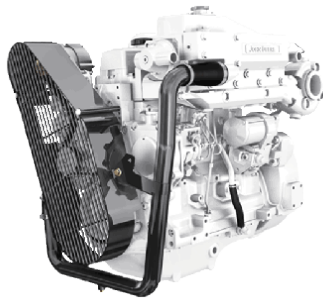


# PowerTech

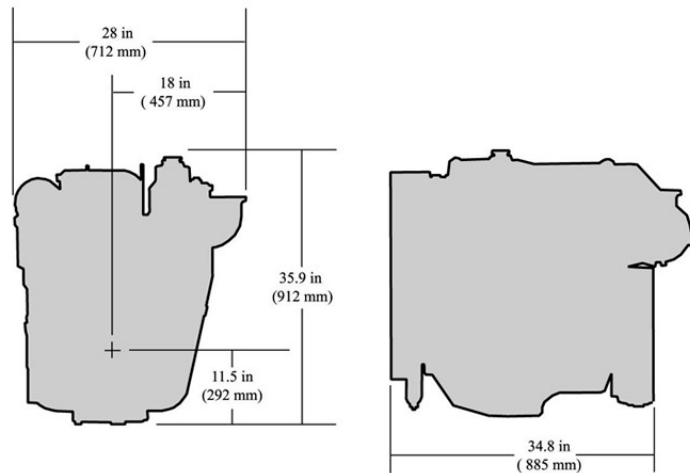
## 4045TFM Diesel Engine

Marine Generator Drive Engine Specifications



4045TFM shown

### Dimensions



### Certifications

China Classification Society  
 Det Norske Veritas  
 EPA Tier 2  
 IMO MARPOL Annex VI

### General data

Model	4045TFM75	Length - mm (in)	885 (34.8)
Number of cylinders	4	Width - mm (in)	712 (28.0)
Displacement - L (cu in)	4.5 (275)	Height, Centerline to Top-- mm. (in)	620 (24.4)
Bore and Stroke-- mm (in)	106.5 x 127 (4.19 x 5.00)	Height, Centerline to Bottom-- mm. (in)	292 (11.5)
Compression Ratio	17.6:1	Weight, dry-- kg (lb)	462 (1019)
Engine Type	In-line, 4- Cycle	Maximum Installed Angle	Front Up – degrees 12 Front Down – degrees 0
Aspiration	Turbocharged		

### Features and benefits

#### Watercooled Exhaust Manifold

- Cooler and quieter environment for vessel and crew
- Reduced external connections eliminates hoses and fittings that can leak or break

#### Replaceable wet-type cylinder liners

- Hardened and precision machined for long life
- Rebuild to original specifications

#### Internal Balancers

- Low noise and vibration for crew comfort

#### Corrosion Resistant Components

- Provides engine protection from the effects of seawater

#### Either-side Service

- Oil fill and dipstick combinations
- Remote oil filter for easier service access

#### Heat Exchanger or Keel Cooled

- Integrated expansion tank, heat exchanger and exhaust manifold reduce chances of leaks
- Keel cooler options provide application flexibility

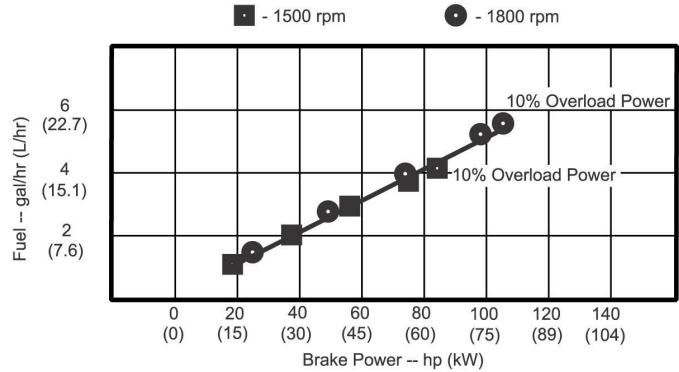
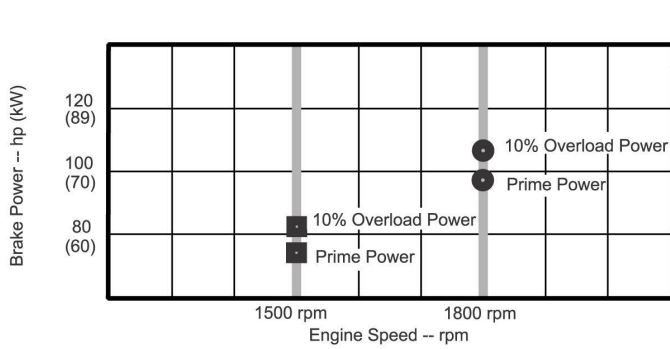
#### High Torque and Low Rated RPM

- Excellent vessel control and maneuvering
- Lower rated rpm limits vibration and noise for better crew comfort

#### Fuel System

- Electronically controlled rotary fuel injection pump with variable timing resulting in excellent fuel economy and excellent performance
- Self diagnostics and protection

## Performance curve



System data	1800 rpm	1500 rpm
<b>Air system</b>		
Engine air flow - m <sup>3</sup> /min (ft <sup>3</sup> /min)	5.2 (183.6)	3.5 (123.6)
<b>Exhaust system</b>		
Dry - mm (in)	65 (2.6)	65 (2.6)
Wet - mm (in)	75 (3.0)	75 (3.0)
<b>Cooling system</b>		
Coolant flow - L/min (gal/min)	125 (33.0)	116 (30.6)
<b>Sea water system</b>		
Pump flow - L/min (gal/min)	84 (22.2)	70 (18.5)
<b>Fuel system</b>		
Governor type	Electronic	Electronic
Governor regulation - %	7-10	7-10
Total fuel flow - L/hr (gal/hr)	113 (29.9)	109 (28.8)

Performance data	1800 rpm	1500 rpm
10% overload engine Power - kW (hp)	80 (107.3)	61 (81.8)
Prime engine power - kW (hp)	73 (97.9)	56 (75.1)
Low idle speed - rpm	1150	1150
BMEP - kPa (psi)	1071 (155)	980 (142)

## Performance data

Hz (rpm)	Generator efficiency %	Keel cooled		Power factor	Calculated gen-set rating	
		(no fan)			kW	kVA
50 (1500)	88-92	--	--	0.8	48-51	60-64
60 (1800)	88-92	--	--	0.8	64-67	80-84

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*All values at rated speed and power with standard options unless otherwise noted. Specifications and design subject to change without notice.*