

7.210 Clutch Assembly Lubricant Inspection and Servicing

NOTE

To retrofit older clutch assemblies with C168-5 retainers, order KI-202 kit. Each C168-5 retainer has a B289-3 screw; screws must be installed on opposite sides of the clutch shaft (when one screw is on top, opposite screw must be on bottom). With C168-5 retainers installed, clutch lubricant inspection and servicing may be performed without clutch removal.

NOTE

Sprag clutch housing capacity is approximately 4 fl oz (118 ml).

A. Clutch Assemblies with C168-5 Retainers

WARNING

Avoid contaminating drive belts and sheaves with lubricant. Clean contaminated surfaces with mild soap and water solution, followed by a warm water rinse. Place a clean, absorbent rag beneath MT147-2 fittings, when installed, to catch any drips.

1. Remove C706-1 tailcone fairing assembly. Remove hardware securing C723-6 cover to C723 bulkhead and remove cover.
2. Rotate clutch shaft until bolts securing yokes to shaft are vertical. Engage rotor brake.
3. Rotate sheave until forward retainer B289-3 screw is on top. Remove screw and install clean MT147-2 fitting. Attach drain hose.
4. Rotate sheave until fitting and attached drain hose are on bottom. Route drain hose into a suitable, clean container. Remove aft retainer B289-3 screw and allow lubricant to drain into container.
5. Install second clean MT147-2 fitting in aft retainer and connect a clean supply of A257-4 lubricant to fitting. Flush sprag clutch housing until exiting lubricant is obviously red. Disconnect lubricant supply and allow lubricant to drain completely into container.
6. Strain all lubricant from container through a 180-200 micron paint filter/strainer. Fluid may be dark, and may sparkle with very fine metallic debris; this is normal. If metallic debris is trapped in the filter/strainer, remove clutch assembly and return it to RHC, or an R44 Service Center authorized to overhaul clutch assemblies, for disassembly and inspection.
7. If metallic debris is not found in the filter, attach drain hose to (top) aft retainer fitting. Route drain hose into a suitable container. Connect a clean supply of A257-4 lubricant to (bottom) forward retainer fitting. Fill sprag clutch housing thru bottom fitting until no air bubbles are visible in drain hose. Shut-off fluid flow.

7.210 Clutch Assembly Lubricant Inspection and Servicing (continued)**A. Clutch Assemblies with C168-5 Retainers (continued)**

8. Remove (top) aft retainer fitting and install screw. Rotate sheave until forward retainer fitting is on top. Remove fitting and verify lubricant level contacts threads; add lubricant as required. Install forward screw.
9. Install C723-6 cover on C723 bulkhead. Install C706-1 tailcone fairing assembly.

B. Clutch Assemblies with Retainers without B289-3 Screws

1. Perform clutch assembly (aft) seal replacement per Section 7.213.