



# Model 250-C20R turboshaft engine

## Features

**Improved hot and high performance enhances the helicopter's capability**

**160 million fleet flight hours means proven reliability**

**Engine continually improved for increased performance and reduced operating cost**

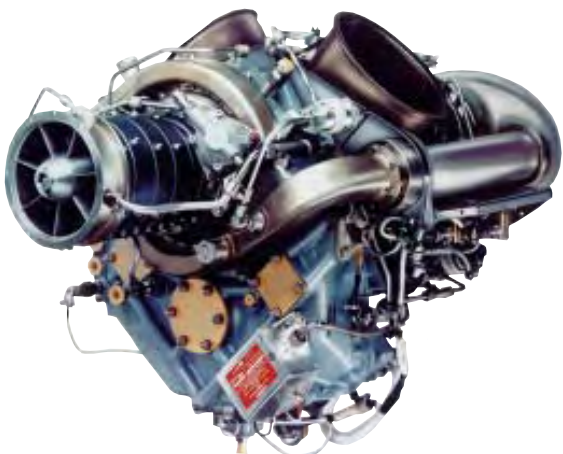
**Worldwide authorized repair and overhaul network**

## Description

The C20R engine is based on the proven design of the C20B/J engine. This engine features an advanced compressor with two less stages than the C20B, yet delivers a higher pressure ratio. The engine is available as an option on the Bell Helicopter Textron 206B III and the MD Helicopter MD 500E for improved hot/high performance.

Additional improvements include an enhanced power turbine that provides up to a five percent increase in power and a two percent reduction in specific fuel consumption. Gearbox lip-seals and shaft journals have also been improved to help reduce oil consumption.

These upgrades decrease the direct operating cost while increasing the value of the helicopters. These features are incorporated on new production units, or can be retrofitted to existing engines by our worldwide authorized repair and overhaul network.



*Model 250-C20R*



*Agusta A109C MAX*



*Bell Helicopter Textron 206B III*



*MD Helicopters MD 500E*



*MD Helicopters MD 520N*

# Fact Sheet

## Basic engine specifications

Weight ..... 173 lb  
 Power / weight ratio ..... 2.6:1  
 Airflow ..... 3.82 lb/sec  
 Pressure ratio ..... 7.9:1

### Design speeds @ 100% rpm

Power output shaft ..... 6,016 rpm  
 Gas producer rotor ..... 50,970 rpm  
 Power turbine rotor ..... 33,290 rpm

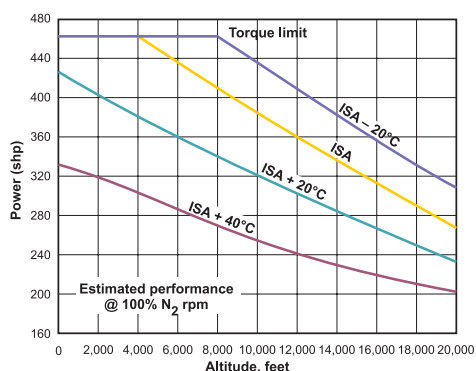
Fuels ..... JP-4, JP-5, ASTM-1655, Type A, A1, B  
 Oils ..... MIL-L-7808, MIL-L-23699  
 Type certificate number ..... E4CE

## Performance

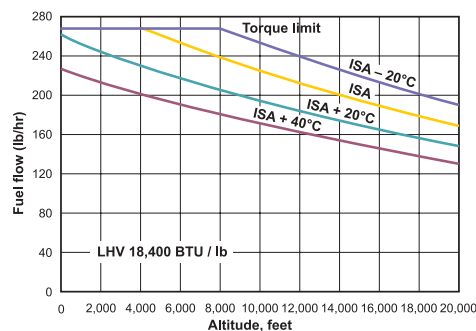
### Model 250-C20R

Rating	Thermodynamic shaft horsepower (shp) (min)	Specific fuel consumption lb/shp-hr (max)
Takeoff (5min.)	450	0.608
30 minute power	450	0.608
Max. continuous	450	0.608
Normal cruise	380	0.631
Cruise A (90%)	380	0.631
Cruise B (75%)	317	0.666

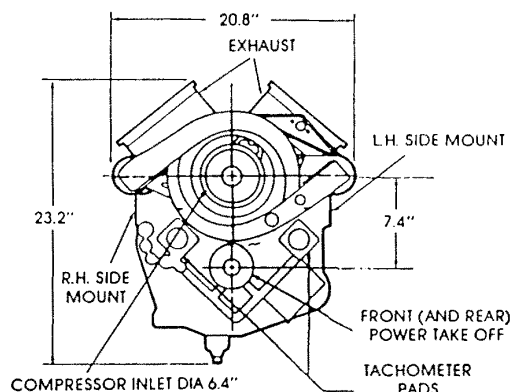
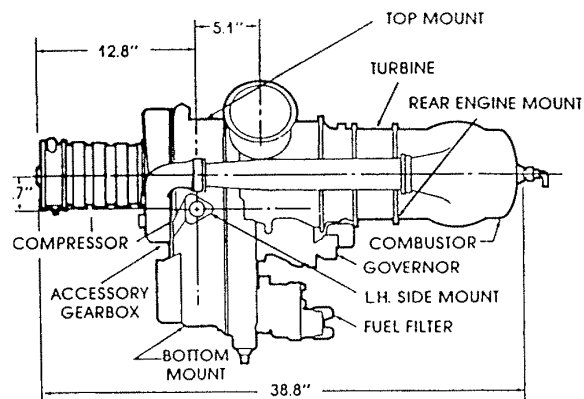
### Shaft horsepower at takeoff



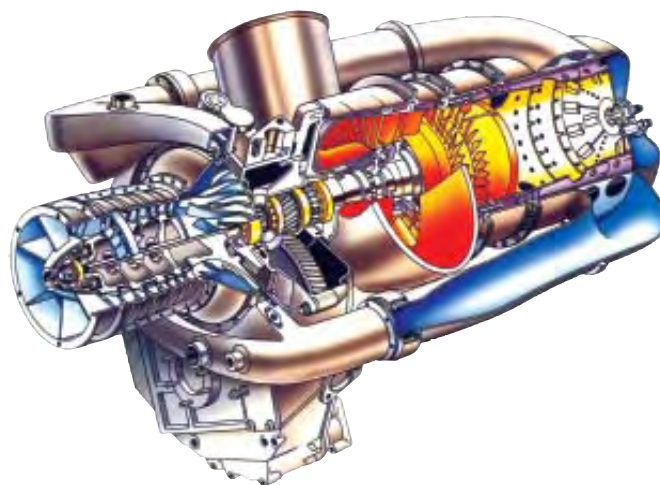
### Fuel flow at takeoff



## Installation design



## Cutaway view



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