



Volvo Buses. Driving quality of life

VOLVO D8K

Euro 6



DRIVEABILITY AND FUEL EFFICIENCY

The Volvo D8K is an in-line six-cylinder common-rail 7.7-litre engine with an overhead camshaft and four valves per cylinder. It is available with power outputs of 280, 320 and 350 hp. The engine meets EU exhaust emission requirements according to the Euro 6 standards.

Efficiency for any application

The Volvo D8K is a very fuel-efficient engine with low emissions, high capacity and low weight. As a result, it is perfectly suited for demanding intercity applications as well as coach operations, where performance and fuel economy are crucial factors.

Advanced after-treatment for Euro 6

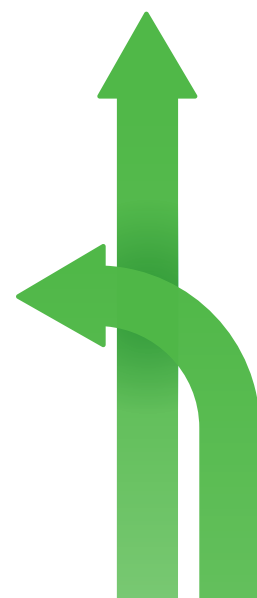
The Volvo D8K is a low-emission engine in terms of both exhaust gases and noise. The engine is approved for the Euro 6 emission standard. The low emissions are achieved by after-treatment of the exhaust gases using:

- SCR (Selective Catalytic Reduction)
- EGR (Exhaust Gas Recirculation)
- DPF (Diesel Particulate Filter)
- DOC (Diesel Oxidation Catalyst)

The after-treatment components are integrated in a one box muffler design.

FEATURES AND BENEFITS

- Maximum torque within a wide rev range gives very good driveability
- Fuel-efficient
- Low-emission Euro 6
- Oil replacement every 100,000 km, with VDS4
- Closed crankcase ventilation (option)



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Hydraulic fan drive

The D8K features a hydraulic fan drive which contributes to lower energy consumption and safer functioning.

Heavy-duty alternators

New alternators with a balance feature that evenly distributes the load offer longer lifetime and enhanced fuel efficiency. They can withstand approx. 15–20°C higher ambient temperature, which also increases the alternators' service life.

Fuel-efficient with good driveability

The Volvo D8K is equipped with common-rail that permit high injection pressure. The combustion chamber and air intake are designed for optimum combustion. The gas-fill ratio is high, which contributes to the high efficiency rating. This design provides fuel-efficiency with low emissions, high power and considerable torque within a wide rev range. As a result, the Volvo D8K engine offers extremely good driveability and an extended economical rev range.

Low noise emission when idling

The crankshaft and camshaft feature hydraulic vibration dampers, which minimise noise and vibrations. Fuel pre-injection is used to further dampen noise when idling.

Closed crankcase ventilation

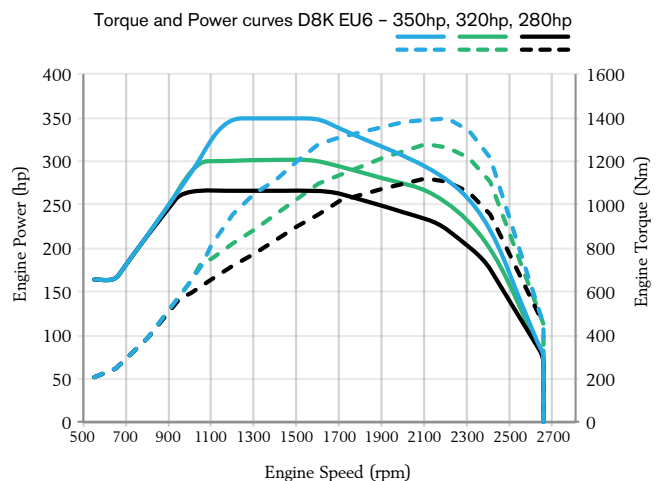
The Volvo D8K can be equipped with closed crankcase ventilation. The crankcase gases in the valve cover are led back to the turbocharger via an oil separator with a centrifuge. Reusing the crankcase gases results in a very clean and environmentally optimised engine.

Timing mechanism

The timing mechanism drives the power steering pump, oil pump, fuel supply pump and air compressor. It is a compact, quiet and well-sealed design that saves weight.

Type designation	Volvo D8K280 EU6	Volvo D8K320 EU6	Volvo D8K350 EU6
Max. output at 2100–2200 rpm	280 hp (206 kW)	320 hp (235 kW)	350 hp (258 kW)
Max. revs	2650 rpm	2650 rpm	2650 rpm
Max. torque	1050 Nm at 950–1700 rpm	1200 Nm at 1050–1600 rpm	1400 Nm at 1200–1600 rpm

Type designation	All models
No. of cylinders	6
Bore	110 mm
Stroke	135 mm
Displacement	7.7 dm ³
Compression ratio	17.5:1
Exhaust brake effect at 2800 rpm	170 kW
Economy rev range	1000–1400 rpm
Optimum rev range	1200–1350 rpm
Oil-change volume, including oil filters	approx. 26,5 L
No. of oil filters	1 full-fow
Cooling system, total volume	approx. 36 L
Dry weight (base engine)	approx. 732 kg



VOLVO

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