

SINGLE ENGINE REDUCTION DRIVE OPU

FUEL: NG & LPG
ENGINE: FORD

SPECIFICATION SHEET

Fuel	Rating	Power hp (kW)	Torque ft-lbs (N-m)
Natural Gas	Intermittent	170 (127)	315 (426)
	Continuous	153 (114)	284 (384)
LPG	Intermittent	190 (143)	360 (487)
	Continuous	171 (128)	324 (438)

Rating Definitions: Rated for 1800 rpm engine speed. (Corrected per SAE J1349)
 Intermittent - Applicable for a 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 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:

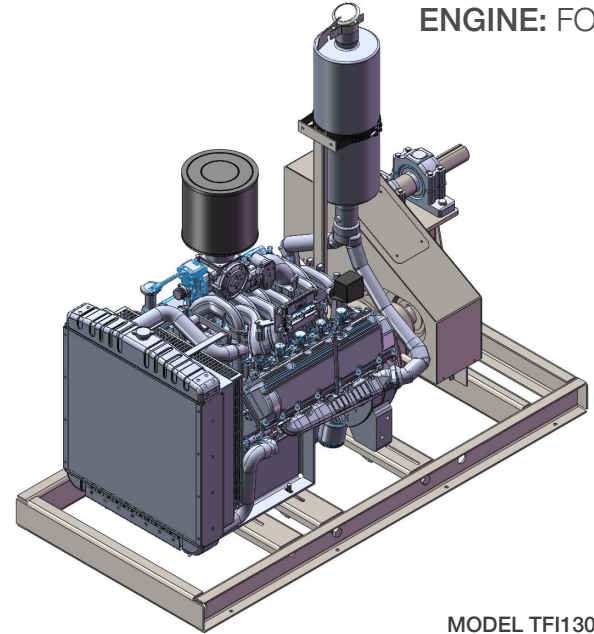
- Engine power units will accept one-step loading
- EPA and CARB certified for Agricultural use
- Four (4) point lifting eyes
- Assembled on integral sub-base with fork lift pockets
- Self contained with mounted exhaust and air-cleaner
- TPC Controller for engine start and stop
- Low oil pressure and high engine temperature fault detection and shut-down protection

Engine:

- 1 x Ford WSG-1068 EFI
- Heavy duty rated for continuous prime power operation
- Cooling system capable of operation at 120°F ambient
- Hydraulic lash adjusters with roller finger cam followers
- Even firing order with internal balance shaft to be vibration free
- Broadband knock sensor, calibrated for individual cylinder use
- Coil on plug ignition system for reliable and effective spark delivery
- 12 volt electric start and charging system
- Electronic engine management system with built-in engine protection against detonation, high coolant temperature, low oil pressure, over-speed shutdown, and starter lockout

Drive System:

- Twin belt connected 2,800 rpm engines to a common shaft
- Pulley arrangement reduces speed to a constant 1800 rpm
- Pulley and belt assembly fully enclosed in guard assembly
- Pedestal drive shaft on robust 2-bearing assembly
- Ease of connection to 2-bearing generator or pump


MODEL TFI130R

Engine Power Unit Arrangement:

- Each engine assembled side by side with pulley connection
- Belts are tighten using all-thread adjustment.
- Easily removable belt cover lid.
- Oil and water drain lines.

AUTOMATIC ENGINE CONTROLLER:

- CAN-based display with rich, full-color graphics
- Full engine control and safety shut-down monitoring
- Bonded glare-free LCD screen, viewable in direct sunlight
- Easy -to-use configuration software
- Full autostart, manual start, and off controls
- Rugged design for extreme environments

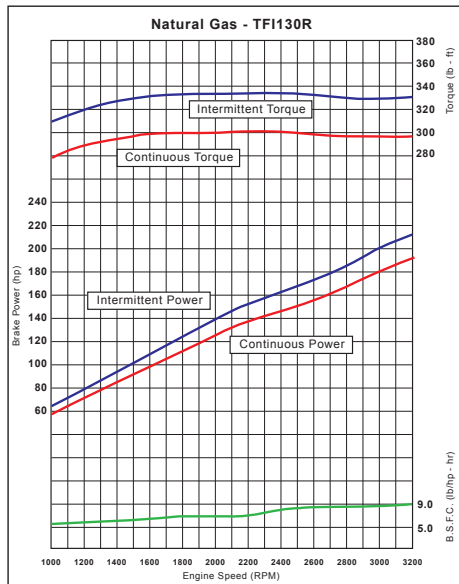
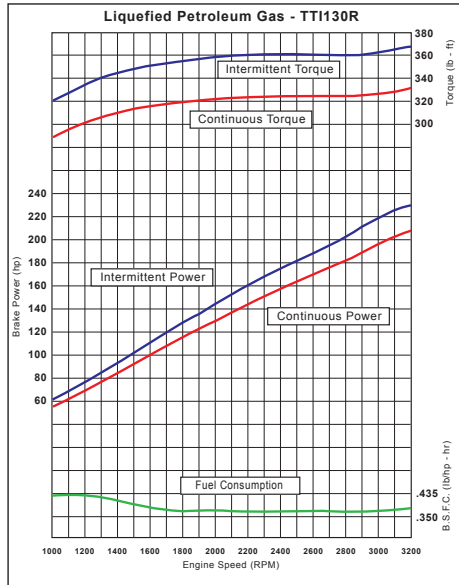

**MPC-20
ENGINE CONTROLLER**
 (Available on remote stand)

WARRANTY:

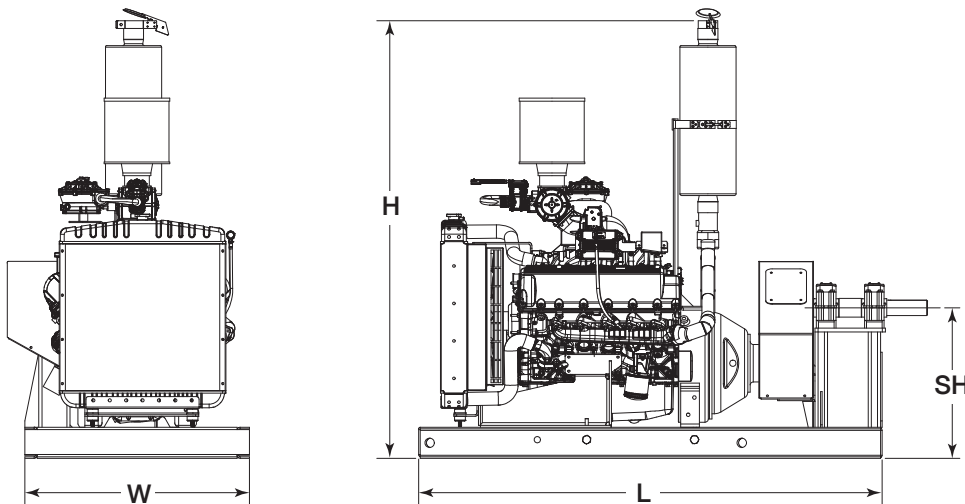
- Engine covered under the original equipment manufacturer's warranty - consult Tradewinds Power Corp for details
- Complete package supplied with one-year unlimited warranty

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

POWER & TORQUE CURVES



ARRANGEMENT DRAWING MODEL: TFI130R 1800 rpm Shaft



DRIVE ASSEMBLY:

Configuration	1 x WSG-1068 engines
Drive Connection	Shaft @ 1800 rpm
Operation	Shaft ready for flexible coupling
Pulley Drive Arrangement	Pulley connects two engines
Engine to Drive Shaft Speed rpm	Pulley reduction 2800 to 1800 rpm
Bearings	Pedestal drive shaft bearings

ENGINE SPECIFICATION:

Manufacturer	Ford
Model	WSG-1068
Emissions	EPA and CARB certified
Crankshaft speed	2,800 rpm
Type	Industrial, four-stroke
Combustion system	Electronic Spark Ignition
Aspiration	Natural
Engine type	Gaseous and LPG spark ignition
Fuel NG (LPG)	NG 1050 BTU/FT3 (LPG HD-5)
Cylinder arrangement	V10
Displacement in³ (liters)	415 (6.8)
Bore and Stroke ins (mm)	3.55 X 4.17 (90.2 X 105.8)
Nominal Max intermittent hp (kW) per engine	145 (108) NG fuel 165 (123) LPG fuel
Cooling	Liquid
Governor	Electronic
Starting motor & alternator	12 volt
Compression ratio	9:1
Air cleaner type	Medium duty dry type
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 - ft³/sec (m³/sec)	169 (4.79)
Radiator Capacity gallons (Liters)	TBA

ENGINE ELECTRICAL SYSTEM:

Starting motor voltage	12 volt
Wet Cell Battery	Lead Acid
Cold Cranking Amps - minimum	720 amps

LUBRICATION SYSTEM:

Oil pan capacity with filter - quarts	6
Recommended lubricating oil grade	15W 40
Oil consumption at full load	< 0.1% of fuel consumption
Oil pressure - psi (kPa)	46 (320)

KEY DIMENSIONS AND WEIGHT

Description	Key	Inches
Height	H	70.13
Length	L	81.5
Width	W	38.81
Shaft Height	SH	22.75
Dry Weight lbs (Kg)		1714 (779)

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