

# ROBINSON

## *R22 Beta II*





# ADVANCED TECHNOLOGY

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**Advanced Warning Devices.** The instrument panel includes low fuel warning light, main gearbox temperature and chip lights, tail gearbox chip light, low oil pressure light, engine fire light, low voltage alternator light, low RPM warning light and horn, plus rotor brake and starter engaged warning lights.

**RPM Governor.** No more throttle twisting; precision-engineered governor automatically controls engine RPM during all normal operations.

**Rotor Brake.** Allows the pilot to stop the rotor quickly, greatly reducing shutdown time and the risk of injury to ground personnel or passengers.

**Balanced Pistol Grip Cyclic Controls.** Ergonomic grips incorporate two-position trigger switches for intercom and transmit. Grips also have buttons for convenient storing and switching COMM frequencies.

**Automatic Clutch Engagement.** Simplifies start-up procedure and reduces the possibility of an overspeed.

**Carburetor Heat Assist.** Enhances safety and reduces pilot workload by automatically adding carb heat when the collective is lowered and reducing carb heat when the collective is raised.

**Lubrication.** Teflon-lined, elastomeric, and sealed bearings eliminate most periodic lubrication requirements.

**Controls.** Primary controls are actuated by maintenance-free bellcranks and push-pull tubes, eliminating the need for control cables and pulleys.



# RELIABILITY

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**Reliable Engine.** The dependable Lycoming O-360 engine is derated to 131 horsepower for take-off and 124 for cruise, giving the engine long life and unmatched reliability.

**Patented Rotor Design.** Robinson's patented tri-hinge rotor eliminates lag hinges, dampers, and hydraulic struts. Stainless steel main rotor blades resist corrosion and have thick leading edges to minimize erosion.

**Couplings.** Maintenance-free flexible couplings are used in place of universal joints or gear couplings in the main and tail drive systems.

**Inspections.** No scheduled maintenance other than oil changes are required between 100-hour inspections.

**Time-Between-Overhaul.** 2200 hours or twelve years approved time-between-overhaul period for the R22 engine and airframe. All life-limited components have approved service lives of at least 2200 hours.

**Worldwide Service.** Factory-trained technicians at more than 300 service centers throughout the world use certified Robinson parts and tools to provide quality service for Robinson helicopters.

# COMFORT



**Easy Ground Handling.** Light empty weight allows easy manual ground handling by one person. A convenient tow cart adaptor is also provided for use with the Robinson Electric Tow Cart.

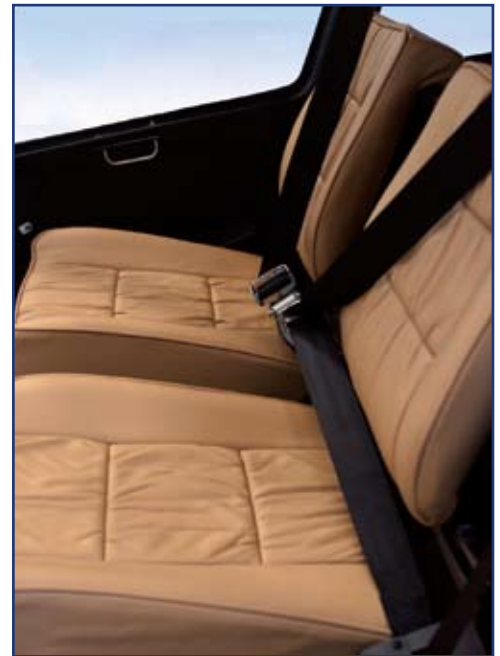
**Off Airport Landings.** High-mounted tail rotor and raised exhaust provide an added margin of safety at off-airport destinations.

**Two-Bladed Main Rotor.** Requires only one-third as much hangar space as a multi-bladed rotor.

**Low Noise Level.** Heavy-duty muffler and low tail rotor tip speed make the R22 a "community friendly," quiet helicopter. Thick acoustical foam achieves surprisingly low cabin noise levels.

**Ample Baggage Compartments.** Both seats hinge up for access to concealed storage areas for carry-on bags, briefcases, supplies, and other belongings. A custom Robinson travel bag is standard equipment with new R22s.

**Heating and Ventilation.** Fresh air vents in the cabin nose and each door provide generous ventilation for pilot and passenger. The optional heater distributes heat during cold weather operations.



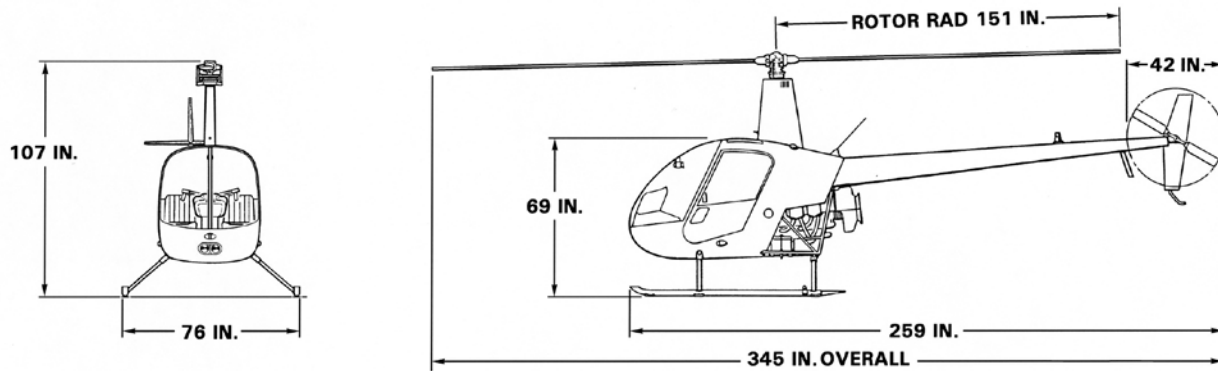
**T-Bar Cyclic.** Robinson's patented cyclic design eliminates uncomfortable stick between knees and eases cabin entry and exit.

**Voice-Activated Intercom Standard.** A high-quality voice-activated intercom eliminates the need to use intercom switches during doors-on flights. Floor and hand intercom switches are included for doors-off operations.

**Visibility.** Comfortable seating for two with wide, unobstructed views. Large windows in each door allow clear sideward visibility from both seats.



# EXTERNAL DIMENSIONS



# SPECIFICATIONS

## Weights

Gross Weight . . . . .	1,370 lb
Empty Weight Equipped (w/full oil) . . . . .	855 lb
Fuel (19.2 gal) . . . . .	115 lb
Auxiliary Fuel (10.5 gal) . . . . .	63 lb
Passengers and Baggage w/stdnd fuel . . . . .	400 lb

## Powerplant

Lycoming O-360 Four-Cylinder, Air-Cooled  
Derated to 131 horsepower for take-off and 124 for  
cruise at 2652 rpm

## Performance

Maximum Airspeed (Vne) . . . . .	118 mph (102 kts)
Cruise Airspeed @ 70% Power . . . . .	110 mph (96 kts)
Maximum Range (no reserve) . . . . .	Over 200 miles
Maximum Range (w/aux fuel) . . . . .	Over 300 miles
Average Fuel Consumption . . . . .	8 to 10 gph
Rate-of-Climb at Sea Level . . . . .	Over 1,000 fpm
Rate-of-Climb at 10,000 Feet . . . . .	Over 600 fpm
Maximum Operating Altitude . . . . .	14,000 feet
Hover Ceiling IGE @ 1370 GW . . . . .	9,400 feet

# QUALITY MANUFACTURING



Robinson Helicopter Company's 480,000 square foot manufacturing facility, designed for Robinson's specialized requirements, is equipped with the latest state-of-the-art equipment, including extensive use of computer numerically controlled (CNC) machining centers. Two dynamometer test cells are used in the overhaul center for precision engine testing.



Robinson's commitment to quality placed it among the first American aerospace companies to be awarded ISO 9001 certification for design, manufacturing, and service of helicopters. To maintain the highest quality standards, most operations; including welding, machining, assembly, painting, flight testing, and many more are all performed on site at the Torrance factory.

Robinson Helicopter Company is the world's leading manufacturer of civil helicopters.



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