

2023

SPECIFICATIONS

DHK180

180 HP · V4 ENGINE



SCAN FOR MORE



DELTAHAWK
POWER REIMAGINED®

FORGET EVERYTHING YOU THOUGHT YOU KNEW ABOUT GENERAL AVIATION ENGINES.

Designed by pilots for pilots as the first clean-sheet, FAA type certified piston engine in almost half a century, the DHK180 is like nothing that has come before it, in terms of safety, efficiency and performance.

It produces extraordinary torque to boost acceleration and exceptional altitude performance while using globally available Jet A, Jet A-1 and SAF to reduce emissions. Critical systems are now situated where they are easy to access and maintain. And numerous redundancies, a simple design with fewer parts, and no complicated FADEC mean an overall more reliable engine.

The DHK180 is so elegantly simple, it defines a new era of general aviation power.



TECHNICAL DESCRIPTION

Displacement	202 cu in (3.3 L)
Bore x Stroke	4 in x 4 in (10.2 cm x 10.2 cm)
Ignition	Compression
Induction	Piston Ported, Turbo and Supercharged, Intercooled
Dry Weight	-357 lbs (162 kg); includes starter, turbo, exhaust, alternator
Dimensions (LxWxH)	33 in x 24 in x 22 in (84 cm x 61 cm x 56 cm)
Oil Pump	External Mechanical Gear-Type
Supercharger	Twin Screw
Mount	Modified Conical/Bed
Accessory Pads	2 Standard: Vacuum Pump or Alternator; Propeller Governor
Thrust Bearings	Bidirectional; Pusher or Tractor Configuration
Configuration	Horizontal. Vertical Model available in the future
Power	180 HP (134.2 kW) SAE (net); higher power versions underway
Torque	363 ft-lbs (492 Nm) @ 2600 rpm
Max Rotational Speed	2700 RPM
Fuel Burn	7.3 gal/hr (27.6 L/hr) at 135 HP Economy Cruise 10.8 gal/hr (40.9 L/hr) at 180 hp
Starter	SkyTech 24V
Alternator	Plane Power 70 amp (future higher power options available)
Prop Governor	Standard may be used (not included)
Fuel System Type	Mechanical Injection
Delivery Fuel Pump	Mechanical Gear
Injection Pumps	4 (1 per cylinder)
Fuel Types	Jet A & Jet A-1 Certification Fuels. Will burn JP8, D1, D2, F-24
Oil Capacity (Dry Sump)	- 6 qt (6 L); installation may vary
Coolant Type	Maxima Coolanol 50/50 blend
Coolant Capacity	- 6 qt (6 L); installation may vary
Oil Filter	Remote Spin-On Champion CH48109-1
Oil	Commercially available Phillips Victory 10W-40 Aviation Oil
Fuel Filters	30-micron Pre-filter/2-micron Fuel Filter

FEATURES

Burns Jet A, Jet A-1 and SAF Fuel

- Available worldwide
- Less emissions

High Fuel Efficiency

- Up to 40% more fuel efficient than gasoline engines
- Greatly improved range
- Higher non-fuel payload
- Lower cost of ownership

Direct Drive, No Gearbox

- High reliability
- No gearbox to maintain
- Lower cost of ownership

Air, Fuel and Cooling Redundancies

- High reliability
- Highest level of safety

Low Parts Count

- Reduced maintenance
- Reduced downtime
- Lower cost of ownership

Smaller Size

- Improved packaging
- Lower aerodynamic drag

Reduced Weight

- Greater payload

Compression Ignition and Mechanical Fuel Injection

- Runs during total electrical failure
- Safe, simple and reliable system