### **VOLVO PENTA INBOARD DIESEL**

# D65A MS

16-cylinder, 4-stroke, direct-injected, turbocharged marine diesel engine with aftercooler – crankshaft power 1290 kW (1754 hp)

## Powerful and reliable engine for demanding operation in commercial applications

The Volvo Penta D65A MS engine is constructed to meet the most demand-ing requirements, such as marine main propulsion or marine generator drive. Its compactness and durability applies the most advanced technologies and engi-neering know-how; all this to benefit the operator.

The Volvo Penta D65A 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 cool-ing 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 oil pan.

As the dimensions of the D65A 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.

Diesel&Gas Service 111524, Россия, г. Москва, Проезд Фрезер, д.2, стр.107 Телефон: +7 (495) 775 01 27 E-mail: info@dieselgass.ru

## **D65A MS**

#### **Technical Data**

Engine designation D65A MS
No. of cylinders and configuration V 16
Method of operation 4-stroke, direct-injected,
turbocharged diesel engine with aftercooler
Bore, mm 170
Stroke, mm 180
Displacement, I
Compression ratio 14:1
Dry weight, kg 6200
Crankshaft power at calculated propeller load,
Rating 1, kW (hp) 1600 rpm 1170 (1591)
Rating 2, kW (hp) 1650 rpm 1290 (1754)
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 00

- Flywheel (21")
- Engine brackets

#### Lubrication system

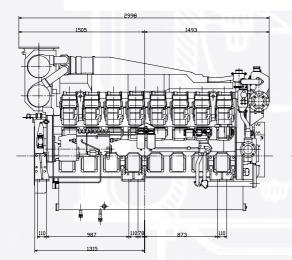
- Fresh water cooled oil cooler
- Spin-on type oil filter with shift valve
- Spin-on type oil by-pass filter

#### Fuel system

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

#### **Dimensions D65A MS**

Dimensions in mm. Not for installation.



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#### Exhaust system

- Dry exhaust manifold (with insulator cover)
- Non-cooled turbocharger
- Air inlet filter/silencer
- **Cooling system**
- Fresh water cooled aftercooler with insulator cover
- Fresh water pump (gear 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

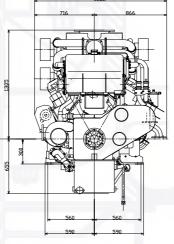
#### **Optional Equipment:**

- 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 Pating 1

Heavy Duty Rating I
Crankshaft power at full load,
R1, kW (hp) 1600 rpm 1170 (1590)
R1, kW (hp) 1500 rpm 1129 (1535)
R1, kW (hp) 1400 rpm 1076 (1463)
R1, kW (hp) 1300 rpm 1002 (1362)
R1, kW (hp) 1200 rpm 922 (1254)
Crankshaft power at calculated propeller load,
R1, kW (hp) 1600 rpm 1170 (1590)
R1, kW (hp) 1454 rpm 878 (1194)
R1, kW (hp) 1270 rpm 585 (795)
R1, kW (hp) 1008 rpm 292 (398)
Torque at full load,
R1, Nm 1600 rpm 7259
R1, Nm 1500 rpm 7472
R1, Nm 1400 rpm 7630
R1, Nm 1300 rpm 7652
R1, Nm 1200 rpm 7630
Torque at calculated propeller load,
R1, Nm 1600 rpm 7259
R1, Nm 1454 rpm 5996
R1, Nm 1270 rpm 4573
R1, Nm 1008 rpm 2881
Specific fuel consumption at full load,
R1, g/kWh 1600 rpm 200
R1, g/kWh 1500 rpm 201
R1, g/kWh 1400 rpm 201
R1, g/kWh 1300 rpm 205
R1, g/kWh 1200 rpm 212
Specific fuel cons. at calculated propeller load,
R1, g/kWh 1600 rpm 200
R1, g/kWh 1454 rpm 201
R1, g/kWh 1270 rpm 208
R1, g/kWh 1008 rpm 218
Medium Duty Rating 2
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Crankshaft power at full load,
R2, kW (hp) 1650 rpm 1290 (1754)
R2, kW (hp) 1600 rpm 1287 (1750)
R2, kW (hp) 1500 rpm 1260 (1713)
R2, kW (hp) 1400 rpm 1216 (1653)
R2, kW (hp) 1300 rpm 1141 (1551)
Crankshaft power at calculated propeller load,
R2, kW (hp) 1650 rpm 1290 (1754)
R2, kW (hp) 1500 rpm 968 (1316)
R2, kW (hp) 1310 rpm 645 (877)
R2, kW (hp) 1039 rpm 322 (438)
Torque at full load,
R2, Nm 1650 rpm 7762
R2, Nm 1600 rpm 7986
R2, Nm 1500 rpm 8341
R2, Nm 1400 rpm 8624
R2, Nm 1300 rpm 8712
Torque at calculated propeller load,,
R2, Nm 1650 rpm 7762
R2, Nm 1500 rpm 6405
R2, Nm 1310 rpm 4891
R2, Nm 1039 rpm
Specific fuel consumption at full load,
R2, g/kWh 1650 rpm 201
R2, g/kWh 1600 rpm 200
R2, g/kWh 1500 rpm 198
R2, g/kWh 1400 rpm 198
R2, g/kWh 1300 rpm 200
Specific fuel cons. at calculated propeller load,
R2, g/kWh 1650 rpm 201
R2, g/kWh 1500 rpm 201
R2, g/kWh 1310 rpm 205
R2, g/kWh 1039 rpm 221