

SINGLE ENGINE CLUTCH DRIVE OPU
FUEL: Diesel

ENGINE: Perkins

SPECIFICATION SHEET

Fuel	Rating	Intermittent	Continuous
Diesel	Power: hp (kW) 2200rpm	111.3 (83.0)	100.1 (74.7)
	Torque: ft-lb (N-m) 1400rpm	309(418)	278 (376)
	Power: hp (kW) 1800rpm	102.5 (76.5)	92.3 (83.0)

Rating Definitions: Intermittent is the horsepower and speed capability of the engine where maximum power and/or speed are cyclic (time at full load not to exceed 50%). The Industrial Continuous engine power rating is for applications that operate with constant load and speed, except for short periods during startup or shutdown. Power output is within + or - 5% at standard SAE J 1995 and ISO3046. (See power curves over)

STANDARD FEATURES:

Tradewinds Power Corp open engine power units are designed, packaged, and tested to meet the power requirements of a wide range of equipment used in agricultural applications. All our systems and components are prototyped, assembled and tested within a purpose built packaging, manufacturing, and test facility.

Key System Features are:

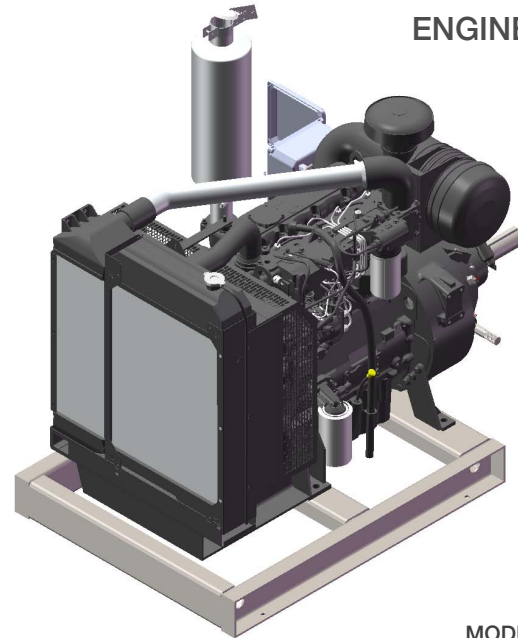
- Engine power units will accept one-step loading
- EPA and CARB certified for Agricultural use
- Designed to meet 2012 EPA Tier 4 Interim
- Complete package ready to use in all Ag applications
- Self contained with mounted exhaust and air-cleaner
- MPC Controller for engine start and stop
- Low oil pressure and high engine temperature fault detection and shut-down protection

Engine:

- Perkins 1104D.44TA industrial diesel engine
- Heavy duty rated for continuous prime power operation
- Cooling system capable of operation at 120°F ambient
- The high quality oil and fuel filtration on our 1100 Series range produces an engine that is reliable and durable. Ecoplus fuel filtration is available to boost its clean running qualities and the engine is capable of running on a wide range of global fuels including biodiesel
- Mechanical rotary fuel pump. The timing and fuel injection pressures are optimized to maximize performance and fuel economy at a given rated speed
- Latest diesel technology development used in mechanical control system
- Turbo charged for greater engine output
- The engines are designed and built for dependability and durability, which results in minimum maintenance requirements
- Low cost maintenance is achieved through hydraulic tappets, multi-vee belts and 500 hour oil change intervals

Drive System:

- Clutch directly mounted to flywheel housing
- Twin Disc clutch


MODEL TP99-I

Engine Power Unit Arrangement:

- Engine OPU assembly mounted on steel frame
- Mounted exhaust, radiator, and air cleaner
- All rotating surfaces protected with guards
- Oil and water drain lines.

AUTOMATIC ENGINE CONTROLLER:

- Automatic engine controller with digital display of all functions
- Quick and easy to install
- Advanced, rugged, reliable microprocessor-based design
- Full engine monitoring and shut down protection
- Full autostart, manual start, and off controls
- 3.8" monochrome, transfective, white backlight LCD


**MPC-20
ENGINE CONTROLLER**
 (Available on remote stand)

WARRANTY:

- Engine covered under the original equipment manufacturer's warranty - consult Tradewinds Power Corp for details
- Complete package supplied with one-year unlimited warranty

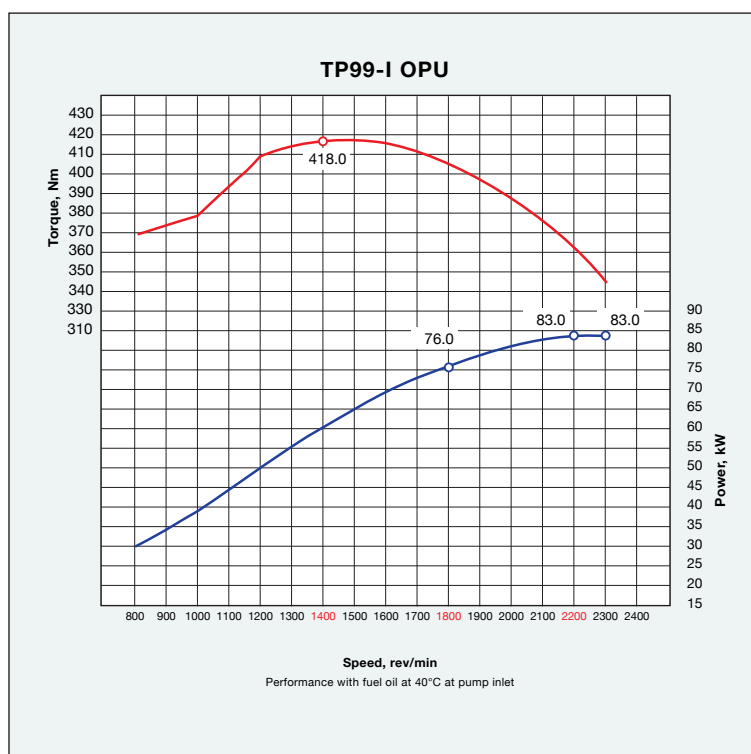
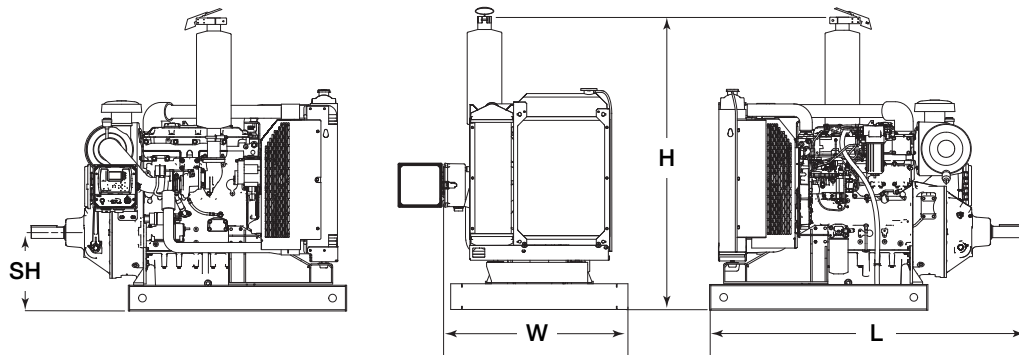
The manufacture reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

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DRIVE ASSEMBLY:	
Configuration	Single engine 1800 rpm clutch drive
Clutch manufacture	Twin Disc
Operation	Manual
Pulley drive arrangement	N.A.
Drive shaft speed rpm	1800
Bearings	N.A.
ENGINE SPECIFICATION:	
Manufacturer	Perkins
Model	1104D.44TA
Emissions	U.S. EPA Tier 3
Crankshaft speed	2,200 rpm
Engine Type	In-line, 4-cycle
Combustion system	Compression
Aspiration	Turbocharged aftercooled
Engine type	Diesel Injection
Diesel fuel grade	ASTM D975 D2
Number of cylinders	4
Displacement in ³ (liters)	269 (4.4)
Bore and stroke ins (mm)	4.13 X 5.0 (105 X 127)
Peak power hp (kW) @ 2200rpm	99.9 (74.5)
Cooling	Liquid
Governor	Mechanical
Compression ratio	18.2:1
Air cleaner type	Canister air cleaner
Exhaust Silencer dBA	TBA
Max. exh temp at full load degrees °F (°C)	TBA
Max. back pressure - ins H ₂ O (kPA)	TBA
Fuel filter	Full flow with water separator
COOLING SYSTEM FOR OPERATING AT 120°F AMBIENT:	
Eng. Cooling air flow - ft ³ /sec (m ³ /sec)	TBA
Radiator Capacity gallons (Liters)	1.9 (7.0)

LUBRICATION SYSTEM:	
Oil pan capacity with filter - quarts (Liters)	3 (11)
Recommended lubricating oil grade	15W 40
Oil consumption at full load	< 0.1% of fuel consumption
Oil pressure - psi (kPA)	46 (320)
ENGINE ELECTRICAL SYSTEM:	
Starting motor voltage	12 volt
Wet cell battery	Lead Acid
Cold cranking amps - minimum	720 amps

POWER & TORQUE CURVES

ARRANGEMENT DRAWING MODEL:
 TP99-I OPU Clutch Drive


KEY DIMENSIONS AND WEIGHT		
Description	Key	Inches
Height	H	57.01
Length	L	61.34
Width	W	35.89
Shaft Height	SH	15.25
Dry Weight lbs (Kg)		1526 (694)

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