

# R22<sup>®</sup> BETA II



ROBINSON HELICOPTER COMPANY



# R22 BETA II HELICOPTER



The **ROBINSON® R22 BETA II** is a two place, light utility helicopter with responsive handling and quick maneuverability. Powered by a Lycoming O-360 four-cylinder engine, the R22's proven reliability, low maintenance, and low operating costs make it ideal for a variety of applications.

A powder-coated steel-tube structure gives the R22 a rigid yet lightweight airframe, while the aerodynamic fuselage optimizes airspeed and fuel economy. With a two-bladed rotor system, the R22 requires only one-third the hangar space of a multi-bladed helicopter.

## FEATURES

**LYCOMING O-360 ENGINE** is derated to 131 horsepower for take-off and 124 for cruise at 2652 RPM, giving the engine long life and unmatched reliability.

**AUTOMATIC CLUTCH ENGAGEMENT** simplifies the starting procedure and reduces the possibility of overspeed during startup.

**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.

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**RPM GOVERNOR** monitors engine speed and adjusts the throttle automatically to maintain optimal RPM.

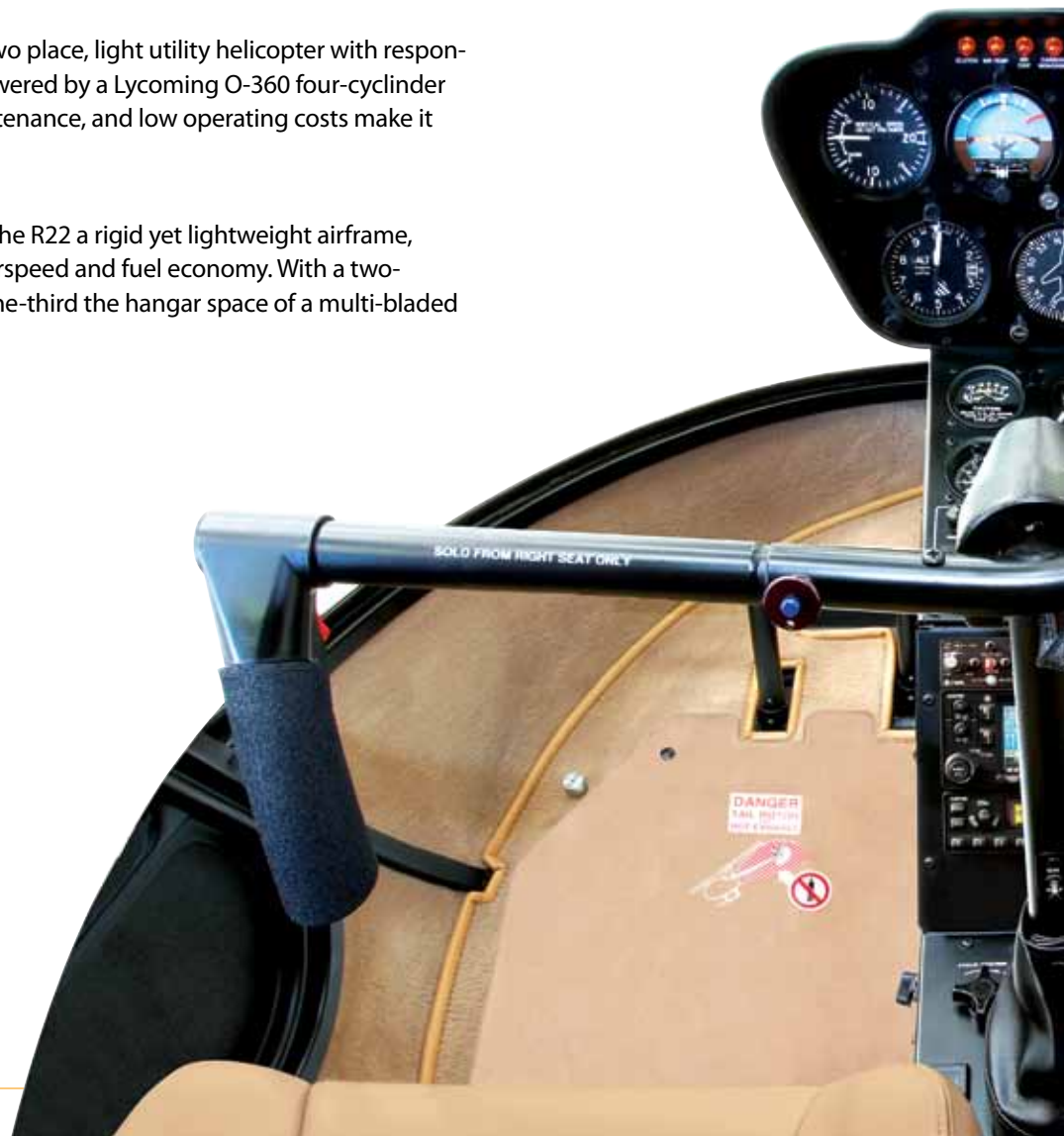
### CENTRAL-POSITIONED CYCLIC

Robinson's centered-positioned teetering T-Bar cyclic makes it easy to enter and exit the cockpit. Left-seat flight controls are removable.

### PISTOL-GRIP CYCLIC

Ergonomic grips incorporate two-position trigger switches for intercom and transmit. Pilot-side grip features buttons for convenient switching of COM frequencies.

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**TRI-HINGE MAIN ROTOR HUB** eliminates lag hinges, dampers, and hydraulic struts. Blades have a stainless steel spar at the leading edge which resists erosion. Droop stops prevent excessive main rotor teetering while stopping or starting under normal operating conditions.

**ROTOR BRAKE** allows the pilot to stop the rotor quickly, reducing shutdown time and the risk of injury to ground personnel and passengers.

**AIR VENTS** in the cabin provide fresh air for pilot and passenger.

**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.

**GROUND HANDLING** is made easy with ground handling wheels. A tow cart adaptor is included for use with Robinson's optional Electric Tow Cart.

**STORAGE** under each seat allows for carry-on bags, briefcases, and personal belongings.



*Under-seat storage compartment*

**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 are actuated by push-pull tubes and bell cranks, eliminating cables and pulleys. Teflon-lined bearings eliminate periodic lubrication requirements.

**TIME BETWEEN OVERHAUL (TBO)** Properly maintained, the R22 has an approved engine and airframe TBO of 2200 hours or 12 years. All life-limited components have approved service lives of at least 2200 hours or 12 years.

**WORLDWIDE SERVICE** is readily available with factory-trained technicians at more than 400 Robinson-approved service centers throughout the world.

**WARRANTY** The R22 comes with a two-year or 1000-hour limited aircraft warranty.

**PILOT COCKPIT**



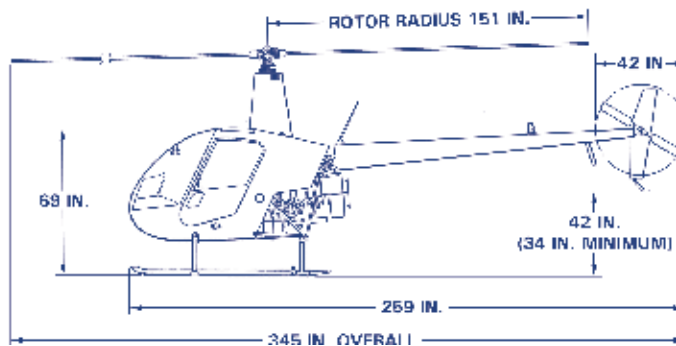
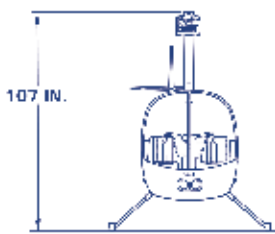
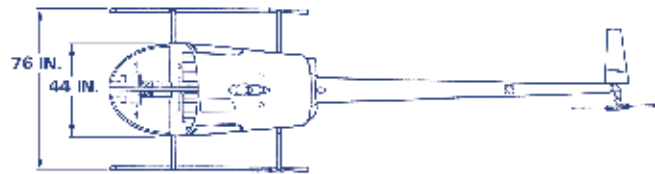
**OPTIONAL UPGRADES**

- **CABIN HEATER & DEFOGGER SYSTEM**
- **LEATHER SEATS** available in tan, blue and gray.
- **BOSE A20 AVIATION HEADSETS** with active noise reduction and Bluetooth communications interface.
- **ENGINE PRIMING SYSTEM**
- **XENON HID LANDING LIGHTS**  
Xenon High Intensity Discharge (HID) lights provide superior illumination. HID bulb life exceeds 2000 hours.

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## SPECIFICATIONS

|  |  |
|--|--|
| Engine Type  | Lycoming O-360 four-cylinder, carbureted         |
| Horsepower   | Derated to 131 hp for takeoff and 124 for cruise |
| Max Gross Weight                                   | 1370 lb (621 kg)                                 |
| Approximate Empty Weight (incl oil & std avionics) | 855 lb (388 kg)                                  |
| Standard Fuel (19.2 gal)                           | 115 lb (52 kg)                                   |
| Auxilliary Fuel (10.5 gal)                         | 63 lb (29 kg)                                    |
| Passengers and Bagage with Standard Fuel           | 400 lb (181 kg)                                  |
| Max Airspeed (Vne)                                 | 102 kts (118 mph)                                |
| Cruise Speed                                       | up to 96 kts (110 mph)                           |
| Max Range (w/aux fuel)                             | approx 260 nm (300 sm)                           |
| Hover Ceiling IGE @ 1370 lb                        | 9400 ft  |
| Hover Ceiling OGE @ 1300 lb                        | 8000 ft  |
| Max Operating Altitude                             | 14,000 ft  |
| Electrical System                                  | 14 volt  |



## STANDARD INSTRUMENTS

- Airspeed indicator
- Altimeter (in-Hg)
- Rotor/engine dual tachometer
- Manifold pressure gage
- Vertical speed indicator
- Magnetic compass
- Cylinder head temperature gage
- Oil temperature & pressure gages
- Fuel quantity gages
- Ammeter
- Carburetor temperature gage
- Quartz clock
- Digital OAT gage/voltmeter
- Hourmeter

## WARNING LIGHTS

- Alt low voltage
- Low fuel
- Low oil pressure
- Low rotor RPM (light and horn)
- Main gearbox temperature
- Main gearbox chip
- Tail gearbox chip
- Rotor brake engaged
- Starter engaged
- Clutch actuator
- Governor off

## STANDARD EQUIPMENT

- LED anti-collision & navigation lights
- Dual landing lights
- Panel and map lights
- Auxiliary fuel system
- Door locks
- Floor and hand intercom switches
- Tinted windshield and windows
- Belly hardpoint
- Tow cart adapter
- Oil filter and engine oil quick drain
- Ground handling wheels
- Rotor blade tie downs
- Windshield cover
- Robinson travel bag

## QUALITY MANUFACTURING



Robinson's 617,000 square foot facility

Robinson manufactures, assembles, inspects, and flight tests all of its helicopters at its Torrance, California factory. State-of-the-art equipment is utilized to manufacture the majority of parts in-house, allowing Robinson to maintain a high level of quality control and eliminate unnecessary costs.

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