

PE13-018

FORD

8/16/2013

APPENDIX B

SEARCH CRITERIA

2011 – 2013 Ford F-150 Unexpected Reduction in Engine Power During Hard Acceleration

OWNER REPORTS

As the agency is aware, within FCSD's North American Customer Service Operations, there is a Customer Relationship Center (CRC) that is responsible for facilitating communication between customers, dealerships and Ford Motor Company. Among other things, the CRC handles telephonic, electronic, and written inquiries, suggestions, informational requests, and concerns ("contacts") from Ford and Lincoln-Mercury vehicle owners about their vehicles or sales and service experience. The contacts are handled by CRC customer service representatives who enter a summary of the customer contact into a database known as FMC360, or prior to September 2012, a database known as CuDL (Customer Data Link). Records that were entered into the earlier MORS II system were microfilmed. The records in MORS III/CuDL are imaged and stored electronically. Records that were originated in the MORS III/CuDL database have been migrated to the new FMC360 database, as well as MORS II records that were contained within the MORS III/CuDL database.

The CRC assigns to each vehicle-related contact report a "symptom code" or category that generally characterizes the nature of the customer contact or vehicle concern, as described by the owner. The CRC does not undertake to confirm the accuracy of the description provided by the owner; they simply record what is reported. Therefore, given the complexity of the modern motor vehicle, it is Ford's experience that a significant percentage of owner contacts do not contain sufficient information to make a technical assessment of the condition of the vehicle or the cause of the event reported. Accordingly, although owner contact reports may be useful in identifying potential problems and trends, the records are not the empirical equivalent of confirmed incidents and/or dealership's diagnosis. In the interest of responding promptly to this inquiry, Ford has not undertaken to gather the electronic images related to these contacts because of the largely duplicative nature of the information contained in the images, as well as the time and the burden associated with locating and producing those documents. The pertinent information related to those contacts generally would be included in the contact reports obtained from the FMC360 system. To the extent that those documents exist, they are characterized in the comments of MORS III and FMC360 contact reports. Upon request, Ford will attempt to locate any specific items that are of interest to the agency.

In September 2012, a new symptom coding system for owner reporting was launched concurrent with the transition to the FMC360 database. This is the same coding system that was launched in July 2011 for the CQIS database that contains field reports. All reports migrated from the MORS III/CuDL database in to the FMC360 database have been re-coded using the new coding system.

In responding to this information request, Ford electronically searched the FMC360 database using the following criteria:

Model Year: 2011-2013

Subject Vehicle: F-150 vehicles equipped with 3.5L GTDI engines manufactured for sale or lease in the United States, District of Columbia, Puerto Rico, Northern Mariana Islands, Guam, American Samoa and the Virgin Islands.

Date Parameters: January 1, 2010 through July 27, 2013 (the date of this inquiry)

Types of Contacts: All, including suspended data, canceled contacts and inquiries

FMC360 Case Classifications:

Level 1	Level 2	Level 3	Level 4
Dealer – Vehicle Concern	Legal		
Vehicle Concern	Legal		
Feedback	Product	Negative	Vehicle Safety/Quality

FMC360 Symptom Code(s):

Symptom Category	Symptom Code	Symptom Description
Driving Performance	5 52	Stall
	5 54	Loss of Power
	5 57	Hesitation/Stumble
Driver Aides	2 27 Q	Check Engine Light
	2 27 5	Wrench Light

LEGAL CONTACTS

Beginning in early 2008, most consumer complaints and all legal claim processing has been centralized in OGC within the Consumer Litigation team. A transition has occurred such that all legal contacts (including those formerly handled by "Litigation Prevention") are coordinated through this team.

Prior to the transition, there was a Consumer Affairs Department within FCSD that managed customer concerns, which could not be resolved by the Customer Relationship Center (CRC). Among other things, the Consumer Affairs Department had a section, known as "Litigation Prevention," that handled a variety of informal (i.e., non-litigation) claims, such as property damage claims or attorney demand claims.

The Litigation Prevention section had been centralized in the Consumer Affairs Department since 1995, in Dearborn, Michigan. Prior to that time, Litigation Prevention personnel operated on a regional basis. For matters that the Litigation Prevention section handled, there were typically paper files that reflected the handling, investigation and resolution of property damage claims.

The claims, known as "Legal Contacts" are entered into the CuDL database that the CRC uses to enter other customer communications. When a customer contact is designated as a Legal Contact, it is so indicated near the top of the contact report.

FIELD REPORTS

Within FCSD, there is a Vehicle Service & Programs Office that has overall responsibility for vehicle service and technical support activities, including the administration of field actions. That Office is the primary source within Ford of vehicle concern information originating from

Ford and Lincoln-Mercury dealerships, field personnel, and other sources. The information is maintained in a database known as the Common Quality Indicator System (CQIS). The CQIS database includes reports compiled from more than 40 Company sources (e.g., Company-owned vehicle surveys, service technicians, field service and quality engineers, and technical hot line reports, etc.) providing what is intended to be a comprehensive concern identification resource. As with MORS contact reports, CQIS reports are assigned a "symptom code" or category that generally reflects the nature of the concern.

In responding to this information request, Ford electronically searched CQIS using the following criteria:

In July 2011, FCSD launched a new coding system for the CQIS database. All reports maintained in the CQIS database prior to the coding change have been re-coded using the new CQIS coding system.

Model Year: 2011-2013

Subject Vehicle: F-150 vehicles equipped with 3.5L GTDI engines manufactured for sale or lease in the United States, District of Columbia, Puerto Rico, Northern Mariana Islands, Guam, American Samoa and the Virgin Islands.

Date Parameters: January 1, 2010 through July 27, 2013 (the date of this inquiry)

Symptom Code(s):

Symptom Category	Symptom Code	Symptom Description
Driving Performance	5 52	Stall
	5 54	Loss of Power
	5 57	Hesitation/Stumble
Driver Aides	2 27 Q	Check Engine Light
	2 27 5	Wrench Light

OASIS MESSAGES

FCSD is responsible for communicating a variety of vehicle and service information, such as warranty information for up to the past 360 days, Extended Service Plan part coverage information, and technical repair information, to North American Ford and Lincoln-Mercury dealers. This information is communicated primarily through OASIS, which serves as an electronic link between Ford Motor Company and the dealers. OASIS covers all North American Ford and Lincoln-Mercury cars and light trucks, and medium and heavy-duty Ford trucks, for the ten most current model years. Technical diagnostic and repair information on OASIS is contained in Special Service Messages (SSMs) and Technical Service Bulletin (TSBs) titles and brief summaries. It should be noted that dealers cannot access brief summaries.

SSMs and TSB titles are coded in OASIS by model year and vehicle line, and may be coded to other specific vehicle attributes (body style, engine code, or vehicle identification number) and one or more OASIS Service Code(s). The dealers with access to OASIS usually search for information on the database by entering a VIN and the applicable Service Codes. SSMs and TSB titles that become inactive or superseded continue to be accessible by Ford employees, but no longer are accessible by the dealers. Dealers also are able to determine

the recalls applicable to a particular vehicle by searching a particular VIN in OASIS. Recall information available on OASIS cannot be searched by Service Codes.

In July 2011, FCSD launched a new coding system for OASIS. All active SSMs and TSB titles have been re-coded using the new OASIS coding system. All inactive and superceded SSMs and TSB titles are still maintained under the old coding system.

In responding to this information request, Ford searched Global OASIS using both the new and old OASIS service codes for active, inactive, and superceded TSB titles and SSMs using the following search criteria:

Model Year: 2011-2013

Subject Vehicle: F-150 vehicles equipped with 3.5L GTDI engines manufactured for sale or lease in the United States, District of Columbia, Puerto Rico, Northern Mariana Islands, Guam, American Samoa and the Virgin Islands.

Date Parameters: January 1, 2010 through July 27, 2013 (the date of this inquiry)

OASIS Service Code(s):

Symptom Category	Symptom Code	Symptom Description
Driving Performance	5 52	Stall
	5 54	Loss of Power
	5 57	Hesitation/Stumble
Driver Aides	2 27 Q	Check Engine Light
	2 27 5	Wrench Light

OASIS 2 and Global OASIS are not capable of performing electronic word searches, so the search results are reviewed manually to determine their applicability to the alleged defect in the subject vehicles.

The OASIS database also contains Broadcast Messages. Typically, these messages are directed to all dealerships and either are notifications of new SSMs/TSBs, or announcements with non-technical information (for example, "the Dealer Hotline will be closed today"). Broadcast Messages cannot be searched by OASIS service codes, and can be retrieved only while active (approximately 2 to 4 days). Ford has not undertaken to search for Broadcast Messages because Ford expects that any responsive information obtained with such a search generally would be non-substantive in nature or duplicative of the information obtained with the TSB title and SSM search described above.

INTERNAL SERVICE MESSAGES

FCSD, as part of its technical support activities, maintains fleet and technical telephone "hotlines." During the early stages of Ford's efforts to identify and resolve potential vehicle concerns, hotline personnel may draft Internal Service Messages (ISMs) on CQIS for their internal use. The ISMs are assigned a CQIS "symptom code" or category that generally reflects the nature of the concern. An ISM can form the basis for an oral response over the technical hotline to an inquiry from an individual dealer or fleet technician. The ISMs, however, are not made available electronically to fleets and dealers. Therefore, although ISMs are not "issued" to dealers like OASIS messages, Ford is construing this request broadly to include ISMs that may be related to the alleged defect in the subject vehicles.

In responding to this information request, Ford searched CQIS for active ISMs using the following search criteria:

Model Year: 2011-2013

Subject Vehicle: F-150 vehicles equipped with 3.5L GTDI engines manufactured for sale or lease in the United States, District of Columbia, Puerto Rico, Northern Mariana Islands, Guam, American Samoa and the Virgin Islands.

Date Parameters: January 1, 2010 through July 27, 2013 (the date of this inquiry)

CQIS Symptom Code(s):

Symptom Category	Symptom Code	Symptom Description
Driving Performance	5 52	Stall
	5 54	Loss of Power
	5 57	Hesitation/Stumble
Driver Aides	2 27 Q	Check Engine Light
	2 27 5	Wrench Light

The CQIS database in which the ISMs reside is not capable of performing word searches, so the search results were reviewed manually to determine their applicability to the alleged defect in the subject vehicles.

FIELD REVIEW COMMITTEE

Ford's Field Review Committee reviews all potential field service actions, including safety recalls and customer satisfaction programs, and recommends appropriate actions to corporate management. A Vehicle Service & Programs representative serves as Secretary to the Field Review Committee. Following approval of a field service action, the Vehicle Service & Programs Office prepares and launches the action. A representative copy of the communication to Ford's dealers, fleets, and Regional offices announcing the field service action is maintained in the Field Review Committee files.

WARRANTY

Ford's Analytical Warranty System (AWS) contains warranty claims and vehicle information for model years 1991 and forward for North America, and model years 1992 and forward for Europe.

Ford performed a search of AWS for potentially responsive reports using the following search criteria:

Model Year: 2011-2013

Subject Vehicle: F-150 vehicles equipped with 3.5L GTDI engines manufactured for sale or lease in the United States, District of Columbia, Puerto Rico, Northern Mariana Islands, Guam, American Samoa and the Virgin Islands.

Date Parameters: January 1, 2010 through July 27, 2013 (the date of this inquiry)

Base Part Number(s):

6K775 CAC (Service)
9L440 CAC (Production)
5E214 Catalyst Left (Production)
5G218 Catalyst Right (Production)
5E212 Catalyst (Service)
19E672 Deflector (Production & Service)

Customer Concern Code(s):

CCC	Description
D36	Engine hesitates/surges when accelerating
D42	Poor performance/lacks power
E29	"Check engine" light troubles

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APPENDIX E

ESP COVERAGE

New Contract Coverage

coverage		2011 - 2013 MY F-150 contracts		
		Plan Years		
Time	Mileage	2011	2012	2013
2 Years	100000	X	X	X
	48000	X	X	X
3 Years	60000	X	X	X
	75000	X	X	X
	100000	X	X	X
	125000	X	X	X
4 Years	48000	X	X	X
	60000	X	X	X
	75000	X	X	X
	100000	X	X	X
	125000	X	X	X
5 Years	36000	X	X	X
	48000	X	X	X
	60000	X	X	X
	75000	X	X	X
	100000	X	X	X
	125000	X	X	X
6 Years	36000	X	X	X
	48000	X	X	X
	60000	X	X	X
	75000	X	X	X
	100000	X	X	X
	125000	X	X	X
7 Years	36000	X	X	X
	48000	X	X	X
	60000	X	X	X
	75000	X	X	X
	100000	X	X	X
	125000	X	X	X

New Contract Counts

coverage		2011 - 2013 MY F-150 contracts		
		Plan Years		
Time	Mileage	2011	2012	2013
2 Years	100000	0	1	0
	48000	17	44	56
3 Years	60000	66	117	136
	75000	62	121	157
	100000	95	206	174
	125000	98	253	209
4 Years	48000	23	36	56
	60000	53	89	108
	75000	93	217	215
	100000	285	612	494
	125000	291	607	564
5 Years	36000	24	31	26
	48000	24	87	74
	60000	744	1340	1109
	75000	955	1957	1670
	100000	1733	3534	3068
	125000	489	1080	1046
6 Years	36000	33	60	63
	48000	75	167	136
	60000	686	1464	1176
	75000	1975	4135	3470
	100000	2156	4933	4519
	125000	425	1020	973
7 Years	36000	78	141	127
	48000	129	295	233
	60000	428	887	826
	75000	769	1800	1765
	100000	1205	2796	2838
	125000	356	829	799

Used Contract Coverage

coverage		2011 - 2013 MY F-150 contracts		
		Plan Years		
Time	Mileage	2011	2012	2013
1 Year	12000	X	X	X
2 Years	24000	X	X	X
	36000	X	X	X
3 Years	24000	X	X	X
	36000	X	X	X
	48000	X	X	X
4 Years	60000	X	X	X
	36000	X	X	X
	48000	X	X	X
5 Years	60000	X	X	X
	48000	X	X	X
	75000	X	X	X

Used Contract Counts

coverage		2011 - 2013 MY F-150 contracts		
		Plan Years		
Time	Mileage	2011	2012	2013
1 Year	12000	0	0	4
2 Years	24000	0	0	8
	36000	0	0	2
3 Years	24000	0	1	8
	36000	1	9	85
	48000	0	4	19
	60000	0	0	22
4 Years	36000	0	1	7
	48000	0	7	59
	60000	0	2	32
5 Years	48000	0	0	15
	60000	2	16	46
	75000	0	0	42

2011 - 2013 MY F-150 contracts

coverage		Plan Years		
Time	Mileage	2011	2012	2013
3 Months	4000	X	X	X
6 Months	6000	X	X	X
1 Year	12000	X	X	X

2011 - 2013 MY F-150 contracts

coverage		Plan Years		
Time	Mileage	2011	2012	2013
3 Months	4000	0	0	13
6 Months	6000	0	0	1
1 Year	12000	0	0	3

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APPENDIX F

SERVICE DOCS

3.5L GTDI CALIBRATION UPDATE—VARIOUS ISSUES—BUILT ON OR BEFORE 2/7/2012

TSB 12-2-10
FORD:

2011-2012 F-150

ISSUE

Some 2011-2012 F150 vehicles built on or before 2/7/2012 and equipped with a 3.5L gasoline turbocharged direct injection (GTDI) engine may exhibit a malfunction indicator lamp (MIL) with various diagnostic trouble codes (DTC) and driveability concerns.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

The calibration update contains improvement actions and enhancements to address the following conditions:

- Intermittent engine surge during moderate to light loads at cruise.
- Enhancements to misfire monitor detection.
- Powertrain control module (PCM) DTC P0430 and/or P0096.

NOTE

INSURE ALL HARD FAULT POWERTRAIN DTCS ARE ADDRESSED PRIOR TO PERFORMING THE CALIBRATION UPDATE.

1. If the vehicle exhibits DTC P0430 replace the left bank catalytic converter. Refer to WSM section 309-00. Proceed to Step 2.
2. Reprogram the PCM to the latest calibration using IDS release 77A.03A or higher. This new calibration is not included in the 2012.1A DVD. Calibration files may also be obtained at www.motorcraft.com.

NOTE

PLEASE ADVISE THE CUSTOMER THAT THIS VEHICLE IS EQUIPPED WITH AN ADAPTIVE TRANSMISSION SHIFT STRATEGY WHICH ALLOWS THE VEHICLE'S COMPUTER TO LEARN THE TRANSMISSION'S UNIQUE PARAMETERS AND IMPROVE SHIFT QUALITY. WHEN THE ADAPTIVE STRATEGY IS RESET, THE COMPUTER WILL BEGIN A RE-LEARNING PROCESS. THIS RE-LEARNING PROCESS MAY RESULT IN FIRMER THAN NORMAL UPSHIFTS AND DOWNSHIFTS FOR SEVERAL DAYS.

PART NUMBER	PART NAME
BL3Z-5E212-E	Converter Assy
W520514-S440	Nuts

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage
Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

OPERATION	DESCRIPTION	TIME
120210A	2011-2012 F-150 3.5L GTDI: Check DTCs, And Reprogram The PCM (Do Not Use With Any Other Labor Operations)	0.4 Hr.

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

TSB 12-2-10 (Continued)

120210B	2011-2012 F-150 3.5L GTDI: Check DTCs, Reprogram The PCM, And Replace The Left Catalytic Converter (Do Not Use With Any Other Labor Operations)	1.0 Hr.
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DEALER CODING

BASIC PART NO.
RECALEM

CONDITION
CODE
04

*This TSB article has been superseded
by TSB 13-3-3*

3.5L GTDI CALIBRATION UPDATE—VARIOUS ISSUES—BUILT ON OR BEFORE 5/24/2012

TSB 12-6-4

FORD:

2011-2012 F-150

ISSUE

Some 2011-2012 F-150 vehicles built on or before 5/24/2012 and equipped with a 3.5L gasoline turbocharged direct injection (GTDI) Ecoboost engine exhibit a steady or flashing malfunction indicator lamp (MIL) with various diagnostic trouble codes (DTC) and drivability concerns.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

The calibration update contains improvement actions and enhancements to address the following conditions:

- Intermittent stumble and/or misfire on hard acceleration after an extended drive at highway speeds being more noticeable during humid or damp conditions.
- Intermittent engine surge during moderate to light loads at cruise.
- Powertrain control module (PCM) Misfire DTC P030x.
- PCM DTC P0430 and/or P0299.

NOTE

INSURE ALL HARD FAULT POWERTRAIN DTCS ARE ADDRESSED PRIOR TO PERFORMING THE CALIBRATION UPDATE.

1. Check for DTC P0430. Is DTC P0430 present?
 - a. Yes - Replace the left bank catalytic converter assembly. Refer to Workshop Manual (WSM), Section 309-00. Proceed to Step 2.
 - b. No - Proceed to Step 2.
2. Is the Charge Air Cooler (CAC) equipped with an air deflector plate? (Figure 1A)

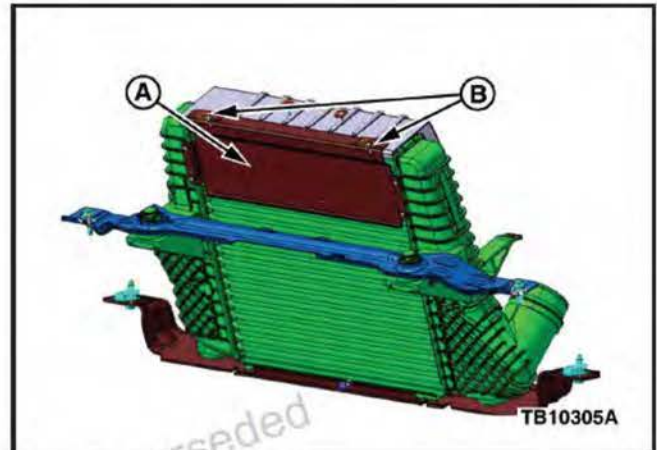


Figure 1 - Article 12-6-4

- a. Yes - Proceed to Step 4.
- b. No - Proceed to Step 3.
3. Install CAC air deflector plate with two new push pins. (Figure 1B) Proceed to step 4.
4. Reprogram the PCM to the latest calibration using IDS release 79.02A or higher. This new calibration is not included in the 2012.5 DVD. Calibration files may also be obtained at www.motorcraft.com.

NOTE

PLEASE ADVISE THE CUSTOMER THAT THIS VEHICLE IS EQUIPPED WITH AN ADAPTIVE TRANSMISSION SHIFT STRATEGY WHICH ALLOWS THE VEHICLE'S COMPUTER TO LEARN THE TRANSMISSION'S UNIQUE PARAMETERS AND IMPROVE SHIFT QUALITY. WHEN THE ADAPTIVE STRATEGY IS RESET, THE COMPUTER WILL BEGIN A RE-LEARNING PROCESS. THIS RE-LEARNING PROCESS MAY RESULT IN FIRMER THAN NORMAL UPSHIFTS AND DOWNSHIFTS FOR SEVERAL DAYS.

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

TSB 12-6-4 (CONTINUED)

PART NUMBER	PART NAME
BL3Z-5E212-E	Catalytic Converter Assembly
W520514-S440	Nuts (2 Req)
CL3Z-19E672-A	Deflector Plate
W711281-S300	Push Pin (2 Req)

120604B 2011-2012 F-150 3.5L 1.0 Hr.
 GTDI: Check DTCs,
 Replace The Left Catalytic
 Converter, Install CAC Air
 Deflector Plate if
 Necessary And Reprogram
 The PCM (Do Not Use
 With Any Other Labor
 Operations)

WARRANTY STATUS: Eligible Under Provisions Of
 New Vehicle Limited
 Warranty Coverage And
 Emissions Warranty
 Coverage
 Warranty/ESP coverage
 limits/policies/prior approvals
 are not altered by a TSB.
 Warranty/ESP coverage
 limits are determined by the
 identified causal part and
 verified using the OASIS
 part coverage tool.

DEALER CODING

BASIC PART NO.
 5E212 (OPERATION B)
 6K775 (OPERATION A)

CONDITION
 CODE
 12
 42

OPERATION	DESCRIPTION	TIME
120604A	2011-2012 F-150 3.5L GTDI: Check DTCs, Install CAC Air Deflector Plate if Necessary And Reprogram The PCM (Do Not Use With Any Other Labor Operations)	0.5 Hr.

*This TSB article has been superseded
 by TSB 13-3-3*

3.5L GTDI—INTERMITTENT STUMBLE/MISFIRE ON ACCELERATION FROM HIGHWAY CRUISE IN HUMID OR DAMP CONDITIONS WITH POSSIBLE DTC

TSB 12-10-19

FORD:

2011-2012 F-150

This article supersedes TSB 12-6-4 to remove the the production fix date, update the Title, Issue Statement, Part List and Service Procedure.

ISSUE

Some 2011-2012 F-150 vehicles equipped with a 3.5L gasoline turbocharged direct injection (GTDI) EcoBoost engine may exhibit an intermittent engine surge during moderate to light loads at cruise, stumble and/or misfire on hard acceleration after an extended drive at highway speeds during high humid or damp conditions. This could result in a steady or flashing malfunction indicator lamp (MIL) with diagnostic trouble codes (DTCs) primarily for misfire P0300, P0304, P0305, P0306. DTCs P0430 and/or P0299 may also be present.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

Insure all hard fault powertrain DTCs are addressed prior to performing the calibration update.

1. Check for DTC P0430. Is DTC P0430 present?
 - a. Yes - Replace the left bank catalytic converter assembly. Refer to Workshop Manual (WSM), Section 309-00. Proceed to Step 2.
 - b. No - Proceed to Step 2.
2. Is the Charge Air Cooler (CAC) equipped with an air deflector plate? (Figure 1A)

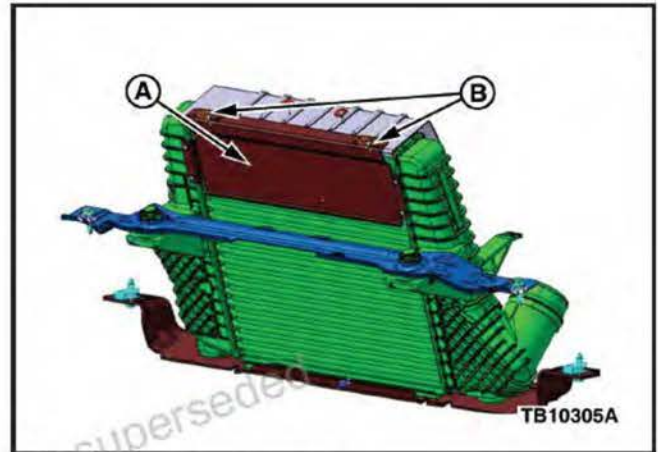


Figure 1 - Article 12-10-19

- a. Yes - Proceed to Step 5.
 - b. No - Proceed to Step 3.
3. Install a new CAC, new air deflector plate, and original shield using new retaining pushpins. Refer to WSM, Section 303-12. (Figure 1B) Proceed to Step 4.
 4. Reprogram the PCM to the latest calibration using IDS release 79.02A or higher. This new calibration is not included in the 2012.5 DVD. Calibration files may also be obtained at www.motorcraft.com.
 5. Install a new CAC and the original air deflector plate and shield using new retaining pushpins. Refer WSM, Section 303-12.

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TSB 12-10-19 (CONTINUED)

NOTE

PLEASE ADVISE THE CUSTOMER THAT THIS VEHICLE IS EQUIPPED WITH AN ADAPTIVE TRANSMISSION SHIFT STRATEGY WHICH ALLOWS THE VEHICLE'S COMPUTER TO LEARN THE TRANSMISSION'S UNIQUE PARAMETERS AND IMPROVE SHIFT QUALITY. WHEN THE ADAPTIVE STRATEGY IS RESET, THE COMPUTER WILL BEGIN A RE-LEARNING PROCESS. THIS RE-LEARNING PROCESS MAY RESULT IN FIRMER THAN NORMAL UPSHIFTS AND DOWNSHIFTS FOR SEVERAL DAYS.

PART NUMBER	PART NAME
BL3Z-5E212-E	Catalytic Converter Assembly
W520514-S440	Nuts (2 Req)
CL3Z-19E672-A	Deflector Plate
BL3Z- 6K775-B	CAC
W711281-S300	Push Pin (2 Req)

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage
 Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB.
 Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

121019B 2011-2012 F-150 3.5L 1.2 Hr.
 GTDI: Check DTCs, Replace The Left Catalytic Converter, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield (Do Not Use With Any Other Labor Operations)

121019C 2011-2012 F-150 3.5L 0.9 Hr.
 GTDI: Check DTCs, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield, And Reprogram The PCM (Do Not Use With Any Other Labor Operations)

121019D 2011-2012 F-150 3.5L 1.4 Hrs.
 GTDI: Check DTCs, Replace The Left Catalytic Converter, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield, And Reprogram The PCM (Do Not Use With Any Other Labor Operations)

DEALER CODING

BASIC PART NO.	CONDITION CODE
5E212 (OPERATION B AND D)	12
6K775 (OPERATION A AND C)	42

OPERATION	DESCRIPTION	TIME
121019A	2011-2012 F-150 3.5L GTDI: Check DTCs, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield (Do Not Use With Any Other Labor Operations)	0.8 Hr.

3.5L GTDI—INTERMITTENT STUMBLE/MISFIRE ON ACCELERATION FROM HIGHWAY CRUISE IN HUMID OR DAMP CONDITIONS— BUILT ON OR BEFORE 9/18/2012

TSB 12-11-15

FORD:

2013 F-150

ISSUE

Some 2013 F-150 vehicles built on or before 9/18/2012 and equipped with a 3.5L gasoline turbocharged direct injection (GTDI) Ecoboost engine may exhibit an intermittent stumble and/or misfire on hard acceleration after an extended drive at highway speeds during high humid or damp conditions. This could result in a steady or flashing malfunction indicator lamp (MIL) with diagnostic trouble codes (DTCs) P0300, P0304, P0305, P0306, primarily for misfire. DTC P0430 may also be present.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

Ensure all hard fault powertrain DTCs are addressed prior to performing this service procedure.

1. Check for DTC P0430. Is DTC P0430 present?
 - a. Yes - Replace the left hand catalytic converter. Refer to Workshop Manual (WSM), Section 309-00. Proceed to Step 2.
 - b. No - Proceed to Step 2.
2. Install a new Charge Air Cooler (CAC). Refer WSM, Section 303-12.

PART NUMBER	PART NAME
DL3Z-6K775-B	Charge Air Cooler
W711281-S300	Push Pin (2 Req)
BL3Z-5E212-E	Catalytic Converter Assembly
W520514-S440	Nuts (2 Req)

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage
Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB.
Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

OPERATION	DESCRIPTION	TIME
121115A	2013 F-150 3.5L DOHC GTDI: Check DTCs, Replace The Charge Air Cooler Assembly Includes Time To Transfer Turbocharger Exhaust Inlet and CAC Shield (Do Not Use With Any Other Labor Operations)	0.9 Hr.
121115B	2013 F-150 3.5L DOHC GTDI: Check DTCs, Replace The Charge Air Cooler Assembly And The Left Hand Catalyst Converter Includes Time To Transfer Turbocharger Exhaust Inlet and CAC Shield (Do Not Use With Any Other Labor Operations)	1.2 Hrs.

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

DEALER CODING

BASIC PART NO.

5E212
6K775 (OPERATION A)

CONDITION
CODE
12
(OPERATION
B)
42

3.5L GTDI—INTERMITTENT STUMBLE/MISFIRE ON ACCELERATION FROM HIGHWAY CRUISE IN HUMID OR DAMP CONDITIONS WITH POSSIBLE DTC

TSB 13-3-3

FORD:

2011-2012 F-150

This article supersedes TSB 12-10-19 to update the Issue Statement and Service Procedure.

ISSUE

Some 2011-2012 F-150 equipped with a 3.5L gasoline turbocharged direct injection (GTDI) EcoBoost engine may exhibit an intermittent stumble and/or misfire on hard acceleration after an extended drive at highway speeds during high humid or damp conditions. This may result in either a steady or flashing malfunction indicator lamp (MIL). Diagnostic trouble codes (DTC s) P0304, P0305, P0306, or P0430 may also be present. Evidence of misfire may be available in Misfire Freeze Frame Data even with no active DTC's.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

1. Acquire Misfire Freeze Frame Data and DTC¹s with the IDS. Use the following steps with IDS to obtain Misfire Freeze Frame Data.
 - a. Select Toolbox
 - b. Then Data Logger
 - c. Then Modules
 - d. Then PCM
 - e. Next select the following PIDS: MFF_LOAD and MFF_RPM
2. Check for DTC P0430. Is DTC P0430 present?
 - a. Yes - replace the left bank catalytic converter assembly. Refer to Workshop Manual (WSM), Section 309-00. Proceed to Step 3.
 - b. No - Proceed to Step 3.
3. Is the misfire concern only repeatable in humid or damp conditions?
 - a. Yes - proceed to Step 4
 - b. No - this article does not apply. Refer to Powertrain Control Emission Diagnosis (PC/ED) Manual Section 3: Powertrain Symptom Index to inspect such areas as Ignition, Compression, and Injection.
4. Does the Misfire Freeze Frame Data indicate engine speed above 2500 RPM and load 100% or above? (Figure 1)

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

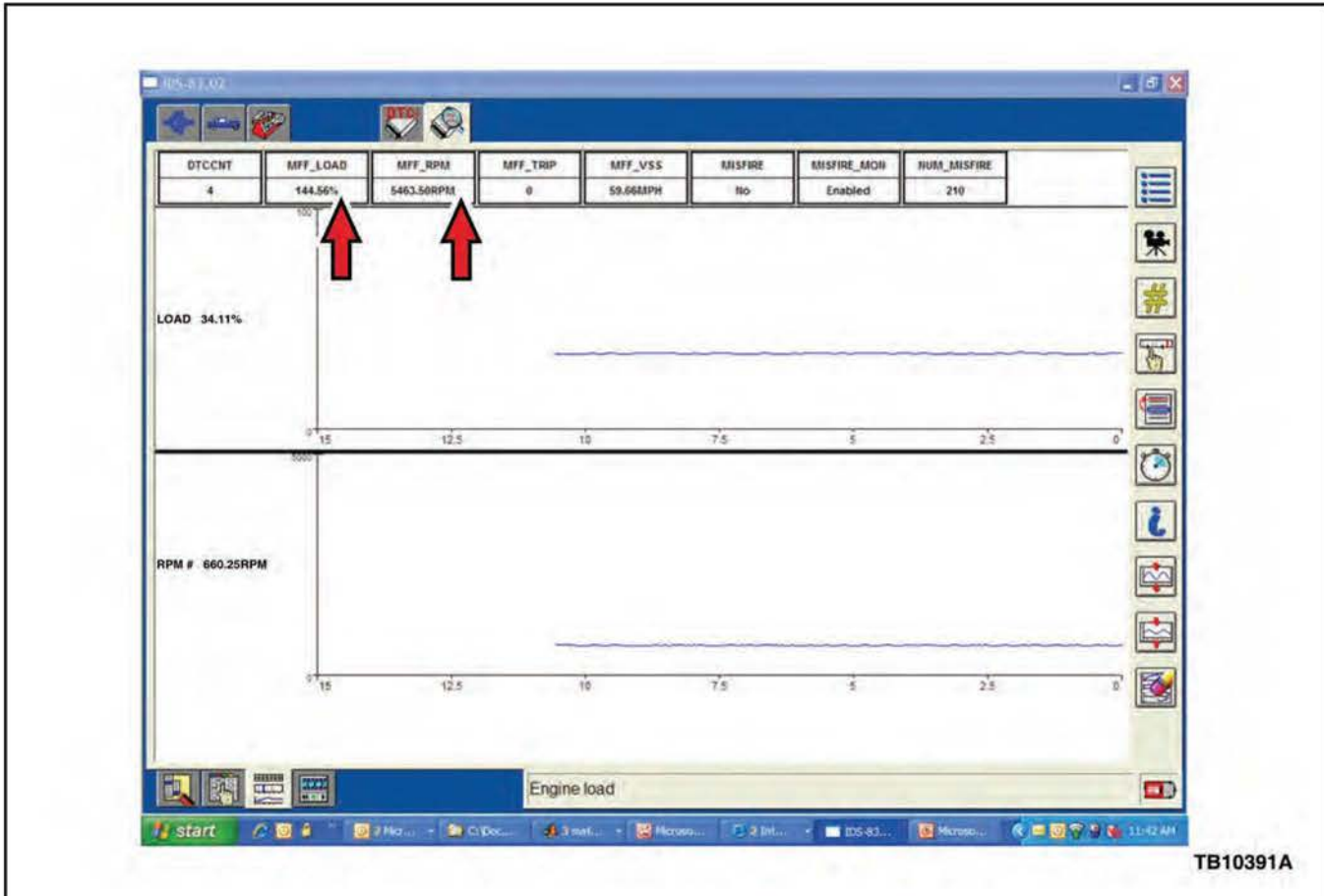


Figure 1 - Article 13-3-3

- a. Yes - proceed to Step 5.
 - b. No - this article does not apply. Refer to PC/ED Manual Section 3: Powertrain Symptom Index to inspect such areas as Ignition, Compression, and Injection.
5. Is the Charge Air Cooler (CAC) equipped with an air deflector plate? (Figure 2A)

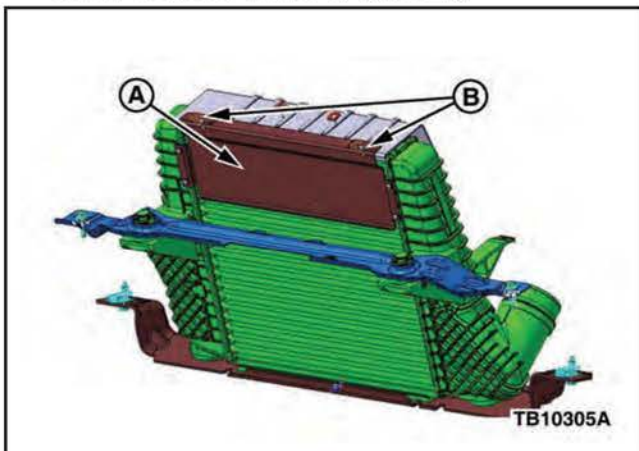


Figure 2 - Article 13-3-3

- a. Yes - proceed to Step 8.
 - b. No - proceed to Step 6.
6. Install a new CAC, new air deflector plate, and original shield using new retaining push pins. Refer to WSM, Section 303-12. (Figure 2B) Proceed to Step 7.
 7. Reprogram the PCM to the latest calibration using IDS release 79.02A or higher. This new calibration is not included in the 2012.5 DVD. Calibration files may also be obtained at www.motorcraft.com.
 8. Install a new CAC and the original air deflector plate and shield using new retaining push pins. Refer WSM, Section 303-12.

NOTE

PLEASE ADVISE THE CUSTOMER THAT THIS VEHICLE IS EQUIPPED WITH AN ADAPTIVE TRANSMISSION SHIFT STRATEGY WHICH ALLOWS THE VEHICLE'S COMPUTER TO LEARN THE TRANSMISSION'S UNIQUE PARAMETERS AND IMPROVE SHIFT QUALITY. WHEN THE ADAPTIVE STRATEGY IS RESET, THE COMPUTER WILL BEGIN A RE-LEARNING PROCESS. THIS RE-LEARNING PROCESS MAY RESULT IN FIRMER THAN NORMAL UPSHIFTS AND DOWNSHIFTS FOR SEVERAL DAYS.

PART NUMBER	PART NAME
BL3Z-5E212-E	Catalytic Converter Assembly
W520514-S440	Nuts (2 Req)
CL3Z-19E672-A	Deflector Plate
BL3Z- 6K775-B	CAC
W711281-S300	Push Pin (2 Req)

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage
Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB.
Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

- 130303B 2011-2012 F-150 3.5L 1.2 Hrs.
GTDI: Check DTCs, Replace The Left Catalytic Converter, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield (Do Not Use With Any Other Labor Operations)
- 130303C 2011-2012 F-150 3.5L 1.0 Hr.
GTDI: Check DTCs, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield, And Reprogram The PCM (Do Not Use With Any Other Labor Operations)
- 130303D 2011-2012 F-150 3.5L 1.4 Hrs.
GTDI: Check DTCs, Replace The Left Catalytic Converter, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield, And Reprogram The PCM (Do Not Use With Any Other Labor Operations)
- 130303E 2011-2012 F-150 3.5L 0.8 Hr.
GTDI: Check DTCs, Replace The Left Catalytic Converter (Do Not Use With Any Other Labor Operations)

OPERATION	DESCRIPTION	TIME
130303A	2011-2012 F-150 3.5L GTDI: Check DTCs, Replace CAC Assembly, Includes Time To Transfer Or Install New CAC Shield (Do Not Use With Any Other Labor Operations)	0.8 Hr.

DEALER CODING

BASIC PART NO.	CONDITION CODE
5E212 (OPERATION B AND D)	12
6K775 (OPERATION A AND C)	42

3.5L GTDI—INTERMITTENT STUMBLE/MISFIRE ON ACCELERATION FROM HIGHWAY CRUISE IN HUMID OR DAMP CONDITIONS WITH POSSIBLE DTC P0304, P0305, P0306, OR P0430

TSB 13-8-1

FORD:

2011-2012 F-150

This article supersedes TSB **13-3-3** to update the Service Procedure and Part List.

ISSUE

Some 2011-2012 F-150 equipped with a 3.5L gasoline turbocharged direct injection (GTDI) Ecoboost engine may exhibit an intermittent stumble and/or misfire on hard acceleration after an extended drive at highway speeds during high humidity or damp conditions. This may result in either a steady or flashing malfunction indicator lamp (MIL). Diagnostic trouble codes (DTCs) P0304, P0305, P0306, or P0430 may also be present. Evidence of misfire may be available in Misfire Freeze Frame Data even with no active DTCs.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

1. Acquire Misfire Freeze Frame Data and DTCs with the Integrated Diagnostic System (IDS) service tool. Use the following steps with IDS to obtain Misfire Freeze Frame Data.

- a. Select Toolbox
- b. Then Data Logger
- c. Then Modules
- d. Then PCM
- e. Next, select the following PIDs: MFF_LOAD and MFF_RPM.
2. Is the misfire concern only repeatable in humid or damp conditions?
 - a. Yes - Proceed to Step 3.
 - b. No - This article does not apply. Refer to Powertrain Control/Emissions Diagnosis (PC/ED) Manual Section 3: Powertrain Symptom Index to inspect such areas as Ignition, Compression, and Injection.
3. Does the Misfire Freeze Frame Data indicate engine speed above 2500 rpm and load 100% or above? (Figure 1)

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

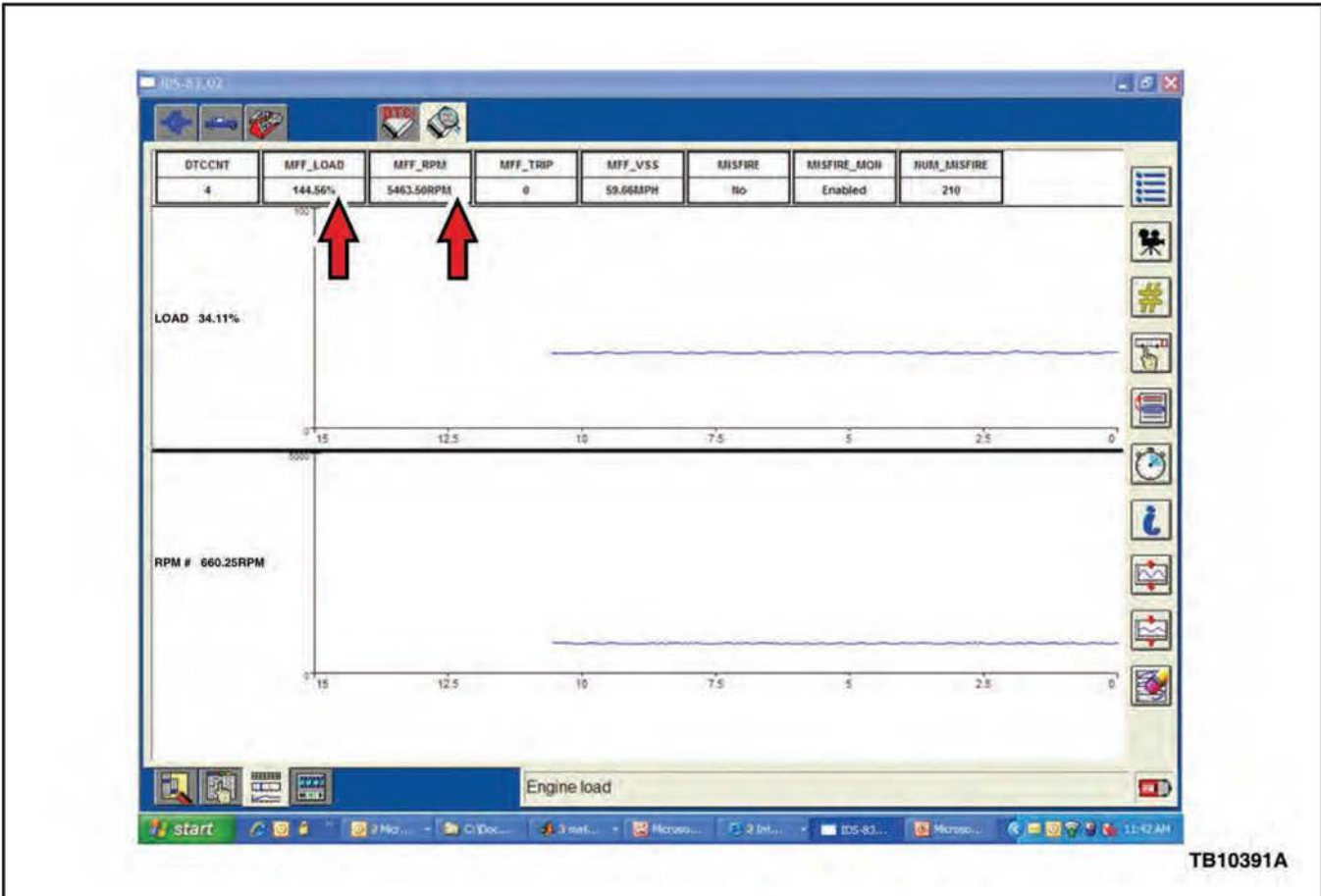


Figure 1 - Article 13-8-1

- a. Yes - Proceed to Step 4.
 - b. No - This article does not apply. Refer to PC/ED Manual Section 3: Powertrain Symptom Index to inspect such areas as Ignition, Compression, and Injection.
4. Is vehicle equipped with latest level charge air cooler, engineering part number BL34-9L440-AE? (Figure 2)

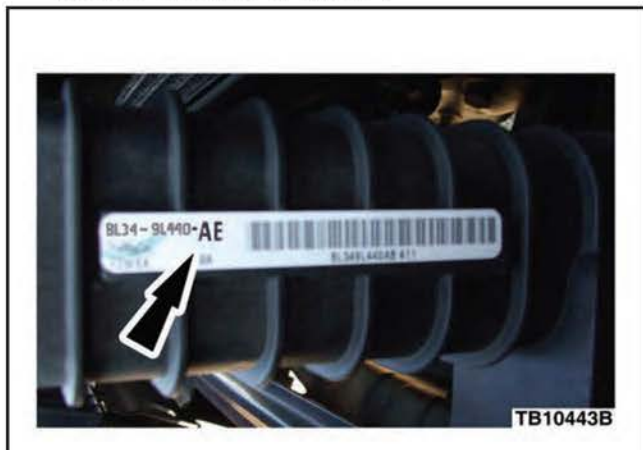


Figure 2 - Article 13-8-1

- a. Yes - This article does not apply. Refer to PC/ED Manual Section 3: Powertrain Symptom Index to inspect such areas as Ignition, Compression, and Injection.
- b. No - Proceed to Step 5.

NOTE

CARE NEEDS TO BE TAKEN NOT TO INSTALL THE REVISED BOTTOM AIR DEFLECTOR ONTO CHARGE AIR COOLER ENGINEERING PART BL34-9L440-AE AS IT WILL RESULT IN HIGHER MANIFOLD AIR CHARGE TEMPERATURES AND SIGNIFICANT LOSS OF ENGINE PERFORMANCE.

- 5. Is DTC P0430 present?
 - a. Yes - replace the left hand catalytic converter. Refer to Workshop Manual (WSM), Section 309-00. Proceed to Step 6.
 - b. No - Proceed to Step 6.
- 6. Is the Charge Air Cooler equipped with the top air deflector? (Figure 3)

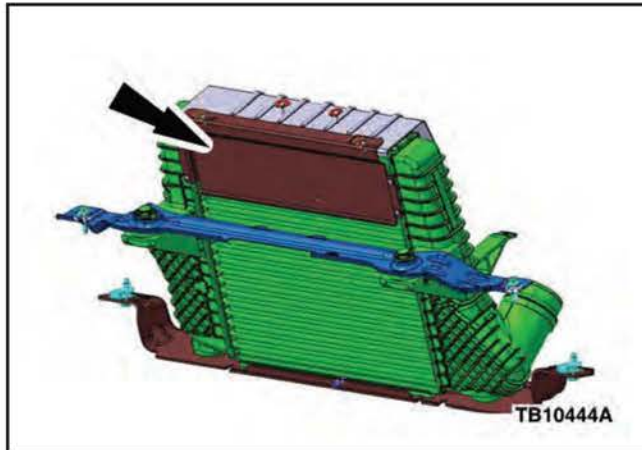


Figure 3 - Article 13-8-1

- a. Yes - remove and discard. Refer to WSM, Section 303-12. Proceed to Step 7.
 - b. No - Proceed to Step 7.
7. Install revised bottom air deflector.
- a. Make sure that the lower forward facing bottom seven (7) tubes and eight (8) rows of fins on the Charge Air Cooler are dry and free of dirt and debris. (Figure 4)

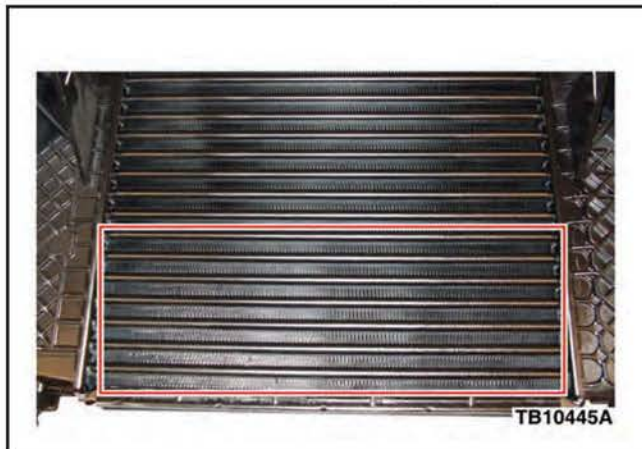


Figure 4 - Article 13-8-1

- b. Clean the charge air cooler lower forward facing bottom seven (7) tubes and eight (8) rows of fins by wiping surface down with isopropyl alcohol.
- c. Peel the protective tape off the adhesive side of the deflector.
- d. Install the deflector onto the charge air cooler core surface insuring the forward facing bottom seven (7) tubes and eight (8) rows of fins are covered and pressing firmly into place by hand maintain even pressure for 30 seconds. (Figure 5)

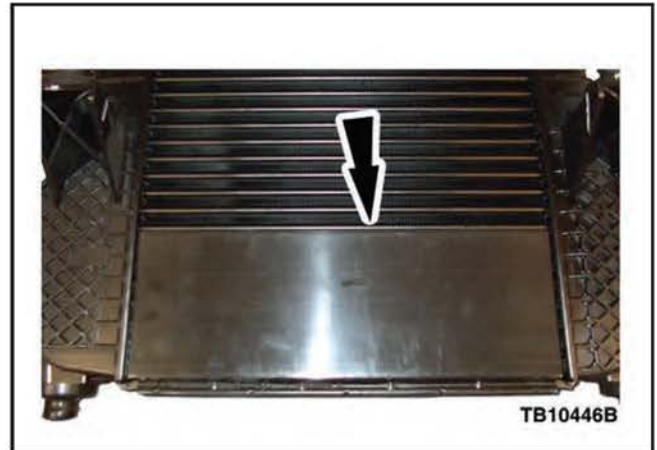


Figure 5 - Article 13-8-1

- 8. Reprogram the PCM to the latest calibration level using IDS release 79.02A or higher. This new calibration is not included in the 2012.5 DVD. Calibration files may also be obtained at www.motorcraft.com.

NOTE

PLEASE ADVISE THE CUSTOMER THAT THIS VEHICLE IS EQUIPPED WITH AN ADAPTIVE TRANSMISSION SHIFT STRATEGY WHICH ALLOWS THE VEHICLE'S COMPUTER TO LEARN THE TRANSMISSION'S UNIQUE PARAMETERS AND IMPROVE SHIFT QUALITY. WHEN THE ADAPTIVE STRATEGY IS RESET, THE COMPUTER WILL BEGIN A RE-LEARNING PROCESS. THIS RE-LEARNING PROCESS MAY RESULT IN FIRMER THAN NORMAL UPSHIFTS AND DOWNSHIFTS FOR SEVERAL DAYS.

Obtain Part Locally
Isopropyl Alcohol

PART NUMBER	PART NAME
BL3Z-5E212-E	Catalytic Converter Assembly
W520514-S440	Nuts (2 Req)
DL3Z-2021702-A	Air Deflector
W711281-S300	Push Pin (2 Req)

TSB 13-8-1 (Continued)

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage
 Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

130801B 2011-2012 F-150 3.5L GTDI: Diagnose And Inspect The Charge Air Cooler, Replace The Left Hand Catalytic Converter, Install Revised Bottom Air Deflector And Reprogram The PCM Includes Time To Remove Top Air Deflector If Equipped And Clear DTCs (Do Not Use With Any Other Labor Operations) 1.0

OPERATION	DESCRIPTION	TIME
130801A	2011-2012 F-150 3.5L GTDI: Diagnose And Inspect The Charge Air Cooler, Install Revised Bottom Air Deflector And Reprogram The PCM Includes Time To Remove Top Air Deflector If Equipped And Clear DTCs (Do Not Use With Any Other Labor Operations)	0.5

DEALER CODING

BASIC PART NO.
6K775

CONDITION CODE
42

PE13-018

SERVICE DOCUMENTS

APPENDIX F

Article Number: 22192
Article Type: S
Author: WOSEPCHO
Global Concern Number: 069-2011-0034

Market(s):

Area Code	Geo Sales Area	Date of Activation	Date of Deactivation
NA	***	01/24/2012	02/20/2012

Title:

2011-2012 F-150 INTERMITTENT SYMPTOMS INCLUDING CYLINDER MISFIRE, STUMBLE ON ACCELERATION AFTER EXTENDED DRIVE AT HIGHWAY SPEEDS, FLASHING MIL, MISFIRE DTCS.

Text:

SOME 2011-2012 F150 EQUIPPED WITH A 3.5L ECOBOOST ENGINE MAY EXHIBIT INTERMITTENT SYMPTOMS INCLUDING; CYLINDER MISFIRE, STUMBLE ON ACCELERATION AFTER EXTENDED DRIVE AT HIGHWAY SPEEDS, A FLASHING MIL, MISFIRE DTCS, AND DTC P0420 OR P0430. SYMPTOMS MAY BE MORE NOTICEABLE DURING HIGHLY HUMID/DAMP CONDITIONS. THIS CONCERN MAY BE CAUSED BY EXCESSIVE CONDENSATION COLLECTING IN THE CHARGE AIR COOLER (CAC) SYSTEM. IF A MISFIRE CONCERN CAN BE DUPLICATED, FOLLOW NORMAL DIAGNOSTIC PROCEDURES. IF A MISFIRE CONCERN CANNOT BE DUPLICATED BUT DTC P0420 OR P0430 ARE PRESENT, DO NOT REPLACE ANY IGNITION SYSTEM COMPONENTS. FOLLOW NORMAL DIAGNOSTICS FOR THESE DTCS ONLY. IF THE CONCERN CANNOT BE DUPLICATED, AND DTCS P0420 OR P0430 ARE NOT PRESENT, DO NOT ATTEMPT ANY REPAIRS AT THIS TIME. ENGINEERING IS INVESTIGATING. CONTINUE TO MONITOR OASIS FOR FURTHER UPDATES.

Vehicles:

2011-2012 F-SERIES LD (00029)

Symptom Code:

600000 DRIVEABILITY
 606000 DRIVE-PERFORMANCE
 608000 DRIVEABILITY RUNS ROUGH
 608500 DRIVEABILITY RUNS ROUGH - ACCELERATION
 609000 DRIVEABILITY MISSES
 609500 DRIVEABILITY MISSES - ACCELERATION
 610000 DRIVEABILITY BUCK/JERK
 610500 DRIVEABILITY BUCK/JERK - ACCELERATION
 611000 DRIVEABILITY HESITATION/STUMBLE
 611500 DRIVEABILITY HESITATION/STUMBLE - ACCELERATION
 614000 DRIVEABILITY LACK/LOSS OF POWER
 614500 DRIVEABILITY LACK/LOSS OF POWER - ACCELERATION
 698298 DRIVEABILITY MALFUNCTION INDICATOR LAMP - MIL
 P0300
 P0301
 P0302
 P0303
 P0304
 P0305
 P0306
 P0420
 P0430

Global Customer Symptom Codes:

Category	Q1	Q2	Q3	Full Code
Driving Performance				5*****
Driving Performance	Runs Rough			550***
Driving Performance	Runs Rough	Acceleration		5502**
Driving Performance	Runs Rough	Acceleration	Intermittent	550239
Driving Performance	Lack/Loss of Power			554***
Driving Performance	Lack/Loss of Power	Acceleration		5542**

PE13-018

SERVICE DOCUMENTS

APPENDIX F

Driving Performance	Lack/Loss of Power	Acceleration	Intermittent	554239
Driving Performance	Hesitates/Stumble			557***
Driving Performance	Hesitates/Stumble	Acceleration		5572**
Driving Performance	Hesitates/Stumble	Acceleration	Intermittent	557239

Audit Comments:

Area Code	Geo Sales Area	Comment	Old Date of Deactivation	New Date of Deactivation	CDSID
NA	***	THIS MESSAGE WAS SUPERCEDED BY 22225	04/24/2012	02/20/2012	GSMITH53

32227 2011-2013 F-150 - 3.5L GTDI - Intermittent Stumble/Misfire On Acceleration From Highway Cruise In Humid Or Damp Conditions With Possible DTC

Some 2011-2013 F-150 equipped with 3.5L gasoline turbocharged direct injection (GTDI) engines may exhibit an intermittent stumble and/or misfire on hard acceleration after extended drive at highway speeds during extreme humid or damp conditions. Vehicle may also exhibit steady or flashing malfunction indicator lamp with Diagnostic Trouble Codes P0304, P0305, P0306 in the PCM. Before attempting repair, inspect the vehicle to see if the updated Charge Air Cooler (CAC) (Engineering Part BL34-9L440-AE for 2011-2012 Model Year and DL34-9L440-AC/AD for 2013 Model Year) and CAC Deflector CL34-19E672-BA are installed. If the latest CAC is not installed, refer to applicable TSB 13-3-3, 12-11-15. If the latest CAC is installed, replacing the CAC again will not correct this condition. Engineering is investigating; continue to monitor OASIS for further updates.

EFFECTIVE DATE: 16-MAY-2013

32059 2011-2013 F-150 3.5L GTDI Only - Reduced Engine Performance Due To Air Flow Restriction Across Charge Air Cooler
2011-2013 F-150 3.5L GTDI only - may experience limited engine performance due to restricted air flow across the Charge Air Cooler. Aftermarket accessories installed in the front bumper center opening will reduce air flow across the Charge Air Cooler limiting engine performance. It is important the center of the front bumper remains open with no air flow obstructions. Refer to Warranty and policy manual for Aftermarket accessories policies.
EFFECTIVE DATE: 25-JANUARY-2013

PE13-018

SERVICE DOCUMENTS

APPENDIX F

Article Number: 22510
Article Type: S
Author: RNOWACZY
Global Concern Number: 069-2012-0056

Market(s):

Area Code	Geo Sales Area	Date of Activation	Date of Deactivation
NA	***	09/10/2012	12/06/2012
WD	***	09/10/2012	12/06/2012

Title:

2011-2013 F-150 3.5L GTDI ECOBOOST INTERMITTENT CRANK NO START, HARD START/LONG CRANK AND/OR LACKS POWER WITH DTC'S

Text:

SOME 2011-2013 MODEL YEAR F-150 EQUIPPED WITH 3.5L GASOLINE TURBOCHARGED DIRECT INJECTION(GTDI) ECOBOOST ENGINES MAY EXHIBIT INTERMITTENT CRANK NO-START, DIFFICULT TO START OR LACKS POWER CONCERN WITH DIAGNOSTIC TROUBLE CODES(DTC) P025A, U0109 OR B11D8 STORED IN PCM MEMORY. THIS CONCERN MAY BE DUE TO INTERMITTENT FUNCTION OF FUEL PUMP RELAY LOCATED IN UNDERHOOD BATTERY JUNCTION BOX(BJB). REPLACE THE RELAY USING AVAILABLE SERVICE LABOR TIMES. IF REPLACEMENT OF RELAY DOES NOT RESOLVE VEHICLE CONCERN FOLLOW THE UPDATED DIAGNOSTIC PROCEDURES IN ONLINE WORKSHOP MANUAL SECTION 303-06 STARTING SYSTEM.

Vehicles:

2011-2013 F-SERIES LD (00029)

PE13-018

SERVICE DOCUMENTS

APPENDIX F

Article Number: 22225
Article Type: S
Author: RNOWACZY
Global Concern Number: 069-2011-0034

Market(s):

Area Code	Geo Sales Area	Date of Activation	Date of Deactivation
NA	***	02/21/2012	06/06/2012

Title:

2011-2012 F-150 3.5L GTDI INTERMITTENT SYMPTOMS - CYLINDER MISFIRE, STUMBLE ON HARD ACCELERATION AFTER EXTENDED HIGHWAY CRUISE, MIL, P0430 AND/OR MISFIRE DTCS.

Text:

SOME 2011-2012 F150 EQUIPPED WITH A 3.5L GTDI ENGINE MAY EXHIBIT AN INTERMITTENT STUMBLE AND/OR MISFIRE ON HARD ACCELERATION AFTER AN EXTENDED DRIVE AT HIGHWAY SPEEDS. THESE VEHICLES MAY OR MAY NOT EXHIBIT A STEADY OR FLASHING MIL LIGHT WITH MISFIRE DTCS AND/OR P0430 STORED IN THE PCM. THESE SYMPTOMS MAY BE MORE NOTICEABLE DURING HIGH HUMID OR DAMP CONDITIONS. THIS CONCERN MAY BE CAUSED BY EXCESSIVE CONDENSATION COLLECTING IN THE CHARGE AIR COOLER. REPLACING SECONDARY IGNITION COMPONENTS WILL NOT RESOLVE THIS CONCERN. REFER TO TSB 12-2-10. ENGINEERING IS INVESTIGATING, CONTINUE TO MONITOR OASIS FOR FURTHER UPDATES.

Vehicles:

2011-2012 F-SERIES LD (00029)

GCQIS Technical Service Detail

ArticleType : ISM ArticleNumber : 11-11-021 Entered Date : 11/16/2011 Times Recommended : 139

Date is displayed in MM/DD/CCYY format

3.5L GTDI MISFIRE BANK TWO CYLINDERS 4,5,6 :

SOME 2011 AND 2012 F150'S EQUIPPED WITH 3.5L GTDI ENGINES MAY EXHIBIT A MISFIRE CONDITION UNDER HEAVY LOADS OR HEAVY ACCELERATION. THERE MAY OR MAY NOT BE MISFIRE CODES STORED. THE EXACT ROOT CAUSE IS UNDER INVESTIGATION.

ENGINEERING HAS ASKED THAT WE ASSIST WITH UNDERSTANDING TECHNICIAN DESCRIPTIONS OF A LOOSE GROUND AT G105. THIS GROUND SUPPORTS CYLINDER 4,5,6 COIL ON PLUG COILS. PLEASE REVIEW THE FOLLOWING WITH TECHNICIANS DURING YOUR DIAGNOSTIC STEPS.

- 1) ASK THE TECHNICIAN IF THEY CAN LOOSEN G105 BOLT USING ONLY FINGER PRESSURE.
- 2) IF THEY COULD NOT LOOSEN THE BOLT BY HAND , THEN ASK IF THEY CAN TIGHTEN THE G105 BOLT USING A SOCKET AND AN 6-8 INCH 3/8 DRIVE EXTENSION (NO RATCHET).
- 3) ASK THE TECHNICIAN TO VERIFY WITH THE CUSTOMER IF THE CONCERN HAPPENS DURING CERTAIN WEATHER CONDITIONS (IE RAINING, HIGH HUMIDITY, ETC.) AND DOCUMENT IN GCQIS.

PLEASE ASK THE TECHNICIAN TO ADD THE RESULTS OF THE STEPS ABOVE TO THE HAR FORM. THE

RECOMMENDED TORQUE FOR THE
G105 BOLTS IS ~ 10 NM + 45 DEG.

AUTHOR: KDOBBS (313) 845-6078

ArticleType **ArticleNumber** : 12- **Entered Date** **Times**
: ISM 06-025 : 06/21/2012 **Recommended** : 18
Date is displayed in **MM/DD/CCYY** format

INTERMITTENT CRANK NO START-DIFFICULT TO START-LACKS POWER :

SOME 2012 MODEL YEAR F-150 EQUIPPED WITH 3.5L GTDI ECOBOOST ENGINES MAY EXHIBIT INTERMITTENT CRANK NO-START, DIFFICULT TO START OR LACKS POWER CONCERN WITH DTCS P025A, U0109 OR B11D8 STORED IN PCM MEMORY. IF VEHICLE EXHIBITS P025A AND U0109 INSPECT FUEL PUMP CONTROL MODULE (FPCM) CONNECTOR C433 (LOCATED NEAR SPARE TIRE) AND CONFIRM CONNECTION IS SECURE (PUSH-PULL ON CONNECTOR, LISTEN FOR AUDIBLE CLICK). VERIFY GROUND G401 INTERFACE IS CLEAN AND TORQUED TO SPECIFICATION (10NM/7.5 FT LBS). IF NO ISSUES ARE FOUND WITH GROUND G401 AND FPCM CONNECTOR, DISCONNECT FPCM AND VERIFY PIN 1 HAS BATTERY VOLTAGE IN KEY ON ENGINE OFF(KOEO) MODE. IF NO VOLTAGE IS CONFIRMED AT PIN 1 VERIFY FUEL PUMP RELAY (LOCATED IN UNDER HOOD BJB) IS SEATED AND OPERATING PROPERLY. IF RELAY IS OPERATING PROPERLY INSPECT S107, C1581 (PIN 15) AND S407 FOR LOOSE CONNECTIONS. IF ALL CONNECTIONS ARE GOOD VERIFY CONNECTION/CIRCUIT OF THE CONTROL SIDE OF FP RELAY, CIRCUIT CE226 BETWEEN BJB TO BCM PIN 6 (C2280 LOCATED IN RIGHT SIDE KICK PANEL).

AUTHOR: REATON4 (313) 317-9386

ArticleType : ISM **ArticleNumber** : 12-08-016 **Entered Date** : 08/14/2012 **Times Recommended** : 31
 Date is displayed in **MM/DD/CCYY** format

3.5L GTDI IGNITION COIL PCM DAMAGE :

SOME 2011-2012 F-150 VEHICLES EQUIPPED WITH A 3.5L GTDI ENGINE MAY EXHIBIT A DAMAGED IGNITION COIL AND OR PCM WITH CYLINDER SPECIFIC MISFIRE AND P030X DTCS. THIS CONCERN MAY ALSO BE ACCOMPANIED BY INJECTOR PRIMARY CIRCUIT DTCS P020X. INSTRUCT THE TECHNICIAN TO TEST THE INJECTOR HARNESS FOR A SHORT TO GROUND. DISCONNECT PCM CONNECTOR C1551E AND PERFORM A CONTINUITY TEST BETWEEN THE INJECTOR DRIVER OUTPUT PINS (84-87, 90-89, 82-93, 83-88, 85-92, and 95-94) HARNESS SIDE AND GROUND AT THE BATTERY. A RESISTANCE OF LESS THAN 10K Ω INDICATES A SHORT TO GROUND IN THE INJECTOR DRIVER CIRCUIT. THOROUGHLY INSPECT THE INJECTOR HARNESS BENEATH THE INTAKE MANIFOLD FOR CHAFING AT THE WIRE HARNESS MOUNTING TABS. IF DAMAGE TO THE HARNESS IS FOUND, REPLACE THE HARNESS AND VERIFY THE REPAIR PRIOR TO REPLACING ANY OTHER COMPONENTS.

THE FOLLOWING LINK DISPLAYS A PHOTO OF COMMON CHAFE POINTS CIRCLED IN RED.
http://www.techhotline.ford.com/tech/beta/technote.asp?the_guts=technotes\1933.htm&subject

AUTHOR: DCHATFIE (313) 317-7056

ArticleType : ISM **ArticleNumber** : 13-04-003 **Entered Date** : 04/03/2013 **Times Recommended** : 16
 Date is displayed in **MM/DD/CCYY** format

2011-2013 F-150 3.5L GTDI IGNITION COIL DAMAGE :

Some 2011-2013 F-150 vehicles equipped with the 3.5L GTDI engine may exhibit a physically damaged ignition coil

causing cylinder specific misfires and P030X DTCs. This concern may also be accompanied by P020X.

If a coil exhibits visual signs of heat related damage, recommend to replace the ignition coil/s in question, 12C508 Main Harness - Engine, BOTH 14B485 Injector Jumper Harnesses (RH & LH), and 12A650 Powertrain Control Module. Verify that the injector harness does not chafe on the harness mounting tabs beneath the intake manifold.

This concern is caused by injector circuit shorting to ground, creating electrical noise which is inductively coupled into the ignition circuit due to proximity of injector and ignition wires in harness.

Author: DRIDOLF2 (313) 248-8241

ArticleType : ISM **ArticleNumber** : 13-06-011 **Entered Date** : 06/25/2013 **Times Recommended** : 10
Date is displayed in **MM/DD/CCYY** format

2011-2013 F-150 - 3.5L GTDI - CRACKED SPARK PLUGS :

Some 2011-2013 F-150 vehicles equipped with the 3.5L GTDI engine may exhibit various driveability symptoms or a MIL with misfire related DTCs due to a cracked spark plug. Cracking may be found on the external insulator area of the spark plug. If a cracked spark plug is confirmed, the following should be performed:

- Check for signs of moisture or water tracking on the spark plug, ignition coil/boot, and in the spark plug well area. If this is found, identify the source of the moisture (consider coolant intrusion, moisture from an external source, etc.)
- Verify the measured gap of the cracked spark plug as per Workshop Manual specifications. If gap is excessive on the affected spark plug, measure the gap on all the other spark plugs as well. If the

gap is excessive replace the spark plug.

- Ensure replacement spark plug is properly torqued as per Workshop Manual specifications.
- On cylinders where spark plug cracking is verified, also ensure that the ignition coil and boot are replaced.
- After replacement of spark plug and ignition coil/boot, monitor for misfires on the affected cylinders. Also monitor fuel trims and UEGO current PIDs (O2S11_CUR & O2S21_CUR) for a lean condition. A misfire caused by a separate concern may contribute to spark plug failure and should be addressed prior to releasing the vehicle.

Author: DRIDOLF2 (313) 248-8241

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APPENDIX J1

PART CHANGES & SALES

Parts Change Log and Part Sales

CHARGE AIR COOLER

Version	Model Year	Incorporated into Veh Production	Removed from Veh Production	Engineering Part Number
1	2011-2012	2011 MY Job #1	2012 MY Job Last	BL34-9L440-AD
2	2011 - 2012	No	NA	BL34-9L440-AE
3	2013	2013 MY Job #1	9/17/2012	DL34-9L440-AB
4	2013	9/17/2012	NA	DL34-9L440-AC

SERVICE PARTS

Reason for the Change	Description of the Change	Interchangeability	Service Part Number	Released for Service	TSB	Removed from Service
NA	NA	2011-2012MY	BL3Z-6K775-A	2011MY Job #1	NA	10/30/2012
to address misfire condition	revised turbulators and internal blocker plates	2011-2012MY	BL3Z-6K775-B	10/30/2012	13-3-3 12-10-19	NO
Packaging of neighboring component (not related to CAC issue)	ecbv relocate (electronically controlled bypass valve)	2013 MY	DL3Z-6K775-A	2013 MY Job #1	NA	11/23/2012
to address misfire condition	revised turbulators and internal & blocker plates	2013MY	DL3Z-6K775-B	11/23/2012	12-11-15	NO

CAC SUPPLIER:
 Norbert Bikos (norbert.bikos@valeo.com)
 4100 North Atlantic Boulevard
 Auburn Hills, MI 48326-1570
 (248) 209-8525

EXTERNAL AIR DEFLECTOR PLATE

Version	Model Year	Incorporated into Veh Production	Removed from Veh Production	Engineering Part Number
1	2011-2012 MY	5/17/2012	NA	CL34-19E672-BA
2	2011-2012 MY	No	NA	DL34-3G4610-AA

Reason for the Change	Description of the Change	Interchangeability	Service Part Number	Released for Service	TSB	Removed from Service
to address misfire condition	External top 6 CAC tubes blocker	All	CL3Z-19E672-A	June 2012	13-3-3 12-10-19 12-6-4	NO
to address misfire condition	External bottom CAC tubes blocker	2011-2013MY Job #1 CAC only	DL3Z-2021702-A	8/2/2013	13-8-1	NO

Parts Change Log and Part Sales

PART SALES

Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Totals		
0	0	0	0	0	0	0	0	0	0	0	0	1	7	1	7	8	22	32	43	39	62	70	79	101	72	83	69	92	99	117	126	114	27	0	0	0	0	0	0	0	0	0	0	1271
0	0	0	0	0	0	0	0	0	0	0	0	1	7	1	7	8	22	32	43	39	62	70	79	101	72	83	69	92	99	118	127	114	823	2916	2144	3495	2360	3038	2764	2337	2467	23590		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7	16	2	0	0	0	0	0	0	27
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	51	65	114	82	71	125	160	192	862	
																													25750															

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APPENDIX J2

SOFTWARE REVISIONS

Software Revisions

POWERTRAIN CONTROL MODULE

SERVICE PARTS

Calibration	Software Version	Model Year	Approximate Incorporated into Veh Production	Approximate Removed from Veh Production	Engineering Part Number
R09	KGCG8	2011	1/18/2011	2/14/2011	BL3A-12A650-AYB/AZB/AVB/AXB/BBB
R10	KGCG9	2011	2/14/2011	3/8/2011	BL3A-12A650-AYC/AZC/AVC/AXC/BBC
R11	KGCH0	2011	3/8/2011	5/13/2011	BL3A-12A650-AYD/AZD/AVD/AXD/BBB
R12	KGCH0	2011	5/13/2011	2011 job last	BL3A-12A650-AYE/AZE/AVE/AXE/BBE
R12SF	KGCH2	2011	NA	NA	reflash for service
R12SF2	KGCH2	2011	NA	NA	reflash for service
R12SF3	KGCH3	2011	NA	NA	reflash for service
R12SF4	KGCH4	2011	NA	NA	reflash for service
R12SF5	KGCH5	2011	NA	NA	reflash for service
R12SF6	KGCH7	2011	NA	NA	reflash for service
R09	KGCP2	2012	11/9/2011	1/4/2012	CL3A-12A650-AXE/ATE/AUE/BMD/BLD
R10	KGCP3	2012	1/4/2012	5/17/2012	CL3A-12A650-AXF/ATF/AUF/BME/BLE
R11	KGCP4	2012	5/17/2012	2012 job last	CL3A-12A650-AXG/ATG/AUG/BMF/BLF
R11SF	KGCP5	2012	NA	NA	reflash for service
R11SF2	KGCP7	2012	NA	NA	reflash for service
R09	KGCT3	2013	8/8/2012	9/26/2012	DL3A-12A650-EE/DE/CE/BE/FF/VC
R10	KGCT3	2013	9/26/2012	10/17/2012	DL3A-12A650-EF/DF/CF/BF/FG/VD
R21	KGCT5	2013	10/17/2012	12/5/2012	DL3A-12A650-AAB/ZB/YB/XB/ABB/ACB
R22	KGCT6	2013	12/5/2012	3/21/2013	DL3A-12A650-AAC/ZC/YC/XC/ABC/ACC
R23	KGCT9	2013	3/21/2013	6/5/2013	DL3A-12A650-AAD/ZD/YD/XD/ABD/ACD
R24	KGCTA	2013	6/5/2013	6/24/2013	DL3A-12A650-AAE/ZE/YE/XE/ABE/ACE
R25	KGCTA	2013	6/24/2013	7/24/2013	DL3A-12A650-YF/XF/ACF
R26	KGCTA	2013	7/24/2013	current	DL3A-12A650-AAF/ZF/YG/XG/ABF/ACG

Reason for the Change	Description of the Change	Interchangeability
not related	No	2011
catalyst protection	Improved misfire detection due to ice in the intake manifold	2011
not related	No	2011
not related	No	2011
catalyst protection	Improved misfire detection & load limiting for misfires	backwards compatible
catalyst protection	Improve misfire mitigation during high speed load	backwards compatible
catalyst protection	Improved intermittent full bank misfire detection	backwards compatible
catalyst protection	Add misfire detection FMEM at low Fuel Level Indication	backwards compatible
not related	No	backwards compatible
catalyst protection	Fast Reaction Strategy misfire detection	backwards compatible
catalyst protection	Misfire detection Calibration	2012
catalyst protection	Improved intermittent full bank misfire detection	2012
catalyst protection	Add misfire FMEM at low Fuel Level Indication	2012
not related	No	backwards compatible
catalyst protection	Fast Reaction Strategy misfire detection	backwards compatible
not related	No	2013
not related	No	2013
not related	No	2013
catalyst protection	Fast Reaction Strategy misfire detection	2013
not related	No	2013
not related	No	2013
not related	No	2013
not related	No	2013

Service Part Number	Approximate Released for Service	Approximate Removed from Service
	1/18/2011	2/14/2011
	2/14/2011	3/8/2011
	3/8/2011	5/13/2011
	5/13/2011	10/19/2011
NA	10/19/2011	11/9/2011
NA	11/9/2011	1/4/2012
NA	1/4/2012	5/9/2012
NA	5/9/2012	11/14/2012
NA	11/14/2012	6/24/2013
NA	6/24/2013	No
	11/9/2011	1/4/2012
	1/4/2012	5/17/2012
	5/17/2012	11/14/2012
NA	11/14/2012	6/24/2013
NA	6/24/2013	no
	8/8/2012	9/26/2012
	9/26/2012	10/17/2012
	10/17/2012	12/5/2012
	12/5/2012	3/21/2013
	3/21/2013	6/5/2013
	6/5/2013	6/24/2013
	6/24/2013	7/24/2013
	7/24/2013	no

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APPENDIX L

OBD II Reg

- (D) Exemptions for vehicles with fuel shutoff and default fuel control. Notwithstanding sections (e)(3.4.1)(A) and (B) above, in vehicles that provide for fuel shutoff and default fuel control to prevent over fueling during catalyst damage misfire conditions, the MIL need not blink. Instead, the MIL may illuminate continuously in accordance with the requirements for continuous MIL illumination in sections (e)(3.4.1)(B)(iii) above upon detection of misfire, provided that the fuel shutoff and default control are activated as soon as misfire is detected. Fuel shutoff and default fuel control may be deactivated only to permit fueling outside of the misfire range. Manufacturers may also periodically, but not more than once every 30 seconds, deactivate fuel shutoff and default fuel control to determine if the specified percentage of misfire for catalyst damage is still being exceeded. Normal fueling and fuel control may be resumed if the specified percentage of misfire for catalyst damage is no longer being exceeded.

Final Regulation Order

Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines (OBD II)

Amend section 1968.2, title 13, California Code of Regulations to read as follows: