Marine

**DIESEL ENGINES 8V 4000 M54R/M54**

for vessels with unrestricted continuous operation (1A)

<table>
<thead>
<tr>
<th>Engine type</th>
<th>Dimensions (LxWxH) mm (in)</th>
<th>Mass, dry kg (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M54R/M54</td>
<td>2386 x 1613 x 1972 (93.9 x 63.5 x 77.6)</td>
<td>5710 (12588)</td>
</tr>
<tr>
<td>Engine with stand. gearbox</td>
<td>on request</td>
<td>on request</td>
</tr>
</tbody>
</table>

Optional equipment and finishing shown. Standard may vary.

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

<table>
<thead>
<tr>
<th>Engine type</th>
<th>8V 4000 M54R</th>
<th>8V 4000 M54</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated power ICFN kW (bhp)</td>
<td>746 (1000)</td>
<td>895 (1199)</td>
</tr>
<tr>
<td>Speed rpm</td>
<td>1600</td>
<td>1800</td>
</tr>
<tr>
<td>No. of cylinders</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Bore/stroke mm (in)</td>
<td>170/210 (6.7/8.3)</td>
<td>170/210 (6.7/8.3)</td>
</tr>
<tr>
<td>Displacement, total l (cu in)</td>
<td>38.1 (2325)</td>
<td>38.1 (2325)</td>
</tr>
<tr>
<td>Flywheel housing</td>
<td>SAE 00</td>
<td>SAE 00</td>
</tr>
<tr>
<td>Exhaust optimization 1)</td>
<td>IMO II/EPA 3 C</td>
<td>IMO II/EPA 3 C</td>
</tr>
</tbody>
</table>

1) IMO - International Maritime Organisation (MARPOL)
   EPA - US Marine Regulation 40 CFR 1042
   EU - EU Nonroad Directive 97/68/EG
<table>
<thead>
<tr>
<th>Fuel consumption *</th>
<th>8V 4000 M54R</th>
<th>8V 4000 M54</th>
</tr>
</thead>
<tbody>
<tr>
<td>at rated power</td>
<td>212</td>
<td>212</td>
</tr>
<tr>
<td>g/kWh</td>
<td>190.0</td>
<td>228.0</td>
</tr>
<tr>
<td>l/h</td>
<td>(50.2)</td>
<td>(60.2)</td>
</tr>
<tr>
<td>(gal/h)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Standard equipment</th>
<th>8V 4000 M54R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting system</td>
<td>Electric starter motor 24V, 2 pole</td>
</tr>
<tr>
<td>Oil system</td>
<td>Gear driven lube oil pump, non switchable oil filter, centrifugal oil filter, lube oil heat exchanger, closed crankcase ventilation, lube oil extraction pump</td>
</tr>
<tr>
<td>Fuel system</td>
<td>Fuel delivery pump, duplex lube fuel filter with diverter valve, common rail fuel injection system with high-pressure pump, pressure accumulator and electronic fuel injection with cylinder cutout system, jacketed HP fuel lines, flame- proof hose lines, leak-off fuel monitoring, switchable pre-filter with water separator in conjunction with switchable additional secondary filter</td>
</tr>
<tr>
<td>Cooling system</td>
<td>Engine version for separate heat exchanger, gear driven coolant circulation pump</td>
</tr>
<tr>
<td>Combustion air system</td>
<td>Dry charge air manifolds, engine coolant temperature-controlled intercooler, turbocharging with 2 water-cooled turbochargers, on-engine seawater-resistant air filters</td>
</tr>
<tr>
<td>Exhaust system</td>
<td>Triple-walled, liquid-cooled, on-engine exhaust manifolds, vertical discharge, exhaust bellow</td>
</tr>
<tr>
<td>Mounting system</td>
<td>Resilient engine mounting</td>
</tr>
<tr>
<td>Power transmission</td>
<td>Torsional resilient and off-set compensating coupling (Centa CX for D-Drive); Torsional resilient coupling with bearing housing (Centamax for T-Drive)</td>
</tr>
<tr>
<td>Auxiliary PTO</td>
<td>Generator 120A, 28V, 2-pole</td>
</tr>
<tr>
<td>Engine management system</td>
<td>Engine control and monitoring system (ADEC); engine interface module - EIM, engine mounted</td>
</tr>
<tr>
<td>Engine safety system</td>
<td>The scope of delivery for the engine fulfils SOLAS requirements for admissible surface temperature and shielding of fuel and lube oil lines</td>
</tr>
<tr>
<td>Optional equipment</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Starting system</td>
<td>Coolant preheating system; air starter</td>
</tr>
<tr>
<td>Oil system</td>
<td>Lube oil priming system, oil level monitoring, automatic oil replenishment system with basic scope of monitoring, switchable oil filter with extended scope of monitoring switchable oil filter with extended scope of monitoring</td>
</tr>
<tr>
<td>Fuel system</td>
<td>Fuel conditioning system with water separator</td>
</tr>
<tr>
<td>Cooling system</td>
<td>Coolant-to-raw water plate core heat exchanger, self priming centrifugal raw water pump, engine mounted coolant expansion tank, raw-water connection for gearbox cooling</td>
</tr>
<tr>
<td>Combustion air system</td>
<td>Intake air silencer</td>
</tr>
<tr>
<td>Exhaust system</td>
<td>90° elbow for horizontal discharge</td>
</tr>
<tr>
<td>Auxiliary PTO</td>
<td>Bilgepump (as secondary coolant pump), PTOs at free end of engine</td>
</tr>
<tr>
<td>Engine management system</td>
<td>Expansion in compliance with extended scope of monitoring (individual exhaust temperature monitoring)</td>
</tr>
<tr>
<td>Gearbox options</td>
<td>Various reserve reduction gearbox models, elec. actuated, gearbox mounts, PTO for hydraulic pump at driving shaft or at mediate shaft, trolling, trailing pump, propeller shaft flange</td>
</tr>
<tr>
<td>Classification</td>
<td>ABS, BV, DNV, GL, LR including necessary extensions to scope of supply</td>
</tr>
</tbody>
</table>

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 distributor/dealer.