

March, 1965
PAGE I OF III

TO: ALL ROOTES DEALERS
MODEL: SUNBEAM IMP
SUBJECT: TRANSAXLE OIL LEAKS

Further to Bulletin E-2 the following more detailed advice is provided to assist you in dealing with any complaints in transaxle oil leaks. This information must be used in conjunction with Workshop Manual WSM.141.

Before commencing any work, the unit must be thoroughly cleaned off and run so that the exact point of oil leakage can be definitely established.

Oil leaks from items 1, 2, 3 and 4 can be dealt with quite satisfactorily without removing the transaxle unit, although obviously in some cases it will be necessary to drain the oil.

1. Leak between Drive Shaft and Drive Shaft Nut.

Disconnect the rotoflex coupling from the drive shaft flange, remove the drive shaft nut, Part No. 7104125, and the flange. Carefully coat the inner cone seating of the flange with Hylomar Jointing Compound, taking care to ensure that no compound gets onto the oil seal faces during re-assembly. Refit flange. Fit a new replacement nut and tighten to correct torque loading, 105 lbs. ft. (14.5 Kg.m). Ensure that the collar of the nut is correctly peened into the drive shaft slot using a suitable blunt chisel.

2. Detent Plug 9800622

Remove the locking plate detent plug and sealing washer, taking care to ensure that the detent spring and ball are not lost. Examine the plug sealing face on the inside of the mounting cover and carefully remove any signs of damage, burrs, etc. Should it be necessary to re-face the cover, great care must be taken to ensure that only the minimum amount of metal is removed, otherwise the detent spring may become coil bound. Should this condition occur, then a steel washer, 9067241, should be fitted between the existing fibre washer and the head of the drain plug, having first coated the steel washer both sides with Hylomar.

Carefully replace the detent ball and spring and tighten the plug to 6 lbs. ft. (.8 Kg.m) ensuring that the locking plate is correctly positioned.

3. Filler and Drain Plugs

Remove the plug and clean off any burrs on the plug or transaxle casing. Examine the casing threads and if damaged, a Helicoil insert should be fitted as described in the relevant Service Bulletin.

Refit the plug, using a new sealing washer and tighten to 35 lbs. ft. (4.8 Kg.m).

4. Inspection Cover

Remove the inspection cover and 'O' ring and examine the hypoid casing for any burrs or foreign matter, etc. When refitting cover, a new 'O' ring, Part No. 9107099, should be used.

5. Inner and Outer Screwed Sleeves.

Remove transaxle drive shaft flanges, inspection cover and split the hypoid casing. Remove crownwheel and pinion together with screwed sleeves, etc.

Inspect the inner screwed sleeve oil seal, Part No. 9102229, for any signs of damage or wear and replace if necessary. Examine the diff. shafts in the oil seal bearing area. If damaged, replace the shaft. Fit replacement 'O' rings, Part No. 9107089, between the inner and outer sleeves.

Prior to re-assembly, coat the hypoid casing faces with Hylomar Jointing Compound, taking care to ensure that the outer sleeve casing area is adequately covered. Fit a replacement clutch housing oil seal, Part No. 9102030, paying particular attention when refitting the primary shaft that this oil seal is not damaged.

Re-assemble the transaxle unit re-adjusting the crownwheel and resetting bearing pre-loads, etc.

Fit the drive shaft flanges. Carefully coat the inner cone seating of the flanges with Hylomar Jointing Compound, taking care to ensure that no compound gets onto the oil seal faces during re-assembly.

Fit new locking nuts, torque load to 105 lbs. ft. (14.5 Kg.m). Carefully peed the collar of the locking nuts into the diff. shaft slots, using a suitable blunt chisel. Fit the inspection cover and the new 'O' ring.

Re-assemble and refit transaxle, ensuring that it is filled with the correct quantity of Shell E.P. Oil.

6. Casing Joint Faces

Before removing the transaxle unit from the vehicle, first tighten all casing nuts to the correct torque (See Workshop Manual Data Section) and re-test. If the leak is still evident, remove the transaxle units from the vehicle and dismantle to the extent required to expose the suspect joint faces. Clean all exposed jointing surfaces with tetrachloride and remove any burrs, etc., taking care not to damage any sealing faces.

Using only Hylomar Jointing Compound, which should be lightly applied to the surface and completely cover it, re-assemble the unit in accordance with the detailed instructions in the Workshop Manual. Refer to the Data Section for torque loadings. Fit a new seal to the primary (clutch) shaft if this has been disturbed.

Refill gearbox with correct grade and quantity of oil.

N.B. If any leakage is apparent from the end mounting cover, the reverse idler shaft should be checked upon dismantling to ensure that it is correct to specification. The correct length is 1.312" (3.33 cm) maximum and if the shaft length is found to be in excess of this, then a replacement reverse idler shaft must be fitted.

7. Main Selector Shaft.

After cleaning the exposed end of the main selector shaft, and removing any burrs, remove the cover - gearbox mounting and check the selector shaft bore for roughness or burrs. Open out the stud holes (if this is not already done) as described in Bulletin E.37 under the heading "Different Selection". Fit a new seal to the selector shaft.

After cleaning, coat the cover joint faces lightly but completely with Hylomar and refit the cover to the gearbox, lightly tighten the securing nuts and check selector shaft for free and easy movement in the bore. Torque the securing nuts to the correct torque. (See Workshop Manual Data Section).

Fit a new gaiter to the selector shaft, noting that it is intended that this gaiter should move with the shaft and not be a tight fit on the boss of the cover.

Refill gearbox with correct grade and quantity of oil.

8. Primary (Clutch) Shaft.

Examine the clutch housing in the area behind and below the clutch release fork. If there is no visible oil track from the clutch shaft seal, then the seal is satisfactory and should not be disturbed. Minor contamination by oil mist in this area is acceptable.

If there is an obvious oil leak, examine the shaft for scratches or damage at the sealing surface. If damaged, fit a new shaft. Always fit a new seal.

Refill the gearbox with the correct grade and quantity of oil.

NOTE: Whilst the transaxle unit is separated from the engine, the opportunity should be taken to examine the bolts securing the flywheel to the crankshaft and the plug at the end of the oil gallery (behind the flywheel). Oil leaks from both these sources can be dealt with by sealing the threads with Wellseal Jointing Compound.

ROOTES MOTORS INCORPORATED


Kenneth Langridge
General Service Manager