

3.5L GTDI WITH DTCS P0234 AND/OR P0299 - DRIVABILITY SYMPTOMS

TSB 15-0115

FORD:

2011-2015 F-150
2015 Expedition, Transit

LINCOLN:

2015 Navigator

This article supersedes TSB 15-0107 to update the Service Procedure.

ISSUE

Some 2011-2015 F-150 and 2015 Expedition, Navigator and Transit vehicles equipped with a 3.5L Gasoline Turbocharged Direct Injected (GTDI) engine may exhibit diagnostic trouble codes (DTCs) P0234 and/or P0299 and/or drivability symptoms. Drivability symptoms may include surging or noises which may be described as an air rush, hiss, whoosh, whistle, grinding, growling or scraping.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

Apply pressure to each turbocharger wastegate actuator individually to evaluate operation.

1. Disconnect the hose at the turbocharger wastegate actuator.
2. Connect a cooling system pressure tester with a pressure gauge to the turbocharger wastegate actuator.
3. Slowly apply increasing pressure while monitoring the wastegate actuator rod. The rod should begin to extend at 21-62 kPa (3-9 PSI), and be fully extended at 83-103 kPa (12-15 PSI). The turbocharger wastegate actuator should hold pressure with no leakage. The turbocharger wastegate shaft and arm should move smoothly from closed to fully open. Does the turbocharger wastegate actuator and wastegate operate smoothly through the complete range and hold air pressure?
 - a. Yes - this article does not apply. Refer to Powertrain Control/Emissions Diagnosis (PC/ED) manual for normal diagnosis.
 - b. No - replace the affected turbocharger. Refer to Workshop Manual (WSM), Section 303-04.

PART NUMBER	PART NAME
DL3Z-6K682-E	Turbocharger - Left Hand - 2013-2015 - F-150/Expedition/Navigator/Transit
DL3Z-6K682-F	Turbocharger - Right Hand - 2013-2015 - F-150/Expedition/Navigator/Transit
CL3Z-6K682-C	Turbocharger - Left Hand - 2011-2012 - F-150/Expedition/Navigator/Transit
CL3Z-6K682-D	Turbocharger - Right Hand - 2011-2012 - F-150/Expedition/Navigator/Transit
BL3Z-9450-A	Gasket - F-150/Expedition/Navigator/Transit (2 Req)
W716667-S900	Exhaust Stud - F-150/Expedition/Navigator/Transit (4 Req)
W520514-S440	Exhaust Nut - F-150/Expedition/Navigator/Transit (4 Req)
CL3Z-9450-A	Gasket - Exhaust Right Hand - F-150/Expedition/Navigator/Transit (1 Req)
CL3Z-9450-B	Gasket - Exhaust Left Hand - F-150/Expedition/Navigator/Transit (1 Req)

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.

PART NUMBER	PART NAME
W715673-S900	Turbo Bolt - F-150/Expedition/Navigator/Transit (3 Req)
BL3Z-6N652-B	Gasket - Oil line - F-150/Expedition/Navigator/Transit (1 Req)
VC-3-B	Motorcraft® Orange Antifreeze/Coolant Concentrated
W711137-S442	Bolt - Steering Pinch - Transit (1 Req)
W500634-S442	Bolt - Bumper Bar - Transit (8 Req)
W711076-S442	Nut - Lower Ball Joint - Transit (2 Req)
W500633-S442	Bolt - Sway Bar Strap - Transit (4 Req)
W717155-S442	Bolt - Front Sub Frame - Transit (2 Req)
BK2Z-00812-A	Bolt - Steering Gear - Transit (3 Req)
BL3Z-6A968-B	Coolant Fitting
W702449-S442	Bolt - Bumper Bar - Transit (4 Req)

OPERATION	DESCRIPTION	TIME
150115A	2011-2012 F-150 3.5L GTDI: Diagnose And Replace The Right Hand Turbocharger (Do Not Use With Any Other Labor Operations)	3.3 Hrs.
150115A	2013-2014 F-150 3.5L GTDI: Diagnose And Replace The Right Hand Turbocharger (Do Not Use With Any Other Labor Operations)	3.2 Hrs.
150115A	2015 F-150 3.5L GTDI: Diagnose And Replace The Right Hand Turbocharger (Do Not Use With Any Other Labor Operations)	3.0 Hrs.
150115A	2015 Expedition/Navigator 3.5L GTDI: Diagnose And Replace The Right Hand Turbocharger (Do Not Use With Any Other Labor Operations)	3.4 Hrs.
150115A	2015 Transit 3.5L GTDI: Diagnose And Replace The Right Hand Turbocharger (Do Not Use With Any Other Labor Operations)	3.8 Hrs.
150115B	2011-2012 F-150 3.5L GTDI: Diagnose And Replace The Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	2.8 Hrs.
150115B	2013-2014 F-150 3.5L GTDI: Diagnose And Replace The Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	2.7 Hrs.
150115B	2015 F-150 3.5L GTDI: Diagnose And Replace The Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	2.3 Hrs.
150115B	2015 Expedition/Navigator 3.5L GTDI: Diagnose And Replace The Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	2.4 Hrs.
150115B	2015 Transit 3.5L GTDI: Diagnose And Replace The Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	5.8 Hrs.
150115C	2011-2012 F-150 3.5L GTDI: Diagnose And Replace Both Right And Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	5.1 Hrs.
150115C	2013-2014 F-150 3.5L GTDI: Diagnose And Replace Both Right And Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	4.7 Hrs.
150115C	2015 F-150 3.5L GTDI: Diagnose And Replace Both Right And Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	4.4 Hrs.
150115C	2015 Expedition/Navigator 3.5L GTDI: Diagnose And Replace Both Right And Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	4.8 Hrs.

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OPERATION	DESCRIPTION	TIME
150115C	2015 Transit 3.5L GTDI: Diagnose And Replace Both Right And Left Hand Turbocharger (Do Not Use With Any Other Labor Operations)	8.2 Hrs.
150115D	2015 Transit 3.5L GTDI: Additional Time To Check And Adjust Front Toe Includes Time To Align Camera If Equipped With Lane Departure Warning System (Can Be Claimed With Operations B Or C Transit Only)	0.7 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
6K682	42