

# SPECIFICATION SHEET

Fuel	Rating	Power hp (kW) 1,800rpm	Power hp (kW) 2,400rpm
Diesel	Intermittent	120.6 (90.0)	134.0 (100.0)
	Continuous	108.5 (81.0)	120.6 (90.0)
	Torque: ft-lb (N-m)	112.5 (500)	
	Torque: rpm	1,400 rpm	

Rating Definitions: Rated for 1200 - 2400 rpm. (Corrected per SAE J1349)  
 Intermittent - For varying intermittent loads with no overload capability.  
 Continuous - Continuous prime rating is applicable for supplying power to a varying load for an unlimited amount of running time, with 10% overload capacity available for 1 out of every 12 hours.

## 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.

The Hyundai Infracore's advanced, Eco-friendly, highly efficient, and compact diesel engines have been developed based on Hyundai's off-highway diesel engine R&D capabilities and mass-production experience.

## Key System Features are:

- EPA Tier 4 Engine certified for Industrial applications
- Packaged with flywheel housing to SAE standards
- Flywheel machined to SAE J620 adaptation
- Compact design to adapt to multiple OEM applications
- Adds value to off-highway equipment
- No DPF (Diesel Particulate Filter)
- Strong power and high low-end torque for enhanced performance
- Low total cost of ownership

## Engine:

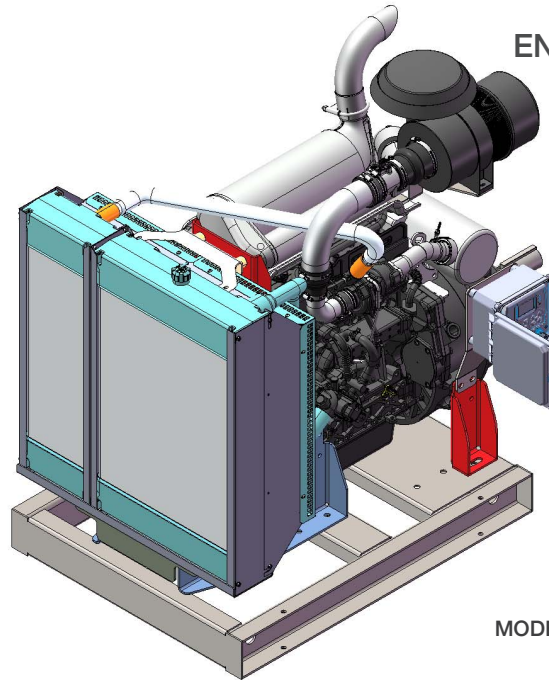
- Hyundai D34
- Rated for high intermittent power with high torque lower down the power curve for better performance
- Cooling system capable of operation at 120°F ambient
- Overhead valve assembly with 2-intake and 2-exhaust valves
- DELPHI DFP 4.4 injection pump for direct injection engine
- High Pressure Common Rail operating at 1800 bar
- Full electronic engine management with ECU governor control
- External cooled EGR
- Aspiration as waste gate type turbo-charged with intercooler
- DOC (Diesel Oxidation Catalyst) aftertreatment

## Drive System:

- Clutch directly mounted to SAE #4 flywheel housing
- Twin Disc clutch

## Maintenance:

- Oil filter change 500-hours
- Fuel filter change 500-hours
- Valve adjustment after 1000-hours



MODEL TPD34-1

## 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



MPC1000  
 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

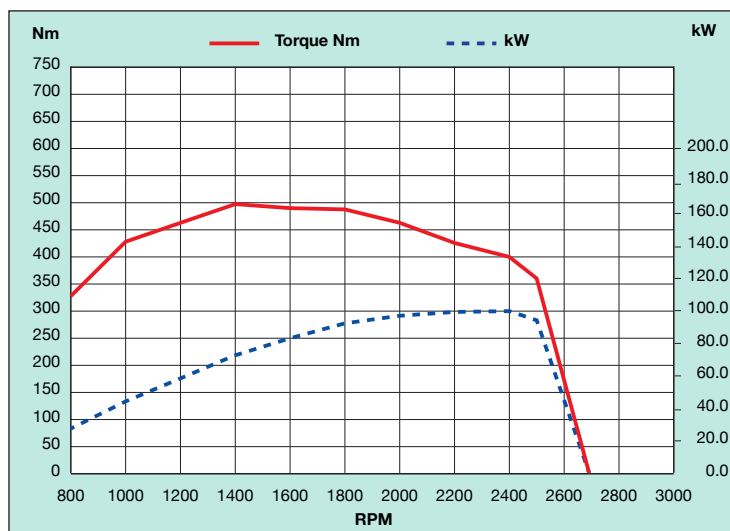
*The manufacture reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.*

## SINGLE ENGINE CLUTCH DRIVE OPU

**ENGINE:** Hyundai **FUEL:** Diesel

DRIVE ASSEMBLY:	
Configuration	Single engine clutch drive
Clutch manufacture	Twin Disc
Operation	Manual
Drive shaft speed rpm	up to 2,400 rpm
ENGINE SPECIFICATION:	
Manufacturer	Hyundai
Model	D34
Emissions	Tier 4 - Final & Stage IV
Crankshaft speed	1,800 rpm
Engine Type & Combustion	Diesel Direct Injection
Fuel Injection System	High Pressure Common Rail
Fuel Pressure	1800 bar
Aspiration	Turbo-Charged & Intercooled
Diesel fuel grade	EN590 : 2009 Diesel
Cylinder Arrangement	In-line 4
Displacement in <sup>3</sup> (liters)	208 (3.409)
Bore and stroke ins (mm)	3.86 X 4.45 (98 X 113)
Peak power hp (kW) @ 2400 rpm	134 (100.0)
Cooling	Water Cooled
Engine Control	Full Electronic Engine Management
Compression ratio	17.0:1
Air cleaner type	Canister air cleaner
Aftertreatment	Diesel Oxidation Catalyst DOC + SCR
Ventilation System	Closed-Circuit Ventilation
Max. back pressure - ins H <sub>2</sub> O (kPa)	120.6 (30)
Compression ratio	17.0:1
Flywheel housing	SAE No.3
Air cleaner type	Canister air cleaner
Sound at 1m from engine block dB(A)	88.1
Max. Exh. Temp at full load degrees °F (°C)	1004 (540)
Exhaust Gas Flow - ft <sup>3</sup> /min (m <sup>3</sup> /min)	159 (4.5) Intermittent
COOLING SYSTEM FOR OPERATING AT 120°F AMBIENT:	
Water pump belt driven	Centrifugal type
Eng. Cooling air flow - ft <sup>3</sup> /sec (L/sec)	N/A
Engine Coolant Capacity gallons (Liters)	1.36 (5.1)

FUEL CONSUMPTION gals/hr (Liters/hr)	Intermittent / {Continuous}
100% (1800rpm)	4.41 (16.7) / {5.13 (19.4)}
75%	3.30 (12.5) / {3.80 (14.4)}
50%	2.32 (8.8) / {2.62 (9.9)}
25%	1.40 (5.3) / {1.53 (5.8)}
LUBRICATION SYSTEM	
Oil pan capacity with filter - quarts	13.3 (12.6)
Recommended lubricating oil grade	10W30 CJ-4
Oil pump	Gear type driven by crankshaft
Oil consumption at full load	< 0.1% of fuel consumption
Oil Filter	Full flow, cartridge type
Oil pressure min. - psi (kPa)	43.5 (300)
ELECTRICAL SYSTEM	
Battery charger	12 volt x 75A Alternator
Starting motor	12 volt x 2.7kW
Wet cell battery	Lead Acid
Battery Capacity recommended	100 AH, 950CCA
Starting Aid	Glow Plugs

**100.0kW (134hp)**
**TPD34-I Power Curves**


### ARRANGEMENT DRAWING & DIMENSIONS MODEL: TPD34-I OPU Clutch Drive

KEY DIMENSIONS AND WEIGHT with DOC + SCR		
Description	Key	Inches
Height	H	55.98
Length	L	62.17
Width	W	35.00
Shaft Height	SH	15.88
Dry Weight lbs (Kg)		963.1 (437.8)
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