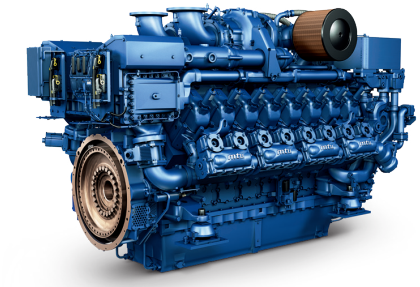
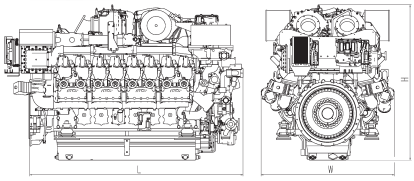
Marine

# GAS ENGINE SERIES 4000 M55RN

## for vessels with unrestricted continuous operation (1A)





| Engine | Dimensions (LxWxH) mm (in) | Mass, dry kg (lbs) |
|---|---|---|
| 8V 4000 M55RN | 2010 x 1957 x 2279 (79.1 x 77.0 x 89.7) | 6044 (13325) |
| 16V 4000 M55RN | 2950 x 1957 x 2116 (116.1 x 77.0 x 83.3) | 9800 (21605) |

Typical applications: e.g. tugs, barges, ferries, governmental vessels and other work boats

Optional equipment and finishing shown. Standard may vary.

| Engine type | | 8V 4000 M55RN | 16V 4000 M55RN |
|---|---|---|---|
| Rated power ICFN | kW | 746 | 1492 |
| | (bhp) | 1000 | 2000 |
| Speed | rpm | 1600 | 1600 |
| Peak torque | Nm | 5400 | 10800 |
| Dry weight | kg (lbs) | 6044 (13325) | 9800 (21605) |
| No. of cylinders | | 8 | 16 |
| Displacement | l (cu in) | 38.2 (2331.1) | 76.3 (4656.1) |
| Emission legislation* | | IMO III | IMO III |

* These engines meets the IMO III emission standards with no additional exhaust gas aftertreatment.
IMO - International Maritime Organisation (MARPOL)

A Rolls-Royce solution

| Fuel consumption * | 8V 4000 M55RN | 16V 4000 M55RN |
|---|---|---|
| Consumption | 204 g/kWh | 205 g/kWh |

* Tolerance +5% per ISO 3046, gas with lower heating value of 47500 kJ/kg (20420 BTU/lb)

| Standard equipment | |
|---|---|
| Starting system | Electric starter motor 24V, 2 pole, coolant preheating system |
| Oil system | Gear driven lube oil pump, switchable oil filter, lube oil heat exchanger, pump for lube oil extraction, closed crankcase ventilation, oil level monitoring |
| Cooling system | Separate high and low temperature cooling circuit, engine version for separate heat exchanger, gear driven coolant circulation pumps |
| Combustion air system | Engine coolant temperature-controlled intercooler, flame arrestors in charge-air manifold, single-stage turbocharging with 2 water-cooled turbochargers, on-engine seawater-resistant air filters, 30° discharge elbow |
| Fuel system | Gas Regulating Unit (GRU) flexibly positionable and aligned with engine safety concept, containing gas-pressure regulating valve in accordance with engine requirements, monitored gas-filter and double block&bleed valves with second enclosure applicable for air ventilation only,<br>Gas engine with tight secondary enclosure around fuel-system complying with gas-safe machinery space, applicable for overpressure nitrogen or air ventilation, additional on-engine gas filter, multi-point injection valve on each cylinder, modular built common rail system on each cylinder bank and single fuel supply interface on engine connected via flexible hose |
| Engine management system | Engine control and monitoring system (ADEC) with extended scope of monitoring including crankcase monitoring, Engine Interface Module (EIM) engine mounted |
| Mounting system | Resilient engine mounting |
| Engine safety system | The scope of delivery for the engine fulfils the requirements to be used in a gas safe engine room design and SOLAS requirements for admissible temperature |
| Power transmission | Torsional resilient and off-set compensating coupling |

| Optional equipment | |
|---|---|
| Oil system | Lube oil priming system, automatic oil replenishment system |
| Combustion air system | Intake air silencer |
| Exhaust system | 90° discharge elbow |
| Auxiliary PTO | Secondary coolant pump, PTOs at free end of engine |
| Gearbox option | Various revers reduction gearbox models, elec. actuated, gearbox mounts, PTO for hydraulic pump at driving shaft or at mediate shaft, trolling, trailing pump, propeller shaft flange classification ABS, BV, DNV/GL, LR including necessary extensions to scope of supply |
| High humidity | Up to 26 g/kg (standard is up to 22 g/kg) |
| High pressure | Inerting for engine |
| Classification | ABS, BV, DNV/GL, LR including necessary extensions to scope of supply |

Reference conditions:
> 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 installation drawing. For further information consult your ***mtu*** distributor/dealer.

Subject to change. | 32310441 | Edition 01/23 | BMC 2023-07.