

NOTE

A measurement of gear backlash is not required; however, some backlash must be evident. This may be checked by holding the output shaft and rocking the input coupling back and forth to feel and hear backlash. Allowance must be made for backlash in input couplings. This check for backlash could possibly detect some serious assembly error. Proper mounting of gears, to have 0.004 TO 0.010 inch backlash in assembly, has been established during manufacture by means of shims permanently installed on mounting faces of gear case and gear quill sleeve flange.

(4) Check gearbox for freedom of operation by turning input coupling.

(5) Apply a bead of sealing compound (C244) around gearbox case and quill sleeve flange mating joint. Fill jackscrew holes. Smooth sealing compound.

e. Install Magnetic Chip Detector Assembly in Tail Rotor Gearbox as follows: (Helicopters without ODDS).

(1) Install new gasket (34) on self-closing valve (35) and install in tail rotor gearbox housing. Torque valve **120 TO 150** inch-pounds.

(2) Install new packings (36) on chip detector and insert chip detector (37) into self-closing valve (35), press and turn clockwise to engage locking pins. Visually confirm that magnetic plug pins are visible in hole provided on nut portion of chip detector housing, P/N B752G.

(3) Lockwire (C155) self-closing valve (35).

f. Install chip detector in tail rotor gearbox as follows: (Helicopters with ODDS).

CAUTION

Do not overtorque valve (40). Overtorque can distort or crush light metal housing.

(1) Install new gasket (34) and self-closing valve (40) in gearbox housing. Torque valve **90 TO 110** inch-pounds and lockwire (C155).

(2) Install new packing (39) on chip detector probe (38) and install probe in valve.

(3) Perform continuity check of chip detector. Connect electrical wire to chip detector.

(4) Service gearbox (paragraph 1-8 and figure 1-1).

(5) Refer to paragraph 6-200.2 for installation of chip detector assembly PN VM2451001.

6-200. Installation - Tail Rotor Gearbox.

a. Check gearbox input quill for excess sealant in jackscrew holes. If sealant protrudes above surface of jackscrew holes, trim off excess sealant. Remove any uneven areas of sealant remaining on tailboom fin casting. Any cleaned area that penetrates to the bare metal should be protected with epoxy polyamide primer (C206).

b. Inspect 90 degree gearbox support fitting on tailboom for wear and damage limits (figure 2-63).

c. Remove nuts and shipping spacers from studs at input gear quill flange.

(1) Apply coat of PC (C86) on shank of studs and in holes of adapter.

WARNING

Insure that all flexible couplings on replacement components are adequately lubricated prior to installation.

NOTE

Gearbox shall be installed with wet unthinned zinc chromate primer applied to mating surfaces in accordance with paragraph 2-14e.

d. Position gearbox with studs through support casting at top of vertical fin. Install nuts with steel washers under nuts, and aluminum washers between steel washers and support casting. Using a star pattern, torque nuts evenly **100 TO 140** inch-pounds. Apply a bead of sealant (C244) around the outside of the joint between the gearbox and support casting to prevent moisture from accumulating and causing corrosion.