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Service Information Bulletin

SUBJECT	DATE
DT12 Transmission Countershaft Brake Seals and Clutch	January 2017

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0140	DT12 Transmission	Installation of the Countershaft Brake Seals and Clutch	Revised procedure.



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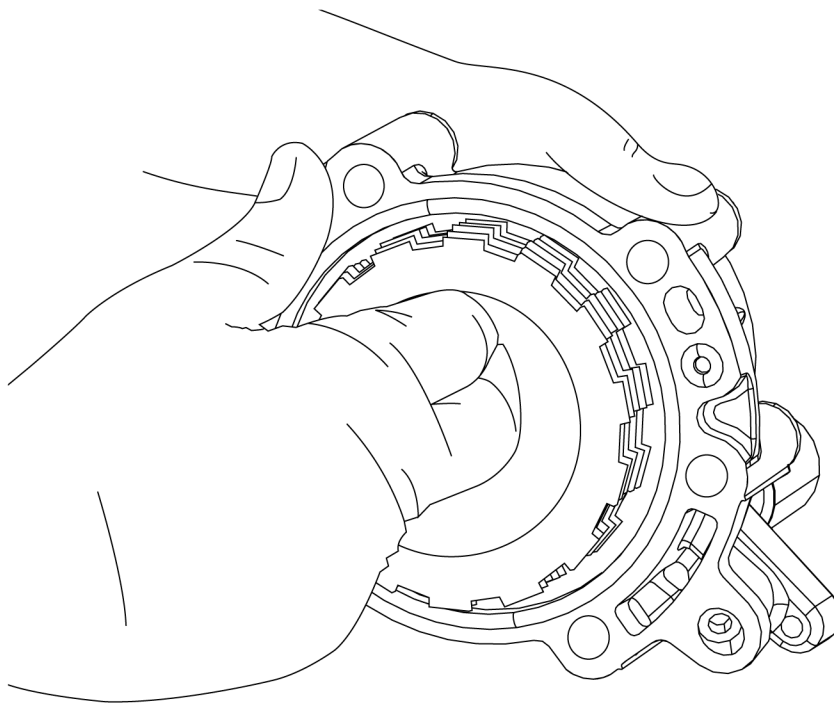
2 Installation of the Countershaft Brake Seals and Clutch

Install as follows:

1. Lubricate the O-rings with grease.

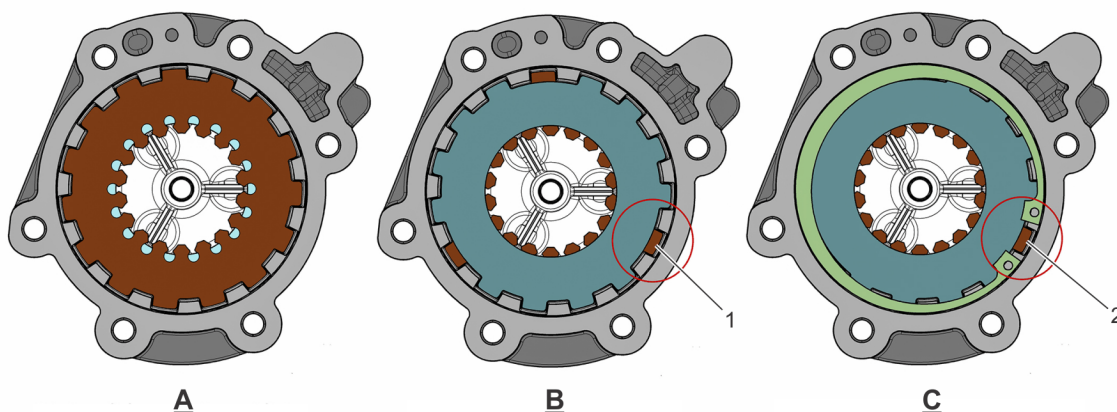
NOTE: If the seals and piston did not require service, begin with brake disk installation process at step 4.

2. Install the piston seals. The open side of the lip seals face away from the center seal.
3. Install the piston.
4. Insert the clutch disk pack together into the housing.



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5. Install the end plate so one of the missing teeth is located according to Figure B, callout #1.



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6. Install the snap ring.
7. Orient the split in the snap ring with the missing tooth in the end plate (2), as shown in Figure C. Align the grooves on the friction disks, that fit onto the splines of the countershaft, to allow the brake assembly to be slid onto the splines of the countershaft.

NOTE: The heavy washer is installed between the snap ring and the thin shim.

8. Install the heavy washer, then the shim, in the brake assembly.
9. Clean the old sealant from the housing bolt threads and the case.
10. Install the O-ring onto the countershaft bearing race.
11. Install the brake assembly onto the transmission.
12. Apply medium thread locker/sealer to the capscrews, then install the housing. Torque the capscrews to 25 N·m (18 lb·ft).
13. Install the air line. Torque the fastener to 10 N·m (90 lb·in.). If necessary, torque the air fitting end of the line to 12 N·m (105 lb·in.).
14. Install the transmission. For instructions, Refer to section "Installation of the Transmission".
15. Fill the transmission with oil. For specifications, see the Vehicle Maintenance Manual.
16. Relearn the Clutch. Cycle ignition OFF, then ON after learn has successfully completed.
17. To reseal the countershaft brake disc (must be performed with engine running), perform the following sequence:

Table 1.

NOTICE: DO NOT run this complete routine multiple times in a row, otherwise the brake could overheat without cooling time.
• 30°C (86°F) minimum transmission fluid temp required - short warmup or drive in the lot. • Release Park Brake. • Apply service brake for the following procedure. • Start Learning Dynamic values. • From Neutral - Select Drive or Reverse - Wait for gear engagement- then shift back to N. • From Neutral - accelerate engine to 1000 RPM - Lift off Throttle - Select Drive, wait for Gear engagement- then return to N. • From Neutral - accelerate engine to 1500 RPM - Lift off Throttle - Select Drive, Wait for Gear engagement- then return to N. • From Neutral - accelerate engine speed to 2000 RPM or max - Lift off Throttle - Select Drive, wait for Gear engagement - then return to N. • Dynamic values should now be learned - Take unit for a test drive to confirm - The dynamic values will continue to learn and improve further with usage.