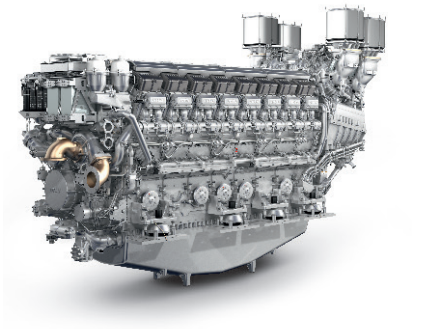
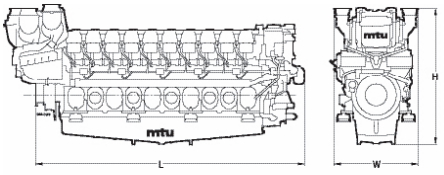
Marine

DIESEL ENGINES 16V 8000 M91L

for Fast Vessels with Low Load Factors (1DS)





Engine	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
M91L	5698x2040x3375 (224.3x80.3x132.9)	42000 (92594)

Typical applications: Ferries, Large Displacement Yachts, OPVs, Naval Auxiliary Vessels

Optional equipment and finishing shown. Standard may vary.

Engine type		16V 8000 M91L
Rated power ICFN	kW	8000
	(bhp)	(10728)
Speed	rpm	1150
No. of cylinders		16
Bore/stroke	mm (in)	265/315 (10.4/12.4)
Displacement	l (cu in)	278 (21200)
Optimization of exhaust emissions*		IMO II

* IMO - International Maritime Organisation (MARPOL)
EPA - US Marine Regulation 40 CFR 1042

A Rolls-Royce solution

Fuel Consumption *		16V 8000 M91L
at rated power	g/kWh	198
	l/h	1908
	gal/h	504

* 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	Air starter motor, 15 bar; press. reduct. station 40/15 bar, coolant preheating system
Oil system	Lube oil pump, automatic filter with backflushing, centrifugal oil filter, lube-oil heat exchanger, lube oil priming pump, lube oil level monitoring/replenishment system, switchboxes for lube oil replenishment and priming pumps
Fuel system	Fuel delivery pump, fuel duplex filter with diverter valve, “common rail” fuel injection system with high-pressure pump, pressure accumulator and electronically fuel injection with cylinder cutout system, jacketed HP fuel lines, leak-off fuel tank level m onitored, fuel hand pump, fuel pre-filter with water separator, fuel recooler
Cooling system	MTU-split-circuit coolant system, coolant-to-raw water plate core heat exchanger, centrifugal raw water pump with priming system, coolant circulation pump, coolant expansion tank
Combustion air system	Engine coolant temperature-controlled intercooler, sequential turbocharging with 4 water-cooled turbochargers, on-engine set of combustion-air filters
Exhaust system	On-engine exhaust manifolds, exhaust bellows
Mounting system	Resilient mounts
Power transmission	Torsional and offset compensating couplings
Engine management system	Engine control and monitoring system (MDEC), interface to remote control and monitoring system, local operating panel (LOP)
Interfaces	Flexible joints (hose lines, rubber bellows)

Optional equipment	
Starting system	Compressed air tanks
Monitoring/Control system	Monitoring and control system MCS-5, remote control system RCS-5
Gearbox option	Various gearbox models
Classification	ABS, BV, CR, DNV, GL, KR,LR, NK, RINA incl. necessary extensions to scupe of supply

Reference conditions:
> Intake-air temperature: 25°C (77°F)
> Ambient air pressure: 1000 mbar
> Altitude above sea level: 100 m (328 ft)
Customization possible. Engines illustrated in this document may feature options not fitted as standard to standard engine.

Subject to change. | 32310541 | Edition 01/19 | ESM 2019-08.