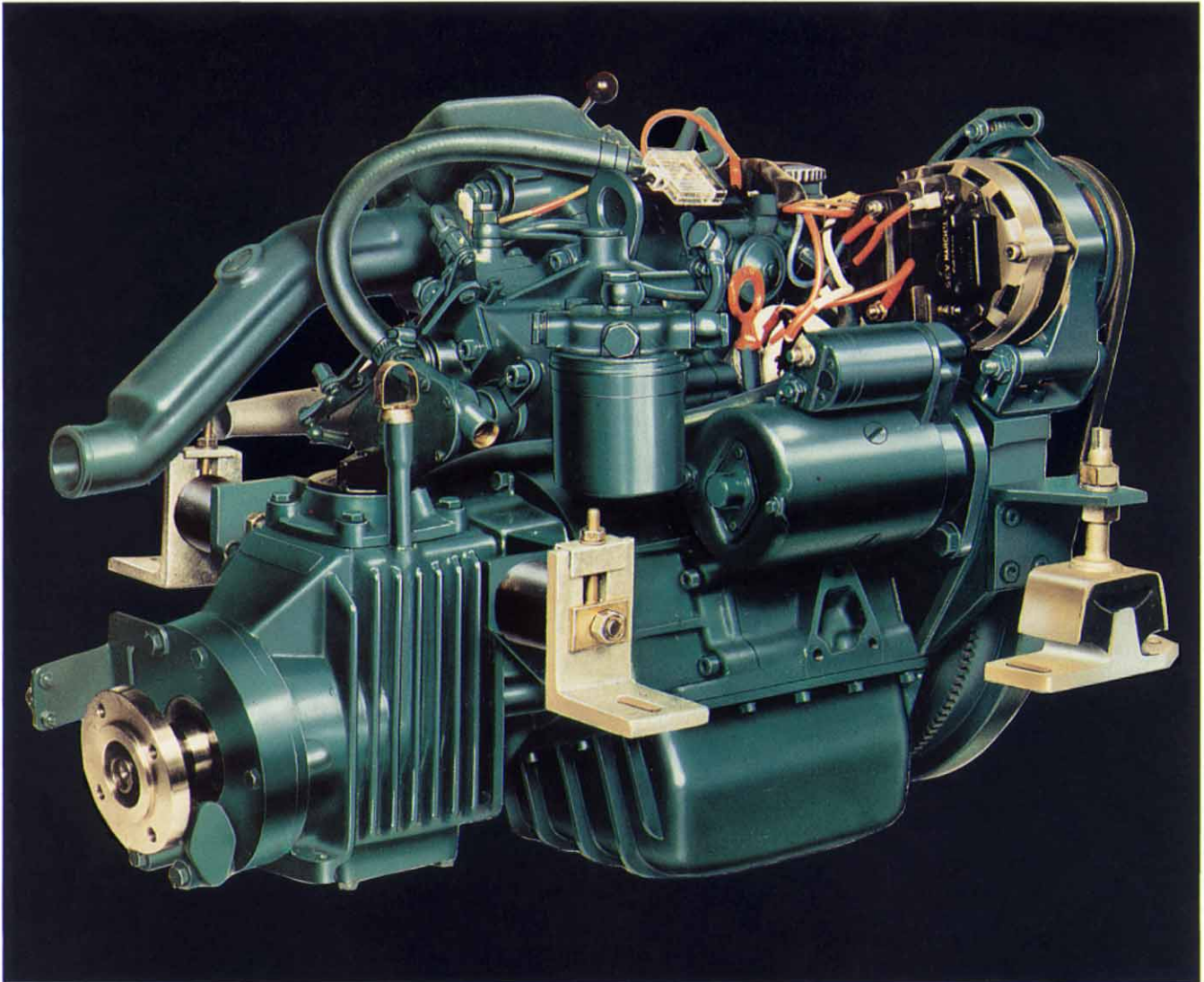


**VOLVO
PENTA****MD5C/MS2**

**1-cylinder marine diesel engine with direct injection.
Propeller shaft output, pleasure craft – 7 kW (9.5 hp).**

The new Volvo Penta MD5C with its higher speed (3.000 r/min) and greater output (9.5 hp) together with the latest and unique Volvo Penta transmission gives significant improvements in propeller thrust.

In practice this new combination means better manoeuvrability, better boat acceleration and, faster stopping plus reduced speed loss in heavy seas and high headwinds.

This robust purpose built marine engine with features like extra wall thickness in the cooling

passages and replaceable cylinder liner makes the MD5C very resistant to corrosion and wear.

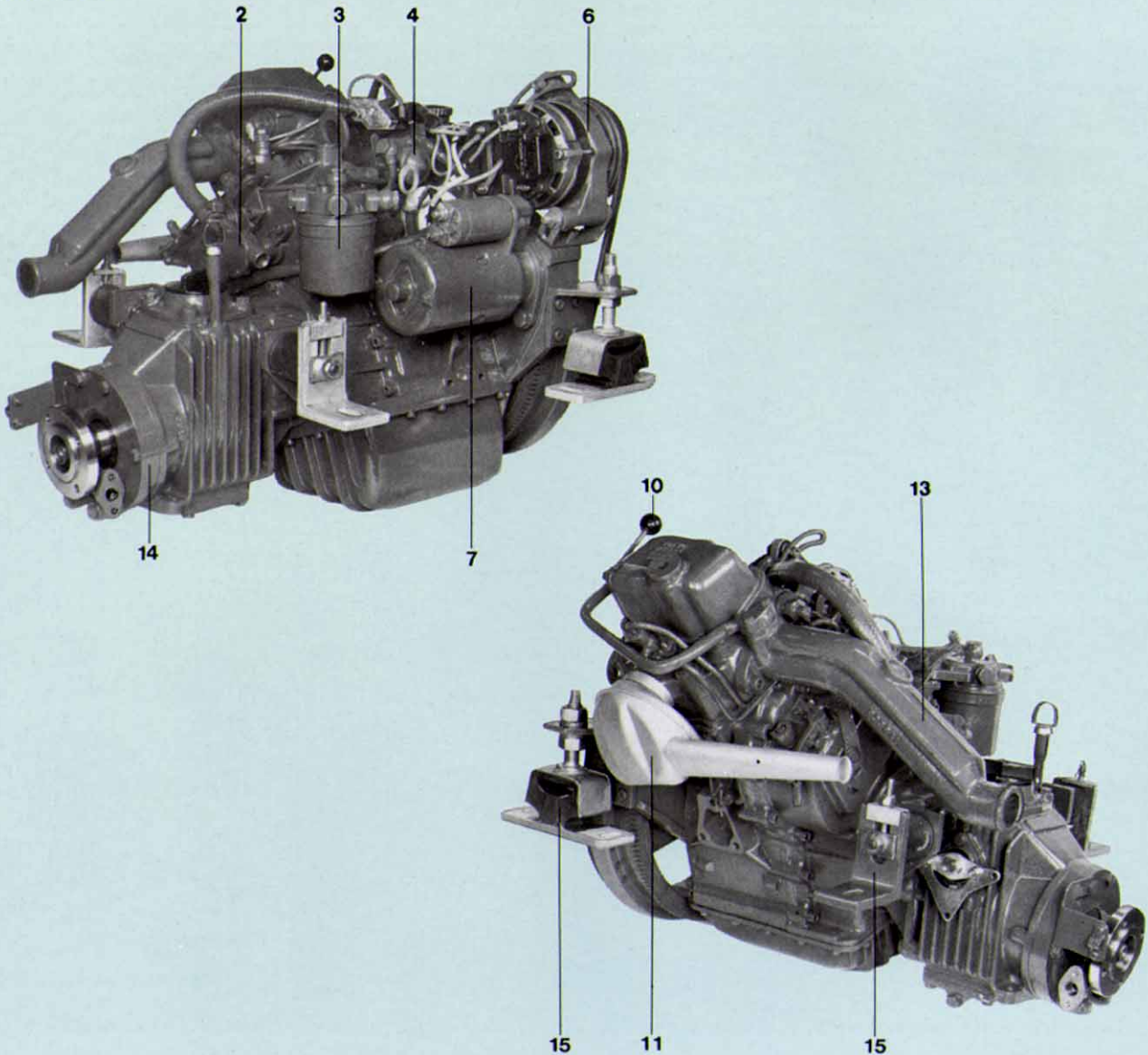
The very accurate fuel metering even at full throttle means extremely clean exhaust gasses and a miserly fuel consumption.

The new Volvo Penta reverse gear MS2 has a slip coupling built in and easy shift cone clutch.

An experienced and strategically placed network of authorised Volvo Penta workshops ensures you of the best service and parts backup.

3000
SERIES

MD5/MS2



Standard equipment

ENGINE BODY

Engine block and cylinder head of cast iron. Replaceable wet cylinder liner. Cylinder inclination 45°.

FUEL SYSTEM

Piston type injection pump with centrifugal governor for accurate speed regulation, manual cold starting device. Stop lever with bracket for push-pull mechanism. Exchangeable fuel filter (3). Feed pump with hand primer (4). Flexible fuel suction hose (approved by DNV, LR, GL and BV) for copper pipe unions.

COOLING SYSTEM

Thermostatically controlled sea-water cooling. Sea-water pump (2) with easily replaceable pump impeller.

LUBRICATING SYSTEM

Pressurized lubricating system with exchangeable oil filter. Closed-circuit crankcase ventilation.

INTAKE SYSTEM

Intake silencer (11) with cleanable air filter.

EXHAUST SYSTEM

Exhaust manifold elbow (13) with coolant outlet for connection to rubber exhaust hose.

REVERSE REDUCTION GEAR

MS2 ratio 2,4:1 (14). Seawater cooled. Output shaft downward angle 7°. Supplied without propeller shaft flange.

ENGINE MOUNTING

Flexible mountings for optimal quiet and vibration-free running with adjustable height feature (15).

ELECTRICAL SYSTEM

12V corrosion-proof electrical system complete with instrument panel. Alternator (6) 50 A, 600 W, approved for marine use. Voltage regulator with fast-charge mode. Alternator prepared for retrofitting of twin diode kit which gives automatic distribution of charge current to two or more batteries.

STARTING SYSTEM

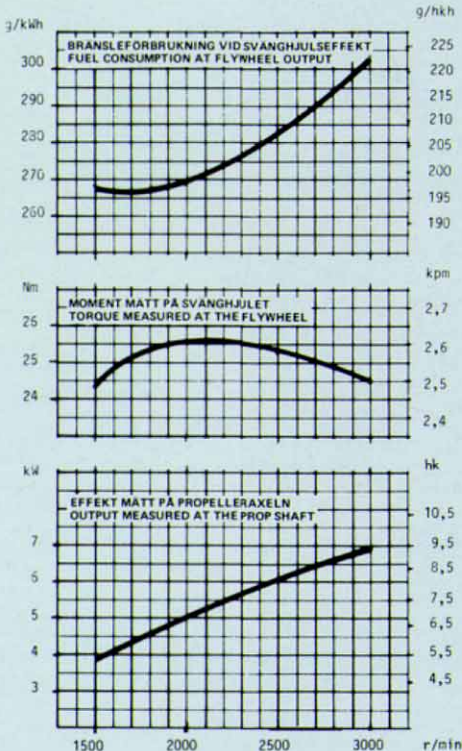
Electric starter motor (7), output 0.8 kW (1.1 hp). Manual starting crank for extra security with decompression lever (10) for easier cranking.

INSTRUMENT PANEL

Complete with ignition key starter switch, warning lamps for charging, cooling water temperature and oil pressure. Automatic alarm with buzzer for low oil pressure and high cooling water temperature. Recess for extra instrument (diam. 52 mm) with blind cover. Master fuse with built in spare fuses. Cable harness, length 4 m, (13 ft), with connector.

TOOL KIT

Sufficient for minor repair work.

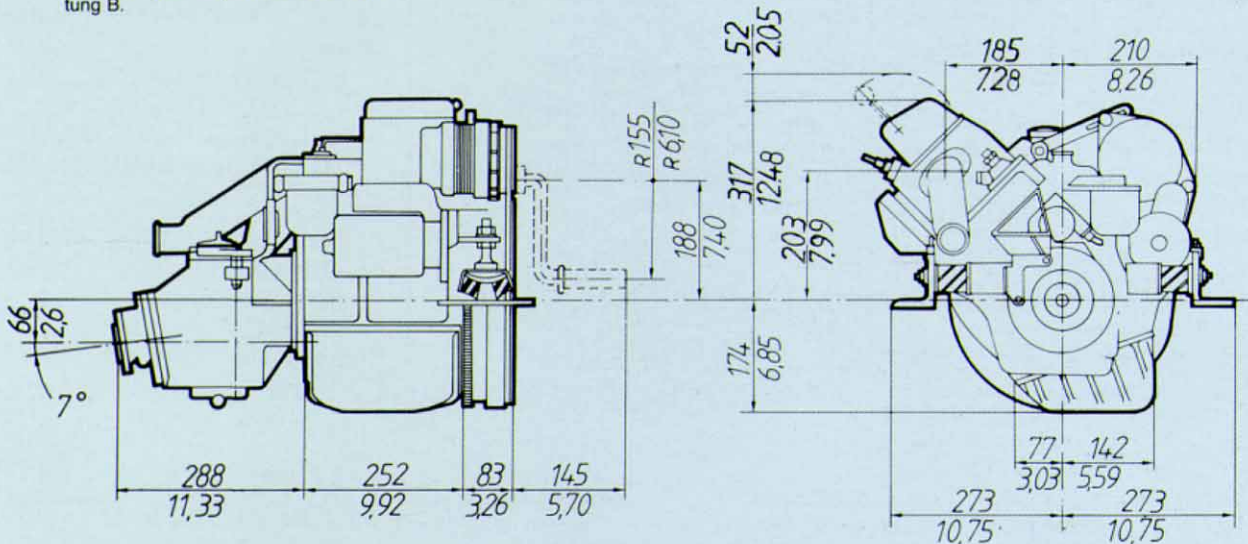


The diagrams show propeller shaft output for a run-in engine and reverse reduction gear as per DIN 6270 Leistung B.

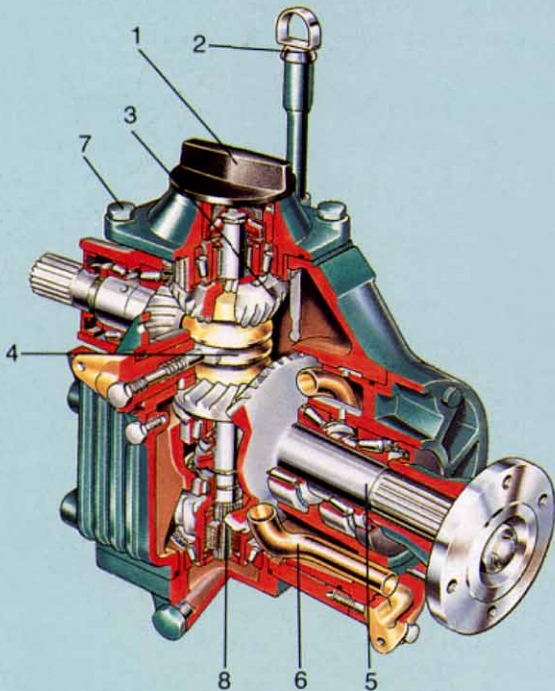
Data

Engine type 4-stroke diesel with direct injection
 Propeller shaft output*
 MD5C/MS2 7 kW (9.5 hp) at 3000 r/min
 No. of cylinders 1
 Cylinder inclination 45°
 Bore/stroke, mm (in) 84/80 (3.31/3.15)
 Swept displacement volume, dm³ (in³) 0,443 (27)
 Valve system Top
 Weight, engine with reverse gear MS2 approx. kg (lb) .. 116 (256)

* according to DIN 6270 Leistung B.



Reverse reduction gear MS2



1. Easy access oil filler
2. Oil dipstick
3. Spiral bevel gears for quiet, efficient operation
4. Volvo Penta's patented cone clutch gives smooth quiet engagement of forward and reverse.
Single lever control of both speed and forward/reverse
5. Output shaft with 7° downward angle. Horizontal installation of engine in less space
6. Coolant pipe for oil cooling
7. All joints have stainless steel screws in stainless steel thread inserts
8. In-built slip coupling which safeguards against over-loading (for running aground) thereby protecting the transmission

Accessories

FUEL SYSTEM

Electric fuel pump.
Water-trap and fine filter, with or without flexible hoses.
Water trap.
Fuel tank.
Cap with union for supply from fuel tank.
Copper fuel pipe kit complete with unions.

COOLING SYSTEM

Sea-water filter, complete with mountings.
Vacuum valve.

EXHAUST SYSTEM

Rubber exhaust hose.
Hull passthrough for exhaust pipe.
Water-cooled silencer, complete.

ELECTRICAL SYSTEM AND INSTRUMENTATION

Twin diode kit for charging of two or more batteries.
Extra instruments: Electric hour counter, fuel and water tank gauges, voltmeter and rudder indicator.
Master switch.
Cable harness extension.
Instrument panel for extra instruments.

BOAT ACCESSORIES

Electric bilge pump.
Genuine touch-up paint.
Oils.

CONTROLS AND STEERING SYSTEM

Volvo Penta single lever control for

speed and selection of forward/reverse, top or side-mounted.
Neutral-position switch for Volvo Penta control.
Push-pull control.
Control cables.
Steering gears.
Steering cables.
Ball joint and yoke for steering cables.

PROPELLER EQUIPMENT — MS2

Propeller shaft coupling.
Flexible coupling.
Clamping coupling.
Propeller shafts.
Propeller shafts sleeves.
Propellers.

**VOLVO
PENTA**

S-405 08 Göteborg, Sweden