



## TECHNICAL SERVICE BULLETIN

### 3.5L EcoBoost - Oil Pan Leaking - Built On Or Before 19-Mar-2018

**20-2051**  
25 February 2020

This bulletin supersedes 20-2015. Reason for update: Incorrect or Missing Parts

#### Model:

<b>Ford</b>
2017-2018 F-150
2018 Expedition
<b>Lincoln</b>
2018 Navigator

#### Summary

This article supersedes TSB 20-2015 to update the Parts List.

**Issue:** Some 2017-2018 F-150 vehicles equipped with a 3.5L EcoBoost engine built at Kansas City Assembly Plant on or before 23-Feb-2018 or Dearborn Truck Plant on or before 26-Feb-2018 and Expedition/Navigator vehicles built on or before 19-Mar-2018 may exhibit an oil leak from the oil pan RTV seal. This may be due to a lack of RTV adhesion. This article includes detailed steps to achieve proper RTV adhesion. To correct the condition, follow the Service Procedure steps to replace the oil pan.

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

- One of the following vehicles:
  - 2017-2018 F-150 built at Kansas City Assembly Plant on or before 23-Feb-2018
  - 2017-2018 F-150 built at Dearborn Truck Plant on or before 26-Feb-2018
  - 2018 Expedition/Navigator built at Kentucky Truck Plant on or before 19-Mar-2018
- 3.5L EcoBoost engine
- Oil leak from oil pan RTV seal

**NOTE:** Part quantity refers to the number of that service part number required, which may be different than the number of individual pieces. Service part numbers contain 1 piece unless otherwise stated.

#### Parts

Part Number		Description	Quantity
HL3Z-6675-A	-	Oil Pan	1
AA5Z-6714-A	-	Oil Filter	1
N808684-S101	-	Steering Shaft Bolt (2018 F-150)	1
W702600-S439	-	Steering Shaft Bolt (2018 Expedition/Navigator)	1
		Axle Housing Nut	1

W712723-S441	Package Contains 4 Pieces, 1 Pieces Required		
W712724-S439	Package Contains 4 Pieces, 2 Pieces Required	Axle Housing Bolt	1
W716700-S442	Package Contains 4 Pieces, 1 Pieces Required	Axle Housing Nut	1
W712743-S439	Package Contains 4 Pieces, 1 Pieces Required	Axle Housing Bolt	1
TA-357	-	Motorcraft® High Performance Engine RTV Silicone	As Needed
ZC-30-A	-	Motorcraft® Silicone Gasket Remover	As Needed
ZC-31-B	-	Motorcraft® Metal Surface Prep Wipes	As Needed
PM-4-A	-	Motorcraft® Metal Brake Parts Cleaner (Compliant With Low Volatile Organic Compound Requirements As Required In Some USA States)	As Needed
PM-4-B	-	Motorcraft® Metal Brake Parts Cleaner (Not Compliant With Volatile Organic Compound Requirements)	As Needed
ZC-20	-	Motorcraft® Engine Shampoo and Degreaser	As Needed
XO-5W30-Q1SP	-	Motorcraft® SAE 5W-30 Premium Synthetic Blend Motor Oil (All Markets Except Canada)	6
CXO-5W30-LSP6	-	Motorcraft® SAE 5W-30 Super Premium Motor Oil (Canada Only)	6

**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

Description	Operation No.	Time
2017 F-150 4X2 3.5L EcoBoost: Inspect And Replace The Engine Oil Pan (Do Not Use With Any Other Labor Operations)	202051A	3.2 Hrs.
2017 F-150 4X4 3.5L EcoBoost: Inspect And Replace The Engine Oil Pan (Do Not Use With Any Other Labor Operations)	202051B	3.6 Hrs.
2018 Expedition/Navigator/F-150 4X2 3.5L EcoBoost: Inspect And Replace The Engine Oil Pan (Do Not Use With Any Other Labor Operations)	202051C	2.3 Hrs.
2018 Expedition/Navigator/F-150 4X4 3.5L EcoBoost: Inspect And Replace The Engine Oil Pan (Do Not Use With Any Other Labor Operation)	202051D	2.9 Hrs.

#### Repair/Claim Coding

Causal Part:	6675
Condition Code:	D8

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## Service Procedure

**⚠ CAUTION: Cleaning and preparation of the engine sealing surface is absolutely critical for proper adhesion of the new oil pan. Improperly cleaned and prepared sealing surfaces will result in an oil leak.**

1. Remove and discard the oil pan. It is recommended to allow the crankcase to drain overnight to prevent contamination of the engine sealing surface. Refer to the Workshop Manual (WSM), Section 303-01.
2. Thoroughly clean the engine sealing surface using Motorcraft® Silicone Gasket Remover and a plastic scraper. Allow the gasket remover to set for several minutes after application to aid in removal of the RTV sealant. Refer to the WSM, Section 303-00.

(1). The engine block skirt stiffener sealing surface must be clean and free of any residual RTV. Do not use metal scrapers, wire brushes, or rotary tools of any type on the engine sealing surface. These tools will cause damage to the sealing surface including scratches or gouges that will create leak paths. A second application of Motorcraft® Silicone Gasket Remover may be required.

**⚠ CAUTION: When cleaning the engine sealing surface it must be wiped clean using a lint free cloth. Spraying the surface with brake cleaner and air drying will not adequately remove the oil and other contaminants from the surface and may leave residue from the brake cleaner that may interfere with RTV adhesion.**

3. Use a lint free towel and Motorcraft® Metal Brake Parts Cleaner to remove all residual sealant and oil from the engine sealing surface until a clean lint free towel no longer shows any residual oil when wiping the surface. (Figures 1-2)

(1). Use only Motorcraft® Metal Brake Parts Cleaner to clean the engine sealing surface. Some unapproved brake parts cleaners contain chemicals that will inhibit RTV adhesion or may evaporate without removing all of the residual oil from the sealing surface which will result in a repeat leak condition.

Figure 1



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Figure 2



**⚠ CAUTION: Motorcraft® Engine Shampoo and Degreaser is used to remove residual brake cleaner which can cause RTV failure and prepare the surface for the Motorcraft® Metal Surface Prep Wipes. The use of any other brand engine shampoo or engine cleaner can compromise the sealing surface and could lead to failure of the RTV seal and a fluid leak.**

4. Use Motorcraft® Engine Shampoo and Degreaser to clean the surface of any remaining oil contamination and prepare the surface for the Motorcraft® Metal Surface Prep Wipes. After Motorcraft® Engine Shampoo and Degreaser, dry the surface with a lint free towel.

**⚠ CAUTION: Do not use Motorcraft® Metal Surface Prep Wipes on the replacement oil pan. Using Motorcraft® Metal Surface Prep Wipes on the oil pan will contaminate the treated oil pan sealing surface causing reduced RTV adhesion and a potential oil leak.**

5. Wipe the metal engine block skirt stiffener sealing surface using Motorcraft® Metal Surface Prep Wipes. Thoroughly coat the surface with the fluid. Discard wipes after a single use.

(1). Motorcraft® Metal Surface Prep Wipes create a conversion coating providing an improved base for RTV sealing. The fluid is a water-based, slightly acidic solution that will etch and bond to the metal to provide a microscopic layer to which the RTV can adhere. If the surface is oily, the solution will bead and the surface will not be treated properly. If the solution beads when applied to the sealing surface, the surface must be cleaned again and Motorcraft® Metal Surface Prep Wipes reapplied. (Figures 3-4)

Figure 3

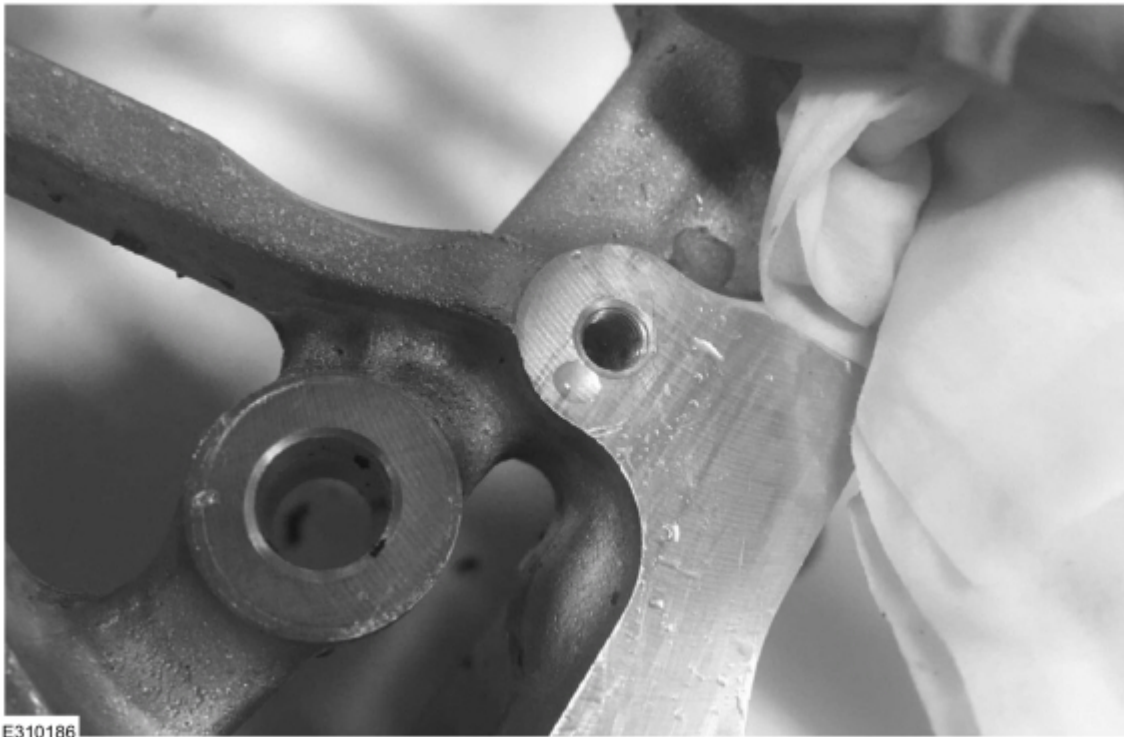
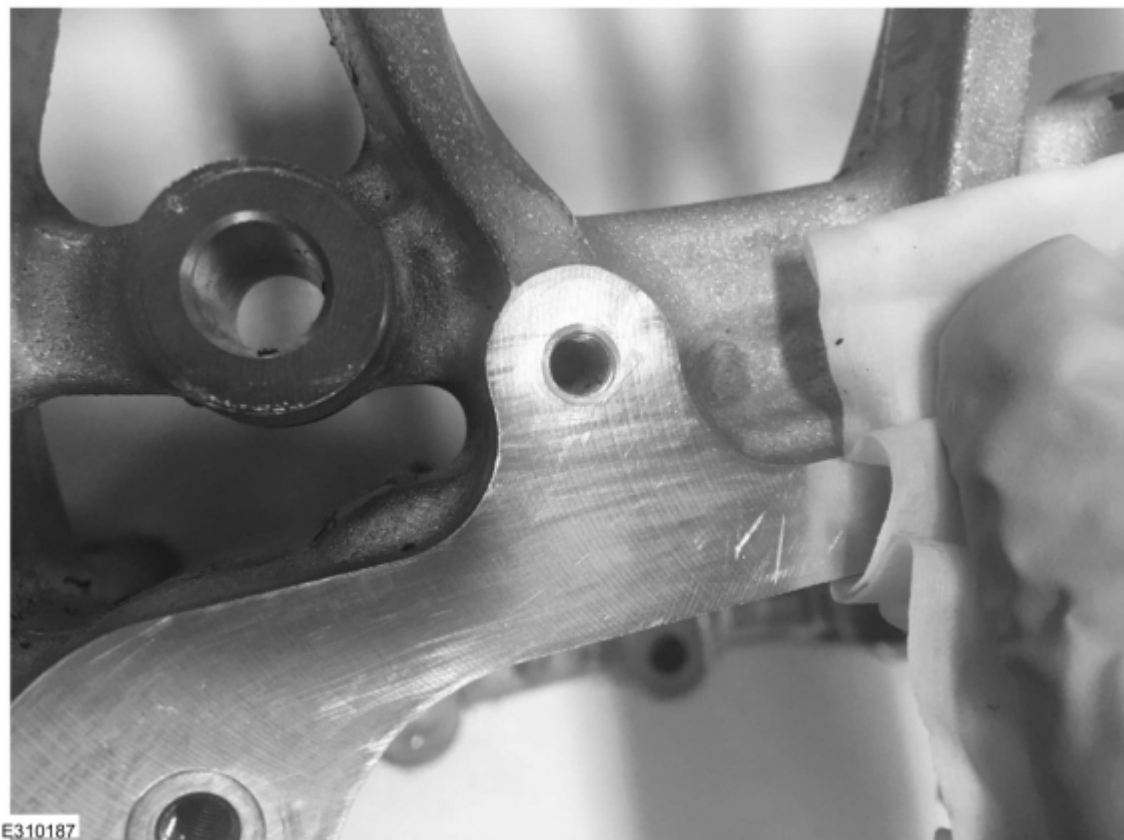


Figure 4



**NOTE:** If the sealing surface or an area of the sealing surface becomes contaminated after it has been prepared, use a lint-free towel soaked in isopropyl alcohol to clean the area. Prepare the area again using Motorcraft® Metal Surface Prep Wipes.

6. Allow the surface to air dry for approximately 2 minutes.

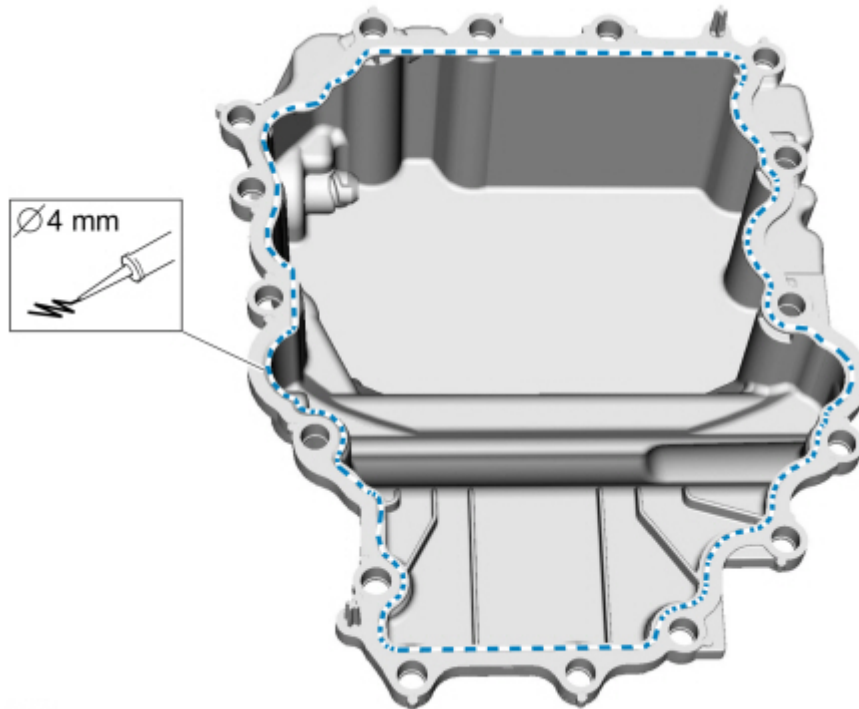
(1). Do not dry the surface using any other method. Attempting to dry the surface may result in sealing surface contamination that may cause oil leaks.

**NOTE: The oil pan must be installed within 10 minutes of applying the RTV.**

7. Apply a 4 mm (0.16 in) bead of Motorcraft® High Performance Engine RTV Silicone to the new oil pan. (Figure 5)

(1). Using too little sealant may result in oil leaks and using too much sealant may result in oil contamination and engine damage.

Figure 5



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8. Install the new oil pan. Refer to the WSM, Section 303-01.

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