FACT SHEET

ENGINE VERSION

D11S460A EU6SCR

The D11S460A is a 460 hp, 10.8 litres, in-line, six-cylinder diesel engine equipped with an overhead camshaft, four valves per cylinder and common rail fuel injection. The engine meets the Euro 6 exhaust emissions requirements.

The D11 is based on a robust and dependable design with an overhead camshaft, four valves per cylinder and precisely controlled common rail fuel injection.

The timing mechanism is located at the rear of the engine, which results in less vibration and permits the fitting of a rear-mounted power take-off.

The D11 is a low-emission engine in terms of both exhaust gases and noise. The aftertreatment system, in the silencer, combines a Diesel Oxidation Catalyst (DOC), a Diesel Particulate Filter (DPF), a Selective Catalytic Reduction unit (SCR) and an Ammonia Slip Catalyst (ASC).

The D11 can be equipped with VEB (Volvo Engine Brake) and EPG (Exhaust Pressure Governor). These systems provide high braking effect, further improving safety and reducing wear on the wheel brakes.

FEATURES AND BENEFITS

- Maximum torque within a broad rev range.Fuel-efficient.
- High engine braking effect with VEB and EPG (option).
- Rear-mounted power take-off with high power output (option).
- Low weight.

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Efficient combustion for excellent driveability

Piston with wave pattern

The D11 is equipped with common rail fuel injection that provides high injection pressure. The combustion chambers with wave pistons and inlet manifold are designed for optimum combustion. The gas-fill ratio is high, which contributes to the high efficiency.

The design creates a fuel-efficient engine with high power and immense torque within a broad rev range. This gives the D11 excellent driveability.

Fulfilling the Euro 6 standard

The components in the aftertreatment system serve two main purposes: to improve gas flow and make sure that the exhaust gases reach the aftertreatment system at optimum temperature, thus ensuring the emission level.

The Diesel Oxidation Catalyst (DOC) produces the nitrogen dioxide (NO2) necessary for the Diesel Particulate Filter (DPF) to efficiently combust the particulates. In cold conditions, it also provides the heat needed for regeneration.

The Diesel Particulate Filter (DPF) collects particulate matter (PM) until it is automatically burned off during regeneration.

In the mixing zone in the Selective Catalytic Reduction unit (SCR), the exhaust gases are sprayed with AdBlue®. When they reach the catalyst, the nitrogen oxides (NOX) are efficiently transformed into harmless nitrogen gas and water.

The Ammonia Slip Catalyst (ASC) is the last step before the tail pipe where any remaining ammonia (NH3) is removed.

Low noise emission at idling

The D11 meets the noise emission requirements. The crankshaft and camshaft feature hydraulic vibration dampers that minimise noise and vibrations. Pre-injection of fuel is used to further dampen noise at idling.

Crankcase ventilation

The D11 offers a choice of two types of closed crankcase ventilation. CCV-C is recommended down to -25 degrees Celsius. CCV-OX is only recommended for arctic markets.

Both system promotes an extremely clean and environmentally compatible engine.

Power take-off at the rear

The D11 can be equipped with a power take-off designed for propshaft operation or direct-mounted hydraulic pumps (also clutchable). PTO mounting on the engine's flywheel results in a dependable design and permits high torque levels, up to 1,000 Nm in continuous operation.

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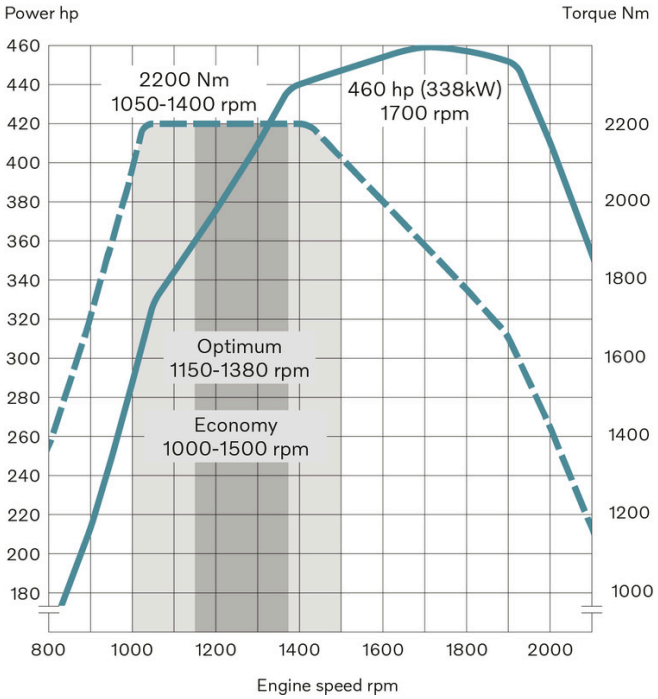
D11S460A EU6SCR

SPECIFICATION

Type designation	D11S460A, EU6SCR
Max power output at 1700 rpm	460 hp (338 kW)
Max revs	2150 rpm
Max torque at 1050–1400 rpm	2200 Nm
No. of cylinders	6
Bore	123 mm
Stroke	152 mm
Displacement	10.8 dm3
Compression ratio	18.0:1
Exhaust brake effect (EPG) at 2300 rpm	155 kW
Engine braking effect (VEB) at 2300 rpm	270 kW
Economy revs range	1000–1500 rpm
Optimum rev range	1150–1380 rpm
Oil-change volume incl. oil filter	approx. 34.5 l
Oil filters	2 full-flow
Cooling system, total volume	approx. 22 l
Dry weight (base engine)	approx. 965 kg
Exhaust aftertreatment system, weight	approx. 120 kg



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