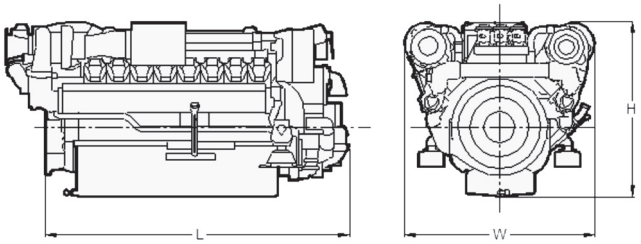
Marine

Diesel Engines 12V/16V 2000 M91

for Fast Vessels with Low Load Factors (1DS)

Dimensions and Masses

2000 M91	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
12V	1800x1400x1290 (74.4x55.1x50.8)	2600 (5732)
16V	2255x1400x1290 (88.8x55.1x50.8)	3275 (7220)



Typical applications: Fast Yachts, Fast Patrol Boats, Police Craft and Fire-Fighting Vessels

Engine Model		12V 2000 M91	16V 2000 M91
Rated power ICFN	**kW (bhp)**	**1119 (1500)**	**1492 (2000)**
Speed	**rpm**	**2350**	**2350**
No. of cylinders		12	16
Bore/stroke	mm (in)	130/150 (5.1/5.9)	130/150 (5.1/5.9)
Displacement, total	l (cu in)	23.9 (1458)	31.8 (1943)
Flywheel housing		SAE 1	SAE 0
Optimization of exhaust emissions [1]		IMO I/EPA 2/EU	IMO II compl./EPA 2/EU

[1] IMO – International Maritime Organization (MARPOL)
EPA – US Marine Directive 40 CFR 94
EU – Recreational crafts EU 94/25 EC

Power. Passion. Partnership.

Performance & Fuel Consumption [1]		12V 2000 M91			16V 2000 M91		
Speed	rpm	2350	1800	1200	2350	1800	1200
Maximum power	kW	1119	940	500	1492	1250	790
	bhp	1500	1261	671	2000	1676	1059
Power on propeller curve[2]	kW	1119	500	150	1492	670	200
	bhp	1500	671	201	2000	898	268
Fuel consumption	g/kWh	222	208	217	220	207	211
on propeller curve[2]	l/h	299.3	125.3	39.2	395.5	167.1	50.8
	US gal/h	79.1	33.1	10.4	104.5	44.1	13.4

[1] Tolerance +5% per ISO 3046, Diesel fuel to DIN EN 590 with a min L.H.V. of 42800kJ/kg (18390 BTU/lb)

[2] 3.0 exponent

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 hand pump, fuel main filter with diverter valve, on-engine fuel oil cooler, individual HP injection pumps, jacketed HP fuel lines, injection nozzles (PLN system), flame proof hose lines, leak-off fuel 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	Sequential turbocharging with 2 water-cooled exhaust-gas turbochargers, on-engine set of combustion-air filters
Exhaust system	Triple-walled, liquid-cooled, on-engine exhaust manifolds, 2 exhaust bellows horizontal discharge
Mounting system	Resilient mounts at free end
Engine management system	Engine and gearbox control and monitoring system (MDEC)

Optional Equipment	
Auxiliary PTO	Bilgepump, on-engine PTOs
Oil System	Oil replenishment system
Fuel System	Duplex fuel pre-filter
Cooling System	Integrated seawater gearbox piping
Exhaust System	2 exhaust bellows vertical discharge
Mounting System	Resilient mounts at driving end
Engine Management System	In compliance with Classification Society Regulations (EMU + GMU)
Monitoring/Control System	**blue***line*, MCS-5, RCS-5
Power Transmission	Torsionally resilient coupling
Gearbox Options	Reverse reduction gearbox, el. actuated, gearbox mounts, trolling mode for dead-slow propulsion, free auxiliary PTO, hydraulic pump drives

> Power definition according ISO 3046
> Intake air depression 15 mbar/Exhaust back pressure 30 mbar
> Power reduction at 45°C/32°C: none
> Intake air temperature 25°C/Sea water temperature 25°C
> Barometric pressure 1000 mbar

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

Subject to change. | 3231491 | Edition 01/14 | ENC 2014-01.

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