

MD 1

7 H. P. MARINE DIESEL



The Volvo Penta MD 1 is a one-cylinder, four-stroke diesel engine with direct injection which is eminently suitable for use in small fishing boats, work boats and pleasure boats. Its low weight and compact design and construction make the MD 1 also ideal for use as an auxiliary unit in sailing craft.

The patented Volvo Penta reverse/reduction gear (ratio 1.9:1), which is well-dimensioned and robust, guarantees perfect and reliable manoeuvring. In the neutral position there is no friction to result in a slow turn-over of the propeller shaft. A further advantage is that it permits the propeller to rotate easily to minimize resistance when the boat is under sail. The easily accessible manual starter and decompression device mean that the engine is easy to start. This applies even in very cold weather since there is also a pushbutton operated cold starting device fitted on the fuel injection pump.

The MD 1 is very economical and the fuel consumption is as low as about 1 litre (1 quart) of fuel oil per hour of operation, which to a great extent depends on the fact that the fuel injection is directed by a centrifugal governor.

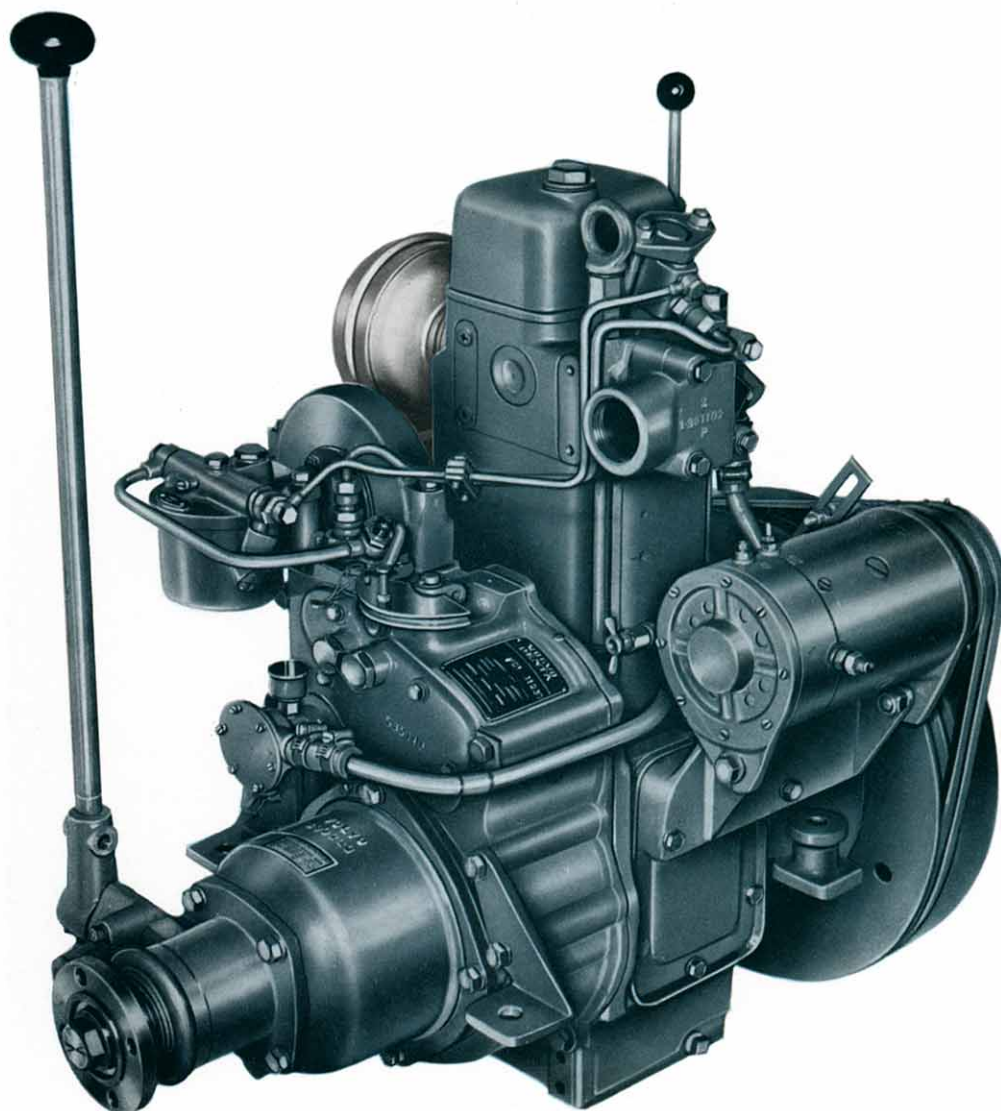
The engine is sea-water cooled and fitted with a thermostat which automatically ensures that the engine temperature is always correct in all degrees of loading.

Standard equipment includes a throttle control. In addition to this an oil pressure gauge is supplied for engines without electrical equipment, an oil sump pump and a tool kit.

The standard propeller for the MD 1 has a diameter of 14" and a pitch of 10" but for light boats we recommend a propeller with a diameter of 13" and a pitch of 11". The propeller is of the three-blade type, lefthand thread and made of bronze.

For auxiliary sailing boats, an efficient 2-blade propeller with slim blades for low resistance under sail is available.

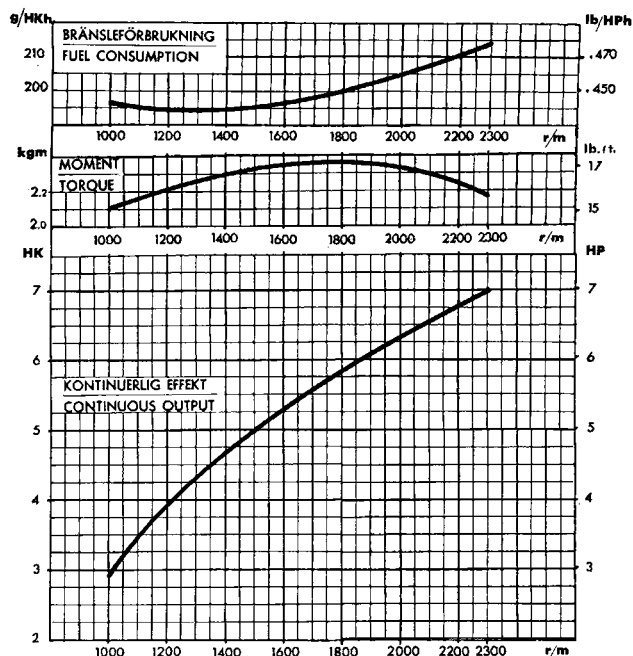
Extra equipment available for the MD 1 includes a 1 HP/90 W starter/dynamo and instrument panel with key switch and warning lamps for oil pressure and battery charging. A pulley for an extra power take-off for fitting on the flywheel is also available.



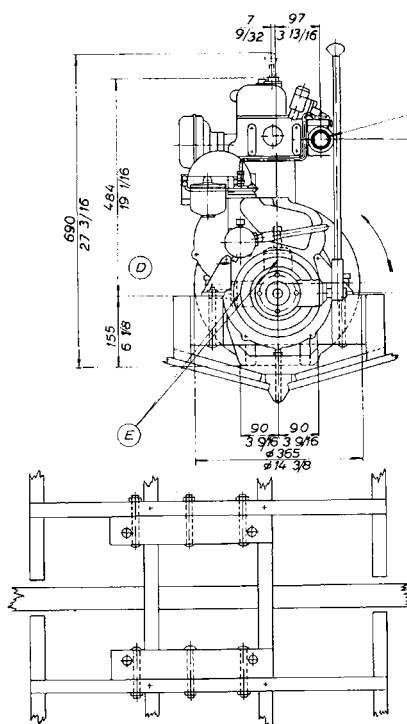
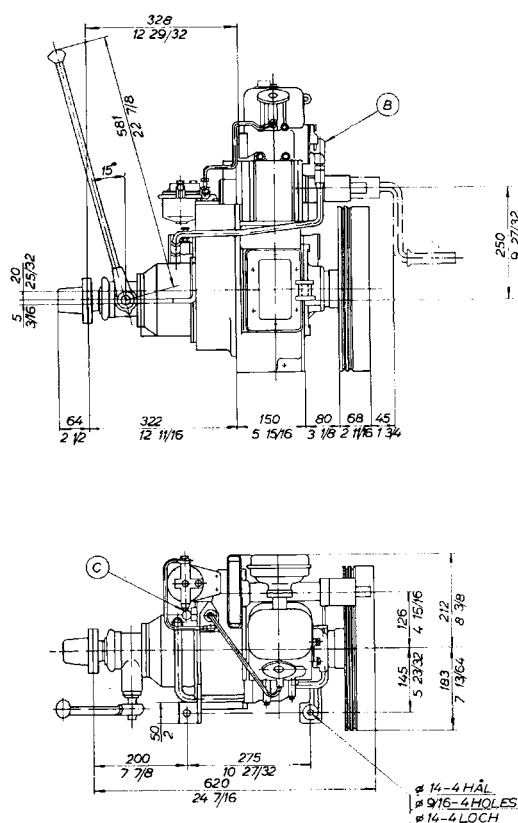
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Data

Output	7 h.p.
Max. torque	2.35 kgm (17.0 lb.ft.) / 1800 r.p.m.
Engine speed, max.	2300 r.p.m.
Propeller speed at 2300 r.p.m. engine speed	1230 r.p.m.
Reduction ratio, reverse/reduction gear	1.87:1
Bore	79.37 mm (3.125")
Stroke	90 mm (3.54")
Capacity	445 c.c. (27 cu.in.)
Max. inclination while running	15°
Net weight, including reverse/reduction gear, approx.	130 kg (285 lb.)



Dimension drawing



- A. Exhaust manifold R 1 1/4"
- B. Water outlet
- C. Fuel connection
- D. Water inlet
- E. Alternative positions



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