R44® HELICOPTERS

ROBINSON®
HELICOPTER COMPANY

R44 HELICOPTERS

R44 Raven and Clipper helicopters are high performing, reliable, and easy to maintain. R44s have a two-bladed rotor system, a T-bar cyclic, and a 1+3 cabin configuration with unobstructed views from every seat.

A lightweight airframe and aerodynamic fuselage optimize airspeed and fuel economy. The helicopters' low tail-rotor tip speed, newly designed muffler, and large cambered tail reduce flyover noise.

R44 helicopters feature the latest in technology including streamlined instrument panels and crashworthy fuel bladder tanks.

R44 RAVEN I

The economical Raven I is powered by a Lycoming O-540 carbureted engine. The Raven I features carburetor heat assist that enhances safety by adding carburetor heat when the collective is lowered and reducing carburetor heat when the collective is raised.

R44 RAVEN II

The high-performance R44 Raven II is powered by a Lycoming IO-540 fuel injected engine. The IO-540 delivers better altitude performance, increased payload, and eliminates the need for carburetor heat.

FEATURES

- Simple two-bladed rotor system eliminates the need for lag hinges, dampers and hydraulic struts
- Proven aluminum and stainless steel construction of main rotor blades minimizes environmental wear and tear
- Hydraulic power controls eliminate stick shake and feedback forces
- Automatic clutch engagement simplifies the starting procedure, reducing the possibility of an overspeed during start-up
- Center positioned T-bar cyclic enables a comfortable grip position and allows trouble-free entry and exit of the cabin
- Left side flight controls are removable
- Transmit, intercom, and memory channel radio controls are conveniently integrated into cyclic grip
- Voice-activated intercom eliminates the need to use intercom switches during doors-on flights. Intercom switches are included for doors-off flights
- RPM governor monitors engine speed and adjusts the throttle automatically to maintain optimal RPM
- Rotor brake allows the pilot to stop the rotors quickly, reducing shutdown time and risk of injury to passengers and ground personnel
- LED anti-collision and navigation lights
- Dual HID landing lights

INTERIOR UPGRADES

- Leather seats available in tan, blue or gray
- Air conditioning (available in the Raven II) features front and rear vents which circulate cool air throughout the cabin. The system weighs 33 pounds and has a 12,000 Btu/hr cooling capacity.
- Bose A20 aviation headsets with active noise reduction and Bluetooth interface

Raven II shown with air conditioning and tan leather seats

RAVEN I STANDARD AVIONICS

- 6-hole instrument panel (8-hole panel optional)
- Garmin GTR 225B COM radio with 8.33 kHz channel spacing
- Garmin GTX Mode C transponder

Shown with optional artificial horizon

RAVEN II STANDARD AVIONICS

- 8-hole instrument panel
- Garmin GTR 225B COM radio with 8.33 kHz channel spacing
- Garmin GTX Mode C transponder

Shown with optional fire extinguisher, artificial horizon, directional gyro, and radar altimeter

Shown with Aspen EFD500H MFD (left) and EFD1000H Pro (right), Genesys HeliSAS autopilot, Garmin GMA 350H, and Garmin GTN 750 in pilot-side console

OPTIONAL AVIONICS

- A variety of Garmin avionics including easy to reach and see touchscreen navigators
- Aspen Primary Flight and Multifunction Displays provide flight instruments, moving map navigation, and additional situational awareness including traffic, weather, and terrain.
- Genesys HeliSAS autopilot developed specifically for light helicopters

CLIPPERS

Clippers are R44s equipped with fixed or inflatable (pop-out) floats providing an additional level of safety for over-water travel.

FIXED FLOATS

Available on either the Clipper I or Clipper II, fixed utility floats remain fully inflated for continuous over-water operations. Fixed floats add approximately fifty pounds to the aircraft's empty weight and reduce the aircraft's cruise speed by approximately ten knots.

POP-OUT FLOATS

Available only on the Clipper II and designed for emergencies, pop-out floats have six chambers and inflate within 2-3 seconds of activation. A lever on the pilot's collective releases pressurized helium from a tank located under the aircraft's front left seat. The activation lever uses a mechanical pull cable and does not rely on an electrically actuated system for inflation. Floats may be activated at speeds up to eighty knots.

Pop-out floats add approximately sixty-five pounds to the helicopter's empty weight. When not in use, floats roll-up and stow in protective covers along the aircraft's landing skids. The compact design minimizes drag and allows for easy entry and exit of the cabin.

MAINTENANCE

Fixed floats require preflight pressure checks to ensure proper float pressure.

Pop-out floats require preflight verification of the helium tank pressure, annual leak checks and must undergo emergency deployment tests every three years.

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SERVICE

Factory-trained technicians are available worldwide at Robinson approved service centers.

Maintenance is simplified, requiring only oil changes between 100-hour inspections. Main and tail rotor drive systems use maintenance–free flexible couplings in place of universal joints or gear couplings. Primary controls actuate by push-pull tubes and bell cranks, eliminating cables and pulleys. Teflon-lined bearings eliminate periodic lubrication requirements.

The Time-Between-Overhaul (TBO) is 2200 hours or twelve years. Life-limited components have approved service lives of at least 2200 hours or twelve years.

WARRANTY

The R44 carries a two-year or 1000-hour limited aircraft warranty.

STANDARD EQUIPMENT

- Hydraulic power controls
- RPM throttle governor
- Throttle correlator
- Carburetor heat assist *
- Main and auxiliary crash-worthy fuel bladder tanks
- Engine oil filter & quick drain
- Engine muffler
- Cabin heater and defogger
- Carbon monoxide detector
- Rotor brake
- Intercom switches
- Avionics master switch
- Tinted windows
- Fabric velour seats
- 3-point shoulder harnesses
- Pilot-side adjustable pedals
- Door locks
- Sound damping headliner
- Underseat storage
- Belly hardpoint
- LED anti-collision and navigation lights
- Dual HID landing lights
- LED panel and map lights
- Tow cart adapter
- Ground handling wheels
- Rotor blade tie downs
- Windshield cover
- Travel bag

STANDARD INSTRUMENTS

- Airspeed indicator
- Altimeter
- Rotor/engine dual tachometer
- Manifold pressure gage
- Vertical speed indicator
- Magnetic compass
- Cylinder head temp. gage
- Oil temp. & pressure gages
- Fuel gages
- Ammeter
- Carburetor air temp. gage *
- Digital OAT gage/voltmeter
- Hourmeter
- Quartz clock

WARNING LIGHTS

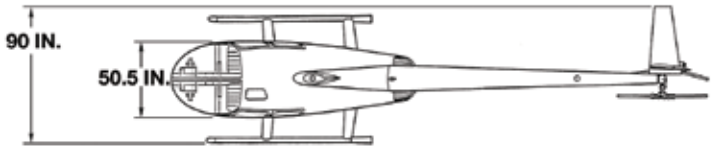
- Alternator low voltage
- Low fuel
- Low oil pressure
- Low rotor RPM (light & horn)
- MR gearbox temp.
- MR gearbox chip
- TR gearbox chip
- Engine fire
- Rotor brake engaged
- Starter engaged
- Clutch actuator
- Governor off
- Full throttle
- Carbon monoxide
- Fuel filter**
- Fuel pump**

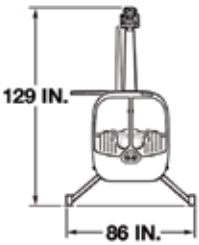
* Raven I ** Raven II

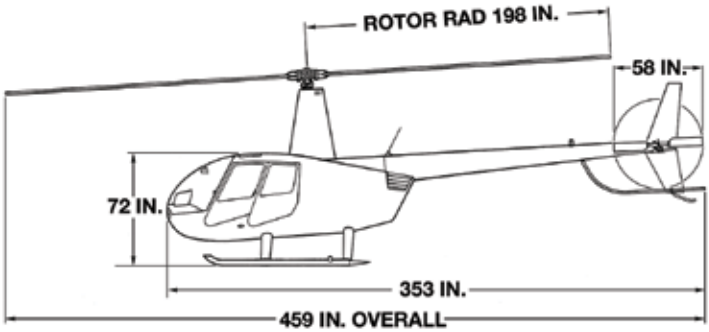
SPECIFICATIONS

	RAVEN I	RAVEN II
Engine	Lycoming O-540, six cylinder, carbureted	Lycoming IO-540, six cylinder, fuel injected
Horsepower	Derated to 225 for takeoff and 205 continuous	Derated to 245 for takeoff and 205 continuous
Maximum Gross Weight	2400 lb (1089 kg)	2500 lb (1134 kg)
Approximate Empty Weight (including oil & standard avionics)	1445 lb (655 kg)	1500 lb (680 kg)
Standard Fuel (29.5 gal)	177 lb (80 kg)	177 lb (80 kg)
Auxiliary Fuel (17.0 gal)	102 lb (46 kg)	102 lb (46 kg)
Pilot, Passengers, and Baggage (with standard fuel)	778 lb (353 kg)	823 lb (373 kg)
Cruise Speed	up to 113 kts (130 mph)	up to 116 kts (134 mph)
Maximum Range (no reserve)	approx 300 nm (350 sm)	approx 300 nm (350 sm)
Hover Ceiling IGE	6400 ft @ 2400 lb	8950 ft @ 2500 lb
Hover Ceiling OGE	4000 ft @ 2300 lb	7500 ft @ 2300 lb
Rate of Climb	over 1000 fpm	over 1000 fpm
Maximum Operating Altitude	14,000 ft	14,000 ft
Electrical System	28 volt	28 volt

DIMENSIONS







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