

The Volvo B12B is a complete chassis ready for bodybuilding for tourist coaches and intercity buses. Power comes from a rear-mounted 12-litre in-line six-cylinder diesel engine that can be specified with a choice of 340, 380, 420 and 460 horsepower.

The B12B chassis consists of a precision-welded stainless steel frame. Thanks to the frame's flat upper face, bodybuilding is far simpler. A rear-mounted engine makes it possible to design a low floor and offers considerable flexibility in the configuration of the finished bus.

The engine, the Volvo DH12E, is an in-line six-cylinder diesel unit with a displacement of 12.1 litres and features a turbocharger and Intercooler. Modern technology with unit injectors, an overhead camshaft and four valves per cylinder help give the engine masses of power together with low emissions and low fuel consumption. In combination with SCR exhaust filtration, the engine has such low emissions

that it meets the Euro 4 requirements. The 340 hp version is also available in a Euro 5 incentive version.

The chassis is available with two or three axles, with the third axle in either fixed or steered tag configuration.

All-round air suspension and disc brakes are standard. There is a wide range of gearboxes, both fully-manual and manual with automated gearchanging, as well as fully-automatic. What all the chassis components have in common is that they are perfectly matched to each other and designed to offer a long, trouble-free lifetime with long service intervals.



Rear-mounted engine permits low floor height and at the same time offers considerable flexibility in the design of the finished bus.



Thanks to the engine's position, the chassis offers space for a large luggage area, with volume varying with the type of body chosen.

CUSTOMER BENEFITS

- Torsionally rigid stainless steel frame offers long service life and high stability.
- 12-litre engine with high torque provides excellent driveability.
- Rear-mounted engine permits a large luggage compartment.
- Wide range of gearboxes and rear axles makes it easier to put together a well-matched driveline.
- Air suspension and disc brakes provide excellent comfort and high safety.

VOLVO B12B CHASSIS EURO 4

High-torque engine

The DH12E is a new generation of Volvo's tried and tested and highly reliable D12 engine series. It offers a remarkably wide torque range and responds alertly to the accelerator, which makes for excellent driveability. The DH12E has a one-piece cylinder head, four valves per cylinder, an overhead camshaft and electronically controlled unit injectors. The cylinder liners are replaceable and are of the wet type. Modified cooling of the cylinder liners and cylinder head provides improved heat dissipation ability. The engine is installed horizontally, with the cylinders lying flat.

Exhaust filtration with SCR technology

Volvo has chosen to supplement optimum combustion technology with SCR (Selective Catalytic Reduction) technology for after-treatment of the exhaust gases. In this process, an additive (AdBlue) is injected into the exhaust gases before they pass through an SCR catalytic converter. In the catalytic converter, the AdBlue reacts with the nitrogen oxides in a process that significantly reduces emissions. This takes place through conversion of the nitrogen oxides into harmless nitrogen gas and water vapour.

Drivelines for all needs

The driveline can be tailored to meet all needs. A manual 6-speed gearbox is available with the DH12E 340 and 380 hp engines. Fully-automatic 4- and 6-speed transmissions are available in combination with certain engines.

A hydraulic retarder is available as an option for all gearboxes with the exception of automatic transmissions, where it is fitted as standard.

I-Shift, the 12-speed manual gearbox with a fast-acting automated gearchanging system, is also available together with all engine variants. The newly-developed model provides lower frictional losses and is shorter, quieter and lighter than its predecessor. Nonetheless, it has far greater memory capacity so as to provide well-matched gearchanging programs. It comes with four program packages, each tailored for different application areas. In EBS (Electronic Brake System) the gearchanging program works together with the other braking systems for gentle and safe braking with minimum wheel brake wear.

SPECIFICATION

Model	B12B
Max gross weight	Two-axle 1,000 kg Three-axle 26,500 kg
Max total length	15 metres
Engine	Nn-line six-cylinder turbodiesel
DH12E 340	250 kW (340 hp) 1700 Nm
DH12E 380	279 kW (380 hp) 1850 Nm
DH12E 420	309 kW (420 hp) 2000 Nm
DH12E 460	324 kW (460 hp) 2200 Nm
Emissions class	Euro 4 (340 hp also as Euro 5 inc.)
Max fuel capacity	720 litres

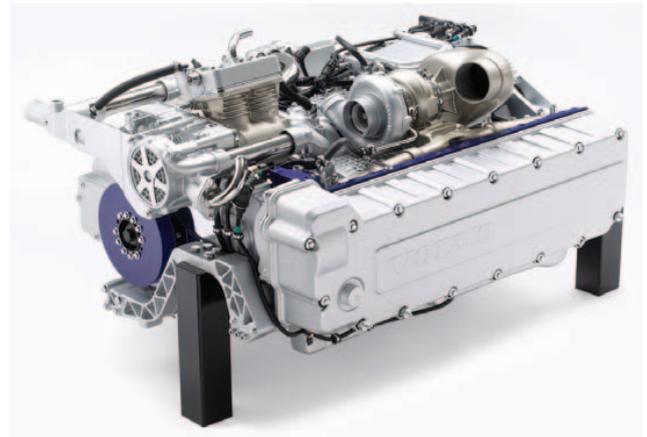
Robust chassis

The frame is a box-section structure offering immense rigidity and it is made of stainless steel for highest corrosion resistance. All the wheels have disc brakes with electronic control (EBS - Electronically controlled Braking System) and ABS. Volvo's disc brakes offer distinct pedal feel. The disc attachment is heat-resistant with no risk of disc warp, and service is simple. The suspension system features sturdy air bellows that provide high comfort and permit kneeling for added convenience. Rear axles are available with a choice of ratios, and in single- or twin-axle configuration.

It is also possible to specify IFS (Independent Front Suspension), an option that offers an immensely comfortable ride and an even better steering angle, 53°.

Simple bodybuilding

Volvo's chassis are factory-prepared for simple bodybuilding. They are delivered entirely ready for driving so as to guarantee perfect function. The frame is precision-welded to extremely exact dimensions and the upper face is entirely flat, which offers considerable freedom in designing the body to suit specific customer wishes.



In Euro and Euro 5 incentive configuration, the DH12E engine offers lower fuel consumption compared with previous engines.



All the wheels have disc brakes with EBS, electronic control and ABS.

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