

**SINGLE ENGINE CLUTCH DRIVE OPU**
**FUEL:** Diesel

**ENGINE:** Perkins

# **SPECIFICATION SHEET**

Fuel	Rating	Intermittent	Continuous
Diesel	Power: hp (kW) 2200rpm	173.9 (129.0)	156.5 (116.8)
	Torque: ft-lb (N-m) 1400rpm	514 (695)	463 (625)
	Power: hp (kW) 1800rpm	167.6 (125.0)	150.8 (112.5)

**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:**

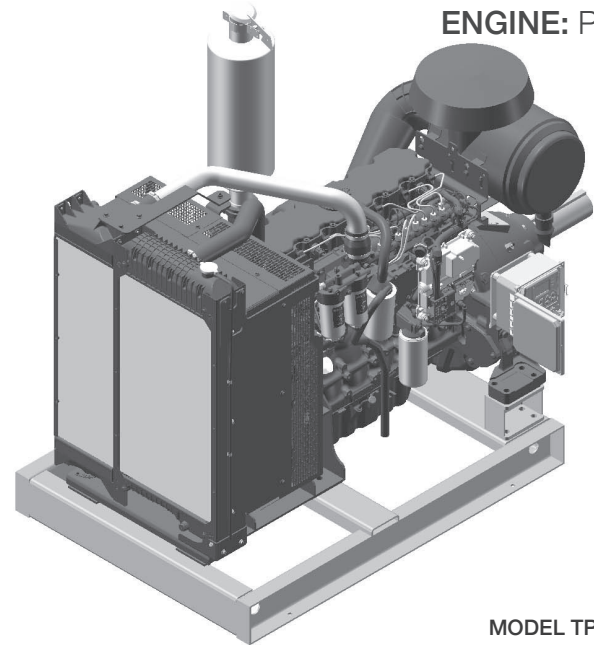
- Engine power units will accept one-step loading
- EPA and CARB certified for Agricultural use
- Designed to meet 2012 EPA Tier 4 Interim
- Complete package ready to use in all Ag applications
- Self contained with mounted exhaust and air-cleaner
- MPC Controller for engine start and stop
- Low oil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

### **Engine:**

- Perkins 1106D.E70TA industrial diesel engine
- Heavy duty rated for continuous prime power operation
- Cooling system capable of operation at 120°F ambient
- Fuel system is common rail fuel pump and injectors
- A robust electronically controlled common rail engine provides the opportunity to increase power and low speed torque
- The ECM (Electronic Control Module) controls the injection timing through all speeds and loads. The ECM includes sensors for engine speed, oil pressure, and coolant temperature
- 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
- Design consideration has also been incorporated to facilitate the next emissions change to EU Stage IIIB / EPA Tier 4

### **Drive System:**

- Clutch directly mounted to flywheel housing
- Twin Disc clutch


**MODEL TP174-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	1106D.E70TA
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	6
Displacement in <sup>3</sup> (liters)	428 (7.1)
Bore and stroke ins (mm)	4.13 X 5.3 (105 X 135)
Peak power hp (kW) @ 2200rpm	173.6 (129.5)
Cooling	Liquid
Governor	Electronic ECU
Compression ratio	16.8:1
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 <sub>2</sub> O (kPA)	TBA
Fuel filter	Full flow with water separator

**COOLING SYSTEM FOR OPERATING AT 120°F AMBIENT:**

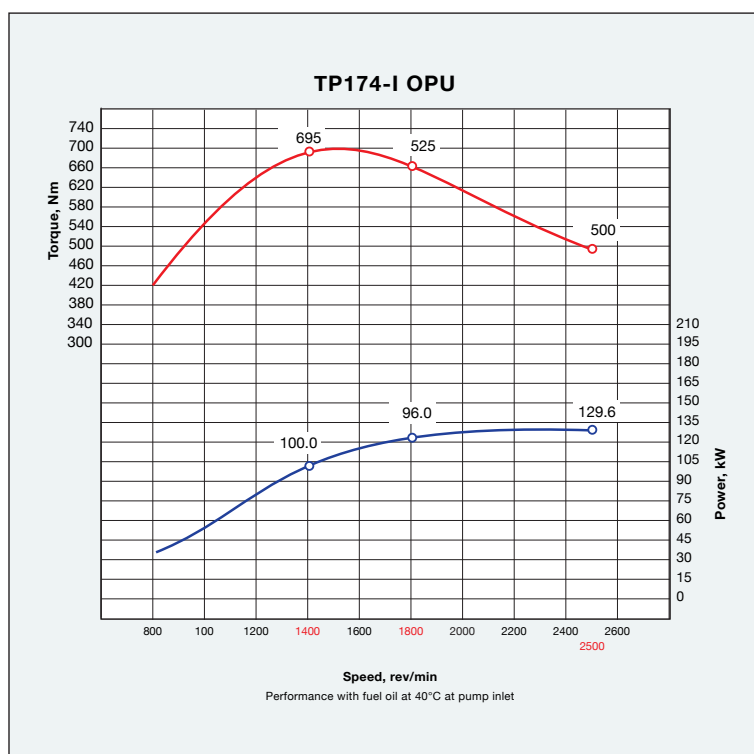
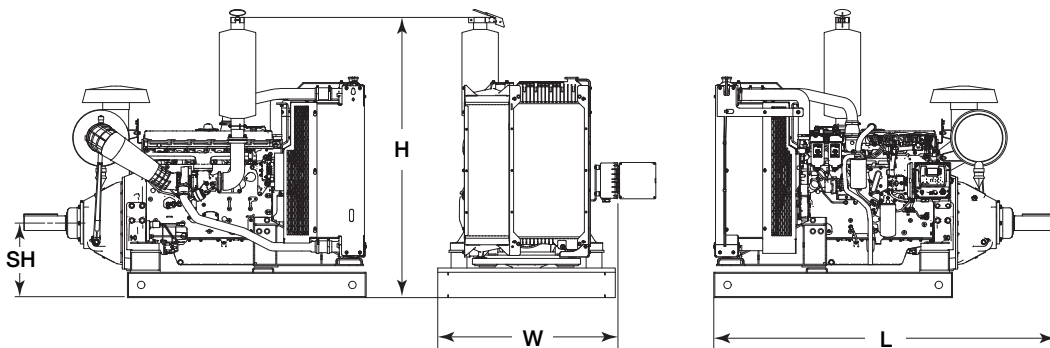
Eng. Cooling air flow - ft <sup>3</sup> /sec (m <sup>3</sup> /sec)	TBA
Radiator Capacity gallons (Liters)	4.0 (15.2)

**LUBRICATION SYSTEM:**

Oil pan capacity with filter - quarts (Liters)	4.2 (16.0)
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:**  
 TP174-I OPU Clutch Drive

**KEY DIMENSIONS AND WEIGHT**

Description	Key	Inches
Height	H	66.3
Length	L	81.02
Width	W	42
Shaft Height	SH	17.62
Dry Weight lbs (Kg)		2312 (1051)

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