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Powertrain - Performance and efficiency from an all-turbo line-up

Recently introduced in the S60, the all-new 2.0-litre four-cylinder turbocharged engine in the V60 T5 is the first of a new generation of compact GTDi (Gasoline Turbocharged Direct injection) powerplants from Volvo.

With a maximum power output of 177kW at 5500rpm and peak torque of 320Nm across a very broad rev range from 1800rpm to 5000rpm, the compact and lightweight engine produces the performance of a larger engine with the fuel economy of a small four cylinder.

The new all-aluminium 16-valve engine meets the latest Euro 5 emissions standards and in the V60 has a combined fuel consumption of 8.7L/100km and CO₂ emissions of 205g/km while at the same time, it will propel the car from 0-100km/h in 7.7 seconds.

In order to achieve such efficiency, Volvo has used advanced technology with a world first turbocharger housing and manifold made of sheet steel rather than cast iron that is the market's smallest turbocharger in relation to engine output.

This, together with a sheet steel exhaust manifold has helped to both reduce the weight of the engine as well as improve heat control. Alongside the direct fuel injection and variable valve timing for both camshafts, this further boosts the engine's efficiency. Mated to Volvo's smooth and effective six-speed dual clutch Powershift transmission, the new engine is a formidable force in the new V60 T5.

Already recognised for its excellence having been awarded as one of *Ward's 10 Best Engines* for 2011, the upgraded 3.0-litre turbocharged T6 engine delivers substantial performance gains with a maximum power output in the V60 T6 AWD of 224kW and peak torque of 440Nm.

In addition to the significant improvement in performance, Volvo has delivered a cleaner and more efficient T6 engine with combined fuel consumption for the V60 T6 AWD coming in at 10.3L/100km and CO₂ emissions of 247g/km.



In order to achieve such improvements, the T6 engine underwent a substantial overhaul to reduce friction and improve efficiency through the use of components such as tappets coated with DLC (Diamond Like Carbon) and a new Super Ignition Spark Plug. While the efficiency gains are impressive, so too is the engine's ability to propel the T6 AWD from 0-100km/h in just 6.2 seconds- just 0.1 seconds slower than the S60 sedan.

Design - Sleek coupe-like exterior meets spacious wagon interior

Right from the start, the all-new V60 was never intended to be simply a more compact version of Volvo's traditional spacious and versatile large wagons. It was designed as a sports wagon - a combination of sleek exterior styling that reflects the dynamic performance of the car with an additional rear load space neatly integrated into the overall aesthetic.

Sharing its front end with the new S60 sedan, Volvo started off a very good base with the muscular bold front grille accentuated by the large under-grille and side air intakes. The sculpted bonnet flows seamlessly into the sharply raked windscreen. Together with the slim coupe like roofline sloping gently towards the rear and short front and rear overhangs provides a sleek and confident side profile.

The sporting nature of the V60 is completed at the rear where the broad hatch is bracketed by the distinctive taillights that follow the strong contours of the rear haunches, a hatch top spoiler and dual tailpipes.

While the V60 shares its 2776mm wheelbase and 4628mm overall length with the S60, the sweeping extended roofline has expanded luggage capacity from 380L in the S60 to a total of 430 litres with the rear seats in place.

The fully carpeted load area has been designed for maximum utilisation of each available millimetre with the 1095mm wide tailgate, extra space behind the wheel housings and under floor storage area all ensuring a generous load capacity of up to 1241L.

This can be significantly expanded further with the flexible seating arrangement that offers a 40/20/40 split rear seat back that can be fully folded flat in any configuration and a flat-folding front passenger seat allowing especially long items to be loaded inside the V60.



Flexibility is evident in the passenger carrying capacity too with the new V60 featuring standard integrated two-stage child booster seats in the outboard rear seats. The two-stage booster cushion can be set at two heights, allowing children of different sizes to sit high enough to see out through the windows yet at the same time getting the most effective protection possible.

This degree of detailed design has gone into every facet of the interior to create a functional and highly ergonomic cabin with a prestigious and distinctly Scandinavian ambience.

Like its sedan sibling, the V60 combines Volvo's trademark floating centre console that houses the infotainment modules. Depending on the level of audio system, the centre stack presents a full colour 5-inch or 7-inch screen that displays all audio system, navigation, mobile phone and other functions. The screen is positioned high up in the driver's field of vision to make it easy to keep eyes safely on the road and all functions can be operated via steering wheel buttons.

From the driver's seat, the same degree of sporting style evident in the exterior clearly dominates the interior with the broad sweeping dash and clean integrated lines producing an elegantly contoured and organic feel.

Safety - world first innovations for occupant and other road user protection

Safety and protection of both occupants and other road users has always been a high priority for Volvo and the new V60 raises the bar yet again with a vast array of innovative technologies to assist the driver and help prevent potential collisions.

Among the standard features are the latest generation Advanced Stability Control (ASC) that is fully integrated with the comprehensive Dynamic Stability and Traction Control (DSTC) system.

This latest generation includes such features as an enhanced Roll Over Protection System (ROPS) that uses advanced sensor technology to ensure that the belt pretensioners and the inflatable curtains deploy in the event of a rollover; and Corner Traction Control (CTC) that brakes the car's inner driven wheel during cornering causing more power to be transmitted to the outer driven wheel and thereby reduce any tendency to understeer.



The system also offers Engine Drag Control that prevents the wheels from locking during engine braking on a slippery surface; Trailer Stability Assist that helps dampen the snaking action that may occur when towing a trailer or caravan; and a sports setting for the DSTC that enables more active driving involvement by disabling the spin control system, and thereby permitting the car more oversteer and allowing a bigger rear slip angle.

A highly advanced braking system is also an important part of the new V60 that contributes to both the high dynamic driving properties and safety performance of the car. In addition to the standard anti-lock system, Ready Alert Brakes (RAB) also utilise the ability to identify when emergency braking is needed and have the brake pads move closer to the brake discs even before the driver presses the brake pedal.

The braking system also features the latest Hydraulic Brake Assist and Fading Brake Support to ensure the optimal brake operation under all conditions.

Volvo's advanced City Safety system that is designed to prevent or reduce the impact of low speed rear-end collisions is also standard on all V60 models. Operating at speeds of up to 30km/h, the City Safety system automatically brakes the car if the driver fails to react in time when the vehicle in front slows down or stops - or if the car is approaching a stationary object too fast. If the relative speed difference between the two vehicles is below 15 km/h, the collision can be avoided while if the speed difference is between 15 and 30 km/h, the speed of impact is reduced to minimise the effects of the accident.

In addition to these advanced systems the new Volvo V60 is also optionally available with a number of advanced radar and camera-based systems that further raise safety levels.

Chief among these is the new third-generation Adaptive Cruise Control (ACC) that is operational at all speeds and combines with the Collision Warning with Full Auto Brake (CWAB) to offer a comprehensive system to increase both safety and driver convenience.

For this latest generation, functionality has been substantially increased with the addition of Queue Assist, Pedestrian Detection and Full Auto Brake components.

ACC allows drivers to automatically maintain a safe distance from the vehicle in front and in an emergency situation if the car in front reduces speed suddenly, the driver first receives an audible warning combined with a flashing light in the windscreen's head-up display. At the same time, the car's brakes are pre-charged and if the driver does not react to the warning and a collision is imminent, full braking power is automatically applied.

The same sequence of events applies with the new Pedestrian Detection function that uses a combination of a newly developed dual mode radar with a wider field of



vision and a high resolution camera that together enable the system to detect pedestrians' patterns of movement and react accordingly.

In slow moving city traffic up to 30 km/h, the new Queue Assist function allows drivers to simply press a button and the cruise control automatically adapts your speed to allow you to smoothly tail the vehicle in front.

Other innovative optional driver assistance systems available on the V60 include Driver Alert Control (DAC) that monitors the car's position between lane markings and alerts the driver if the driving pattern changes in a random or uncontrolled manner; Lane Departure Warning (LDW) that alerts the driver if they cross the lane markings without indicating; and Blind Spot Information System (BLIS) which lights a warning lamp at the base of the A-pillar on either side of the car when a vehicle moves into the blind spot beside the car.

The new ACC, together with the LDW and BLIS systems are available in a value added Driver Support Pack for all V60 models.

The V60 T5 and D5 AWD models are also offered with a Teknik Pack that combines Volvo Navigation System (VNS), Active Bending Lights with Headlight wash system, Park assist camera, and High Performance Multimedia. For the already higher specified T6, the optional Teknik Pack includes Active Bending Lights with Headlight wash system, Park assist camera, and Adaptive Cruise Control (ACC).

Driving enjoyment - standard dynamic chassis with sports chassis for R-Design for the true enthusiast

All three T5, D5 AWD and T6 AWD V60 models feature the Dynamic Chassis as standard to deliver the perfect blend of agile stable handling and supple ride comfort. For those customers who prefer it, the Touring Chassis that uses a somewhat softer setting for the dampers and front and rear subframes to give a smoother ride on poor surfaces can be ordered as a no cost option. The Touring Chassis is not available on the R-Design models.

If you fancy the best of both worlds, Volvo also offers the option of the FOUR-C (Continuously Controlled Chassis Concept) active chassis that uses a number of sensors to continuously monitor the car's behaviour and adjust the dampers



according to the driving style or road conditions. Drivers can manually select from three chassis settings: Comfort, Sport or Advanced, at the press of a button.

Given the inherent competence of the V60, Volvo has also made available for the two petrol T5 and T6 AWD models, a top-of-the-range R-Design variant which takes driving enjoyment to another level.

Compared to the Dynamic Chassis, the Sports Chassis that is standard in R-Design models has been lowered by 15mm at the front and rear with the springs having been stiffened by 15 per cent with stiffer anti-roll bars. The rear twin-tube dampers have been replaced with monotube dampers for a quicker response while the bushings that attach the rear dampers to the car's body have been stiffened by 20 per cent.

These chassis modifications are present on both the T6 and new T5 V60 R-Design models providing a sporty drive experience that befits the power and performance of the engines.

Visually, the V60 R-Design models are immediately recognisable thanks to a redesigned front apron that includes a glossy black grille, colour matched body components, larger intakes to the rear diffuser and twin tailpipes and the distinctly sporty five-spoke 18-inch IXION diamond cut alloy wheels.

Inside, the sports theme continues with sports seats with larger bolsters on the squab trimmed in R-Design leather, a leather-wrapped three-spoke steering wheel, sports leather gearshift lever, sports pedals, and R-Design floor mats, trim inlays and watch-dial instrumentation.

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