

- g. Inspect centering spring (20) by applying a test load of 5.0 plus or minus 0.5 pounds to compress spring 1.500 plus or minus 0.10 inches. The spring should return to free length of 2.00 +/- 0.03 inches.
- h. Inspect shaft (12) and coupling (13) in seal contact area for wear or roughness which would cause seal leakage.
- i. Inspect shaft (12) splines for nicks and scratches (figure 6-52.1).
- j. Inspect shaft (12) for looseness.

6-198. (AVIM) Repair - Tail Rotor Gearbox.

- a. Replace gearbox assembly if indications of bearing failure are evident.
- b. (AVIM) Replace gearbox assembly if gears are scuffed, scored, nicked, scratched or galled or if abnormal gear pattern is evident as shown in figure 6-53.

CAUTION

DO NOT INTERMIX OIL LEVEL INDICATOR DISK P/N 204-040-508-9 WITH THE 42 DEGREE GEARBOX INDICATOR DISK PIN 204-040-508-1.

- c. (AVIM) Replace input or output quill if damaged or if shafts (12) and coupling (13 figure 6-52) are worn or damaged in the seal contact area.
- d. Replace couplings (13 and 30) if excessively pitted, corroded, damaged or worn.
- e. (AVIM) Replace leaking seals during assembly.
- f. (AVIM) Replace packings during assembly.
- g. Replace oil level sight gage as follows:

(1) Remove oil level sight gage retaining ring, glass packing, and indicator disk to clean, inspect, or replace parts.

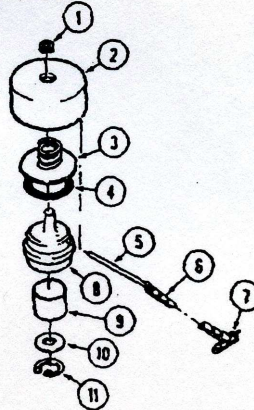
(2) To reinstall, place indicator disk in pert with indexing tab in notch of inner lip. Place packing in groove around sight glass, install glass with flat side out, and secure with spiral retaining ring.

CAUTION

DO NOT interchange filler caps of intermediate gearbox and tail rotor gearbox. The 90 degree gearboxes are marked with a white dot on the case and a corresponding white dot on the filler cap. The 42 degree gearboxes and filler caps have black dot markings. Ensure the 90 degree gearbox has a vented filler cap. To determine that 90 degree gearboxes filler caps are vented, look for presence of retaining ring (11, figure 6-54), packing (aluminum wool) (9) visible through washer (10).

h. Replace unserviceable oil filler cap or packing. If filler cap contains an insufficient amount of aluminum wool replace as follows:

- (1) Remove pin (5, figure 6-54) from cap (2). Replace chain (6) or pin (7) if damaged.
- (2) Remove retaining ring (1), cap (2), and spring assembly (3) from plug (8).



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|---------------------|----------------------------|
| 1. RETAINING RING | 7. PIN (SAFETY) |
| 2. CAP | 8. PLUG |
| 3. SPRING ASSEMBLY | 9. PACKING (ALUMINUM WOOL) |
| 4. PACKING (RUBBER) | 10. WASHER |
| 5. PIN | 11. RETAINING RING |
| 6. CHAIN | |

Figure 6-54. Tail Rotor Gearbox Oil Filler Cap