

# The new BMW 5 Series Touring. Contents.



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# The new BMW 5 Series Touring. Model variants from launch.



**BMW 530i Touring:** Four-cylinder petrol engine, eight-speed Steptronic transmission.

Capacity: 1,998 cc,

Output: 185 kW/252 hp at 5,200 – 6,500 rpm,

max. torque: 350 Nm (258 lb-ft) at 1,450 – 4,800 rpm,

Acceleration [0 – 100 km/h (62 mph)]: 6.5 seconds,

top speed: 250 km/h (155 mph),

Fuel consumption, combined\*: 6.3 – 5.8 l/100 km (44.8 – 48.7 mpg imp),

CO<sub>2</sub> emissions, combined\*: 143 – 133 g/km.

**BMW 540i xDrive Touring:** Six-cylinder in-line petrol engine, eight-speed Steptronic transmission.

Capacity: 2,998 cc,

Output: 250 kW/340 hp at 5,500 – 6,500 rpm,

max. torque: 450 Nm (332 lb-ft) at 1,380 – 5,200 rpm,

Acceleration [0 – 100 km/h (62 mph)]: 5.1 seconds,

top speed: 250 km/h (155 mph),

Fuel consumption, combined\*: 7.7 – 7.3 l/100 km (36.7 – 38.7 mpg imp),

CO<sub>2</sub> emissions, combined\*: 177 – 167 g/km.

**BMW 520d Touring:** Four-cylinder diesel engine, six-speed manual gearbox (optional: eight-speed Steptronic transmission).

Capacity: 1,995 cc,

Output: 140 kW/190 hp at 4,000 rpm,

max. torque: 400 Nm (295 lb-ft) at 1,750 – 2,500 rpm,

Acceleration [0 – 100 km/h (62 mph)]: 8.0 seconds (7.8 seconds),

top speed: 230 km/h [143 mph] (225 km/h [140 mph]),

Fuel consumption, combined\*: 4.9 – 4.5 l/100 km [57.6 – 62.8 mpg imp] (4.7 – 4.3 l/100 km [60.1 – 65.7 mpg imp]),

CO<sub>2</sub> emissions, combined\*: 129 – 119 g/km (124 – 114 g/km).

**BMW 530d Touring / BMW 530d xDrive Touring:** Six-cylinder in-line diesel engine, eight-speed Steptronic transmission.

Capacity: 2,993 cc,

Output: 195 kW/265 hp at 4,000 rpm,

max. torque: 620 Nm (457 lb-ft) at 2,000 – 2,500 rpm,

Acceleration [0 – 100 km/h (62 mph)]: 5.8 seconds / 5.6 seconds,

top speed: 250 km/h (155 mph) / 250 km/h (155 mph),  
Fuel consumption, combined\*: 5.1 – 4.7 l/100 km (55.4 – 60.1 mpg imp) /  
5.7 – 5.3 l/100 km (49.6 – 53.3 mpg imp),  
CO<sub>2</sub> emissions, combined\*: 134 – 124 g/km / 149 – 139 g/km.

\* Figures according to EU test cycle, may vary depending on the tyre format specified.  
All performance, fuel consumption and emissions figures are provisional.

Further information on official fuel consumption figures, specific CO<sub>2</sub> emission values and the electric power consumption of new passenger cars is included in the following guideline: "Leitfaden über Kraftstoffverbrauch, die CO<sub>2</sub>-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Guideline for fuel consumption, CO<sub>2</sub> emissions and electric power consumption of new passenger cars), which can be obtained from all dealerships, from Deutsche Automobil Treuhand GmbH (DAT), Hellmuth-Hirth-Str. 1, 73760 Ostfildern-Schornhausen and at <http://www.dat.de/en/offers/publications/guideline-for-fuel-consumption.html>. LeitfadenCO<sub>2</sub> (GuidelineCO<sub>2</sub>) (PDF – 2.7 MB)

# Design and equipment. Athletic, distinctive and strikingly versatile.



With surface contouring that creates a clearly defined athletic build and dynamically stretched lines, the exterior design of the new BMW 5 Series Touring clearly expresses the blend of driving pleasure and versatility for which this model is renowned. The vehicle's tail section has an individual design language that symbolises the increased amount of space on offer in this model variant and its functional, flexible usability. The new BMW 5 Series Touring is 36 millimetres longer than the outgoing model (at 4,943 millimetres), eight millimetres wider (1,868 millimetres) and ten millimetres taller (1,498 millimetres). Plus, the wheelbase has been extended by seven millimetres to 2,975 millimetres, helping to further increase the room available for both occupants and luggage.

## **Front end: striking sportiness and elegant presence.**

The styling of the car's front end instantly projects the sporty essence of the new BMW 5 Series Touring. The headlights extend as far as the BMW kidney grille, thereby forming a continuous strip that gives added impact to the car's width while also combining with the lower air intake to emphasise its powerful stature.

The new BMW 5 Series Touring is equipped as standard with LED headlights that also employ LED units as the light source for the daytime driving lights. The design of the optional Adaptive LED Headlights provides an even more expressive take on the focused gaze of the trademark BMW light rings that are "cut off" at the top and flattened at the bottom. A horizontal bar joining the inner daytime driving light ring with the BMW kidney grille accentuates the front end's sense of width and dynamism. BMW Selective Beam anti-dazzle high beam with a range of up to 500 metres is available as a further option in conjunction with the Adaptive LED Headlights.

## **Side view: geometry all of its own, harmonious proportions.**

When viewed from the side, the vehicle's individual geometry and harmonious proportions clearly stand out. The sporty aura of the new BMW 5 Series Touring is further intensified by the long roof line, which flows into heavily raked D-pillars. The elongated silhouette brings a new element of the surface styling to the fore: the distinctive swage line turns up as it heads rearwards, thereby passing from shadow to light. Its upper branch merges into the

contour that encircles the sweeping “flick” in the side window outline – the Hofmeister kink – while the lower line tapers off into the rear light unit.

**Rear design: horizontal lines that emphasise width.**

The highly expressive rear end of the new BMW 5 Series Touring is a picture of power. The rear window is bordered by a roof spoiler with integral auxiliary brake light at the top and air deflectors at the sides. In the lower section, a series of prominent horizontal lines and the L-shaped rear lights – with their flat-design tail-light bars reaching deep into the car’s flanks – accentuate the body’s width. All engine variants of the new BMW 5 Series Touring have exhaust tailpipes on both sides at the rear. Depending on the power unit and specification, the tailpipes will be circular, trapezoidal or rectangular in design.

**Honed aerodynamics reduce drag coefficient and lift.**

Details that serve to enhance the car’s aerodynamic qualities are visible from every angle. The BMW kidney grille now comes with active air flap control, as does the lower air intake in the front apron, meaning that the flaps remain closed when little cooling air is required. In the closed position, additional vertical kidney grille bars become visible that lend the front end an even more imposing appearance. The Air Curtains (apertures in the front apron) effectively direct the onrushing air into the wheel arches, where it is channelled along the wheels before escaping again through the Air Breathers built into the car’s flanks. As a consequence, far less turbulence occurs in the wheel arches. Besides this, improvements have also been made to the airflow at the rear of the car and along its underbody.

Thanks to these measures, the drag coefficient (Cd) of the new BMW 5 Series Touring has been cut to as little as 0.27, depending on the engine variant. There has been a reduction in the degree of lift too, resulting in a better aerodynamic balance and therefore superior driving dynamics.

**Wide selection of paint finishes and light-alloy wheels.**

There is a choice of two non-metallic and 11 metallic finishes for the exterior paintwork of the new BMW 5 Series Touring. This range of colours is supplemented by various highly sophisticated and striking BMW Individual and BMW Individual Frozen paint finishes. The choice of light-alloy wheels is no less diverse: the list of optional extras and the Original BMW Accessories range offer a number of wheels varying in size from 17 to 20 inches as an alternative to the standard 17-inch light-alloy wheels.

**Sport Line and Luxury Line enable distinctive personalisation.**

Two equipment packages are offered for the new BMW 5 Series Touring (in addition to standard specification) that let customers personalise their car in a

very distinctive manner. The Sport Line lends visual expression to the advances made with the new model in terms of driving dynamics and agility, while the design features of the Luxury Line package reinforce the sense of class and elegance that pervades the new BMW 5 Series Touring. Both equipment packages include LED front foglamps as well as illuminated aluminium door sill strips bearing the BMW logo and the inscription “Sport Line” or “Luxury Line”.

The high-gloss black finish for the BMW kidney grille bars, Air Breather covers, side window surrounds, various other trim elements and tailpipes in black chrome set the tone for the eye-catching Sport Line. On top of this, there are 18-inch light-alloy wheels in a bi-colour design boasting a polished finish, with the additional option of model-specific light-alloy wheels measuring 19 inches in diameter. The interior equipment features on Sport Line models include sports seats with cloth/leather upholstery, a sports leather steering wheel and specific trim strips.

In Luxury Line guise, the new BMW 5 Series Touring comes with kidney grille bars, Air Breather covers, side window surrounds and further accents in a chrome finish, plus 18-inch multi-spoke light-alloy wheels. There is also the option of 19-inch light-alloy wheels with polished surfaces. Meanwhile, leather upholstery with contrast stitching, fine wood trim strips and Sensatec covering for the instrument panel and window sill trim give the interior an exclusive feel.

**Available from launch: the M Sport package.**

The new BMW 5 Series will also be available from launch with the M Sport package. This comprises the lowered M Sport suspension, M light-alloy wheels in an 18-inch or, as an option, 19-inch format, and the M Aerodynamics package featuring specially designed side skirts, front apron and rear apron with rectangular exhaust tailpipes. M sports seats upholstered in cloth/Alcantara, a new-look M Sport leather steering wheel, trim strips in Aluminium Rhombicle and a number of other exclusive details inject the cabin with sporty flair. The M Sport package can also be specified with standard suspension, as well as with extra options, such as Dynamic Damper Control. This allows customers to combine the visual appeal of the M Sport package with suspension technology that suits their personal preferences.

## **Interior and variability. Enhanced long-distance comfort, intelligent functionality.**



Inside the new BMW 5 Series Touring, the driver-focused cockpit design melds perfectly with the heightened premium feel engendered by the sophisticated elegance of its styling, the precisely crafted, top-class materials and the great attention to detail. The increased amount of space on offer and a host of smart details combine to ensure this body variant offers its customary adaptability. "The new BMW 5 Series Touring has a modern, eye-catching silhouette, clear contours and taut surfaces. Sportiness and precision were the key pillars in the development of its design. The interior displays a significant increase in perceived quality and modernity," says Adrian van Hooydonk, Senior Vice President BMW Group Design.

### **Enhanced feeling of spaciousness, freedom of movement and acoustic comfort.**

The interior is roomy and elegant, yet at the same time awash with sporty details. Whereas the surfaces on the instrument panel have a distinctly horizontal orientation, conveying a sense of breadth and equilibrium, the lines rise towards the driver, clearly delineating the cockpit and injecting the cabin with added dynamism. Precisely sculpted surfaces that fit together perfectly are clear evidence of the interior's tremendous quality and class. Chrome inserts with a beautifully exact fit create a graceful-looking, clearly structured appearance. The low instrument panel gives the interior a sophisticated, light and airy feel, while offering the driver a commanding view. The Control Display now takes the form of a freestanding flatscreen.

All occupants enjoy substantially more headroom, shoulder room and legroom than in the outgoing model. The optimised contouring of the backrest, longer seat cushion and increased kneeroom help to make the rear an even more luxurious place to travel. The further improved design of the door cut-outs helps passengers to get in and out of the rear compartment with ease. The interior's increased width enables as many as three child seats to be fitted easily and securely on the rear seat unit. The stowage pockets in the doors are roomy enough to hold one-litre drink bottles, while the cupholders at the front of the centre console likewise have larger dimensions than before.

Acoustic comfort in the new BMW 5 Series Touring has been increased thanks to the improvements made to the soundproofing for the windscreen, headliner and luggage compartment, and is now on a par with that in a sedan.

A panoramic sunroof is optionally available, whose two-piece glass surface – measuring 1,052 millimetres in length and 900 millimetres in width – adds to the sense of spaciousness while bathing the cabin in even more light. Both the front glass section and the “floating” headliner are power operated. The double-layer roller blind, made from material with optimised acoustic properties, slides along rails at the sides and is another contributory factor in the vehicle’s effective soundproofing.

**Increased luggage capacity and smart new details for maximum adaptability.**

The new BMW 5 Series Touring offers more room for luggage, too. When all seats are in use, there is 570 litres of luggage space, an increase of 10 litres. Depending on requirements, this can be expanded to a maximum of 1,700 litres, 30 litres more than in its predecessor. The increase in the luggage compartment’s width is particularly noticeable. Depending on the model variant, the payload capacity has been raised by up to 120 kilograms to a maximum of 720 – 730 kilograms.

A host of intelligent details give a further boost to adaptability and comfort. Standard specification includes automatic tailgate operation. This combines with the optional Comfort Access feature to allow hands-free opening and closing of the tailgate with a carefully aimed flick of the foot under the rear apron. The separately-opening rear window is a familiar brand feature that still cannot be found on any competitor models.

The luggage compartment cover and partition net are now contained in separate cartridges that can be stowed away in matching recesses underneath the luggage compartment floor. The rear backrest comprises three elements with a 40:20:40 split, which can be released remotely from the boot at the push of a button. The backrest sections are now folded flat by means of an electrical mechanism, which gently brakes the downward movement just before the horizontal position is reached. A tilt-adjustable rear backrest for creating extra luggage space is available as an option.

The button for swivelling out the optional trailer coupling has also been incorporated into the side trim of the luggage compartment. The maximum permissible trailer load on all new BMW 5 Series Touring model variants available from launch is 2,000 kilograms.

# Engines, transmissions and BMW xDrive. Driving enjoyment to order, new efficiency benchmarks.



From launch, the new BMW 5 Series Touring range will be powered throughout by new-generation BMW Group Efficient Dynamics engines. The thermodynamically optimised, aluminium four- and six-cylinder petrol and diesel units, equipped with state-of-the-art BMW TwinPower Turbo technology, offer an even better ratio of performance to fuel consumption. New efficiency standards have also been set by the transmissions and the intelligent BMW xDrive all-wheel-drive system (xDrive versions will be available at launch for two models). The new BMW 520d Touring is supplied as standard with a six-speed manual transmission, and optionally with an eight-speed Steptronic transmission. The Steptronic unit is standard specification on the BMW 530i Touring, BMW 540i xDrive Touring, BMW 530d Touring and BMW 530d xDrive Touring.

## **Petrol engines: more power and a 10 per cent reduction in CO<sub>2</sub> emissions.**

The petrol engines of the BMW 530i Touring and BMW 540i xDrive Touring come with twin-scroll turbochargers, High Precision Injection direct petrol injection, VALVETRONIC fully variable valve timing and double-VANOS variable camshaft timing, while new engine encapsulation technology reduces noise and speeds warm-up. The 2.0-litre four-cylinder petrol engine of the new BMW 530i Touring delivers peak output of 185 kW/252 hp (up 5 kW/7 hp on its predecessor), peak torque of 350 Nm (258 lb-ft), which comes on stream at just 1,450 rpm, and a 0 to 100 km/h (62 mph) time of 6.5 seconds. Combined fuel consumption of 6.3–5.8 l/100 km [44.8 – 48.7 mpg imp] and CO<sub>2</sub> emissions of 143–133 g/km are an improvement of almost ten per cent over the corresponding figures for the outgoing model.

The 3.0-litre six-cylinder in-line petrol engine powering the new BMW 540i xDrive Touring develops an impressive 250 kW/340 hp, up 25 kW/34 hp on its predecessor. Peak torque, which has increased by 50 Nm (37 lb-ft) to 450 Nm (332 lb-ft), is already on tap at 1,380 rpm. The BMW 540i xDrive Touring completes the 0 to 100 km/h (62 mph) sprint in just 5.1 seconds. Again, fuel consumption and CO<sub>2</sub> emissions are almost ten per cent better than on the outgoing model, at 7.7–7.3 l/100 km [36.7 – 38.7 mpg imp], and 177–167 g/km.

### **Diesel engines: powerful, fuel-efficient and cleaner than ever before.**

The diesel engines are fitted with a BMW TwinPower Turbo package comprising variable-geometry turbocharging and latest-generation common-rail direct injection. On the four-cylinder BMW 520d Touring, solenoid injectors operating at up to 2,000 bar ensure precise fuel metering and clean combustion, as do the piezo injectors operating at up to 2,500 bar in the six-cylinder in-line engine powering the new BMW 530d Touring and new BMW 530d xDrive. Engine-mounted encapsulation on both engines reduces noise levels and speeds warm-up. Both units also feature BMW BluePerformance technology for reduced emissions. As well as a particulate filter, an oxidation catalyst and a NO<sub>x</sub> storage catalyst, this package also includes an SCR catalyst with AdBlue injection for additional NO<sub>x</sub> reductions.

The diesel unit in the new BMW 520d Touring develops peak output of 140 kW/190 hp from a displacement of 2.0 litres, and peak torque of 400 Nm (295 lb-ft), which is on tap all the way from 1,750 to 2,500 rpm. Accelerating the BMW 520d Touring from 0 to 100 km/h (62 mph) in 8.0 seconds (automatic: 7.8 seconds), it also delivers superb efficiency, which is reflected in combined fuel consumption of 4.9–4.5 (4.7 –4.3) l/100 km [57.6 – 62.8 (60.1 – 65.7 mpg imp)] and CO<sub>2</sub> emissions of 129–119 (124–114) g/km.

The launch line-up is topped off by a 3.0-litre straight-six diesel unit developing peak output of 195 kW/265 hp and peak torque of 620 Nm (457 lb-ft) from 2,000 to 2,500 rpm. This engine can be combined with either rear-wheel drive or all-wheel drive. The 0 to 100 km/h (62 mph) times are 5.8 seconds for the new BMW 530d Touring and 5.6 seconds for the BMW 530d xDrive Touring. Combined fuel consumption is 5.1–4.7 l/100 km [55.4 – 60.1 mpg imp] for the rear-wheel drive model and 5.7–5.3 l/100 km [49.6 – 53.3 mpg imp] for the all-wheel drive version, corresponding to CO<sub>2</sub> emissions of 134–124 g/km and 149–139 g/km respectively (fuel consumption figures are calculated according to the EU test cycle and may vary depending on the tyre format). These new models deliver an improvement of up to 11 per cent in fuel consumption and emissions over the previous generation.

### **Intelligent design for improved efficiency: navigation-assisted eight-speed Steptronic transmission and Auto Start Stop function.**

With features such as carbon friction linings in the synchronisers, dry sump lubrication, a new shift mechanism and acoustic encapsulation, the six-speed manual gearbox for the BMW 520d Touring boasts improvements on efficiency, ease of shifting, weight and noise insulation. Like the six-speed unit, the eight-speed Steptronic transmission also available for the new

BMW 5 Series Touring models boasts improved acoustic performance, while its ultra-intelligent transmission management improves both sporty performance and efficiency.

Shift characteristics can be modified either by moving the selector lever into the S position or by pressing the Driving Experience Control switch. In ECO Pro mode, the coasting function decouples the engine from the powertrain whenever the driver lifts off the accelerator between 50 and 160 km/h (31 – 99 mph). On vehicles specified with the Navigation system Professional, the shift strategy also adapts to the upcoming route. For example, use of navigation data allows the intelligent transmission management to perform an early downshift when approaching an intersection, in order to take full advantage of the engine braking effect. It also allows unnecessary gear changes to be prevented when taking two bends in quick succession. For even more dynamic shifting, an eight-speed Steptronic Sport transmission is optionally available, with steering wheel paddle shifters and a Launch Control function that optimises traction when accelerating away from standstill.

Intelligent connectivity also improves the efficiency-boosting effect of the Auto Start Stop function. The Auto Start Stop control unit uses data from the navigation system and also from the driver assistance systems' cameras and radar sensors to prevent the engine being switched off at inappropriate moments, which would be counterproductive for efficiency – for example when pausing briefly at T-junctions or roundabouts.

**BMW xDrive: now combinable with all chassis systems.**

The BMW xDrive system is available for two models in the new BMW 5 Series Touring range from launch. The system now operates with even better efficiency, thanks to a more efficient transfer case design. The electronically controlled xDrive system continuously varies the power split between the front and rear wheels as conditions require, providing effortless traction and optimised stability across all driving situations. xDrive also enhances the agility of the BMW 5 Series Touring during dynamic cornering. The intelligent all-wheel drive system for the new BMW 5 Series Touring models can now be combined with Integral Active Steering and lowered M Sport suspension as well.

# Chassis and BMW EfficientLightweight. Weight savings and an even more agile driving experience.



With extensive chassis enhancements and across-the-board weight reductions, the new BMW 5 Series Touring offers class-leading driving enjoyment. Newly developed, finely tuned chassis components, and BMW EfficientLightweight advances that make the new BMW 5 Series Touring models on average up to 100 kg lighter than the outgoing models, all bring noticeable benefits for agility, steering precision and ride comfort. Also adding to the sharp dynamics and effortless handling are a balanced axle load ratio, a further increase in body rigidity, extension of the wheelbase to 2,975 millimetres (+ 7 mm) and an increase in front and rear track width to 1,605/1,630 millimetres (+ 5 mm/+4 mm).

## **Double-wishbone front suspension and five-link rear suspension both with high aluminium content; rear air suspension supplied as standard.**

The long list of chassis components on the BMW 5 Series Touring that are made of aluminium now also includes the rear trailing arms and the spring struts. The double-wishbone front suspension decouples the wheel location and damping functions. High lateral acceleration can therefore be achieved without compromising comfort, while the steering is largely unaffected by bumps in the road.

The five-link rear suspension, with its reduced weight, high structural stiffness, dual elastic bearings and optimised elastokinematics, also promotes an ideal balance between dynamics and comfort. Plus, it provides precise wheel location and excellent tracking stability in all driving situations. The large rear axle subframe mounting and supporting system provides effective decoupling of the powertrain and suspension, with benefits for acoustics. The compact rear axle design also means more boot space. Automatic self-levelling rear suspension, standard on the new BMW 5 Series Touring, maintains a constant ride height regardless of driving situation or payload, while at the same time controlling vibrations.

## **Integral Active Steering and M Sport suspension now also combinable with BMW xDrive.**

The electromechanical steering system provides extra-sharp, precise steering in dynamic cornering situations, and has a very light action when manoeuvring. Its standard Servotronic function provides speed-sensitive

power assistance. The optional Integral Active Steering system is likewise now electromechanical. Controlled steering of the rear wheels provides extra agility when cornering, sure-footed responses when changing lanes and easy manoeuvrability in town. Both the Integral Active Steering and the optional lowered M Sport suspension can now team up with BMW xDrive intelligent all-wheel drive.

The lightweight braking system and the Dynamic Stability Control (DSC), with its extensive functionality, ensure excellent stopping power and safe, assured handling. 17-inch light-alloy wheels are standard for all the new BMW 5 Series Touring models. Other light-alloy wheels are available as an option, in sizes from 17 to 20 inches.

### **Further improved Dynamic Damper Control and Adaptive Drive.**

The optional Dynamic Damper Control system, featuring new valves and a further improved control algorithm, allows drivers to optimally adjust the driving characteristics to match their individual preferences. Three different modes can be selected: COMFORT is for normal, comfortable driving (on longer trips, for example), SPORT is the right choice when seeking maximum driving pleasure and ADAPTIVE mode adapts the vehicle's responses precisely to the driver's wishes and the driving situation. The optional Adaptive Drive chassis control system combines Dynamic Damper Control with active roll stabilisation. The system takes fast, precise action to counteract body roll during dynamic cornering, while also improving comfort in straight-line driving by actively countering bump disturbances affecting only one side of the car. The anti-roll stabilisation assists sporty driving and safe, confident handling. It is actuated by means of electric swivel motors.

### **Driving Experience Control switch with ADAPTIVE mode.**

The standard Driving Experience Control switch allows drivers to choose between COMFORT, SPORT or ECO PRO drive settings. The different modes, selected at the press of a button, modify the accelerator and steering characteristics, the shift characteristics of the Steptronic transmission and the electronic damping characteristics. If the optional Dynamic Damper Control or Adaptive Drive system are specified, ADAPTIVE mode is also available. In this mode the vehicle settings are automatically adapted to the driving style at hand and, depending on vehicle specification, also to the route. If the vehicle specification includes the optional Navigation system Professional, navigation data is used to proactively adapt the vehicle set-up when approaching intersections or bends.

**Intelligent multi-material mix: stronger, lighter, more agile, more efficient.**

The body architecture of the new BMW 5 Series Touring uses an intelligent multi-material mix to combine substantial weight reductions with significant improvements in torsional rigidity and passive safety. Under the BMW EfficientLightweight banner, the proportion of high-tensile steel and aluminium has been increased even further. Further weight savings have been achieved through the use of innovative design and manufacturing processes. Lightweight design measures have been applied in every area of the vehicle – thereby preserving the fabled even weight distribution of BMW cars.

The bonnet, front side panels, doors, roof and tailgate of the BMW 5 Series Touring are now all constructed of aluminium. Replacing steel with aluminium has made the tailgate alone around 4.5 kilograms lighter than on the outgoing model. The aluminium engine cross-member and rear side members bring further weight savings of five and 11 kilograms respectively, while the cast magnesium instrument panel support is around two kilograms lighter than a corresponding steel component. A further three kilograms was saved by the integration of the electric parking brake into the rear brake callipers and six kilograms shaved off by the use of a new, lighter rear differential. Meanwhile, weight savings with the brakes and wheels have reduced unsprung mass by around nine kilograms, notably enhancing agility.

# Controls and operation, driver assistance systems.

## Innovations for greater comfort and safety.



The display and control system of the new BMW 5 Series Touring makes vehicle, navigation, communication and infotainment functions even more intuitive to use. The extension of the iDrive control system to include (among other features) BMW gesture control provides greater freedom of choice. Drivers can always use the control method they prefer and which causes the least distraction from the driving situation. The assistance systems also allow the driver to concentrate on the pleasure of the driving experience. They reduce driving stress in a variety of situations and so increase both comfort and safety.

### **Controller, touchscreen, voice command or gestures – the choice is yours.**

The standard 8.8-inch Control Display (a 10.25-inch version is optionally available) now takes the form of a free-standing touchscreen. This means that, along with the Touch Controller and the direct access/favourites keys, it is now possible to employ smartphone and tablet-style selection and activation techniques. Whichever method is used, the new tile-look menu system helps to make for easy and intuitive operation. And the line-up of innovative features does not end there: the voice control system now also accepts instructions formulated in everyday language rather than set commands and BMW gesture control responds to simple hand or finger movements, which are detected by a 3D sensor in the vicinity of the centre console and translated into corresponding commands.

With a projection area that is now 70 per cent larger, the new BMW Head-Up Display represents another advance in the display and control system. The information is reflected onto the windscreen, and therefore into the driver's immediate field of vision – in full colour and at 400 x 800 pixels.

### **Progressing systematically towards automated driving.**

The new BMW 5 Series Touring also points the way to automated driving with its new assistance systems. Together with the standard-fit stereo camera, optional radar and ultrasonic sensors ensure comprehensive monitoring of the area around the vehicle.

Standard equipment for the new BMW 5 Series Touring includes not only the Collision Warning and Pedestrian Warning with City Braking function, but also

Cruise Control with Braking function. The optional Active Cruise Control (ACC) with Stop & Go function can be used at speeds from 0 to 210 km/h (0 – 130 mph). This can brake the vehicle to a standstill and allow it to move off again automatically after a pause of up to 30 seconds. The result is much less stressful driving, particularly on motorway-type roads. For smooth and precise speed adjustment, the sensors monitor not only the vehicle immediately in front, but the one in front of that as well. At the touch of a button, speed restrictions detected by the Speed Limit Info system can be incorporated into ACC. When doing this, the driver can choose to apply the exact speed detected or to allow the ACC to vary the limit within a range of -15 km/h to +15 km/h (-9 to +9 mph). In combination with the Navigation system Professional, speed restrictions further along the route can be taken into account, thereby ensuring a forward-thinking and efficient driving style.

The Steering and lane control assistant, which also operates in the speed range from 0 to 210 km/h (130 mph), represents another step towards automated driving. This steering assistance system works with the driver to help keep the vehicle within the current lane. Its sensors take their cues from the road markings and, in tailbacks and stop-start traffic especially, the vehicle in front. The system's hands-on-wheel detection is very sensitive, and can identify hand contact even when only a few fingers are in contact with the wheel.

### **Always on the right track thanks to steering assistance.**

The Lane Keeping Assistant intervenes in the steering system to help manage challenging driving situations at speeds between 70 and 210 km/h (44 – 130 mph). It comprises the Lane Departure Warning system, which alerts the driver if the vehicle crosses lane markings unintentionally, as well as the Lane Change Warning which monitors lane changing manoeuvres and helps the driver to steer back into the original lane if a risk of a collision is detected. These systems are complemented by the Side Collision Warning system which operates at speeds between 30 and 210 km/h (18 – 130 mph). This triggers a visual signal and steering wheel vibration if another vehicle is encroaching from the side. If sufficient space is detected on the opposite side, the system correctively steers the vehicle in this direction.

The Lane Change Assistant can be used on motorways and dual carriageways when the Steering and lane control assistant is active. A long press of the direction indicator in the required direction is all it takes to initiate a lane change when travelling at between 70 and 180 km/h (44 – 112 mph). If the sensors detect that there is space in the adjacent lane and that no other vehicle is approaching at high speed, the driver benefits from helpful steering assistance during the lane change. Another new feature is the evasion aid. If a

swift lane change is required because an obstacle has suddenly appeared in the driver's path, the evasion aid – which operates at speeds up to 160 km/h (99 mph) – supports the necessary evasive steering action.

**Intelligent systems keep the driver informed and warn of hazards.**

The line-up is completed by systems which keep the driver better informed when manoeuvring and provide warning of hazardous driving situations. The available systems include not only Park Distance Control and the rear-view camera, but also the Surround View system. This shows a 3D image of the vehicle and its surroundings from various angles on the Control Display. Radar sensors are used by the Crossing traffic warning system to assist the driver at junctions and exits with restricted visibility or when manoeuvring out of perpendicular parking spaces.

The Crossroads warning system reacts with visual and audible warnings when road signs detected by the stereo camera indicate that the driver has failed to notice that the vehicle is approaching another road whose traffic has priority. Navigation data is taken into account by the Wrong-way warning system to identify hazardous situations. This system detects if the vehicle is driving the wrong way when entering one-way streets, roundabouts or motorways. BMW Night Vision makes for greater driving pleasure and safety at night. This night vision system produces a real-time video image on the Control Display showing people, larger animals and other objects which emit heat; a marker light function is also included.

**Perfect parking: automatic or remote controlled.**

The new BMW 5 Series Touring's Parking Assistant enables the automatic selection and use of parallel, perpendicular and angled parking spaces. The parking spaces are detected by ultrasonic sensors when driving past them. Working with the Steptronic transmission, the system then takes care of the acceleration, braking, steering and gear changes necessary to manoeuvre into the space. In models with a manual gearbox, the Parking Assistant handles the steering part of the parking manoeuvre while assisting the driver with cockpit displays indicating the correct points at which to change between forward and reverse gears.

The Remote Control Parking function makes parking even easier. In order to allow the vehicle to also make use of narrow parking spaces, the driver can activate the required manoeuvre (driving forwards into a space or reversing out of it) from outside the vehicle using the BMW Display Key. All the acceleration and braking manoeuvres involved in this process are monitored by the driver assistance sensors and are controlled by the driver. The engine can also be started and switched off remotely using the BMW Display Key.

# BMW Connected and ConnectedDrive. Intelligent connectivity.



New services and its all-encompassing BMW Connected system allow the new BMW 5 Series to offer a degree of intelligent connectivity between driver, vehicle and surroundings that is unique in its segment. With its innovative functions, the BMW Connected personal mobility assistant is able to support the driver in reaching their destination comfortably and without stress, even from outside their BMW.

## **BMW Connected: seamlessly integrated into the user's digital lifestyle.**

Using the flexible Open Mobility Cloud platform, BMW Connected links the user's car with their various digital touchpoints, such as an Apple iPhone and Apple Watch or Android smartphone and smartwatch. In this way, the personal mobility assistant integrates seamlessly into the driver's digital lifestyle. It identifies mobility-related information, such as appointments and addresses contained in calendar entries, and uses this to calculate the route. Real-time traffic information is used to determine the ideal departure time, notification of which is sent to the driver's smartphone. When it is time to set off, the car's navigation system – which is likewise linked up with the Open Mobility Cloud – is able to access the calculated route. Regular destinations and personal mobility patterns are stored automatically by BMW Connected.

## **A range of services for infotainment, convenience and safety.**

The new digital services complement already familiar infotainment, convenience and safety functions. This means that the Concierge Service, which provides personalised information, Online Entertainment with access to millions of music tracks and audio books, the RTTI (Real Time Traffic Information) service and many apps are all still available. The SIM card embedded in the vehicle as standard also allows the new BMW 5 Series Touring to use the Intelligent Emergency Call system with automatic vehicle location and accident severity detection.

## **In a league of its own: On-Street Parking Information.**

The unique On-Street Parking Information service assists the driver with finding a parking space. As with RTTI, intelligent connectivity is used to draw conclusions from historical and current data regarding roadside parking space availability.

### **Microsoft Exchange and Apple CarPlay usable in the vehicle.**

BMW is the first vehicle manufacturer to offer a secure server connection for exchanging and editing emails, calendar entries and contact details using the Microsoft Exchange function built into the vehicle. This makes it possible for addresses from appointments to be imported straight into the navigation system and for telephone numbers to be dialled using the linked mobile phone. Apple CarPlay can also be used in the new BMW 5 Series Touring. BMW is the first car manufacturer to integrate this service into its control system fully wirelessly.

### **Display Key, Remote 3D View, wireless charging and a high-speed hotspot.**

Drivers of the new BMW 5 Series Touring are permanently linked to their vehicles by the BMW Display Key. The colour touchscreen display allows the driver to check, among other things, whether the vehicle's doors, windows and panoramic glass roof are closed. It is also possible to call up the car's fuel level and remaining range as well as service-relevant information. Furthermore, the Remote 3D View function allows drivers to relay a three-dimensional live image of the vehicle and its surroundings (generated by the Surround View system) to their smartphone by means of BMW Connected.

Mobile phones with inductive charging capability can be supplied with power wirelessly in the new BMW 5 Series Touring. The charging tray required for this is located in the centre console. Another option is a WiFi hotspot offering a high-speed internet connection (LTE) for up to ten mobile devices.

### **Intelligent connectivity enables navigation data updates and car-to-car communication for hazard warning.**

The latest generation of the Navigation system Professional boasts quicker start-up, even faster route calculation and optimised 3D graphics for city maps. Thanks to the automatic map updates, which are free for the first three years, the navigation data is updated regularly "over the air" using the mobile phone connection. Furthermore, the vehicle sends data on speed restrictions detected by the Speed Limit Info system to the BMW backend, which uses this information to update the on-board navigation map in real time. In this way, the driver is always informed in advance about upcoming restrictions.

In order to provide warning of hazardous driving situations, car-to-car communication is now also implemented among the vehicles of the interconnected BMW fleet. Warnings about hazards detected, for example an accident, a broken-down vehicle, dense fog, heavy rain or ice are also relayed to the BMW backend, from where they are incorporated into the navigation system of the driver's vehicle as well as those of other vehicles in the vicinity.