



# TECHNICAL SERVICE BULLETIN

## 10R140 Automatic Transmission – Transmission Fluid Leak At The Bellhousing Area - Built On 01-Dec-2021 And Through 15-Dec-2021

**22-2030**

07 February  
2022

**Model:**

<b>Ford</b> 2022 F-Super Duty	Transmission/Transaxle: 10R140 Built on 1-Dec-2021 and through 15-Dec-2021
----------------------------------	---

**Issue:** Some 2022 F-Super Duty vehicles built on 01-Dec-2021 and through 15-Dec-2021 equipped with a 10R140 transmission may leak from the bellhousing of the transmission. This may be caused by an oversized bore in the front support cover. To correct the condition, replace the torque converter hub seal and the front support cover.

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

- 2022 F-Super Duty
- 10R140 automatic transmission
- Built on 01-Dec-2021 and through 15-Dec-2021
- Transmission fluid leak at the bellhousing area

**Parts**

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
LC3Z-7570-A	1	Front Support Cover		
LC3Z-7H223-A	5	Front Support Assembly Bolt Washers	1	5
LC3Z-7B031-A	1	Front Cover-To-Support Seal		
LC3Z-7A248-A	1	Torque Converter Hub Seal		
W520514-S440	4	Y-Pipe-To-Exhaust Manifold Nuts	1	4
W715131-S442	1	Transmission Fluid Cooler Tube Bolt	4	1
W714824-S442	1	Selector Lever Cable Bracket Bolts	4	2
W715618-S437	1 For Gas Engine, 2 For Diesel Engine	Torque Converter Nuts	4	4 For Gas Engine, 6 For Diesel Engine
N605804-S439	3	Transfer Case To Transmission Bolts (4WD Only)	4	11
E4HZ-4A254-B	2	Front Driveshaft Pinion Flange Strap (4WD Only)	1	2
F81Z-4N272-AA	1	Front Driveshaft Pinion Flange Bolts (4WD Only)	4	4
N811880-S100	1	Front Driveshaft CV Joint-To-Transfer Case Flange Bolts (4WD Only)	4	4
W709771-	2	Transmission Mount Support Isolator Nuts	1	2

S440				
W710356-S439	1	Crossmember Bracket Bolts	4	2
W520515-S440	1	Crossmember Bracket Nuts	4	2
N605804-S439	1	Transmission Support Insulator Bracket Bolts (2WD Only)	4	4
391558-S102	2	Transmission Support Insulator Bolts	1	2
W714717-S439	1	Exhaust Y-Pipe-To-Resonator Bolts (7.3L Only)	4	2
W714656-S439	1	Exhaust Hanger Bracket Bolts (7.3L Only)	4	4
W718005-S900	1	Exhaust Lower Downpipe-To-Catalyst And Particulate Filter Assembly Bolts (6.7L Only)	2	2
XT-10-QLVC	As Needed	Motorcraft® MERCON® LV Automatic Transmission Fluid (Transfer Case Fluid, 4WD Only) (All Markets Except Canada)		
CXT-10-LV6	As Needed	Motorcraft® MERCON® LV Automatic Transmission Fluid (Transfer Case Fluid, 4WD Only) (Canada Only)		
VC-13DL-G	As Needed	Motorcraft® Yellow Prediluted Antifreeze/Coolant (All Markets Except Canada)		
CVC-13DL-G	As Needed	Motorcraft® Yellow Prediluted Antifreeze/Coolant (Canada Only)		
XT-12-QULV	As Needed	Motorcraft® MERCON® ULV Automatic Transmission Fluid		
XL-5-A	As Needed	Motorcraft® Multi-Purpose Grease Spray		

## Parts

### Rear Driveshaft Bolts And Straps - Not All Vehicles Will Use All Of The Parts Listed

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
F1HZ-4N272-A	4 Per Affected Joint	U-Joint Strap Style Bolts - Refer To The Parts Catalog For The VIN Specific Application	1	4 Pieces Per Affected Joint
E4HZ-4A254-A	2 Per Affected Joint	U-Joint Straps - Refer To The Parts Catalog For The VIN Specific Application	1	2 Pieces Per Affected Joint
N811880-S100	1 Per Affected Joint	U-Joint Flange Style Bolts - Refer To The Parts Catalog For The VIN Specific Application	4	4 Pieces Per Affected Joint
BC3Z-4N272-A	1 Per Affected Joint	Driveshaft Center Bearing Bolts - Refer To Parts Catalog For The VIN Specific Application	1	1 Piece Per Affected Joint
W500633-S439	1	Driveshaft Center Bearing Bolts - Refer To Parts Catalog For The VIN Specific Application	4	1 Piece Per Affected Joint

## Parts

### Parts To Inspect And Replace Only If Necessary

Service Part Number	Quantity	Description	Unit of Issue	Piece Quantity
LC3Z-7F396-C	If Needed	Fluid Pan Gasket		

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.





Unit of Issue and Piece Quantity are 1 unless otherwise stated.

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.

If Needed indicates the part is not mandatory.

### Special Tool(s)

	General Equipment: Mounting Stand
	General Equipment: Adjustable Mounting Arm
	General Equipment: Hydraulic Press
 E232969	205-1018 Installation Tube
 307346	307-346 (T97T-7902-A) Torque Converter Retainer
 E270044	307-651 Bracket, Pump Remover/Installer
 E234921	307-741 Spring Compressor, F Clutch
 E302675	307-741-01 Remover, Front Support And Cover
	307-807 Installer Converter Seal

 <p>E302674</p>	
 <p>E302684</p>	<p>307-809 Push And Sizer, F0 Seal Guide</p>
 <p>E302718</p>	<p>307-810 Pusher And Sizer, F9 Seal Guide</p>
 <p>E302720</p>	<p>307-812 Pusher And Sizer, F1 Seal Guide</p>

### Labor Times

Description	Operation No.	Time
2022 F-Super Duty 250/350 4X2 6.7L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030A	6.5 Hrs.
2022 F-Super Duty 250/350 4X4 6.7L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030B	7.5 Hrs.
2022 F-Super Duty 250/350 4X2 6.2L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030C	6.2 Hrs.
2022 F-Super Duty 250/350 4X4 6.2L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030D	7.3 Hrs.
2022 F-Super Duty 250/350 4X2 7.3L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030E	5.7 Hrs.
2022 F-Super Duty 250/350 4X4 7.3L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030F	7.2 Hrs.
2022 F-Super Duty 450/550 4X2 6.7L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030G	6.6 Hrs.
2022 F-Super Duty 450/550 4X4 6.7L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030H	7.7 Hrs.
2022 F-Super Duty 450/550 4X2 7.3L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030J	6.0 Hrs.
2022 F-Super Duty 450/550 4X4 7.3L: Replace Transmission Front Support Cover (Do Not Use With Operations Outside Of This Article)	222030K	7.2 Hrs.
Time To Remove And/Or Set Aside PTO Accessories (Can Be Claimed With Operations A-K)	MT222030	Actual Time

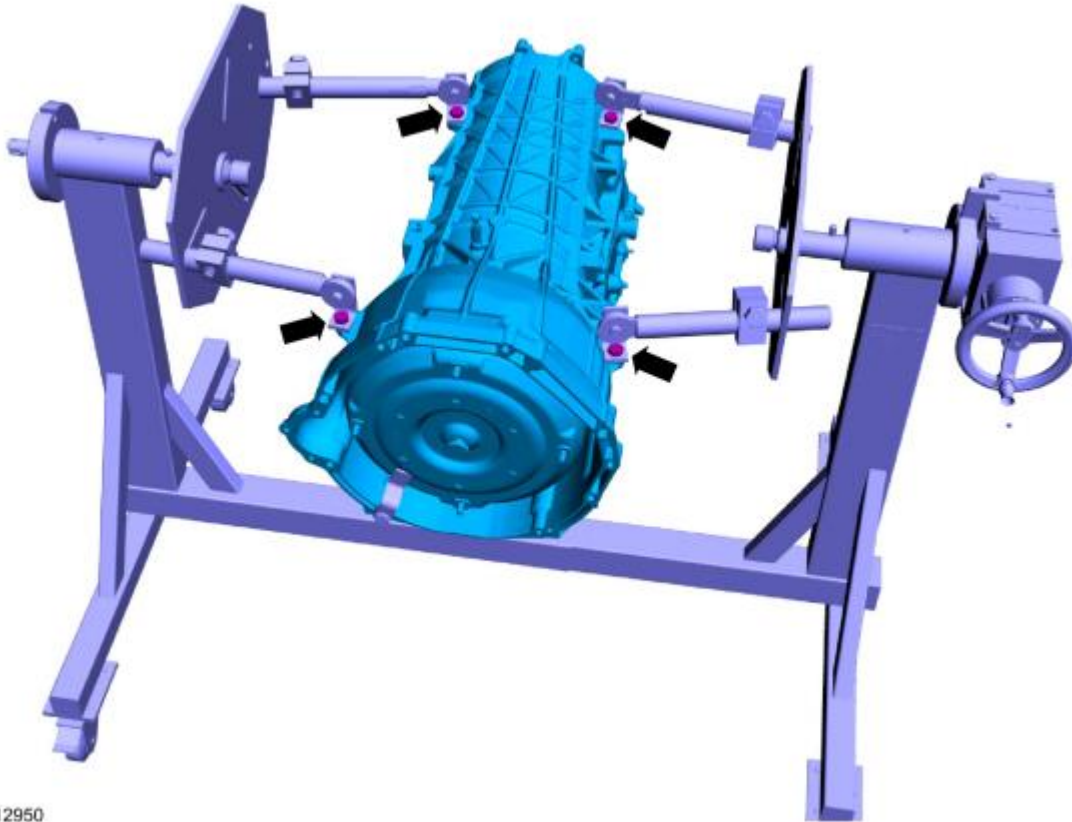
## Repair/Claim Coding

Causal Part:	7570
Condition Code:	07

## Service Procedure

1. Remove the transmission. Refer to the Workshop Manual (WSM), Section 307-01B.
2. Mount the transmission to a mounting stand. (Figure 1)
  - (1). Use the General Equipment: Mounting Stand
  - (2). Use the General Equipment: Adjustable Mounting Arm

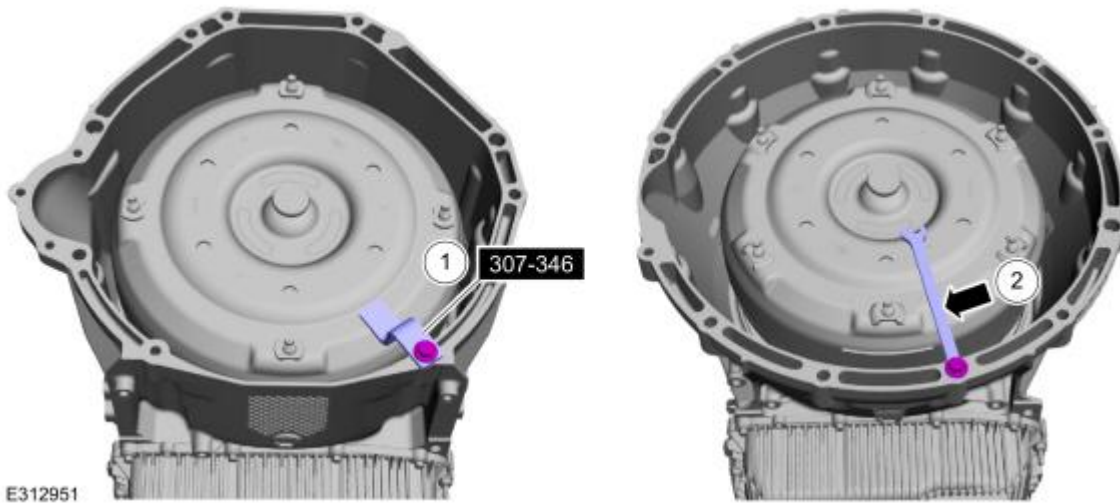
Figure 1



E312950

3. Rotate the transmission to a vertical position. (Figure 2)
  - (1). For vehicles equipped with a gas engine, remove the special tool. Use Special Service Tool: 307-346 (T97T-7902-A) Torque Converter Retainer.
  - (2). For vehicles equipped with a diesel engine, remove the 12 mm combination wrench.

Figure 2

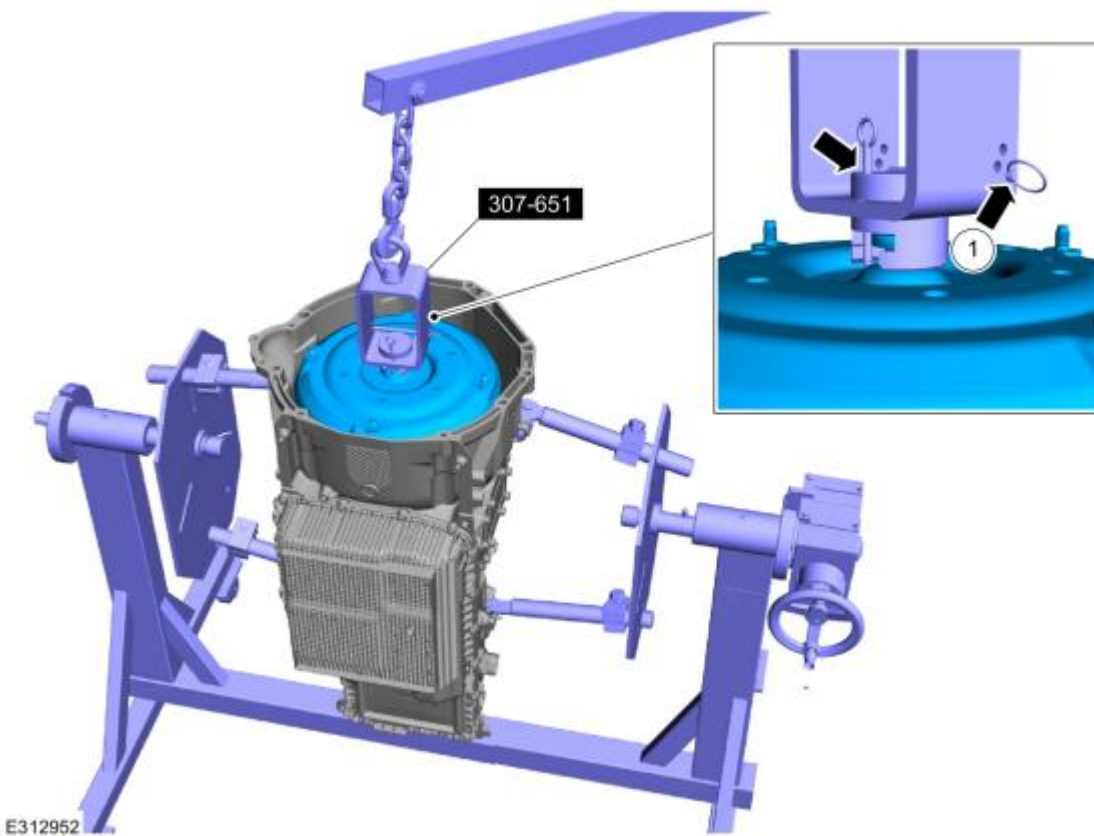


E312951

4. Using the special tool and a floor crane, remove the torque converter. (Figure 3)

(1). Install the pin in the bottom hole. Use Special Service Tool: 307-651 Bracket, Pump Remover/Installer.

Figure 3



E312952

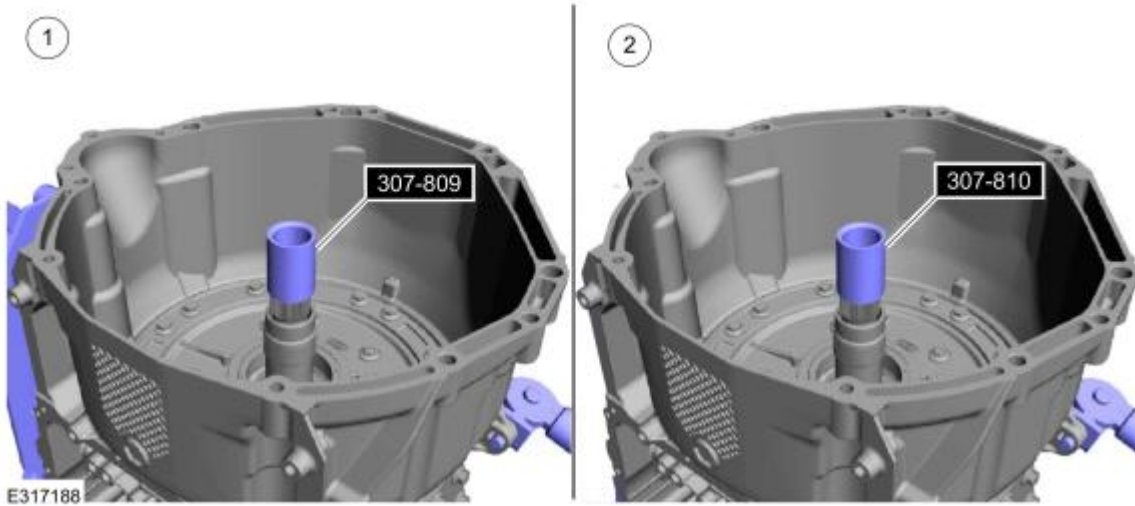
5. Using the special tools, size the input shaft torque converter (F0) Teflon® seals with a two-step process. Allow the final sizing tool to remain on the input shaft until final assembly.

(1). Using the special tool, pre-size the input shaft torque converter (F0) Teflon® seals. Use Special Service Tool: 307-809 push & sizer, F0 Seal guide.

(2). Using the special tool, final size the input shaft torque converter (F0) Teflon® seals. Use Special Service Tool: 307-810 pusher & sizer, F9 Seal guide. (Figure 4)

Figure 4





6. Using the special tool, size the stator support (F1) Teflon® seal. Allow the special tool to stay on until final assembly. Use Special Service Tool: 307-812 pusher and sizer, F1 Seal guide. (Figure 5)

**NOTE: Front support assembly shown is removed from the transmission for clarification. Do not remove the front support assembly from the transmission.**

**NOTE: The special tools are to stay on the support assembly until installation of the torque converter.**

Figure 5



E315999

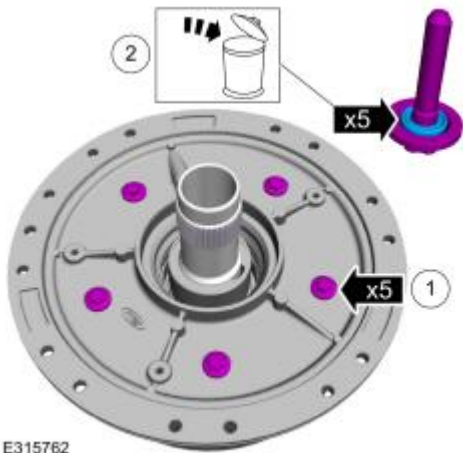
7. Thoroughly clean the transmission bellhousing area before removing the front cover support cover. Make sure to not allow any contaminants into the transmission.

(1). The front support assembly does not need to be removed to perform this operation.

8. Remove the front support cover bolts and discard the front support cover bolt washers. (Figure 6)

(1). Use a 14ep Torx Plus® socket to remove the bolts.

Figure 6



E315762

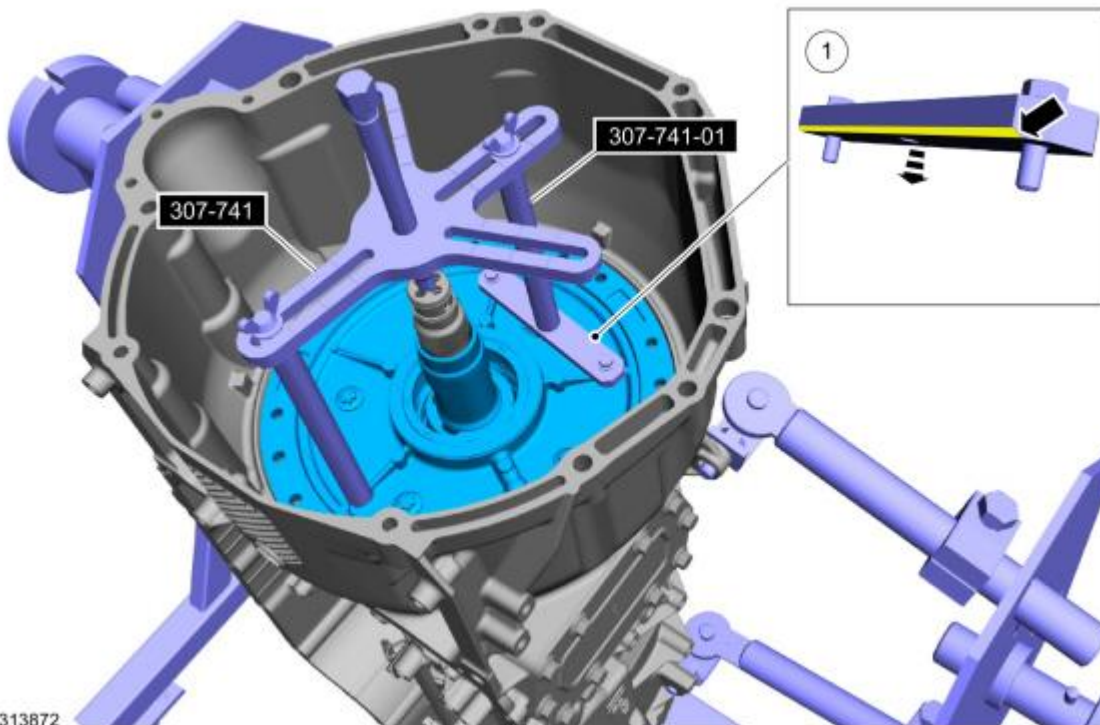
**NOTE: Front support assembly shown is removed from the transmission for clarification. Do not remove the front support assembly from the transmission.**

9. Using the special tools, separate the front support cover from the front support assembly and remove the front support cover. (Figure 7)

(1). Install the special tool with the beveled side down. Use Special Service Tool: 307-741 Spring Compressor, F Clutch, 307-741-01 Remover, Front Support And Cover.

(2). The front support assembly does not have to be removed to perform this repair.

Figure 7



E313872

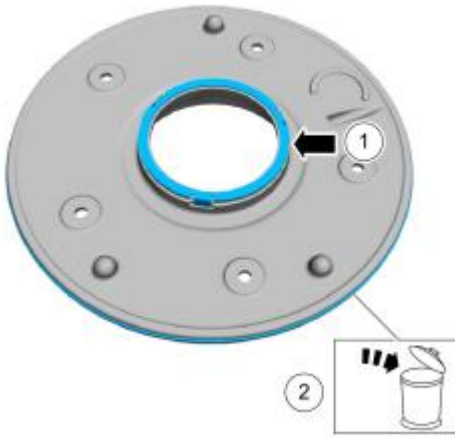
10. Remove the transmission fluid pump drive gear washer. If the washer is not present on the cover, check the top of the fluid pump drive gear for the washer. Save the washer for installation on the new front support cover.

**NOTE: The fluid pump drive gear washer is only present on the PTO versions of the 10R140. A non-PTO Transmission will not include this washer.**

11. Discard the old front support cover and seal. (Figure 8)

Figure 8

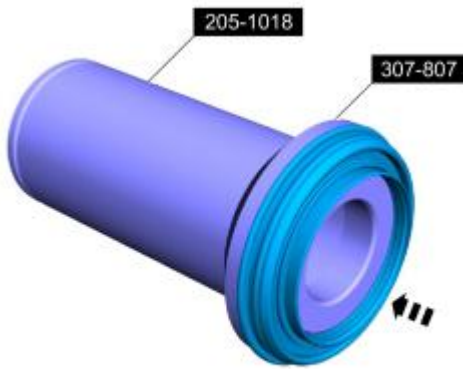




E315764

**12.** Install the new torque converter hub seal on the special tools. Use Special Service Tool: 205-1018 Installation Tube, 307-807 Installer Converter Seal. (Figure 9)

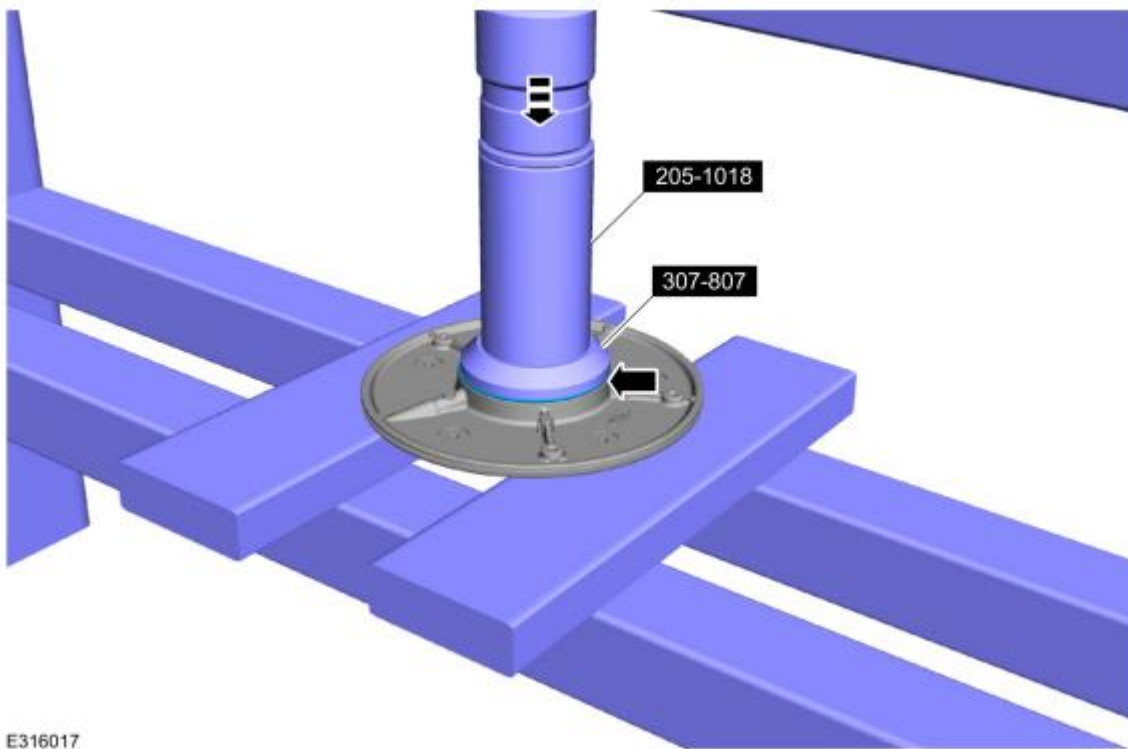
Figure 9



E316016

**13.** Using the special tools and a press, install the new torque converter hub seal on the new front support cover. Use Special Service Tool: 205-1018 Installation Tube, 307-807 Installer Converter Seal and the General Equipment: Hydraulic Press. (Figure 10)

Figure 10



E316017

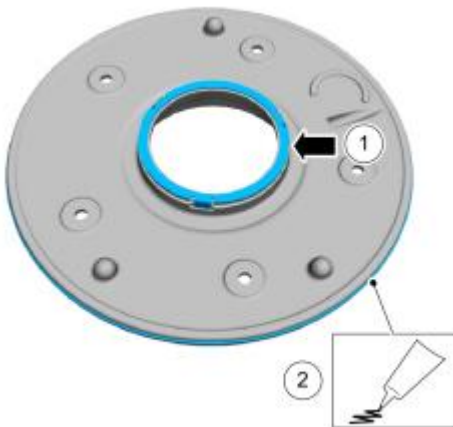
14. Install the transmission fluid pump drive gear washer removed during Step 10 of the front support cover removal onto the new front support cover.

**NOTE: Align the tabs of the drive gear washer with the slots on the new front support cover.**

**NOTE: Vehicles equipped with a PTO transmission only.**

15. Install the new front support cover seal onto the new front support cover. Lubricate the seal with petroleum jelly. (Figure 11)

Figure 11



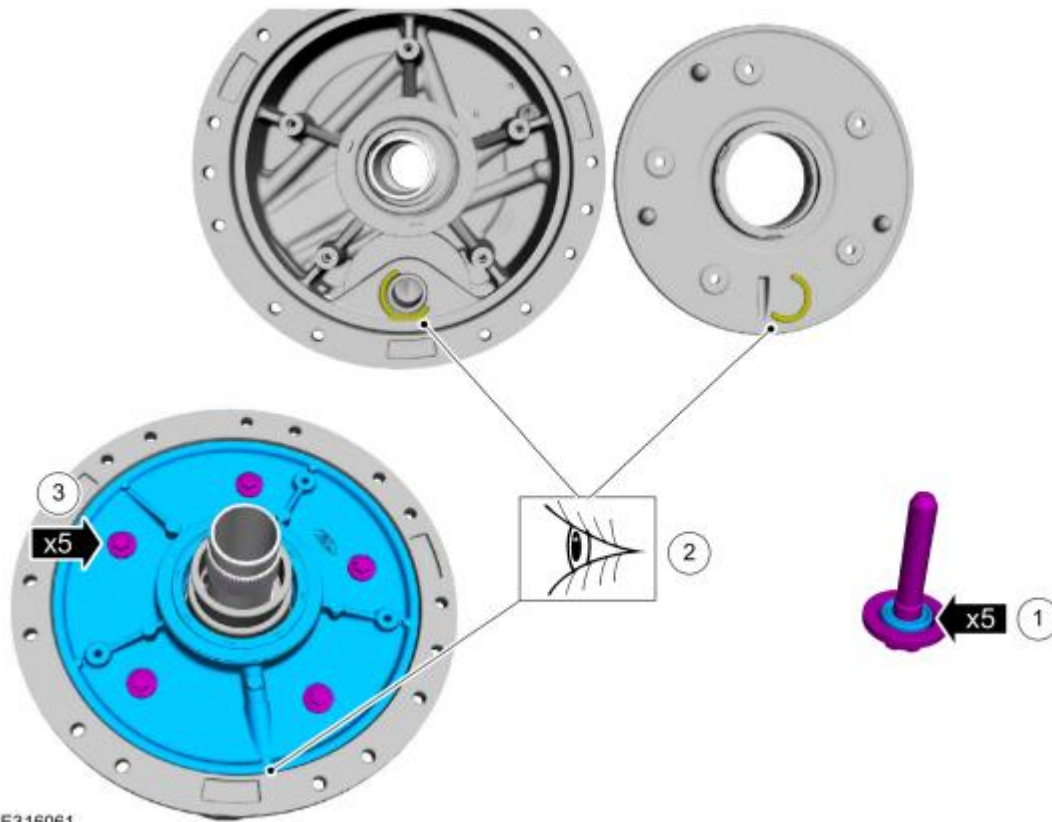
E316018

16. Install the new front support cover bolt washers.

17. Align the transmission fluid pump idler gear shaft casting marks.

18. Install the bolts and hand tighten in a crisscross pattern to compress the seal. (Figure 12)

Figure 12



E316061

(1). Tighten the bolts in a crisscross pattern. Tighten to 159 lb-in (18 Nm).

(2). The front support assembly shown is removed from the transmission for clarification. Do not remove the front support assembly from the transmission.

**19.** Remove the Special Service Tools: 307-810 pusher & sizer, F9 Seal guide and 307-812 pusher & sizer, F1 Seal guide.

**20.** Reinstall the torque converter by reversing the removal process.

**21.** Reinstall the transmission. Follow the WSM procedures in Section 307-01B.

© 2022 Ford Motor Company

All rights reserved.

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.