

**3.5L GTDI - INTERMITTENT STUMBLE/MISFIRE ON ACCELERATION  
FROM HIGHWAY CRUISE IN HUMID OR DAMP CONDITIONS - BUILT ON  
OR BEFORE 12/16/2013**

**TSB 14-0017**

**SB-10054927-1257**

**FORD:**

2013-2014 F-150

This article supersedes TSB 12-11-15 to update the vehicle model years, build date, Service Procedure and Parts List.

**ISSUE**

Some 2013-2014 F-150 vehicles equipped with a 3.5L gasoline turbocharged direct injection (GTDI) Ecoboost® engine, and built on or before 12/16/2013 may exhibit an intermittent stumble and/or misfire on hard acceleration after extended operation 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 DTC's with the Integrated Diagnostic System (IDS). Use the following steps with IDS to obtain Misfire Freeze Frame Data.
  - a. Select Toolbox
  - b. Data Logger
  - c. Modules
  - d. PCM
  - e. Select the following PIDs:
    - (1) MFF\_LOAD
    - (2) MFF\_RPM
2. Does the misfire concern only occur in humid or damp conditions?
  - a. Yes - proceed to Step 3.
  - 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.
3. Does the Misfire Freeze Frame Data indicate engine speed above 2500 rpm and load 100% or above? (Figure 1)

NOTE: The information contained 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, Lincoln, or Mercury 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.

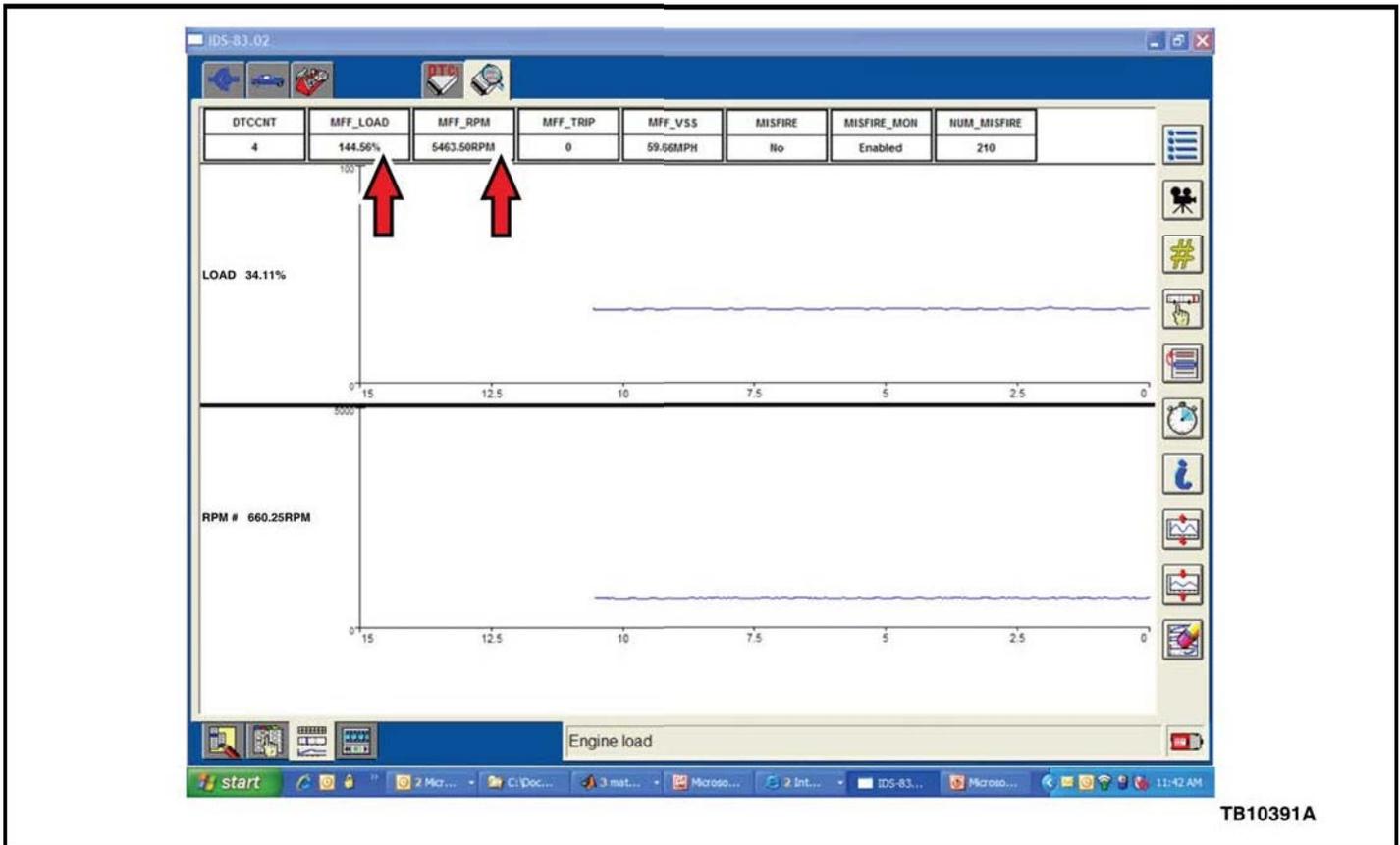


Figure 1 - Article 14-0017

- 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 DTC P0430 present?
- a. Yes - replace the left hand catalytic converter. Refer to Workshop Manual (WSM), Section 309-00. Proceed to Step 5.
  - b. No - Proceed to Step 5.
5. Is the charge air cooler equipped with a top or bottom air deflector? (Figure 2 and Figure 3)

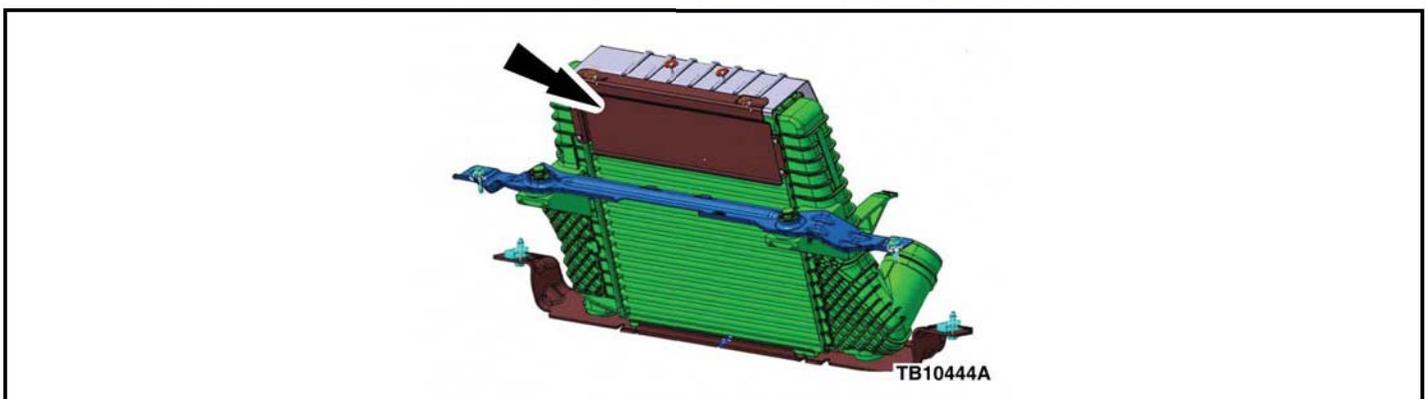


Figure 2 - Article 14-0017

**TSB 14-0017 (Continued)**

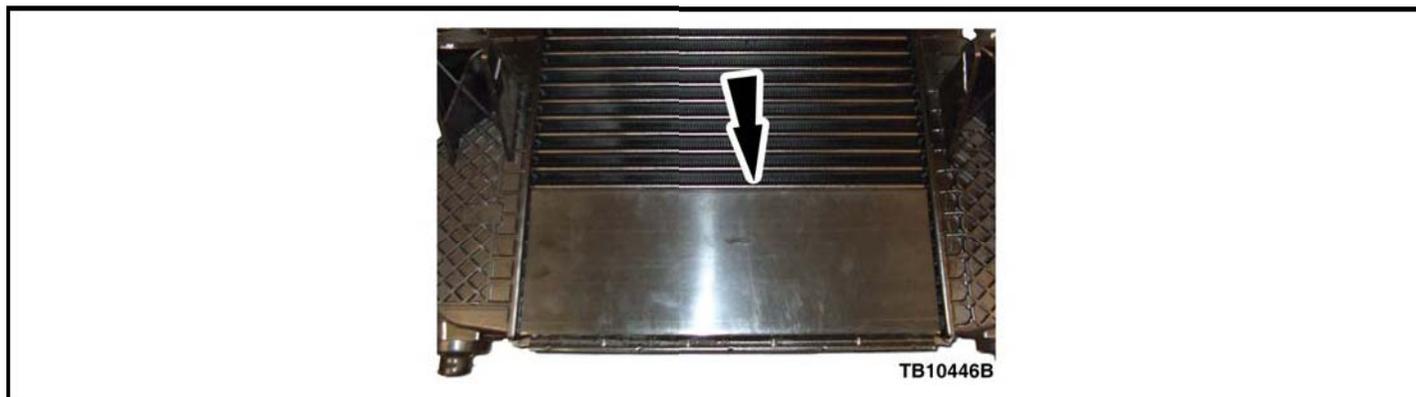


Figure 3 - Article 14-0017

- a. Yes - remove and discard. Refer to WSM, Section 303-12. Proceed to Step 6.
- b. No - proceed to Step 6.

**6. 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.

Reprogram the PCM to the latest calibration level using IDS release 88.03 or higher. Calibration files may also be obtained at [www.motorcraft.com](http://www.motorcraft.com).

PART NUMBER	PART NAME
BL3Z-5E212-E	Catalytic Converter Assembly
W520514-S440	Nuts (2 Req)

OPERATION	DESCRIPTION	TIME
140017A	2013-2014 F-150 3.5L GTDI: Diagnose And Inspect The Charge Air Cooler, Remove Air Deflectors And Reprogram The PCM Includes Time To Clear DTCs (Do Not Use With Any Other Labor Operations)	0.5 Hr.
140017B	2013-2014 F-150 3.5L GTDI: Diagnose And Replace The Left Hand Catalytic Converter, Inspect The Charge Air Cooler, Remove Air Deflectors And Reprogram The PCM Includes Time To Clear DTCs (Do Not Use With Any Other Labor Operations)	1.0 Hr.

**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.	CONDITION CODE
6K775	42