VOLVO PENTA

VOLVO PENTA **INBOARD DIESEL**

D8-MH

7.7 liter, in-line 6 cylinder

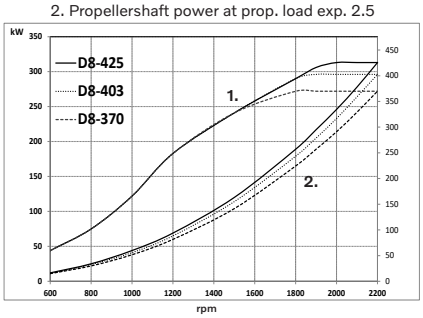
Technical Data

Engine designation	D8 -MH		
Number of cylinders	in-line 6		
Method of operation	4-stroke, direct-injected, turbocharged diesel engine with aftercooler		
Displacement, l	7.7 (469.7)		
Compression ratio	16.5:1		
Dry weight bobtail, kg (lb)	880 (1940)		
Rating	R1	R2	R2
Engine speed, rpm	1800 - 2200	2100 - 2200	2100 - 2200
Crankshaft power, kW (hp)	272 (370)	296 (403)	313 (425)
Max. torque, Nm (lbf.ft)	1536 (1133)	1536 (1133)	1536 (1133)
Emission compliance	US EPA Tier 3, China Stage II	US EPA Tier 3, China Stage II	US EPA Tier 3, China Stage II
Flywheel housing/SAE size	SAE 1 and SAE 2		
Specific fuel consumption (at max torque)			
@ 1800 rpm, g/kWh	210	211	211
@ 2100 rpm, g/kWh	219	219	221
@ 2200 rpm, g/kWh	225	223	224
Recommended fuel to conform to	ASTM-D975 1-D & 2-D, EN 590 or JIS KK 2204		

Technical data according to 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.

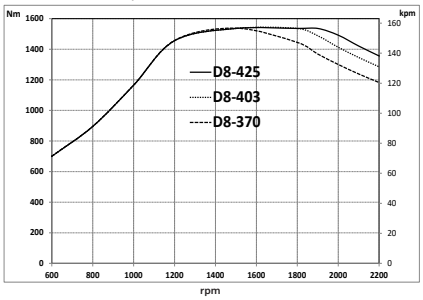
Power

1. Crankshaft power
2. Propellershaft power at prop. load exp. 2.5



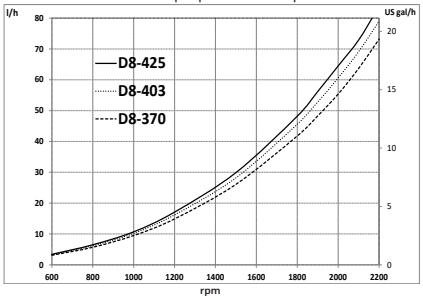
Torque

Torque measured at crankshaft



Fuel consumption

At calculated propeller load exp. 2.5



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7.7 liter, in-line 6 cylinder

Technical description

Engine and block
- Cylinder block made of cast iron
- One-piece cast-iron cylinder head
- Ladder frame fitted to engine block
- Replaceable dry 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
- Seawater-cooled tubular oil cooler
- Twin switchable oil filters as standard

Fuel system
- Common rail fuel injection system
- Gear-driven fuel pump and injection timing
- Electronically controlled central processing system (EMS – Engine Management System)
- Twin switchable fuel filters as standard

Air inlet and exhaust system
- Mid-positioned twin entry turbocharger with aftercooler
- Air filter with replaceable inserts
- Wet exhaust elbow (option)
- Loss of sea water alarm

Cooling system
Two options available:

1. HE (Heat Exchanger)
- Seawater-cooled tubular heat exchanger
- Coolant system prepared for hot water outlet
- Easily accessible seawater impeller pump in rear end

2. KC (Keel Cooling)
- 1,5-circuit cooling system
- Belt-driven centrifugal cooling water pump in HT circuit
- Engine mounted expansion tank in HT circuit
- Gear driven rubber impeller cooling water pump in CAC LT circuit

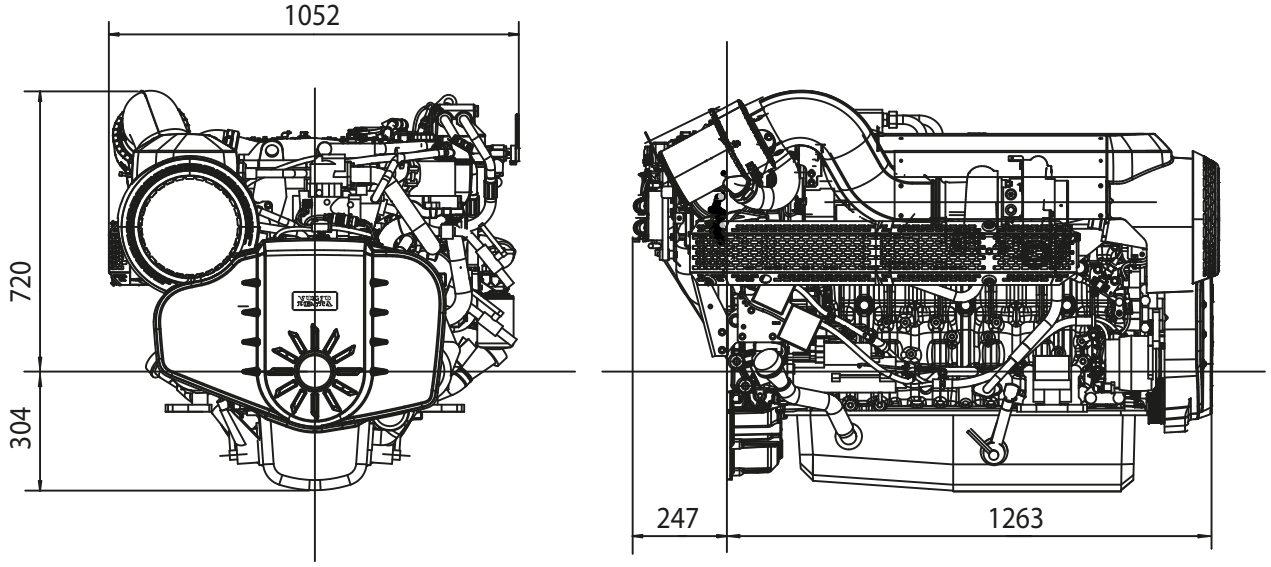
Electrical system
- 24V with extra 12V/115A or 24V/80A alternator

Electronic control systems
- Volvo Penta offers two options of type-approved systems for on-board electronic control.
- Electronic Vessel Control (EVC) fully integrates the engines, electronics and a range of optional features.
  The Marine Commercial Control System (MCC) is easily integrated into the ship's control system.

Reverse gear
- Optional transmission harness for MGX and ZF

Dimensions D8 MH

Not for installation



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.

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

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