

SPECIFICATION SHEET

Fuel	Rating	Power hp (kW) 1,800rpm	Power hp (kW) 2,600rpm
Diesel	Intermittent	13.0 (10.0)	23.0 (17.9)
	Continuous	12.0 (9.0)	21.0 (15.7)
	Torque: ft-lb (N-m)	50.0 (61.0)	
	Torque: rpm	1,900 rpm	

Rating Definitions: Rated for 1200 - 3000 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 Doosan Infracore's advanced, Eco-friendly, highly efficient, and compact diesel engines have been developed based on Doosan'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:

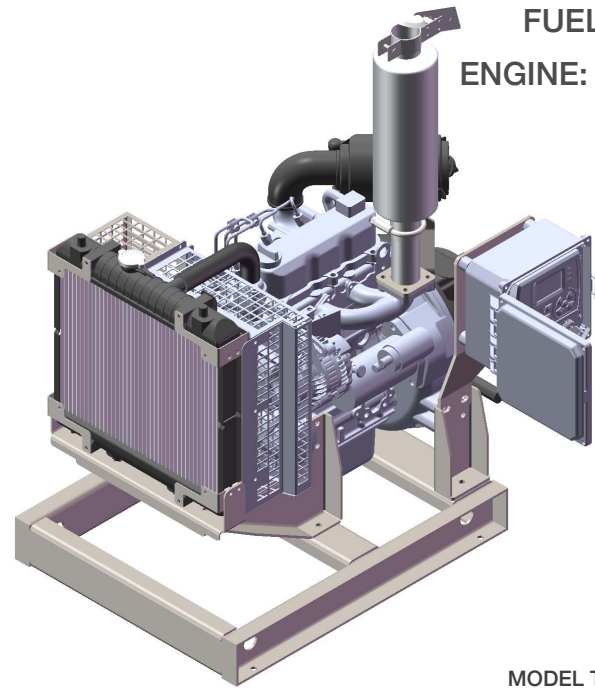
- Doosan SU103N
- Rated for high intermittent power with high torque lower down the power curve for better performance
- Cooling system capable of operation at 120°F ambient
- Overhead valve assembly with 2-intake and 2-exhaust valves
- Diesel direct injection
- Bosch K-type mini pump
- ECU Woodward APECS 4800
- Naturally aspirated
- Compression ratio 21.0:1
- DOC (Diesel Oxidation Catalyst) aftertreatment

Drive System:

- Clutch directly mounted to SAE #5 flywheel housing
- Twin Disc clutch

Maintenance:

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



MODEL TPD10-1

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:

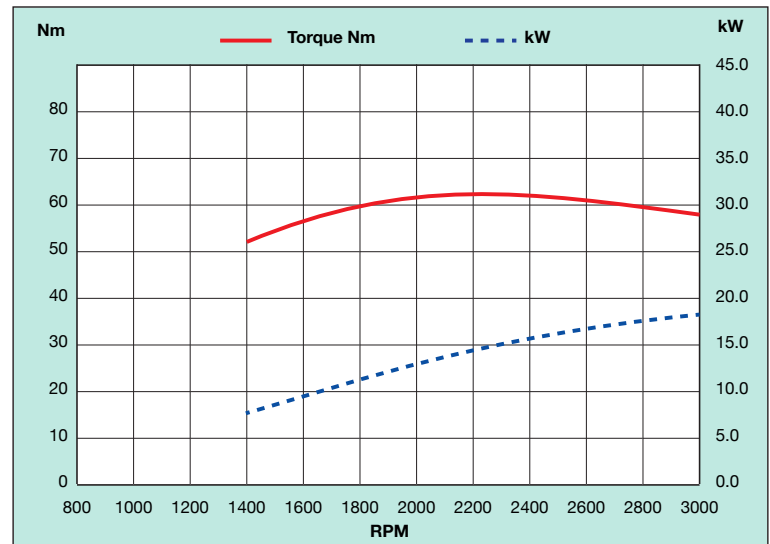
- Engine covered under the original equipment manufacturer's warranty - consult Tradewinds Power Corp for details
- Complete package supplied with one-year unlimited warranty

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

TIER 4 FINAL INDUSTRIAL ENGINES
ENGINE: Doosan **FUEL:** Diesel

DRIVE ASSEMBLY:	
Configuration	Single engine clutch drive
Drive connections	Twin Disc
Operation	Manual
Drive shaft speed rpm	up to 3,000 rpm
ENGINE SPECIFICATION:	
Manufacturer	Doosan
Model	SU103N
Emissions	Tier 4 - Final & Stage IIIB
Crankshaft speed	3,000 rpm
Engine Type & Combustion	Diesel Direct Injection
Fuel Injection System	Bosch K-type mini pump
Fuel Pressure	Mechanical centrifugal
Aspiration	Naturally Aspirated
Diesel fuel grade	EN590 : 2009 Diesel
Cylinder Arrangement	In-line 3
Displacement in ³ (liters)	61.45 (1.001)
Bore and stroke ins (mm)	2.95 X 2.99 (75 X 76)
Peak power hp (kW) @ 2800 rpm	24.0 (17.9)
Cooling	Water Cooled
Engine Control	Woodward APECS 4800
Compression ratio	21.0:1
Air cleaner type	Canister air cleaner
Aftertreatment	Diesel Oxidation Catalyst DOC
Ventilation System	Closed-Circuit Ventilation
Max. back pressure - ins H ₂ O (kPa)	39.39 (9.8)
Rotation viewed on flywheel	Counter clockwise
Flywheel housing	SAE No.5
Air cleaner type	Canister air cleaner
Sound at 1m from engine block dB(A)	TBA
Max. Exh. Temp at full load degrees °F (°C)	932 (500)
Exhaust Gas Flow - ft ³ /min (m ³ /min)	54.0 (1.53) 3000rpm
COOLING SYSTEM FOR OPERATING AT 120°F AMBIENT:	
Water pump belt driven	Centrifugal type
Eng. Cooling air flow - ft ³ /min (m ³ /min)	51.9 (1.47) 3000rpm
Engine Coolant Capacity gallons (Liters)	0.42 (1.6)

FUEL CONSUMPTION 1800 RPM	Continuous / {Intermittent}
100% @ 3,000 rpm Gals/hr (Liters/hr)	1.35 (5.0)/{1.51 (5.7)}
75%	TBA
50%	TBA
25%	TBA
LUBRICATION SYSTEM	
Oil pan capacity with filter - quarts	4.02 (3.8)
Recommended lubricating oil grade	15W 40
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)	35.5 (245)
ELECTRICAL SYSTEM	
Battery charger	12 volt x 75A Alternator
Starting motor	12 volt x 2.7kW
Wet cell battery	Lead Acid
Battery Capacity recommended	64AH, 950CCA
Starting Aid	Glow Plugs

17.9kW (23hp)
TPD10-I Power Curves

ARRANGEMENT DRAWING & DIMENSIONS MODEL: TPD10-I Industrial Diesel

KEY DIMENSIONS AND WEIGHT		
Description	Key	Inches
Height	H	28.83
Length	L	36.50
Width	W	21.50
Shaft Height	SH	11.59
Dry Weight lbs (Kg)		222 (101)
TRADEWINDS POWER CORP 5820 NW 84th Ave Miami, FL 33166 Office: (800) 223-3289		

