The MD2020 is a marine engine of advanced design manufactured from quality components and designed to fulfil customer requirements.

**Service Life**
The MD2020 is fitted with freshwater cooling as standard. This reduces internal corrosion and enables the engine to maintain a consistent and optimal working temperature under all conditions.

To avoid galvanic corrosion the engine is equipped with the unique electrical isolation between engine and transmission.

**Comfort**
Smooth running with very low vibration levels results from a dynamically balanced design incorporating a flywheel of high rotating mass and high efficiency rubber isolation.

The engine's high torque provides excellent operating characteristics to aid maneuvering, particularly in confined spaces.

Additional on board comfort features are available from an extensive range of matched accessories.

**Environment**
An advanced combustion system increases fuel burning efficiency to minimize noxious exhaust emissions and enhance overall enjoyment of boating. The MD2020 is certified according to BSO II, SAV and US/EPA.

**Transmissions**
Six matched transmission options are available, each built for durability and smooth running.

**Technical description:**

**Engine and block**
- Cylinder block and cylinder head manufactured from high grade cast iron. Crankcase features a rigid tunnel block design.
- Chromolybdenum forged crankshaft, statically and dynamically balanced with integral counterweights. Pistons are cast from high silicon aluminum, are heat treated and fitted with two cast iron, chromium faced compression rings and a single oil ring.
- Replaceable, hardened valve seats
- Elastic coupling on flywheel

**Cooling system**
- Freshwater cooling system governed by thermostat
- Tubular heat exchanger with integral expansion tank
- Coolant system prepared for hot water outlet fittings
- Easily accessible sea water pump and impeller

**Lubrication system**
- Spin-on fullflow oil filter
- Separate oil scavenger pipe
- Closed circuit crankcase ventilation

**Fuel system**
- Flange mounted, cam driven in-line injection pump
- Feed pump with hand primer
- Spin-on type fine fuel filter

**Exhaust system**
- Freshwater cooled exhaust manifold and seawater cooled exhaust elbow

**Engine mounting**
- Tuned front and rear cushion-type rubber mounts. Adjustable.

**Electrical system**
- 12V corrosion-protected electrical system
- 14V/60A marine alternator
- Charging regulator with electronic sensor for voltage drop compensation
- Glow plugs for excellent cold starting
- Electric starter motor (0.7 kW output)
- Extension cable harness with plug-in connection available in various lengths
MD2020

Choice of instrument panel:
Standard panel, including:
- Optional rev counter incl. hour counter
- Start button or key switch
- Alarm (for monitoring temperature, oil pressure and charge rate)
- Instrument panel lighting
- Switch for alarm test and glow
De Luxe panel including:
- Optional rev counter incl. hour counter
- Key switch
- Temperature gauge
- Oil pressure gauge
- Voltmeter
- Alarm (for monitoring temperature, oil pressure and charge rate)
- Instrument panel lighting
- Alarm test button

Choice of transmissions:
MS10A – reverse gear with 8° down angle output. Ratio 2.35:1 or 2.72:1.
MS10L – reverse gear with straight out-put. Ratio 2.35:1 or 2.72:1.
- Housing of gravity die-cast aluminum alloy
- Mechanical multiple-disc clutch shift
- Safety coupling with built-in overload protection

Technical Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine designation</td>
<td>MD2020</td>
</tr>
<tr>
<td>Crankshaft power, kW (hp)</td>
<td>13.8 (19)</td>
</tr>
<tr>
<td>Propeller shaft power1, kW (hp)</td>
<td>13.3 (18)</td>
</tr>
<tr>
<td>Full throttle operating speed, rpm</td>
<td>3200–3600</td>
</tr>
<tr>
<td>Displacement, l (in³)</td>
<td>0.68 (41.3)</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>3</td>
</tr>
<tr>
<td>Bore/stroke, mm (in.)</td>
<td>67/64 (2.64/2.52)</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>23.5:1</td>
</tr>
<tr>
<td>Dry weight with reverse gear MS10A/MS10L, kg (lb)</td>
<td>125/124 (276/273)</td>
</tr>
<tr>
<td>Dry weight with sail drive 130S, kg (lb)</td>
<td>138 (304)</td>
</tr>
</tbody>
</table>

1) With MS10

Technical data according to ISO 8665. Fuel with a lower calorific value of 42700 kJ/kg and density of 840 g/liter at 15°C (60°F). Merchant fuel may differ from this specification which will influence engine power output and fuel consumption.

The engine is certified according to BSO II, SAV and US/EPA.

Dimensions MD2020/MS10A/130S

Contact your local Volvo Penta dealer for further information.
Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.
The engine illustrated may not be entirely identical to production standard engines.

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