

INTERMITTENT TRANSMISSION CLUTCH SHUDDER DPS6 AUTOMATIC TRANSMISSION AND/OR TRANSMISSION FLUID LEAK

TSB 13-9-4

FORD:

2011-2014 Fiesta

2012-2014 Focus

This article supersedes TSB **13-4-5**, **12-4-6** and **11-12-13** to consolidate previously released information, update the model years, Service Procedure and Part List.

ISSUE

Some 2011-2014 Fiesta and 2012-2014 Focus vehicles equipped with a DPS6 automatic transmission may exhibit an intermittent transmission clutch shudder on light acceleration from a stop. Some vehicles may or may not exhibit transmission fluid leaking from the clutch housing.

ACTION

Follow the Service Procedure steps to correct the concern.

SERVICE PROCEDURE

1. Reprogram the powertrain control module (PCM)/transmission control module (TCM) module to the latest calibration using Integrated Diagnostic System (IDS) release 86.01 or higher. Calibration files may also be obtained at www.motorcraft.com.
2. Visually inspect clutch housing for evidence of transmission fluid contamination. Rust preventative coatings are sticky in nature and not indicative of a transmission fluid leak. Is fluid contamination present?
 - a. Yes - proceed to Step 4.
 - b. No - proceed to Step 3.
3. Using IDS, select Powertrain, Transmission, Transmission Adaptive Learning and perform each of the following:
 - a. Transmission Range Sensor Adaptive Learning.
 - b. Shift Drum Adaptive Learning.

- c. Clutch Adaptive Learning.

NOTE

PERFORMING THE ABOVE LISTED SERVICE ROUTINES WILL CLEAR ADAPTIVE STRATEGY. FAILURE TO PERFORM ALL STEPS OF THE IDS ROUTINES MAY RESULT IN ERRATIC SHIFTS AND DRIVEABILITY CONCERNS.

4. Using IDS, Datalogger, select the following parameters (PIDS):

NOTE

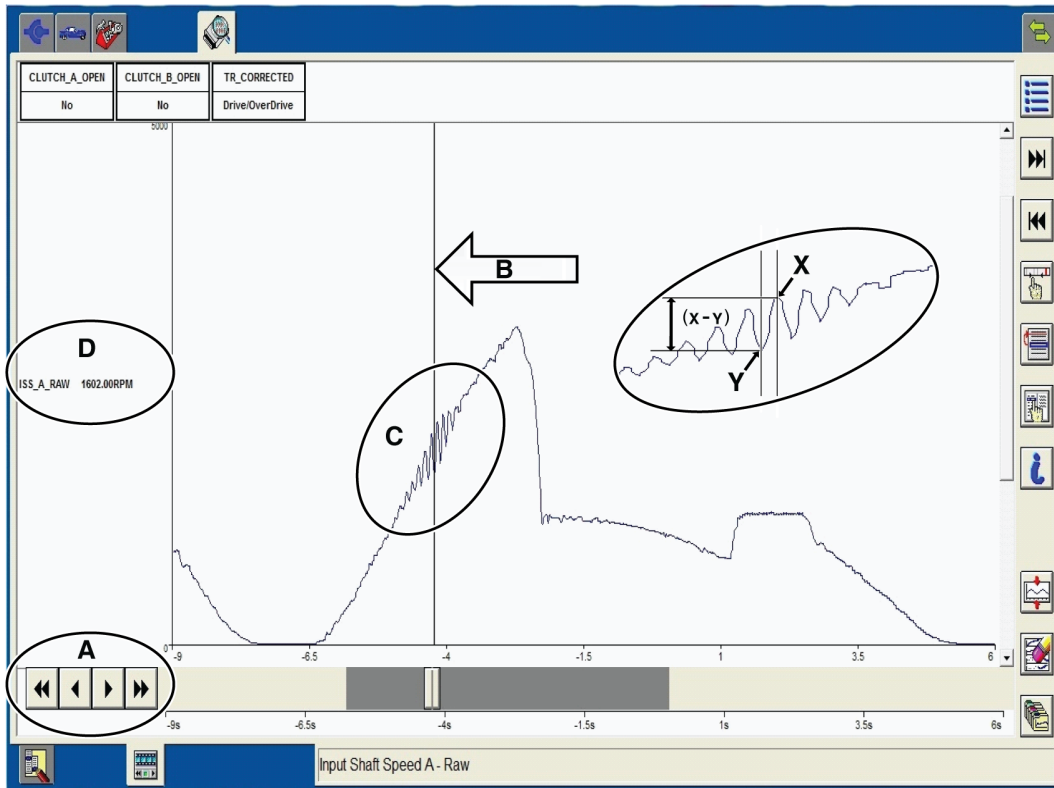
IT IS RECOMMENDED THAT YOU USE A UNIVERSAL SERIAL BUS (USB) WIRED CONNECTION BETWEEN THE PERSONAL COMPUTER (PC) AND THE VEHICLE COMMUNICATION MODULE (VCM) WHEN PERFORMING THE FOLLOWING PROCEDURE TO ENSURE ACCURATE RESULTS.

- a. CLUTCH_A_OPEN
 - b. CLUTCH_B_OPEN
 - c. ISS_A_RAW
 - d. ISS_B_RAW
 - e. RPM TCM
 - f. GEAR_CMD
 - g. APP1
5. Drive vehicle while monitoring APP1. With APP1 at 18-30%, record the clutch shudder event.
 - a. PID ISS_A_RAW is clutch apply for gears 1, 3, 5.
 - b. PID ISS_B_RAW is clutch apply for gears 2, 4, 6, R.

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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6. Using the playback feature within Datalogger (arrow controls A), position the playback time cursor (B) over the area of the shudder event (C) of the ISS_A_RAW PID. (Figure 1)



TB10390A

Figure 1 - Article 13-9-4

7. Using the single (one data step at a time) scroll bar arrow, position the playback cursor line over the high point of the reading and record RPM value (D) listed on the left hand side of ISS_A_RAW parameter. Using the single scroll bar arrow again, carefully position the cursor over the next closest low point of the ISS_A_RAW parameter and record the RPM reading.
8. Subtract the low RPM (Y) from the high RPM (X) reading (e.g. 2129 - 1602 = 527).
9. What is the RPM difference from Step 8?
 - a. If less than 250 RPM proceed to Step 10.
 - b. All other vehicles proceed to Step 11.
10. Vehicles with less than 250 RPM readings and no sign of fluid leaking, no further action required. Operation is within expected limits.
11. Remove the dual clutch assembly.
 - a. Focus and 2014 Fiesta vehicles refer to WSM, Section 307-01.
 - b. 2011-2013 Fiesta vehicles refer to WSM, Section 307-11.
12. Replace both the inner input shaft seal, located between both input shafts and the hollow outer input shaft case seal.
 - a. Focus and 2014 Fiesta vehicles refer to WSM, Section 307-01.
 - b. 2011-2013 Fiesta vehicles refer to WSM, Section 307-11.
13. Does clutch show signs of fluid contamination?
 - a. Yes - proceed to Step 14.
 - b. No - proceed to Step 16.

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14. Clutch shudder repair or replacement.
 - a. If the dual clutch assembly is contaminated with transmission fluid and the RPM readings are 250 to 350 proceed to Step 15.
 - b. If the dual clutch assembly is not contaminated with any type of fluids and the RPM readings are 250 or over, or contaminated clutches with readings over 350 RPM the dual clutch assembly must be replaced. Proceed to Step 16.
15. Place the dual clutch assembly in an upright position on the bench, paint a mark at a 12 o'clock position of the dual clutch assembly.

- a. Clean clutch friction material using Motorcraft® Metal Brake Parts Cleaner or equivalent that contains 60% acetone. Use extreme caution to keep solvent off of the internal clutch bearing assembly by always spraying solvent in the down direction. Bend the plastic spray nozzle to help direct the spray into the clutch discs. (Figure 2)

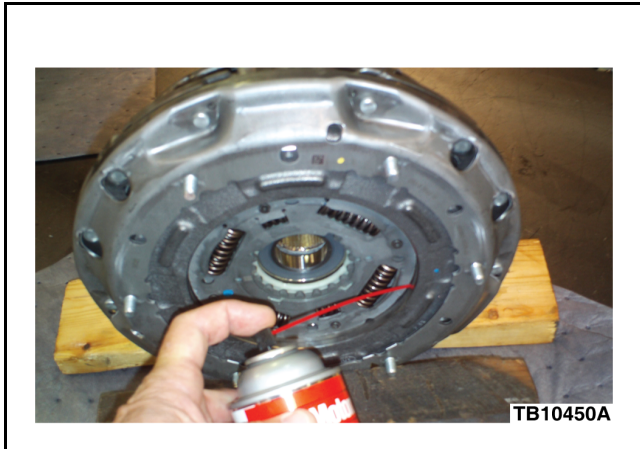


Figure 2 - Article 13-9-4

- b. Spray Motorcraft® Metal Brake Parts Cleaner or equivalent that contains 60% acetone in a downward direction on each friction disc. Rotate the entire clutch assembly to the 3 o'clock position repeat process six (6) times while spraying on both sides of the clutch plates.
 - (1) Front of clutch one disc. (Figure 2)
 - (2) Rear of clutch one disc. (Figure 3)



Figure 3 - Article 13-9-4

- (3) Front of clutch two disc. (Figure 4)

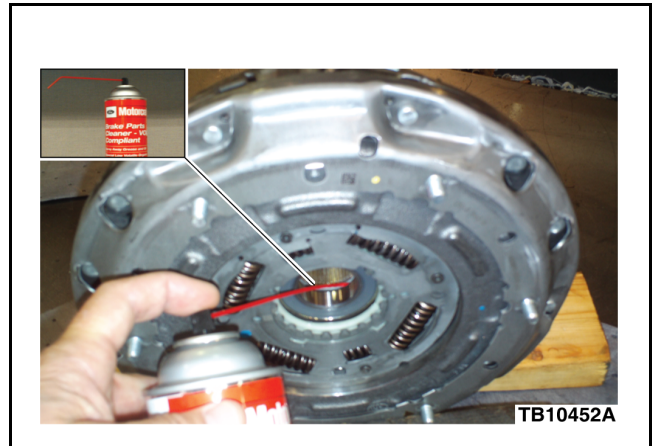


Figure 4 - Article 13-9-4

- (4) Rear of clutch two disc. (Figure 5)

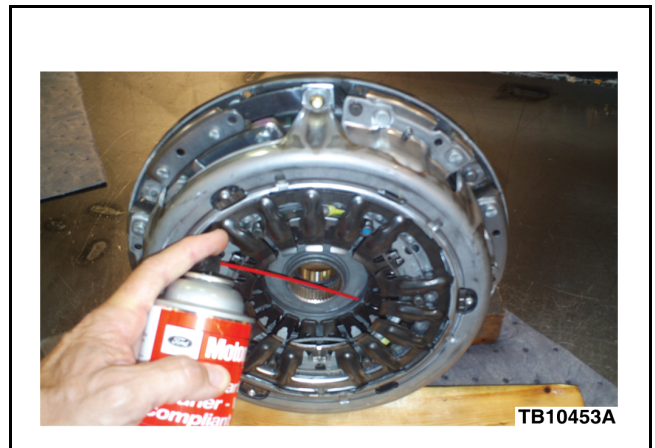


Figure 5 - Article 13-9-4

- (5) Solvent cleaner tip angle to avoid bearing contact. (Figure 2)

- c. Spray until contamination is removed and only clear solvent is seen dripping at the bottom of the clutch assembly.

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16. Install the cleaned or new replacement dual clutch assembly.
 - a. Focus and 2014 Fiesta vehicles refer to WSM, Section 307-01.
 - b. 2011-2013 Fiesta vehicles refer to WSM, Section 307-11.
17. Install transmission assembly.
 - a. Focus and 2014 Fiesta vehicles refer to WSM, Section 307-01.
 - b. 2011-2013 Fiesta vehicles refer to WSM, Section 307-11.
18. Use IDS release 86.01 to perform TCM Adaptive Learn and Clutch routine which no longer requires an adaptive drive to reset the clutch touch points.

PART NUMBER	PART NAME
BV6Z-7B546-D	Dual Clutch Assembly Kit (Focus & Fiesta Built After 1/12/2011)
AE8Z-7B546-D	Dual Clutch Assembly Kit (Fiesta Built To 1/12/2011)
AE8Z-7064-A	Clutch-To-Hollow Input Shaft Snap Ring (Focus)
AE8Z-7064-B	Clutch-To-Hollow Input Shaft Snap Ring (Fiesta)
AE8Z-7007-A	Engine-to-Transaxle Separator Plate (Fiesta)
W703662-S403	Exhaust Nut (Fiesta)
2S6Z-9450-A	Exhaust Gasket (Fiesta)
W520203-S442	Ball Joint Nut (Fiesta)
W709618-S442	Ball Joint Bolt (Fiesta)
W715491-S442	Ball Joint Bolt (Focus)
W520415-S442	Ball Joint Nut (Focus)
AE8Z-1S177-A	Halfshaft Seal Kit (2 Req)
AE8Z-7048-B	Input Shaft Seal Outer
AE8Z-7052-C	Input Shaft Seal Inner
W705448-S441	Flexplate-To-Clutch Nut (2 Pkg Req)
YS4Z-3N324-AA	Bearing Retainer Strap
W520102-S442	Bearing Retainer Strap Nut
9U7Z-19A506-BA	Transaxle Input Shaft/Spline Lubricant
XL-2	Motorcraft® High Temperature Nickel Anti-Seize Lubricant
XT-11-QDC	Motorcraft® Dual Clutch Transmission Fluid

(Continued)

PART NUMBER	PART NAME
PM-4-A	Motorcraft® Metal Brake Parts Cleaner (4 Cans Req)

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited 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
130904A	2011-2014 Fiesta And 2012-2014 Focus: Reprogram The PCM/TCM, Visually Inspect For Transmission Fluid Leak, Perform IDS Transmission Clutch Adaptive Learn, Road Test And Record PIDS, Review And Perform Calculations, No Further Action Required. (Do Not Use With Any Other Labor Operations)	1.1 Hrs.
130904B	2011-2014 Fiesta: Reprogram The PCM/TCM, Visually Inspect For Transmission Fluid Leak, Perform Transmission IDS Clutch Adaptive Learn, Road Test And Record PIDS, Review And Perform Calculations, Replace Both Inner And Outer Input Shaft Seals, Clean Clutch And Perform IDS Clutch Adaptive Learn. (Do Not Use With Any Other Labor Operations)	6.7 Hrs.

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130904B	2012-2014 Focus: Reprogram The PCM/TCM, Visually Inspect For Transmission Fluid Leak, Perform Transmission IDS Clutch Adaptive Learn, Road Test And Record PIDS, Review And Perform Calculations, Replace Both Inner And Outer Input Shaft Seals, Clean Clutch And Perform IDS Clutch Adaptive Learn. (Do Not Use With Any Other Labor Operations)	7.1 Hrs.	130904C	2012-2014 Focus: Reprogram The PCM/TCM, Visually Inspect For Transmission Fluid Leak, Perform Transmission IDS Clutch Adaptive Learn, Road Test And Record PIDS, Review And Perform Calculations, Replace Both Inner And Outer Input Shaft Seals, Replace Clutch And Perform IDS Clutch Adaptive Learn. (Do Not Use With Any Other Labor Operations)	6.7 Hrs.
130904C	2011-2014 Fiesta: Reprogram The PCM/TCM, Visually Inspect For Transmission Fluid Leak, Perform Transmission IDS Clutch Adaptive Learn, Road Test And Record PIDS, Review And Perform Calculations, Replace Both Inner And Outer Input Shaft Seals, Replace Clutch And Perform IDS Clutch Adaptive Learning. (Do Not Use With Any Other Labor Operations)	6.2 Hrs.	DEALER CODING BASIC PART NO. 7B546		
			CONDITION CODE 14		