

Model 250-C40B turboshaft engine

Features

Improved flowpath provides superior hot/high performance

Greater cycle life turbine components lower direct operating cost

FADEC system provides:

- Reduced pilot workload
- Automatic starting
- Improved power turbine governing
- Temperature or torque matching

Worldwide authorized repair and overhaul network



Bell Helicopter Textron 430

Description

The C40B represents the latest addition to the venerable Model 250 engine line. Certified as the exclusive powerplant for the Bell Helicopter Textron Model 430, the C40B provides unequalled power, performance, and enhanced safety for this class of helicopter. In fact, for his record-setting around-the-world flight, Ron Bower chose none other than the C40B-powered Bell 430 helicopter.

Full Authority Digital Engine Control (FADEC) equipped, the C40B provides automatic starting, reduced pilot workload, isochronous rotor speed governing, and automatic engine data recording. Numerous improvements to increase both cyclic life and time between overhauls have led to reduced operating costs.

C40B operators also benefit from the Rolls-Royce worldwide authorized repair and overhaul network.



Model 250-C40B

Fact Sheet

Basic engine specifications

Weight 280 lb
 Power/weight ratio 2.89
 Airflow 6.1 lb/sec
 Pressure ratio 9.2

Design speeds @ 100% rpm

Power output shaft 9,598 rpm
 Gas producer rotor 51,000 rpm
 Power turbine rotor 30,908 rpm

Fuels JP-4, JP-5, ASTM-1655, Type A, A1, B
 Oils MIL-L-7808, MIL-L-23699
 Type certificate number E1GL

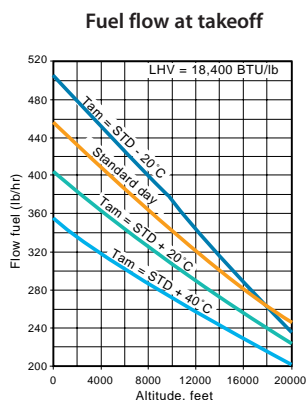
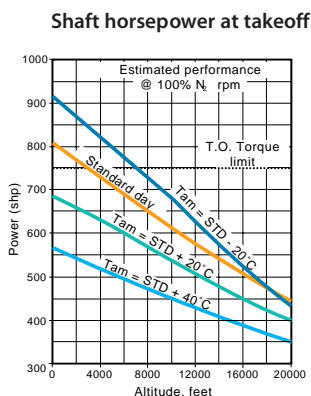
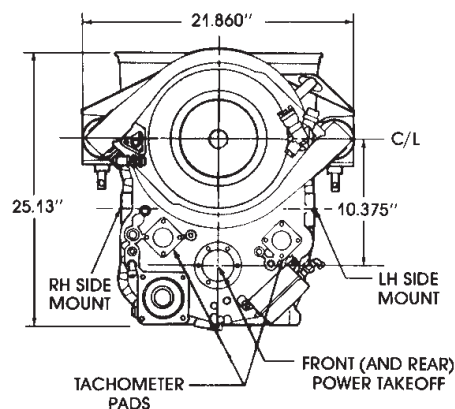
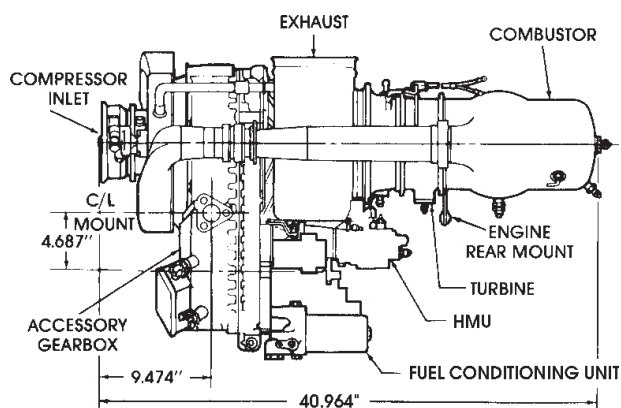
Performance

Model 250-C40B

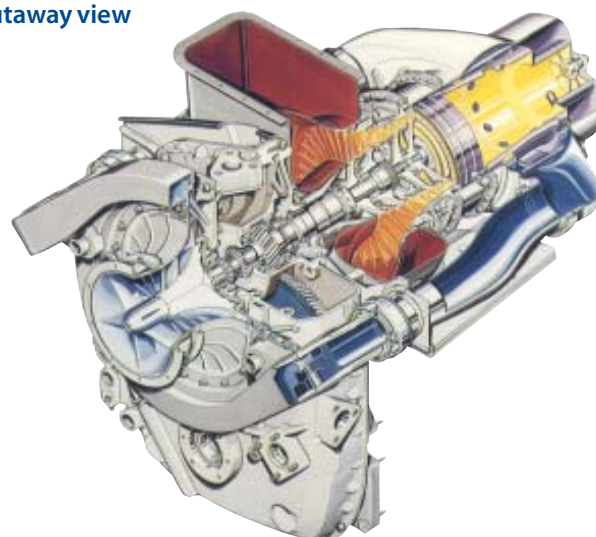
Sea level static rating	Minimum thermodynamic shaft horsepower	Rated shp	Sfc lb/shp-hr (max)
30 second OEI	940	820	0.573
2 minute OEI	880	770	0.572
Continuous OEI	835	715	0.514
Takeoff (5 minute)	808	715	0.574
Max. continuous	695	613	0.587
Cruise A (90%)	625	552	0.600
Cruise B (75%)	520	460	0.625

4000 feet, 95°F	Minimum thermodynamic shaft horsepower	Rated shp	Sfc lb/shp-hr (max)
Takeoff (5 minute)	583	583	0.593
Max. continuous	496	497	0.606

Installation design



Cutaway view



Rolls-Royce Corporation
 P.O. Box 420
 Indianapolis, Indiana 46206-0420 USA
 Tel: (317) 230-6638 Fax: (317) 230-3381
 www.rolls-royce.com

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