

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

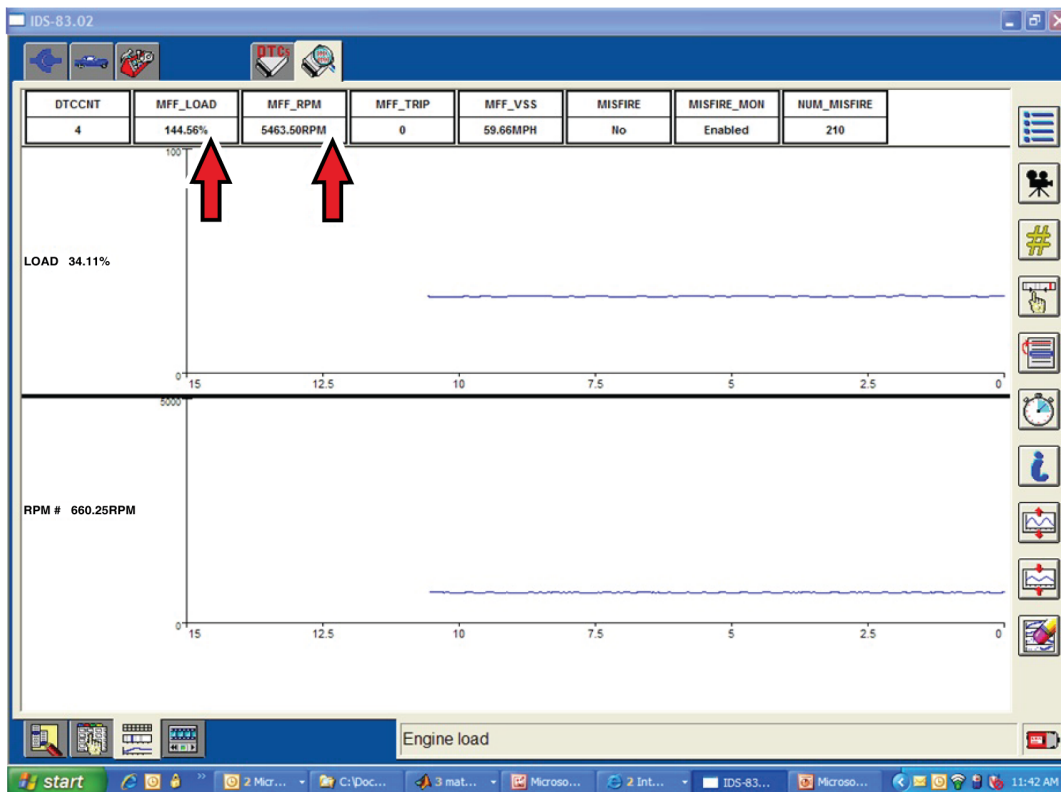
Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

1. Acquire Misfire Freeze Frame Data and DTC's 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.

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TB10391A

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)

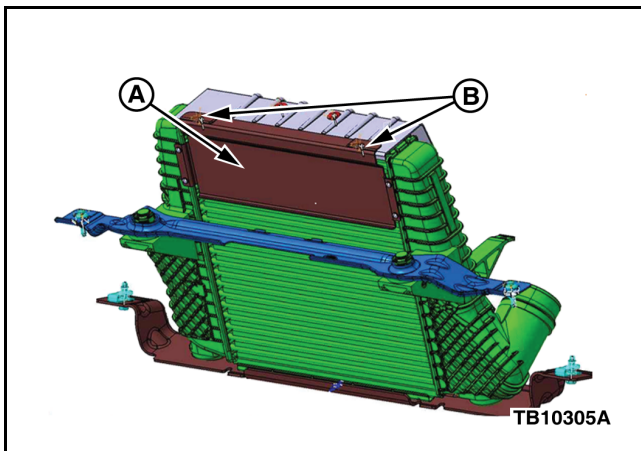


Figure 2 - Article 13-3-3

- 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.

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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.

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.

130303B	2011-2012 F-150 3.5L 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)	1.2 Hrs.
130303C	2011-2012 F-150 3.5L 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)	1.0 Hr.
130303D	2011-2012 F-150 3.5L 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)	1.4 Hrs.
130303E	2011-2012 F-150 3.5L GTDI: Check DTCs, Replace The Left Catalytic Converter (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