**SPECIFICATION SHEET**

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Rating</th>
<th>Intermittent</th>
<th>Continuous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>Power: hp (kW) 2200rpm</td>
<td>173.5 (129.4)</td>
<td>156.2 (116.5)</td>
</tr>
<tr>
<td></td>
<td>Torque: ft-lb (N-m) 1400rpm</td>
<td>553.2 (750)</td>
<td>498 (675)</td>
</tr>
<tr>
<td></td>
<td>Power: hp (kW) 1800rpm</td>
<td>172.3 (128.5)</td>
<td>155.1 (115.7)</td>
</tr>
</tbody>
</table>

**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 1204F.E44TTA 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
- Mechanical rotary fuel pump. The timing and fuel injection pressures are optimized to maximize performance and fuel economy at a given rated speed
- 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
- Aftertreatment technology for Tier 4 compliance includes DPF (Diesel Particulate Filter0 and DOC (Diesel Oxidation Catalyst)

**Drive System:**

- Clutch directly mounted to flywheel housing
- Twin Disc clutch

**ENGINE:** Perkins

**FUEL:** Diesel

**MODEL:** TP173-I4

**DRIVE SYSTEM:**

- Clutch directly mounted to flywheel housing
- Twin Disc clutch

**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, transflective, white backlight LCD

**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 manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.*
**LUBRICATION SYSTEM:**
- Oil pan capacity with filter - quarts (Liters): 3.57 (13.5)
- 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**

**ENGINE SPECIFICATION:**
- Manufacturer: Perkins
- Model: 1204F.E44TTA
- Emissions: 2012 EPA Tier 4 Interim
- 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 in³ (liters): 268.5 (4.4)
- Bore and stroke ins (mm): 4.13 X 5.0 (105 X 127)
- Peak power hp (kW) @ 2200rpm: 173.5 (129.4)
- Cooling: Liquid
- Governor: Electronic ECU
- Compression ratio: 16.5:1
- Air cleaner type: Canister air cleaner
- Exhaust Silencer dBA: TBA
- Max. exh temp at full load degrees °F ( ºC): TBA
- Max. back pressure - ins H2O (kPA): TBA
- Fuel filter: Full flow with water separator

**COOLING SYSTEM FOR OPERATING AT 120°F AMBIENT:**
- Eng. Cooling air flow - ft³/sec (m³/sec): TBA
- Radiator Capacity gallons (Liters): 2.85 (10.8)

**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.

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**ARRANGEMENT DRAWING MODEL:**
TP173-I4 OPU Clutch Drive

**KEY DIMENSIONS AND WEIGHT:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Key</th>
<th>Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>H</td>
<td>53.51</td>
</tr>
<tr>
<td>Length</td>
<td>L</td>
<td>64.91</td>
</tr>
<tr>
<td>Width</td>
<td>W</td>
<td>43.88</td>
</tr>
<tr>
<td>Shaft Height</td>
<td>SH</td>
<td>15.32</td>
</tr>
<tr>
<td>Dry Weight</td>
<td></td>
<td>512 (233)</td>
</tr>
</tbody>
</table>

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TPC504