

VOLVO PENTA

MD 21A



The MD 21A is one of the most modern Diesel engines on the market and provides an outstandingly advantageous combination of low weight, high output and good running economy.

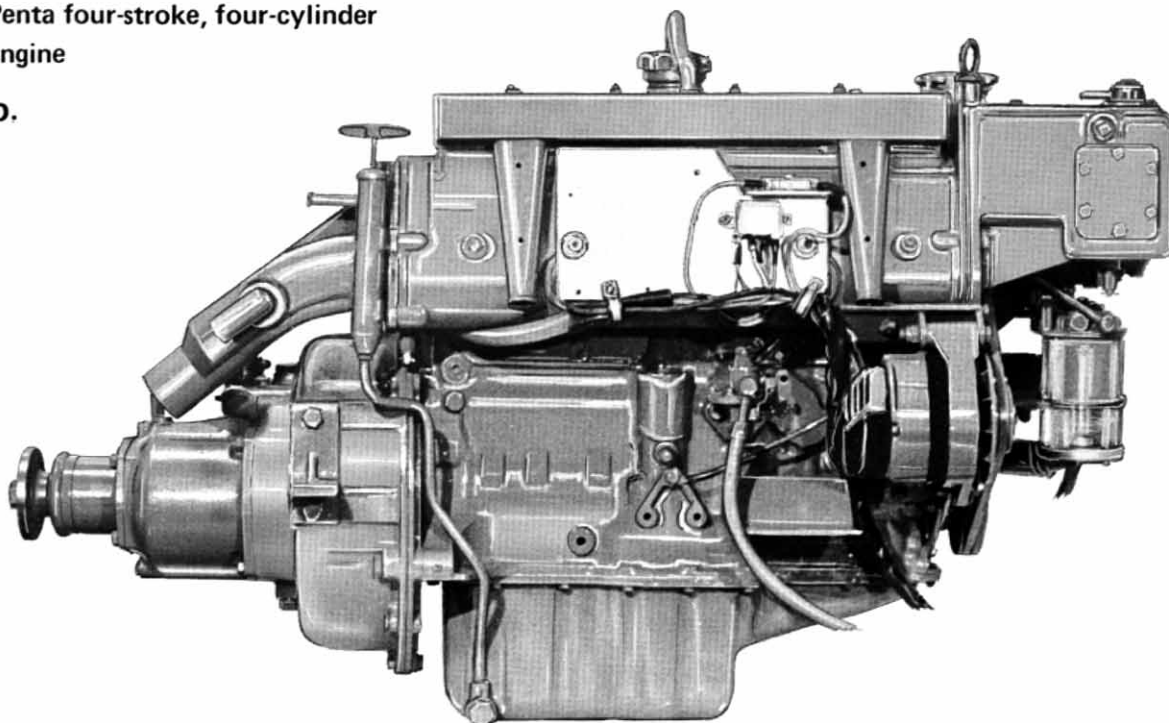
Because of its high output – 75 h.p. SAE at 4500 r.p.m. – in relation to its low weight, the MD 21A is equally suitable for light-weight planing boats as it is for boats of the displacement type. Its low consumption of Diesel fuel means that the MD 21A is a particularly economical engine, especially for use in boats which are in constant use during the season or work boats. In relation to its output, the MD 21A is one of the absolutely lightest and most compact marine Diesel units on the market. Its compact design means that the MD 21A is suitable even in confined space.

Other advantages provided by this engine include:

- Five-bearing crankshaft, guaranteeing a long lifetime and vibration-free running.
- Thermostat-controlled fresh-water cooling. Fully water-cooled exhaust manifold ports and water-cooled exhaust elbow.
- Fuel injection pump of the distributor type fitted with a mechanical governor and a separate feed pump. Ricardo swirl-type combustion chambers and glow plugs.
- Easily cleaned oil cooler. Full-flow lubricating oil filter of spin-on type.
- 12 V electrical equipment with 420 W alternator and a 1.8. h.p. starter motor.
- All the electric cables are collected in one single harness between the engine and the instrument panel – this facilitates installation considerably.
- The MD 21A is supplied with the patented Volvo Penta reduction/reverse gear, ratio 1.91:1 or a hydraulically operated reverse/reduction gear of the Borg Warner Velvet Drive type with ratio 2:1 (right-hand rotation) and 2:1 or 2.9:1 (left-hand rotation).
- Instrument panel with electric revolution counter, electric temperature gauge, warning lamps for charging and oil pressure, mechanical stop control (separate delivered), combined glow plug switch and starting key as well as a control resistor.

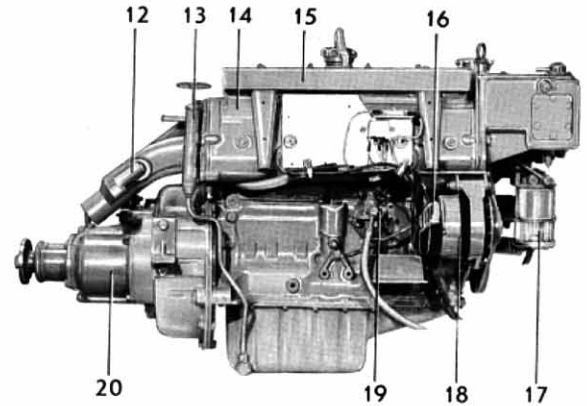
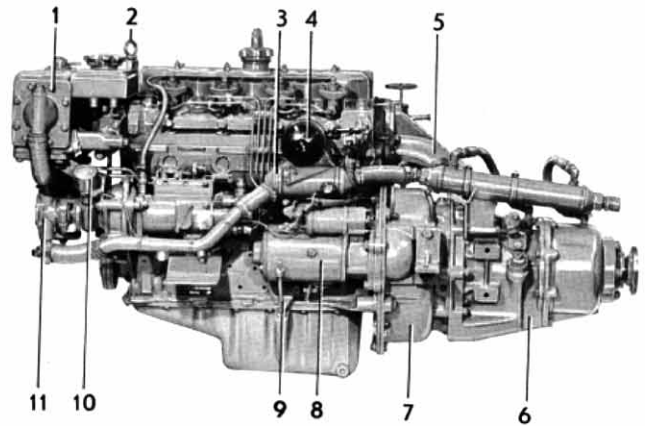
**Volvo Penta four-stroke, four-cylinder
Diesel engine**

75 h.p.

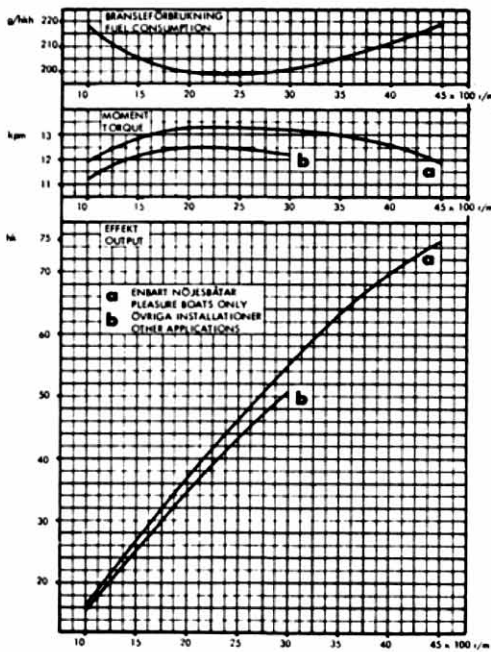


VOLVO PENTA MARINE DIESEL ENGINE TYPE MD 21 A

1. Heat exchanger
2. Lifting eyelet
3. Oil cooler
4. Full-flow spin-on oil filter
5. Exhaust elbow
6. Hydraulically operated reverse/reduction gear type "Velvet Drive"
7. Completely enclosed flywheel
8. Starter motor
9. Oil dipstick
10. Revolution counter sender
11. Sea-water pump
12. Outlet for surplus water
13. Oil scavenging pump
14. Exhaust manifold with fully cooled ports combined with intake manifold
15. Intake silencer
16. Charging regulator
17. Fuel filter with water trap
18. Alternator 12 V, 35 A
19. Feed pump
20. Reduction/reverse gear, type RB ratio 1.91:1



ENGINE DIAGRAM



We reserve the right to carry out modifications

DATA

Type of operation. Four-stroke Diesel engine with turbulence chambers

Type designation MD 21 A

Max. output, pleasure boats (SAE)/r.p.m.^{x)} 75 h.p./4500

Max. output, other installations (SMMT)/r.p.m. 51 h.p./3000^{x)}

Number of cylinders 4 in line

Capacity, c.c. (cu.in.) 2112 (129)

Bore/stroke, mm(in) 90/83 (3.54/3.27)

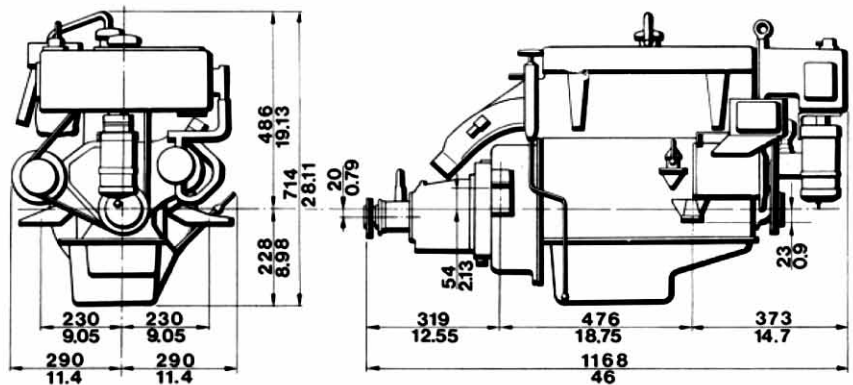
Valves Overhead

Total weight including RB reduction/reverse gear, approx. kg(lb.) 290 (640)

Max. engine inclination 18°

^{x)} Max. output only permitted for short periods of time
Cruising speed is 200 r.p.m. lower than maximum engine speed

DIMENSIONS DRAWING (engine with RB reduction/reverse gear)



AB VOLVO PENTA

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