



Technical Service Information

TOYOTA 540-E 540-H NO REVERSE NO ENGINE BRAKING

COMPLAINT: Before or after overhaul, Toyota vehicles equipped with the 540H or 540-E transaxle, may exhibit a no reverse condition as well as no engine braking when selecting Manual 2 or Manual 1.

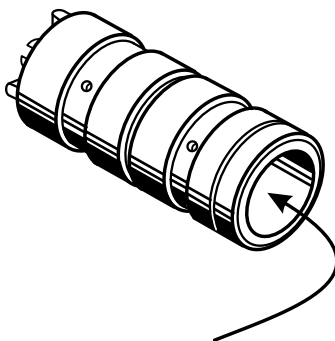
CAUSE: The cause may be, the inner o-ring in the Overdrive Direct Clutch Piston is blown out causing a leak in the O.D. Direct Clutch circuit. The reason for the piston seal blow out may be excessive wear in the Pressure Regulator Boost sleeve, causing high pressure in the Reverse circuit, bowing the piston in the center and blowing the piston seal out. **NOTE:** *ATSG has also had complaints with some after market filters having defective cork gaskets causing numerous holes in the spacer plate to be plugged causing very high pressure and the same failure.*

CORRECTION: To correct this condition, replace the boost sleeve with a replacement from Toyota or Sonnax, See Figures 1 and 3. Renew the piston seals in the O.D. Direct drum as shown in Figure 2. Verify that the piston is not warped by checking with a straight edge, also shown in Figure 2.

SERVICE INFORMATION:

540H BOOST SLEEVE (Toyota number).....	35417-32031
540-E BOOST SLEEVE (Toyota number).....	35417-32021
SONNAX BOOST VALVE AND SLEEVE (High ratio).....	89031-01K
SONNAX BOOST VALVE AND SLEEVE (Low ratio).....	89031-02K

540-E BOOST SLEEVE

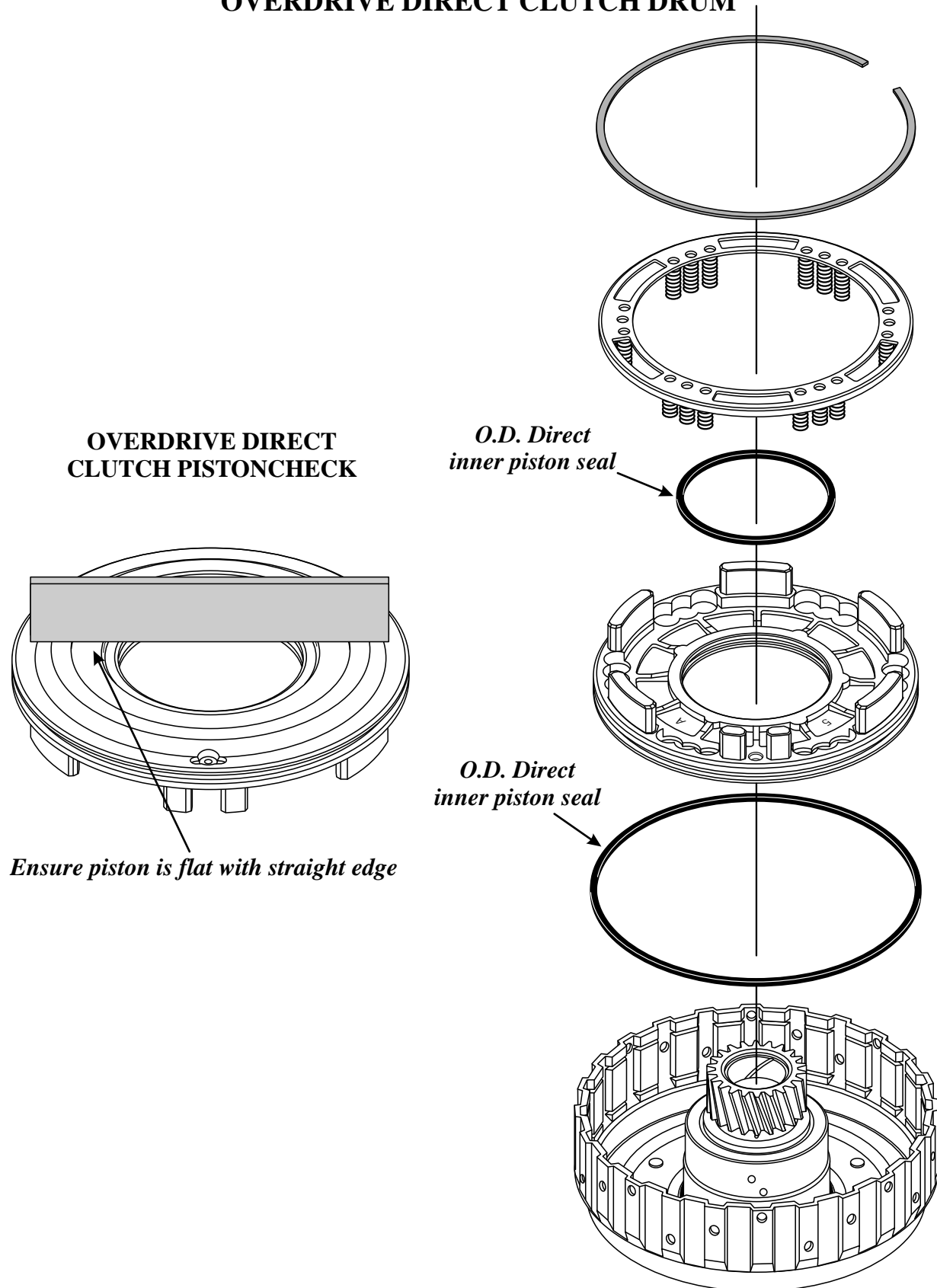


**INSPECT SLEEVE FOR WEAR
INSIDE OF SLEEVE**

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Figure 1

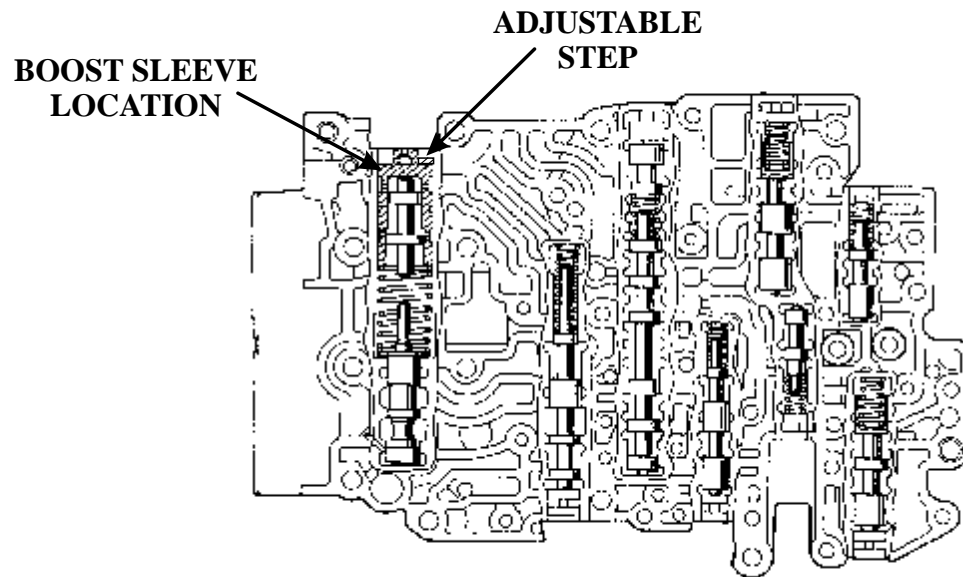
OVERDRIVE DIRECT CLUTCH DRUM



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Figure 2

540-E LOWER VALVE BODY



NOTE: THE BOOST SLEEVE ON 540-E HAS AN ADJUSTABLE STEP. ENSURE THAT THE RETAINER IS IN THE SAME LOCATION AS BEFORE.

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Figure 3