

ROBINSON HELICOPTER COMPANY

R22 MAINTENANCE MANUAL AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS RTR 060 VOLUME I

Production Certificate Number 424WE

Type Certificate Number H10WE



Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505-6115
United States of America

Phone: (310) 539-0508
Fax: (310) 539-5198
Web: <https://robinsonheli.com>

OFFICE HOURS

Monday through Friday, 7:30 a.m. to 4:30 p.m., Pacific Time.
Lunch hour is 11:30 a.m. to 12:30 p.m.

HOLIDAYS

Please visit <https://robinsonheli.com> for a list of holidays and company shutdowns.

CUSTOMER SUPPORT AND SPARES ORDERS

Please visit <https://robinsonheli.com> for Customer Support contact information. Procure parts from any R22 Dealer or Service Center, or order directly from RHC Customer Service via email, fax, or phone.

PUBLICATIONS

Viewing RHC Maintenance Manuals (MMs) and Illustrated Parts Catalogs (IPCs) online at <https://robinsonheli.com> is recommended to ensure use of current data. Viewing MMs and IPCs offline via paper or digital download requires verification that the data is current. Refer to the online MM or IPC Revision Log for the list of current pages.

SUBSCRIPTION ORDER AND RENEWAL FORMS

Subscription order and renewal forms are located at <https://robinsonheli.com>.

WARRANTY INFORMATION

Helicopter and parts warranty information is located at <https://robinsonheli.com>.

CHAPTER 3

LIFE-LIMITED COMPONENTS

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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:

<u>Part Number</u>	<u>Description</u>	<u>Maximum Service Life</u>
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:

<u>Part Number</u>	<u>Description</u>	<u>Maximum Service Life</u>
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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REVISION LOG

DEC 2024

The R22 Maintenance Manual (MM) list of effective pages and effective dates are given below. If a previously issued page is not listed below, it is no longer an effective page and must be discarded. The issue or revision date is in bold at the top of each revision log page.

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15.2	NOV 2020	18.9	JUN 2024	22.7	NOV 2020
15.3	OCT 2018	18.10	JUN 2024	22.8	NOV 2020
15.4	OCT 2018	18.11	JUN 2024	22.9	OCT 2018
15.5	OCT 2018	18.12	JUN 2024	22.10	OCT 2018
15.6	OCT 2018			22.11	OCT 2018
15.7	NOV 2020	19.i	OCT 2018	22.12	OCT 2018

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22.13	OCT 2018	23.32	JUN 2024	26.3	OCT 2018
22.14	OCT 2018	23.33	NOV 2020	26.4	OCT 2018
		23.34	NOV 2020	26.5	NOV 2020
23.i	DEC 2023	23.35	JUN 2024	26.6	NOV 2020
23.ii	DEC 2023	23.36	JUN 2024	26.7	OCT 2018
23.1	JUN 2024	23.37	JUN 2024	26.8	OCT 2018
23.2	JUN 2024	23.38	JUN 2024	26.9	OCT 2018
23.3	NOV 2020	23.39	NOV 2020	26.10	OCT 2018
23.4	NOV 2020	23.40	NOV 2020	26.11	NOV 2020
23.5	NOV 2020	23.41	NOV 2020	26.12	NOV 2020
23.6	NOV 2020	23.42	NOV 2020	26.13	JUN 2024
23.7	JUN 2024	23.43	JUN 2024	26.14	JUN 2024
23.8	JUN 2024	23.44	JUN 2024	26.15	JUN 2024
23.9	JUN 2024			26.16	JUN 2024
23.10	JUN 2024	24.i	OCT 2018	26.17	OCT 2018
23.11	JUN 2024	24.ii	OCT 2018	26.18	OCT 2018
23.12	JUN 2024	24.1	OCT 2018	26.19	NOV 2020
23.12A	JUN 2024	24.2	OCT 2018	26.20	NOV 2020
23.12B	JUN 2024	24.3	OCT 2018	26.21	OCT 2018
23.13	NOV 2020	24.4	OCT 2018	26.22	OCT 2018
23.14	NOV 2020			26.23	NOV 2020
23.15	NOV 2020	25.i	NOV 2020	26.23A	NOV 2020
23.16	NOV 2020	25.ii	NOV 2020	26.23B	NOV 2020
23.17	NOV 2020	25.1	NOV 2020	26.24	NOV 2020
23.18	NOV 2020	25.2	NOV 2020	26.25	OCT 2018
23.19	NOV 2020	25.3	NOV 2020	26.26	OCT 2018
23.20	NOV 2020	25.4	NOV 2020	26.27	OCT 2018
23.21	NOV 2020	25.5	NOV 2020	26.28	OCT 2018
23.22	NOV 2020	25.6	NOV 2020	26.29	OCT 2018
23.23	NOV 2020	25.7	NOV 2020	26.30	OCT 2018
23.24	NOV 2020	25.8	NOV 2020	26.31	NOV 2020
23.25	NOV 2020	25.9	NOV 2020	26.32	NOV 2020
23.26	NOV 2020	25.10	NOV 2020	26.33	NOV 2024
23.27	DEC 2023			26.34	NOV 2024
23.28	DEC 2023	26.i	NOV 2024	26.35	NOV 2024
23.29	DEC 2023	26.ii	NOV 2024	26.36	NOV 2024
23.30	DEC 2023	26.1	OCT 2018	26.37	NOV 2024
23.31	JUN 2024	26.2	OCT 2018	26.38	NOV 2024

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27.i	OCT 2018	31.i	OCT 2018	33.26	NOV 2020
27.ii	OCT 2018	31.ii	OCT 2018	33.27	NOV 2020
27.1	OCT 2018	31.1	OCT 2018	33.28	NOV 2020
27.2	OCT 2018	31.2	OCT 2018	33.29	NOV 2020
28.i	DEC 2022	32.i	OCT 2018	33.30	NOV 2020
28.ii	DEC 2022	32.ii	OCT 2018	33.31	NOV 2024
28.1	DEC 2022	32.1	OCT 2018	33.32	NOV 2024
28.2	DEC 2022	32.2	OCT 2018	33.33	NOV 2024
28.3	JUN 2024			33.34	NOV 2024
28.4	JUN 2024	33.i	NOV 2024	34.i	OCT 2018
28.5	DEC 2022	33.ii	NOV 2024	34.ii	OCT 2018
28.6	DEC 2022	33.1	NOV 2020	34.1	OCT 2018
28.7	JUN 2024	33.2	NOV 2020	34.2	OCT 2018
28.8	JUN 2024	33.3	OCT 2018	34.3	OCT 2018
28.9	DEC 2022	33.4	OCT 2018	34.4	OCT 2018
28.10	DEC 2022	33.5	OCT 2018	34.5	OCT 2018
28.11	JUN 2024	33.6	OCT 2018	34.6	OCT 2018
28.12	JUN 2024	33.7	OCT 2018	34.7	OCT 2018
28.13	DEC 2022	33.8	OCT 2018	34.8	OCT 2018
28.14	DEC 2022	33.9	OCT 2018	34.9	OCT 2018
28.15	JUN 2024	33.10	OCT 2018	34.10	OCT 2018
28.16	JUN 2024	33.11	OCT 2018	35.i	OCT 2018
28.17	DEC 2022	33.12	OCT 2018	35.ii	OCT 2018
28.18	DEC 2022	33.13	OCT 2018	35.1	OCT 2018
28.19	DEC 2022	33.14	OCT 2018	35.2	OCT 2018
28.20	DEC 2022	33.15	OCT 2018	36.i	OCT 2018
29.i	OCT 2018	33.16	OCT 2018	36.ii	OCT 2018
29.ii	OCT 2018	33.17	OCT 2018	36.1	OCT 2018
29.1	OCT 2018	33.18	OCT 2018	36.2	OCT 2018
29.2	OCT 2018	33.19	OCT 2018	36.3	OCT 2018
30.i	OCT 2018	33.20	OCT 2018	36.4	OCT 2018
30.ii	OCT 2018	33.21	OCT 2018	36.5	OCT 2018
30.1	OCT 2018	33.22	OCT 2018	36.6	OCT 2018
30.2	OCT 2018	33.23	NOV 2020	36.7	NOV 2024
		33.24	NOV 2020	36.8	NOV 2024
		33.25	NOV 2020		

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36.9	OCT 2018
36.10	OCT 2018
37.i	NOV 2020
37.ii	NOV 2020
37.1	DEC 2024
37.2	DEC 2024
37.3	DEC 2024
37.4	DEC 2024
37.5	DEC 2024
37.6	DEC 2024
37.7	DEC 2024
37.8	DEC 2024
37.9	DEC 2024
37.10	DEC 2024

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