

in such a manner that the rollers are held against the bearing outer race. Cord to extend outside uncovered quill opening at left side of transmission (step c).

NOTE

No. 6 oil jet must be removed to prevent it from being damaged when plug is removed. Rubber plug installation procedure must be followed to prevent damage to bearing in transmission when installing quill.

f. If not previously accomplished, lubricate new preformed packings (12 and 14) with oil (C166 or C168).

(1) Place preformed packings (12) on ends of drain tube (13) and install one end in transmission case opening.

(2) Place preformed packings (14) in each of the two outside grooves on sleeve (15), leaving middle groove open for oil flow.

(3) Recoat packings (14), OD of sleeve (15) and ID in transmission case opening with oil (C166 or C168).

g. Using a heat lamp, heat the transmission case opening at quill until case is hot to touch or 250 degrees F (121 degrees C).

h. Remove screws temporarily securing ring (8) to sleeve (11). Insert quill into transmission case and remove rubber plug through unused quill opening on left side of case. Install pusher set (T59.1) (3 each). Exercise care to engage gear teeth and to align nose of pinion gear (15) into roller bearings as quill is installed. Ensure that drain tube (13) is properly installed.

NOTE

Verification of the backlash (see paragraph j.) must begin immediately after removing the rubber plug (C230) to ensure that the quill pinion gear (15) and the bevel gear are engaging (meshing) and continue verifying that backlash exists until the ring (8) mates with the transmission case.

NOTE

Do not tap on outer race of freewheeling clutch assembly (7) while installing quill.

i. Secure quill assembly to case using aluminum washers, thin steel washers, and nuts. On the two lower studs, install aluminum washers, bracket, thin

steel washers, and nuts. Torque all nuts 160 to 190 inch-pounds.

j. Verify that backlash exists between quill pinion gear (15) and bevel gear by moving adapter flange of freewheeling clutch assembly (7) back and forth, some backlash must be evident. If no backlash exists, install new quill.

k. Apply a bead of class B-2 sealing compound (C244) around ring (11) and mating edge surfaces of transmission case. Fill three jackscrew holes with sealing compound or use threaded plugs (P/N MS24391D2L) and gaskets (P/N MS28777-2). Plugs should be torqued to 30 inch-pounds and safety wired (C155).

l. Install left cover assembly (P/N 204-040-174-1) and new preformed packing over transmission case opening. Secure cover with washers and bolts. Torque nuts 160 to 190 inch-pounds.

m. Install No. 6 oil jet (paragraph 6-66).

n. Install main driveshaft (paragraph 6-23).

o. Service transmission (paragraph 1-6).

p. Install upper left intake section, top section of induction baffle, and engine intake fairing. Close transmission cowl.

q. Check input drive quill for leakage on first engine runup, and perform maintenance test flight to check for freewheeling operation (TM 55-1500-328-25).

6-100. Return to Overhaul - Drive Quills. (AVIM).

The following procedures provide instructions for the preservation and packaging of reparable transmission drive quills (input, generator, hydraulic and tachometer) for shipment to an overhaul facility.

WARNING

Cleaning materials are flammable and toxic. Avoid skin contact and breathing of solvent vapors.

a. Thoroughly clean transmission drive quills with solvent (C261), and blow out all crevices and holes with dry filtered low-pressure compressed air.

b. Coat the entire quill with grade 3 corrosion preventive compound (C86). If a preservative compound is not available, use aircraft grease (C123 or C124) as an alternate.