

# SINGLE ENGINE CLUTCH DRIVE OPU

**FUEL: NG & LPG**
**ENGINE: FORD**

## SPECIFICATION SHEET

Fuel	Rating	Power hp (kW)	Torque ft-lbs (N-m)
Natural Gas	Intermittent	45.0 (34.0)	135 (186)
	Continuous	41.0 (31.0)	122 (165)
LPG	Intermittent	48.7 (36.3)	138 (186)
	Continuous	43.8 (32.7)	124 (168)

**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:

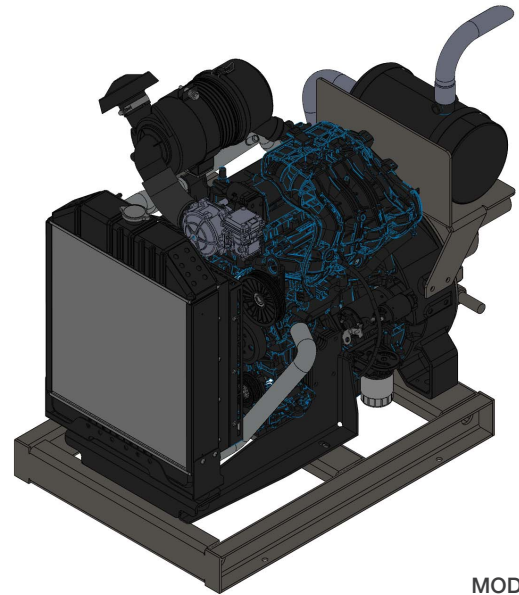
- Engine power units will accept one-step loading
- EPA and CARB certified for Agricultural use
- Four (4) point lifting eyes
- Assembled on integral sub-base with fork lift pockets
- Self contained with mounted exhaust and air-cleaner
- TPC Controller for engine start and stop
- Low oil pressure and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

### Engine:

- Ford MSG-425 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:

- Manual clutch assembled to engine flywheel housing
- Clutch shaft running @ 1800 rpm


**MODEL TFI48**

### Engine Power Unit Arrangement:

- Engine assembled on steel frame
- Sized for entry through standard door way
- Mounted exhaust and air cleaner
- 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

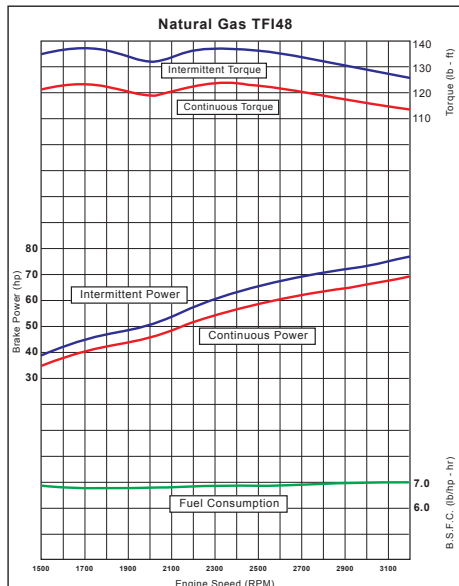
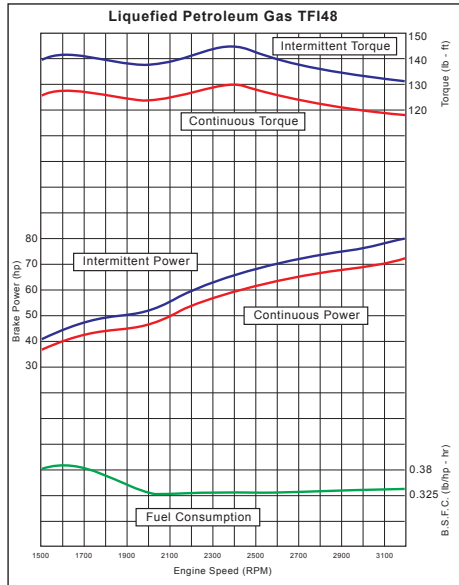

**MPC-20  
ENGINE CONTROLLER**  
 (Available on remote stand)

### WARRANTY:

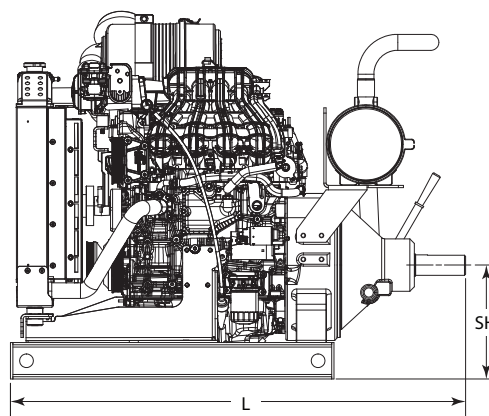
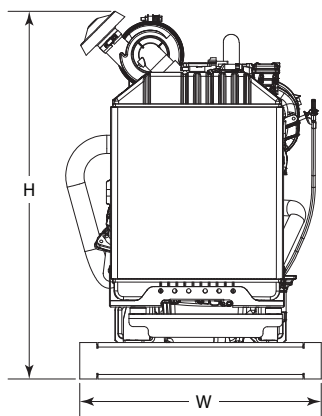
- Engine covered under the original equipment manufacturer's warranty - consult Tradewinds Power Corp for details
- Complete package supplied with one-year unlimited warranty

*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: TFI48 1800 rpm Shaft



### DRIVE ASSEMBLY:

Configuration	Single engine 1800 rpm clutch drive
Drive Connection	Twin Disc
Operation	Manual
Pulley Drive Arrangement	N.A.
Engine to Drive Shaft Speed rpm	1800
Bearings	N.A.

### ENGINE SPECIFICATION:

Manufacturer	Ford
Model	MSG-425 EFI
EPA certified	Tier 4
Crankshaft speed	1,800 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	4-cylinder, Vertical, In-line
Displacement in³ (liters)	152.5 (2.5)
Bore and Stroke ins (mm)	3.5 X 3.93 (89 X 100)
Intermittent hp 1800 rpm hp (kW)	LPG 48.7 (36.3); NG 47.0 (35.1)
Cooling	Liquid
Governor	Electronic
Starting motor & alternator	12 volt
Compression ratio	9.7:1
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 <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 - 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	7
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	40.66
Length	L	49.94
Width	W	26.5
Shaft Height	SH	12.5
Dry Weight lbs (Kg)		777 (353)

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