Pratt & Whitney R-2000

The Pratt & Whitney R-2000 Twin Wasp is a twin row, 14 cylinder air cooled radial aircraft engine developed in the United States in 1942 to power military aircraft.

Design and Development

The R-2000 was an enlarged version of the Pratt & Whitney R-1830, with focus on reducing the manufacturing costs and fuel requirements. The bore was increased to 5.75 inches, while it still retained the 5.5 inch stroke. This brought displacement up to 2,000 cubic inches. There were a number of detail changes from the R-1830, such as front mounted instead of the rear mounted magnetos, plain bearings for the crankshaft rather than roller bearings, and 87 octane fuel.

87 octane was specified because there were fears wartime supplies of 100 octane might fall short, but those fears were groundless. The R-2000 produced 1,300 hp at 2,700 rpm with 87 octane, 1,350 hp with 100 octane and 1,450 hp at 2,700 rpm with 100/130 grade fuel.

Used in:

- C-54 Skymaster
- Douglas DC-4
- RAAF de Havilland Canada DHC-4 Caribou

Specifications (R-2000)

General characteristics

- Type: Twin row radial engine, 14 cylinder
- Bore: 5.75 in (146 mm)
- Stroke: 5.5 in (139 mm)

Performance

- Power output: 1,450 hp (1081 kw) at 2,700 rpm with 100/130-grade fuel.
- Torque: 5,150 ft/lbs (7000 nm) at 2,700 rpm