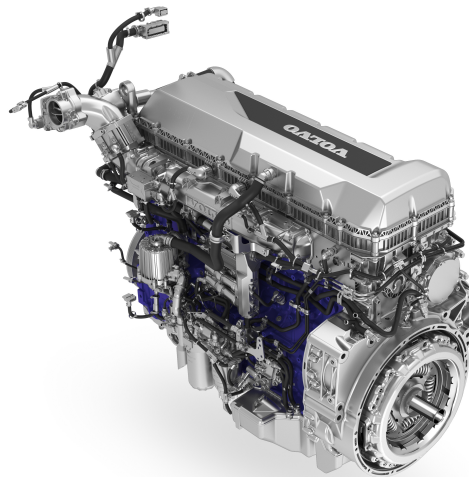


VOLVO D13K

Euro 6



Power and pure performance

The Volvo D13K is an in-line six-cylinder common-rail 12.8-litre engine with an overhead camshaft and four valves per cylinder. It is available with the power outputs of 380, 420, 460 and 500 hp. The engines meet EU exhaust emission requirements according to the Euro 6 standards.

Efficiency for any application

The Volvo D13K is a very fuel-efficient engine range with low emissions, high capacity and low weight. As a result, it is perfectly suited for demanding coach operations, where performance and fuel economy are crucial factors.

The engine boasts a sturdy, dependable design featuring an overhead camshaft, four valves per cylinder and precisely controlled common-rail injection. Drivability is excellent thanks to the broad torque range. The engine timing mechanism is located on the same side as the flywheel, which leads to less vibration.

Euro 6-compliant through advanced after-treatment

The Volvo D13K is a low-emission engine, in terms of exhaust gases and noise. The low emissions are achieved by after-treatment of the exhaust gases using:

- Selective Catalytic Reduction (SCR)
- Diesel Particulate Filter (DPF)

The after-treatment components are integrated in the same silencer unit.

Thanks to the very high efficiency levels of the engine after-treatment system, our engines perform below the legal requirements. As a result, they are environmentally optimised and suitable for sensitive environments and metropolitan green zones.

All the engines are available with Volvo Engine Brake + (VEB+) as an option, providing considerable braking effect, which improves safety and reduces wheel brake wear.

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
- High engine braking output with VEB+ (option)
- Closed crankcase ventilation (option)

VOLVO D13K

Euro 6

Fuel-efficient with good driveability

The Volvo D13K is equipped with common-rail injectors 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 results in a fuel efficient engine with low emissions, high power and considerable torque within a wide rev range. As a result, the Volvo D13K engine offers extremely good driveability.

Low noise emission when idling

The Volvo D13K meets the relevant noise emission requirements. The crankshaft and camshaft feature hydraulic vibration dampers, which minimize noise and vibrations. Fuel pre-injection is used to further dampen noise when idling.

Closed crankcase ventilation

The Volvo D13K can be equipped with closed crankcase ventilation. The crankcase gases in the valve cover are led back to the turbocharger via a maintenance-free oil separator with a centrifuge. By reusing the crankcase gases, this system promotes a very clean and environmentally optimised engine.

| Type designation | Volvo D13K380 EU6 | Volvo D13K420 EU6 | Volvo D13K460 EU6 | Volvo D13K500 EU6 |
|------------------------------|-------------------|-------------------|-------------------|-------------------|
| Max. output at 1400-1700 rpm | 380 hp (280 kW) | 420 hp (310 kW) | 460 hp (340 kW) | 500 hp (370 kW) |
| Max. revs | 2150 rpm | 2150 rpm | 2150 rpm | 2150 rpm |
| Max. torque at 950-1400 rpm | 1800 Nm | 2100 Nm | 2300 Nm | 2500 Nm |

| Type designation | All models |
|--|-----------------------|
| No. of cylinders | 6 |
| Bore | 131 mm |
| Stroke | 158 mm |
| Displacement | 12.8 dm ³ |
| Compression ratio | 18:1 |
| Exhaust brake effect at 2300 rpm | 170 kW |
| Engine brake effect (VEB+) at 2300 rpm* | 360 kW |
| Economy rev range | 1000-1400 rpm |
| Optimum rev range | 1100-1300 rpm |
| Oil-change volume, including oil filters | approx. 36 L |
| No. of oil filters | 2 full-blow, 1 bypass |
| Dry weight (base engine) | approx. 1102 kg |

*VEB+ is available as an option.

