



**DETROIT**<sup>TM</sup>  
**DEMAND PERFORMANCE**<sup>SM</sup>

## **18SP706 – Replacement of the High Pressure Fuel Pump Camshaft Oil Seal (P/N: A0060705101)**

### **KIT CONTENTS**

Service kit P/N: A0060705101 contains all of the necessary parts to replace the high pressure fuel pump camshaft oil seal on EPA07/10 and GHG14 DD13/15/16 engines, built before engine serial number 201835 (KM59 - GEN1 fuel system) and ESN 205055 (KM63 - GEN2 fuel system).

For engines built after these engine serial numbers, the new design seal has already been implemented. If after diagnostics, you determine the HPFP camshaft oil seal is leaking, replace the pump and return to the original pump to Detroit.

<b>Part No.</b>	<b>Qty.</b>	<b>Description</b>
A0159979846	1	High Pressure Fuel Pump Oil seal
A0179978945	1	High Pressure Fuel Pump O-ring
A0019919760	1	High Pressure Fuel Pump Locating Pin
18SP706	1	Installation Instructions

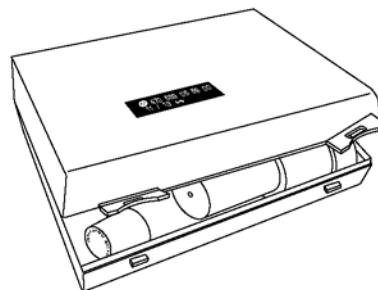
### Service Tools Used in the Procedure

**Tool Number**  
W470589055900

**Tool Description**  
High Pressure Fuel Pump  
Camshaft Oil Seal Kit

**Tool Graphic**

NOTE: This tool kit contains tool numbers W470589055901, W470589055902 and W470589055903



W470589055901 Camshaft Oil Seal Installer



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d580144

W470589055902 Camshaft Oil Seal Sleeve



d580143

W470589055903 Camshaft Oil Seal Remover



d580145

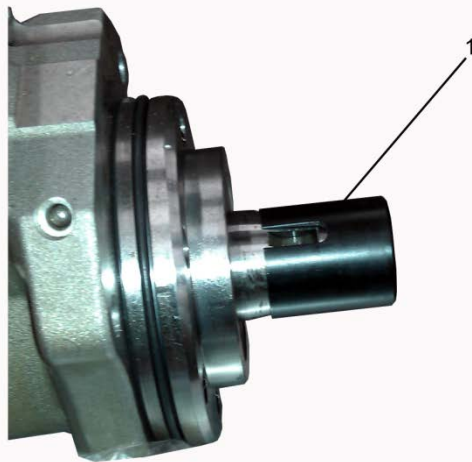
Replace as follows:

1. Remove the high pressure fuel pump from the engine. Refer to Power Service Literature for detailed instructions on how to remove the high pressure fuel pump.

2. Remove the high pressure fuel pump gear from the high pressure fuel pump. Refer to Power Service Literature for detailed instructions on how to remove the high pressure fuel pump drive gear.

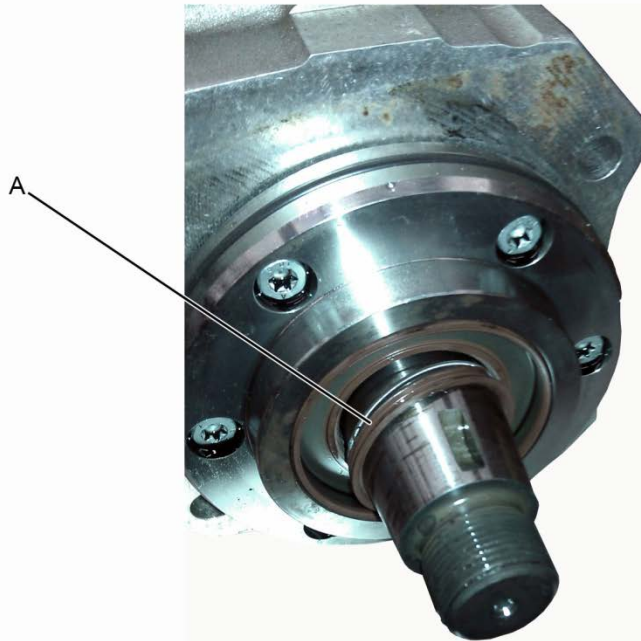
3. If equipped with a key, remove the high pressure fuel pump key from the high pressure fuel pump camshaft. If equipped with a pin, refer to Power Service Literature for detailed instructions on how to remove the high pressure fuel pump locating pin.

4. Install the high pressure fuel pump camshaft oil seal remover protector tool (1) on to the high pressure fuel pump.



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NOTE: While installing the camshaft oil seal remover tool to the camshaft oil seal, the oil seal lip (A) may rip. If the oil seal lip (A) rips, remove and discard the oil seal lip. Then reinstall the camshaft oil seal remover tool.



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5. Position the camshaft oil seal remover tool (W470589055903) over the high pressure fuel pump camshaft till it has made contact with the camshaft oil seal. Once the camshaft oil seal remover tool (W470589055903) has made contact with the camshaft oil seal, press the remover tool firmly against the camshaft oil seal and rotate the camshaft remover tool (W470589055903) clockwise by hand till the remover tool has screwed in to the camshaft oil seal.



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6. Remove the camshaft oil seal by holding the camshaft oil seal remover tool (1) and turning the camshaft oil seal remover tool bolt (2).



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7. Remove the camshaft oil seal from the camshaft oil seal remover tool (W470589055903).

8. Clean the face of the camshaft fuel seal, camshaft and the outside sealing area of the camshaft oil seal inside the high pressure fuel pump.



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9. Install the camshaft sleeve tool (W470589055902) on to the camshaft.



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10. Lightly coat the camshaft sleeve tool (W470589055902) with clean diesel fuel.

**NOTICE:**

Damage will occur if the inside of the new service camshaft oil seal is touched or handled. If the inside of the new service camshaft oil seal has been touched or handled, discard the seal and install a new seal.

**NOTE:**

The illustration below shows the FLAT side (1) of the service camshaft oil seal.



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11. Place the new service camshaft oil seal on to the camshaft sleeve tool (W470589055902) with the FLAT side of the camshaft oil seal facing outwards.



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12. Using the camshaft oil seal installer tool (W470589055901), by hand, slide the camshaft oil seal inwards till the camshaft oil seal presses against the high pressure fuel pump.



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**NOTE:**

When installing the camshaft seal oil on to the high pressure fuel pump, the camshaft oil seal installer tool **MUST** make contact with the high pressure fuel pump to seat the camshaft oil seal correctly.

13. Remove the camshaft sleeve tool (W470589055902) from the camshaft.

14. Using a dead blow hammer, lightly tap the camshaft oil seal installer tool (W470589055901) until the tool makes contact with the high pressure fuel pump.





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15. Inspect the camshaft oil seal, camshaft and high pressure fuel pump for damage.



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16. If equipped with a key, install the high pressure fuel pump key on to the camshaft. If equipped with a pin, refer to Power Service Literature for detailed instructions on how to install the high pressure fuel pump locating pin.

**NOTE:**

Setting the locating pin depth is critical; follow the pin installation instructions closely.

17. Install the high pressure fuel pump gear on to the high pressure fuel pump. Refer to Power Service Literature for detailed instructions on how to install the high pressure fuel pump drive gear.

18. Install the high pressure fuel pump on to the engine. Refer to Power Service Literature for detailed instructions on how to install the high pressure fuel pump.



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**18SP706 1408** As technical advances continue, specifications will change. Printed in U.S.A.