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INFORMATION

Subject:

New Rear Main Seal and Special Tool for Installation

Models

A new crankshaft rear oil seal and installation tool have been released. This new seal requires that the rear main housing be removed from the vehicle in order to properly install the seal with the new tool.

This information will also be updated within SI.

Crankshaft Rear Oil Seal and Housing Removal

1. Remove oil pan assembly as outlined in the appropriate Service Information Manual.
2. Remove the crankshaft rear oil seal housing bolts.
3. Remove the crankshaft rear oil seal housing and gasket.
4. Place the crankshaft rear oil seal housing face down on a clean surface and support with blocks of wood.
5. Use a suitable driving tool and hammer and lightly tap around the outer edge of the seal to remove it.
6. Clean and inspect the crankshaft rear oil seal housing making sure it is free of any foreign material.
7. With all bolts removed from the housing, place it face up on a flat clean surface.

Crankshaft Rear Oil Seal and Housing Installation

- ^ EN 47623 Rear Main Seal Installer
- ^ J 8092 Drive Handle
- ^ J 45059 Angle Meter

Important: Do not apply or use any oil lubrication on the rear main oil seal, rear main oil seal housing or rear main seal installer EN 47623. Do not touch the sealing lip of the rear main oil seal once the protection sleeve is removed. Doing so will damage/deform the seal.

Clean crankshaft sealing surface with a clean, lint free towel. Inspect lead-in edge of crankshaft for burrs/sharp edges that could damage the rear main oil seal. Remove burrs/sharp edges with crocus cloth before proceeding.

1. Carefully remove protection sleeve from new rear oil seal assembly.

Important: Notice the direction of the rear oil seal. The new design seal is a reverse style as opposed to what has been used in the past. "THIS SIDE OUT" has been stamped into the seal as shown in the graphic.

2. Install the seal onto EN 47623 by placing the seal on an angle and using a twisting motion until it is fully seated.

3. Place EN 47623 along with J 8092 onto the housing as shown and apply a constant downward force until the seal is fully seated.

Note: Do not use a sealant or adhesive when installing this component. Use of a sealant or adhesive can cause improper sealing. A component that is not sealed properly can leak leading to extensive engine damage.

4. Install the crankshaft rear oil seal housing gasket and housing onto the engine. Make sure to use a new oil seal housing gasket.

Important: The plastic inserts in the crankshaft rear oil seal housing bolt holes are used to aid assembly only. The inserts are not required for service.

5. Install the crankshaft rear oil seal housing bolts and finger tighten.

6. Place a straight edge on the engine block oil pan flange and the crankshaft rear oil seal housing flange. Use a feeler gage to ensure there is no more than 0.10 mm (0.004 in) step on each side. If necessary, gently rotate the crankshaft rear oil seal housing to make the step equal on each side.

Note: Refer to Fastener Notice on page P-7 in Cautions and Notices.

7. Tighten the crankshaft rear oil seal housing bolts.

Tighten:

Tighten the crankshaft rear oil seal housing bolts to 15 N.m (11 lb ft). Use J 45059 to tighten the bolts an additional 50 degrees.

8. Recheck the step height on each side to ensure the crankshaft rear oil seal housing did not move. If the step height is beyond specification, reinstall the crankshaft rear oil seal housing and measure the step again. Replace the crankshaft rear oil seal housing if the clearance is still beyond specification.

9. Continue with oil pan installation as outlined in the Service Information Manual.