

**NUMBER:** 14-007-21

**GROUP:** 14 - Fuel System

**DATE:** August 19, 2021

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**SUBJECT:**

3.0L Diesel Crankshaft Tone Wheel Loss of Signal - X94 Warranty Extension

**OVERVIEW:**

This bulletin involves replacing the crankshaft tone wheel.

**MODELS:**

2014 - 2018 (DS) RAM 1500 Pickup

**NOTE:** This bulletin applies to vehicles within the following markets/countries: North America, APAC, EMEA and LATAM.

**NOTE:** This bulletin applies to vehicles built on or after June 13, 2014 (MDH 0613XX) and on or before March 26, 2018 (MDH 0326XX) equipped with a 3.0L V6 Turbo Diesel Engine (Sales Code EXF).

**SYMPTOM/CONDITION:**

Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation, a technician may find one or more of the following Diagnostic Trouble Codes (DTCs) have been set:

- P0335-00 - Crankshaft Position Sensor Circuit.
- P0336-00 - Crankshaft Position Sensor Performance.

Customers may also comment on one or more of the following:

- The vehicle will not accelerate quickly over 80 kph (50 mph) (vehicle is in limp mode).
- Vehicle periodically stalls.

**NOTE:** This symptom/condition is caused from missing magnetic material on the crankshaft tone wheel (Fig. 1) .



**Fig. 1**  
**Missing Magnetic Material On Tone Wheel**

**DIAGNOSIS:**

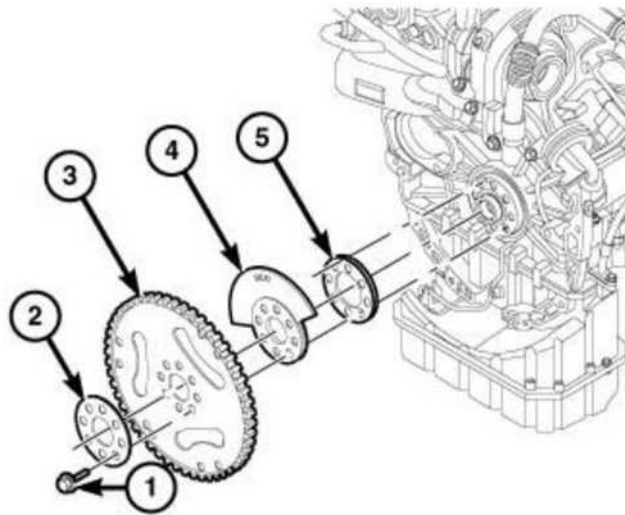
If the customer describes the symptom/condition listed above or if the technician finds the DTC, perform the Repair Procedure.

**PARTS REQUIRED:**

Qty.	Part No.	Description
1	68493358AA	Crankshaft Tone Wheel
1	CSRGW681AA	Wire Harness Clips
8	68161231AA	Bolt, Flex Plate

**REPAIR PROCEDURE:**

1. Remove the transmission assembly. Refer to the detailed procedures available in DealerCONNECT > Service Library> under: 21 - Transmission and Transfer Case / Automatic - 8HP70 / Removal.
2. Paint mark the flexplate hub to flexplate relationship (Fig. 2) .



**Fig. 2**  
**Tone Wheel Removal**

- 1 - Flex Plate Bolt
- 2 - Backing Plate
- 3 - Flex Plate
- 4 - Counter Weight
- 5 - Tone Wheel

**CAUTION!** Do not use an impact socket or a thick walled socket when removing or installing the flexplate retaining bolts, damage to the crankshaft, internal engine or the transmission may occur.

3. Remove the bolts, backing plate and flex plate (Fig. 2) . Discard flex plate bolts.
4. Remove the counter weight and tone wheel (Fig. 2) .
5. Install the new tone wheel (Fig. 2) .

6. Make sure the dowel pin (Fig. 3) is installed in the dead hole of the counter weight. The other hole is a through hole and is not to be used.



Fig. 3  
Counter Weight Dowel Pin Location

1 - Dowel Pin

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7. Install the counter weight and make sure the dowel pin side is inserted into the crankshaft hole for proper counter weight timing. A vibration can occur if the counter weight is installed incorrectly (Fig. 2) .

**NOTE: Always use NEW flexplate bolts whenever the existing bolts have been removed. Do not lubricate the NEW bolts as they are already coated with an anti-scuff treatment. Use clean engine oil and lubricate the bolt side of backing plate.**

8. Install the flex plate, backing plate and new bolts (Fig. 2) .
9. Using the tightening sequence shown below, tighten the flex plate bolts to:
- Tighten the bolts 50 N·m (37 ft. lbs.) (Fig. 4) .
  - Loosen one bolt at a time and then retighten the bolt in a clockwise cross pattern to 125 N·m (92 ft. lbs.) (Fig. 4) .
  - Using a torque angle gauge, tighten each bolt an additional 30 degrees in a clockwise cross pattern (Fig. 4) .



**Fig. 4**  
**Flex Plate Bolt Sequence**

10. Install the transmission assembly. Refer to the detailed procedures available in DealerCONNECT > Service Library> under: 21 - Transmission and Transfer Case / Automatic - 8HP70 / Installation.
11. Clear any DTCs that may have been set.

***POLICY:***

Vehicles included in this Service Bulletin have a warranty extension to 8 Years/Unlimited Mileage on from in-service date warranty period for this repair. See Warranty Bulletins: U.S. D-21-10, Canada SAB 2021-17 and International ID-21-19, for details associated with the warranty extension.

***TIME ALLOWANCE:***

Labor Operation No:	Description	Skill Category	Amount
09-25-47-90	Crankshaft Tone Wheel - Replace (3 - Highly-Skilled)	1 - Engine Repair and Performance	3.9 Hrs.

**RELATED LOPS:**

<b>Labor Operation No:</b>	<b>Description</b>	<b>Skill Category</b>	<b>Amount</b>
09-25-47-60	4x4 Equipped (3 - Highly-Skilled)	1 - Engine Repair and Performance	1.1 Hrs.
09-25-47-63	Skid Plate Equipped (3 - Highly-Skilled)	1 - Engine Repair and Performance	0.2 Hrs.

**FAILURE CODE:**

ZZ	Service Action
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