



2.600 12-YEAR INSPECTION AND LIMITED OVERHAUL REQUIREMENTS

If less than 2200 hours time-in-service, but 12 years or more have elapsed since helicopter was new or last overhauled, proceed as follows:

**NOTE**

This Section does not supersede 2200 hour inspection and overhaul requirements contained in Section 3. Section 3 must be complied with based on component service lives regardless of when a 12-year inspection was completed.

2.610 Inspection Procedure

1. Ground check and run up aircraft per Sections 2.205 and 2.210.
2. Remove following components and return to an RHC-authorized component overhaul facility for disassembly and inspection per Section 2.630.

A005-2 or -6	Main Rotor Blade and Spindle Assembly
A005-4	Main Rotor Hub Assembly
A006-1 or -6	Main Rotor Gearbox and Mast Assembly
A007-3 or -5	Fanshaft and Bearing Assembly
A008-2	Tail Rotor Assembly
A017-2	Swashplate Assembly
A018-1 or -2	Clutch Assembly
A021-1 or B021-1	Tail Rotor Gearbox Assembly
B174-1	Fanwheel Assembly

3. On all aircraft, replace the following parts with new or overhaul exchange parts:

A011-2	Throttle Arm Assembly
A031-1	Tail Rotor Pitch Control
A041-11	Tail Rotor Driveshaft Damper Bearing Assembly
A051-1	Actuator Assembly
A120-1	Tail Rotor Bellcrank
A190-1 or -2	V-Belts
A258-1	Main Rotor Pitch Link Assemblies
A480-1	Swashplate Boot
A785-x	Hoses, Air Ducts (various dash numbers)
A792-2 or -4	Dual Tachometer
B283-x	Hose Assemblies (various dash numbers)
B173-1	Alternator Belt (3VX375)
B286-2	Governor Controller

4. Remove engine cooling panels, fanwheel, scroll, air induction system, carburetor heat system, oil lines, and all hoses. Flush and pressure test oil cooler. Overhaul or inspect, as required, magnetos, alternator, and carburetor per appropriate manufacturer's maintenance publications and service bulletins.
5. Remove horizontal and vertical stabilizers. Visually inspect. Verify no cracks, corrosion, loose rivets, dents, or deformation. Dye penetrant inspect suspect areas. Replace or upgrade horizontal stabilizer as required per Section 2.620.



2.610 Inspection Procedure (cont'd)

6. Remove landing gear assembly and replace as required per Section 2.620. If replacement is not required, completely disassemble, remove paint, and visually inspect. Verify no cracks, corrosion, or deformation. Magnetic particle and fluorescent penetrant inspect. Clean, prime, and paint using Section 1.400 approved materials.
7. Remove steel tube frames, replacing those specified in Section 2.620. Remove paint from frames not replaced, and visually inspect. Verify no cracks or corrosion. Magnetic particle inspect. Clean, prime, and paint using approved materials per Section 1.400.
8. Remove steel cyclic stick. Remove paint using Section 1.410-approved stripper. Visually inspect. Verify no cracks or corrosion. Magnetic particle inspect. Clean, prime, and paint using Section 1.400-approved materials.
9. Remove A121 push-pull tubes. Remove paint, and visually inspect. Verify no cracks or corrosion. Fluorescent penetrant inspect. Clean, prime, and paint using Section 1.400-approved materials.
10. Inspect airframe wiring condition. Verify no corrosion, insulation deterioration, or other damage.
11. Magnetic particle inspect A650 fittings and A337-1 jackshaft.
12. Inspect and pressure test fuel tank(s) and fuel system per Section 12.120 and 12.260.
13. Comply with latest revision of Lycoming Service Instruction 1009.
14. Replace additional parts as required per Section 2.620.
15. Assemble aircraft. Rig flight controls and rotor systems per Section 10.100. Verify fanwheel and tail rotor balance.
16. Inspect aircraft per Section 2.400.
17. Repeat Step 1.
18. Track and balance main rotor per Section 10.200.
19. Flight check aircraft per Section 2.220.
20. Drain, flush, and fill gearboxes per Section 1.100.
21. Weigh helicopter and calculate CG per section 1.230. Enter new Basic Empty Weight and CG in helicopter's POH Section 6.



2.620 Additional Parts Requiring Replacement on Some R22s

In addition to the parts from Section 2.610, Step 3, the following parts require replacement with new or overhaul exchange parts as noted:

<u>Part Number</u>	<u>Description</u>	<u>Notes</u>
A014-8	Landing Gear Assembly	Replace A014-8 originally installed on R22 S/ N 0002 thru 0487.
A020-2	Upper Frame Assembly	Replace frame S/N 0399 and prior (originally installed on R22 S/N 0002 thru 0311) with subsequent serial number. Note: Frame replacement may require tailcone forward bay replacement.
A044-1	Horizontal Stabilizer	Replace Rev M and prior (originally installed on R22 S/N 0002 thru 0631) with subsequent revision.
A169-1, -2, and -4	Muffler Assembly	Replace Rev J and prior (baffled muffler with straight tailpipe, originally installed on R22 S/N 0002 thru 0500) with subsequent revision.
A193-2	Flex Plate	Replace A193-2 (no bonded washers, originally installed on R22 S/N 0002 thru approx 0290) with A947-2.
A193-3	Flex Plate	Replace A193-3 (no bonded washers, originally installed on R22 S/N 0002 thru 0283) with A947-3.
A197-1 thru -7	Tail Rotor Drive Shaft Assembly	Originally installed on R22 S/N 0002 thru 0747. Replace with B224-1 driveshaft and appropriate B223 yoke. See R22 IPC.
A493-1	Lower Sheave	Replace Rev H and prior (anodized, originally installed on R22 S/N 0002 thru 0294) with subsequent (steel-sprayed) revision.
A649-1 &-2	Oil Cooler	Replace with C649-1.