Let your fuel take you further. By combining diesel and gas technologies in one engine, the MAN 51/60DF gives you absolute fuel flexibility. There’s no better way to keep your engine running effectively and economically. Full steam ahead.

Benefits at a glance

- High power output
- Lowest fuel consumption over entire engine load
- Best load acceptance behaviour
- Full fuel flexibility
- High reliability and long TBOs
General
- Engine cycle: Four-Stroke
- No. of cylinders: 6, 7, 8, 9
- Bore: 510 mm – Stroke: 600 mm
- Swept volume per cyl: 122.6 dm³

Fuel consumption at 85% MCR
- Diesel Mode: 180.2 g/kWh
- Gas Mode: 7,265 kJ/kWh

Cylinder output (MCR)
- At 500/514 rpm: 1,050 kW
- Power-to-weight ratio: 15.6 – 16.8 kg/kW

Compliance with emission regulations
- IMO Tier II
- MO Tier III (Gas mode)
- IMO Tier III (Diesel mode with MAN SCR)

Main features
- Turbocharging system
  High efficiency constant pressure MAN TCA series exhaust turbocharging system
- Engine automation and control
  MAN in-house developed engine attached Safety and Control System SaCos³one
- Air management
  Variable turbine area allowing improved adapation for Diesel and Gas mode operation while maintaining highest turbocharger efficiency over entire engine load
- Fuel system
  Common Rail pilot fuel injection system
  Conventional main injection system
  Variable injection system for lowest fuel consumption while meeting IMO Tier II emission limits in Diesel mode
- Gas system
  Cylinder individual low pressure gas admission system, 5 bar(g) at inlet of gas valve unit
- Cooling system
  2-string high and low temperature cooling water systems
- Starting system
  Starting air valves within cylinder heads
- Engine mounting
  Resilient or rigid mounting

Optional equipment
- Fuel Sharing mode for highest fuel flexibility
- 100% Power Take-Off at engine free end available
- Variable inlet valve timing for improved combustion in part load operation

Dimensions

<table>
<thead>
<tr>
<th>Cyl. No.</th>
<th>L</th>
<th>L1</th>
<th>W</th>
<th>Dry mass</th>
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<tr>
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<td>7</td>
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<td>9</td>
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Output

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<th>Speed</th>
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<tbody>
<tr>
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<td>514</td>
<td>6,300 kW</td>
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<tr>
<td>rpm</td>
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</tbody>
</table>

LHV of fuel gas ≥ 28,000 kJ/Nm³
(Nm³ corresponds to one cubic meter of gas at 0 °C and 1.013 bar)
Minimum centreline distance for twin engine installation: 3,200 mm
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