

Press Release

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The all-new Volvo V40 - Driving Dynamics: Agile driving pleasure in a compact package

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The all-new Volvo V40 boasts class-leading driving dynamics thanks to focused attention to a number of vital areas.

The chassis has been designed to offer the agile, connected experience that creates true driving pleasure.

The engine range spans everything from Volvo Car Corporation's first diesel with CO₂ emissions of just 94 g/km to the turbocharged T5 petrol engine with 254 hp and acceleration from 0 to 100 km/h in 6.1 seconds.

All engine versions have start-stop and braking energy regeneration, no matter whether they are fitted with a manual or automatic gearbox.

Dynamic chassis standard

The all-new Volvo V40 has two different chassis setups:

-The Dynamic chassis is standard. The rigid body and low centre of gravity promote an alert, quick-responding character that focuses on the driving experience, yet without compromising ride comfort.

The front McPherson struts have the same 25 mm piston rods as the Volvo S60. The stiffness enables the structure to absorb lateral loads better.

At the rear the V40 has monotube dampers, featuring compression and return damping via the same valve. This gives shorter, faster fluid flow, which in turn means that the damper responds more quickly.

The Sport chassis is lowered 10 mm compared with the Dynamic chassis. Springs and shock absorbers have a firmer setting, resulting in responsive driving pleasure with full control.

Steering with precise response

The steering column's thick tubing and stiff insulator increase torsional rigidity. This also contributes to the enhanced feeling of direct contact with the wheels and the road.

The Electrical Power Assist Steering (EPAS) uses an electrical motor to support the steering rack and the driver can choose between three levels of power assistance:

In Low mode the system provides a high degree of power support, making manoeuvring easier.

Medium mode has somewhat lower power support to offer more road response at higher speeds.

High mode is the ultimate setting for the enthusiastic driver, contributing to the car's dynamic character.

Electrical Power Assist Steering enables integration of safety and driver support functions that involve the steering, such as Lane Keeping Aid and Park Assist Pilot.

Roll angle sensor enhances stability

The Dynamic Stability and Traction Control (DSTC) system in the all-new Volvo V40 includes several sophisticated features that offer a unique blend of driving pleasure and safety.

Advanced Stability Control uses a roll angle sensor that makes it possible to identify any skidding tendency at a very early stage. This means that the stability control system can step in earlier and with greater precision. Advanced Stability Control is a great asset in dynamic driving involving considerable lateral forces, improving handling and rapid avoidance manoeuvres.

Engine Drag Control prevents the wheels from locking during engine braking on a slippery surface.

If the car is equipped with a towing hook, Trailer Stability Assist helps dampen the snaking action that may occur when towing a trailer or caravan. The car is stabilised by braking one or more wheels and by reducing torque.

Corner Traction Control - tightening the corners

Corner Traction Control is a new feature that uses torque vectoring so the car corners even more smoothly. The car's inner driven wheel is braked, causing more power to be transmitted to the outer driven wheel. This allows the driver to corner more tightly while reducing any tendency to understeer.

This system makes it easier to smoothly maintain the desired line on winding roads, in roundabouts and on wet surfaces. Corner Traction Control is a huge asset when exiting from a small side road to merge swiftly with faster highway traffic.

Range of eager petrol engines

The five-cylinder 2.5-litre turbocharged T5 engine has a power output of 254 hp and 400 Nm of torque, including 40 Nm overboost delivered during acceleration. To achieve low fuel consumption and CO₂ emissions, internal friction has been reduced.

The T5 comes with automatic transmission and acceleration from 0-100 km/h to 6.1 seconds. Fuel consumption is 7.9 l/100 km (EU Combined).

The T5 is also available in a 2.0-litre version with 213 hp and 300 Nm of torque. The mid-range offer includes two versions of a 1.6-litre GTDi engine: T4 with 180 horsepower and T3 with 150 horsepower.

The 180 hp engine offers maximum torque of 270 Nm, including 30 Nm overboost. This gives excellent lugging ability throughout the speed range. The torque curve is relatively gentle, resulting in a particularly comfortable driving experience.

The 150 horsepower T3 engine offers 270 Nm of torque, including 30 Nm overboost. Volvo's engine experts have managed to bring fuel consumption down to 5.3 l/100 km in the V40. This corresponds to CO₂ emissions of 124 g/km.

A 2.0-litre five-cylinder T4 engine with 180 hp and 300 Nm of torque is available on certain markets.

Smooth Powershift transmission

The T5 version comes with a six-speed automatic gearbox, while the T4 is available in combination with the automatic six-speed Powershift transmission or a six-speed manual gearbox. The T3 comes with a manual gearbox.

Powershift operates in principle as two parallel manual gearboxes with separate clutches, a system that provides quick and fuel-saving gear changes.

Fuel-efficient diesels

The five-cylinder 2.0-litre D4 turbodiesel has been optimised for fuel-efficient driving pleasure. The piezoelectric fuel valves keep fuel consumption to a minimum thanks to exceptionally fast and precise injection pulses under high pressure. This results in efficient combustion. In order to give the car better driving properties, the turbocharger has been fine-tuned for high torque from low revs.

This engine delivers 177 hp and has torque of 400 Nm across a wide rpm range. Acceleration from 0-100 km/h takes 8.3 seconds with the automatic gearbox (8.6 sec with manual). Fuel consumption and CO₂ emissions are 4.3 l/100 km (114 g/km) with a manual gearbox and 5.2 l/100 km (136 g/km) with the automatic (EU Combined).

In addition there is the 2.0-litre D3 producing 150 hp and 350 Nm of torque.

Both turbodiesels are available with a six-speed automatic transmission or six-speed manual gearbox.

D2 version with CO₂ emissions of 94 g/km

The D2 version of the Volvo V40 comes with CO₂ emissions as low as 94 g/km - corresponding to fuel consumption of just 3.6 l/100 km. The 1.6-litre diesel engine has 115 hp and 270 Nm of torque. The D2 engine is combined with a six-speed manual gearbox and start/stop function.

Other details such as smooth underbody panels also contribute to low fuel consumption and low emissions.

The 1.6-litre diesel engine can also be mated to the six-speed Powershift gearbox.

Engine range:

Petrol engines Displacement Configuration Output Torque

T5	2.5	5-cyl in-line	254 hp	360 Nm + 40 Nm overboost
T5	2.0	5-cyl in-line	213 hp	300 Nm
T4	1.6	4-cyl in-line	180 hp	240 Nm + 30 Nm overboost
T4	2.0	5-cyl in-line	180 hp	300 Nm
T3	1.6	4-cyl in-line	150 hp	240 Nm + 30 Nm overboost

Diesel engines	Displacement	Configuration	Output	Torque
D4	2.0	5-cyl in-line	177 hp	400 Nm
D3	2.0	5-cyl in-line	150 hp	350 Nm
D2	1.6	4-cyl in-line	115 hp	270 Nm

The engine range varies from one market to another.

Quotes

Peter Mertens, Senior Vice President Research & Development Volvo Car Corporation:

"The Volvo V40 is agile, responsive and fun to drive. The sharp chassis offers the enthusiastic driver a feeling of total control. You get both that connected response that makes a winding country road so much fun as well as the precise, nimble moves it takes to stay on top of busy urban traffic."

"We are the leader in fuel-efficiency. One third of our research budget is earmarked for reducing CO₂ emissions. This dedicated environmental focus under our "DRIVE Towards Zero" banner brings continuous improvements that means that no competitor can beat us in the drive towards increasingly eco-efficient cars."

"We are moving ahead very quickly in the area of lightweight design. The all-new V40 body makes considerable use of high-strength and boron steel. We also use aluminium link arms and the rear brake discs are made of composite aluminium on some variants."

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Descriptions and facts in this press material relate to Volvo Cars' international car range. Described features might be optional. Vehicle specifications may vary from one country to another and may be altered without prior notification.

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