ENGINE OPTIONS

S2 Heavy Fuel Engine

SCHIEBEL
CAMCOPTER® S-100

FACTSHEET

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The world's Armed Forces have committed to adopt a single-fuel policy due to its logistic benefits, resulting in a lot of Navies operating all their systems solely on kerosene-based fuels. Such "heavy fuels", named after their specific gravity which is higher than gasoline, offer improved safety due to a much higher flash point. Recognizing the requirement to operate with heavy fuels – in particular JP-5 (NATO F-44) - Schiebel with its over ten years experience with different rotary engine types using gasoline and kerosene based fuels, designed and developed the new powerful S2 heavy fuel engine for the CAMCOPTER® S-100.

Due to the high power to weight ratio as well as the compact size and low vibration of a Wankel rotary engine, Schiebel has adopted a lightweight heavy fuel engine with minimum impact on the aircraft design, increased performance and improved cooling flow. Enhanced reliability has been achieved by optimizing materials and the use of common components with the gasoline S1 model.

Schiebel's new engine control unit, developed and integrated, with its state-of-the art smart sensors, to constantly monitor and optimize engine performance, maintains maximum engine efficiency over the widest possible operational envelope.

SPECIFICATIONS

Type: Single-disc Wankel rotary engine
Cooling: Liquid (engine housing); air (engine rotor)
Displacement: 440 ccm
Average max. power: 60 HP (44 kW)
Nominal speed: 7100 RPM
Fuel type: JP-5 (NATO F-44), Jet A-1 (NATO F-35)
Lubrication: 2-port, pump-fed loss lubrication system
Dimensions: Approx. 400 x 353 x 312 mm
Weight: 23,70 kg (52,25 lbs) engine core with exhaust manifold
Ignition: Redundant electronic
Fuel injection: Dual electronic
Engine Control: ECU