D9-425/500

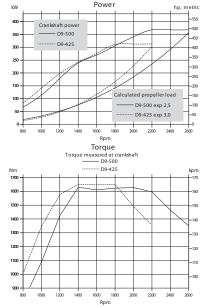


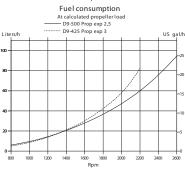
Technical Data

Engine designation	D9-425 (R3)	D9-500 (R4)
No. of cylinders and configuration	in-line 6	in-line 6
Method of operation	4-stroke, direct-injected, engine with aftercooler	turbocharged diesel
Bore/stroke, mm (in.)	120/138 (4.72/5.43)	120/138 (4.72/5.43)
Displacement, I (in ³)	9.4 (571)	9.4 (571)
Compression ratio	20.2:1	17.4:1
Dry weight bobtail, kg (lb)	1075 (2370)	1075 (2370)
Dry weight with reverse gear ZF305A-EB, kg (lb)		1205 (2657)
Crankshaft power, kW (hp) @ 2200 rpm	313 (425)	
Crankshaft power, kW (hp) @ 2600 rpm		368 (500)
Max. torque, Nm (lbf.ft) @ 1400 rpm	1651 (1217)	1630 (1202)
Emission compliance	IMO NOx, EU IWW, US	EPA Tier 2
Recommended fuel to conform to	ASTM-D975 1-D & 2-D JIS KK 2204	, EN 590 or
Specific fuel consumption,		
g/kWh (lb/hph) @ 2200 rpm	222 (0.36)	
g/kWh (lb/hph) @ 2600 rpm		217 (0.352)
Flywheel housing/SAE size	11,5"/SAE2	
T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

Technical data according to ISO 3046 Fuel Stop Power and ISO 8665. With fuel having an LHV of 42700 kJ/kg and density of 840 g/liter at 15 °C (60 °F).

Merchant fuel may differ from this specification which will influence engine power output and fuel consumption. Ratings R3 & R4, see explanation in Volvo Penta's Sales Guide.







D9-425/500

Technical description:

Engine and block

- Cylinder block and cylinder head made of cast-iron
- One-piece cast-iron cylinder head
- Ladder frame fitted to engine block
 Replaceable wet cylinder liners and valve seats/guides
- Drop forged crankshaft with induction hardened bearing surfaces and fillets with seven main bearings
- Four valve per cylinder layout with overhead camshaft
- Each cylinder features cross-flow inlet and exhaust ducts
- Gallery oil-cooled cast aluminum alloy pistons with three piston rings
- Rear-end transmission

Engine mounting

• Flexible engine mounting (option)

Lubrication system

- Integrated oil cooler in cylinder block
- Symmetrically positioned twin full flow oil filter of spin-on type and by-pass filter

Fuel system

- Electronic Unit Injectors, one per cylinder, vertically positioned at the center in between the four valves
- High pressure injector nozzles
- Gear-driven fuel pump, driven by timing gear
- Electronically controlled central processing system (EMS – Engine Management System)
- Electronically controlled injection timingSingle fine fuel filter of spin-on type, with
- water separator and water alarm

Air inlet and exhaust system

- Air filter with replaceable inserts
- Mid-positioned twin entry turbocharger with aftercooler
- Wet exhaust elbow (option)

Cooling system

- Seawater-cooled tubular heat exchanger
- Coolant system prepared for hot water outlet
 Easily accessible seawater impeller pump in
- Easily accessible seawater impeller pump in rear end

Electrical system

24V/80A alternator

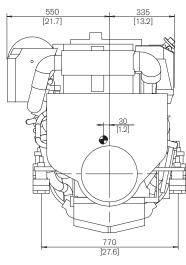
Instruments/controls (option)

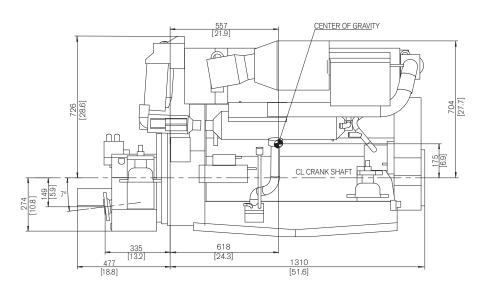
- Complete instrumentation including key switch and interlocked alarm
- EVC monitoring panels for single or twin installations
- · Electronic shift and throttle
- Plug-in connectors

Reverse gear

 MG5075AE/IVE (R4), MG5065AE (R4), and ZF286AE/IVE, electronically shifted. Low Speed/Trolling as option for ZF286.

Dimensions D9-425/500 with ZF286AE





More information

Contact your local Volvo Penta dealer for more information regarding Volvo Penta engines and optional equipment/ accessories or visit www.volvopenta.com





Download the Volvo Penta dealer locator App for your IPhone or Android



AB Volvo Penta SE-405 08 Göteborg, Sweden www.volvopenta.com English 03-2014 © 2014 AB Volvo Penta.