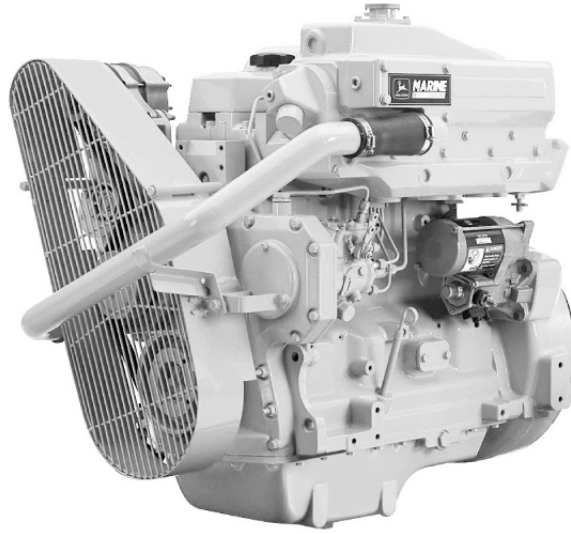




JOHN DEERE

PowerTech™ **4045DFM** Marine Engine Specifications



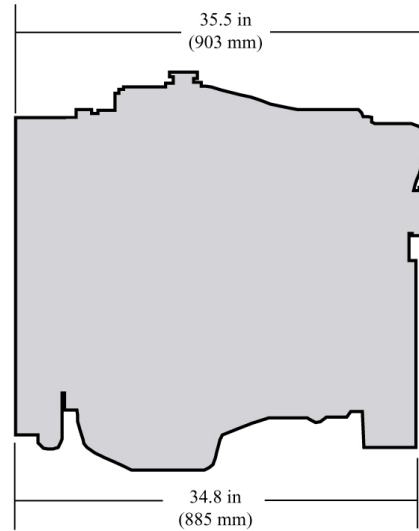
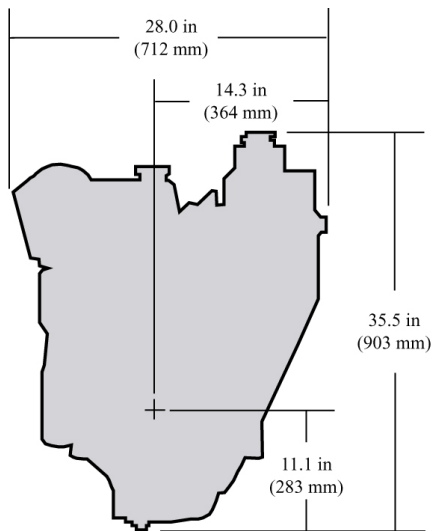
PERFORMANCE DATA

	M2	M1
Rated Gross Power - bhp (kW)	85 (63)	75 (56)
Rated Speed - rpm	2500	2400
Low Idle Speed - rpm	700	700
Peak Torque - lb-ft (N.m)	201 (273)	180 (244)
Peak Torque Speed -rpm	1400	1400
Fuel Consumption - gal/hr (L/h)		
2500	4.6 (17.3)	N/A
2400	4.0 (15.0)	4.0 (15.0)
2200	3.0 (11.3)	3.0 (11.3)
2000	2.2 (8.5)	2.2 (8.5)
1800	1.7 (6.3)	1.7 (6.3)
1600	1.2 (4.6)	1.2 (4.6)
1400	0.9 (3.3)	0.9 (3.3)
1200	0.6 (2.2)	0.6 (2.2)
1000	0.4 (1.4)	0.4 (1.4)

Photographs may show non-standard equipment



DIMENSIONS



Propulsion & Auxiliary Power

GENERAL DATA

Model	4045DFM50	Length - in. (mm)	34.8 (885)
Number of Cylinders	4	Width - in. (mm)	28 (712)
Displacement - L (cu. in.)	4.5 (276)	Height - in. (mm)	35.5 (903)
Bore and Stroke - in. (mm)	4.19 x 5.00 (106 x 127)	Weight - lb. (kg)	961 (437)
Compression Ratio	17.6:1	Maximum Installed Angle	
Engine Type	In-line, 4-cycle	Front Up - degrees	15
Aspiration	Natural	Front Down - degrees	0

FEATURES AND BENEFITS

Water-cooled 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

- Excellent heat dissipation
- 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
- Application and service flexibility to provide installation convenience plus fast and easy maintenance

Heat exchanger or keel cooled

- High-capacity heat exchanger designed for reliable operation in adverse conditions
- Integrated expansion tank, heat exchanger and exhaust manifold reduce chances of leaks
- Keel cooler option provides application flexibility

High torque and low rated rpm

- Enables the engine to turn larger propellers at lower speed for best efficiency
- Excellent vessel control and maneuvering
- Lower rated rpm limits vibration and noise for better crew comfort

Fuel system

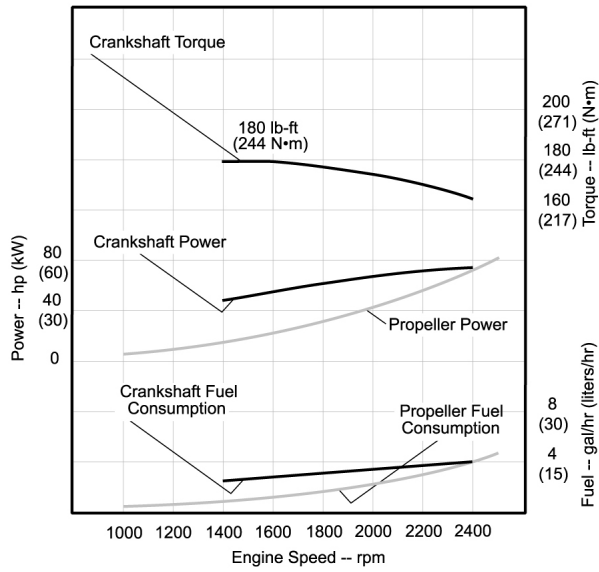
- Proven and reliable Mechanical Governor

Emissions

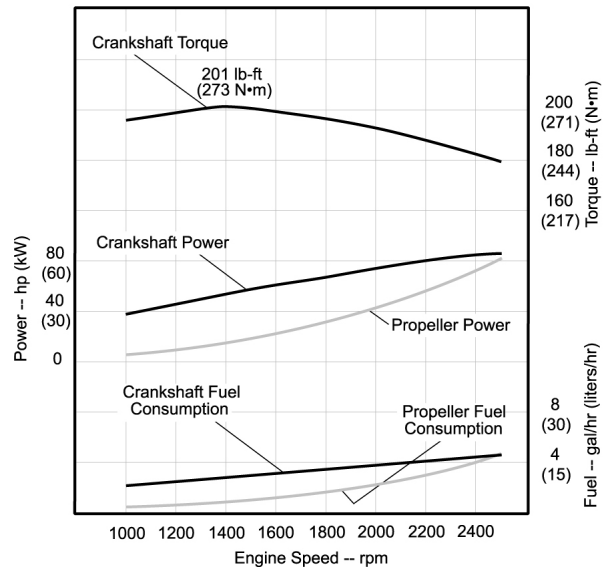
- IMO Exempt

*Data based on keel cooled engine.
All values at rated speed and power with standard options unless otherwise noted.
Specifications and design subject to change without notice.*

M1 PERFORMANCE CURVE



M2 PERFORMANCE CURVE



PERFORMANCE CURVE DEFINITIONS

Marine M1

For propulsion applications that may operate up to 24 hours a day at uninterrupted full power. These applications typically operate over 3,000 hours/year.

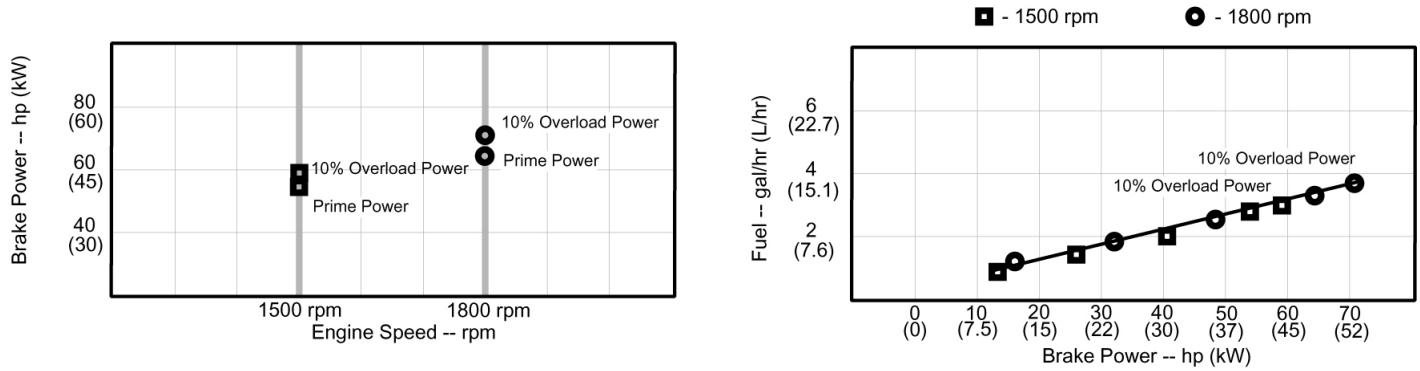
Marine M2

For propulsion applications that may utilize full power up to 16 out of each 24 hours of operation. These applications typically operate at full power up to 65 percent of the time and accumulate as many as 3,000 hours/year.

PowerTech™
4045DFM Marine Engine
Specifications

Generator Set Applications

PERFORMANCE CURVE



SYSTEM DATA

Electrical System	12 volt	24 volt
Recommended Battery Capacity		
CCA at 32 deg. F (0 deg. C) - amp	640	570
Air System	1,800 rpm	1,500 rpm
Engine Air Flow - cu.ft/min (cu.m/min)	125 (3.4)	100 (2.7)
Exhaust System	1,800 rpm	1,500 rpm
Dry Exhaust Outlet Dia. - in. (mm)	4.0 (50)	4.0 (50)
Wet Exhaust Outlet Dia. - in. (mm)	4.0 (63)	4.0 (63)
Cooling System	1,800 rpm	1,500 rpm
Coolant Flow - gal/min (L/min)	33 (125)	31 (116)
Sea Water System	1,800 rpm	1,500 rpm
Sea Water Pump Flow - gal/min (L/min)	22 (83)	18 (68)
Fuel System	1,800 rpm	1,500 rpm
Governor Type	Mechanical	Mechanical
Governor Regulation - %	5	5
Fuel consumption - gal/hr (L/hr)	3.3 (12.6)	2.7 (10.1)
Lubrication System	1,800 rpm	1,500 rpm
Total engine Oil Capacity		
With filters - qt (L)	9.0 (8.5)	9.0 (8.5)
Engine Crankcase Vent System	Open	Open

PERFORMANCE DATA

	1,800 rpm	1,500 rpm
10 % Overload Engine Power - hp (kW)	71 (53)	59 (44)
Rated Engine Power - hp (kW)	64 (48)	54 (40)
Low Idle Speed - rpm	1000	1000
BMEP - psi (kPA)	103 (708)	103 (708)

FUEL CONSUMPTION

	1,800 rpm	1,500 rpm
25% Power - gal/hr (L/h)	1.2 (4.7)	0.9 (3.4)
50% Power - gal/hr (L/h)	1.8 (6.7)	1.4 (5.4)
75% Power - gal/hr (L/h)	2.5 (9.4)	2.0 (7.7)
100% Power - gal/hr (L/h)	3.3 (12.6)	2.7 (10.1)
10% Overload Power - gal/hr (L/h)	3.7 (13.8)	3.0 (11.3)

*Data based on keel cooled engine.
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