

Marine

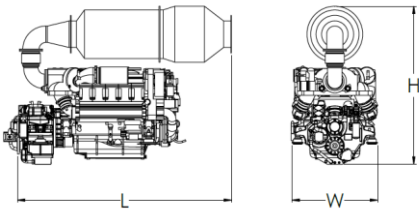
# DIESEL ENGINES 8/10V 2000 M72

for fast vessels with high load factors (1B)



Engine with SCR and gearbox	Dimensions (LxWxH) mm	Mass engine and gear, dry [kg]	Mass SCR system, dry [kg]
8V/ZF 2000	2780x1160x2030	2410	278 <sup>1)</sup>
10V/ZF 3000	2880x1160x2120	2820	300 <sup>1)</sup>

1) Weight of complete SCR system including catalyst, mixer, 100 l urea tank (dry), control cabinet, wiring and dosing unit



Typical applications: Fast ferries, wind farm service vessels, SAR, Patrol vessels (catamarans, monohulls, surface effect ships) and displacement yachts

Optional equipment and finishing shown. Standard may vary  
Location of mixer and catalyst can be adjusted to specific space requirement

Engine type		8V 2000 M72	10V 2000 M72
Rated power ICFN	kW (bhp)	720 (965)	900 (1250)
Speed	rpm	2250	2250
No. of cylinders		8	10
Bore stroke	mm	135/156	135/156
Displacement, total	l	17,9	22,3
Flywheel housing		SAE 1	SAE 1
Gearbox type		ZF 2000 i = 1,1 – 2,5	ZF 3000 i = 1,1 – 3,0
Aftertreatment system		LD - type	LE - type
Max exhaust backpressure <sup>2)</sup>	mbar	45	45
Exhaust emissions		IMO III	IMO III

1) IMO – International Maritime Organization

2) Including SCR system

Engine type		8V 2000 M72			10V 2000 M72		
Speed	rpm	2250	1950	1200	2250	1950	1200
Maximum power	kW	720	710	370	900	880	460
	bhp	965	950	495	1205	1180	615
Power on propeller curve (n <sup>3</sup> )	kW	720	475	115	900	585	140
	bhp	965	635	155	1205	785	190
Fuel consumption on propeller curve <sup>1)</sup>	g/kWh	214	215	219	213	211	208
	l/hr	185.6	123.0	30.3	321.0	148.7	35.1
Urea consumption <sup>2)</sup>	g/kWh	9.5	9.5	9.5	9.5	9.5	9.5

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

2) AdBlue 32,5% Urea, tolerance 5%

Standard equipment	
Exhaust after treatment system	SCR-system with integrated mixer and catalyst. Air assisted Urea injection.
Engine starting system	Electric starter 24V
Auxiliary PTO	Alternator, 80A, 28V, 2 pole
Engine oil system	Gear driven lube oil pump, lube-oil duplex filter with diverter valve, lube-oil heat exchanger, handpump for oil extraction
Engine fuel system	Fuel feed pump, fuel hand pump, fuel pre-filter, fuel main filter with diverter valve, on-engine fuel oil cooler, HP fuel pump, jacketed HP fuel lines, injection nozzles (CR system), flame proof hose lines, leak-off fuel tank level monitored
Engine cooling system	Coolant-to-raw water plate core heat exchanger, self-priming centrifugal raw water pump, gear driven coolant circulation pump
Engine combustion air system	Sequential turbocharging with 2 water-cooled exhaust-gas turbochargers, on-engine set of combustion-air filters
Engine exhaust system	Triple-walled, liquid-cooled, on-engine exhaust manifolds, single centrally located exhaust outlet, 1 exhaust bellow horizontal discharge
Engine mounting system	Resilient mounts at free end
Engine management system	Engine control and monitoring system (ADEC)

Optional equipment	
Auxiliary PTO	Alternator, 140A, 28V, 2 pole, bilge pump, on-engine PTOs
Oil system	Centrifugal oil filter, oil replenishment system
Fuel system	Duplex fuel pre - filter
Cooling system	Coolant preheating system, integrated seawater gearbox piping
Exhaust system	1 exhaust bellow vertical discharge
Mounting system	Resilient mounts at driving end
Engine Management system	In compliance with Classification Society Regulations
Monitoring / Control system	Smartline, Blueline, Bluevision, BlueVision New Generation, Callosum
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
Classification	ABS, BV, CCS, DNV-GL, KR, JG, LR, NK, RINA

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
- > Power reduction at 45°C/32°C: none

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. may feature options not fitted as standard to standard engine.