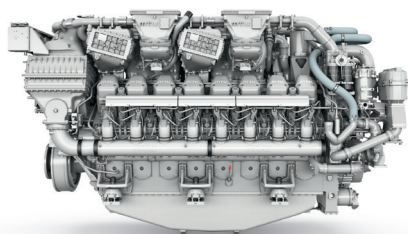




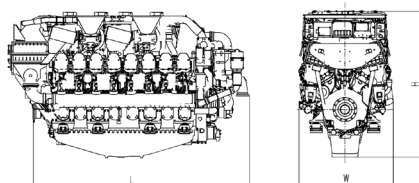
Marine

DIESEL ENGINES 16V 1163 M74

for fast vessels with high load factors (1B)



| Engine | Dimensions (LxWxH) mm (in) | Mass, dry kg (lbs) |
|--------|---|--------------------|
| M74 | 4547 x 1942 x 2925 (179 x 76.5 x 115.2) | 20560 (45327) |



Optional equipment and finishing shown. Standard may vary.

Typical applications: e.g. frigates, corvettes, patrol boats, fast ferries and displacement yachts

| Engine type | | 16V 1163 M74 |
|------------------------------------|-----------|--------------------|
| Rated power ICFN | kW | 4800 |
| | (bhp) | (6437) |
| Speed | rpm | 1200 - 1250 |
| No. of cylinders | | 16 |
| Bore/stroke | mm (in) | 230/280 (9.1/11.0) |
| Displacement | l (cu in) | 186.1 (11357) |
| Optimization of exhaust emissions* | | IMO II |

* IMO - International Maritime Organisation (MARPOL)

| Fuel consumption ²⁾ | | 16V 1163 M74 |
|--------------------------------|--------------|--------------|
| at 100% power | g/kWh | 210 |
| | l/h (gal/hr) | 1209 (319) |
| Optimum value | g/kWh | 202 |

2) 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-in cylinder starting system (max. operating pressure 40 bar) |
| Oil system | Double impeller oil circulation pumps, oil heat exchanger, centrifugal oil filter, oil change equipment, lube oil priming system |
| Fuel system | Mechanically driven fuel delivery pump, fuel duplex filter, common-rail injection system with high pressure pumps, high pressure accumulators and electrically operated injection valves, jacketed high pressure fuel lines, cylinder bank cut out system, leak-off fuel tank with level monitor, fuel prefilter with water separator, hand pump for fuel prefilter priming, electric fuel booster pump with non-return valve for starting aid |
| Cooling system | Coolant circulation pumps, coolant thermostats, raw water pump, non-self-priming, coolant preheating system, coolant expansion tank, raw water cooled plate-core heat exchanger |
| Combustion air system | On engine air system with suction from engine room, set of air filters with connection housing |
| Exhaust system | Two-stage mtu sequential turbocharging (speed/load-sensitive turbocharger cut-in/out) comprising several modular turbocharger groups each with 1 L.P. and 1 H.P. turbochargers and L.P. and H.P. intercoolers; electric./pneum. operated intake air and exhaust gas flow control flaps for sequential turbo charging, vertical exhaust connection with exhaust compensators |
| Mounting system | Resilient engine mounting |
| Power transmission | Torsionally resilient steel spring coupling, engine mounted, radial and axial shaft misalignment coupling |
| Engine management system | Engine control and monitoring system (ADEC), engine control unit (ECU), engine monitoring unit (EMU), engine interface module (EIM), sensors, plug connectors and wiring on engine |
| Monitoring and control system | Local monitoring/control for the propulsion plant(s), local operating panel (LOP) (with gearbox monitoring; with gearbox clutch control In/Out), mtu standard interface of local operating panel (LOP) (for gearbox monitoring and gearbox clutch control), shaft speed monitoring by local operating panel (LOP), mtu standard interface of local operating panel (LOP) (for shaft speed monitoring), electric pump control unit (EPC) (for lube oil and fuel) |

| Optional equipment | |
|-------------------------------|---|
| Starting system | Compressed air tank, start pilot cold starting aid |
| Oil system | Automatic oil level check and replenishment system |
| Fuel system | Fuel oil treatment plant for separating solids and water |
| Cooling system | Raw water pump primer for non-self-priming raw water pump |
| Combustion air system | On engine air system for external air intake, set of air intake elbows (air filter with water separator supplied by shipyard) |
| Exhaust system | Exhaust pipe junction (horizontal discharge), exhaust pipe junction (insulated), resiliently mounted on engine, with horizontal exhaust gas discharge toward engine driving end or free end, consisting of: junction of on-engine exhaust outlets, with bellows before junction, bellows after junction with counter flange and attaching hardware for resilient connection of ship's-side exhaust line |
| Mounting system | Resilient engine mounting for increased shock and sea-state related loads |
| Monitoring and control system | mtu monitoring and control system MCS, remote control system RCS |
| Certification | ABS, BV, CCS, CR, DNV, GL, KR, LR, NK, RINA and others |

> Power definition acc. 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.