

RQ14-005

FORD

4/24/2015

Appendix H

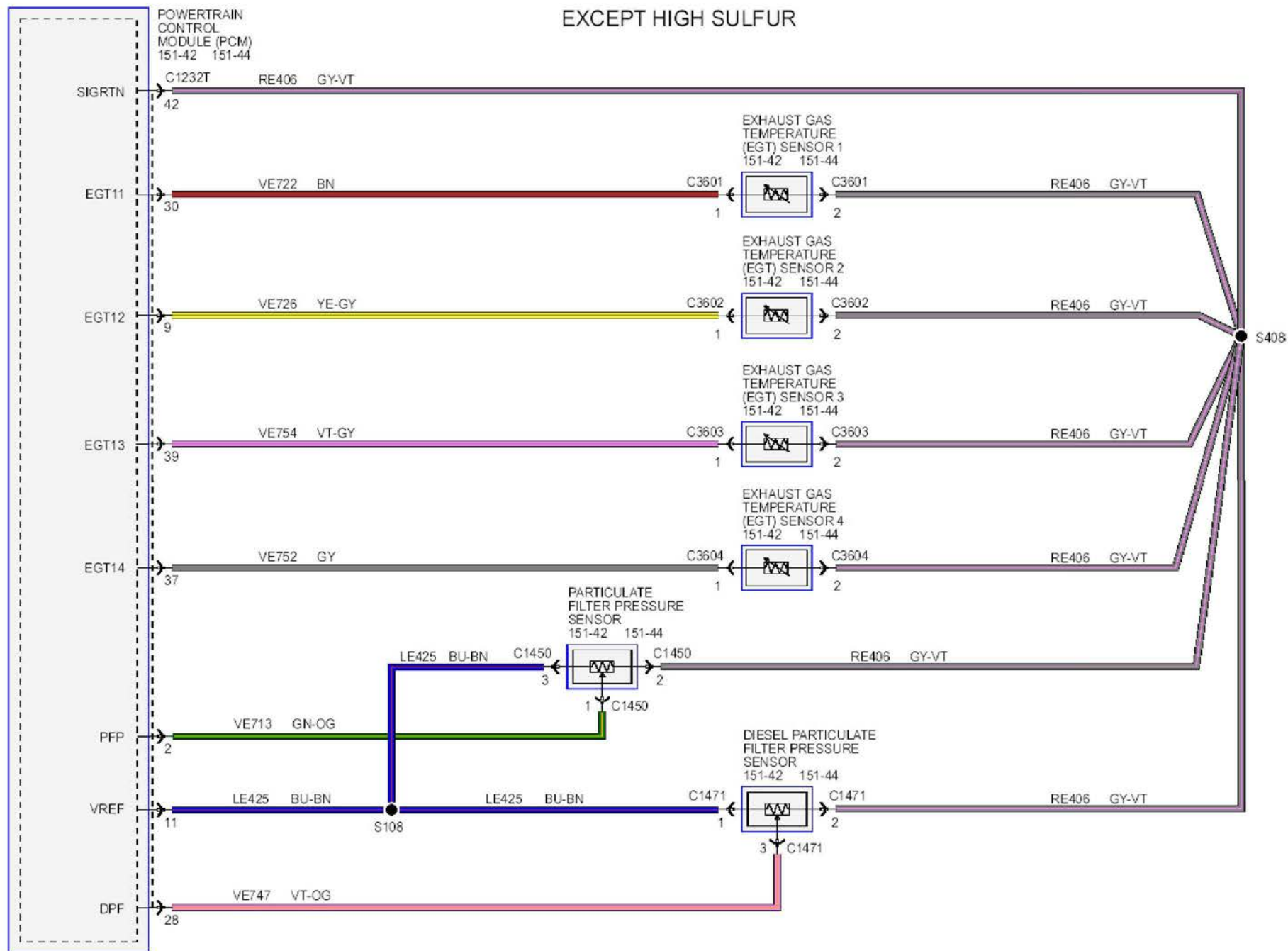
Illustrations

Non Conf Illustrations

From: Hutchinson, Rob (R.)
Sent: Friday, June 28, 2013 1:33 PM
To: Rinkevich, Daniel (D.J.)



EGT.pdf



From: Moylan, James (J.J.)
Sent: Tuesday, August 27, 2013 6:10 PM
To: Volinski, Bridget (.); Beecham, Winfred (A.)
Cc: Rinkevich, Daniel (D.J.)
Subject: 2012 Exhaust System Schematic

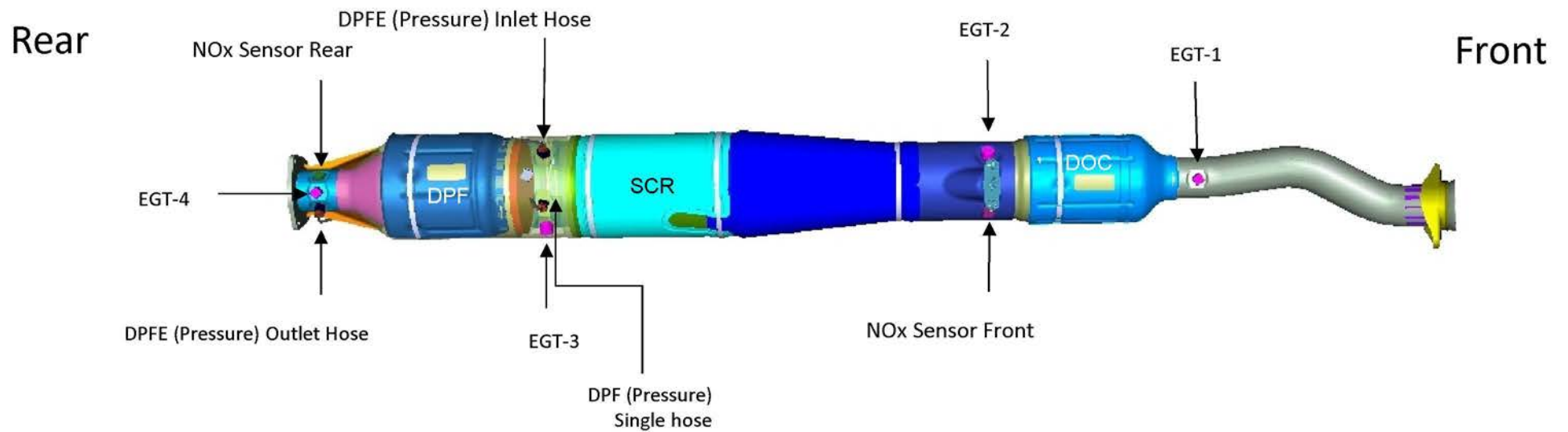
Do either of you have this diagram for MY12? We need for a NOx sensor 6 Panel.



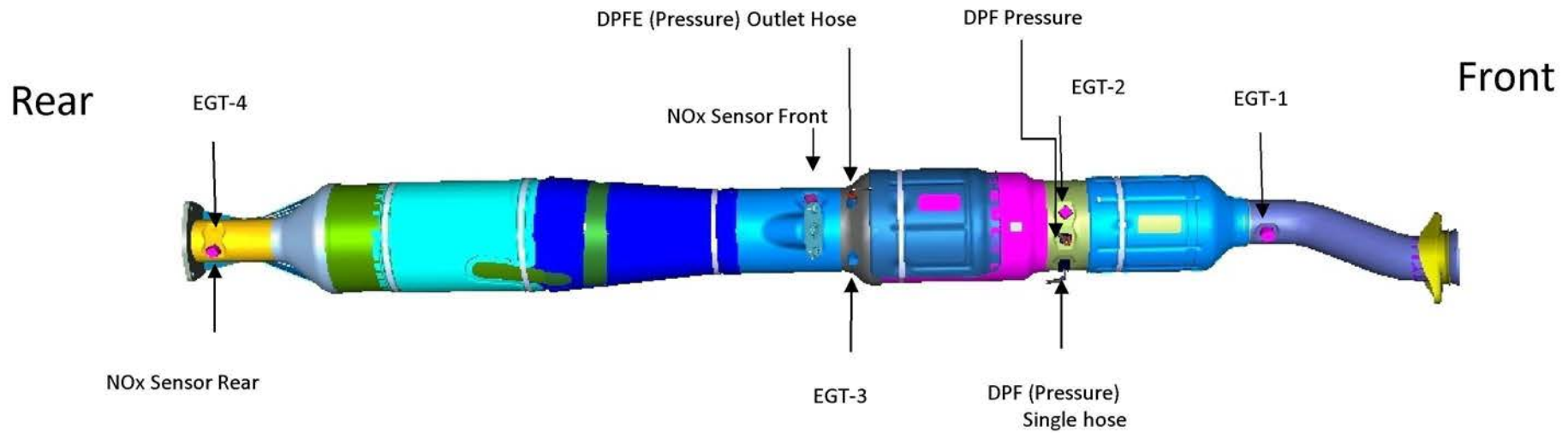
6.7L Diesel Exhaust
Sensors.pp...

James J. Moylan tcb
Kentucky Truck Plant
Powertrain PVT - Sr. Engineer
313-805-3887
><(((°>

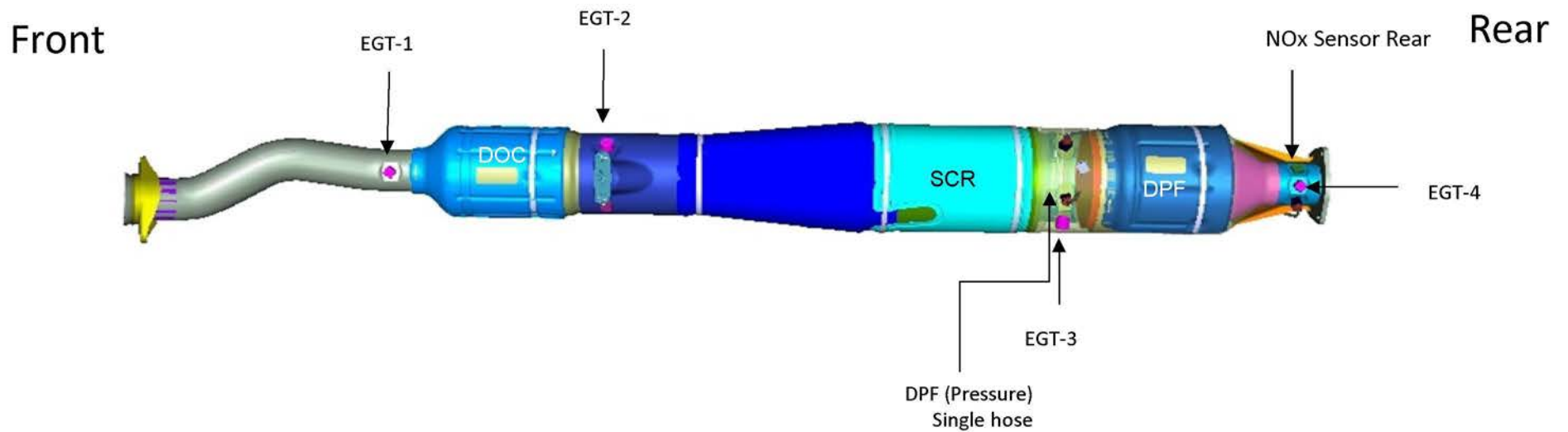
Chassis Cert



Dyno Cert

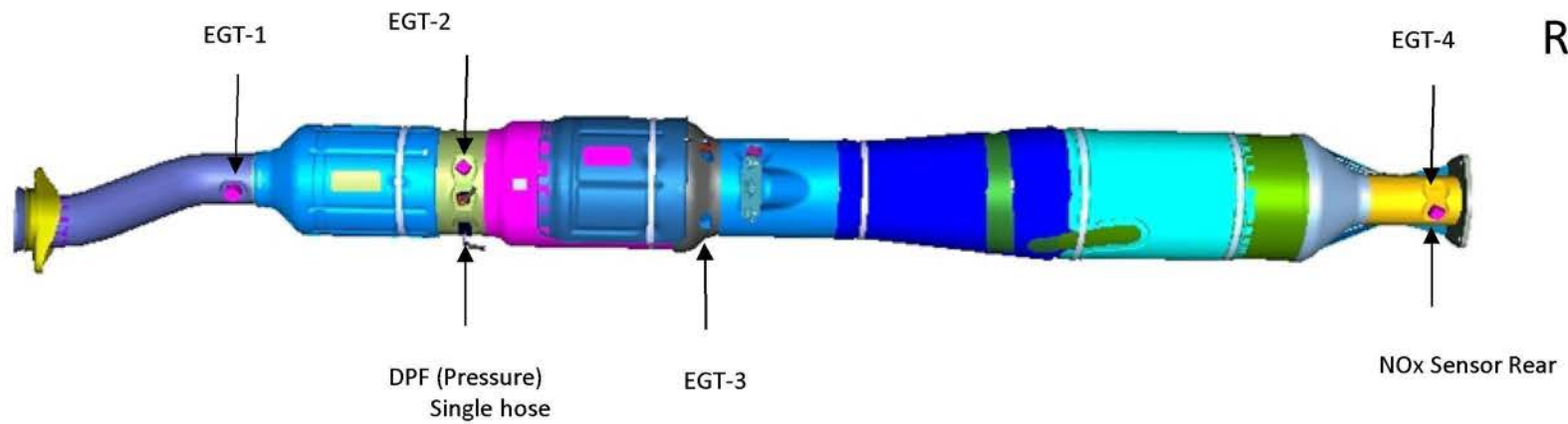


Chassis Cert



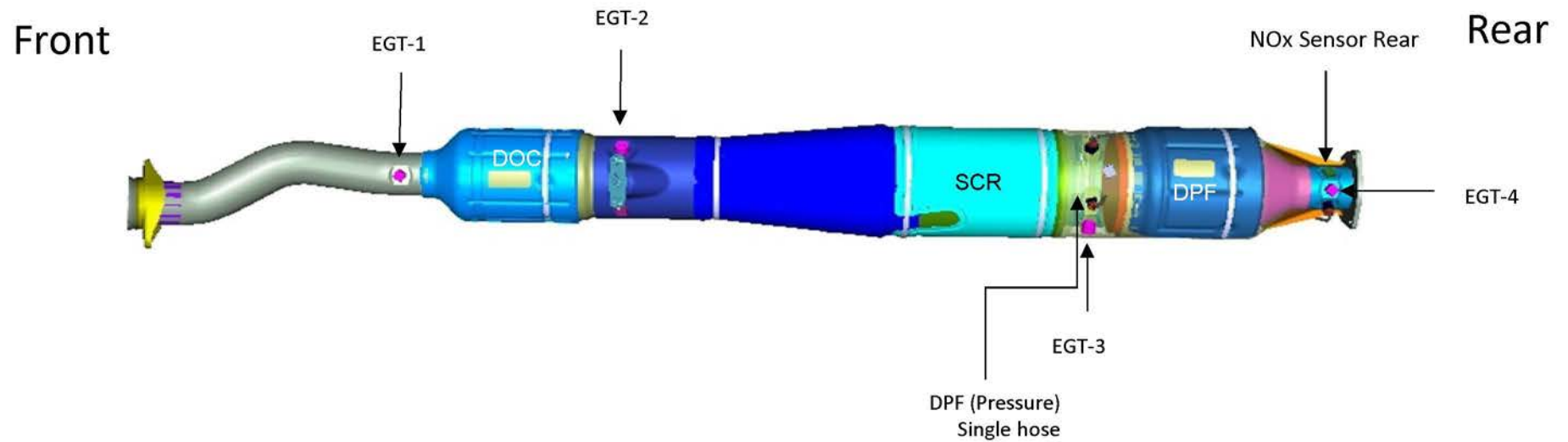
Dyno Cert

Front

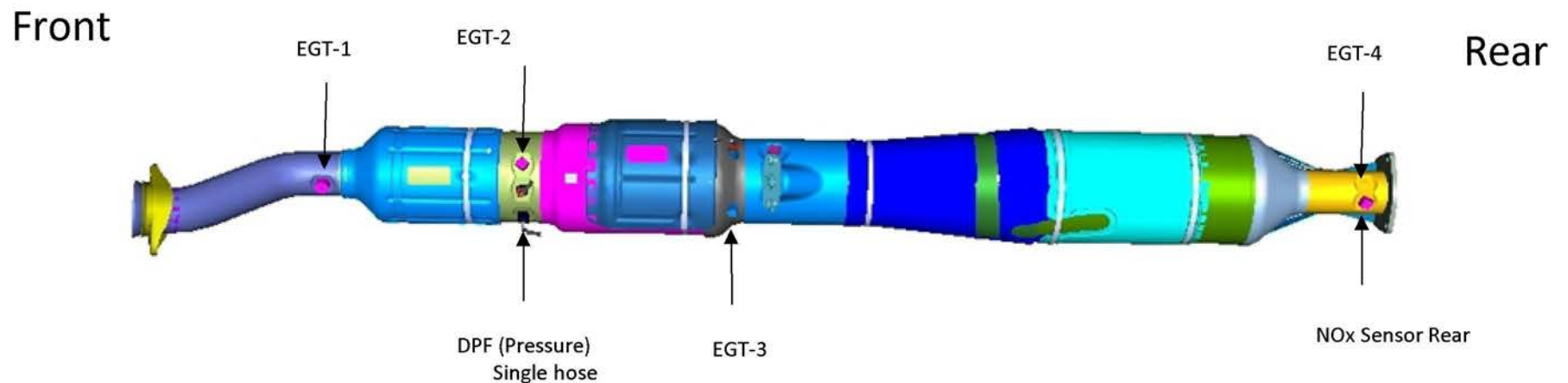


Rear

2012 Chassis Cert



2012 Dyno Cert



From: Rinkevich, Daniel (D.J.)
Sent: Tuesday, June 18, 2013 4:21 PM
To: Hamilton, Steven (S.C.); Dixon, Mark (M.R.); Johnson, Seth (S.); McDonagh, Scot (S.M.)
Subject: FW: Revised EGT job aid for e-tracker

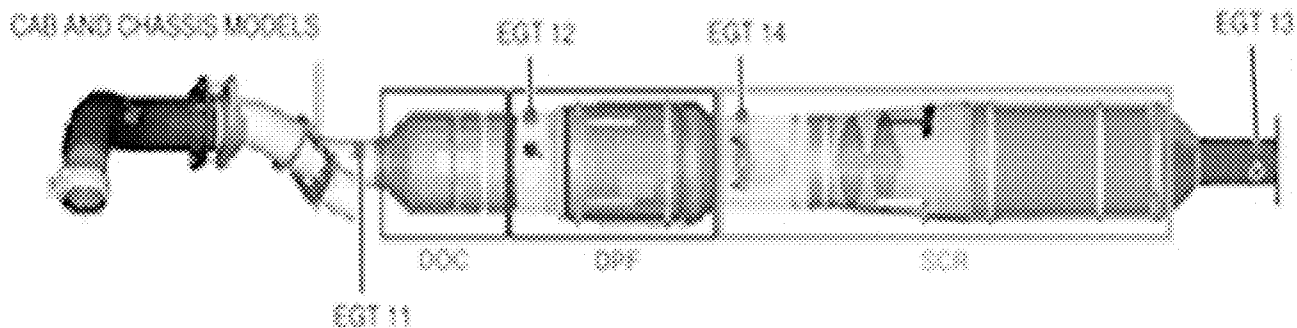
It looks just like the 2012 Chassis cab to me.

Dan Rinkevich

Powertrain Quality
(313) 32-23653 (Desk)
(313) 676-9572 (Cellular)

From: McDonagh, Scot (S.M.)
Sent: Tuesday, June 18, 2013 11:49 AM
To: Hamilton, Steven (S.C.); Dixon, Mark (M.R.); Rinkevich, Daniel (D.J.)
Cc: Johnson, Seth (S.)
Subject: RE: Revised EGT job aid for e-tracker

John Bogema requested we include schematic for 2013MY Chassis Cab in Job Aid



Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

From: Hamilton, Steven (S.C.)
Sent: Tuesday, June 18, 2013 11:37 AM
To: Dixon, Mark (M.R.); McDonagh, Scot (S.M.); Rinkevich, Daniel (D.J.)
Cc: Johnson, Seth (S.)
Subject: FW: Revised EGT job aid for e-tracker

Team,

We are all set to submit the 2013 EGT job aid and awareness SSM (see attached below). Please respond if you have any concerns by COB tomorrow.

Thanks.

Best regards,

Steve Hamilton

FCSD Service Engineering Operations
Diesel Commodity Manager
(313)390-7750

From: Johnson, Seth (S.)
Sent: Tuesday, June 18, 2013 11:33 AM
To: Hamilton, Steven (S.C.)
Subject: Revised EGT job aid for e-tracker

Steve,

I spoke with Keary on this and have revised the job aid per his recommendations and converted it to PDF for the e-tracker. He also advised me that the WSM for 2013 was incorrect in calling out locations so I submitted a specs case for that as well.

<< File: 2013 6 7L EGT locations_b.pdf >>

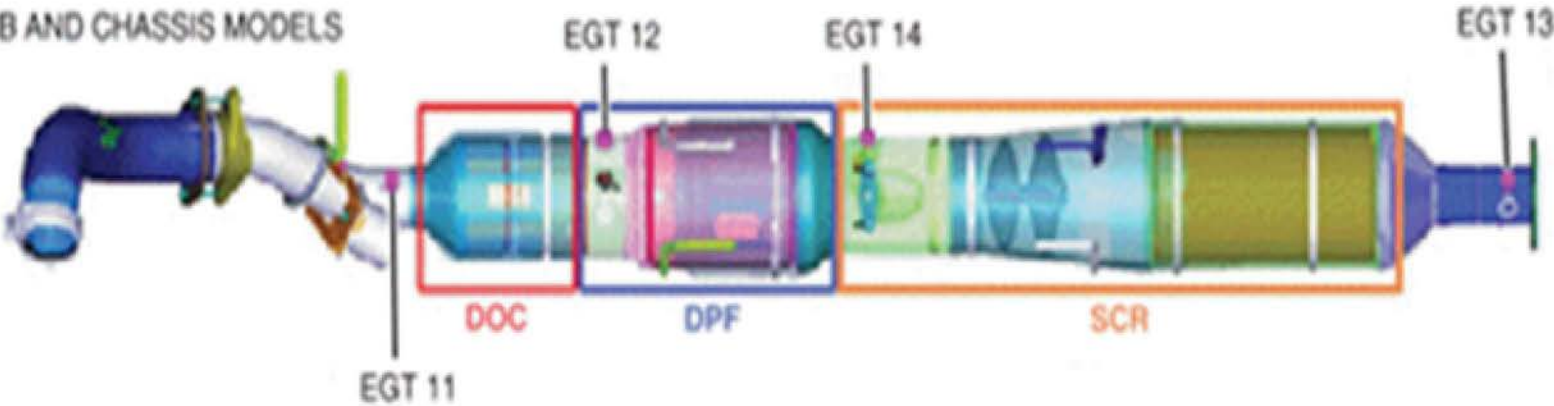
Seth H. Johnson

Diesel Commodity Concern Engineer
1700 Fairlane Business Drive - DSC 1
Phone: (313)-390-6051
SJOHN274@Ford.com

“It’s not enough that we do our best; sometimes we have to do what is required”

-Winston Churchill

CAB AND CHASSIS MODELS



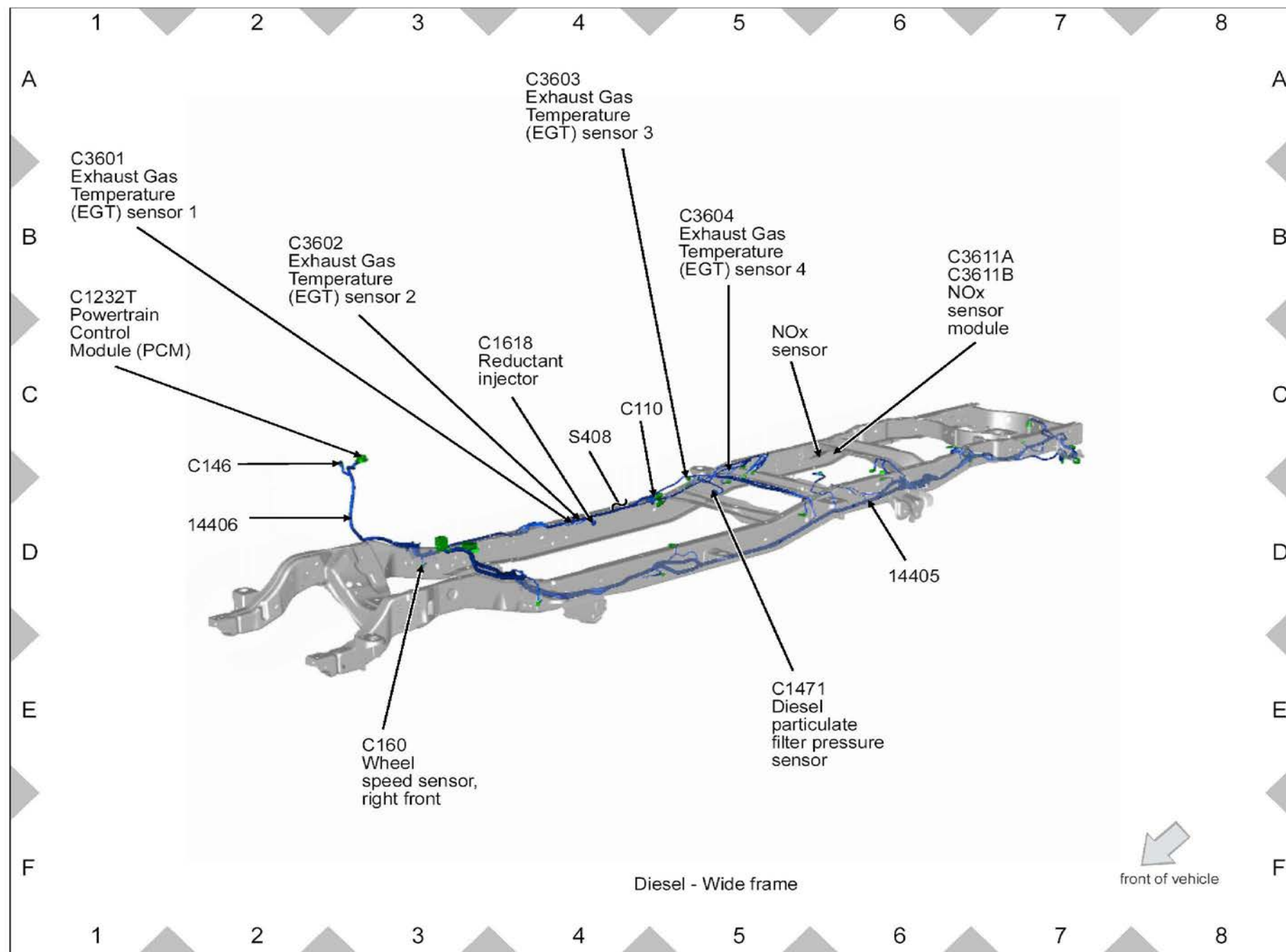
From: McDonagh, Scot (S.M.)
Sent: Tuesday, August 13, 2013 4:27 PM
To: Williams, Brent (B.A.); Rembert, Shannon (S.A.)
Cc: Rinkevich, Daniel (D.J.); Dixon, Mark (M.R.)
Subject: P473 EGT Inquiry

Who is wiring Supplier for P473 6.7L Diesel EGT Sensor vehicle side harness ?



P473_EGT-WIRI...

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com



From: McDonagh, Scot (S.M.)
Sent: Wednesday, June 19, 2013 1:48 PM
To: Rembert, Shannon (S.A.)
Cc: Rinkevich, Daniel (D.J.); Moylan, James (J.J.)
Subject: P473 EGT Inquiry

Importance: High

Hi Shannon- Who in ESE has D&R responsibility for P473 6.7L Diesel EGT Sensor body side harness wiring connector ?

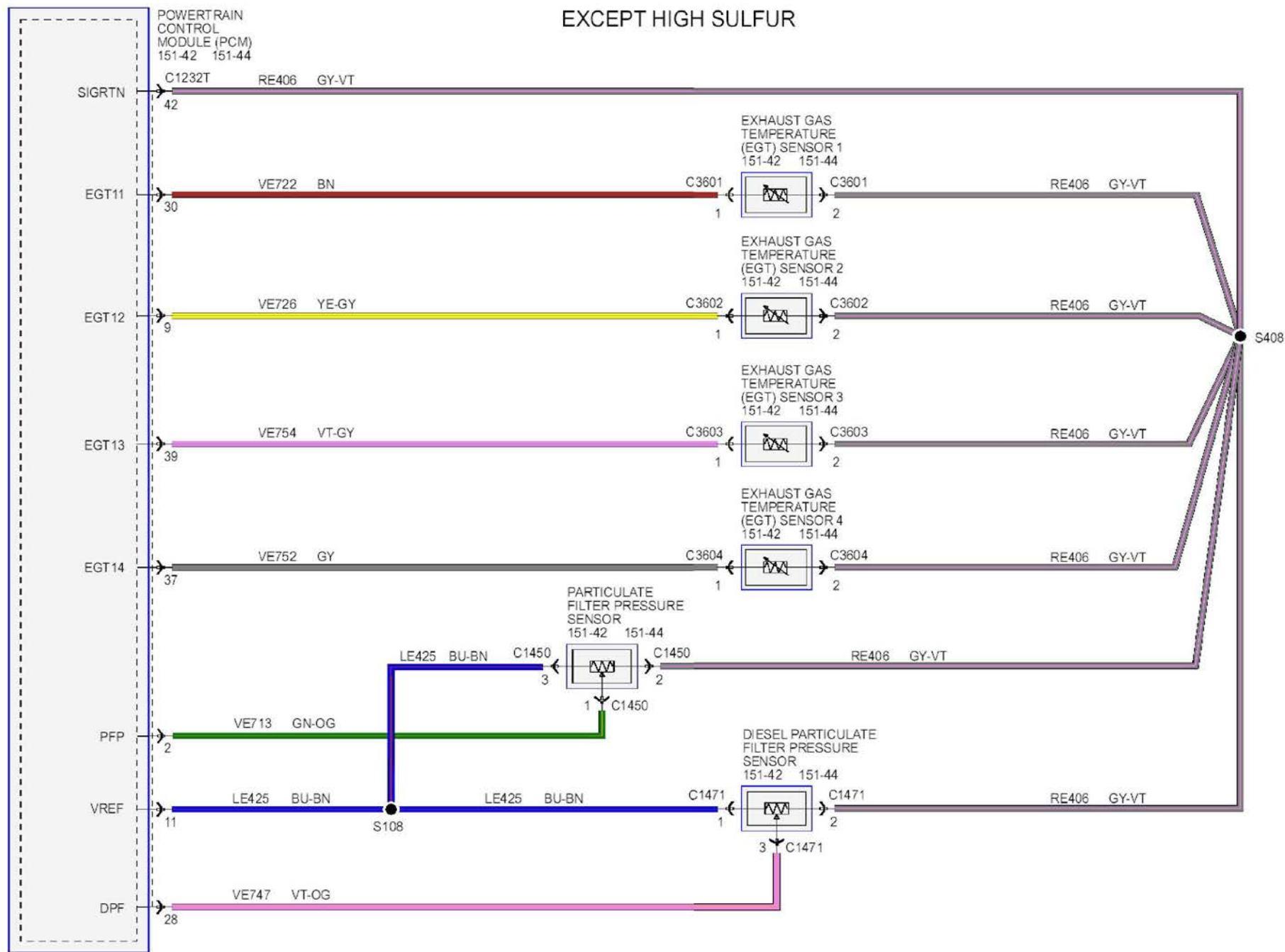


EGT Wiring.pdf

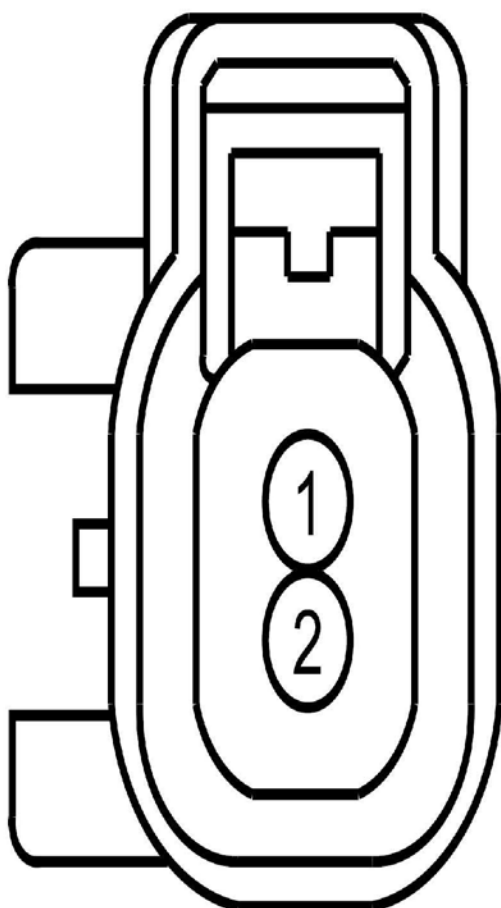


EGT Connector.pdf

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com



Connector:	Description	Color	Harness	Base Part #	Service Pigtail
C3601	EXHAUST GAS TEMPERATURE SENSOR (EGT) 1	BK	14406	12B591	See Below



Pin	Circuit	Gauge	Circuit Function	Qualifier
1	VE722 (BN)	20	SENSOR - DIESEL OXIDATION CATALYST TEMPERATURE (EGT11)	
2	RE406 (GY-VT)	20	CTRL MOD. - POWERTRAIN # SIGNAL RETURN TRANSMISSION (T-SIGRTN) (SIGRTN-B)	

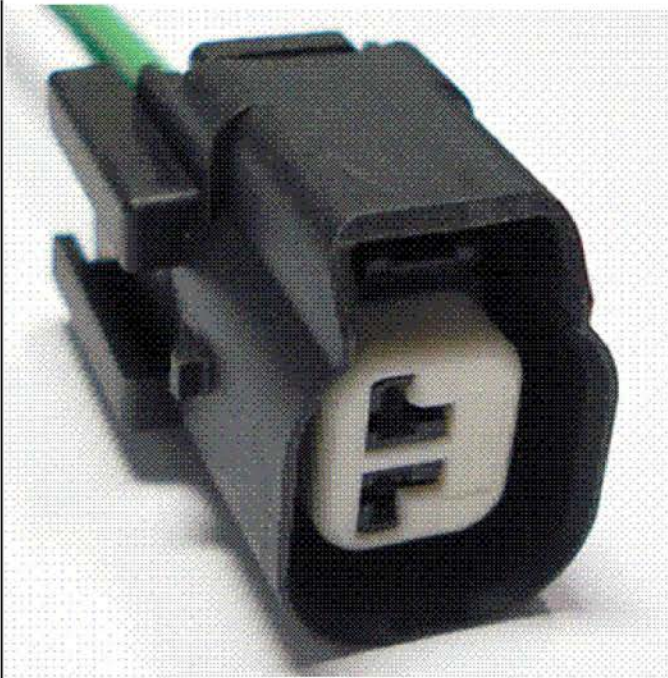
Available Pigtail Kits

Service Part Number: **3U2Z-14S411-BXAB**
 Gauge: **16**
 Pin material: **Silver**
 Cavities: **2**

Vehicle Uses

- A/C Compressor Clutch
- EGR Cooler Outlet
- Electronic Locking Differential
- Horn
- Lamp - CHMSL (Center High Mount Stop Lamp)
- Lamp - Rear Park

Pigtail Kit Part Number **WPT-984**



- Lamp - Reverse
- Lamp - Side Marker
- Motor - Adjustable Pedal
- Sensor - Adjustable Pedal
- Sensor - Brake Fluid Level
- Sensor - Cam Shaft Position
- Sensor - Cylinder Head Temperature
- Sensor - Exhaust Gas Temperature
- Sensor - Liftgate Obstacle
- Sensor - Oil Level
- Sensor - Output Shaft Speed
- Sensor - Speed
- Solenoid - Engine Variable Timing
- Speaker - Door
- Speaker - Front
- Speaker - Rear
- Speaker - Subwoofer
- Speaker - Tweeter - LH - Front
- Switch - A/C Compressor Clutch Cycling
- Switch - Backup Lamp
- Switch - Deck Lid / Hatch Release
- Switch - Deck Lid / Lift Gate Ajar
- Switch - Hood Ajar
- Switch - Lift Gate Glass Ajar
- Switch - Power Liftgate
- Switch - Reverse Park Aid

From: Beecham, Winfred (A.)
Sent: Wednesday, September 11, 2013 5:30 PM
To: Rinkevich, Daniel (D.J.)
Subject: RE: 2012 Exhaust System Schematic

See update:

PFP particulate filter pressure (delta pressure sensor) – used for DPF regeneration

DPFP – diesel particulate filter pressure (single gage pressure) – used for DPF leakage monitor.



2015 Sensors
Set.ppt



6 7L Diesel Exhaust
Sensors 11...



2013 Sensor
Set.ppt

Regards

Winfred Beecham

6.7L Diesel Powertrain Controls + In Plant Flash Implementation

Ford Motor Company

Building 2, Cube 22Q28

20000 Rotunda Drive

Dearborn, MI 48124

Phone : 313-8454159 /313-8052870

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From: Rinkevich, Daniel (D.J.)
Sent: Wednesday, September 11, 2013 1:24 PM
To: Beecham, Winfred (A.)
Subject: FW: 2012 Exhaust System Schematic

Winfred,

What does DPFE mean on the 2013MY drawing? You've got labels DPFE Inlet and DPFE Outlet.

Are the pressure sensors:

- 2012 – Delta Pressure over DPF?
- 2013 – Pressure at front of DPF and Pressure at Rear of DPF?

Dan Rinkevich

Powertrain Quality

(313) 32-23653 (Desk)
(313) 676-9572 (Cellular)

From: Beecham, Winfred (A.)
Sent: Wednesday, September 04, 2013 10:27 AM
To: Rinkevich, Daniel (D.J.); Moylan, James (J.J.); Volinski, Bridget (.)
Subject: RE: 2012 Exhaust System Schematic

<< File: 6 7L Diesel Exhaust Sensors 11-12MY.pptx >> << File: 2013 Sensor Set.ppt >> << File: 2015 Sensors Set.ppt >>

Regards

Winfred Beecham

6.7L Diesel Powertrain Controls + In Plant Flash Implementation

Ford Motor Company

Building 2, Cube 22Q28

20000 Rotunda Drive

Dearborn, MI 48124

Phone : 313-8454159 /313-8052870

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From: Rinkevich, Daniel (D.J.)
Sent: Wednesday, September 04, 2013 10:12 AM
To: Beecham, Winfred (A.); Moylan, James (J.J.); Volinski, Bridget (.)
Subject: RE: 2012 Exhaust System Schematic

Winfred,

Can you please send equivalent diagrams for 2013MY with extra NOx sensor?

Dan Rinkevich

Powertrain Quality

(313) 32-23653 (Desk)

(313) 676-9572 (Cellular)

From: Beecham, Winfred (A.)
Sent: Tuesday, August 27, 2013 3:08 PM
To: Moylan, James (J.J.); Volinski, Bridget (.)
Cc: Rinkevich, Daniel (D.J.)
Subject: RE: 2012 Exhaust System Schematic

<< File: 6 7L Diesel Exhaust Sensors 11-12MY.pptx >>

Regards

Winfred Beecham

FNA Diesel Powertrain Controls 6.7L

Ford Motor Company

Building 2, Cube 22Q28

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Dearborn, MI 48124

Phone : 313-8454159 /313-8052870

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From: Moylan, James (J.J.)

Sent: Tuesday, August 27, 2013 2:10 PM

To: Volinski, Bridget (.); Beecham, Winfred (A.)

Cc: Rinkevich, Daniel (D.J.)

Subject: 2012 Exhaust System Schematic

Do either of you have this diagram for MY12? We need for a NOx sensor 6 Panel.

<< File: 6.7L Diesel Exhaust Sensors.pptx >>

James J. Moylan tcb

Kentucky Truck Plant

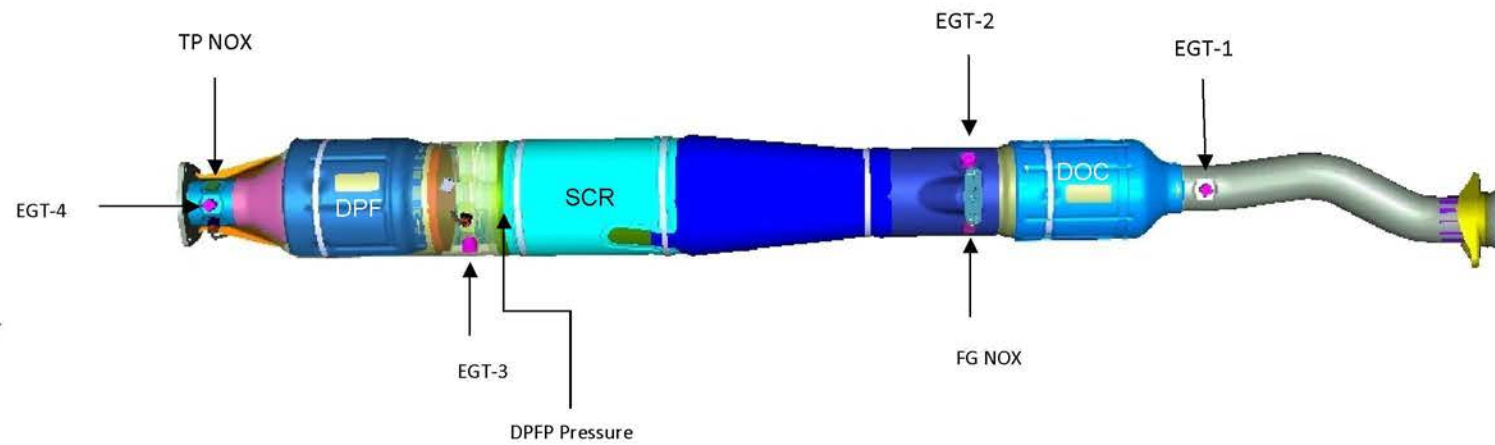
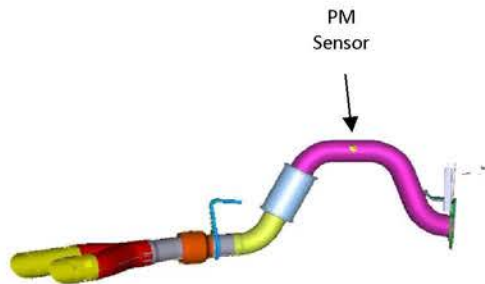
Powertrain PVT - Sr. Engineer

313-805-3887

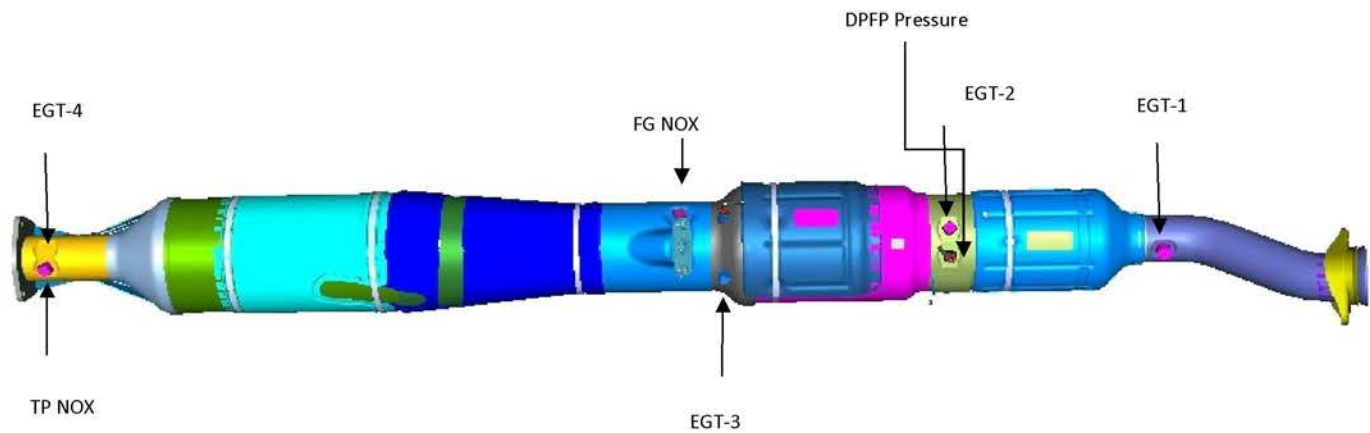
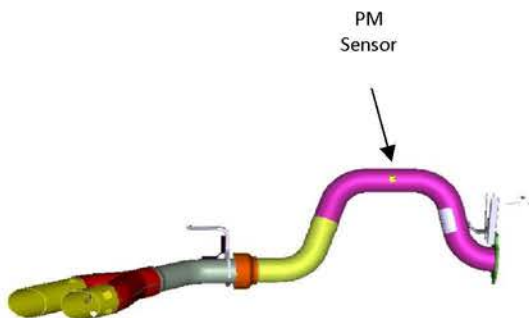
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Chassis Cert

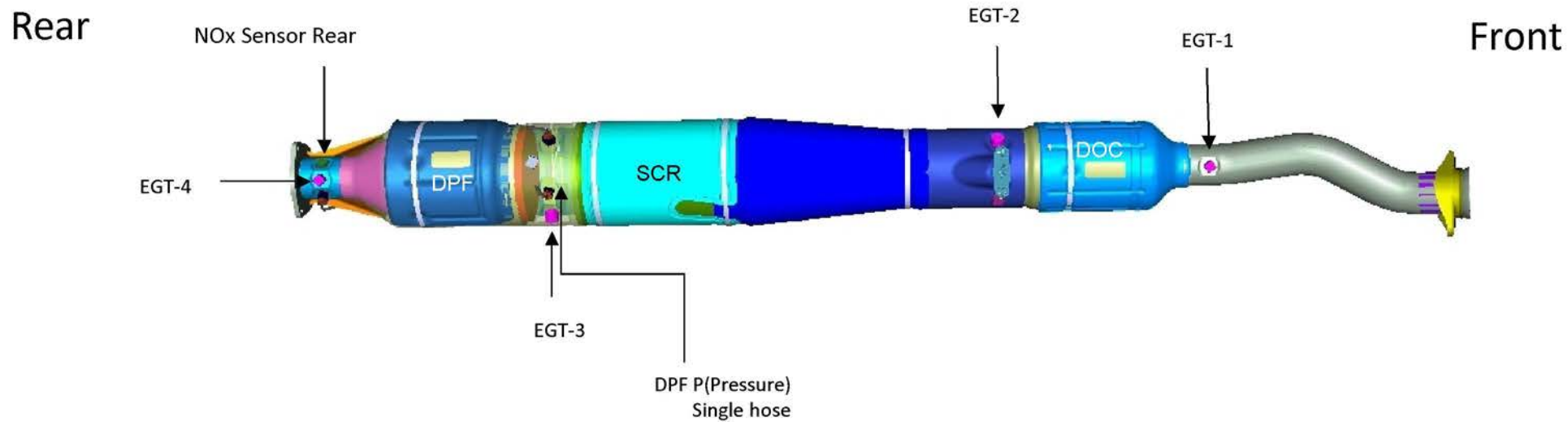


Dyno Cert

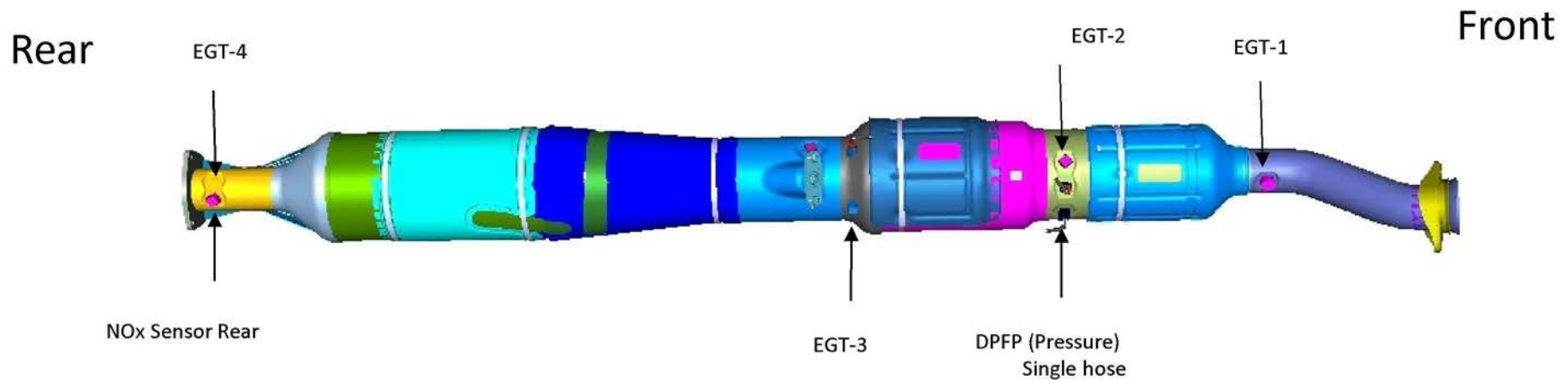


←
Flow direction

Chassis Cert



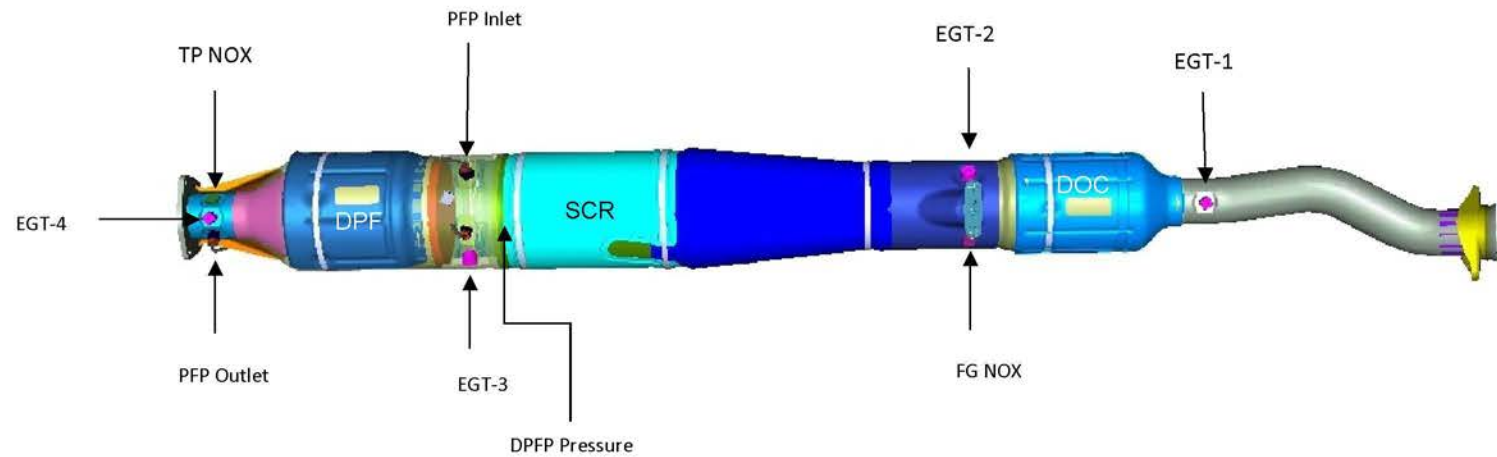
Dyno Cert



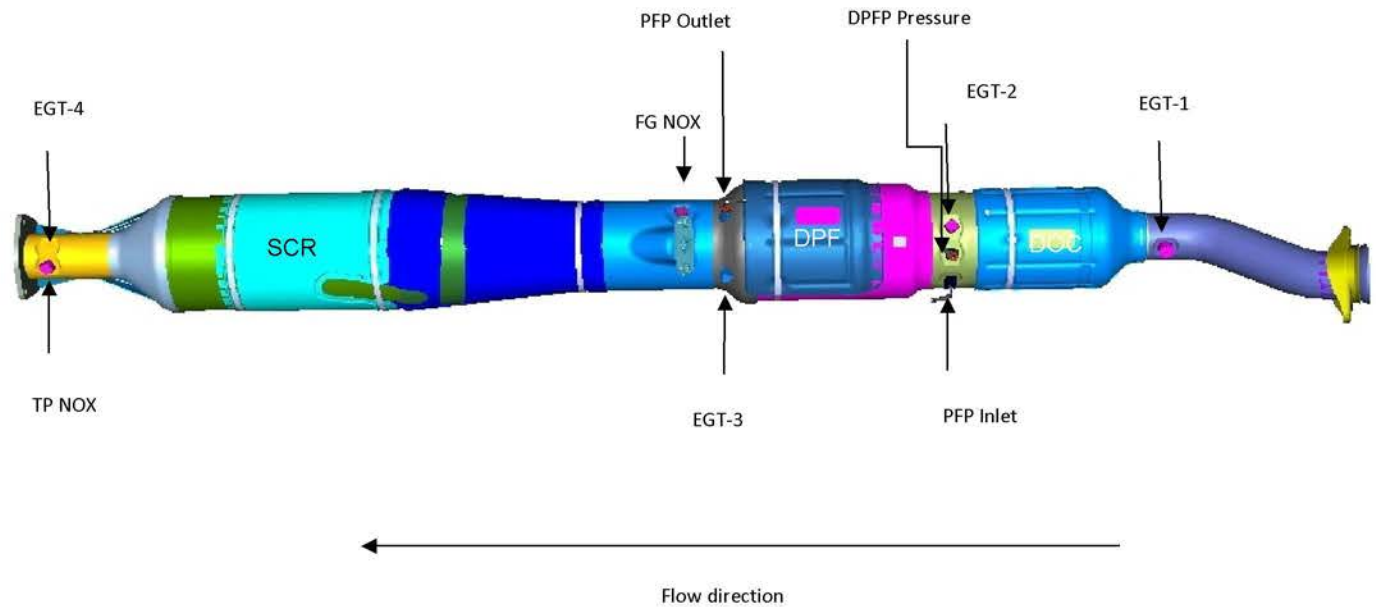


6.7L Diesel Sensors

Chassis Cert



Dyno Cert



From: Bogema, John (P.)
Sent: Friday, October 10, 2014 8:50 PM
To: Rinkevich, Daniel (D.J.); Parrish, Kirk (K.A.); Kue, Ace (K.)
Cc: Pusta, Ionut (I.); Johnson, Seth (S.); McDonagh, Scot (S.M.)
Subject: RE: EGT locations
Attachments: 2011_2012_67L_EGT.PDF

Kirk, Ace,

Do you recall??

From: Rinkevich, Daniel (D.J.)
Sent: Friday, October 10, 2014 4:30 PM
To: Bogema, John (P.)
Cc: Pusta, Ionut (I.); Johnson, Seth (S.); McDonagh, Scot (S.M.)
Subject: EGT locations

John,
Are the dates on this change to the EGT locations correct in this document? This document says 11/5/2010 change date. I thought this was coincident with 2013MY.

Dan Rinkevich
Powertrain Quality
(313) 32-23653 (Desk)
(313) 676-9572 (Cellular)

2011-2012 6.7L Chassis Cab (Narrow Frame)

EGT sensor locations and diagnostics

Introduction

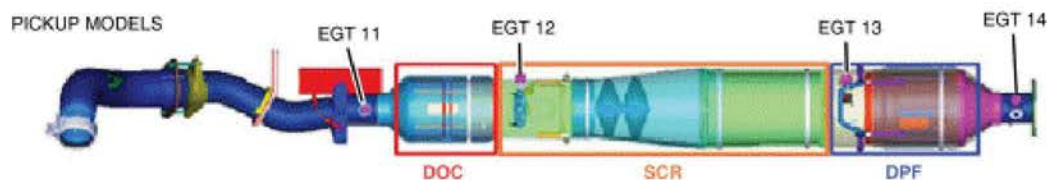
The Exhaust Gas Temperature (EGT) sensors on the 2011-2012 6.7L diesel engine are in different order depending on whether the vehicle is a Pickup Truck (Wide Frame) or Chassis Cab (Narrow Frame). The difference in EGT locations may result in the improper sensor being replaced. Chassis Cab vehicles may report EGT13 and EGT14 in reversed order when monitoring PID data and or Freeze Frame data. EGT Diagnostic Trouble Codes (DTC) may also report EGT13 and EGT14 in reversed order.

Objectives

1. Illustrate EGT sensor location Pickup Truck vs. Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and or EGT14 to be out of range (temperature or voltage)

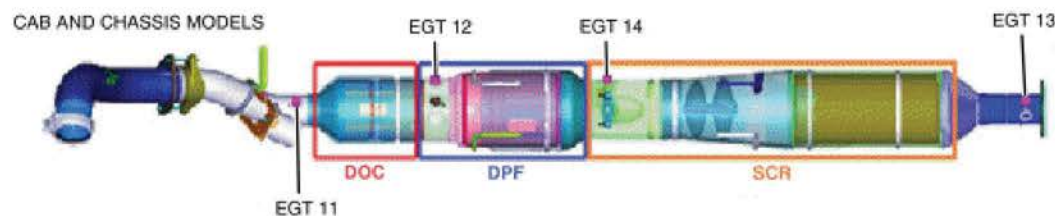
Pickup EGT Locations

The EGT sensors on the Pickup Trucks are in order of exhaust flow from the engine to the tailpipe. See figure below



Chassis Cab EGT Locations

The EGT sensors on the Chassis Cabs are in order of the exhaust components vs. exhaust flow from the engine to the tailpipe. See figure below



Pickup Truck circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built on or after 11/5/2010

Circuit DTCs, PID data and Freeze Frame data will report EGT13 and EGT14 in reversed order. If you receive a circuit DTC or determine EGT13 or EGT14 are out of specification when reviewing PID data or Freeze Frame data the opposite sensor should be replaced.

Example: DTC, PID/Freeze Frame data reports EGT13 (last in order of exhaust flow) is out of range then replace EGT14 (third in order of exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built before 11/5/2010

Circuit DTCs, PID data and Freeze Frame data may report EGT13 and EGT14 in reversed order depending upon the vehicle calibration level. When diagnosing an EGT temperature/voltage concern on a chassis cab you must first unplug either EGT13 (forth in order of exhaust flow) or EGT14 (third in order of exhaust flow) and monitor the PID data to determine which EGT is reported as being unplugged. If the opposite sensor reports to be unplugged in PID data, then the opposite sensor is the cause of the over temperature or DTC.

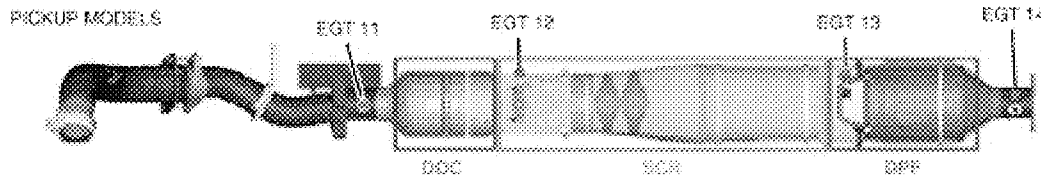
Example: DTC, PID/Freeze Frame data reports that EGT13 is out of range or an EGT13 circuit code is set. Unplug EGT13 (forth sensor in order of exhaust flow) and monitor EGT13 and EGT14 voltage PIDs. If EGT13 reports 5 volts, then replace EGT13. If EGT14 reports 5 volts when EGT13 is unplugged, then replace EGT14 (third sensor in exhaust flow).

From: McDonagh, Scot (S.M.)
Sent: Thursday, October 16, 2014 3:49 PM
To: Ronzi, Bill (W.C.); Dixon, Mark (M.R.); Rinkevich, Daniel (D.J.); Wagers, Sue (S.K.)
Subject: RE: EGT Sensor ICA/PCA

Is Core Engineering bumping Part Numbers for laser weld EGT release ?

Part Numbers:

- AC3A-12B591-AD – Standard nut on front 2 sensors
- AC3A-12B591-BD – Extended nut on rear two sensors
- AC3Z-5J213B-C – Service part



Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

From: Ronzi, Bill (W.C.)
Sent: Thursday, October 16, 2014 11:35 AM
To: Dixon, Mark (M.R.); McDonagh, Scot (S.M.)
Subject: RE: EGT Sensor ICA/PCA

Thanks Mark.

From: Dixon, Mark (M.R.)
Sent: Thursday, October 16, 2014 11:27 AM
To: Ronzi, Bill (W.C.); McDonagh, Scot (S.M.)
Subject: RE: EGT Sensor ICA/PCA

Present plan has the aft two EGTs getting the "laser weld" fix in mid/late Dec. The forward two sensors get the fix in Jan. This allows the supplier to ramp up production of the laser weld. We tend to get most EGT DTCs in the aft two sensors. Have not checked these aft sensor DTCs against the list of EGT DTCs that inhibit regen.

From: Ronzi, Bill (W.C.)
Sent: Thursday, October 16, 2014 11:22 AM
To: Dixon, Mark (M.R.); McDonagh, Scot (S.M.)
Subject: EGT Sensor ICA/PCA

Mark/Scot, What are planned dates for EGT sensor fixes? Need to refer to a date for a 15MY P473 DPF replacement.

Thx
Bill

From: McDonagh, Scot (S.M.)
Sent: Monday, May 20, 2013 2:48 PM
To: Bushman, Thomas (T.S.); Dixon, Mark (M.R.); Moylan, James (J.J.); Kue, Ace (K.); Hamilton, Steven (S.C.); Johnson, Seth (S.); Rinkevich, Daniel (D.J.)
Subject: RE: EGT Sensor Warranty

Should we update 2011-2012MY Job Aid and post under 2013MY Service Tips on PTS ? Seth mentioned Dealer techs are still replacing wrong EGT in today's meeting. Thanks

<http://www.fordtechservice.dealerconnection.com/vdirs/protech/global/default.asp>



2011_2012_67L_...

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

From: Bushman, Thomas (T.S.)
Sent: Monday, May 20, 2013 9:28 AM
To: Erginer, Bora (B.E.); Dixon, Mark (M.R.); Moylan, James (J.J.); Caesar, Cynthia (C.L.); Kue, Ace (K.); Goodwin, William (W.R.); Bogema, John (P.); McDonagh, Scot (S.M.); Philbin, Jeff (Jeff.Philbin@stoneridge.com) (Jeff.Philbin@stoneridge.com); Hamilton, Steven (S.C.); Johnson, Seth (S.); Ramazanoglu, Suphi (A.); Sonat, Ibrahim (I.); Taylor, James (J.D.); Rinkevich, Daniel (D.J.)
Subject: RE: EGT Sensor Warranty

Please find attached the latest ECB Cut for P473 – you'll see that EGT – “Holding Bin” (***Exhaust-Dislike-Design-Temperature-Replaced***) is now ranked #2 over-all.

During this team meeting, we need to review:

1. What the customer is experiencing which forces them to bring the unit if for repair.
2. What is the typical P-Code that is observed by the Technician.
3. What are the other P-Codes that are observed.
4. Which is the dominant EGT Location that typically gets replaced.
5. Is Freeze Frame Data available for any of these previous repairs.
6. Develop a plan of attack on how to investigate this error state.

<< OLE Object: Picture (Device Independent Bitmap) >>

Regards,

Thomas S. Bushman

P473 Powertrain Engineering Supervisor
Kentucky Truck Assembly Plant
(502)339-3941 or (757)435-7442

"Who is John Galt..."

-----Original Appointment-----

From: Erginer, Bora (B.E.)

Sent: Monday, May 20, 2013 8:46 AM

To: Dixon, Mark (M.R.); Moylan, James (J.J.); Caesar, Cynthia (C.L.); Kue, Ace (K.); Goodwin, William (W.R.); Bogema, John (P.); McDonagh, Scot (S.M.); Philbin, Jeff (Jeff.Phillbin@stoneridge.com) (Jeff.Phillbin@stoneridge.com); Bushman, Thomas (T.S.); Hamilton, Steven (S.C.); Johnson, Seth (S.); Ramazanoglu, Suphi (A.); Sonat, Ibrahim (I.)

Subject: EGT Sensor Warranty

When: Monday, May 20, 2013 10:00 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).

Where: WebEx

Early Claims -EGT sensor is ranked #2.

Bora Erginer invites you to an online meeting using WebEx.

WebEx meeting information

Meeting Number: 714 171 219

Meeting Link: <https://ford.webex.com/ford/j.php?J=714171219>

Meeting Password: This meeting does not require a password.

Audio conference information

To receive a call back, provide your phone number when you join the meeting, or call the number below and enter the access code.

US Toll Free Number: +1-888-628-3668

FordNet 248-3668 / Toll: +1-313-248-3668

Global call-in numbers: <https://ford.webex.com/ford/globalcallin.php?serviceType=MC&ED=201967802&tollFree=1>

Toll-free dialing restrictions: http://www.webex.com/pdf/tollfree_restrictions.pdf

Access code:714 171 219

MC06

<http://www.webex.com>

2011-2012 6.7L Chassis Cab (Narrow Frame)

EGT sensor locations and diagnostics

Introduction

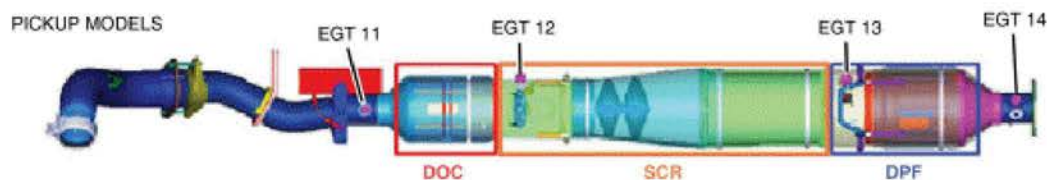
The Exhaust Gas Temperature (EGT) sensors on the 2011-2012 6.7L diesel engine are in different order depending on whether the vehicle is a Pickup Truck (Wide Frame) or Chassis Cab (Narrow Frame). The difference in EGT locations may result in the improper sensor being replaced. Chassis Cab vehicles may report EGT13 and EGT14 in reversed order when monitoring PID data and or Freeze Frame data. EGT Diagnostic Trouble Codes (DTC) may also report EGT13 and EGT14 in reversed order.

Objectives

1. Illustrate EGT sensor location Pickup Truck vs. Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and or EGT14 to be out of range (temperature or voltage)

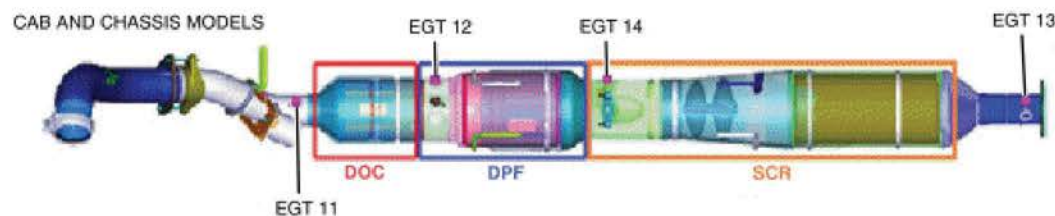
Pickup EGT Locations

The EGT sensors on the Pickup Trucks are in order of exhaust flow from the engine to the tailpipe. See figure below



Chassis Cab EGT Locations

The EGT sensors on the Chassis Cabs are in order of the exhaust components vs. exhaust flow from the engine to the tailpipe. See figure below



Pickup Truck circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built on or after 11/5/2010

Circuit DTCs, PID data and Freeze Frame data will report EGT13 and EGT14 in reversed order. If you receive a circuit DTC or determine EGT13 or EGT14 are out of specification when reviewing PID data or Freeze Frame data the opposite sensor should be replaced.

Example: DTC, PID/Freeze Frame data reports EGT13 (last in order of exhaust flow) is out of range then replace EGT14 (third in order of exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built before 11/5/2010

Circuit DTCs, PID data and Freeze Frame data may report EGT13 and EGT14 in reversed order depending upon the vehicle calibration level. When diagnosing an EGT temperature/voltage concern on a chassis cab you must first unplug either EGT13 (forth in order of exhaust flow) or EGT14 (third in order of exhaust flow) and monitor the PID data to determine which EGT is reported as being unplugged. If the opposite sensor reports to be unplugged in PID data, then the opposite sensor is the cause of the over temperature or DTC.

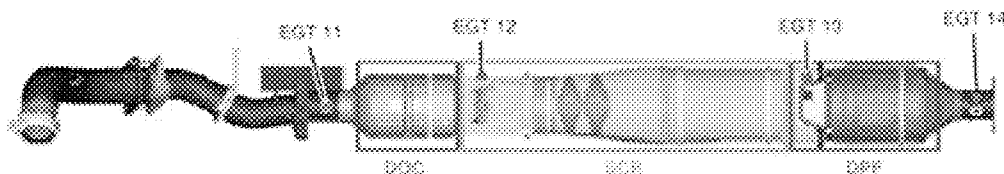
Example: DTC, PID/Freeze Frame data reports that EGT13 is out of range or an EGT13 circuit code is set. Unplug EGT13 (forth sensor in order of exhaust flow) and monitor EGT13 and EGT14 voltage PIDs. If EGT13 reports 5 volts, then replace EGT13. If EGT14 reports 5 volts when EGT13 is unplugged, then replace EGT14 (third sensor in exhaust flow).

From: McDonagh, Scot (S.M.)
Sent: Thursday, September 25, 2014 1:45 PM
To: Mahoney, Mark (M.M.); Dixon, Mark (M.R.)
Cc: Rinkevich, Daniel (D.J.); Johnson, Seth (S.); Fields, Michael (M.);
chris.kozlo@us.bosch.com; Dixon, Mark (M.R.); Boone, Bill (W.P.)
Subject: RE: RAP for EGT Locations

13-15MY current Production Pick-Up/Chassis Cert and Chassis Cab/Dyno Cert are all EGT 11-14

Pickup and Chassis Cab EGT Locations

The EGT sensors on Pickup Truck and Chassis Cab vehicles are now in order of exhaust flow from engine to tailpipe.



I3_6_7L_EGT_Locat
Job Aid...

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

From: Mahoney, Mark (M.M.)
Sent: Monday, September 22, 2014 3:24 PM
To: McDonagh, Scot (S.M.); Dixon, Mark (M.R.)
Cc: Rinkevich, Daniel (D.J.); Johnson, Seth (S.); Fields, Michael (M.); chris.kozlo@us.bosch.com
Subject: RE: RAP for EGT Locations

For 13 and up did the exhaust lay out also change?
Is the Pickup truck DOC, SCR, DPF? EGT location 11, 12, 13, & 14
Chassis Cab, DOC, DPF & SCR EGT location 11, 12, 13 & 14

I need to get the art correct as well and the EDT numbers.

From: McDonagh, Scot (S.M.)
Sent: Tuesday, September 02, 2014 7:26 AM
To: Dixon, Mark (M.R.)

Cc: Rinkevich, Daniel (D.J.); Mahoney, Mark (M.M.); Johnson, Seth (S.); Fields, Michael (M.); chris.kozlo@us.bosch.com
Subject: RE: RAP for EGT Locations

Will ask SMEs to advise if RAP is required

<< Message: RE: 2015 Pickup Truck and Chassis Cab EGT locations >>

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

From: Dixon, Mark (M.R.)
Sent: Friday, August 29, 2014 3:02 PM
To: McDonagh, Scot (S.M.)
Cc: Rinkevich, Daniel (D.J.)
Subject: RAP for EGT Locations

Scot, did you submit RAPs to correct the PCED and WS manual for incorrect EGT location information? Came up at our Diesel MIL Affinity meeting.

Mark Dixon
Powertrain Quality
Ford Motor Company
Building 2 / 24K36
<mailto:mdixon@ford.com>
Tel: (313) 805-7051

6.7L EGT Sensor Locations

2013 Pickup Truck and Chassis Cab

Introduction

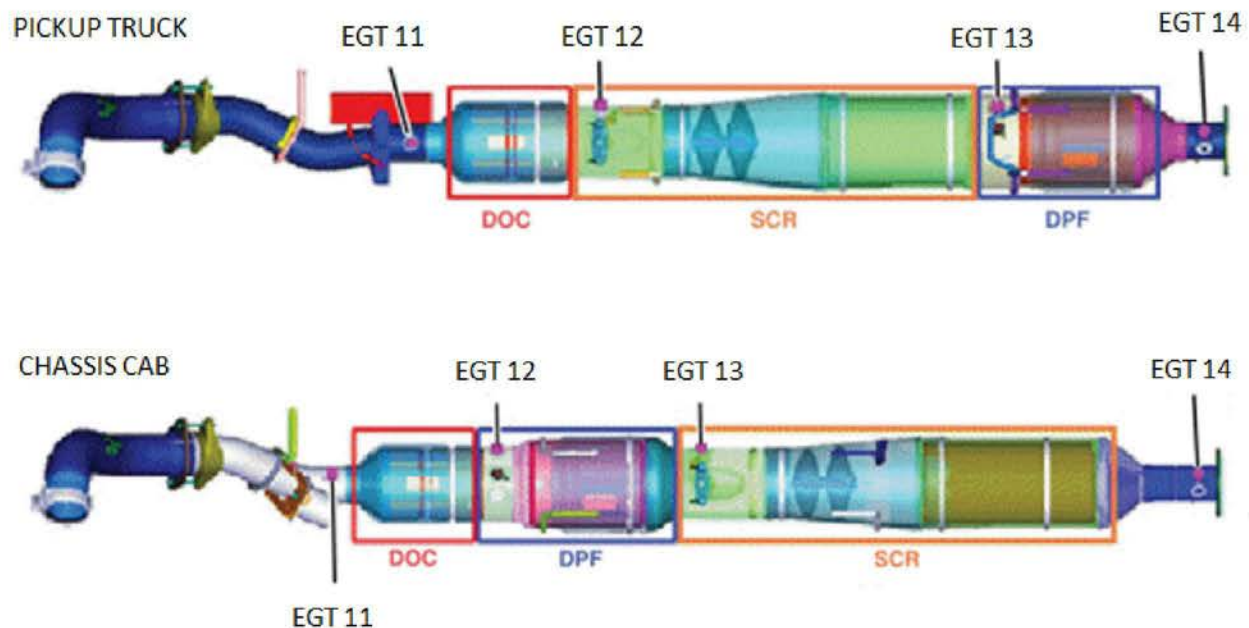
The Exhaust Gas Temperature (EGT) sensors on 2013 6.7L diesel-equipped vehicles are now ordered the same for both Pickup Truck and Chassis Cab vehicles. This is a change for Chassis Cab compared to the 2011-2012 model years.

Objectives

1. Illustrate EGT sensor location for both Pickup Truck and Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and/or EGT14 to be out of range (temperature or voltage)

Pickup and Chassis Cab EGT Locations

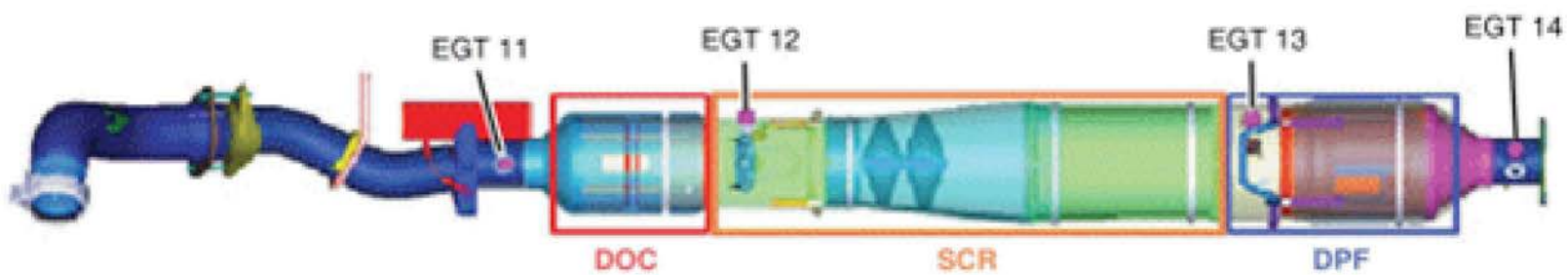
The EGT sensors on both Pickup Truck and Chassis Cab vehicles are now in order of exhaust flow from engine to tailpipe. (See figure below)



Circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data now all report to the correct EGT in order of exhaust flow.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).



From: Johnson, Seth (S.)
Sent: Tuesday, June 18, 2013 5:44 PM
To: McDonagh, Scot (S.M.); Rinkevich, Daniel (D.J.); Hamilton, Steven (S.C.); Dixon, Mark (M.R.)
Subject: RE: Revised EGT job aid for e-tracker

Here is version 2 with both systems pictured.



2013 6 7L EGT
locations_b.pdf

Seth H. Johnson

Diesel Commodity Concern Engineer
1700 Fairlane Business Drive - DSC 1
Phone: (313)-390-6051
SJOHN274@Ford.com

From: McDonagh, Scot (S.M.)
Sent: Tuesday, June 18, 2013 12:24 PM
To: Rinkevich, Daniel (D.J.); Hamilton, Steven (S.C.); Dixon, Mark (M.R.); Johnson, Seth (S.)
Subject: RE: Revised EGT job aid for e-tracker

Correct- Photo publisher botched up my original. 13MY CC Dyno Cert EGT diagram enclosed. Thanks

<< OLE Object: Picture (Device Inc

EGT12

EGT13

EGT14

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

EGT11

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

From: Rinkevich, Daniel (D.J.)
Sent: Tuesday, June 18, 2013 12:21 PM
To: Hamilton, Steven (S.C.); Dixon, Mark (M.R.); Johnson, Seth (S.); McDonagh, Scot (S.M.)
Subject: FW: Revised EGT job aid for e-tracker

It looks just like the 2012 Chassis cab to me.

Dan Rinkevich

Powertrain Quality
(313) 32-23653 (Desk)
(313) 676-9572 (Cellular)

From: McDonagh, Scot (S.M.)
Sent: Tuesday, June 18, 2013 11:49 AM
To: Hamilton, Steven (S.C.); Dixon, Mark (M.R.); Rinkevich, Daniel (D.J.)
Cc: Johnson, Seth (S.)
Subject: RE: Revised EGT job aid for e-tracker

John Bogema requested we include schematic for 2013MY Chassis Cab in Job Aid

<< OLE Object: Picture (Device Independent Bitmap) >>

Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

From: Hamilton, Steven (S.C.)
Sent: Tuesday, June 18, 2013 11:37 AM
To: Dixon, Mark (M.R.); McDonagh, Scot (S.M.); Rinkevich, Daniel (D.J.)
Cc: Johnson, Seth (S.)
Subject: FW: Revised EGT job aid for e-tracker

Team,

We are all set to submit the 2013 EGT job aid and awareness SSM (see attached below). Please respond if you have any concerns by COB tomorrow.

Thanks.

Best regards,

Steve Hamilton

FCSD Service Engineering Operations
Diesel Commodity Manager

From: Johnson, Seth (S.)
Sent: Tuesday, June 18, 2013 11:33 AM
To: Hamilton, Steven (S.C.)
Subject: Revised EGT job aid for e-tracker

Steve,

I spoke with Keary on this and have revised the job aid per his recommendations and converted it to PDF for the e-tracker. He also advised me that the WSM for 2013 was incorrect in calling out locations so I submitted a specs case for that as well.

<< File: 2013 6 7L EGT locations_b.pdf >>

Seth H. Johnson

Diesel Commodity Concern Engineer
1700 Fairlane Business Drive - DSC 1
Phone: (313)-390-6051
SJOHN274@Ford.com

“It’s not enough that we do our best; sometimes we have to do what is required”

-Winston Churchill

6.7L Chassis Cab EGT Sensor Locations

2013 Pickup Truck and Chassis Cab

Introduction

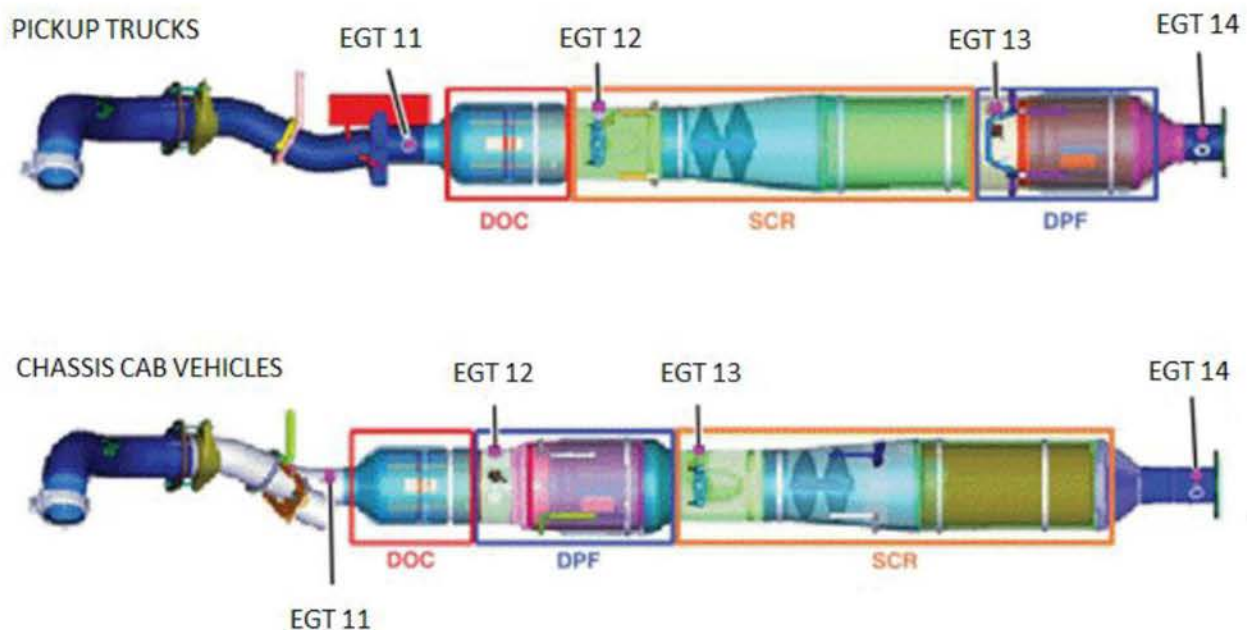
The Exhaust Gas Temperature (EGT) sensors on 2013 6.7L diesel-equipped vehicles are now ordered the same for both Pickup Trucks and Chassis Cab vehicles. This is a change for Chassis Cabs compared to the 2011-2012 model years.

Objectives

1. Illustrate EGT sensor location for both Pickup Truck and Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and/or EGT14 to be out of range (temperature or voltage)

Pickup and Chassis Cab EGT Locations

The EGT sensors on both Pickup Truck and the Chassis Cab vehicles are now in order of exhaust flow from engine to tailpipe. See figure below



Circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data are now all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

RQ14-005

FORD

4/24/2015

Appendix H

Illustrations

Non Conf Bus Info -
Illustrations2

2011-2012 6.7L Chassis Cab (Narrow Frame)

EGT sensor locations and diagnostics

Introduction

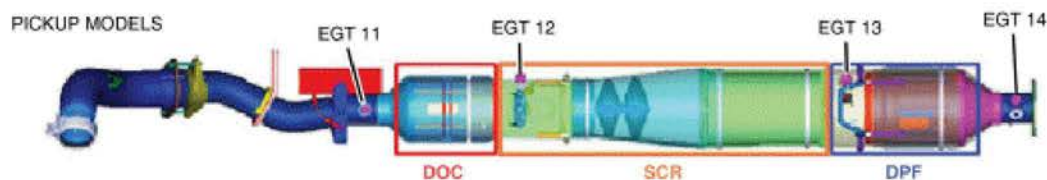
The Exhaust Gas Temperature (EGT) sensors on the 2011-2012 6.7L diesel engine are in different order depending on whether the vehicle is a Pickup Truck (Wide Frame) or Chassis Cab (Narrow Frame). The difference in EGT locations may result in the improper sensor being replaced. Chassis Cab vehicles may report EGT13 and EGT14 in reversed order when monitoring PID data and or Freeze Frame data. EGT Diagnostic Trouble Codes (DTC) may also report EGT13 and EGT14 in reversed order.

Objectives

1. Illustrate EGT sensor location Pickup Truck vs. Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and or EGT14 to be out of range (temperature or voltage)

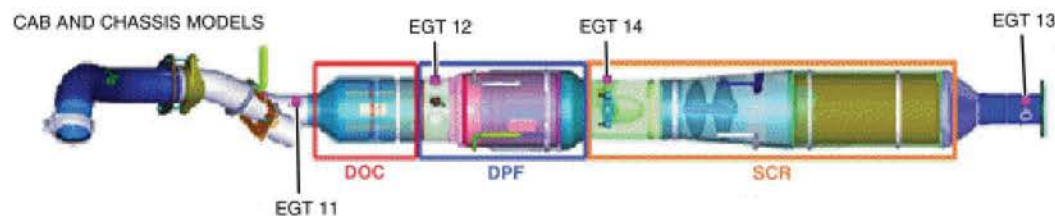
Pickup EGT Locations

The EGT sensors on the Pickup Trucks are in order of exhaust flow from the engine to the tailpipe. See figure below



Chassis Cab EGT Locations

The EGT sensors on the Chassis Cabs are in order of the exhaust components vs. exhaust flow from the engine to the tailpipe. See figure below



Pickup Truck circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built on or after 11/5/2010

Circuit DTCs, PID data and Freeze Frame data will report EGT13 and EGT14 in reversed order. If you receive a circuit DTC or determine EGT13 or EGT14 are out of specification when reviewing PID data or Freeze Frame data the opposite sensor should be replaced.

Example: DTC, PID/Freeze Frame data reports EGT13 (last in order of exhaust flow) is out of range then replace EGT14 (third in order of exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built before 11/5/2010

Circuit DTCs, PID data and Freeze Frame data may report EGT13 and EGT14 in reversed order depending upon the vehicle calibration level. When diagnosing an EGT temperature/voltage concern on a chassis cab you must first unplug either EGT13 (forth in order of exhaust flow) or EGT14 (third in order of exhaust flow) and monitor the PID data to determine which EGT is reported as being unplugged. If the opposite sensor reports to be unplugged in PID data, then the opposite sensor is the cause of the over temperature or DTC.

Example: DTC, PID/Freeze Frame data reports that EGT13 is out of range or an EGT13 circuit code is set. Unplug EGT13 (forth sensor in order of exhaust flow) and monitor EGT13 and EGT14 voltage PIDs. If EGT13 reports 5 volts, then replace EGT13. If EGT14 reports 5 volts when EGT13 is unplugged, then replace EGT14 (third sensor in exhaust flow).

2011-2012 6.7L Chassis Cab (Narrow Frame)

EGT sensor locations and diagnostics.

Introduction

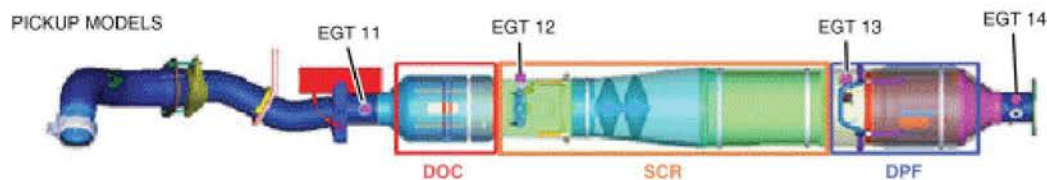
The Exhaust Gas Temperature (EGT) sensors on the 2011-2012 6.7L diesel engine are in different order depending if the vehicle is a Pickup Truck (Wide Frame) or Chassis Cab (Narrow Frame). The difference in EGT locations may result in the improper sensor being replaced. Chassis Cab vehicles may report EGT13 and EGT14 in reversed order when monitoring PID data and or Freeze Frame data. EGT Diagnostic Trouble Codes (DTC) may also report EGT13 and EGT14 in reversed order.

Job Aid Objective

1. To illustrate EGT sensor location Pickup Truck vs. Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze from data reports EGT13 and or EGT14 to be out of range (temperature or voltage)

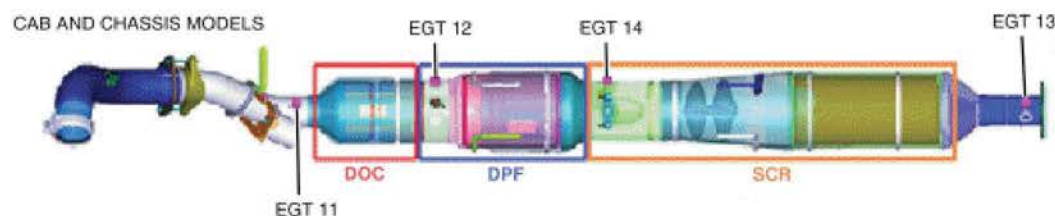
Pickup EGT Locations

The EGT sensors on the Pickup Trucks are in order of exhaust flow from the engine to the tail pipe. See figure below



Chassis Cab EGT Locations

The EGT sensors on the Chassis Cabs are in order of the exhaust components vs. exhaust flow from the engine to the tail pipe. See figure below



Pickup Truck Circuit DTCs, PID Data and Freeze Frame Data Monitoring

DTCs, PID data and Freeze Frame data all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

Chassis Cab circuit DTCs, PID Data and Freeze Frame Data Monitoring Built on or After 11/5/2010

Circuit DTCs, PID data and Freeze Frame data will report EGT13 and EGT14 in reversed order. If you receive a circuit DTC or determine EGT13 or EGT14 are out of specification when reviewing PID data or Freeze Frame data the opposite sensor should be replaced.

Example: DTC, PID/Freeze Frame data reports EGT13 (last in order of exhaust flow) is out of range then replace EGT14 (third in order of exhaust flow).

Chassis Cab circuit DTCs, PID Data and Freeze Frame Data Monitoring Built Before 11/5/2010

Circuit DTCs, PID Data and Freeze Frame data may report EGT13 and EGT14 in reversed order depending upon the vehicle calibration level. When diagnosing an EGT temperature/voltage concern on a chassis cab you must first unplug either EGT13 (forth in order of exhaust flow) or EGT14 (third in order of exhaust flow) and monitor the PID data to determine what EGT is reported as being unplugged. If the opposite sensor reports to be unplugged in PID data then the opposite sensor is the cause of the over temperature or DTC.

Example: DTC, PID/Freeze Frame data reports that EGT13 is out of range or an EGT13 circuit code is set. Unplug EGT13 (forth sensor in order of exhaust flow) and monitor EGT13 and EGT14 voltage PIDs. If EGT13 reports 5 volts then replace EGT13. If EGT14 reports 5 volts when EGT13 is unplugged then replace EGT14 (third sensor in exhaust flow)

2011-2012 6.7L Chassis Cab (Narrow Frame)

EGT sensor locations and diagnostics

Introduction

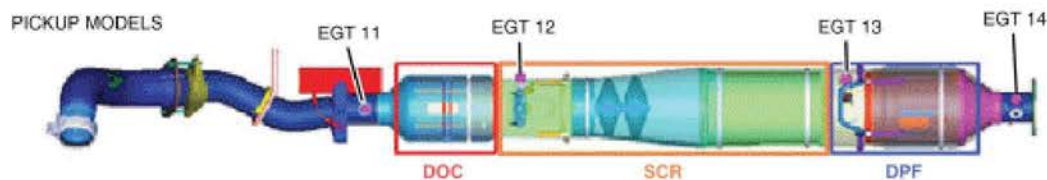
The Exhaust Gas Temperature (EGT) sensors on the 2011-2012 6.7L diesel engine are in different order depending on whether the vehicle is a Pickup Truck (Wide Frame) or Chassis Cab (Narrow Frame). The difference in EGT locations may result in the improper sensor being replaced. Chassis Cab vehicles may report EGT13 and EGT14 in reversed order when monitoring PID data and or Freeze Frame data. EGT Diagnostic Trouble Codes (DTC) may also report EGT13 and EGT14 in reversed order.

Objectives

1. Illustrate EGT sensor location Pickup Truck vs. Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and or EGT14 to be out of range (temperature or voltage)

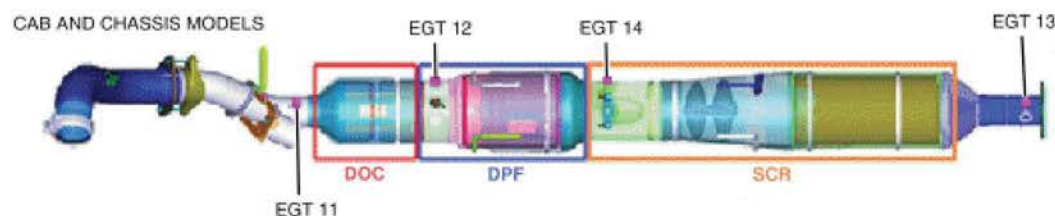
Pickup EGT Locations

The EGT sensors on the Pickup Trucks are in order of exhaust flow from the engine to the tailpipe. See figure below



Chassis Cab EGT Locations

The EGT sensors on the Chassis Cabs are in order of the exhaust components vs. exhaust flow from the engine to the tailpipe. See figure below



Pickup Truck circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built on or after 11/5/2010

Circuit DTCs, PID data and Freeze Frame data will report EGT13 and EGT14 in reversed order. If you receive a circuit DTC or determine EGT13 or EGT14 are out of specification when reviewing PID data or Freeze Frame data the opposite sensor should be replaced.

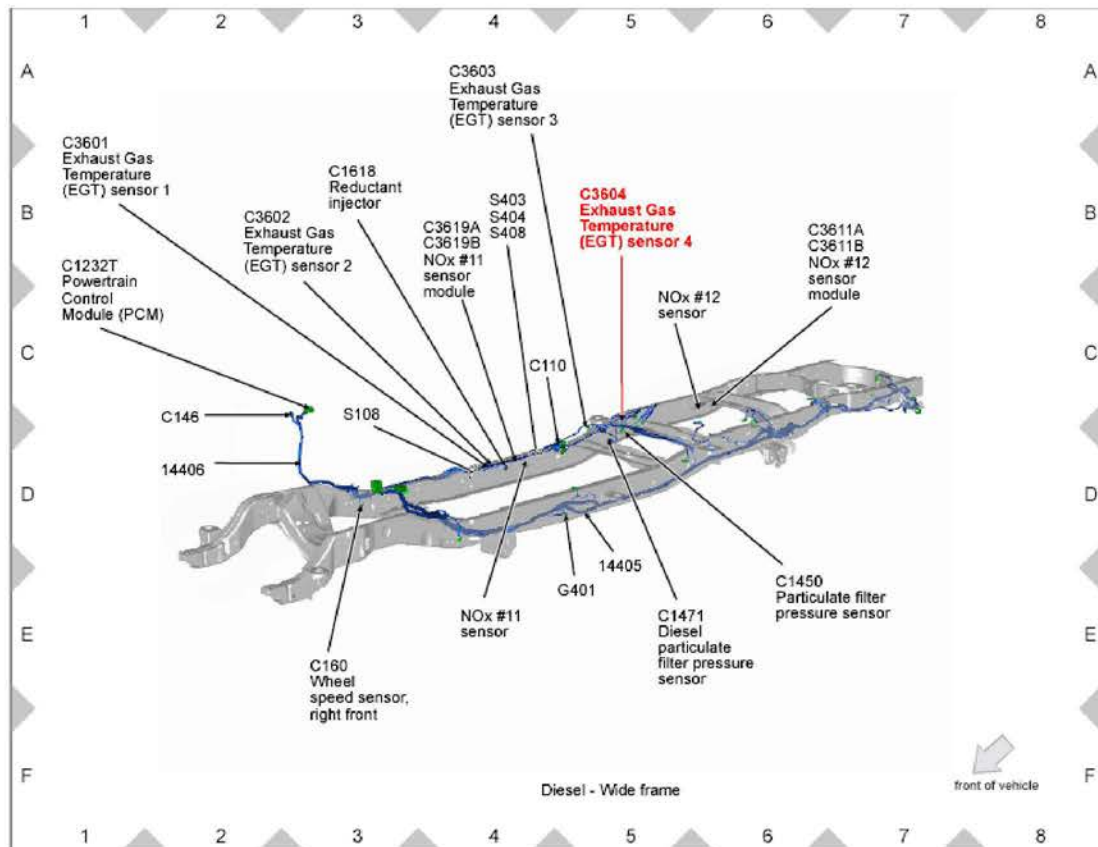
Example: DTC, PID/Freeze Frame data reports EGT13 (last in order of exhaust flow) is out of range then replace EGT14 (third in order of exhaust flow).

Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring – Vehicles built before 11/5/2010

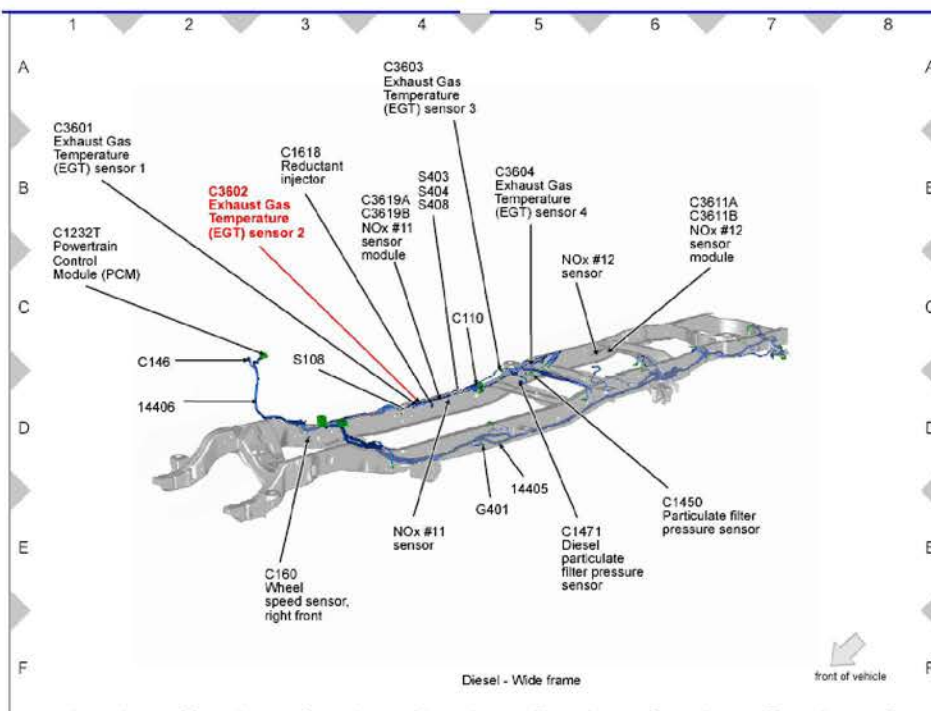
Circuit DTCs, PID data and Freeze Frame data may report EGT13 and EGT14 in reversed order depending upon the vehicle calibration level. When diagnosing an EGT temperature/voltage concern on a chassis cab you must first unplug either EGT13 (forth in order of exhaust flow) or EGT14 (third in order of exhaust flow) and monitor the PID data to determine which EGT is reported as being unplugged. If the opposite sensor reports to be unplugged in PID data, then the opposite sensor is the cause of the over temperature or DTC.

Example: DTC, PID/Freeze Frame data reports that EGT13 is out of range or an EGT13 circuit code is set. Unplug EGT13 (forth sensor in order of exhaust flow) and monitor EGT13 and EGT14 voltage PIDs. If EGT13 reports 5 volts, then replace EGT13. If EGT14 reports 5 volts when EGT13 is unplugged, then replace EGT14 (third sensor in exhaust flow).

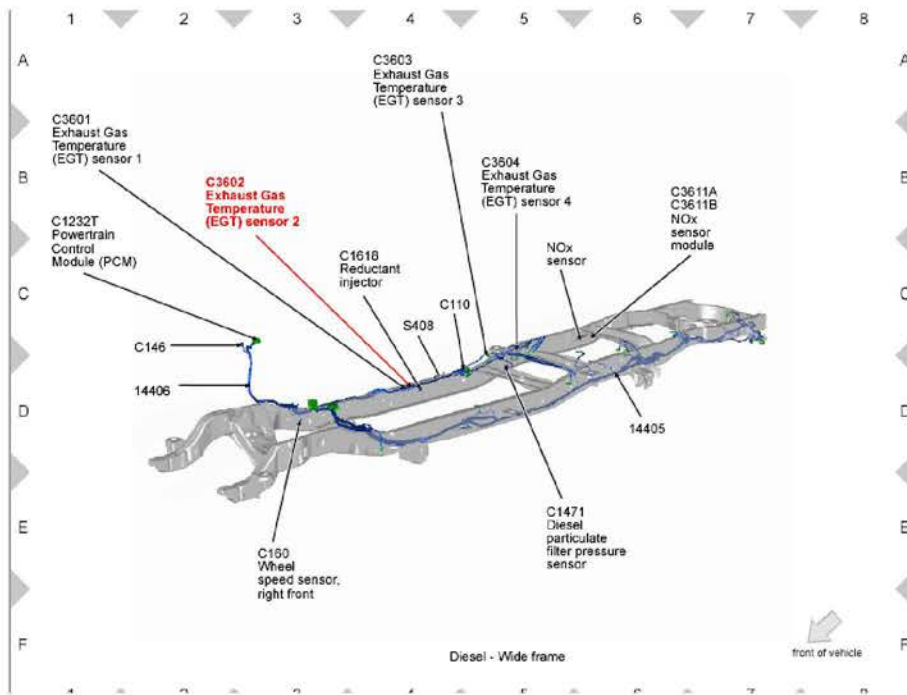
2013 Wide frame



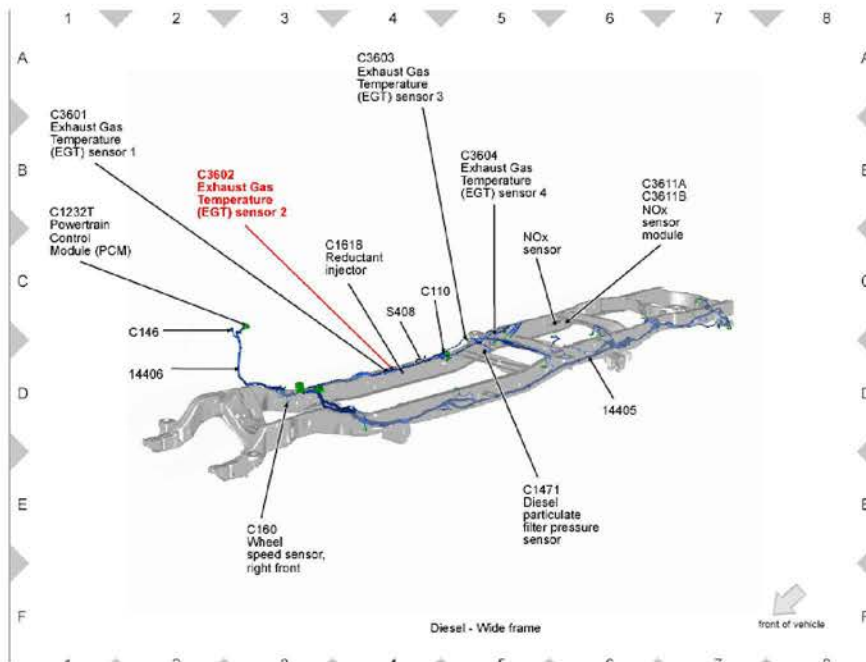
2013 Narrow Frame:



2012 Narrow Frame:



2012 Wide Frame:



6.7L Chassis Cab EGT Sensor Locations

2013 Pickup Truck and Chassis Cab

Introduction

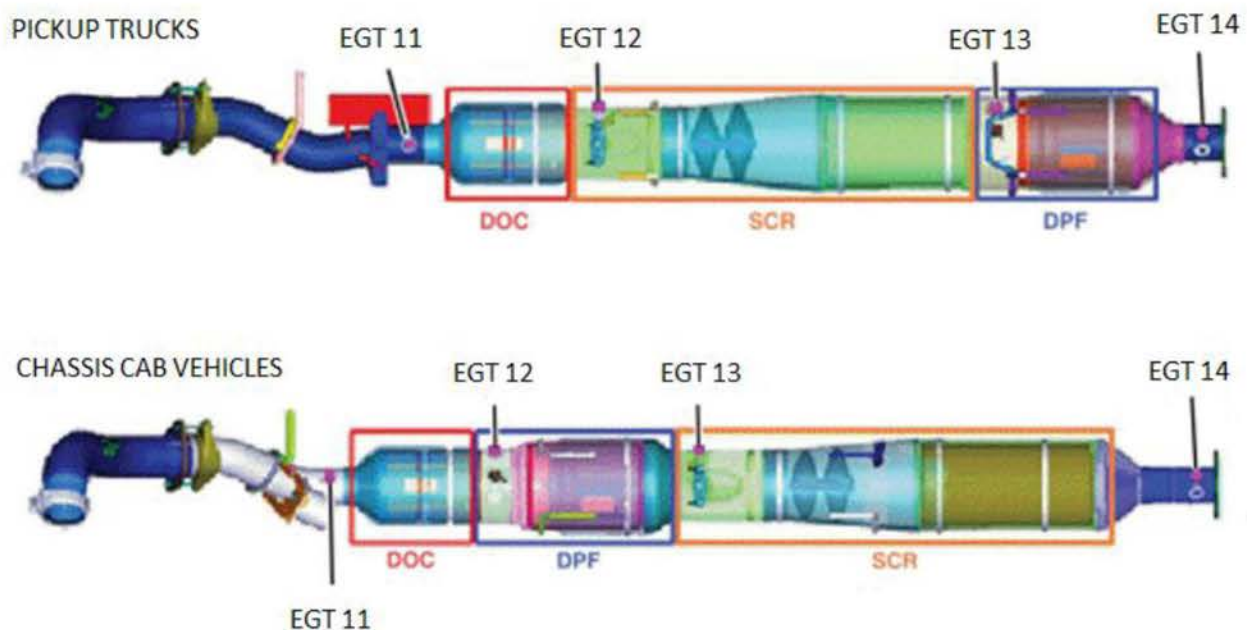
The Exhaust Gas Temperature (EGT) sensors on 2013 6.7L diesel-equipped vehicles are now ordered the same for both Pickup Trucks and Chassis Cab vehicles. This is a change for Chassis Cabs compared to the 2011-2012 model years.

Objectives

1. Illustrate EGT sensor location for both Pickup Truck and Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and/or EGT14 to be out of range (temperature or voltage)

Pickup and Chassis Cab EGT Locations

The EGT sensors on both Pickup Truck and the Chassis Cab vehicles are now in order of exhaust flow from engine to tailpipe. See figure below



Circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data are now all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

2013 6.7L Chassis Cab (Narrow Frame) EGT sensor locations and diagnostics

Introduction

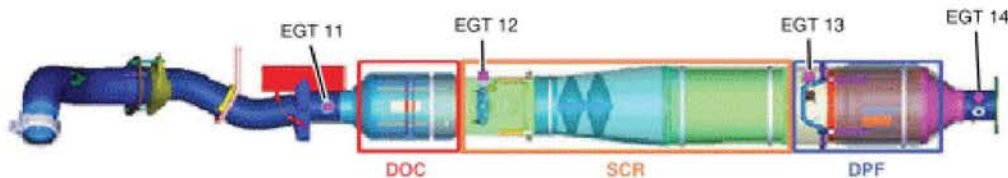
The Exhaust Gas Temperature (EGT) sensors on the 2013 6.7L diesel equipped vehicles are now ordered the same for both pickup trucks and chassis cabs. This is a change for chassis cab vehicles compared to the location of the sensors on the 2011-2012 chassis cab vehicles.

Objectives

1. Illustrate EGT sensor location Pickup Truck vs. Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and or EGT14 to be out of range (temperature or voltage)

Pickup and Chassis Cab EGT Locations

The EGT sensors on the Pickup Trucks and the Chassis Cabs are in order of exhaust flow from the engine to the tailpipe. See figure below



Pickup Truck and Chassis Cab circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data are now all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

6.7L 2013 6.7L Chassis Cab (Narrow Frame)

EGT Ssensor Llocations-and-diagnostics

2013 Pickup Truck and Chassis Cab

Introduction

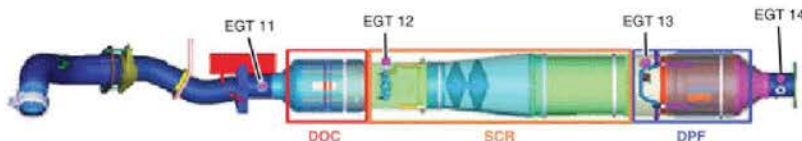
The Exhaust Gas Temperature (EGT) sensors on ~~the~~ 2013 6.7L diesel-equipped vehicles are now ordered the same for both ~~p~~Pickup ~~T~~Trucks and ~~e~~Chassis ~~e~~Cab ~~vehicles~~. This is a change for ~~e~~Chassis ~~e~~Cab ~~vehicles~~ compared to ~~the location of the sensors on the~~ 2011-2012 ~~model~~ ~~years~~chassis-cab ~~vehicles~~.

Objectives

1. Illustrate EGT sensor location ~~for both~~ Pickup Truck ~~and vs.~~ Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and ~~/~~or EGT14 to be out of range (temperature or voltage)

Pickup and Chassis Cab EGT Locations

The EGT sensors on ~~both the~~ Pickup Trucks and ~~the~~ Chassis Cabs ~~vehicles~~ are ~~now~~ in order of exhaust flow from ~~the~~ engine to ~~the~~ tailpipe. See figure below



Pickup Truck and Chassis Cab ~~e~~Circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data ~~are~~ now all report to the correct EGT in order of exhaust flow ~~when diagnosing a Pickup Truck vehicle~~.

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Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

6.7L EGT Sensor Locations

2013 Pickup Truck and Chassis Cab

Introduction

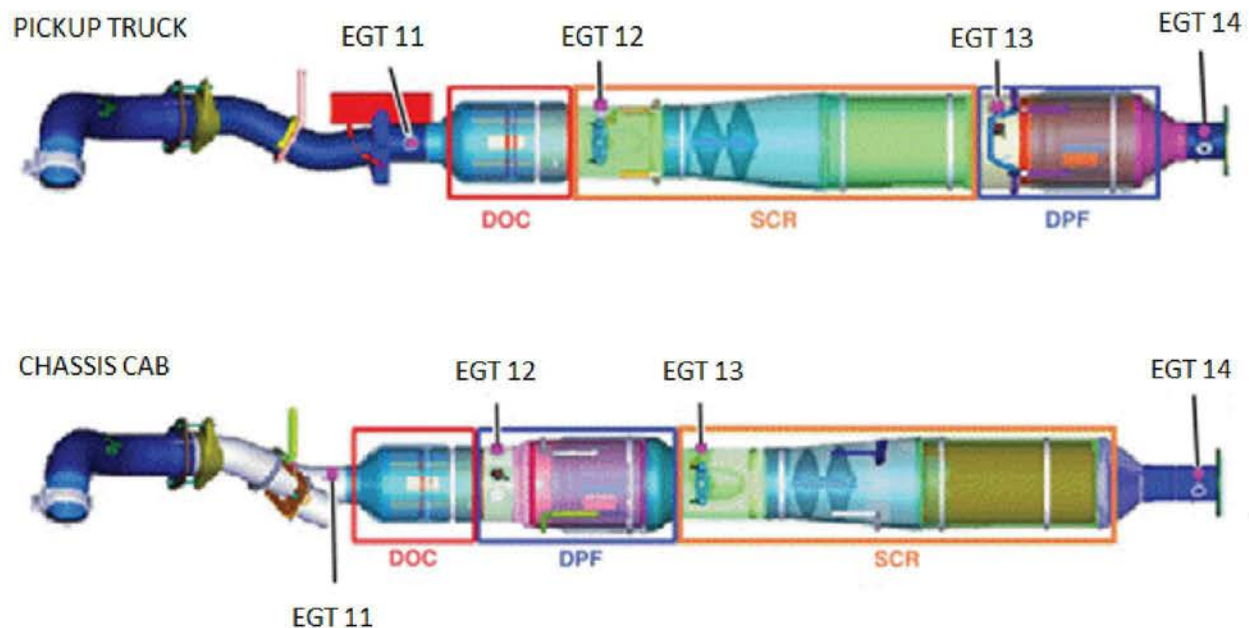
The Exhaust Gas Temperature (EGT) sensors on 2013 6.7L diesel-equipped vehicles are now ordered the same for both Pickup Truck and Chassis Cab vehicles. This is a change for Chassis Cab compared to the 2011-2012 model years.

Objectives

1. Illustrate EGT sensor location for both Pickup Truck and Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze Frame data reports EGT13 and/or EGT14 to be out of range (temperature or voltage)

Pickup and Chassis Cab EGT Locations

The EGT sensors on both Pickup Truck and Chassis Cab vehicles are now in order of exhaust flow from engine to tailpipe. (See figure below)



Circuit DTCs, PID data and Freeze Frame data monitoring

DTCs, PID data and Freeze Frame data now all report to the correct EGT in order of exhaust flow.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

Chassis Cert

EGT = Exhaust Gas Temperature; [-12B591-]

NOx = Nitrogen Oxide Sensor;
[-5J299-]

AC3A-12B591-AC
(Short / Standard nut)

AC3A-12B591-BC
(Extended nut)

Rear

NOx Sensor Rear

EGT-4



EGT-3

DPF (Pressure)
Single hose

DPF =

EGT-2

EGT-1

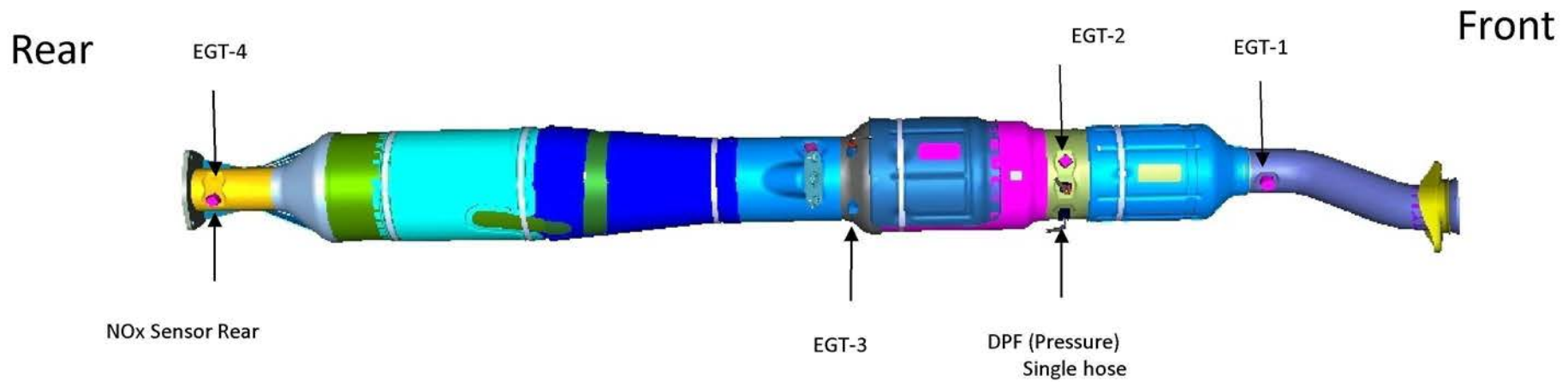


DOC =

SCR =

Front

Dyno Cert



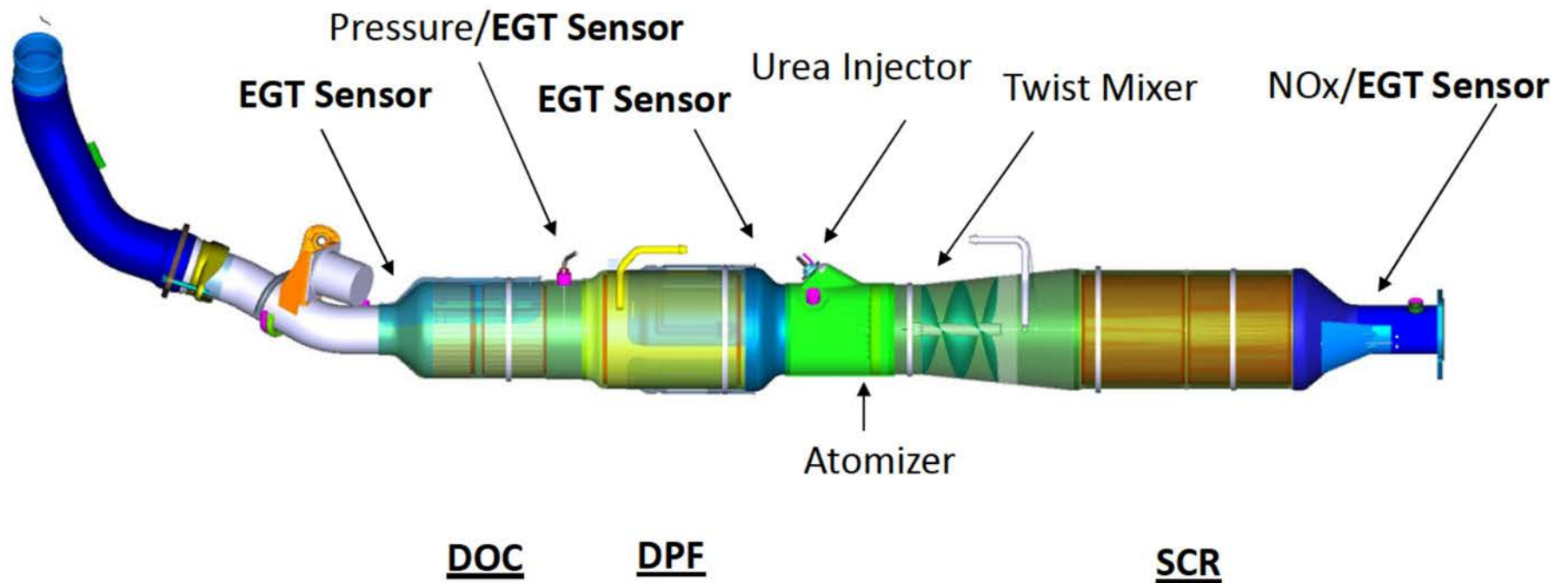
From: Parrish, Kirk (K.A.)
Sent: Wednesday, March 19, 2014 6:30 AM
To: Ford, Kim (K.)
Subject: Documents
Attachments: Diesel AT DVP FNA V11 DATC v2.xlsx; 2011 F550 Exhaust System.PPT; 16_MDTY_Dump448.jpg; 11SD_D183530_R03_HR.jpg; 11SD_FirstRespond1_HR.jpg

Documents we discussed.

Sincerely,
Kirk A. Parrish
Supervisor
Diesel Aftertreatment Temperature Control
(313)805-0162
kparrish@ford.com

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P473 MY11 Hardware Complexity (Dyno Cert Shown)



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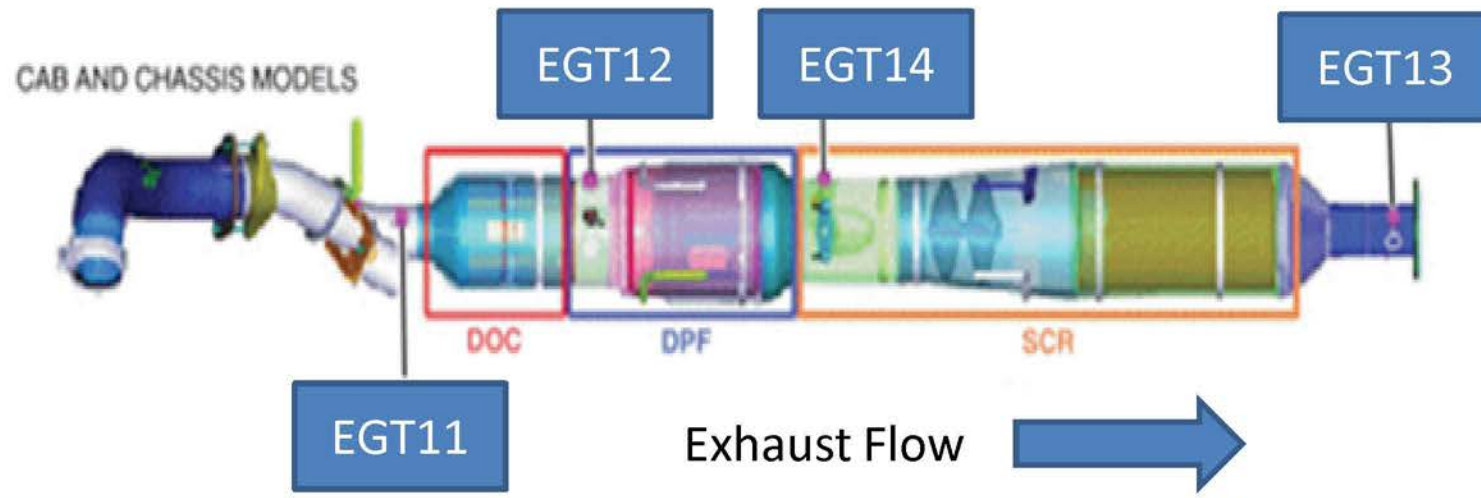
From: Kue, Ace (K.)
Sent: Friday, October 26, 2012 9:14 PM
To: McDonagh, Scot (S.M.)
Cc: Bogema, John (P.); Boone, Bill (W.P.); Leisenring, Kenneth (K.C.)
Subject: Draft TSB for EGT QSF
Attachments: P473 EGT v4_tsb.pptx

Scot,

Let's get together next week with FCSD and see if we can close the QSF.

Ace K. Kue
Diesel OBD Calibration Technical Specialist
Phone: (313) 805-5431
Email: akue@ford.com

2011MY and 2012MY P473 6.7L Dyno Cert – Exhaust Gas Temperature (EGT) Layout



2011-2012 F350-550 Super-Duty Chassis Cab (Narrow Frame) vehicles built after 11/5/12 and equipped with 6.7L diesel engines set the following DTCs:

Repair Procedure

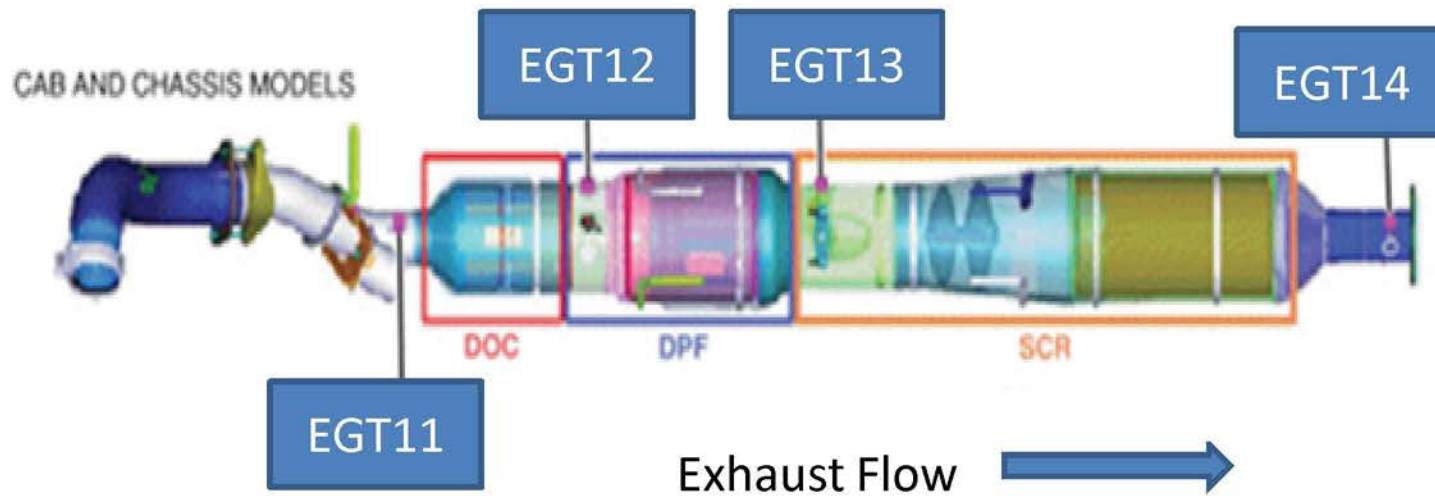
P246E - Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 4)
 P246F - Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 4)
 P2470 - Exhaust Gas Temperature Sensor Circuit Low (Bank 1 Sensor 4)
 P2471 - Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 4)
 P200C - Particulate Filter Over Temperature (Bank 1)
 P200E - Catalyst System Over Temperature (Bank 1)

Disconnect EGT13 (T-37), confirm that PID EGT13_V sensor voltage is reading 5V.
 If 5V then replace EGT13 sensor (4th EGT in order of exhaust flow)

P242A - Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 3)
 P242B - Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 3)
 P242C - Exhaust Gas Temperature Sensor Circuit Low (Bank 1 Sensor 3)
 P242D - Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 3)

Disconnect EGT14 (Pin T-39), confirm that PID EGT14_V sensor voltage is reading 5V.
 If 5V then replace EGT14 sensor (3rd EGT in order of exhaust flow)

2013 MY P473 6.7L (R10) Dyno Cert – Exhaust Gas Temperature (EGT) Layout



2013/ F350-550 Super-Duty Chassis Cab (Narrow Frame) vehicles built after dd/mm/12 and equipped with 6.7L diesel engines set the following DTCs:

Repair Procedure

P246E - Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 4)
 P246F - Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 4)
 P2470 - Exhaust Gas Temperature Sensor Circuit Low (Bank 1 Sensor 4)
 P2471 - Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 4)
 P200C - Particulate Filter Over Temperature (Bank 1)
 P200E - Catalyst System Over Temperature (Bank 1)

Disconnect EGT14 (T-39), confirm that PID EGT14_V sensor voltage is reading 5V.
 If 5V then replace EGT14 sensor (4th EGT in order of exhaust flow)

P242A - Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 3)
 P242B - Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 3)
 P242C - Exhaust Gas Temperature Sensor Circuit Low (Bank 1 Sensor 3)
 P242D - Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 3)

Disconnect EGT13 (Pin T-37), confirm that PID EGT13_V sensor voltage is reading 5V.
 If 5V then replace EGT13 sensor (3rd EGT in order of exhaust flow)

From: Curtis, Andrew (A.)
Sent: Monday, November 05, 2012 8:27 PM
To: McDonagh, Scot (S.M.)
Cc: Hamilton, Steven (S.C.)
Subject: Dyno Cert EGT Job Aid
Attachments: 2011-2012 6.7L EGT locations.docx

Scott,

Here is my draft for the Dyno Cert EGT locations. I decided to make the job aid for all 2011-2012 6.7L to help communicate the differences in EGT locations from Dyno to Chassis Cert. Please review and let me know what you think. This is a draft so if we want to make changes and or additions we can, but I would like to keep it at two pages.

Andrew Curtis
Diesel Commodity Concern Engineer
(313) 390-2132
1700 Fairlane Dr. Allen Park, Mi 48101
Cube 257

2011-2012 6.7L Chassis Cab (Narrow Frame)

EGT sensor locations and diagnostics.

Introduction

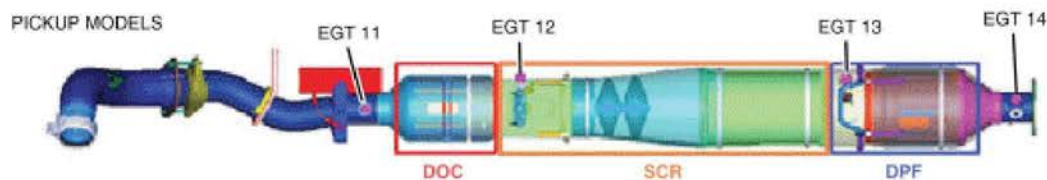
The Exhaust Gas Temperature (EGT) sensors on the 2011-2012 6.7L diesel engine are in different order depending if the vehicle is a Pickup Truck (Wide Frame) or Chassis Cab (Narrow Frame). The difference in EGT locations may result in the improper sensor being replaced. Chassis Cab vehicles may report EGT13 and EGT14 in reversed order when monitoring PID data and or Freeze Frame data. EGT Diagnostic Trouble Codes (DTC) may also report EGT13 and EGT14 in reversed order.

Job Aid Objective

1. To illustrate EGT sensor location Pickup Truck vs. Chassis Cab
2. Aid in proper Chassis Cab EGT replacement when DTCs, PID data or Freeze from data reports EGT13 and or EGT14 to be out of range (temperature or voltage)

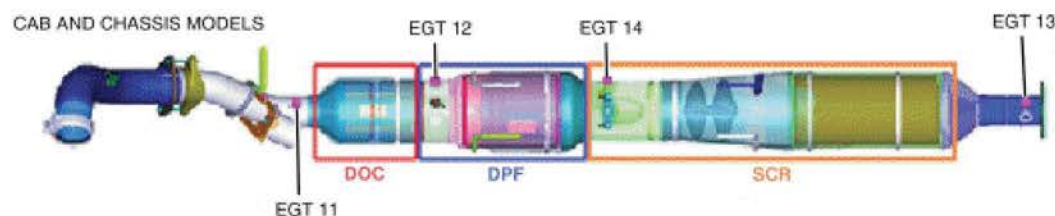
Pickup EGT Locations

The EGT sensors on the Pickup Trucks are in order of exhaust flow from the engine to the tail pipe. See figure below



Chassis Cab EGT Locations

The EGT sensors on the Chassis Cabs are in order of the exhaust components vs. exhaust flow from the engine to the tail pipe. See figure below



Pickup Truck Circuit DTCs, PID Data and Freeze Frame Data Monitoring

DTCs, PID data and Freeze Frame data all report to the correct EGT in order of exhaust flow when diagnosing a Pickup Truck vehicle.

Example: DTC, PID/Freeze Frame data reports EGT13 out of range would result in replacing EGT13 (third sensor in exhaust flow).

Chassis Cab circuit DTCs, PID Data and Freeze Frame Data Monitoring Built on or After 11/5/2010

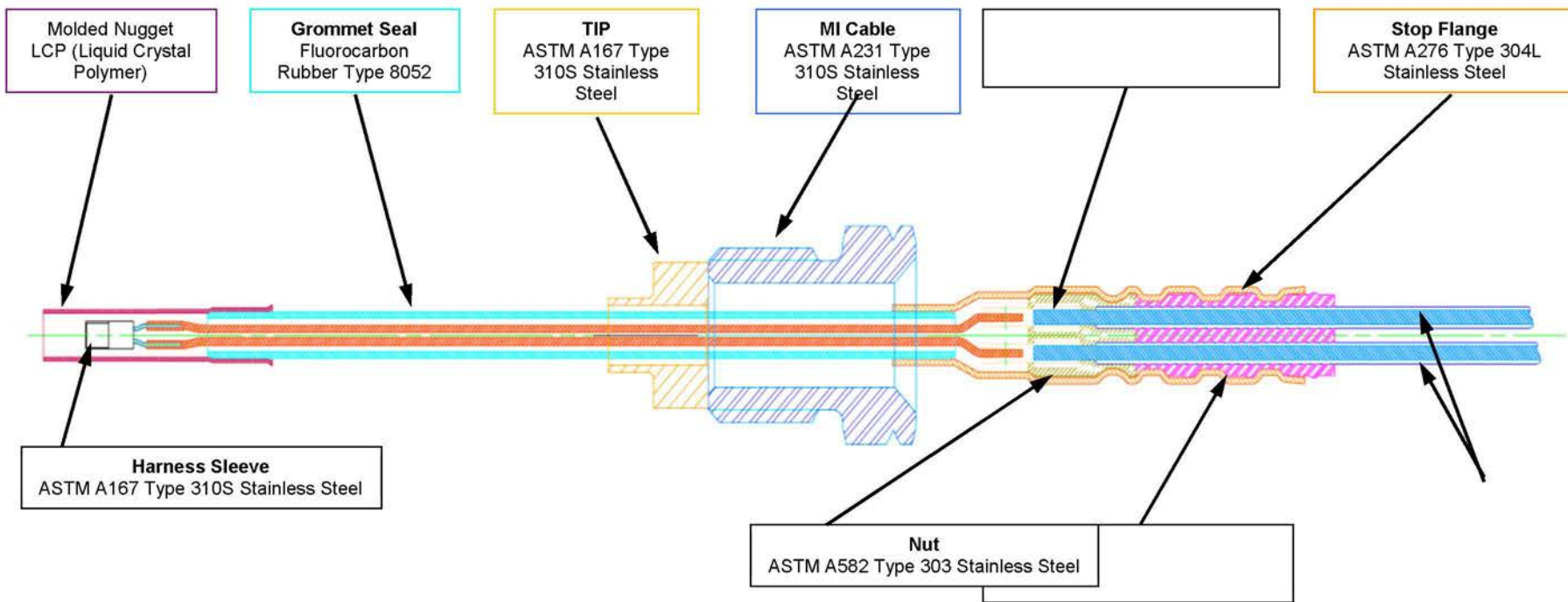
Circuit DTCs, PID data and Freeze Frame data will report EGT13 and EGT14 in reversed order. If you receive a circuit DTC or determine EGT13 or EGT14 are out of specification when reviewing PID data or Freeze Frame data the opposite sensor should be replaced.

Example: DTC, PID/Freeze Frame data reports EGT13 (last in order of exhaust flow) is out of range then replace EGT14 (third in order of exhaust flow).

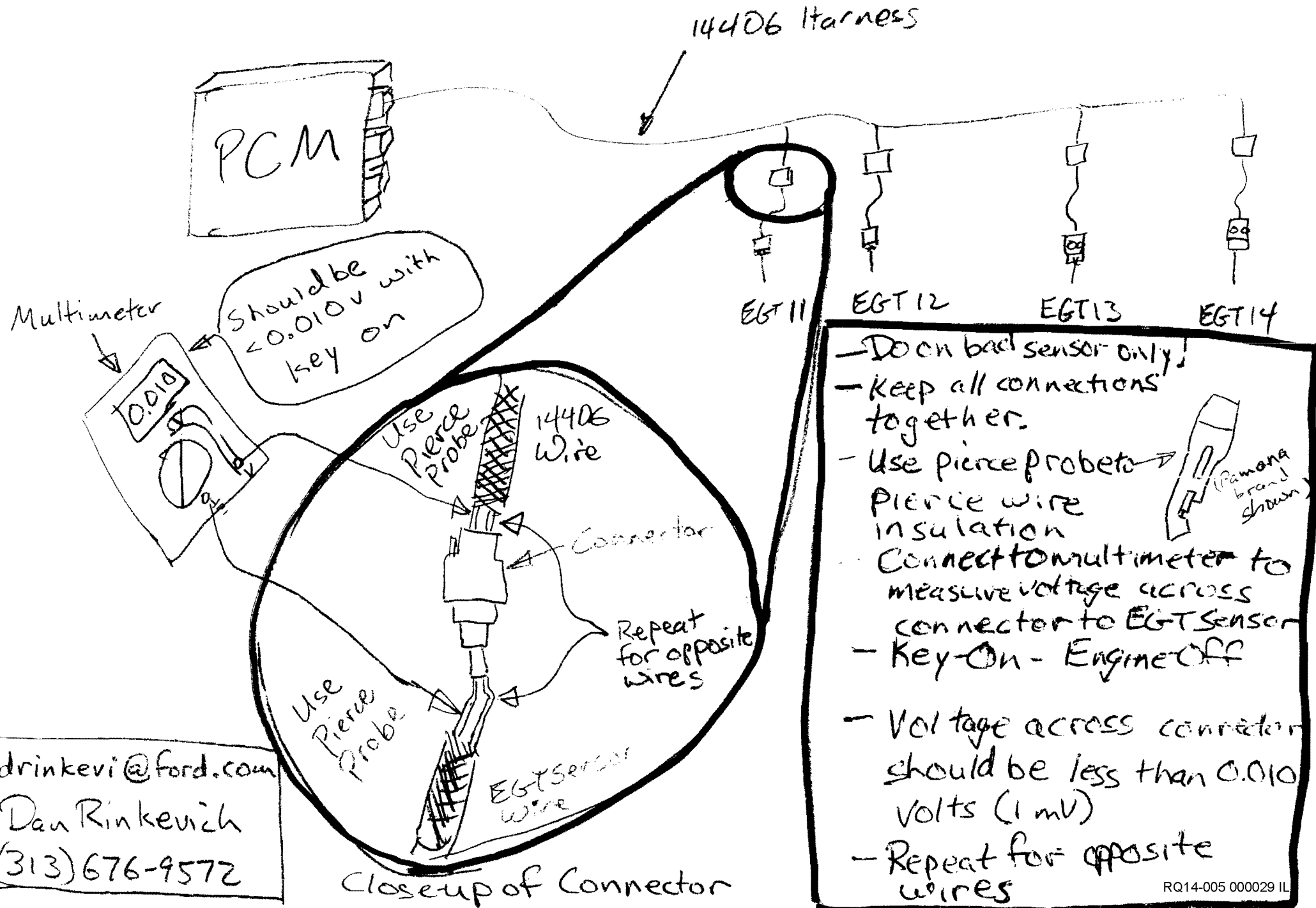
Chassis Cab circuit DTCs, PID Data and Freeze Frame Data Monitoring Built Before 11/5/2010

Circuit DTCs, PID Data and Freeze Frame data may report EGT13 and EGT14 in reversed order depending upon the vehicle calibration level. When diagnosing an EGT temperature/voltage concern on a chassis cab you must first unplug either EGT13 (forth in order of exhaust flow) or EGT14 (third in order of exhaust flow) and monitor the PID data to determine what EGT is reported as being unplugged. If the opposite sensor reports to be unplugged in PID data then the opposite sensor is the cause of the over temperature or DTC.

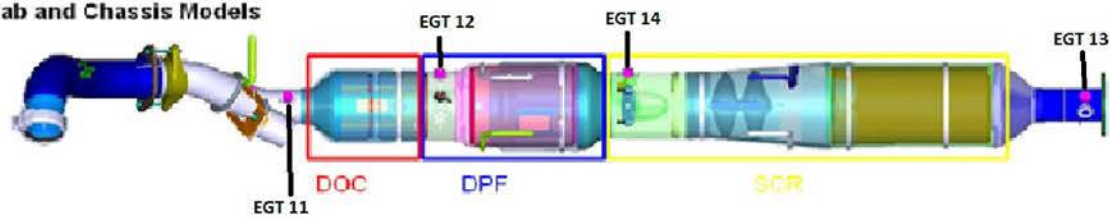
Example: DTC, PID/Freeze Frame data reports that EGT13 is out of range or an EGT13 circuit code is set. Unplug EGT13 (forth sensor in order of exhaust flow) and monitor EGT13 and EGT14 voltage PIDs. If EGT13 reports 5 volts then replace EGT13. If EGT14 reports 5 volts when EGT13 is unplugged then replace EGT14 (third sensor in exhaust flow)



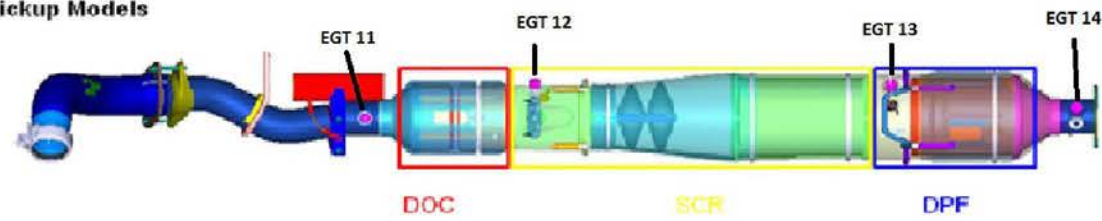
EGT Connector Test

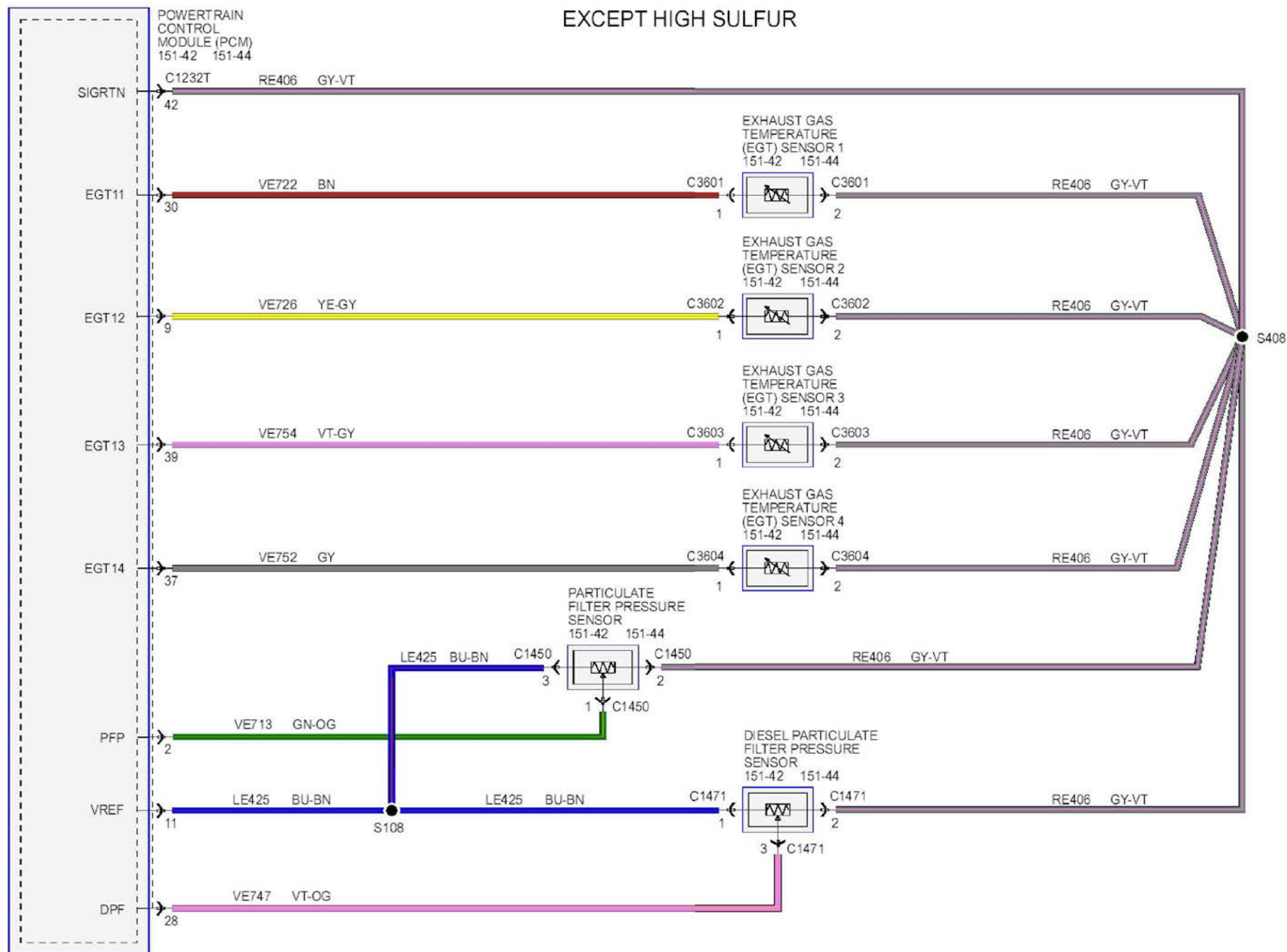


Cab and Chassis Models



Pickup Models





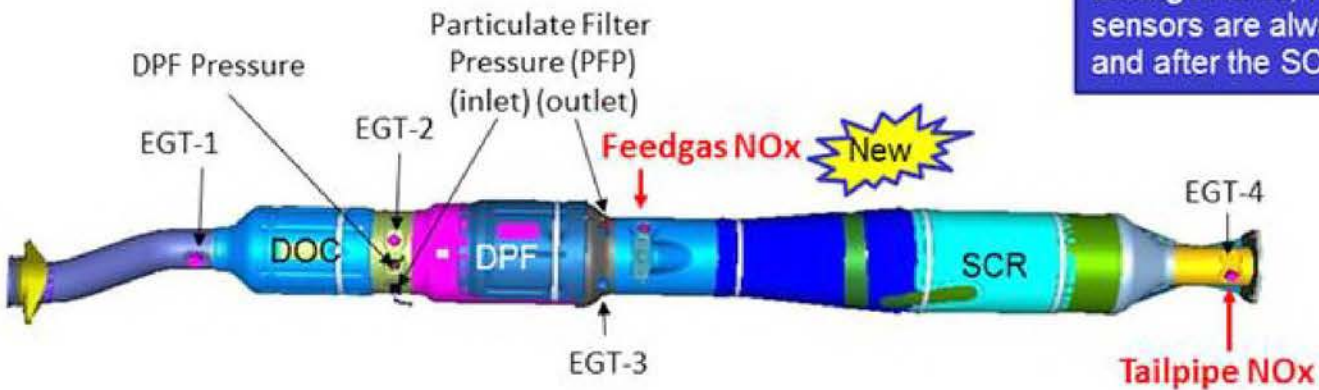
Feedgas NOx sensor is new for 2013MY. New sensor replaces NOx feedgas model.

NOx Sensor Locations

2013 Chassis Cert

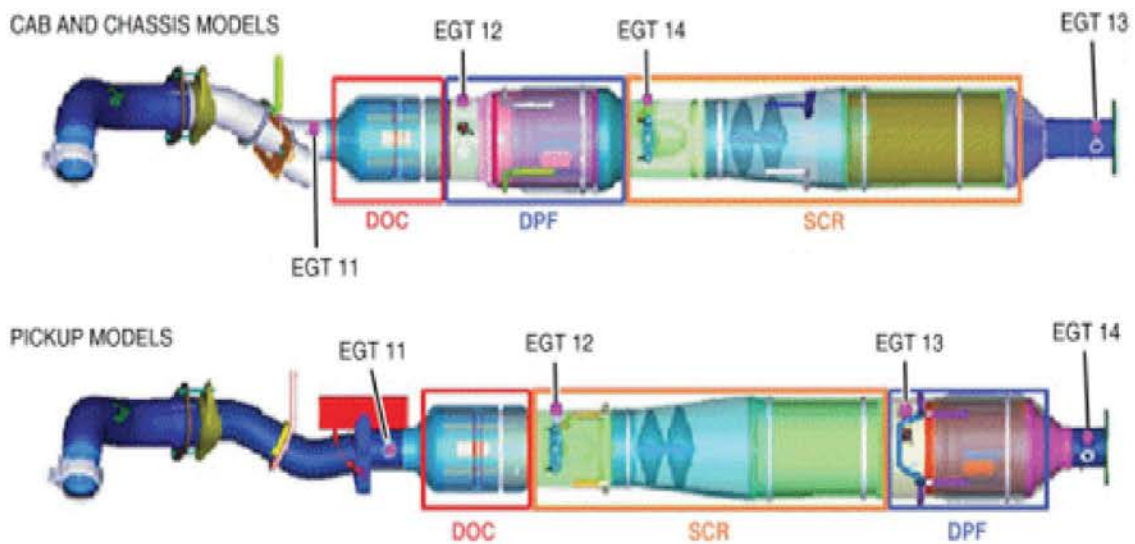


2013 Dyno Cert



Although there are 2 different exhaust system arrangements, NOx sensors are always before and after the SCR.

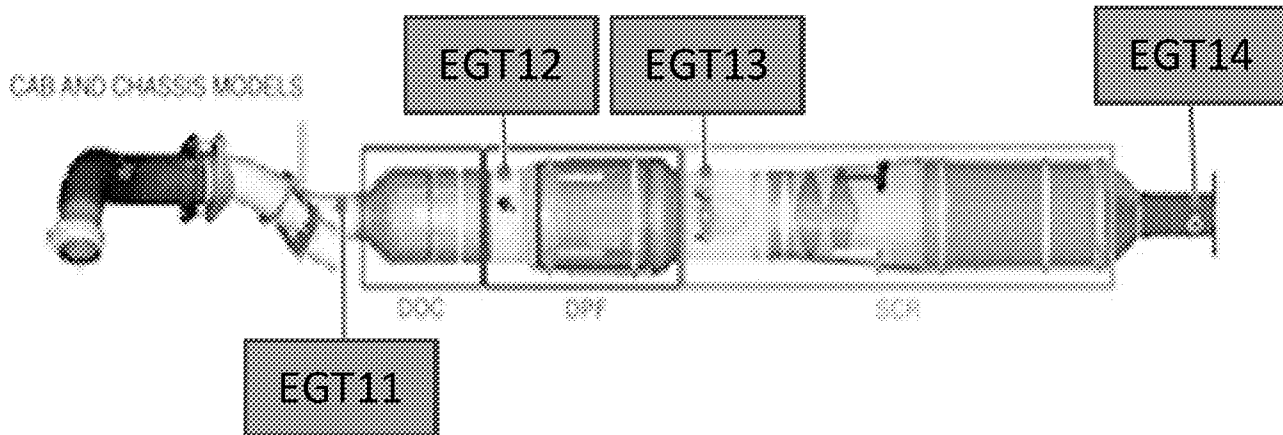
2011-2013 F350-550 Super-Duty Chassis Cab(Narrow Frame) vehicles built after 11/5/12 and equipped with 6.7L diesel engines will display reversed EGT13 and EGT14 Parameter Identification(PID) Data and Freeze Frame Data readings when diagnosing DTC P200C and/or P200E over temperature concerns. Unplug suspect sensor that exhibited Catalyst overtemp Diagnostic Trouble Code. With the sensor unplugged verify the proper sensor reported to be unplugged in PID data to ensure the correct Exhaust Gas Temperature(EGT) sensor is replaced.



TB10318A

From: McDonagh, Scot (S.M.)
Sent: Tuesday, June 18, 2013 4:38 PM
To: Bogema, John (P.); Kue, Ace (K.); Opolsky, Norman (N.H.)
Subject: RE: 2013 EGT sensor job aid

Will do



Scot G. McDonagh
PT Quality Engineering
Phone: (313)337-8091
smcdonag@ford.com

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

From: Bogema, John (P.)
Sent: Tuesday, June 18, 2013 10:13 AM
To: McDonagh, Scot (S.M.); Kue, Ace (K.); Opolsky, Norman (N.H.)
Subject: RE: 2013 EGT sensor job aid

Can we add the schematic of the chassis cab exhaust as well to make it as clear as possible?

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

From: McDonagh, Scot (S.M.)
Sent: Tuesday, June 18, 2013 10:04 AM
To: Kue, Ace (K.); Opolsky, Norman (N.H.)
Cc: Bogema, John (P.)
Subject: FW: 2013 EGT sensor job aid

Would like your input on enclosed 13MY Job Aid release to be posted on PTS.
Thanks

Scot G. McDonagh
PT Quality Engineering

Phone: (313)337-8091
smcdonag@ford.com

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

From: Montgomery, Kerry (K.P.)
Sent: Tuesday, June 18, 2013 9:50 AM
To: Johnson, Seth (S.)
Cc: Hamilton, Steven (S.C.); McDonagh, Scot (S.M.); Dixon, Mark (M.R.)
Subject: RE: 2013 EGT sensor job aid

Seth,

I've made a number of suggested changes. Please click the Review tab and turn off the markup to view the document in its final form.

Let me know what you think and if you have any questions.

Also, neither Mark Mahoney nor I were aware the EGT locations had changed on Chassis Cabs for 2013. If this is true, please submit a Report-a-Problem to request correction of the PC/ED and WSM information.

Thanks!

Kerry Montgomery
Svc Information Development Commodity Lead
Technical Support Operations
Ford Motor Company
313-248-3164
kmontgo1@ford.com

From: Johnson, Seth (S.)
Sent: Monday, June 17, 2013 1:42 PM
To: McDonagh, Scot (S.M.); Dixon, Mark (M.R.); Montgomery, Kerry (K.P.)
Cc: Hamilton, Steven (S.C.)
Subject: 2013 EGT sensor job aid

Gentlemen,

I am looking to post a 3013 EGT sensor location job aid. We have one for 2011-2012 already posted. This is pretty basic just advising that unlike 2011-12 vehicles, the pickup and chassis cabs are in the same location for 2013. Please make any corrections you see fit. We would like to get this posted on the e-tracker as soon as we can.

<< File: 2013 6 7L EGT locations_b.docx >>

Thanks,

Seth H. Johnson
Diesel Commodity Concern Engineer
1700 Fairlane Business Drive - DSC 1
Phone: (313)-248-5350
SJOHN274@Ford.com
"