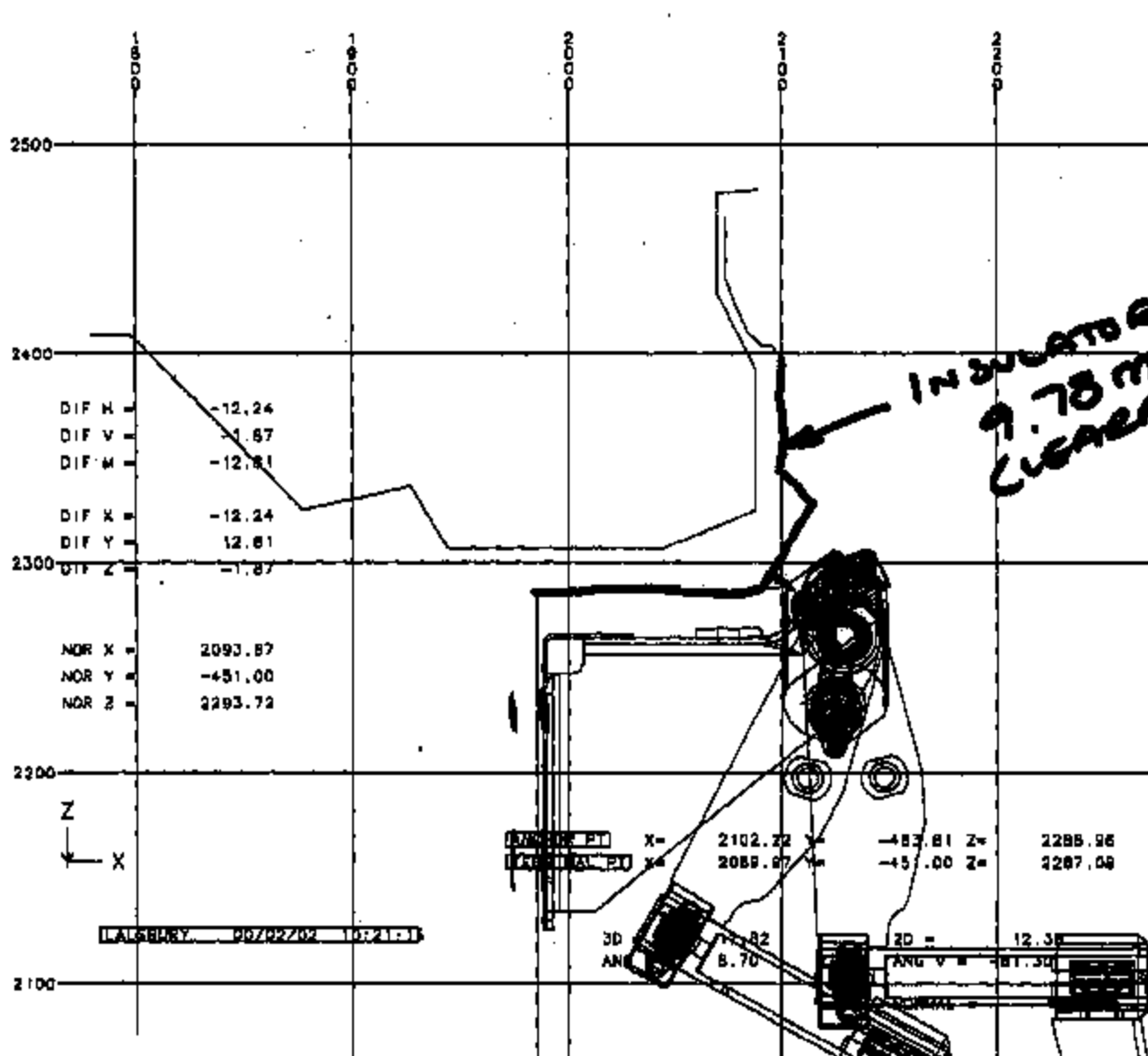
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**From:** West, Gregory (G.S.)  
**Sent:** Friday, May 09, 2003 4:25 PM  
**To:** Wolfe, Brian (B.C.); Auller, Jim (J.E.); Figurski, Patrick (P.M.)  
**Cc:** Liposky, Lawrence (L.J.)  
**Subject:** Bullet point draft for Engineering report on Teleflex adjustable pedal

Please feel free to add input.



Teleflex  
mbursem@teleflex.com



MODIFY MENU  
MACRO OPTIONS

SELECT ABSCISSA POINT  
FROM LINE  
NO. LABEL LIST  
FROM SUBPART  
NO. LABEL LIST

SELECT  
FROM PT  
TERMINAL PT  
NEXT NORMAL  
ANG. BTW. LINES

ABACUS

S1 = 0.00  
S2 = 0.00  
S3 = 0.00  
S4 = 0.00  
S5 = 0.00  
S6 = 0.00

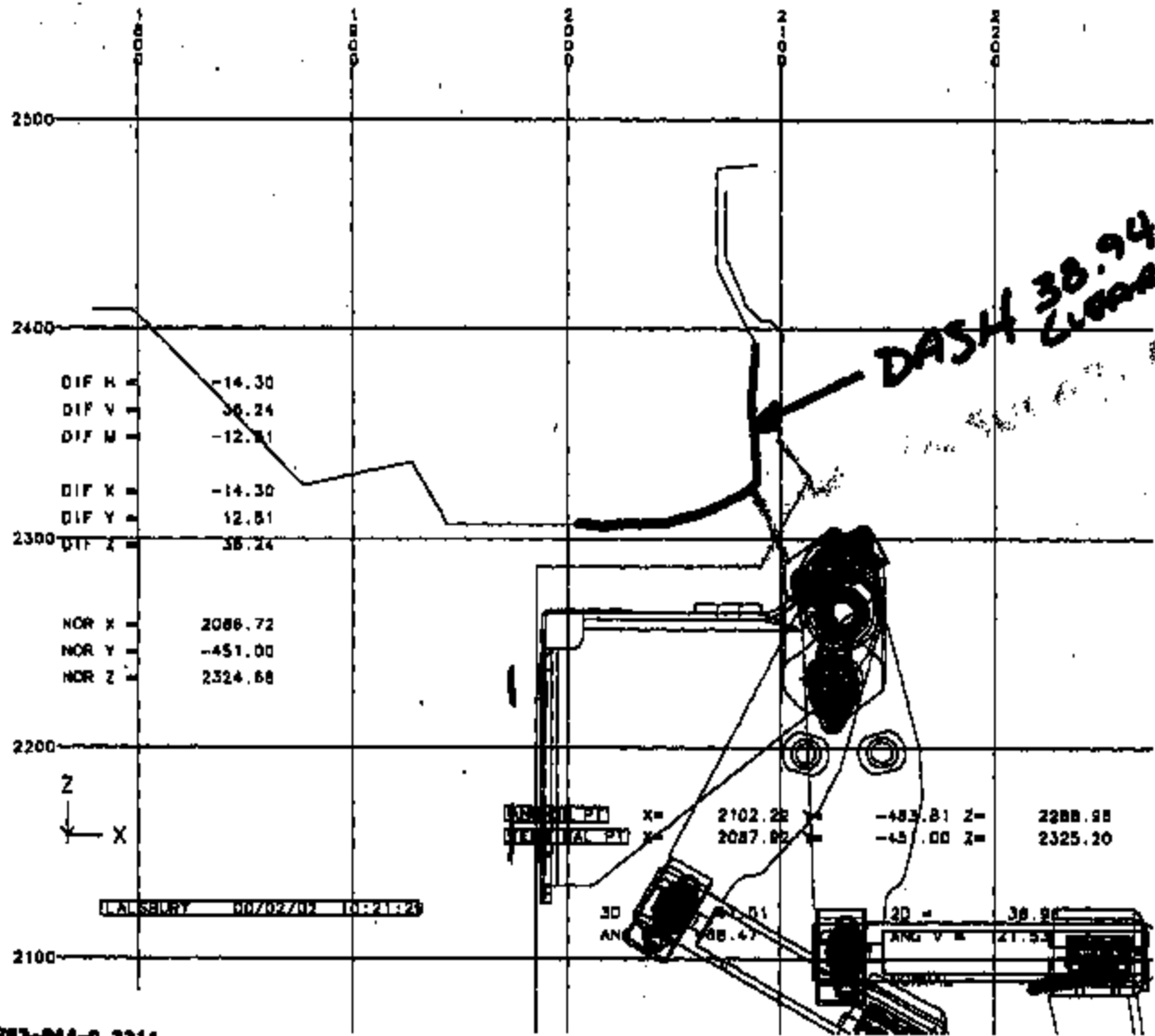
DEC ACCURACY

>2 3 4 5 6

ANGLE MODE

DEG/MIN/SEC >DEC

RETURN MAIN



MODIFY MENU  
MACRO OPTIONS

SPECIFY ANGLE POINT  
PROGRAMMING  
NO. LABEL LIST  
NO. LABEL LIST

ANCHOR PT  
TERMINAL PT  
NEXT NORMAL  
ANG. BTW. LINES

ABACUS

S1 = 0.00  
S2 = 0.00  
S3 = 0.00  
S4 = 0.00  
S5 = 0.00  
S6 = 0.00

DEC. ACCURACY  
>2 3 4 5 6

ANGLE MODE  
DEG/MIN/SEC >DEC

RETURN MAIN

DIF H = -14.30  
DIF V = 36.24  
DIF M = -12.81  
DIF X = -14.30  
DIF Y = 12.81  
DIF Z = 36.24

NOR X = 2086.72  
NOR Y = -451.00  
NOR Z = 2324.68

ANCHOR PT X= 2102.28 Y= -483.81 Z= 2288.98  
TERMINAL PT X= 2087.92 Y= -451.00 Z= 2325.20

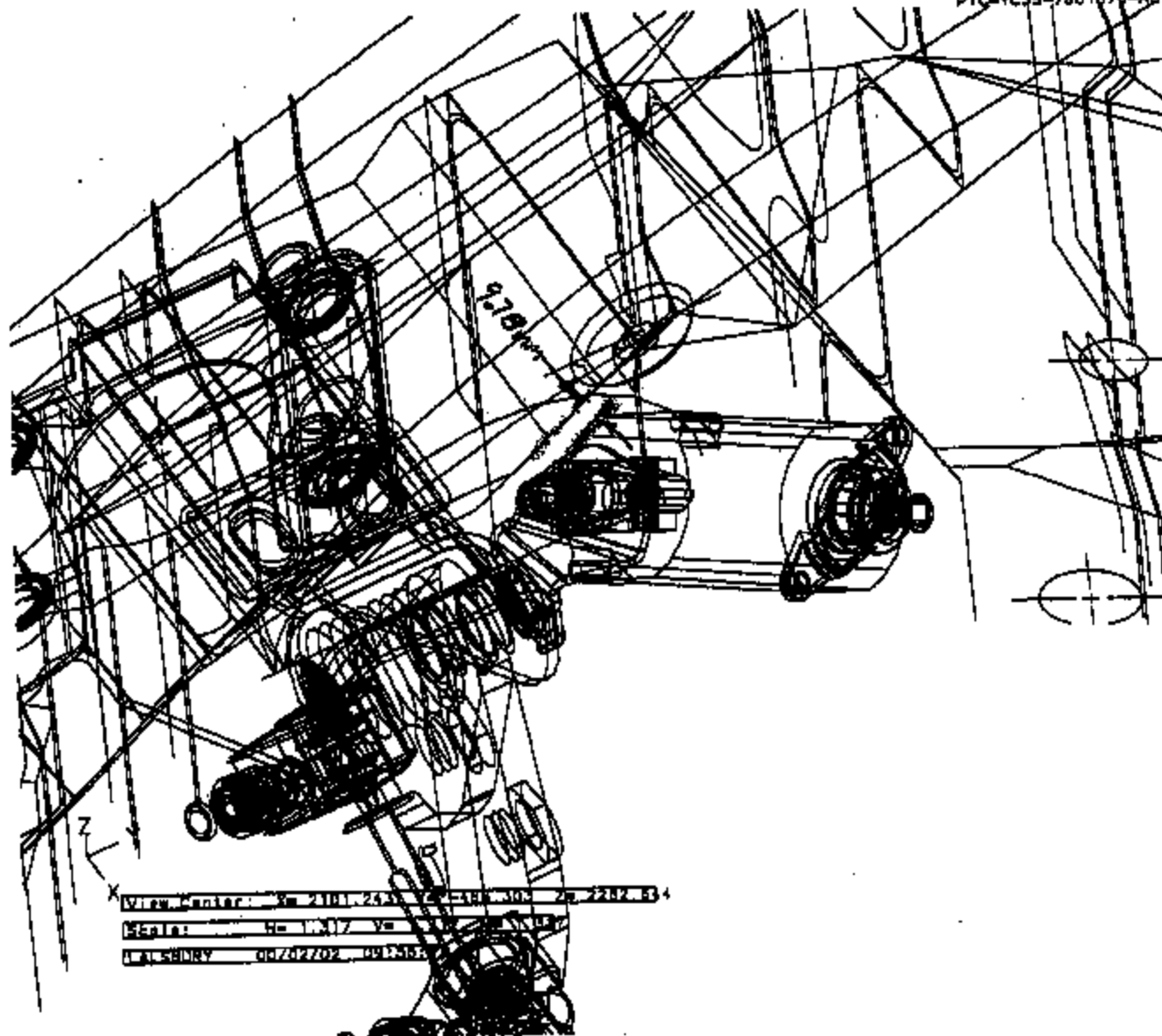
3D AN = 88.47  
3D AN = 38.94  
ANG V = 21.53



LAST LINE NO. = 24288

PRT=DBRAKE-2  
7.3L ADJUSTABLE BRAKE PEDAL  
PIC=VC35-7801870-AC

STORE DFLT5  
MODIFY MENU  
MACRO OPTIONS



COMPARE PICTURES

PRIMARY LINES/SURFS

>ON OFF

SELECT SECONDARY

PICTURE THIS-PART

PICTURE DIFF-PART

SECONDARY PART/PTO

DBRAKE-2

7.3L ADJUSTABLE BR-

AKE PEDAL

diesel brake 2

SECONDARY LINES/SURFS

>ON OFF BLINK

MIRROR IMAGE

>NO YES

INTERCHANGED FONTS

NO >YES

COMPARE METHODS

>BY POINTS BY SHAPE

BY SHAPE AND SAVE

MIN. TOL. = 0.03

EXECUTE COMPARE

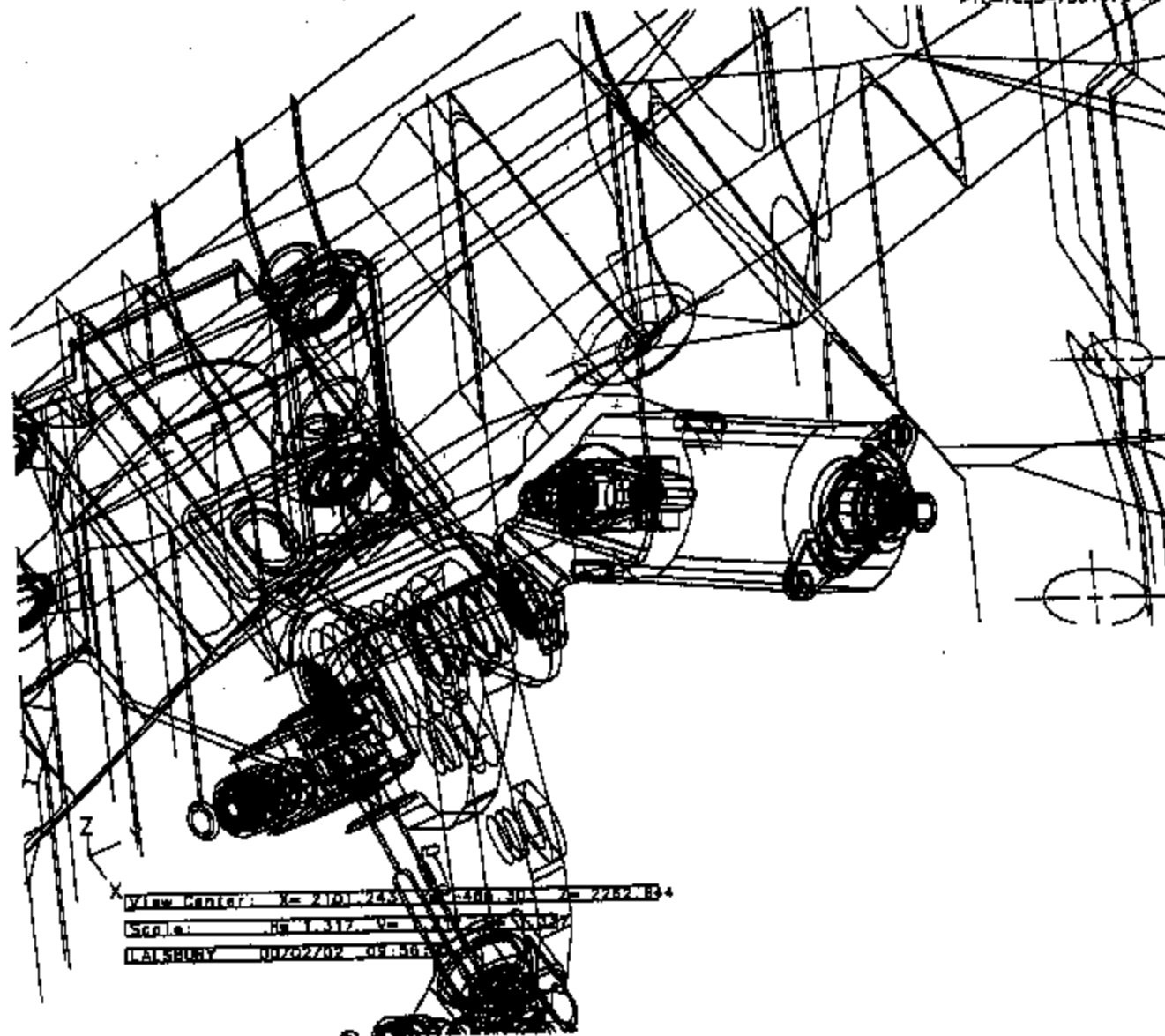
RETURN MAIN

View Center: X=2181.243 Y=118.40 Z=212.84  
Scale: X=1.00 Y=1.00 Z=1.00  
AL SHINY 01/20/202 00:25:31

LAST LINE NO. = 24299

PRT=DBRAKE-2  
7.3L ADJUSTABLE BRAKE PEDAL  
PIC=YC35-7801670-AC

STORE DPLTS  
MODIFY MENU  
MACRO OPTIONS



VIEW CENTER: X=210.253 Y=400.304 Z=2282.844  
Scale: H=1.317 V=1.317  
ITALSHURY 00702702 09.56

COMPARE PICTURES

PRIMARY LINES/SURFS

>ON OFF

SELECT SECONDARY

PICTURE THIS-PART  
PICTURE DIFF-PART

SECONDARY PART/PIC

DBRAKE-2  
7.3L ADJUSTABLE BR--  
AKE PEDAL  
diesel brake 2

SECONDARY LINES/SURFS

>ON OFF BLINK

MIRROR IMAGE

>NO YES

DELETE HARD POINTS

NO >YES

COMPARE METHODS

>BY POINTS BY SHAPE  
BY SHAPE AND SAVE  
MIN. TOL. = 0.03

EXECUTE COMPARE

RETURN MAIN

## **P131/U137 Adjustable Pedal Program**

- Ford approval of using a low volume line to build ETC assembly - PV parts
- Teleflex will be building PV parts at supplier on production equipment
- Dimensional resolution needed on KSR mounting bracket
- DV phase 1 testing Adjustable pedals to start 2-4-00 and finish 3-16-00
- DV phase 1 testing ETC to start 2-16-00 and finish 3-28-00
- DV phase 2 testing Adjustable pedals to start 3-29-00 and finish 5-9-00
- DV phase 2 testing ETC to start 3-29-00 and finish 5-9-00

08/31/03

TRUMPLER AUTOMOTIVE

01/28/00 14:41 FAX 268 616 3610

70! Roger Barbosa  
1-28-00 3 pages

U137 ADJUSTABLE PEDAL EXPEDITED TIMING

NO	DESCRIPTION	START DATE	END DATE	PERCENT
1	U137-00000000	01/28/00	01/28/00	100%
2	U137-00000000	01/28/00	01/28/00	100%
3	U137-00000000	01/28/00	01/28/00	100%
4	U137-00000000	01/28/00	01/28/00	100%
5	U137-00000000	01/28/00	01/28/00	100%
6	U137-00000000	01/28/00	01/28/00	100%
7	U137-00000000	01/28/00	01/28/00	100%
8	U137-00000000	01/28/00	01/28/00	100%
9	U137-00000000	01/28/00	01/28/00	100%
10	U137-00000000	01/28/00	01/28/00	100%
11	U137-00000000	01/28/00	01/28/00	100%
12	U137-00000000	01/28/00	01/28/00	100%
13	U137-00000000	01/28/00	01/28/00	100%
14	U137-00000000	01/28/00	01/28/00	100%
15	U137-00000000	01/28/00	01/28/00	100%
16	U137-00000000	01/28/00	01/28/00	100%
17	U137-00000000	01/28/00	01/28/00	100%
18	U137-00000000	01/28/00	01/28/00	100%
19	U137-00000000	01/28/00	01/28/00	100%
20	U137-00000000	01/28/00	01/28/00	100%
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Product Engineer: Alan Parsh  
Trumpler Automotive  
U137-00000000 PH 1/28/00

08/31/03

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JAN 28 2000 15:46

U187 ADJUSTABLE PEGAL EXPEDIED TRING					
ID	Q	TASK NAME	Duration	Start	% C
10		Release Molds	3 wks	Thu 10/05	100%
11		PEA	3 wks	Thu 10/05	100%
12		Design Change Update after design/PEA	1 wk	Thu 10/05	100%
13		Release Manufacturing Work Orders	4 wks	Thu 10/05	100%
14		PEA on Vendor	5 wks	Thu 10/05	100%
15		<b>PRODUCTION PHASE - PEP</b>	880 days	Fri 10/05	25%
16		Vendor/Supplier Mgmt	187 days	Fri 10/05	25%
17		Final Development	148 days	Fri 10/05	25%
18		Component Order	28 wks	Fri 10/05	25%
19		PEP	3 wks	Mon 08/00	0%
20		Sample Approval	2 wks	Mon 08/00	0%
21		Production Phase	148 days	Fri 10/05	25%
22		Design & Mfg	20 wks	Fri 10/05	25%
23		Design & Mfg	2 wks	Mon 08/00	0%
24		Design & Mfg	2 wks	Mon 08/00	0%
25		Design & Mfg	2 wks	Mon 08/00	0%
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Product Engineer: Alan Parrish  
 Teleflex Automotive  
 U187-Sub A 24 1/800

02/03/003

TELEFLEX AUTOMOTIVE

01/28/00 10:42 FAX 210 516 3810

U187 ADJUSTABLE PEDAL EXPEDITED TIMING

SI	Q	Task Name	Duration	ESR	FSR	SL
001		CA Timing	1 day	FR 01400	FR 02000	OK
002		PPAP paperwork	3 days	FR 02000	FR 02000	OK
003		PPAP	1 day	FR 02000	FR 02000	OK
004		JOB #1	3 days	FR 12705	FR 12705	OK

Product Engineer: Alan Parrish  
TeleFax: Automotive  
4137-Memphis, TN 38116

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