

# D9-425/500

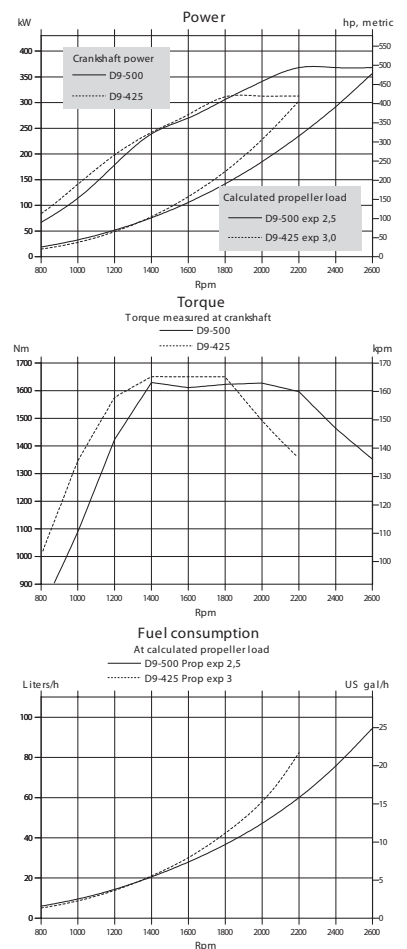


## Technical Data

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, turbocharged diesel engine with aftercooler	
Bore/stroke, mm (in.)	120/138 (4.72/5.43)	120/138 (4.72/5.43)
Displacement, l (in <sup>3</sup> )	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 NO <sub>x</sub> , EU IWW, US EPA Tier 2	
Recommended fuel to conform to	ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204	
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	

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.



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# 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 timing
- Single 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 rear end

### Electrical system

- 24V/80A alternator

### Instruments/controls (option)

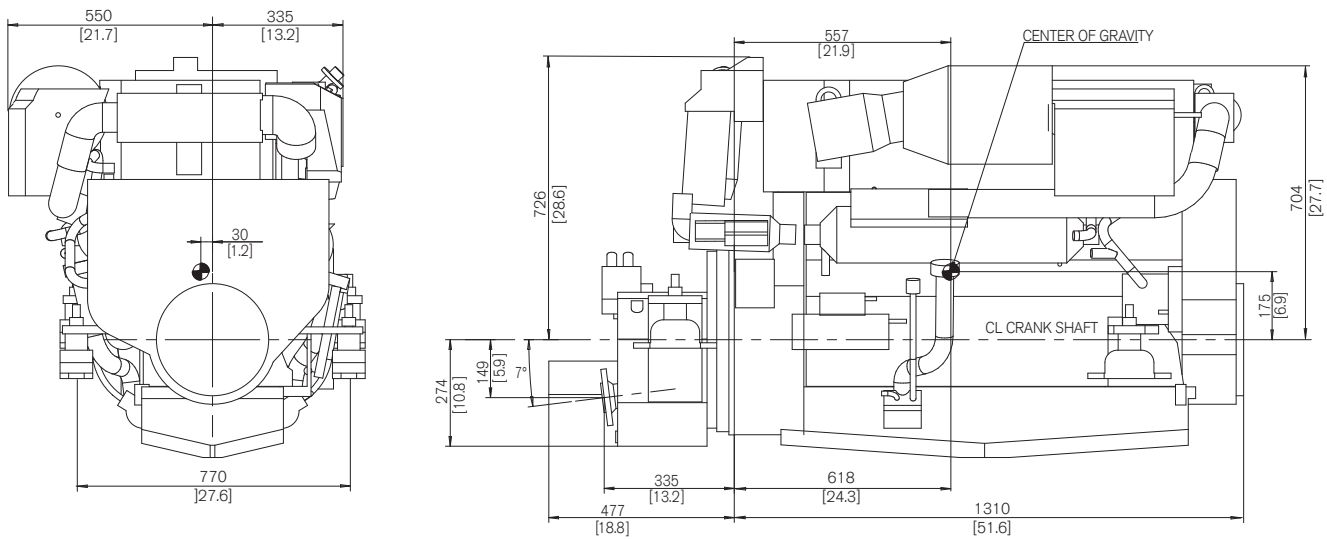
- Complete instrumentation including key switch and interlocked alarm
- EVC monitoring panels for single or twin installations
- Electronic shift and throttle
- Plug-in connectors

### 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

Not for installation



## More information

Contact your local Volvo Penta dealer for more information regarding Volvo Penta engines and optional equipment/accessories or visit [www.volvopenta.com](http://www.volvopenta.com)



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# VOLVO PENTA

AB Volvo Penta

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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.