



## TECHNICAL SERVICE BULLETIN

### 4WD - 6R100 - Metallic Grinding Noise Under Light Acceleration Between 23-33 MPH (37-53 Km/H) - Built On 01-Feb-2021 And Through 16-May-2022

22-2199

17 May 2022

#### Model:

<b>Ford</b> 2021-2022 F-250	Engine: 6.2L Transmission/Transaxle: 6R100 4WD Built on 01-Feb-2021 and through 16-May-2022
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**Issue:** Some 2021-2022 F-250 vehicles equipped with a 6R100 transmission, four-wheel drive (4WD), and built on 01-Feb-2021 and through 16-May-2022 may exhibit a metallic grinding noise from the rear of the vehicle under light acceleration between 23-33 mph (37-53 km/h). The noise is most prevalent in 3rd and 4th gear when the vehicle is warm. This may be due to normal driveline noise transmitting through the driveshaft. To correct the condition, follow the Service Procedure to replace the rear axle drive pinion flange, rear pinion seal, and reprogram the powertrain control module (PCM).

**Action:** Follow the Service Procedure to correct the condition on vehicle that meet all of the following criteria:

- 2021-2022 F-250
- 6R100 transmission
- 4WD
- Built on 01-Feb-2021 and through 16-May-2022
- Exhibits a metallic grinding noise from the rear of the vehicle under light acceleration between 23-33 mph (37-53 km/h)

#### Parts

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
E5TZ-4A331-A	1	Axle Shaft O-Ring	4	2
W714981-S439	4	Axle Shaft Bolt	4	16
N811880-S100	1	Driveshaft To Pinion Flange Bolt	4	4
BC3Z-4C121-A	1	Pinion Nut	1	1
BC3Z-4676-A	1	Rear Axle Pinion Seal	1	1
HC3Z-4851-A	1	Rear Axle Pinion Flange (With Damper)	1	1
XY-75W85-QL	As Needed	Motorcraft® SAE 75W-85 Premium Synthetic Hypoid Gear Lubricant		

Quantity refers to the amount of the service part number required to repair the vehicle.

Unit of Issue refers to the number of individual pieces included in a service part number package.

Piece Quantity refers to the total number of individual pieces required to repair the vehicle.

As Needed indicates the amount of the part may vary and/or is not a whole number. Parts can be billed out as non-whole numbers, including less than 1.

**Warranty Status:** Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/SPW/SSP/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

#### Labor Times

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Description	Operation No.	Time
2021-2022 F-Super Duty: Inspect The Rear Axle Flange And Reprogram The PCM (Do Not Use With Any Other Labor Operations)	222199A	0.6 Hrs.
2021-2022 F-Super Duty: Inspect And Replace The Rear Axle Flange And Reprogram The PCM (Do Not Use With Any Other Labor Operations)	222199B	1.8 Hrs.

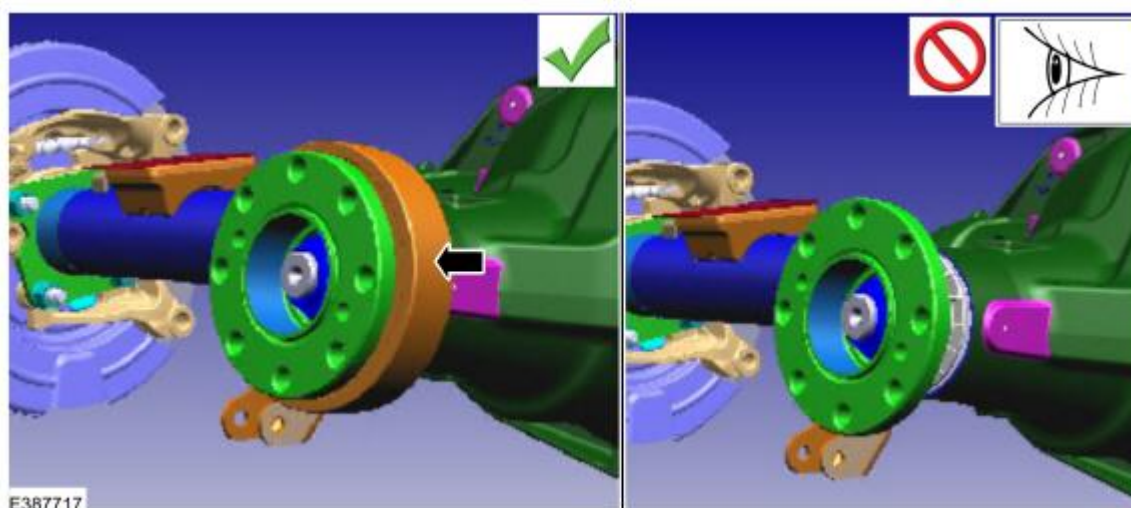
#### Repair/Claim Coding

Causal Part:	4001
Condition Code:	42

## Service Procedure

1. Inspect the rear axle pinion flange for the presence of a sound damper. Is a damper present? (Figure 1)

Figure 1



- (1). Yes - proceed to Step 2.
- (2). No - replace the rear axle pinion flange and rear pinion seal. Refer to Workshop Manual (WSM), Section 205-02.

**NOTE: Axle shaft replacement is not expected to be necessary for this repair.**

2. Reprogram the PCM using the latest software level of the Ford Diagnostic Repair System (FDRS) scan tool.

**NOTE: Advise the customer 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 relearning process. This relearning process may result in firmer than normal upshifts and downshifts for several days.**

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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.