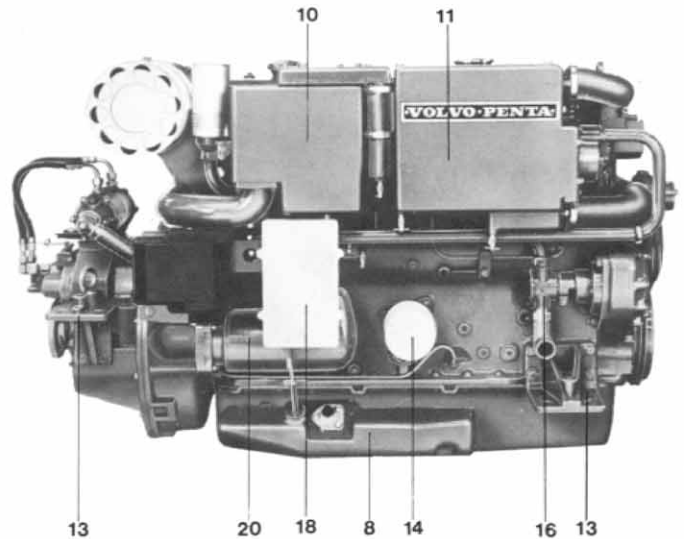
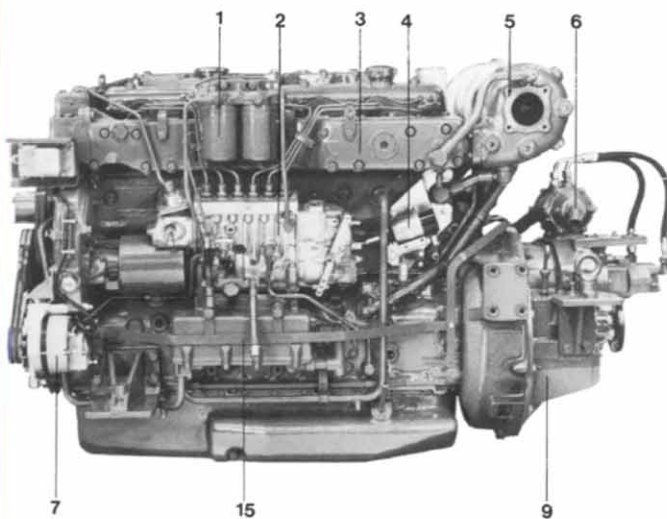




TAMD 70D

6-cylinder, direct-injected 4-stroke diesel engine with turbo-charging and after cooler.

Flywheel power at sea-level conditions 210 kW (286 hp). Air pressure 1,01 bar (29,2 in merc), temperature 15°C (60°F).



STANDARD EQUIPMENT

ENGINE BODY – Cylinder block and cylinder heads of special-alloy cast iron. Double cylinder heads with steel gaskets. Replaceable, wet-type cylinder liners. Pistons of light-alloy with cast iron ring carriers. Three compression rings and one oil scraper ring. The upper compression ring is chromed. Crankshaft and camshaft are journalled in seven bearings and have surface-hardened bearing races. Main- and big-end bearing shells of lead-bronze. The camshaft, drive outputs, sea-water, injection and lubricating oil pumps are gear-driven. Over-head valves and replaceable valve seats. The engine is delivered with engine brackets for fixed mounting (13).

FUEL SYSTEM – Injection pump (2) with centrifugal governor and feed pump as well as flexible hoses with fuel pipe connections for the suction and return lines. Electrically operated stop device (4). Twin fine filters (1).

COOLING SYSTEM – Fresh-water cooling with plate heat exchanger (11) or tubular heat exchanger. Raw-water pump 1" (16). The engine temperature is regulated by means of two thermostats. The engine has lubricating oil cooled pistons.

LUBRICATING SYSTEM – Pressure lubricating system with lubricating oil filter of spin-on type (14). Fresh-water cooled oil cooler (15). Lubricating oil sump (8) with shallow profile.

TURBOCHARGING SYSTEM – Exhaust gas driven turbo-compressor for supercharging the intake air (5). Fresh-water cooled turbine housing. Raw-water cooled aftercooler (10) for cooling compressor air, which gives a higher degree of efficiency. Air filter of changeable type with insert of special paper. Air pre-heater with electric wiring box (18) for rapid starting and reduced exhaust smoke.

EXHAUST SYSTEM – Fresh-water cooled exhaust manifold (3). The turbo-compressor exhaust outlet has a flange for connection of exhaust line.

ELECTRICAL SYSTEM – 24 V starter motor 3 kW (4 hp) (20). Electrical stopping device.

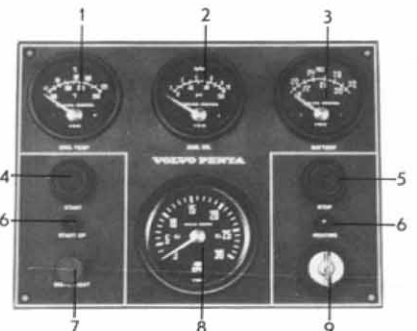
EXTRA EQUIPMENT

ELECTRICAL SYSTEM – Volvo Penta electrical system with cut-out relay. This relay prevents engagement of the starter motor unintentionally when the engine is running. Instrument panel, 12 or 24 V, with rheostat and cable harness 6 m (21 ft.). Ready-connected "plug-in" contacts. Alternator alternatives

Alternator	12 V/38 A
Alternator	24 V/25 A (7)
Alternator	24 V/60 A

Instrument panel with:

1. Temperature gauge
2. Oil pressure gauge
3. Voltmeter
4. Start contact
5. Stop contact
6. Warning lamps for air pre-heating
7. Rheostat, instrument lighting
8. Rev counter
9. Key switch



POWER TRANSMISSION – The engine is supplied with hydraulically operated reverse gear equipped with oil cooler (6) and pre-drilled propeller shaft flange according to the following alternatives:

- | | | |
|---------|------------------|--|
| Alt. 1. | Twin Disc MG 506 | red. ratio 1:1 for L-H and R-H prop. (9) |
| 2. | | red. ratio 1,5:1 for L-H and R-H prop. (9) |
| 3. | | red. ratio 2:1 for L-H and R-H prop. (9) |
| 4. | | red. ratio 3:1 for L-H and R-H prop. (9) |
| 5. | Twin Disc MG 507 | red. ratio 1:1 for L-H and R-H prop. |
| 6. | | red. ratio 1,5:1 for L-H and R-H prop. |
| 7. | | red. ratio 1,98:1 for L-H and R-H prop. |
| 8. | | red. ratio 2,99:1 for L-H and R-H prop. |

* For light commercial duty

EXTRA EQUIPMENT

FUEL SYSTEM

Twin fuel filters
Water-separating fuel filter with glass or metal housing

COOLING SYSTEM

Fresh-water filter
Cooling-water intake complete

EXHAUST SYSTEM

Water-cooled exhaust elbow
Exhaust rubber hose for wet exhaust line
Hull through-fitting, complete
Exhaust boot
Dry exhaust elbow
Compensator for straight installation
Joint piece (6" to 5") for wet exhaust line

POWER TRANSMISSION

Drive outputs at front of timing gear casing.
Vee-belt pulley for crankshaft.

ELECTRICAL SYSTEM

Charging distributor for charging 2-battery system
Master switch
Instrument panel with, among others, hourmeter, warning lamps, warning siren and pressure gauge for reverse gear oil pressure and turbo charging pressure
Instrument panel with rudder indicator and tank gauge
Cable harness extension

ENGINE MOUNTING

Flexible engine mounting

BOAT ACCESSORIES

Bilge pump direct-driven mounted on timing gear casing
Bilge pump for separate mounting
Ejector for bilge pump
Oil scavenging pump, electrical
Oils
Paints
Anti-freeze
Tool kit

CONTROLS AND CONTROL SYSTEM

VP single-control lever for both speed and forward-reverse operation, top-mounted or side mounted. Single or twin installation
Neutral position switch – automatic safety interlock for VP-controls
S-type control. Top-mounted, only speed regulation
Control cables
Dual station control unit

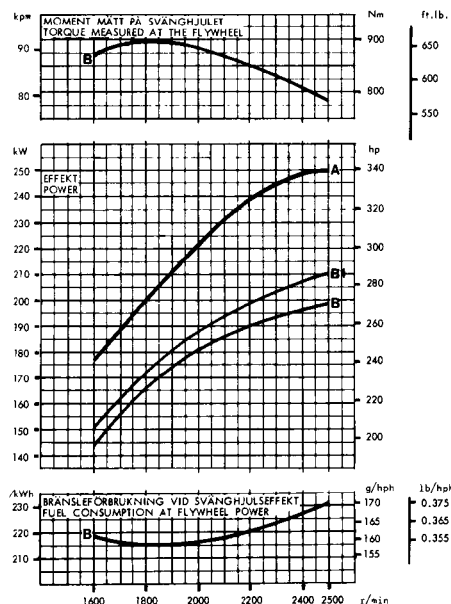
PROPELLER EQUIPMENT

Flexible propeller shaft coupling
Propeller shafts
Propeller shaft sleeves
Propellers

DATA

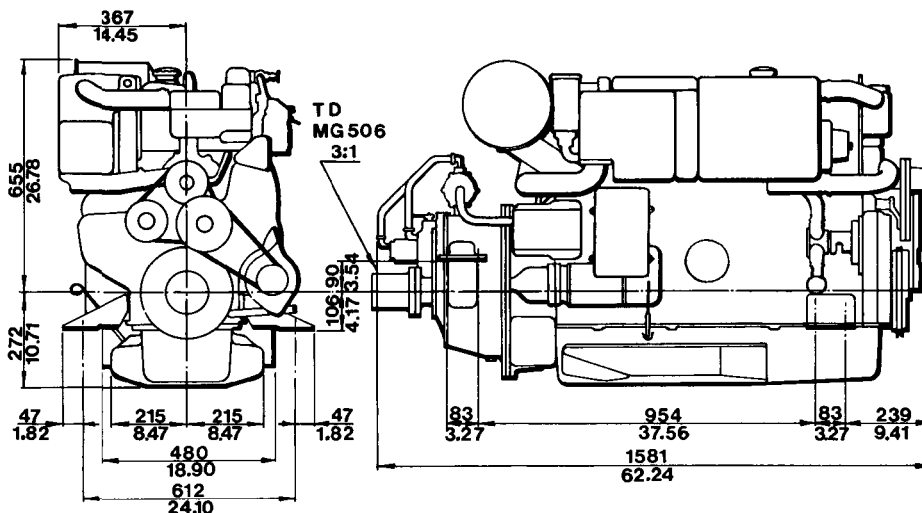
Type of operation 4-stroke, turbo-charged aftercooled diesel engine with direct injection and overhead valves
Type designation TAMD 70D
Propeller shaft power, pleasure craft duty (B)¹⁾ 199 kW
(270 hp) at 2500 r/min
Propeller shaft power, light commercial duty (C)²⁾ 177 kW
(240 hp) at 2500 r/min
Number of cylinders 6
Capacity, total 6.73 dm³ (410 in.³)
Bore 104.77 mm (4.13 in.)
Stroke 130 mm (5.12 in.)
Total weight, engine with rev. gear TD MG 506 approx 920 kg (2030 lb.)

¹⁾ **Curve A:** Highest flywheel power obtainable in the test room without thermal overload. This power corresponds to DIN 6270 "Höchstleistung".
Curve B1: Flywheel power for pleasure craft duty (sea level conditions). Air pressure = 1,01 bar (29.2 in merc), temperature = 15.0°C (60°F).
Curve B: Propeller shaft power for pleasure craft duty according to DIN 6270 Leistung B (corresponds for practical use also to 1-hour's power according to BS 649, 1958). Only occasional use at full engine throttle. Normal cruising is expected to be at a comfortable part-throttle operation.
The flywheel power for the engine is approx 3% higher than the indicated values for B-curve. All measurements apply to a run-in engine.
²⁾ Engine Diagram see separate sheet Group 21 no 120-1.



1 hk = 1 hp (metric system) = 0.986 HP (Imp./US meas. system)

DIMENSION DRAWING



VOLVO PENTA

S-405 08 GÖTEBORG, Sweden
Telephone: 031/23 54 60
Cables: Penta Göteborg
Telex: 207 55 PENTA S