

D25A MS

VOLVO PENTA INBOARD DIESEL

6-cylinder, 4-stroke, direct-injected, turbocharged marine diesel engine with aftercooler – crankshaft power 485 kW (660 hp)

Powerful and reliable engine for demanding operation in commercial applications

The Volvo Penta D25A MS engine is constructed to meet the most demanding requirements, such as marine main propulsion or marine generator drive. Its compactness and durability applies the most advanced technologies and engineering know-how; all this to benefit the operator.

The Volvo Penta D25A MS diesel engine is built to the highest quality standards recognized by all the major marine classification societies, such as Germanischer Lloyds, Norske Veritas etc. as well as the national Shipping Inspections.

Volvo Penta is continuously making intensive research work on the marine application of the engine to produce an engine with a compact design, which gives many advantages, such as low running costs in relation to high output.

An optimal combination of combustion chambers, fuel injection system, and effective turbocharger and charge air cooling system, provide an excellent fuel consumption over the whole range of engine speeds, through which the engine is economical in operation.

Maintenance is very easy, as supplementary equipment such as fuel injection pump, governor, water pump and turbocharger do not need any separate lubrication. The cylinder heads are individually divided by cylinder, and the engine has large inspection covers in crankcase and oilpan.

As the dimensions of the D25A MS engine are kept as small as possible, it takes up surprisingly little space. This asset will be subscribed whole-heartedly by the person who is in charge of the engine room. An engine room equipped with this engine is a well-ordered engine room.

Warranty and Service

All Volvo Penta marine engines come with the additional benefit and security of the Cost Control Program, a unique system of operator support and financial control – from installation to after-sales service.

The optional international limited Volvo Penta three-year warranty provides the owner peace of mind. Qualified Volvo Penta dealers stand by for service and support in more than 100 countries all over the world.



D25A MS

Technical Data

Engine designation	D25A MS
No. of cylinders and configuration	in-line 6
Method of operation	4-stroke, direct-injected, turbocharged diesel engine with aftercooler
Bore, mm	170
Stroke, mm	180
Displacement, l	24.51
Compression ratio	14:1
Dry weight, kg	2300
Crankshaft power at calculated propeller load, Rating 1, kW (hp) 1600 rpm	440 (598)
Rating 2, kW (hp) 1650 rpm	485 (660)
Torque at calculated propeller load, Rating 1, Nm 1600 rpm	n.a.
Rating 2, Nm 1650 rpm	n.a.
Recommended fuel to conform to	ASTM No. 2-D
Specific fuel cons. at calculated propeller load, Rating 1, g/kWh 1600 rpm	n.a.
Rating 2, g/kWh 1650 rpm	n.a.

All data represent net performance with standard accessories such as fuel injection pump, water pump, L.O. pump and charging alternator under the conditions of 100kPa (750 mm Hg), barometric pressure 300K (27°C) ambient temperature and 60% relative humidity.

Standard Equipment:

Engine

- Flywheel housing with connection acc. to SAE 0
- Flywheel (18")
- Engine brackets

Lubrication system

- Fresh water cooled oil cooler
- Spin-on type oil filter with shift valve
- Spin-on type oil by-pass filter

Fuel system

- Hydraulic governor
- Jacketed fuel pipes
- Spin-on type fuel filter (change-over type)
- 24V fuel shut-off valve, electrically operated

Exhaust system

- Non-cooled turbocharger
- Air inlet filter/silencer

Cooling system

- Fresh water cooled exhaust manifold
- Fresh water cooled aftercooler with insulator cover
- Fresh water pump (V-belt driven)

Electrical system

- Starter motor (DC 24V-7.5kW)
- Alternator (24V-35A)

Other equipment

- Front P.T.O. pulley (2x B groove)
- Front safety cover
- Standard tools

Optional Equipment:

- Electrical system including wiring, senders, switches and terminal box mounted on engine
- Instrument panel for engine-room and wheel-house
- Air starting system on request
- Oil drain pump
- Flexible exhaust hose for dry exhaust line
- Dry exhaust silencer
- Fuel filter/water separator with shift valve
- Classification under regulations of: LR, ABS, DNV or GL
- Gearbox on request
- Spare parts
- Spare parts according to classification recommendations

Contact Volvo Penta for further information.

Not all models, standard equipment and accessories are available in all countries. All specifications are subject to change without notice.

The engine illustrated may not be entirely identical to production standard engines.

Performance Data

Heavy Duty Rating 1

Crankshaft power at full load,	
R1, kW (hp) 1600 rpm	440 (598)
R1, kW (hp) 1500 rpm	421 (573)
R1, kW (hp) 1400 rpm	397 (540)
R1, kW (hp) 1300 rpm	366 (497)
R1, kW (hp) 1200 rpm	328 (446)
Crankshaft power at calculated propeller load,	
R1, kW (hp) 1600 rpm	440 (598)
R1, kW (hp) 1454 rpm	330 (449)
R1, kW (hp) 1270 rpm	220 (299)
R1, kW (hp) 1008 rpm	110 (150)
Torque at full load,	
R1, Nm 1600 rpm	2732
R1, Nm 1500 rpm	2790
R1, Nm 1400 rpm	2815
R1, Nm 1300 rpm	2792
R1, Nm 1200 rpm	2716
Torque at calculated propeller load,	
R1, Nm 1600 rpm	2732
R1, Nm 1454 rpm	2257
R1, Nm 1270 rpm	1721
R1, Nm 1008 rpm	1088
Specific fuel consumption at full load,	
R1, g/kWh 1600 rpm	208
R1, g/kWh 1500 rpm	205
R1, g/kWh 1400 rpm	206
R1, g/kWh 1300 rpm	210
R1, g/kWh 1200 rpm	214
Specific fuel cons. at calculated propeller load,	
R1, g/kWh 1600 rpm	208
R1, g/kWh 1454 rpm	209
R1, g/kWh 1270 rpm	217
R1, g/kWh 1008 rpm	235

Medium Duty Rating 2

Crankshaft power at full load,	
R2, kW (hp) 1650 rpm	485 (659)
R2, kW (hp) 1500 rpm	474 (644)
R2, kW (hp) 1400 rpm	453 (616)
R2, kW (hp) 1300 rpm	421 (573)
Crankshaft power at calculated propeller load,	
R2, kW (hp) 1650 rpm	485 (659)
R2, kW (hp) 1500 rpm	364 (495)
R2, kW (hp) 1310 rpm	242 (330)
R2, kW (hp) 1039 rpm	122 (165)
Torque at full load,	
R2, Nm 1650 rpm	2918
R2, Nm 1500 rpm	3136
R2, Nm 1400 rpm	3212
R2, Nm 1300 rpm	3219
Torque at calculated propeller load,,	
R2, Nm 1650 rpm	2918
R2, Nm 1500 rpm	2410
R2, Nm 1310 rpm	1838
R2, Nm 1039 rpm	1162
Specific fuel consumption at full load,	
R2, g/kWh 1650 rpm	216
R2, g/kWh 1500 rpm	213
R2, g/kWh 1400 rpm	213
R2, g/kWh 1300 rpm	213
Specific fuel cons. at calculated propeller load,	
R2, g/kWh 1650 rpm	216
R2, g/kWh 1500 rpm	216
R2, g/kWh 1310 rpm	218
R2, g/kWh 1039 rpm	235

Dimensions D25A MS

Dimensions in mm.
Not for installation.

