

The new Audi A4

Long version	
Audi A4 and A4 Avant – dynamism and design	9
The design	10
The interior	12
The Audi A4 Avant: the load area	14
The body	16
The driveline technology	17
The petrol engines	18
The TDI engines	25
Continuously variable multitronic	31
quattro permanent four-wheel drive	33
The dynamic chassis	35
Systematic safety	41
The standard equipment	43
The optional equipment	46
The new Audi S4	50

Annex: Technical data

The equipment, data and prices stated here refer to the model range offered for sale in Germany. We reserve the right to make changes. Errors and omissions excepted.

Dynamism and design

The new Audi A4

Driving pleasure, superior technology, exciting styling and a level of luxury that even satisfies the demands made in the top car class: Audi is presenting the new

generation of its best-selling models – the A4, A4 Avant and the high-performance S4.

This is a new model generation that is obvious at first glance. The front-end styling of both saloon and Avant models is new, with the addition of the characteristic Audi single-frame grille. The rear end, with its emphatically horizontal lines, and the sides, where the shoulder line accentuates the panels in an emphatically sporty manner, are new.

The models' technology lives up to the promise made by their new exterior styling: customers can choose from no fewer than ten powerful engines, including four completely new units developing an output of up to 255 bhp. The S4 comes with the 4.2-litre V8 power pack which delivers 344 bhp.

FSI and turbo technology represent the most advanced state of the art for petrol engines, as do the revolutionary piezo injectors in the three-litre TDI. The sporty yet comfortable dynamic chassis converts the power delivered by these units into sheer driving pleasure – on every bend, on every mile of the journey.

Innovative and high sophisticated technologies are an integral part of practically all vehicle areas and components: the optional xenon plus headlights with dynamic adaptive light technology are proof of this, as are the continuously variable multitronic transmission, which is still unique, and quattro permanent four-wheel drive.

The quality of materials and workmanship in the interior are of a standard that need not fear comparison with the luxury class. The architecture of the driver's area, especially the cockpit – a perfect synthesis of design, ergonomics and function – is pioneering.

The design

The exterior

Unmistakeably Audi: the new generation of the A4 and A4 Avant once again exhibit the brand's typical design features. Their sports character is immediately visible at first glance.

The ratio of the large, clearly shaped body surfaces to the flat, equally bold strip formed by the windows is significant. The discreetly rising shoulder line accentuates a powerful, dynamic stature, even when the car is stationary. Clear proportions, the gentle curve of the roof, the striking, visibly flared wheel arches: even its silhouette immediately identifies the new A4 as a genuine Audi.

The new A4 has grown slightly compared with its predecessor: the saloon is 38 millimetres longer, the Avant 41 millimetres. The front end with its more substantial single-frame grille and new bumpers accounts for 12 millimetres of this additional length, the rear end for 28 or 31 millimetres.

The new design elements, however, are even more eye-catching, especially at the front end: the striking single-frame grille and the newly styled clear-glass headlights with their sweeping bottom edge and inward taper give the new Audi A4 a completely new face.

The larger tubes of the main-beam headlights catch the eye under the clear-glass covers of the light unit. With their visible technology they form the visual focus of the headlights and are bordered to the side by round, orange-coloured indicators.

The bumpers, which are fully painted in the body colour at both front and rear, are also a new design. Thanks to their greater bulge and the fact that they reach a long way down, they accentuate the new Audi A4's low centre of gravity, seemingly bringing the car closer to the road.

The front-end styling deliberately echoes design elements of the Audi Nuvolari quattro coupé study, thus emphasising that this model also belongs to the same family as the other new Audi models – the A8 6.0 quattro, A6 and A3 Sportback: a new Audi generation.

The formal idiom of the Nuvolari quattro can also be found at the rear end where the low-positioned two-piece light units, which also arch a long way inwards, emphasise the horizontal design of the vehicle body. The saloon and Avant both sit squarely on the road, the voluminous bottom section and very flat window area combining to produce sports car proportions.

A clearly crafted horizontal light-refracting edge gives the bumpers additional shape. No less eye-catching at the rear end are the exhaust tailpipes which are now 10 millimetres larger at 80 millimetres – a clear indication of just what the new A4 models' engines are capable of.

The side panel sections under the window area are also a completely new design on both the saloon and Avant. The gently rising arch of the shoulder line begins above the front mudguard and runs along the side of the body as a light-refracting edge. It finally merges with the rear lights where it is continued in their upwardly arching top edge. Proportions of the kind typically found on sports cars are the characteristic feature of the side design: high body panels and a flat window area.

Another sign of the family resemblance that the new A4 has with the Nuvolari quattro study and also the current Audi A6 is the striking but ever-discreet dialogue of concave and convex arches, of curved surfaces facing towards and away from the light. The result is an extremely stimulating interplay of light and shadow, giving the car its own very special appeal from every perspective.

The interior

The perfect tailor-made suit: a metaphor frequently used to describe vehicle interiors. But this image will come to the mind of anyone getting behind the characteristic wheel of the new Audi A4, with its hallmark feature of the single-frame element at the centre. This, after all, is a car that unites two apparent opposites to produce an amazing synthesis of exceptional ergonomics and subjective comfort.

On the other hand, the new A4's cockpit is characterised by lines extending a long way into the door trim and centre console areas, which quite literally appear to embrace the driver. This "wrap around" effect, to use the designers' technical term, is accentuated additionally by the A4's high waistline. This feature is something that many customers value very highly, not least because of the remarkable sense of security that it imparts.

The architecture of the dashboard and centre console also provide scope for positioning a wide range of instruments and controls high up, in other words ideally within the driver's field of vision. This is an ergonomic strategy that is adopted in every aircraft cockpit for very good reasons.

The lines of the driving area create a lively interplay of distinctly rounded, tangible shapes and graphically clear edges and notches.

This area is thus divided up into clearly defined zones. These can be distinguished at a glance – a worthwhile ergonomic bonus that speeds up intuitive access to the individual information units and function groups. This process of locating involves both the visual and tactile senses: groups of controls and displays can also be identified by the materials used.

As far as the instruments are concerned, the most important information elements are located under a dome-shaped cover. The dial graphics of the large round

instruments dispense with all fashionable gimmicks. Together with the standard central display, the white instrument lighting ensures optimum readability.

The most important controls for the occupants' well-being are located in the centre console: automatic air conditioning, audio system and the optional navigation system plus. The air conditioning controls are within easy reach of both driver and front passenger.

The door trim design reflects the differing needs of the driver and front passenger. Because no grab handle is needed on the driver's side, the electric window buttons and door mirror adjusters are integrated here, a long way forward in the best location ergonomically. The front passenger, on the other hand, has the grab handle precisely where it is ergonomically most appreciated. The padded door armrests and the optional centre armrest are immaculate touches on both sides.

However, there are more benefits to the interior design than sheer practicality. The design of the self-contained zones also creates a basis for a wide range of combination options for materials and colours. From the designers' viewpoint this opens up entirely new horizons, and for A4 drivers it provides scope for an unprecedented degree of customisation.

The customer's tastes and imagination are almost unrestricted when it comes to the choice of equipment and trim. The fact that the craftsmanship and quality of all fabrics and upholstery materials are of a standard you would expect to find on a luxury car is a fitting reflection of how Audi perceives itself.

Comfort and space on all seats

Thanks to their micro-engaging mechanism, the front seats can be adjusted lengthwise in increments of three millimetres – in other words, practically infinitely. This new dimension to finding the ideal seat position will benefit all occupants, and not only the taller ones.

The seat surface, which is longer than the norm in this vehicle class, provides an outstanding thigh support. This applies in particular to the sports seats which, in addition to an adjustable lumbar support, come with a thigh support that can be adjusted horizontally to suit individual requirements.

The rear seats have much more the character of individual seats than of a conventional bench-type seat. This not only enhances the interior's sporty looks, but also makes for improved long-distance comfort for the occupants of the two outer seats.

There is also more room than average for luggage in the A4 saloon: with a capacity of 460 litres, the smooth-floored luggage compartment is well-equipped for tackling challenging transport tasks. And with a vast 1,000 millimetres between the wheel arches, there is plenty of room even for bulky loads.

A4 Avant: the load area

The A4 Avant's load area combines an exclusive atmosphere with optimum utility and variability. This synthesis of successful interior design and multifunctionality sets new standards.

A variable load-area floor provides generous storage capacity. With three different floor-panel positions, the load area capacity is between 377 (floor closed), 422 (floor partially open) and 442 litres (floor removed). The maximum storage capacity with the rear seat folded is 1,184 litres.

Loading heavy and bulky objects into the car is simplified considerably by the low height of the load-area floor level with the sill. This means that objects up to 1,000 mm wide can be loaded through the tailgate opening. The smooth-surfaced inner side panels have no bulges, making the load area look extremely tidy at all times. The available capacity can be used efficiently, with neither edges nor

projections in the way.

Even in its standard version, the A4 Avant's load area offers a full range of ingenious details such as a net for small items, chrome-plated load-securing lugs, a storage compartment behind a cover in the left side panel, an easily accessible 12V power socket in the side panel and an active light in the tailgate that also illuminates the area behind the vehicle.

The load-area floor is at the same height as the folded rear seat backrests, thus guaranteeing an almost level luggage area. The luggage cover and the dividing net are located in a special compact, space-saving housing. This combined housing is attached to the wider part of the rear seat backrest and folds forwards with it to make the maximum storage space immediately available. In this position, the housing can easily be removed through the rear side door.

The load-area floor forms a second level in the luggage area. It is not rigidly fixed in the vehicle, but can be folded. This means that its position can easily be changed, making a useful contribution to the load area's unique variability.

Under the floor there is an easy-to-clean plastic tray attached to the body which can be used as an additional storage compartment or combined with the total luggage capacity. An optional reversible mat including fold-out bumper protection protects both the bumper and the load itself.

The tailgate opens automatically up to an overall height of 1.98 m.

Two handle recesses on the left and right inside the tailgate – handle height 1.83 m – allow it to be pulled shut from any position.

A load-area package with practical detail solutions for numerous situations is available as an optional extra. A bag hook and a luggage net to prevent objects

from sliding about can be fastened in no time at all to the four lugs provided. A retaining strap in the right side trim can also be used to secure smaller objects and is adjustable to several positions.

The body

The body of the new Audi A4 is based on a unitary steel structure with integrated aluminium components. The percentage by weight accounted for by plastics and the use of the lightweight materials aluminium and magnesium is considerable.

A further decisive measure with a low vehicle weight in mind is the expansive use of high-strength and very high-strength sheet-metal panels, which make up a total of 45 percent of the bodyshell weight. These special sheet panels are used primarily in the front end of the new A4, where the main priority is to absorb impact energy as effectively as possible in a frontal crash.

As a protective cage, the occupant cell must also make sure that deformations and intrusions are minimised in a crash. Part of this task is performed by three large tailored blanks incorporated into the floor area. The wall thickness of each of these blanks varies. They are joined together by laser weld seams.

The advantage of this special technology is that the generally large-format tailored blanks can be structured in such a way that high wall thicknesses are only used in areas subjected to particularly high loads. The result is a highly rigid structure

which weighs less. A total of ten large tailored blank components are installed in the new Audi A4

For the passenger cell, the tailored blanks form a stable, homogeneous bond with the forward and rearward structure via a bifurcated system of support members. Audi's development engineers optimised profiles, wall thicknesses and material grades in extensive crash simulations.

In the rearward structure, the vehicle's longitudinal member – which has to absorb much of the impact energy in a rear-end impact – is made using tailored blanks of varying wall thicknesses and material grades.

The use of tailored blanks at specific points around the doors also helps to save weight. Extruded aluminium sections are incorporated into the doors and sills by way of impact protection.

Engines and transmissions

The new Audi A4: powerful yet economical petrol and TDI engines provide the basis for excellent performance. All engines are longitudinally installed and comply without exception with the limits of the EU4 emissions standard, regardless of transmission version.

Audi is now also offering two newly designed petrol engines with FSI petrol direct injection for the first time for the new A4: the 188 kW (255 bhp) 3.2 V6 and the turbocharged two-litre four-cylinder 2.0 T FSI, which delivers 147 kW (200 bhp). These combine high performance with a spontaneous response to every movement of the accelerator pedal and a peak-torque range at a high level.

The range also includes three engines which have been tried and tested several thousand times over: the two-litre inline four-cylinder unit, which develops 96 kW (130 bhp), and the 120 kW (163 bhp) 1.8 T four-cylinder version. The 75 kW (102 bhp) 1.6 completes the choice of petrol engines.

The TDI range at launch will include the 2.0-litre four-cylinder engine with pump-injector fuel injection and a power output of 103 kW (140 bhp), and the newly developed 3.0 TDI with common rail injection and piezo injectors.

What is currently the most modern TDI engine around made its debut a few months ago in the large A8 and A6 saloons. This immensely powerful V6 delivers 150 kW (204 bhp) in the A4 and makes 450 Nm of torque available between 1,400 and 3,200 rpm.

From the beginning of 2005, a coated diesel particulate filter, or catalysed soot filter as it is known, will be offered for the 2.0 TDI and 3.0 TDI models. This does not require an additive and therefore remains maintenance-free throughout the vehicle's entire service life. All 3.0 TDI versions will already be fitted with a filter provision from launch so that retrofitting can take place at Audi dealers at a later date with only very little work involved.

The engines deliver their power to the road either via the front wheels or by means of quattro permanent four-wheel drive. 5-speed or 6-speed manual gearboxes are available for the various A4 models, as is the continuously variable automatic transmission, the multitronic. This revolutionary Audi transmission technology will be available for the front-wheel-drive versions of the new A4. The now 6-speed tiptronic with sport program is offered as an option for quattro models.

The petrol engines

3.2 V6 FSI

A new six-cylinder engine is being made available for the A4 for the very first time. The 3.2 V6 FSI, which only made its production debut in the new Audi A6 a

few months ago, has all the features of an ultramodern petrol engine: FSI petrol direct injection with demand-controlled fuel supply, four valves per cylinder, a variable intake manifold and continuous camshaft adjustment on both the intake and the exhaust side.

This V6 engine delivers its maximum output of 188 kW (255 bhp) at 6,500 rpm. Its peak torque of 330 Nm is already available at 3,250 rpm. The A4 3.2 FSI with multitronic transmission and front-wheel drive accelerates from 0 to 100 km/h in 6.8 seconds and on up to a governed top speed of 250 km/h. This also applies to the version with quattro permanent four-wheel drive and 6-speed manual gearbox.

More than 90 percent of the engine's peak torque is available in the wide range between 1,900 and 5,900 rpm – a unique characteristic for a naturally aspirated V6. As far as the driver is concerned, this means a dynamic and forceful response to every movement of the accelerator pedal plus a broad usable speed range up to 7,200 rpm, hefty torque and excellent fuel efficiency: an average consumption of 9.3 litres of Super grade fuel per 100 km for the multitronic version is the best evidence of this engine's efficiency and the special abilities of FSI technology.

FSI engines develop more power and dynamism than conventional units with indirect fuel injection – and they do so with a very high standard of fuel economy. With the increase in efficiency achieved here, Audi has opened up a new dimension in the efficiency of standard spark-ignition engines and once again demonstrated the proverbial progress through technology familiar to the brand.

FSI direct petrol injection has confirmed its unique potential several times over in what must be the most challenging endurance test in the world: an engine with FSI direct injection powers the Le Mans-winning Audi R8.

How does the FSI technology differ operationally from a conventional engine? The term "petrol direct injection" makes the central feature clear: in contrast to indirect injection, the fuel is injected directly into the combustion chamber.

A common rail high-pressure injection system with a newly developed single-piston high-pressure pump operating on demand ensures exactly the right supply of fuel, delivering precisely the volume required for building up operating pressure between 30 and 110 bar.

In the intake tract, also comprising the two-stage variable intake manifold, moving charge-movement flaps provide the necessary tumble effect, swirling the induced air around depending on operating point. In order to achieve the high specific power and torque values, a new combustion process has been developed. This has the potential for worldwide application and for operation on the fuel grade RON 95/91. Together with the optimum geometry of the combustion chambers and the dosage of fuel injected with supreme accuracy down to the last millisecond, this allows a significant increase in compression:

While conventional production engines generally have a compression ratio of not more than 10.5:1, the compression ratio on Audi's 3.2 FSI power unit is 12.5:1 – a record on production cars and the essential prerequisite for the new engine's high standard of efficiency.

New base engine

Completely new in its design, the 3.2-litre V6 has been developed with the specific goal of maximum space efficiency: measuring only 360 millimetres in length and 430 millimetres in width, and weighing a mere 169.5 kg thanks to the use of aluminium, the engine offers significant benefits in terms of driving dynamics.

Like on Audi's new V-configuration engines in general, the cylinders are arranged at an angle of 90° and the distance between cylinders is 90 millimetres. Cylinder bore of 84.5 millimetres and cylinder lift of 92.8 mm add up to an overall engine capacity of 3,123 cc.

The four-valve cylinder head with a side opening for the injection valve is another special feature designed specifically for this 3.2-litre power unit. Both the inlet and exhaust camshafts come with variable adjustment to ensure optimum results, in terms of both maximum output and an extremely broad peak-torque range.

The camshafts, oil pump and balancing shaft are all driven by four-piece chain drive of the same type as in the 4.2-litre eight-cylinder unit.

Emissions control in the 3.2 FSI is optimised by two ceramic catalytic converters positioned close to the engine. As a result, this high-performance power unit easily undercuts the EU4 emissions standard.

Fine-tuning of the exhaust system offers the driver yet another bonus: the distinctly sporty but never irritating sound of a genuine six-cylinder unit, making the qualities of the engine a truly sensory experience.

The Audi A4 3.2 FSI with front-wheel drive is available with the continuously variable multitronic transmission. On the model with permanent quattro four-wheel drive, a 6-speed manual gearbox is responsible for regulating torque and power. The 6-speed tiptronic with sport program is also offered as an alternative for quattro models.

The 2.0 T FSI

The 2.0 T FSI, an entirely newly developed engine, is also making its first appearance in the range of petrol engines for the new Audi A4. This is the first

time in this class that turbocharging has been combined with the FSI concept of petrol direct injection.

The term "petrol direct injection" makes the distinction between this and conventional petrol engines clear: in contrast to indirect injection, the fuel is injected directly into the combustion chamber.

The injector, located on the admission side in the cylinder head, is served by a high-pressure pump driven by the camshaft and a pressure reservoir shared by all cylinders – the common rail system. The injector regulates fuel delivery with millisecond precision, at injection pressures of up to 110 bar.

The engine block is made from GG 25 grey cast iron, a material that exhibits both high pressure resistance and excellent acoustic properties.

A mass balance transmission further improves the acoustics. Two balancing shafts rotating at double the speed of the crankshaft compensate for the engine's inertial forces. The power is transmitted by the crankshaft by means of a triangular-layout chain which drives the oil pump as well as the balancing shafts.

The outcome of these measures is outstanding vibrational properties for a four-cylinder engine. Perceptible vibrations and irritating humming frequencies are both effectively suppressed. The pleasing sound of the specially tuned exhaust system aptly complements these properties.

The intake manifold on the 2.0 T FSI is made from a high-tech plastic. It also integrates the charge movement flaps, the position of which is adjusted by a continuous-action pilot motor. The optimum movement of the airflow, or tumble, can thus be controlled on the basis of the engine-speed and load conditions.

The fuel is injected via a common rail system supplied by a demand-controlled high-pressure pump. The fuel is injected directly into the combustion chamber via an injector positioned at one side between the inlet valves.

The fuel-air mixture is distributed purely homogeneously within the combustion chamber. This provides a distinctive characteristic, placing the emphasis on high performance and agile responsiveness at all engine speeds.

The four-valve cylinder head with low-friction roller cam follower drive has a modified inlet duct geometry that produces even higher tumble values than the naturally-aspirated FSI engine. This results not only in greater refinement, but also in superior knock resistance and therefore efficiency.

As a result, the turbo engine achieves a compression ratio of 10.5:1, a figure that is otherwise achieved only by modern naturally-aspirated engines. This, coupled with the advantages of petrol direct injection, plays a crucial role in boosting the thermodynamic efficiency compared with both manifold injection engines and conventional turbo engines.

The maximum torque of 280 Nm is available from just 1,800 all the way up to 5,000 rpm. This exceptionally broad torque plateau on the one hand permits a fuel-efficient driving style with few gearshifts, and on the other hand means that only light accelerator action is needed to produce assertive thrust and a spontaneous unleashing of power.

This technology lends the A4 2.0 T FSI flexibility values that are on a par with much larger-capacity sports cars: in 4th gear, the mid-range spurt from 80 to 120 km/h that is typically required for overtaking manoeuvres takes just 6.9 seconds.

It is moreover impressive how spontaneously the new turbo engine always responds to accelerator action, and how assertively it translates pedal movement into acceleration.

The A4 2.0 T FSI with 6-speed manual gearbox accomplishes the classic 0-100 km/h sprint in only 7.3 seconds; its powerful 147 kW (200 bhp) engine is capable of taking it up to an impressive top speed of 241 km/h.

The 2.0

The inline four-cylinder engine with a displacement of 1,984 cc and an output of 96 kW (130 bhp) is a bestseller that has been built since 2000.

The engine block of the two-litre engine is made of aluminium for significantly reduced weight. At 129 kilograms, Audi's two-litre four-cylinder engine is the lightest in its class, and with a length of a mere 460 millimetres it is also the most compact.

As an undersquare engine, the two-litre unit is ideal for a good torque characteristic at the low end of the speed range. To make maximum use of this potential, there is map-controlled adjustment of the inlet camshaft through 42 degrees. A pivoting motor controlled by the engine management system maintains the necessary pressure in the hydraulic system. A highly wear-resistant toothed belt transmits the power.

A two-stage variable intake manifold governs the desired power output and torque characteristic. The 2.0-litre unit reaches its maximum torque of 195 Nm at 3,300 rpm; 90 percent of this maximum value is available across the broad speed range of 2,300 to 5,000 rpm.

This engine achieves its maximum power output of 96 kW (130 bhp) at 5,700 rpm. It propels the A4 saloon with front-wheel drive and 5-speed manual gearbox to 100 km/h in 9.9 seconds, and on to a top speed of 212 km/h. And considering this model consumes an average of only 8.0 litres of fuel per 100 km, these figures certainly are impressive

The task of exhaust emission control is performed by a multi-stage catalytic converter located close to the engine. This achieves its full output very soon after the engine is started thanks to the extra-short heating-up times. This rapid light-off is supported by the design of the new exhaust manifold on the 2.0-litre engine.

The fact that the 2.0 5V easily complies with EU4 exhaust emission requirements can almost be taken for granted.

The 1.8 T

An engine version that has likewise been tried and tested several thousand times over will also be included in the range when the new Audi A4 is launched: the 1.8 T four-cylinder turbo which delivers 120 kW (163 bhp). It is an outstanding example of how a modern supercharged engine can combine high power output with refinement. The 1.8 T is solid proof that sometimes there is a genuine alternative to sheer size.

Instead of priming its small, very responsive exhaust turbocharger for a peak output value, Audi has placed the emphasis on achieving a substantial, ideally accessible torque curve across a wide range.

It encourages the driver to move up the gears earlier on, so that a more economical higher gear can be used more frequently and for longer periods. All this is fully compatible with ample driving enjoyment.

Peak torque of 225 Nm is reached at a speed of just 1,950 rpm. This hefty torque remains constant up to 4,700 rpm. This means that maximum torque is always available in the predominantly used driving/engine-speed range.

The A4 1.8 T with front-wheel drive and manual gearbox consumes just 8.2 litres of unleaded Super petrol per 100 km. The saloon's power output of 163 bhp accelerates it from 0-100 km/h in just 8.6 seconds and propels it on up to a top speed of 228 km/h.

The 1.6

Plenty of know-how has gone into this, the current entry-level 1.6-litre engine for the A4. A cylinder head with valve actuation by roller cam followers reduces interior friction considerably.

Together with the engine electronics and an optimised exhaust system, these measures have resulted in the exceptionally low fuel consumption of just 7.7 litres.

The engine's power output of 75 kW (102 bhp) and its torque of 148 Nm accelerate the A4 1.6 saloon to a maximum speed of 190 km/h.

This version completes the sprint from 0 to 100 km/h in 12.6 seconds. And like the other engines, this version also fulfils the strict limits of the EU4 standard.

The diesel engines

The 3.0 TDI V6

A genuine power pack is being introduced for the new Audi A4 in the guise of the three-litre six-cylinder unit, an engine that recently made its debut in the larger Audi A8 and A6 saloons.

Compared with the competition, this engine offers more than impressive power and torque potential: 204 bhp and 450 Nm. Maximum torque is available just

above idle speed, starting at a mere 1,400 rpm and giving the driver forceful acceleration at all speeds.

This means performance on the road that even many a sports car will find hard to match: acceleration to 100 km/h comes in just 7.2 seconds, top speed of the A4 3.0 TDI quattro is 235 km/h.

Further fortes are the engine's highly efficient noise management and fulfilment of the strict EU4 emissions standard.

Featuring turbocharger technology and map-controlled, cooled exhaust-gas recirculation, this V6 four-valve power unit is the first six-cylinder TDI in Audi's new family of V-configuration engines. Both the camshafts and the oil pump, incidentally, are driven by chains.

Like all engines in Audi's new V-generation, the V6 TDI has extremely compact dimensions, engine length, for example, measuring a mere 444 millimetres. This is also an important step in view of achieving an overall engine weight of just 219 kilos, making the 3.0 TDI one of the lightest V6 diesels in the world. This benefits not only the car's power-to-weight ratio, but also the weight distribution – two factors crucial to the superior driving dynamics of the new A4 3.0 TDI quattro.

Common rail technology with piezo inline injectors

Mixture preparation is by means of a latest-generation common rail system. It features a high-pressure pump and one rail per cylinder bank. This increases maximum injection pressure to 1,600 bar, 250 bar more than with previous common rail systems.

This high injection pressure results in even finer atomisation of the fuel and therefore in better mixture preparation and more efficient combustion.

The piezo injectors are undoubtedly the most important innovation of the new common rail system. The injection process makes use of the piezo effect: a voltage is applied to ceramic which changes its crystal structures. The result is a minimal geometric change which – supported by a hydraulic element – mechanically triggers the opening of the injector needle.

The piezo injectors offer multiple advantages compared with conventional solenoid valves. The moving mass at the injector needle is for instance reduced by no less than 75 percent, from 16 to 4 grams in each case. This enables considerably smaller and more precisely metered injection quantities. At the same time, piezo technology allows a higher injector needle speed.

The number of injection processes per combustion cycle can thus be varied almost at will. Audi's TDI development engineers opted for up to five injection processes for the 3.0 V6: in addition to the main injection process, double pilot injection takes place at the lower end of the speed range and single pilot injection in the medium speed range.

This strategy produces both lower emissions and a smoother combustion process, the benefits of which are most immediately apparent in the engine's acoustic behaviour. The 3.0 TDI engine is not only much quieter and smoother running than its predecessor, it now unquestionably serves as the benchmark in its class.

Turbocharger with two intercoolers

For optimum charging of the combustion chamber in all operating conditions, the six-cylinder 3.0 TDI has a turbocharger accommodated inside the engine's "vee" to make optimum use of the available space. And to enhance efficiency to the highest level, the temperature of the intake air is reduced by two intercoolers running in parallel, any loss of pressure being kept to a minimum.

The exhaust gas is purified by a close-coupled primary catalytic converter – located close to the turbocharger – and the main converter under the floor. This enables the A4 3.0 TDI, as the first executive diesel of its kind, to clearly outperform the EU4 emission limits.

One feature of the new engine that is undoubtedly as welcome as its efficiency at reducing emissions is its impressive fuel economy. Its average consumption over 100 kilometres is just 7.5 litres of diesel. In practice this obviously means a very significant cruising range, the new A4 3.0 TDI quattro being able to cover almost 840 kilometres on one tank of fuel.

The Audi A4 3.0 TDI comes as standard with quattro permanent four-wheel drive and 6-speed manual gearbox or, as an option, a 6-speed automatic transmission with tiptronic function and sport program.

The 2.5 TDI V6

Audi's 120 kW (163 bhp) 2.5 V6 turbocharged diesel is further evidence of its expertise in TDI technology. This engine made its production debut in November 1999 as a fitting source of power for Audi's top model, the A8 saloon, and was offered shortly afterwards in the A4 model line. The V6 has since been fundamentally modified: the cylinder head with low-friction valve operation by roller cam followers ensures outstanding fuel efficiency and emission levels.

The high-torque engine – 350 Nm of torque are at the driver's disposal between 1,500 and 3,000 rpm – with four valves per cylinder, centrally located injectors, a turbocharger with electronically controlled variable turbine geometry (VTG) and an ultra-modern radial-piston distributor-type injection pump, represents a high level in TDI technology.

The V6 TDI's response to pressure on the throttle, even at very low engine speeds, is also quite amazing. A substantial and immediately usable amount of torque is available even at only 1,000 rpm.

Performance on the road speaks for itself: it takes the A4 2.5 TDI (163 bhp) with 6-speed manual gearbox 8.8 seconds to accelerate from a standstill to 100 km/h. It then continues briskly up to its maximum speed of 227 km/h.

This contrasts starkly with extreme modesty when it comes to fuel consumption: the Audi A4 2.5 TDI consumes just 6.8 litres of fuel per 100 kilometres. Another positive factor is that the Audi A4 TDI 2.5 V6 complies with the EU4 emissions standard.

The 2.0 TDI

Driving pleasure and supreme economy, refinement and environmental care: the 2.0 TDI four-cylinder with unit injector, one of the most modern engines in its class, made its debut in the executive class as a very talented all-rounder. Again, the particular strength of this engine is its outstanding output and torque combined with equally impressive all-round economy.

Maximum output of 103 kW (140 bhp) and peak torque of 320 Nm available all the way between 1,750 and 2,500 rpm make this the most powerful and dynamic four-cylinder diesel featured by Audi so far. Performance on the road is correspondingly impressive: the 2.0 TDI with 6-speed manual gearbox accelerates to 100 km/h in 9.7 seconds and continues on up rapidly to its top speed of 212 km/h.

Two other fortes of the 2.0 TDI four-cylinder engine are low fuel consumption – 5.7 litres of diesel fuel per 100 km – as well as compliance with the EU4 emissions standard.

The refinement of this four-cylinder unit in the new Audi A4 is equally outstanding. The balancing shaft module with two shafts rotating in opposite directions helps to reduce engine vibration to an absolute minimum particularly at high engine speeds, with second-order vibrations being reduced more than 80 percent.

With optional diesel particulate filter

Along with the launch of an optional particulate filter for the A4 2.0 TDI, Audi is now systematically building on its strategy of reducing emissions. A few months after their launch, the ultramodern V6 3.0 TDI and 2.0 TDI will be offered with a diesel particulate filter as an option.

This uses a system that also exploits the most advanced state of the art: the "catalysed soot filter" (CSF for short), which has a dual-action filter coating containing precious metals.

The passive regeneration process involves the slow, environment-protecting breakdown of the particulates deposited in the filter into CO₂. This takes place at a temperature of between 350 and 500 degrees and occurs continuously without any special measures being required, predominantly when the car is being driven at motorway speeds. The process of active regeneration, which goes unnoticed by the driver, is triggered automatically when the particulate filter has reached its maximum permitted degree of saturation. Depending on operating conditions, distances of up to 2,000 km can be covered before this takes place.

The 1.9 TDI

One of Audi's most successful and most-built engines is also to be found in the new A4: the four-cylinder 1.9-litre TDI with pump-injector direct injection. The latest version develops 85 kW (115 bhp) and produces an impressive 285 Nm of torque at just 1,900 rpm.

The A4 1.9 TDI takes just 11.2 seconds to pass the 100 km/h mark. And with a top speed of 201 km/h, the entry-level TDI model is the ideal car for long stretches on the motorway at high average speeds. Especially as the fuel consumption of around only 5.6 litres per 100 kilometres means that a distance of over 1,000 kilometres can be covered between stops for refuelling.

This once again demonstrates the superior maturity and efficiency of TDI technology in conjunction with the pump-injector unit. Indeed, this system is still able to provide the highest level of injection pressure of up to 2,050 bar – the weight of a car on an area as small as a fingernail.

This high pressure assures ultra-fine atomisation of fuel within the combustion chamber, thus providing excellent thermodynamic efficiency. On the road this means outstanding fuel economy and, at the same time, a high torque yield. And thanks to pilot-injection control, the performance spectrum of a pump-injector engine includes good engine acoustics and efficient emissions control. This likewise applies to the 1.9 TDI, which easily undercuts the EU4 emission limits.

The A4 1.9 TDI is available in combination with a 5-speed manual gearbox.

Transmissions

The supreme fuel economy and dynamic performance offered by the new Audi A4 also results from the standard usage of 5-speed and 6-speed manual gearboxes

and 6-speed automatic transmissions with a wide range of gear increments. The current generation of the continuously variable multitronic transmission now has seven predefined transmission ratios that can be preselected as an alternative.

Ultramodern manual gearboxes

The manual versions of the new Audi A4 come with Audi's new **generation of ML transmissions**, the abbreviation ML standing for **Manual/Lengthwise**.

Featuring tight gear increments, this sophisticated gearbox of the latest generation combines extreme precision in shifting gears with short, clearly defined gearshift travel. Thanks to a special mount for the selector forks, the gear lever is effectively protected against driveline vibrations; the driver does not feel the gear lever trembling at all.

Internal friction reduced by a series of measures increases the efficiency of the manual gearbox. This means that engine power can be converted even more efficiently into forward propulsion.

The 6-speed tiptronic with sport program

The **6-speed tiptronic transmission** is available in conjunction with the very high-torque 3.2 FSI, 3.0 TDI and 2.0 T FSI power units featuring permanent four-wheel drive. Having already made its debut in the high-performance Audi S4, this transmission converts the power and muscle of the engine into a superior symbiosis of dynamism and operating convenience.

Weight reduction, a fast and crisp gearshift, as well as an optimised gearshift strategy help to combine the superior convenience of automatic gearshift with the sporting performance so typical of the A4.

Compared with its 5-speed predecessor, the new 6-speed gearbox is 14 kilograms lighter, the overall weight of the transmission being a mere 115 kilograms.

Again compared with a 5-speed automatic transmission, the overall spread of gear ratios is up by 18 percent on average. This means a much improved accelerating performance in the low gears and a clear reduction in engine speed and consequently a reduction in both noise level and fuel consumption at high speeds.

The shifting speed of the new 6-speed tiptronic has also been significantly optimised. The driver benefits from more spontaneous gear changes particularly when downshifting. In addition, the fact that the engine automatically double-declutches further increases agility.

Both in stage D and in the S sport program, the electronics respond efficiently to parameters such as lateral and longitudinal acceleration as well as to the movement of the accelerator pedal. This helps to prevent any unwanted upshifts when cornering.

Continuously variable multitronic

After making its production debut successfully in the year 2000, Audi's continuously variable **multitronic** automatic transmission is again offering its superior qualities in the new A4, combining the benefits of a manual gearbox with those of a geared automatic transmission. Fortes typical of multitronic are smooth but very dynamic acceleration as well as convenience in use and the efficient transmission of power.

The high standard of operating convenience offered by multitronic exceeds that of a conventional converter-type automatic transmission, while in terms of dynamic performance and economy, multitronic can by all means be compared with a manual gearbox. If the driver wishes to actively choose the appropriate transmission ratio, he is able to do so at the gear lever or using the optional shift paddles on the steering wheel, now providing no fewer than seven predefined gear ratios.

Numerous reinforcements and adjustments, as well as optimised cooling, serve to significantly enhance the performance of Audi's continuously variable automatic transmission. The multitronic is now even able to convey torque of up to 330 Nm, and is thus the ideal partner even for the most powerful V6 engine in the series, the 3.2 FSI which develops an output of 255 bhp and 330 Nm of torque.

Modified for the new Audi A4, the multitronic variator spans an even wider range of gear ratios: the overall ratio between the largest and the smallest gear transmission ratio is 6.25, virtually ideal for such a transmission. It permits dynamic, sports-style acceleration thanks to the use of lower ratios, but also fully exploits the engine's economy potential by using the highest ratio.

A further special feature is the ability of the electronics to emulate the functions of a manual gearbox. Introducing the latest version of multitronic, Audi has opted for no fewer than seven forward gears activated by the driver using the selector lever by means of a one-touch function in the second shift plane or by pressing down the gearshift paddles on the steering wheel (optional).

These seven gearshift stages are memorised by the system as fixed shift programs. Depending on which gear the driver selects, the controller is supplied with the ratio as a set point, which it establishes at the variator and maintains. Even these manually prompted gearshifts take place smoothly and jolt-free, satisfying the desire for sports performance.

quattro permanent four-wheel drive

quattro permanent four-wheel drive has long since been one of the favourite technical concepts of Audi drivers. Around 25 percent of all 2003 models of the Audi A4 were equipped with four-wheel drive; the figure will undoubtedly be higher for the new-generation model. Because right from the production start, Audi will be able to supply the engine versions of the new A4 from 120 kW (163 bhp) upwards as quattro models.

Its major strength lies in capabilities that have come to be regarded as a matter of course over the past 20 years: a persuasively superior dynamic performance and driving safety, and a distinctively superior form of travel.

A vehicle with permanent four-wheel drive can translate significantly more traction and consequently higher cornering forces into propulsion. This in turn means greater driving enjoyment and safety for the driver. Improved directional stability, much lower susceptibility to cross-winds and better towing properties also characterise the superiority of the Audi A4 quattro.

On the new Audi A4 quattro, with its longitudinally installed four-cylinder and six-cylinder engines, a Torsen centre differential automatically distributes power to all four wheels. This system is also used on Audi's highest-performance vehicles, the A8 as well as the 480 bhp RS 6 Plus, for example.

The name "Torsen" is a contraction of the two terms "torque" and "sensing". The Torsen differential is a self-locking worm gear.

The advantage is that the locking action is only prompted by the driveline. Yet this type of differential accommodates differences in speed when the brakes are applied and when cornering. Normally the power is split 50:50 between the two pairs of wheels, but in extreme cases the entire propulsive power can be diverted to either pair. In the event of more than one wheel encountering considerable slip, the electronic differential lock EDL can even concentrate this power on one wheel.

Sheer driving pleasure

The dynamic chassis

Dynamics and comfort, easy handling and active safety at the very highest level: on the basis of these strengths, Audi is also demonstrating its proverbial "Vorsprung durch Technik" with the new A4's dynamic chassis. Agility and ride comfort are equally impressive.

This road behaviour is the result of extensive modifications in the area of elastokinematics as well as to the spring and shock absorber settings.

The predecessor's tried-and-test basic geometry has been adopted at both front and rear: four-link front suspension and the highly complex self-tracking trapezoidal-link rear suspension. Both consist primarily of light-alloy components resulting in a low unsprung mass.

All versions of the Audi A4 have disc brakes at the front and rear; the front discs are ventilated. Their dimensions have been adapted to the increased performance potential of the new generation of engines. Excellent controllability, spontaneous response and above all considerably reduced braking distances are the result.

The front suspension

On the four-link front suspension layout, each wheel is located by four aluminium control arms. Large-volume rubber components are used as the damper mounts on

the new suspension design. This helps to effectively isolate the shock absorbers acoustically.

Several mounts as well as the considerably stiffer track rods on the front suspension have been adopted from the high-performance S4. The mounts for the control arm originate from the new Audi A6.

Together with the new shock absorber settings, this results in a particularly sensitive response to steering movements and even more precise feedback from the road. In other words, extremely dynamic behaviour which is isolated almost completely from front-wheel-drive influences.

High-tech rear suspension

The new Audi A4 comes with one of the most complex, but also most efficient, rear suspension layouts currently available.

The trapezoidal-link rear suspension makes for top-quality ride comfort on all models, coupled with dynamic behaviour that will amaze the driver of many a competing model.

The trapezoidal link is made from hollow-section aluminium. This torsionally and flexurally rigid control arm absorbs a large portion of the forces acting on the wheel. Together with the track rod located behind it, it thus determines the elastokinematic behaviour of the axle.

This design is notable for its low weight as well as its outstanding space efficiency. The compact design permits a low load-area floor in all versions, coupled with a generous load-area width.

All wheel control elements pivot on the resiliently mounted subframe via rubber-metal mounts which isolate axle vibration very effectively from the body. Moulded rubber mountings are also used for the suspension springs between the

trapezoidal link and the body's longitudinal member. Here again, the material chosen provides excellent acoustic insulation.

The twin-tube gas-filled shock absorber is connected to the wheel carrier, so that a direct-ratio effect is obtained. Combined with the separately mounted spring, this ensures a particularly sensitive response from the shock absorber.

The trapezoidal links and wheel carriers on the new A4 generation now also originate from the S4, a car whose suspension has demonstrated its all-round superiority in numerous individual and comparative tests conducted by the trade press. However, several mounts and the shock absorbers, which are considerably larger than on the previous model, have been adopted again from the A6.

Thanks to the precision work that has gone into modifying the rear suspension set-up, the dynamic qualities of this basic structure are demonstrated even more effectively. This all adds up to agility and excellent directional stability, outstanding straight-line running and a high level of comfort without any disturbing movements of the body.

The steering: precision and lightness

The new Audi A4 has hydraulically assisted rack-and-pinion steering bolted rigidly to the suspension-strut cross-member.

The progress that has been made by detailed modifications can be felt above all at the steering wheel: the driver registers this as greater precision, an even more spontaneous response to steering movements and more precise feedback from the road.

Audi's developers have also achieved an optimum steering layout in terms of safety for the A4. Because the steering column is mounted in two universal joints,

it can be telescopically disengaged in the event of a crash, to isolate it from the steering gear and protect it against bulkhead intrusion.

The dictates of lightweight design even extend as far as the design of the steering wheels for the Audi A4: for reasons of weight, the single-section skeletons are die-cast in magnesium.

All new Audi A4 2.0 T FSI, 3.2 FSI and 3.0 TDI come as standard with hydraulic rack-and-pinion steering featuring speed-dependent power assistance, servotronic. The development goal here was to provide the highest conceivable standard of sporty steering precision and improved steering comfort.

The refined servotronic system enables the driver to manoeuvre into parking spaces with a minimum of steering effort and maximum accuracy, and also provides a clear response from the road at higher speeds. The system also offers a high level of sensitivity around the straight-ahead position and even more comfortable initial response behaviour.

Road behaviour: a policy of neutrality

An excellent standard of comfort and superb traction when coming out of even the tightest of curves, neutral, clearly defined self-steering characteristics and, finally, maximum agility. These were the requirements to be met by those whose task it was to develop the Audi A4's suspension.

Such targets can only be attained by coordinating all new and modified elements to a high standard of precision. The role of the new self-tracking trapezoidal-link rear suspension in the overall package is of course particularly significant. Its elastokinematic properties ensure above all the desired precision of response, while significantly pushing back the handling limits.

In steady-state circular motion, the most revealing gauge of behaviour at the limits of handling, it transpires that at moderate to high lateral acceleration, the Audi A4 requires only a slight increase in the steering wheel angle to remain on course.

This effect from the driver's viewpoint is clear enough: the Audi A4 remains unruffled even when close to the handling limits, and its behaviour is controllable and strictly neutral along its chosen line.

At the same time, body movements even in S-bends remain moderate, without any of the loss of comfort that might be expected from this dynamically firm layout. A positive effect that is preserved even in a wide variety of load conditions.

Safety featured as standard: new generation of ESP

All new Audi A4 models come with the latest electronic stabilisation program, ESP 8. This system comprises ABS brakes with electronic brake-force distribution EBD and hydraulic brake assist which automatically increases brake power when the driver applies the brakes in an emergency. The traction control system ASR interacts with the electronic differential lock EDL to provide efficient yaw control as the foundation for enhanced ESP safety.

The system has been developed to an even higher standard in terms of both electronics and hydraulics. New pressure control ensures even more precise intervention of the ESP stability functions in accordance with the given situation, particularly when the car is understeering. In the event of excessive understeer, all four wheels are braked if necessary so that the vehicle can be returned to its original course.

Yet another new feature is the brake disc wiping function integrated into ESP. This new function helps to keep the brake discs largely dry on wet roads even when the driver does not apply the brakes for a relatively long time. To provide

this effect, the brake linings are pressed against the discs under low hydraulic pressure at regular intervals, ensuring even more spontaneous brake response under wet conditions, too. This process goes unnoticed by the driver.

The new Audi A4 comes for the first time with a two-stage ESP deactivation button: pressing the button briefly, the driver is able to deactivate the traction control system ASR. This is sometimes necessary in deep snow or on gravel roads in order to pull away smoothly. Pressing the button a bit longer, on the other hand, the driver is able to deactivate ESP in all operating conditions. This is necessary on the race track, for example, to enable an intentional sideways slide through the use of the brakes. Even then, however, the EDL and ABS functions remain operative.

Wheels and tyres

Even the four-cylinder and six-cylinder versions (above 96 kW) of the new Audi A4 come as standard with 7x16-inch alloy wheels shod with 205/60 R16 tyres. The particularly powerful six-cylinder versions and the 2.0 T FSI run on 7x16-inch wheels with 215/55 tyres.

As an option, the new Audi A4 is available with a choice of ten different wheels measuring up to 7.5 x 17 inches and running on tyres up to 235/45 R17.

In winter, too, the A4 driver has the choice of three wheels up to 7x17 inches in size and running on 225/50 tyres.

All new Audi A4 models come as standard with Audi's tyre mobility system, but may also be provided with a spare wheel as an option.

A permanent tyre pressure monitoring system is also available as an option for the new Audi A4. The system monitors the tyre pressure and temperature of each individual wheel. In the event of a loss of pressure, it informs the driver optically and acoustically via the display in the instrument cluster.

To provide this function, the signals from the wheel's electronic control unit are transmitted wirelessly to the central vehicle electronics. There are two warning stages: a pressure loss of more than 0.3 bar at a wheel activates a yellow warning lamp. This tells drivers to check their tyre pressure and top up the air to the correct level at the next opportunity. If tyre pressure is more than 0.5 bar below the limit required or if the tyre is losing pressure quickly, a red lamp lights up urging drivers to stop immediately and remedy the problem.

The system is also able to take minor changes in temperature and pressure caused, for instance, by intense sunshine, hot air coming from the engine or unusual weight distribution of the car into account, thus avoiding a false alarm.

As an option: PAX wheels

The new Audi A4 will also be available with cast aluminium wheels with run-flat tyres – the so-called PAX system. These wheels and tyres allow drivers to continue for up to 200 kilometres at a top speed of 80 km/h, even if a tyre has suffered a complete loss of pressure.

Thanks to the run-flat properties of the PAX wheel, drivers can, in the event of a puncture, reach an Audi workshop of their choice instead of having to change the wheel themselves or call a breakdown recovery service – a new dimension to mobility that befits the luxury segment.

The flat tyre still offers a high level of residual ride comfort – driver do not perceive a loss of pressure as a permanent deterioration of running characteristics. However, to make drivers aware of the threat of a flat tyre or a gradual loss of pressure, the PAX system is only offered in combination with the automatic tyre

pressure monitoring system. This means that driver are kept informed of the condition of all wheels and are in addition reminded of the maximum permitted speed of 80 km/h if one of the tyres suffers a puncture.

Occupant protection

Systematic safety

The new Audi A4 remains faithful to the manufacturer's best tradition of safety. After all, its predecessor was one of the very best in its class in this respect. A rigid body structure and meticulously calculated deformation properties, in conjunction with ultra-modern restraint systems – such as the new two-stage front airbags – and outstanding technical concepts such as the sideguard head-level airbag system, created an outstanding level of occupant safety.

The floor assembly, where large-volume sills with an internal aluminium profile and sturdy cross-members direct and absorb the impact energy, provides a sound basis. The crash-optimised B-posts, which have received several detail improvements, also contribute towards stability. The effective protection offered by the Audi A4's body has been affirmed in extremely tough crash tests simulating side-on collisions with SUVs..

The seats also make a valuable contribution towards occupant protection. The front seats are integral steel structures with extremely rigid cross-bracing. They thus largely retain their shape in a side-on crash. This is of crucial benefit in keeping the survival zone intact.

A new addition to the list of standard safety equipment are active head restraints on the front seats, which increase protection in a rear impact most effectively. A seat belt reminder system is also part of the standard specification on all new Audi A4 models.

sideguard as standard

In addition to the large-area front airbags, the occupants are protected by several side airbag systems. In the event of a side impact, remote sensors transmit signals which are compared with those from the sensor in the central airbag control unit.

The risk of injury to the torso and pelvic regions of the body in a side crash is above all reduced effectively by the thorax/pelvis side airbags integrated into the front seat backs. Rear thorax/pelvis side airbags are available as an option for the outer rear seats.

The head and neck regions benefit from sideguard, a unique safety extra not just in this vehicle category. This head-level side airbag system covers virtually the entire side window area, from the A-post to the C/D-post.

A hybrid gas generator inflates the airbag, which then remains inflated for several seconds. This ensures that sideguard's protective effect is also preserved throughout any secondary collisions, e.g. in a rollover. However, sideguard does not prevent the occupants from escaping from the car or obstruct access for rescuers.

An extensive system of crash sensors ensures that the airbags are ignited at exactly the right moment. In addition to the upfront sensors, the triggering system comprises several remote satellite sensors at the sides.

The front airbag on the passenger's side can be activated by key (option). This is an important function, particularly if a child is to travel on the passenger's seat in a child car seat. All Audi A4 models have provisions for mounting Isofix child seats on the outer positions of the rear seat.

The equipment

Premium items and more

The new Audi A4 is positioned in the midsize top segment. It stands out for a range of standard equipment with quality and comfort attributes that would not be out of place in the luxury class. The scope for every owner to customise his or her own car is equally important. Personal style and the desire for a touch of individuality specifically in the car's interior are playing an increasingly important role when its configuration is defined.

The new Audi A4 is an unmistakable car with a standard specification that already covers virtually every requirement. And it offers the driver a huge range of possibilities for fulfilling his or her very own idea of contemporary, stylish mobility.

Appearance made to measure

There is a choice of 15 body colours for the new Audi A4. The colour spectrum ranges from particularly sporty shades such as Silver, metallic to Brilliant Red, and also includes the elegant colours in the range such as Liquid Blue, metallic and Dakar Beige, metallic.

The high-gloss package available optionally, with drip mouldings and window capping strips, lends the car a highly elegant note.

The interior also satisfies virtually every design requirement. The materials used are without exception of the highest quality – a characteristic that is conveyed not only visually, but also by their feel.

Audi A4 drivers can choose between a number of material and colour combinations. The equipment concept offers supreme flexibility and individuality.

All components are colour-coordinated, with the result that every configuration creates a harmonious overall appearance.

In addition to the Mikado (basic version), Mondial and sporty Strato (for the sports seats) cloth upholstery versions, customers can opt for the sporty, elegant and extremely high-quality Volterra and Valcona leather upholstery which have already met with the enthusiastic approval of A8 and A6 drivers. Another option for customers is a combination of Alcantara and leather for the sports seats.

Brushed aluminium inlays on the dashboard and doors and the door sill trims with aluminium inserts are all part of the standard specification. Aluminium Facette finish silver inlays for the centre console or, as an alternative, Walnut brown or fine-grained Birch grey or beige wood inlays are available as options.

The standard equipment

The perfect climate can be obtained on both sides of the vehicle – thanks to the **deluxe automatic air conditioning** in the new Audi A4. The standard version of this system, which also includes a sun sensor, allows the temperature to be adjusted separately for the driver and front-passenger sides. This system, which is equally important to comfort and safety, is part of the standard equipment specification of all new A4 models.

The newly designed **four-spoke steering wheel** can be adjusted both vertically and horizontally. A4 2.0 T FSI, 3.2 FSI and 3.0 TDI models are fitted with servotronic power steering where the degree of assistance provided is dependent on vehicle speed.

The **driver's and front passenger's seats** have manual fore/aft and height adjustment. A centre armrest at the rear adds an extra touch of comfort when the centre rear seat is not occupied.

The safety equipment featured as standard in the new-generation A4 is equally impressive. In the event of a collision the car's occupants are effectively protected by the robust structure of the body with predefined deformation and a **highly stable passenger cell**. And in conjunction with seat belt tensioners and belt-force limiters, **the full-size front airbags**, front side airbags and the **sideguard head airbag system** offer the driver and passengers a high level of protection.

The two full-size front airbags are activated in **two stages**, depending on the severity of the accident. **Active front head restraints** fitted as standard help to protect the occupants against whiplash injuries in a collision from behind.

Active safety benefits from the latest-generation electronic stabilisation program **ESP 8.0** complete with hydraulic brake assist, anti-lock brake system ABS, electronic brake-force distribution EBD, the traction control system ASR and the electronic differential lock EDL. The **brake-disc cleaning function** is also an integral part of ESP. In wet conditions, this removes the film of water from the discs at predefined intervals, thus helping to reduce the vehicle's braking distance considerably.

The **motorway indicator function** improves safety when overtaking: if the indicator level is pushed briefly to just before its detent position and then released, the indicators flash three times.

Electric front windows – with anti-pinch protection – and electrically adjusted door mirrors optimise operating convenience.

The **central locking** is equipped with **radio remote control**, allowing the car to be locked and unlocked from quite some distance away. The car can easily be identified for example on a large, anonymous car park by unlocking it with the remote control; its indicator lights then flash making it easy to locate.

The windscreen wipers have an **adjustable wipe interval**, and automatically perform one more cycle after the last wash/wipe operation to make sure that any remaining splashes of water are removed.

The instrument cluster's central display shows for instance the distance remaining on the fuel in the tank, the outside temperature and the distance remaining to the next service.

The standard **free-form headlights** behind clear-glass covers guarantee good visibility. High-performance **halogen fog lights** integrated into the bumper are also part of the standard specification.

All Audi A4 models from 96 kW upwards are equipped with sporty 16-inch alloy wheels as a standard: the 1.6 and 1.9 TDI four-cylinder versions have 16-inch steel wheels.

The optional equipment

As many as **ten alloy wheels** of sizes 7x16 to 7.5x17, available from the launch date, give drivers a further means of enhancing the characteristic appearance of their new Audi A4. Tyre sizes up to 235/45 R17 ensure an uncompromisingly sporty character that is manifested in ways other than just visually.

In addition, quattro GmbH offers four other alloy wheel versions of sizes from 7.5x17 to 8x18 inch.

There are also wheel and tyre sets for **winter use**: for the entry-level 1.6 and 1.9 TDI models there is a 7x16-inch steel wheel with full-diameter cover. This is best used in conjunction with size 205/55 R16 winter tyres. Two **cast aluminium wheels** of size 7x16 and 7.5x17 inch, fitted with tyres of up to 225/45 R17, are available for all versions.

The new Audi A4 provides the perfect **infotainment** experience.

Two different **navigation systems**, which both use GPS satellite navigation, help the driver find the fastest route from A to B. The **basic navigation system** uses spoken commands and pictograms in the central instrument cluster display to guide the driver. The corresponding controls are located in the centre console.

The new **Audi radio-navigation system plus** with **DVD drive** not only enables almost limitless navigation throughout Western Europe, it can also be used to play **audio and MP3 CDs**. Its operating principle follows the same clear logic as the Audi **MMI**, familiar from the A8 and A6. The **6.5-inch colour display** shows the map and the visual route description, while the driver information system translates the corresponding directions into pictograms and adds information on distances and arrival time.

The **new storage medium of the DVD** for the navigation system provides more than **ten times the storage capacity** of a conventional CD-ROM, coupled with a noticeably **faster access time**. Almost the entire road network of Western Europe can now be stored on a single data carrier, overcoming the inconvenience of having to change the CD when the driver crosses a national border. A further advantage is that the navigation system **calculates the route much more swiftly** than on CD-based systems. This is particularly noticeable during map loading and when using the zoom function.

The **bird's eye view** of the screen, which can also be split if required, facilitates visual orientation on the map.

The **audio systems** offer the ideal combination of convenience and equipment options for every customer:

- **chorus** with cassette player, eight loudspeakers and diversity aerial for optimum reception
- **concert** additionally with CD player (instead of cassette player)

- **symphony** with cassette player and a 6-CD changer as well as a diversity aerial

The **BOSE sound system** (in conjunction with the concert and symphony audio systems) additionally provides a concert hall atmosphere in the A4.

Mobile phone preparations for D/E-network phones offer convenient voice control for entering and dialling up to 50 different numbers. Digital signal processing serves to compensate disturbing noise and guarantees excellent voice quality. The choice of a multifunction steering wheel ensures a particularly high degree of operating convenience. The **Bluetooth interface** guarantees the system's future compatibility.

Communication in a broader sense likewise takes place while the car is being manoeuvred into a parking space: the **acoustic parking system** determines the exact distance to the next car – whether to the front or the rear – by means of ultrasonic signals.

Sensors integrated discreetly into the bumpers measure the distance and prompt acoustic signals which let the driver know how much clearance remains.

Electric adjustment can be ordered as an option for the **driver's and front passenger's seats**. The seat positions can be stored by a memory function (also available as an optional extra). The position of the door mirrors can also be memorised.

The **storage package** can accommodate numerous personal items. It includes drawers under both front seats, luggage nets on the front seat backs and two additional cup holders in the rear centre armrest.

On warm days, the optional **cooling box in the glove compartment** is a welcome feature: the contents are cooled by the automatic air conditioning while the car is

on the move and remain at a low temperature for some time after the engine has been switched off.

The utility of the rear seat can likewise be maximised: a **rear bench split 1/3 to 2/3** (standard on Avant and quattro models) is available as an option. A load-through facility with ski bag is also available.

A unique attribute for a car in the midsize class is the availability of **double glazing** for the Audi A4. This equipment item, which is a typical feature of luxury-class vehicles, improves the interior acoustics still further and also optimises protection against break-ins.

The Audi range of special accessories also offers perfect solutions for when the sun goes down: the best examples are the **xenon plus headlights** with outstanding **dipped and main xenon beams** and automatic-dynamic headlight range control. They illuminate the area in front of the car evenly and intensively. A headlight cleaning system in addition comes to the driver's aid if there is a risk of dirt accumulating.

Even better visibility on the road is ensured by **adaptive light including xenon plus**. Featuring **swivel headlight units**, this **dynamic cornering light** system illuminates twists and turns in the road far more effectively from a speed of just 12 km/h. **Daytime running lights**, which can also be deactivated manually if required, are part of the xenon plus lighting package.

The winter package combines other useful aids for driving in cold or wet conditions: heated door mirrors and **windscreen washer jets**.

The standard seats in the new Audi A4 provide maximum comfort on long journeys. However, they can be customised to meet your individual requirements

even more perfectly, for example with a **4-way electric lumbar support** for both front seats.

The front **sports seats** in the range of optional extras for the Audi A4 offer an ideal synthesis of excellent lateral support and maximum seating comfort. They can also be combined with electric adjustment and a memory function as an option.

And while on the subject of sport, even a car as dynamic as the new Audi A4 may arouse the desire for an even more uncompromising concept. This wish, too, can be fulfilled with the **S line range** for the new saloon and Avant.

The **sports suspension** by quattro GmbH in the **S line sports package**, which lowers the body by 20 millimetres and includes firmer shock absorber/spring rates and 7.5x17 or even 8x18-inch wheels, adds an attractive visual touch and ensures even better driving dynamics.

The S line sports package also includes visually identifying features such as logos in the front grille and on the rear side rubbing strips, special inlays for the driver's area, **sports seats** with lumbar support for driver and front passenger plus electric adjustment and various 3-spoke **leather sports steering wheels**.

The **S line exterior package** gives the body a particularly sporty look thanks to a radiator grille with S-line grid pattern, an original design for the front and rear bumpers and a rear spoiler (saloon) or roof spoiler (Avant).

The new Audi S4

With a new design and a more extensive equipment specification, the top sports model in the A4 range, the S4 with supremely powerful 344 bhp V8 engine, is about to be launched. Its permanent quattro four-wheel drive and consistently sport-tuned aluminium suspension ensure that this power can be converted into maximum forward propulsion and driving pleasure. The new S4, like its predecessor, is available in both saloon and Avant versions.

The S models of the new A4 generation are likewise instantly recognisable: the front end is dominated by the new face of the brand, the single-frame grille – in this case with S-specific grid pattern – and newly styled headlights. The shoulder line sculpts the sides of the car body in a most eye-catching way. And, finally, the most prominent feature on the new tail end, apart from the newly styled light units, are four oval tailpipes on both saloon and Avant models – a clear indication of just what the Audi S4 is capable of.

The V8 engine, with chain drive at the rear and a displacement of 4.2 litres, delivers 253 kW (344 bhp) and 410 Nm of torque. It consequently sets clear benchmarks in its segment: a benchmark for a supreme and even development of power resulting from the large swept volume, and a benchmark for unmistakable dynamic handling.

The power-to-weight ratio of this model is just 4.8 kilograms/horsepower. The eight-cylinder engine's thrust thus enables the new Audi S4 with its new 6-speed manual gearbox to complete the sprint from 0 to 100 km/h in just 5.6 seconds. It takes just 20.6 seconds to reach 200 km/h, whilst its top speed is a governed 250 km/h.

The new S4 is the only car in its class to have quattro permanent four-wheel drive. It can therefore convert its engine output into propulsive power most efficiently at all times and enter a new dimension of superiority thanks to the handling potential of its aluminium chassis.

Steering with an extremely direct ratio means that the S4 can be guided absolutely precisely around all kinds of corners. In other words, driving pleasure in the purest sense, on the motorway as well as on challenging mountain passes.

The Audi S4 also offers other qualities that have already become a well-known feature of the S models with the four-ring badge. It is consequently positioned as the top sports model in the A4 line, and not only in terms of power and performance – its equipment specification and materials of the highest quality underpin this status.

The S4 is also notable for its unique combination of unmistakable style and sporting exclusivity, of individuality and versatility. Available as both a saloon and an Avant, it offers its owner distinctive everyday quality, too.

The design

The superiority of the new Audi S4 is immediately reflected in its deliberately restrained appearance. The bodies of the S4 saloon and Avant, which are sporty in terms of both their proportions and their basic shape, only differ subtly from the other members of this model family.

A typical situation that many drivers of the new Audi S4 will find themselves in when manoeuvring to overtake: glancing in their rear-view mirror, the driver in front will see the more powerful bumper fully painted in the body colour with large air inlets, xenon plus headlights and aluminium-look door mirrors and immediately be aware that a very special Audi is approaching.

This realisation is confirmed with a glance at the tail end as the S4 passes: here the onlooker will notice the four distinctive oval tailpipes and – on the saloon version – a discreet rear spoiler as the characteristic feature of the Audi S4. The equally subtle roof spoiler is typical for the Avant.

S4 models can be identified from the side by sills in the same colour as the body, contrasting lower door skirts and the characteristic 18-inch “S” wheels of Avus design.

345 millimetre discs at the front are a visual indication of the brake system's performance.

The new S4, like the other S models, can be ordered in a choice of exclusively available paint finishes: Imola Yellow, Brilliant Red, Sprint Blue, pearl effect and Deep Green, pearl effect. The S4 can also be ordered in Brilliant Black, in the metallic colours Silver or Dolphin Grey and in Phantom Black or Moro Blue, both with pearl effect.

The Audi S4 is notable not only for its sporting exterior, but even more so for its inner values. This applies not only to its technology, but also to the interior.

The instrument cluster, for example, has the characteristic grey S dials and special needles. The new three-spoke leather sports steering wheel with S badge also accentuates the vehicle's particularly sporty character. If the customer orders a 6-speed tiptronic transmission, gears can also be changed using the shift paddles on the steering wheel.

Recaro sports seats provide firm lateral support and excellent comfort on long journeys. Not only the driver and front passenger benefit from these qualities, but also passengers on the two rear seats.

Engines and transmissions

The heart of the new Audi S4 is again quite clearly its engine – a tremendously powerful V8 with a displacement of 4.2 litres and a five-valve cylinder head. This engine is notable not only for its dominant power output (253 kW/344 bhp), but also for its unbeatably short design.

The development engineers, however, have not economised when it comes to power. The V8's thrust enables the new Audi S4 with 6-speed manual gearbox to sprint from 0 to 100 km/h in only 5.6 seconds. It takes just 20.6 seconds to reach 200 km/h, whilst the top speed is a governed 250 km/h.

The new 4.2-litre engine delivers its maximum power at 7,000 rpm. The maximum torque of 410 Nm is available at 3,500 rpm. Even at just 1,100 rpm the large V8 produces almost 300 Nm, and between 3,000 and just under 4,500 rpm the peak-torque range is always above 400 Nm.

Clearly more impressive than such figures is the combination in practice of the engine's spontaneous response to every movement of the accelerator pedal, its astonishing free revving and hefty torque that is characteristic of a V8. And then there is the experience of an equally characteristic V8 sound – reserved and practically free of vibration in the low speed band and with a sonorous tremolo under load. It certainly makes no secret of the engine's potential.

Thanks to efficient emissions control with primary and main catalytic converters, the new Audi S4 also remains clearly within the EU4 limits.

The S4 is available with a choice of 6-speed manual gearbox or 6-speed tiptronic with dynamic shift program DSP and sport program. This automatic transmission is designed specifically to meet demanding handling requirements: weight reduction, rapid shifts and an optimised shifting strategy make sure that the convenience of the automatic transmission is combined with the sports performance specific to the S4.

The chassis

The dynamic chassis comprising lightweight aluminium components is based on the much-praised axle design of the A4 series and provides the ideal basis for maximum agility as well as excellent suitability for everyday use. It is not least thanks to these characteristics that the S4 has already put up an impressive performance in numerous comparison tests conducted by the trade press, clearly distancing itself from its competitors.

Four-link front suspension and trapezoidal-link rear suspension enable maximum steering precision and clearly defined handling with excellent cornering stability. Ride comfort also benefits from this ingenious axle design because a low unsprung mass makes for a particularly sensitive response from the suspension.

The new S4 generation also comes as standard with one of the most elaborate and efficient rear suspension systems around: self-tracking trapezoidal-link rear suspension, specially designed for quattro drive.

The new S4 has a particularly direct steering ratio: as far as the driver is concerned, this is a contribution to the sports-oriented handling of the agile eight-cylinder version that can be experienced in all situations. The S4 can be guided extremely precisely around all kinds of corners. A standard feature on both the saloon and the Avant is the speed-dependent servotronic, which enables precise steering at high speeds as well as effortless manoeuvring and parking.

The Audi S4 is being launched with standard-fit 8x18-inch alloy wheels produced exclusively for this vehicle. These are fitted with tyres of size 235/40 R18, uniting good road grip with direct steering properties and defined directional stability.

The braking system is also matched to the powerful potential of the Audi S4. The ventilated discs measure 340 millimetres in diameter at the front, 300 mm at the rear. The system is operated via a dual-rate servo. This assists the driver during extremely hard braking by automatically increasing the servo rate.

The equipment

The top sports model in the A4 series: this claim is also satisfied by the standard equipment specification that the S4 and S4 Avant offer.

This of course includes safety features such as full-size front airbags with two-stage activation, side airbags integrated into the seat backs and the head airbag system known as sideguard which covers the entire side window area and the

A-posts. The front seats now have active head restraints, and a seat belt reminder function is also new.

Active safety benefits from the electronic stabilisation program ESP and the high-performance brake system with dual-rate servo and brake assist. Standard features also include quattro permanent four-wheel drive which converts engine power with unflinching efficiency into forward movement and also ensures extremely safe handling in all road and weather conditions.

The S4 sports suspension lowers the vehicle's ride height by 20 millimetres and – apart from its sporty appearance – means a clear advantage in terms of dynamic handling.

The exterior of the S4 models differs from the other models in the A4 series through Avus-design cast aluminium wheels of size 8x18-inch. Other identifying features include electrically adjustable and heated aluminium-design exterior mirrors, a newly styled rear spoiler on the saloon (roof spoiler on the Avant), an original radiator grille with grid pattern and exclusive front and rear bumpers.

A further highlight in the standard equipment package are the particularly bright xenon plus headlights. These can be combined as an option with the dynamic cornering light technology known as adaptive light.

The S4 Avant is fitted as standard with roof rails – either in anodised or black aluminium. The high-gloss package, another standard feature, contains aluminium-look roof drip mouldings and window capping strips.

Inlays in Carbon Atlas or, as a no-cost option, Piano finish black, Aluminium silver or Fine-grained Birch wood grey offer all drivers the chance to customise their car's interior. S4 badges on the nose and tail, on the door sill trims, in the instrument cluster, on the dashboard and on the newly designed 3-spoke sports steering wheel clearly indicate this Audi's special status, even when stationary.

In addition to the standard specification, numerous optional extras provide scope for numerous different versions so that each S4 can be designed individually and in keeping with the customer's personal taste. Here are just a few examples:

Audio systems, with 6 CD changer in the glove box and BOSE sound system as an option, provide a musical contrast to the sporty sound of the engine and, depending on features, traffic information using RDS technology.

The new Audi radio-navigation system plus with DVD drive not only enables almost limitless navigation throughout Western Europe, it can also be used to play audio and MP3 CDs. Its operating principle follows the same clear logic as the Audi MMI, familiar from the A8 and A6. The 6.5-inch colour display shows the map and the visual route description, while the driver information system translates the corresponding directions into pictograms and adds information on distances and arrival time.

The solar sunroof, which supplies power to the car's ventilation system when the ignition is turned off, ensures a particularly high standard of comfort in high outside temperatures.