

Robinson R44 Model Guide

The Robinson R44 is a four-seat, single-engine piston helicopter, in production since 1993. It is FAA-certificated as a normal category rotorcraft under Type Certificate H11NM. This guide covers the limits, loading rules and maintenance items a buyer should check. The Robinson R44 family includes the R44 and R44 II.

KEY TAKEAWAYS

- Four seats, piston engine; the R44 family (R44, R44 II) is listed at up to 350 nm range and 113 kt cruise.
- Maximum gross weight is 2400 lb. Each seat, including baggage, is limited to 300 lb.
- Vne is 130 KIAS at 2200 lb or below, and 120 KIAS above 2200 lb.
- R44 II fuel pumps and pressure relief valves have set replacement intervals. Check the records.

WEIGHT LIMITS AND LOADING

Maximum gross weight is 2400 lb (1089 kg) and minimum is 1550 lb (703 kg). The limit is 300 lb per seat including baggage, and 50 lb in any baggage compartment. Fuel burn moves the CG forward, so check loading with empty fuel as well as takeoff fuel.

MAINTENANCE RECORDS TO REVIEW

On R44 II helicopters with a Lycoming IO-540, the electric fuel pump P/N D743 must be replaced at 2200 hours TTIS. The pressure relief valve P/N D321-1 must be replaced at 12 years or before 2200 hours TTIS. The RSA-10AD1 fuel servo idle lever thrust washer needs an inspection every 500 hours, unless the terminating kit is fitted.

EQUIPMENT AND MODIFICATIONS

Check for STC installations and their flight manual supplements. A Tyler camera mount limits Vne to 115 KIAS or the placard speed, whichever is lower. A Garmin G500H installation is limited to VFR only. Any modification means the weight and balance record must be updated.

SPECIFICATIONS

Max Gross Weight Lbs	2400
Min Gross Weight Lbs	1550
Max Baggage Compartment Lbs	50
Max Per Seat Lbs	300

PERFORMANCE

Vne At Or Below 2200 Lbs Kts	130
Vne Above 2200 Lbs Kts	120
Autorotation Vne Kts	100
Family Max Range Nm	350
Family Max Cruise Speed Kt	113
Family Max Service Ceiling Ft	14000

SAFETY NOTES

- Do not exceed 100 KIAS with any cabin door removed, or at power above maximum continuous power (MCP).
- The FAA recommends inspecting the hydraulic flight control system. Check the self-locking nuts and attaching fittings are installed correctly.
- Combined failure of the fuel pressure relief valve and the electric fuel pump could cause a loss of engine performance.