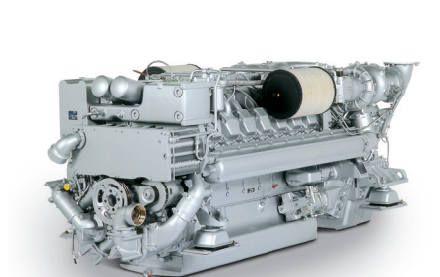




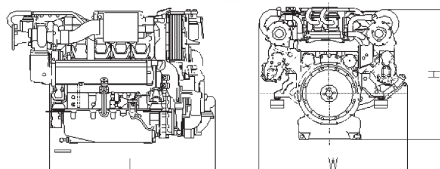
Marine

DIESEL ENGINE 12V 2000 M51A/B

for on-board power generation and diesel-electric drives
in continuous operation (3A)



16V picture



Optional equipment and finishing shown. Standard may vary.

Engine	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
M51 A/B	2105 x 1400 x 1290 (82.9 x 55.1 x 50.8)	2600 (5732)

Specifications are subject to change without notice. All dimensions are approximate, for complete information refer to installation drawing. For further information consult your MTU distributor/dealer.

Engine type		12V 2000 M51A 50 Hz	12V 2000 M51B 60 Hz
Rated power ICXN	kW	498	600
	(bhp)	(668)	(805)
Speed	rpm	1500	1800
No. of cylinders		12	12
Bore/stroke	mm (in)	130/150 (5.1/5.9)	130/150 (5.1/5.9)
Displacement, total	l (cu in)	23.9 (1458)	23.9 (1458)
Flywheel housing		SAE O	SAE O
Exhaust optimization ¹⁾		IMO II	IMO II
Solas compliance		Yes	Yes

1) IMO – International Maritime Organisation (Marpol-convention)

Performance & fuel consumption ¹⁾		12V 2000 M51A	12V 2000 M51B
Speed	rpm	1500	1800
Maximum power	kW	498	600
	bhp	668	805
75% Power	kW	374	450
	bhp	502	603
Fuel consumption	g/kWh	208	210
at 75% power	bhp	93.4	113.4
	gal/hr	24.7	29.9

1) Tolerance +5% per ISO 3046, Diesel fuel to DIN EN 590 with a min L.H.V. of 42800 kJ/kg (18390 BTU/lb)
All pumps necessary for engine operation included. Heat exchanger version without sea water pump: -2 g/kWh

Standard equipment	
Starting system	Electric starter 24 V
Auxiliary PTO	Charging generator, 140A, 28V, 2 pole
Oil system	Gear driven lube oil pump, lube-oil duplex filter with diverter valve, lube-oil heat exchanger, handpump for oil extraction
Fuel system	Fuel feed pump, fuel pre-filter, fuel main filter with diverter valve, on-engine fuel oil cooler, leak-off tank level monitored
Cooling system	Coolant-to-raw water plate core heat exchanger, self priming centrifugal raw water pump, gear driven coolant circulation pump
Combustion air system	Turbocharging with 2 water-cooled exhaust-gas turbochargers, on-engine intake air filters
Exhaust system	Triple-walled, liquid-cooled, on-engine exhaust manifolds, twin exhaust outlet, exhaust bellows horizontal discharge, SOLAS Kit
Mounting system	Resilient mounts at free end and driving end
Electronics and instrumentation	Engine and gearbox control and monitoring system (MDEC)

Optional equipment	
Starting system	Pneumatic starter
Fuel oil system	Duplex fuel prefilter, fuel conditioning system
Cooling System	Coolant preheating system, integr. seawater gearbox piping
Exhaust System	Exhaust bellows vertical discharge
Engine Management System	In compliance with Classification Society Regulations (EMU + MEU)
Monitoring / Control System	genoline
Power Transmission	Torsionally resilient coupling

Reference conditions:
> Power definition according ISO 3046
> Intake air temperature 25°C/Sea water temperature 25°C
> Intake air depression 15 mbar/Exhaust back pressure 30 mbar
> Barometric pressure 1000 mbar