

Robinson R44 Clipper Model Guide

The Robinson R44 Clipper is a four-seat, single-engine piston helicopter with a two-blade rotor, listed from 2006. The Pooleys guide says the Clipper is the R44 Astro fitted with floats and added anti-corrosion protection. The Clipper II is the same on the Raven II. No registry data was supplied, so the figures below are mostly for the Clipper II.

KEY TAKEAWAYS

- Clipper is the Astro-based R44 with fixed or pop-out floats and anti-corrosion protection. Clipper II is Raven II-based, at 2500 lbs gross against 2400 lbs.
- The Clipper I has a carburetted Lycoming O-540 with carb heat assist. The Clipper II has the fuel-injected IO-540, which needs no carb heat.
- Fuel planning guideline: 15 US gal per hour, plus 10% and at least 20 minutes remaining after the flight.
- Ask for drive belt history and AD/R44/20 bolt records. Both topics appear in the safety documents reviewed.

WHICH CLIPPER, AND WHAT IT CARRIES

Clipper II figures (Robinson spec sheet): Lycoming IO-540 six-cylinder, fuel injected, derated to 245 hp for takeoff and 205 hp continuous. Maximum gross weight is 2500 lb. Empty weight with pop-out floats is about 1570 lb. With standard fuel (29.5 gal), pilot, passengers and baggage can total 753 lb. Cruise is up to 106 kts at maximum gross weight.

INSPECTION AND RUNNING COSTS

The Robinson maintenance manual for the R44 series requires an inspection at 100 hours or 12 calendar months, whichever comes first. It also lists a 12-year inspection covering the tail rotor gearbox, swashplate, landing gear and hydraulic reservoir. Special inspections cover tail skid or rotor strikes, hard landing, overspeed and V-belts. A V-belt set (4 pairs) was listed at 790.00 in the January 2016 parts list.

WHAT TO CHECK BEFORE BUYING

Check the drive belts and the records of any belt stretching. Check AD/R44/20: bolt NAS6605-31 with vendor marking 01DO must not be installed, because of hydrogen embrittlement. Look for tail rotor, tail skid and hard-landing history. Confirm the airframe type, because the Clipper I is carburetted and the Clipper II is fuel injected.

SPECIFICATIONS

Takeoff Power Hp	245
Continuous Power Hp	205
Standard Fuel Gal	29.5
Auxiliary Fuel Gal	17
Maximum Operating Altitude Ft	14000

PERFORMANCE

Cruise Speed Kts	106
Max Range Nm	300
Hover Ceiling Ige Ft	8950
Hover Ceiling Oge Ft	7500
Min Rate Of Climb Fpm	1000
Fuel Burn Guideline Gph	15

WEIGHT & BALANCE

Max Takeoff Weight Lbs	2500
Empty Weight Lbs	1570
Standard Fuel Weight Lbs	177
Auxiliary Fuel Weight Lbs	102
Payload With Standard Fuel Lbs	753

SAFETY NOTES

- G-CLIO (Clipper I): a downwind out-of-ground-effect transition overpitched the main rotor. Rotor rpm fell and tail rotor authority was lost.
- VH-SXC (Clipper II): the forward drive belts dislodged and rotor drive was lost. Stretching new belts with the clutch actuator is no longer advised.
- Main rotor blades must be turning within 5 seconds of clutch engagement. Seek maintenance support if they are not.