

Northwest UAV

A GLOBAL COMPANY

PROPULSION & PAYLOAD
INTEGRATION SPECIALISTS

NW-44 HEAVY-FUEL ENGINE

The Extra Features Built
Into The NW-44 Multi-Fuel Engine,
Will Have You Flying Faster and
Quieter At Any Altitude.



APPROVED FOR EXPORT

**+28,000
Operational
Hours**

- Heavy-Fuel/Gasoline
- Fuel Injection
- Less Drag = Increased Endurance
- Made in the USA

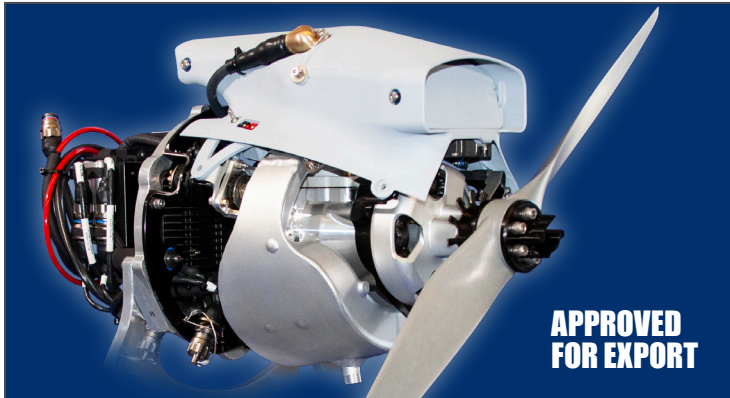
AVAILABLE NOW!



Where Precision and Reliability Soar!

From single components to entire propulsion systems – Our main focus is in propulsion solutions, modular components and support solutions for any UAV or unmanned system.

NWUAV purpose-built NW-44 EFI multi-fuel (heavy-fuel/gas) engine is designed, developed and built for unmanned aircraft systems, low altitude, long endurance aircraft and portable power generation.



The NW-44 EFI is one of the most configurable small UAV engines on the market today. Purpose-built to handle aircraft from 18 to 34 kg* (40 to 75 lbs) depending on mission requirements.

Designed from the ground up for unmanned applications, the NW-44 is scalable for use in various classes of aircraft with multiple fuel types and incorporates features not available with hobby based engine designs.

Advanced materials incorporate characteristics needed for lighter weight and better performing engines when utilizing heavy-fuels. The specialized Fuel Injection System allows the NW-44 to dramatically enhance engine system reliability, maintainability, and performance while reducing weight.

The NW-44 core and subsystem components alleviate ITAR and end of life concerns and are primed to meet STANAG 4703 and FAA Certification requirements.

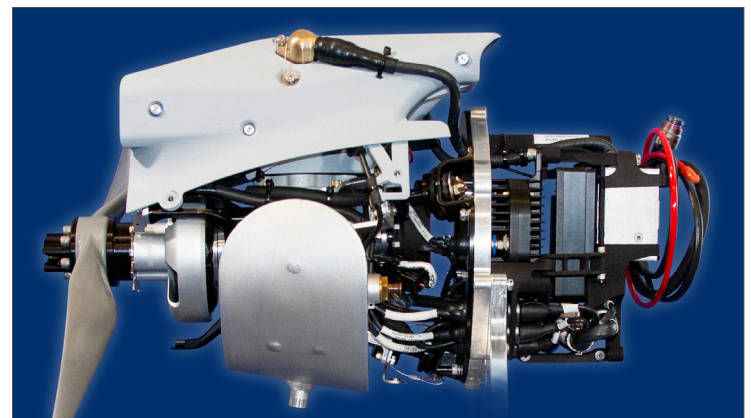
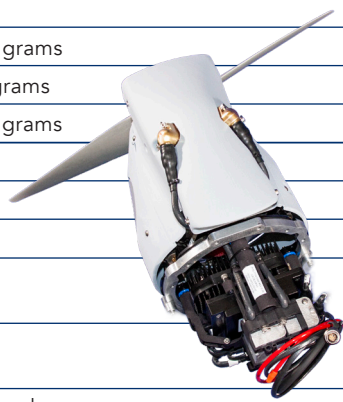


SPECIFICATIONS

NW-44 Block IV EFI

WEIGHTS

Core¹ (see below)	3402 ± 100 grams
Avionic (Puck)	933 ± 100 grams
PMU² (see below)	4335 ± 100 grams
Displacement	43.6 cc
Bore	38.99 mm
Stroke	36.53 mm
Maximum Continuous Speed	7500 rpm
Power Rating at 7250 RPM	3.5 hp
BSFC³ at Cruise	384-442 g/kw-hr
5000 RPM at Sea Level	0.63-0.73 lb/hp-hr
Ignition	Twin 25kv Capacitor Discharge Ignition (CDI)
Cooling	Air with Active Cylinder Head Temperature (AHT) Control
Generator Regulator	6/12/21 or 28 VDC, 280-Watts
Generator	On-Shaft Permanent Magnet Alternator
Fuel System	Full Authority Digital Engine Controller with Electronic Fuel Injection
Fuel Type	Non-ethanol 93-100 octane gasoline (R+M)/2, Jet-A, JP-5, JP-8, TS-1
Fuel to Oil Mixture	32:1 ratio by volume
Preferred Oil Type	Bel-Ray H1R
ECU Data Storage	1,000 hours at 1Hz Recording Rate
TBO (Estimate)	400-500 hours



ADDITIONAL FEATURES

- Custom 280-Watt direct drive generator with a 6/12/21 or 28 volt Generator Control Unit (GCU); ~280-Watts available, 30-Watts for engine, 250-Watt for payload and aircraft.
- **Multiple generator output configurations available to fit customer horsepower, electrical output and overall weight requirements**
- CAN or Serial Bus communication
- Conformal aerodynamic tuned muffler; lightweight and quiet
- Interfaces with popular autopilots
- Includes: Fuel injection, barometric pressure, cylinder head and intake air temperature sensors, and heavy-fuel cold start provisions
- **Conformal design mitigates unwanted parasitic drag, which increases net fuel-efficiency**
- MANUFACTURED IN THE USA

Engine application is dependent on airframe factors including: Aerodynamics, propeller, and operational concept. Please contact NWUAV for guidance.



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