CHAPTER 3

LIFE-LIMITED COMPONENTS

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3.100 Life-Limited Components

3.110 Time-In-Service Records

It is the operator's responsibility to maintain a record of time in service for the airframe, engine, and life-limited components. R22s are equipped with either an oil-pressure-activated hourmeter which records engine run time or a collective-activated hourmeter which records flight (collective up) time. Either method may be used to track time in service, however numerical values for service lives depend on the tracking method used (refer to § 3.300).

Calendar time in service for the airframe and engine begins on the date of the original RHC-issued Export (or Standard) Certificate of Airworthiness for the helicopter. For spares without a storage limit specified in § 23-85, calendar time in service begins on the date of the RHC-issued Airworthiness Approval Tag (Authorized Release Certificate) issued with the invoice.

If a component or an inspection is scheduled for hourly and calendar intervals, comply with whichever requirement comes first, then reset interval unless otherwise specified.

When installing a life-limited part or a part with an overhaul requirement, record in the helicopter maintenance record the installation date, part number, part name, serial number, helicopter total time, and time in service accumulated by part since new or since last overhaul, as applicable.

WARNING

Components with mandatory overhaul times or life limits whose time in service is not reliably documented cannot be considered airworthy and must be removed from service.

3.120 Fatigue Life-Limited Parts

The Airworthiness Limitations Section (ref. § 3.300) lists the mandatory replacement schedule for fatigue life-limited parts.

Listed items (ref. § 3.300) must be removed from the helicopter at the specified intervals and permanently retired from service, preferably by destroying or damaging each part so it cannot inadvertently be returned to service.

3.200 Type Certificate Data Sheet (TCDS)

TCDS is available at FAA Dynamic Regulatory System website: https://drs.faa.gov.

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3.300 Airworthiness Limitations

The Airworthiness Limitations Section is FAA approved and specifies inspections and other maintenance required under 14 CFR §§ 43.16 and 91.403, unless an alternative program has been FAA approved.

Time in service may be tracked based on engine run time or based on flight (collective up) time. Either method may be used, however numerical values for service lives depend on the tracking method used.

R22 Fatigue Life-Limited Parts

Use the following lives if time is tracked based on engine run time as recorded by an oil-pressure-activated hourmeter:

Part Number	Description	Maximum Service Life
A016-2 (Retired by AD 2004-19-09)	Main Rotor Blade	2200 Hours or 10 years[1]
A016-4 (Retired by AD 2014-23-16)	Main Rotor Blade	2200 Hours or 12 years[1]
A016-6	Main Rotor Blade, Rev AW & Prior	2200 Hours or 12 years[1]
A016-6	Main Rotor Blade, Rev AX & Subsequent	2200 Hours or 15 years[1]
A029-1 and -2	Tail Rotor Blade, Rev U & Prior	2200 Hours or 12 years[1]
A029-2	Tail Rotor Blade, Rev V & Subsequent	2200 Hours or 15 years[1]
A146-1	Pinion, Main Gearbox (O-360 Engine)	2200 Hours
A158-3	Main Rotor Spindle	2200 Hours
B545-1	Gear Set, Tail Gearbox	2200 Hours
B545-2	Pinion, Tail Gearbox	2200 Hours
NAS630-80 (or MS21250-10080)	Coning Hinge Bolt	2200 Hours
NAS1351-4-20 (or A722-1 or -2)	Pitch Horn Screws	2200 Hours
NAS6604 (or NAS1304)	Tail Rotor Blade-to-Hub Attach Bolt	2200 Hours
A158-1	Main Rotor Spindle	2415 Hours[2]
A020-2	Upper Frame, Rev R & Prior	4200 Hours
A020-2 and -90	Upper Frame, Rev S & Subsequent	4400 Hours
A023-1, -20, -22, and -23	Tailcone Assembly	4400 Hours
A047-1 and -6	Upper Frame	4400 Hours
A154-1	Main Rotor Hub	4400 Hours
B370-1	Main Rotor Hub	4400 Hours
A020-84	Lower R.H. Frame	5110 Hours
A046-2	Lower R.H. Frame	5110 Hours
A062-2	Tail Rotor Hub	6000 Hours
A030-1	Tail Rotor Hub Assembly	6260 Hours

[1] Whichever limit occurs first. Calendar time starts on date of original RHC-issued Airworthiness Approval.
[2] Subject to AD 88-26-01 R2 compliance.

3.300 Airworthiness Limitations (continued)

R22 Fatigue Life-Limited Parts (continued)

Use the following lives if time is tracked based on flight (collective up) time as recorded by a collective-activated hourmeter:

Part Number	Description	Maximum Service Life
A016-2 (Retired by AD 2004-19-09)	Main Rotor Blade	1964 Hours or 10 years[1]
A016-4 (Retired by AD 2014-23-16)	Main Rotor Blade	1964 Hours or 12 years[1]
NAS630-80 (or MS21250-10080)	Coning Hinge Bolt	1964 Hours
NAS1351-4-20 (or A722-1 or -2)	Pitch Horn Screws	1964 Hours
A158-1	Main Rotor Spindle	2156 Hours[2]
A016-6	Main Rotor Blade, Rev AW & Prior	2200 Hours or 12 years[1]
A016-6	Main Rotor Blade, Rev AX & Subsequent	2200 Hours or 15 years[1]
A029-1 and -2	Tail Rotor Blade, Rev U & Prior	2200 Hours or 12 years[1]
A029-2	Tail Rotor Blade, Rev V & Subsequent	2200 Hours or 15 years[1]
A146-1	Pinion, Main Gearbox	2200 Hours
A158-3	Main Rotor Spindle	2200 Hours
A188-2	Sprag Clutch Assembly	2200 Hours
A647-1	Bearing, Main Rotor Shaft	2200 Hours or 12 years[1]
A647-6	Bearing, Tail Rotor Pitch Control	2200 Hours or 12 years[1]
A647-8	Bearing, Damper Assembly	2200 Hours or 12 years[1]
B545-1	Gear Set, Tail Gearbox	2200 Hours
B545-2	Pinion, Tail Gearbox	2200 Hours
NAS6604 (or NAS1304)	Tail Rotor Blade-to-Hub Attach Bolt	2200 Hours
A020-2	Upper Frame, Rev R & Prior	3750 Hours
A154-1	Main Rotor Hub	3928 Hours
A020-2 and -90	Upper Frame, Rev S & Subsequent	4400 Hours
A020-84	Lower R.H. Frame	4400 Hours
A023-1, -20, -22, and -23	Tailcone Assembly	4400 Hours
A046-2	Lower R.H. Frame	4400 Hours
A047-1 and -6	Upper Frame	4400 Hours
A062-2	Tail Rotor Hub	4400 Hours
B370-1	Main Rotor Hub	4400 Hours
A030-1	Tail Rotor Hub Assembly	5589 Hours

[1] Whichever limit occurs first. Calendar time starts on date of original RHC-issued Airworthiness Approval.
[2] Subject to AD 88-26-01 R2 compliance.

3.300 Airworthiness Limitations (continued)

Approved By: ERIC D SCHRIEBER Digitally signed by ERIC D SCHRIEBER Date: 2024.12.10 08:56:49 -08'00' Date: 10 Dec 2024

Federal Aviation Administration
for Manager, West Certification Branch, AIR 770

FAA Approved: Pages 3.3, 3.4, and 3.5 constitute the Airworthiness Limitations Section in its entirety, are considered segregated from the rest of the document, and set forth the FAA-approved mandatory replacement times for fatigue life-limited parts.

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