

Diesel Engines 12V/16V 2000 M72

for Vessels

with High Load Factors (1B)



Typical applications:

Ferries (e. g. monohulls, hydrofoils, catamarans, surface effect ships) and displacement yachts

Engine model		12V 2000 M72	16V 2000 M72
Rated power ICFN	kW (bhp)	1080 (1450)	1440 (1930)
Speed	rpm	2250	2250
No. of cylinders		12	16
Bore/stroke	mm (in)	135/156 (5.4/6.1)	135/156 (5.4/6.1)
Displacement, total	l (cu in)	26.8 (1635)	35.7 (2179)
Flywheel housing		SAE 1	SAE 1
Gearbox model		ZF 3050 i = 1,3 - 3,0	ZF 4540 A i = 1,3 - 4,0

Fuel consumption ¹⁾		12V 2000 M72			16V 2000 M72		
Speed	rpm	2250	1950	1200	2250	1950	1200
Maximum power	kW	1080	1060	425	1440	1420	690
	bhp	1450	1420	570	1930	1905	925
Power on propeller curve (n ³)	kW	1080	720	175	1440	950	225
	bhp	1450	965	235	1930	1275	300
Fuel consumption on propeller curve (n ³)	g/kWh	208	217	218	206	207	216
	l/h	270.7	277.1	46.0	357.4	237.0	58.6
	gal/h	71.5	73.2	12.1	94.4	62.6	15.5

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



Standard equipment

Starting system	Electric starter 24V
Auxiliary PTO	Charging generator, 80A, 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 pre-filter, fuel main filter with diverter valve, on-engine fuel oil cooler, HP fuel pumps, jacketed HP fuel lines, injection nozzles (CR-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 intake air filters
Exhaust system	Triple-walled, liquid-cooled, on-engine exhaust manifolds, single centrally located exhaust outlet, 1 exhaust bellows vertical discharge
Mounting system	Resilient mounts at free end
Engine management system	Engine and gearbox control and monitoring system (ADEC)

Optional equipment

Auxiliary PTO	Charging generator, 140A, 28V, 2-pole, bilgepump, on-engine PTPs
Oil system	Centrifugal oil filter, oil replenishment system
Fuel system	Duplex fuel prefilter
Cooling system	Coolant preheating system, integr. seawater gearbox piping
Exhaust system	1 exhaust bellows horizontal discharge
Mounting system	Resilient mounts at driving end
Engine management system	In compliance with classification society regulations (EMU + GMU)
Monitoring / Control system	<i>smartline, blueLine, bluevision</i>
Power transmission	Torsionally resilient coupling
Gearbox option	Reverse reduction gearbox, el. actuated, gearbox mounts, trolling mode for dead-slow propulsion, free auxiliary PTO, hydraulic pump drives
Classification	ABS, BV, CCS, DNV, GL, KR, JG, LR, NK, RINA

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

Power reduction at 45°C/32°C: none

All engines fulfil IMO emission regulation, certificate on request

All engines EPA Tier 2 certified.

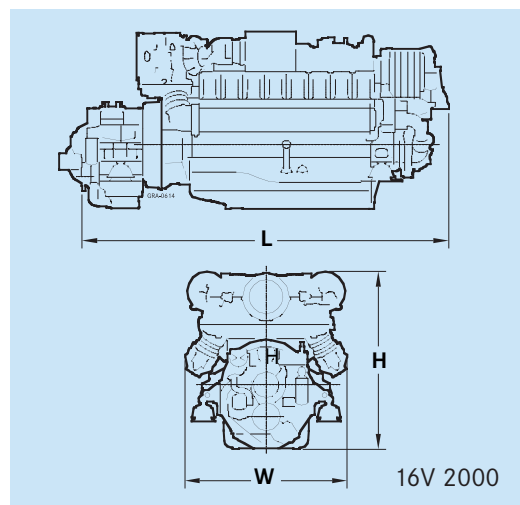
Dimensions and masses (incl. gearbox)

Engine model		12V2000 M72	16V2000 M72
Length [L]	mm (in)	2685 (105.7)	3130 (123.2)
Width [W]	mm (in)	1295 (51.0)	1295 (51.0)
Height [H]	mm (in)	1385 (54.5)	1505 (59.3)
Mass [dry]	kg (lbs)	3680 (8113)	4600 (10141)

Specifications are subject to change without notice.

All dimensions are approximate. For complete information refer to installation drawing.

For further information consult your MTU or MTU Detroit Diesel distributor/dealer.



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