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Service Information Bulletin

SUBJECT	DATE
Crankshaft Oil Seals	March 2015

Additions, Revisions, or Updates

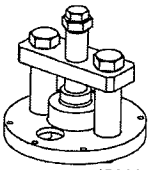
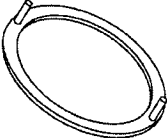
Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0081	DD Platform	Installation of the Front Crankshaft Oil Seal	Added special tools section. Removed note regarding seal ID. Corrected notice for proper seal installation. Added notice for different design front engine covers. Added graphic for front engine covers. Added step 6 for early style front cover seal installation. Added step 7 for later style front cover seal installation.
DDC-SVC-MAN-0181	EuroIV DD Platform		



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2 Installation of the Front Crankshaft Oil Seal

Table 1.

Service Tools Used in the Procedure		
Tool Number	Tool Name and Engine	Tool Graphic
W541 589 02 3300	Front Crankshaft Oil Seal Installer/Remover	 d580049b
W541 589 00 3400	Front Crankshaft Oil Seal Installing Ring	 d580158a

Install as follows:



WARNING: EYE INJURY

To avoid injury from flying debris when using compressed air, wear adequate eye protection (face shield or safety goggles) and do not exceed 276 kPa (40 psi) air pressure.

NOTICE: Handle the new front crankshaft oil seal with care. Do not damage the seal lip.

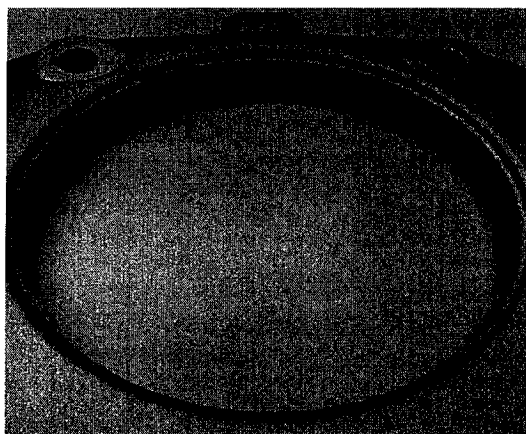
1. Use a suitable shop towel and compressed air to clean and dry the sealing surfaces of the front cover and crankshaft.

NOTICE: Front crankshaft oil seal lip should face inward for proper installation.

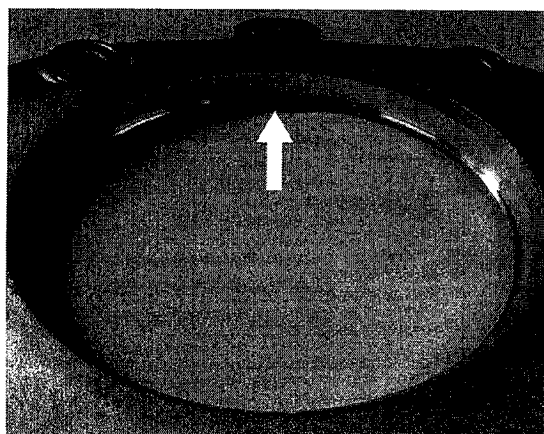
2. Install new front crankshaft oil seal onto plastic seal installation sleeve.
3. Carefully install oil seal and plastic installation sleeve over the crankshaft snout and loosely against the front cover.

NOTICE: There are two different engine front cover designs. The early design does not have a shoulder to stop the seal. See Illustration A. The depth of the seal is set by the installation tool and installing ring. The later design front cover incorporates a shoulder to set the seal depth. See Illustration B. The arrow indicates the shoulder. The type of front cover must be determined for proper installation of the front crankshaft seal to prevent potential damage to the seal or the front cover.

4. Remove plastic seal installation sleeve.



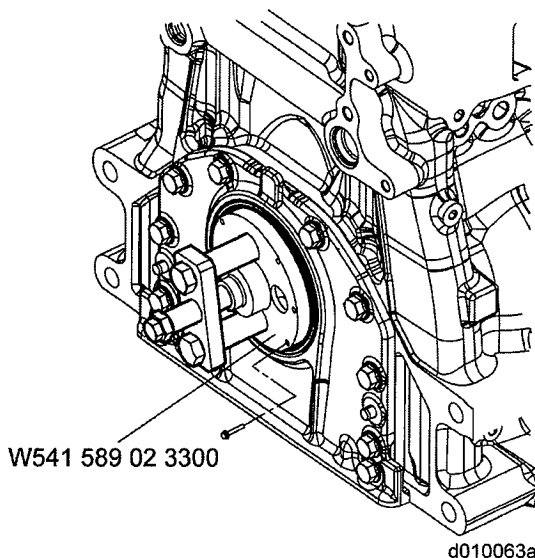
A



B

d010159

5. Secure the front crankshaft oil seal installer/remover tool (W541589023300) with front crankshaft oil seal installing ring (W541589003400) to the crankshaft.



6. Early style front cover with no shoulder: install the crankshaft seal by turning the forcing screw until the tool bottoms out on the snout of the crankshaft.
7. Later style front cover with shoulder: install the crankshaft seal by turning the forcing screw until resistance is felt, indicating the seal has reached the shoulder. Do not force the seal any farther.
8. Remove the installing tool and ring and visually check the oil seal for correct installation. The felt should face outward and the seal lip should face inward.
9. Install the splash ring and vibration damper and torque the eight bolts to 200 N·m (147.5 lb·ft). Refer to section "Installation of the Vibration Damper".
10. Install the poly-V belts. Refer to section "Installation of the Poly-V-Belts".



WARNING: ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.



WARNING: PERSONAL INJURY

To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.

11. Start the engine and inspect for leaks.
12. Close the hood.