VOLVO

FACT SHEET

ENGINE VERSION

D11C450, EU4SCR/EU5SCR-M Diesel engine, 10.8 litres, Euro 4/5 SCR

The D11C450 is an in-line, six-cylinder, 10.8 litres, 450 hp, engine with an overhead camshaft, four valves per cylinder and unit injectors. The engine meets the EU exhaust emissions requirements according to either the Euro 4 or the Euro 5 standards.

The D11C is a very fuel-efficient engine with high capacity and low weight. As a result, it is suitable for, for example, tanker, bulk goods, regional long haul distribution and light construction where both performance and fuel economy are crucial factors.

The engine has the same basic design as Volvo's larger engines. It boasts a sturdy, dependable design featuring an overhead camshaft, four valves per cylinder and precisely controlled electronic injection.

Thanks to the broad torque range, the driveability is excellent. The engine timing mechanism is at the rear of the engine, which leads to less vibration and permits a rear-mounted power take-off.

The D11C is a low-emission engine, both regarding exhaust and noise emissions. The exhaust gases are after-treated using SCR (Selective Catalytic Reduction) technology so the engine meets either the Euro 4 or Euro 5 standards.

The D11C is available with Volvo Engine Brake (VEB) as an option. This provides considerable braking effect, which improves safety and reduces wheel brake wear.

ENERGY EFFICIENCY

- Fuel-efficient.

ENVIRONMENT

- Meets the Euro 4 or Euro 5 standards.

DRIVER APPEAL

- Maximum torque within a wide rev range gives very good driveability.

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ENGINE VERSION

D11C450, EU4SCR/EU5SCR-M Diesel engine, 10.8 litres, Euro 4/5 SCR

Fuel-efficient with good driveability

The D11C is equipped with unit injectors that permit high injection pressure. The combustion chamber and the 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 high power and considerable torque within a wide rev range. As a result, the D11C engine offers extremely good driveability.

Meets the emission requirements with SCR technology

To supplement the engine's optimum combustion technology, the exhaust gases are after-treated with Selective Catalytic Reduction (SCR). In this process, an additive (AdBlue®) is injected into the exhaust gases before they pass an SCR catalytic converter. There the AdBlue® reacts with the nitrogen oxides in a process that significantly reduces emissions. As a result, the D11C is approved according to the EU's Euro 4 or Euro 5 emission standard.

Low noise emission at idling

The D11C meets the relevant noise emission requirements. The crankshaft and the camshaft feature hydraulic vibration dampers, which minimise noise and vibrations. The pre-injection of the fuel is used to further dampen noise at idling.

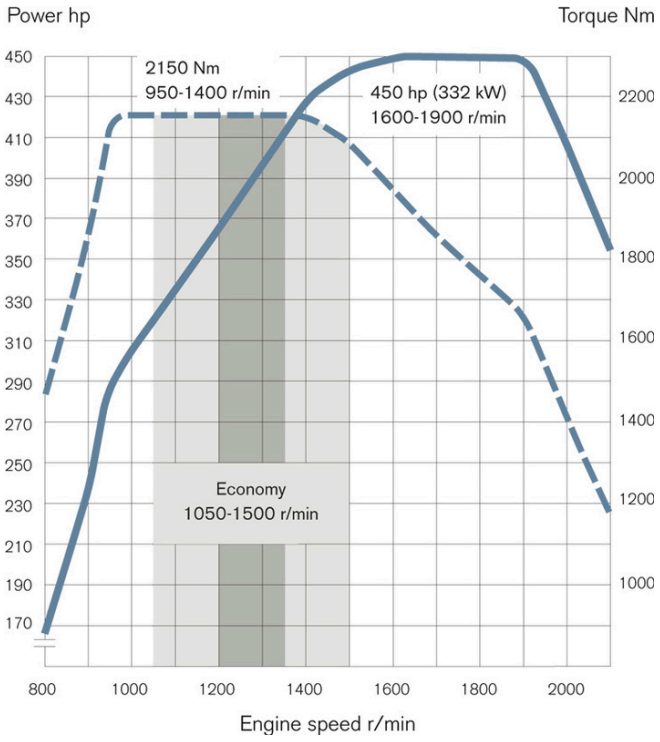
Closed crankcase ventilation (option)

The D11C 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.

Timing mechanism and power take-off at the rear (option)

The timing mechanism is at the rear and 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. With the timing mechanism at the rear, engine cooling to is improved since the flow of cooling air is not obstructed.

The D11C can be equipped with a power take-off tailored for propeller shaft drive or direct- mounted hydraulic pumps. The positioning beside the engine's flywheel results in a reliable construction that permits high torque, up to 1000 Nm in continuous operation.



SPECIFICATION

Type designation	D11C450
Emission level	EU4SCR or EU5SCR-M
Max. output at 1600–1900 rpm	450 hp (332 kW)
Max. revs	2300 rpm
Max. torque at 950–1400 rpm	2150 Nm
No. of cylinders	6
Bore	123 mm
Stroke	152 mm
Displacement	10.8 l
Compression ratio	17.1:1
Exhaust brake effect at 2400 rpm	160 kW
Engine brake effect (VEB) at 2400 rpm*	290 kW
Economy rev range	1050–1500 rpm
Optimum rev range	1200–1350 rpm
Oil-change volume (approximate), including oil filters	36 l
No. of oil filters	2 full-flow, 1 bypass
Oil drain interval**	100 000 km or once a year
Cooling system, total volume (approximate)	36 l
Dry weight, base engine (approximate)	987 kg

*** VEB is available as an option.**

**** With VDS4.**

Volvo retains the right to modify design and specifications without prior notification.

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