

# MD 19

## Volvo Penta four-cylinder, four-stroke marine diesel engine 68 h.p.

MD 19 is one of the most modern diesel engines on the market, manufactured by Indenor/Peugeot and converted by Volvo Penta for marine use.

Its high output — 68 h.p. SAE at 4.500 r.p.m. — in relation to its low weight means that the MD 19 is just as suitable for use in light boats built for planing as it is in heavier displacement boats. Its low consumption of low-priced diesel fuel make the MD 19 outstandingly economical particularly when the boat is used frequently for pleasure purposes or as a work boat. In relation to its output, the MD 19 is one of the absolutely lightest and most compact marine diesel engines on the market. Its small dimensions mean that it is ideal for use below deck in very confined spaces.

The equipment on the MD 19 includes the following: Five-bearing crankshaft which guarantees a long life and freedom from vibrations. Thermostatcontrolled fresh-water cooling. Completely water-cooled exhaust manifold, ports and a water-cooled exhaust elbow. Fuel injection pump of the distributor type fitted with a

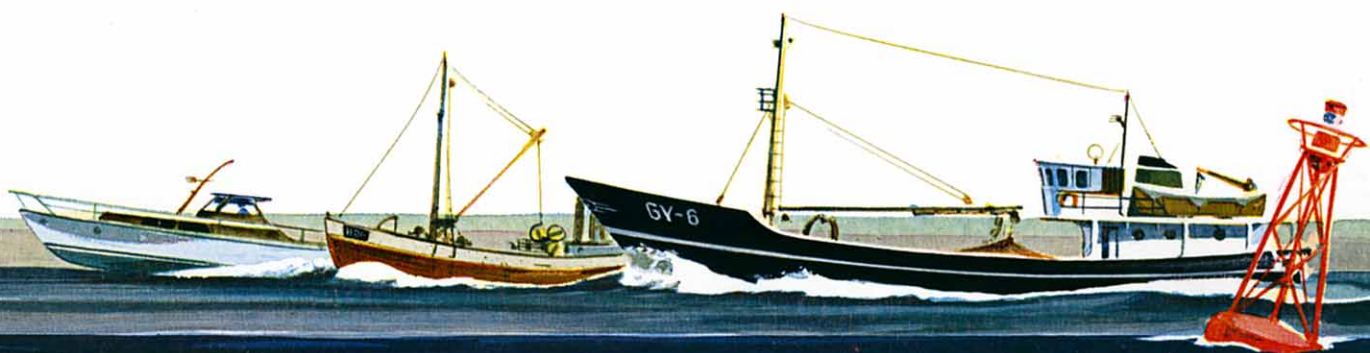
mechanical governor and a separate feed pump. Combustion chambers of the Ricardo rotational swirl type with glow plugs. Easily cleaned oil cooler. Full-flow lubricating oil filter of the "spin-on" type. 12 V electrical equipment with 240 W (max. 360 W) dynamo and a 1.8 h.p. starter motor.

The MD 19 is delivered with the Volvo Penta patented reduction/reverse gear, ratio 1.9:1 or a hydraulically operated reverse gear of the Borg Warner Velvet Drive type with a ratio of 1.9:1 (right-hand rotation) and 2.1:1 or 2.9:1 (left-hand rotation).

The instrument panel includes an electric revolution counter, electric temperature gauge, warning lamps for battery charging and oil pressure as well as a mechanical stop control and a combined glow plug switch and starter key switch.

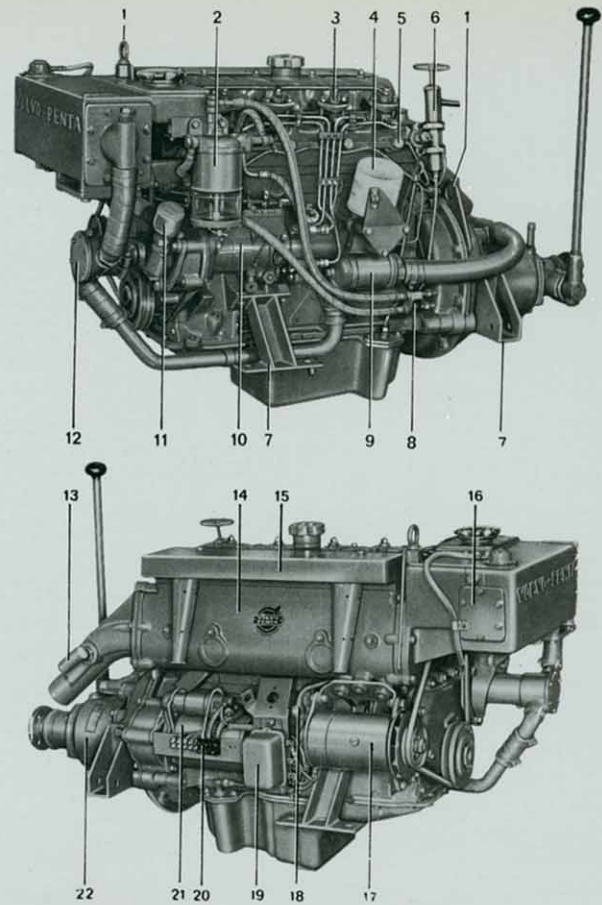
All the electric wires are combined into one single cable harness between the engine and the instrument panel — this facilitates installation considerably.

Twin instrumentation on the same instrument panel is available for twin engine installations.

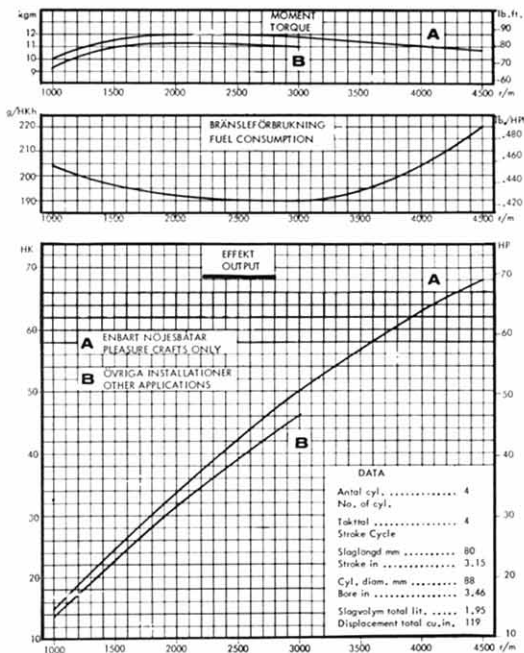


# Volvo Penta marine diesel engine type MD 19

1. Lifting eyelet
2. Fuel filter with water deflector
3. Injector
4. Full-flow oil filter of the spin-on type
5. Glow plug
6. Oil sump pump
7. Engine bracket
8. Flexible fuel line with connector
9. Oil cooler
10. Fuel injection pump
11. Sender for revolution counter
12. Sea-water pump
13. Exhaust elbow
14. Exhaust manifold with fully cooled exhaust ports combined with inlet manifold
15. Intake silencer
16. Heat exchanger
17. D.C. dynamo, 12 V, 240 W
18. Fuel feed pump
19. Charging relay
20. Terminal block for all connections to instrument panel
21. Starter motor
22. Reduction/reverse gear, ratio 1.91:1



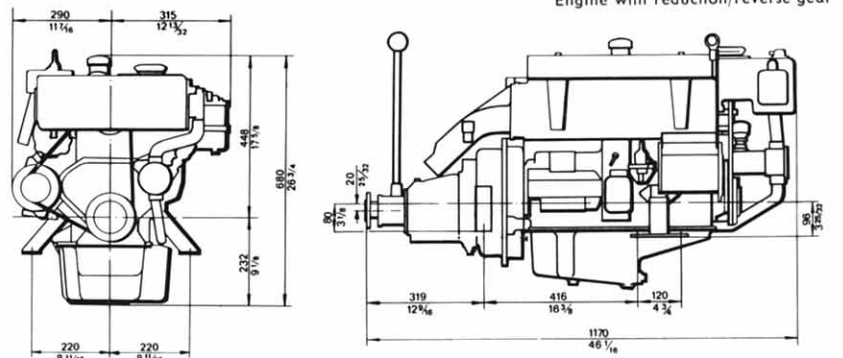
## MD 19



## DATA

Max. output at 4500 r.p.m., pleasure boats<sup>1) 2)</sup> ..... 68 h.p. (SAE)  
 Max. output at 3000 r.p.m., other installations<sup>2)</sup> ..... 46 h.p. (SAE)  
 Type of operation ..... Four-stroke  
 Number of cylinders ..... 4  
 Capacity ..... 1.95 litres  
 Bore ..... 88 mm  
 Stroke ..... 80 mm  
 Valves ..... Overhead  
 Weight including reduction/reverse gear, approx. .... 260 kg (575 lb.)

- 1) The max. engine speed 4500 r.p.m. may only be used for short periods
- 2) At cruising speed decrease engine speed by 200 r.p.m. below the maximum value



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