The New BMW 5 Series Touring.
Table of Contents.

1. Efficiency Meets Driving Pleasure, Elegance Meets Versatility. The New BMW 5 Series Touring.

The new BMW 5 Series Touring is the perfect symbiosis of driving pleasure, efficiency, versatility and sporting elegance. The 4th generation of the Business Touring convinces through powerful design aesthetics, modern premium-level functionality and brand-typical driving dynamics combined with exemplary efficiency. Extensive comfort and safety features, which include numerous BMW-exclusive driver assistance systems, substantiate the outstanding qualities of the new BMW 5 Series Touring as an upper midrange touring car.

Design: individual styling, sporting elegance.
The design of the new BMW 5 Series Touring is characterised by a high level of individuality with regard to its proportions and surface design. Its uniqueness is reflected by dynamic and powerful looks. With its long bonnet, short overhangs, the longest wheelbase in its segment, the stretched silhouette and a steeply inclined roofline, the new BMW 5 Series Touring possesses an elegance unrivalled by its competitors.

Versatility: intelligent solutions for modern functionality.
Thanks to a multi-functional interior and intelligent detail solutions, the new BMW 5 Series Touring is fully equipped to meet the most diverse demands. The luggage compartment has a capacity of 560 litres. If desired, an increase in capacity to a maximum of 1,670 litres is guaranteed by 40:20:40 split folding rear seats, which are unique in this segment. The backrest angle is variable by up to 11 degrees. The backrest can be folded down using two control levers inside the luggage compartment, the loading space cover of which is automatically lowered when the tailgate is closed. The separately opening rear window automatically swings upwards at the push of a button.

The driving experience:
supreme dynamics and outstanding comfort.
The most advanced drivetrain and suspension technologies ensure supreme sportiness and a higher level of motoring comfort. Optional Dynamic Driving Control enables drivers to set the suspension individually to their personal requirements. The new BMW 5 Series Touring features as standard pneumatic suspension on the rear axle, including automatic self-levelling. Adaptive Drive and Integral Active Steering are optionally available.

The new BMW 5 Series Touring is making its debut with a choice of two straight-six petrol engines as well as a four-cylinder and a six-cylinder diesel.

The BMW 520d Touring is powered by a 135 kW/184 bhp four-cylinder turbo diesel power unit featuring an aluminium crankcase and Common Rail direct injection. It is equipped with Auto Start Stop function as a standard feature, and with an average fuel consumption of 5.2 litres/100km (54.3 mpg) and a CO_2 emission level of 137 g/km in an EU test cycle, it achieves the best efficiency in its segment.

The straight-six engine with BMW TwinPower Turbo under the bonnet of the BMW 535i Touring, with High Precision Injection and VALVETRONIC, develops a power output of 225 kW/306 bhp. Maximum power output of the straight-six engine featured in the BMW 523i Touring in lean operation is 150 kW/204 bhp. The BMW 530d Touring features a straight six-cylinder diesel with a 180 kW/245 bhp output. Thanks to BMW BluePerformance technology it fulfils the EU6 emission standard. All versions of the new BMW 5 Series Touring fully comply with the EU5 requirement.

BMW EfficientDynamics:
BMW 5 Series increases the lead even further.
All versions of the new BMW 5 Series Touring are optionally available with BMW's eight-speed automatic transmission. Like the electro-mechanical power steering EPS utilised on all variants, it makes an additional contribution towards efficiency. Depending on the model, the standard BMW EfficientDynamics measures comprise brake energy regeneration, Auto Start Stop function (BMW 520d), gearshift point indicator, demand-dependant ancillary components and active air flap control. An intelligent lightweight construction is obtained through doors, bonnet, front side panels, drivetrain and suspension components made of aluminium.

Innovative driver assistance systems by BMW ConnectedDrive.
The spectrum of features offered by BMW ConnectedDrive comprises, inter alia, a Parking Assistant, Surround View, collision warning with brake activation in conjunction with Active Cruise Control, Lane Change Warning, Lane Departure Warning, Speed Limit Info, High-beam Assistant, BMW Night Vision with detection of persons as well as Head-up Display. Furthermore, innovative office functions can be utilised via Bluetooth.

Joint development and production together with the BMW 7 Series.
The BMW 5 Series Touring is based on a newly developed vehicle architecture also used for the BMW 7 Series luxury sedans. Joint production of the BMW 5 Series Touring, the BMW 5 Series Sedan, the BMW 5 Series Gran Turismo and the BMW 7 Series at the BMW Dingolfing Plant, combined with the extensive use of shared components, ensures highly efficient production incorporating maximum possible quality standards.

2. Brief Description.

- The new BMW 5 Series Touring represents the continuation of the successful concept of maximum versatility, driving pleasure and aesthetics in a premium vehicle of the upper midrange segment. The 4th generation of the BMW 5 Series Touring demonstrates its versatile qualities more convincingly than ever before. The new BMW 5 Series Touring embodies the ideal balance between sophisticated elegance and high utility value whilst at the same time strengthening its position as the most sporty and efficient vehicle in its segment. Its innovative, premium character is emphasised by luxury-class equipment features. In the sum of its qualities, the new BMW 5 Series Touring will live up to the high expectations and discerning demands of an active, quality-minded and modern target group.

- Individual styling with regard to proportions and surface design characterises the design of the new BMW 5 Series Touring. With its powerful looks it is the embodiment of active sportiness and modern functionality. The long, contoured bonnet, short overhangs and the longest wheelbase in its segment are features typical of the brand. Together with a stretched silhouette, extended and slightly wedge-shaped window surfaces and a coupe-like roofline they give the new BMW 5 Series Touring a unique elegance unmatched by rivals. Like the new BMW 5 Series Sedan, an upright front section, the BMW kidney grille slightly inclined from certain perspectives, brand-typical double round headlights and the wide lower air intakes provide the vehicle with a charismatic appearance. The muscular rear end and powerfully flared wheel arches emphasise the solid physique and sportiness of the new BMW 5 Series Touring.

- Inside the car, horizontal surfaces and dynamic lines create a generous and harmonious ambience. The clearly structured cockpit enhances orientation towards the driver. High-grade materials and elaborate details underline the premium character of the new BMW 5 Series Touring. Through a further increased amount of interior space and modern functionality, the vehicle caters for the multifaceted requirements in the areas of business, leisure time activities and travel. Luggage compartment volume can be extended stepwise from 560 to a maximum of 1,670 litres. The function of the rear seats is unique in its segment, ensuring the

highest degree of variability. They are 40:20:40 split-folding and can be inclined by up to 11 degrees in seven individual stages. The backrest can be split folded 60:40 using two control levers inside the luggage compartment, the loading space cover of which is automatically raised and lowered when the tailgate is opened and closed. The separately opening rear window automatically swings upwards at the push of a button.

- Thanks to the standard BMW EfficientDynamics measures, the new BMW 5 Series Touring continues to strengthen its segment leadership in terms of efficiency. All engines comply with the EU5 emission standard, the new BMW 530d fulfilling the EU6 standard with optional BMW BluePerformance technology. The BMW 520d features as standard the Auto Start Stop function. An intelligent lightweight construction is obtained through doors, bonnet, front side panels, drivetrain and suspension components made of aluminium.

- The new BMW 5 Series Touring is making its debut with a choice of two straight-six petrol engines as well as a four-cylinder and a six-cylinder diesel. The petrol engine featured in the BMW 535i Touring delivers 225 kW/306 bhp and 150 kW/204 bhp in the BMW 523i Touring respectively. The BMW 530d Touring is powered by a 180 kW/245 bhp straight six-cylinder diesel engine. And the BMW 520d Touring by a four-cylinder diesel with 135 kW/184 bhp, achieving the highest degree of efficiency in its segment with an average fuel consumption of 5.2 litres/100km (54.3 mpg) and a CO_2 emission level of 137 g/km in an EU test cycle.

- An eight-speed automatic transmission is optionally available for all versions of the new BMW 5 Series Touring. A sports version of the automatic transmission featuring shift paddles on the steering wheel is also available. Thanks to an innovative gearset configuration, unsurpassed inner effectiveness and optimised weight, the eight-speed automatic transmission combines shift comfort, dynamics and efficiency at the highest level.

- Outstanding characteristics in terms of dynamics and comfort are achieved by a combination of front axle with a double-track control arm and an integral V rear axle. The new BMW 5 Series Touring features as standard a pneumatic suspension on the rear wheels with automatic self-levelling. An additional enhancement of efficiency is obtained through electro-mechanical power steering, which is being used for the first time in the BMW 5 Series and which includes as standard the Servotronic function. Optional Integral Active Steering technology comprises the

active steering of the front wheels and situation-dependent rear-axle steering with a maximum steering angle of 3 degrees. This technology results in the turning circle being reduced by 0.5 metres.

- The handling of the BMW 5 Series Touring is characterised by further enhanced dynamics and a likewise significantly noticeable increase in comfort. Its agility is oriented towards the standards set by the BMW 3 Series, its superiority reaching the level of the BMW 7 Series luxury sedan. Driving Dynamic Control available in conjunction with optional automatic sports transmission, Dynamic Damper Control and Integral Active Steering allows the characteristics to be adjusted individually according to preference.

- The clearly structured and driver-oriented cockpit with intuitive controls enhance the typical BMW driving pleasure to an even higher level, underlining at the same time the sophisticated ambience within the passenger compartment of the new BMW 5 Series Touring. Standard features include an instrument cluster featuring Black Panel technology, multifunction steering wheel and the iDrive control system of the latest generation with a controller located on the centre console, direct selection and preference buttons and either a 10.2-inch or a 7-inch control display which is harmoniously integrated into the dashboard. Optional Head-up Display, which has been further optimised with regard to display complexity, resolution and size, is also available.

- BMW ConnectedDrive offers a unique range of functions for enhanced comfort, safety and infotainment. Like the sedan, the new BMW 5 Series Touring comes with new driver assistance systems, which include a Parking Assistant, a collision warning and brake activation function in conjunction with Active Cruise Control and Stop & Go as well as Surround View. In addition, the range of features offered by BMW ConnectedDrive comprises innovative office functions available via Bluetooth. These are realised through optimised integration of the communication and entertainment functions of external smartphones, which permit, inter alia, audio streaming via a Bluetooth connection. Further options are Head-up Display, Lane Departure Warning, Lane Change Warning, Speed Limit Info, High-beam Assistant, BMW Night Vision with detection of individual persons, Park Distance Control and reversing camera. Furthermore, BMW ConnectedDrive includes BMW Online innovative online and telematics services, BMW Assist, BMW TeleServices, the option to use the Internet in the car, including navigation functions with Google support.

- The new BMW 5 Series Touring boasts a particularly stiff body structure with optimised weight. The exemplary high standard of passenger protection is complemented, in addition to the stable passenger compartment, by extensive safety features fitted as standard, which include 3-point automatic seat belts on all seats, front and side airbags, crash-active headrests for driver and front seat passenger, side curtain airbags and tyre defect indicator. The active bonnet serves to optimise pedestrian protection. Daytime driving lights, fog lamps, two-stage adaptive brake lights and Cruise Control with brake activation function all come as standard. Bi-xenon adaptive headlights with variable light distribution, adaptive headlight range control and cornering lights as well as an enhanced emergency call function with automatic locating of the vehicle via BMW ConnectedDrive are all available as options.

- The wide range of sophisticated features offered as standard in the new BMW 5 Series comprises Comfort Start without requiring the driver to even insert the key, the BMW Professional radio complete with a CD player, an AUX-in connection and six loudspeakers, automatic air conditioning with separate temperature control on the driver's and front passenger's side as well as an integrated owner's manual. The exclusive comfort options, which are clearly oriented to the luxury class, include Comfort Access, a USB connection, a multi-channel audio system, rear seat entertainment systems, four-zone automatic air conditioning, active seats, Soft Close Automatic for the doors as well as a panorama sunroof. The modern functionality of the new BMW 5 Series Touring can be additionally enhanced by the optional luggage compartment package, ski and snowboard bag, roof luggage rails, electric tailgate operation as well as an electrically retractable trailer bar.

- Power units:
  BMW 535i Touring: Straight six-cylinder TwinPower Turbo,
  direct injection (High Precision Injection) and VALVETRONIC,
  Cubic Capacity: 2,979 cc, output: 225 kW/306 bhp at 5,800 rpm,
  Maximum torque: 400 Nm at 1,200 – 5,000 rpm,
  Acceleration [0 – 100 km/h]: 6.0 (automatic: 6.1) seconds,
  Top speed: 250 km/h,
  Average fuel consumption according to: 8.6 (automatic: 8.5) litres/100 km,
  CO_2 emission according to EU: 201 (automatic: 197) g/km,
  emission standard: EU5.

BMW 523i Touring: Straight six-cylinder petrol engine with direct injection (High Precision Injection) in lean operation,
Cubic capacity: 2,996 cc, output: 150 kW/204 bhp at 6,100 rpm,
Maximum torque: 270 Nm at 1,500 – 4,250 rpm,
Acceleration [0 – 100 km/h]: 8.2 (automatic: 8.4) seconds,
Top speed: 231 (automatic: 227) km/h,
Average fuel consumption according to EU: 7.9
(automatic: 7.8) Liter/100 km,
CO_2 emission according to EU: 185 (automatic: 182) g/km,
emission standard: EU5.

BMW 530d Touring: Straight-six diesel engine with aluminium crankcase, turbocharger with variable turbine geometry and Common Rail direct injection (piezo injectors, max. injection pressure: 1,800 bar),
Cubic capacity: 2,993 cc, output: 180 kW/245 bhp at 4,000 rpm,
Maximum torque: 540 Nm at 1,750 – 3,000 rpm,
Acceleration [0 – 100 km/h]: 6.4 (automatic: 6.4) seconds,
Top speed: 243 (automatic: 242) km/h,
Average fuel consumption according to EU: 6.4
(automatic: 6.3) litres/100 km,
CO_2 emission according to EU: 169 (automatic: 165) g/km,
emission standard: EU5.

BMW 520d Touring: Four-cylinder diesel engine with aluminium crankcase, turbocharger variable turbine geometry and Common Rail direct
injection (solenoid injectors, max. injection pressure: 1,800 bar),
Cubic capacity: 1,995 cc, output: 135 kW/184 bhp at 4,000 rpm,
Maximum torque: 380 Nm at 1,750 – 2,750 rpm,
Acceleration [0 – 100 km/h]: 8.3 (automatic: 8.3) seconds,
Top speed: 222 (automatic: 220) km/h,
Average fuel consumption according to EU: 5.2
(automatic: 5.3) litres/100 km,
CO_2 emission according to EU: 137 (automatic: 139) g/km,
emission standard: EU5.

3. Design: Individual Styling, Sporting Aesthetics.

- **Well-balanced proportions with an original look.**
- **Charismatic front end, dynamically stretched silhouette, muscular rear end.**
- **Interior styling combines modern functionality with a premium ambience and a high level of driver orientation.**

The body design of the new BMW 5 Series Touring signalises sophisticated elegance combined with active sportiness. Its dynamically stretched silhouette, side window surfaces extending to the rear end and a coupe-like roofline result in a unique interpretation of the touring concept that corresponds to the appealingly well-balanced character of the new BMW 5 Series Touring. Sporty handling characteristics, modern functionality in a high-class ambience and variably utilisable interior space offering possibilities for numerous activities are authentically expressed through powerful aesthetics, sophisticatedly designed surfaces and elaborately executed details. Moreover, like the new BMW 5 Series Sedan, the vehicle's elegant appearance reflects both the representative status and the enhanced motoring comfort of this latest touring model in the upper midrange segment.

The communalities in design of the new BMW 5 Series Touring and the new BMW 5 Series Sedan are restricted to the front end and extend to the B-pillars of the body. As a result, the touring model also possesses an expressive and carefully styled front end, including the features typical of BMW, which have been reinterpreted for this series. In addition, all crucial design principles, which also characterise the appearance of the sedan, have been implemented on the new BMW 5 Series Touring in a form that corresponds to the model-specific car body concept. Thanks to sculptural styling, the body of the new BMW 5 Series Touring appears to be made from one cast. Perfectly balanced proportions reflect a harmonious weight distribution between the front and rear axles. The long bonnet, short overhangs and a dynamic, wedge-shaped silhouette provide the vehicle with a sporty and active, forward-moving appearance. Like the sedan, the new BMW 5 Series Touring has the longest wheelbase in its segment, measuring 2,968 millimetres.

Through precisely contoured vehicle surfaces the car makes an even-tempered and superior overall impression at first glance. Only from

a shorter distance and from a different perspective do the subtle light and shade effects become visible, revealing the three-dimensional character of the convex and concave surfaces. Elaborate details such as chrome design elements with integrated side indicators, door openers embedded into the side contour lines and the harmonious roofline extending to the trailing edge underline the premium character of the new BMW 5 Series Touring. The counter-swing – also known as the "Hofmeisterknick" – for the rear section of the integral side window surround at the base of the D-pillar is both a characteristic and sophisticated element.

Charismatic appearance:
concentrated look and a forward-moving character.
The expressive front end of the new BMW 5 Series Touring convincingly accentuates the sporting and representative character of the model through brand-typical but reinterpreted design features. The upright BMW kidney grille, which even appears to be leaning forward when viewed from certain perspectives, symbolises the vehicle's forward-moving character and, together with the powerfully flared wheel arches, gives the car a charismatic presence. Four contour lines sweeping down into the kidney grille split the bonnet into individual sections. The two middle lines meet above the kidney grille, surrounding the BMW logo. The wide air intake with round fog lamps positioned far to the outside provides a particularly sporting note through its division into three sections, with two horizontal bars dividing the air scoop on both sides. These bars extend further on to the inside at kidney grille level, rendering the centre section of the air intake one complete, harmonious unit. Together with the contours of the air intake rising up to the outside, they emphasise the width of the front end, directing the onlooker's eye onto the wheel arches.

The headlight units extending far into the side panels also serve to emphasise the width of the car. The actual light sources are two cylinder-shaped headlights, with the dual round headlights cut off at the top by a trim panel creating the concentrated look so typical of a BMW and reminiscent of an athlete on the starting line. In conjunction with the optional Xenon headlights, the daytime driving lights incorporate quite unmistakable LED light rings, while the direction indicators moved far to the outside are made up of ten LED units each. As a final highlight, an LED focus light marks the upper end of each headlight unit.

Side view: dynamically stretched contours, flat silhouette.
The handling characteristics of the new BMW 5 Series combine superior agility with outstanding riding comfort. An adequate balance between sportiness and elegance is also reflected in the design of the

new BMW 5 Series Touring. The side view particularly emphasises this fact. With its stretched contours, the vehicle has a particularly flat silhouette. This is emphasised by the slightly wedge-shaped geometry of the extended window surfaces and the distinctive contour line at door opener level. This contour line runs parallel to the door cavity covers and extends as far as the taillight. Together with the coupe-like roofline it creates an overall impression of being dynamically stretched. Also, the narrow body trim above the windows gives the new BMW 5 Series Touring an air of lightness and elegance.

In the lower sections of the body, concave surfaces create lively light and shade effects, emphasising the sporting character of the BMW 5 Series Touring. Greater curvature around the rear wheel arches bears testimony to rear-wheel drive. At this point, the body boasts its maximum width, standing firmly on the rear wheels.

The dynamic contours of the vehicle are further emphasised by the counter-swing – also referred to as the “Hofmeisterknick” – at the bottom of the D-pillar. Furthermore, the new versions of the optional roof luggage rails, which are flat-mounted, solid one-piece elements, contribute towards the silhouette’s appearance. The roof luggage rails, available in satin finish aluminium, black and individual black, are flush with the roofline at the rear where their contours merge with the side edge of the roof spoiler.

Powerful looks, wide luggage compartment hatch:
rear end design signalises sporting and active versatility.
The sculptural design so characteristic of the BMW 5 Series is also responsible for a smooth transition between the side panels and the rear end of the new touring model. The contour lines continue in the contour of the taillights and join above the number plate recess. Furthermore, seen from the rear, the concave surface between the contour line and the wheel arches give the body a distinctly visible waistline. The flared wheel arches and the horizontal breakdown of the rear end strongly emphasise the powerful stature of the new BMW 5 Series Touring, the wide track and the wheels ending flush with the wheel arches, further enhancing this impression.

The wide rear window surface gives indication of the generously dimensioned luggage compartment hatch. The third brake light positioned above the rear window on the visible edge of the roof spoiler is recognisable even when inactive. The vertically divided, L-shaped rear light clusters reflect a brand-typical appearance and provide an unmistakable “night design”. Two rows of LED lights recessed well into the tailgate are characteristic of homogeneously glowing BMW light elements. Moreover, the direction indicators and brake lights also feature LED technology.

Characteristic “night design" featuring innovative light technology.
Innovative technology gives the new BMW 5 Series Touring a particularly striking look at night, both from the front and from behind. Through their clear shapes and precisely defined signalling effect, both the headlights and the taillights contribute significantly to the fact that even from a distance – just like the sedan – the new BMW 5 Series Touring is unmistakeably recognisable as a BMW.

The LED corona rings featured by the dual round headlights also accentuate the typical look of the brand from the front of the car in a now even more striking style. The horizontal rows of lights at the rear extending all the way into the side panels emphasise the sporting appearance of the car, the optimised looks and the signalling effect of LED technology enhancing at the same time the characteristic appearance of the new BMW 5 Series Touring.

Interior: supreme, modern style and classic orientation to the driver.
The interior design clearly accentuates both the active driving characteristics as well as the comfort features and versatile sporting character of the BMW 5 Series Touring. High-tech functions within the elegant ambience of an uncompromising premium character create a strong impression of superior, modern versatility. The cockpit is inclined towards the driver at an angle of approximately 7 degrees. And the asymmetrically designed centre console likewise emphasises a clear orientation to the driver. The multifunction buttons on the newly devised steering wheels now also serve to operate cruise control. All control units and switches as well as the displays in the instrument cluster finished in Black Panel technology are arranged clearly and ensure optimum readability. Driver-relevant information as well as the control instruments are arranged on the side of the cockpit facing the driver, while the displays, control units and buttons serving to mastermind comfort functions are positioned more towards the middle of the car. Measuring up to 10.2 inches in size, the control display featured on the iDrive control system, which comes as standard, is integrated harmoniously into the dashboard.

The horizontal breakdown of the instrument panel underlining the generous feeling of space continues through the door linings all the way to the rear, enabling the passengers to enjoy the motoring experience in a harmoniously balanced setting. The interior trim on the instrument panel and the door linings available in various colours and materials borders at the bottom on a highlight bar in Pearl Gloss Chrome, adding a special touch of style and elegance. At the transition point from the instrument panel to the door lining, further highlight bars merging up in a sweeping line are another attractive eye-catcher.

Ample storage space, high-quality materials, attractive colour combinations.

Travel comfort inside the new BMW 5 Series Touring is further enhanced by a wide range of ergonomically and ideally positioned storage options, boxes and cupholders. In addition to the spacious glove compartment, a fold-in box on the driver's side of the instrument panel offers further space and convenience. The centre console comes in two variants. On cars with a manual gearbox, the console is split into two sections, the black surface surrounding the gearshift lever and the buttons for the optional Dynamic Driving Control opening up towards the driver. A storage box between the gearshift lever and the a/c controls serves as a convenient place to deposit the car key. On models with automatic transmission, the centre console forms one complete surface, the space between the electronic gear selector lever and the climate control unit offering enough room for two cupholders and a key box, with a further storage box behind the iDrive Controller (where there is another cupholder on models with a manual gearbox). In this case the second cupholder is located in the storage compartment beneath the armrest.

The armrest on the centre console opens up smoothly and conveniently with vertically split butterfly flaps, revealing not only the USB, Aux-In and the optional power connection but also a very convenient and practical storage compartment.

High-quality materials and a superior finish incorporating skilled craftsmanship underline the premium ambience of the new BMW 5 Series Touring. A wide range of colour and upholstery variants offers more than ample freedom in customising the car to individual preferences. Visible seams on the leather seats, door handles and panels serve to additionally emphasise the flowing lines of the interior. The new BMW 5 Series Touring offers a choice of no less than 12 paintwork colours at market launch. For the interior of the car, there are three upholstery variants available in up to five colours each, three interior colours and five types of interior trim for individual and highly versatile combinations.

4. Interior: Ample, Luxurious Space Through Intelligent Functionality.

- **Variable luggage compartment with a volume of 560 to 1,670 litres.**
- **40:20:40 split folding rear seats with seat back inclination adjustment, also manually releasable using levers located in the luggage compartment.**
- **Wide luggage compartment hatch, luggage compartment cover opens and closes automatically, separate rear window swings up automatically.**

Modern functionality and unsurpassed driving pleasure experienced only in a premium vehicle reflect the character of the new BMW 5 Series Touring. Its unique position in the upper midrange segment is the result of being able to fulfil the manifold requirements of a discerning target group in a resolute and convincing way. This applies to both the driving characteristics and the interior concept featured by the new BMW 5 Series Touring. Compared with its predecessor, its superior drivetrain and suspension technology has further enhanced sporting characteristics with the same optimised motoring comfort, whereby the optionally available Dynamic Driving Control enables drivers to set the suspension to their own individual requirements. Likewise, when utilising the interior, drivers can depend on the new BMW 5 Series Touring to adapt perfectly to each of their specific needs. Variable possibilities to increase luggage compartment capacity, intelligent details for optimising functionality and convenient operation ensure that the use of the transport capacities of the new BMW 5 Series Touring is a premium experience.

Due to a high degree of variability, the new BMW 5 Series Touring supports a versatile, active lifestyle that is characterised by varying requirements. It performs equally as convincing as an elegant and representative Business Touring as is does in the role of a comfortable family touring car, or when transporting bulky sports equipment and other items required for active leisure time. The BMW 5 Series Touring offers the driver the freedom to cope at any time with the challenges of a mobile lifestyle, whilst enjoying at the same time the elegant style and the uncompromising premium quality of a BMW 5 Series.

Increased variability through three-part rear seat backrest with adjustable angle.

When all five seats in the new BMW 5 Series Touring are utilised, a storage capacity of 560 litres is available under the luggage compartment sliding cover. Also, the possibilities for obtaining a flexible and situation-related augmentation of transport capacities have been significantly increased. This high degree of variability is achieved above all by the functionality of the rear seat backrest, a unique feature in this vehicle segment. As an integral part of the optional luggage compartment package and as an alternative to the standard adjustment, the rear seat backrest featured in the BMW 5 Series Touring can also be adjusted in an upright position. In this way either the rear seat comfort or the size of the storage compartment can be optimised as required. The locking mechanism features an adjustment wheel by which backrest tilt can be set in seven stages. This permits a reduction of the inclination angle by up to 11 degrees. When the backrest is in its maximum upright position, the luggage compartment volume is increased by a further 30 litres.

The standard features of the new BMW 5 Series Touring also include a new operational concept for partial or complete folding down of the back seat. The rear seat is 40:20:40 split folding – a unique feature in this segment. The three backrests can be either individually or jointly folded down in order to obtain a luggage compartment capacity increase of up to 1,670 litres. The result is an entirely even loading area extending to the backrests of the front seat. An optionally available ski and snowboard bag accommodating up to four pairs of skis can be pushed snugly through the centre section of the rear seat backrest and firmly fastened. Likewise, the transverse area of the middle backrest section offers ample room to store a surfboard or sports equipment of similar size between the outer rear seats.

Enhanced ease of use when increasing storage volume, folding mechanism can be activated from luggage compartment.

Releasing and folding down of backrest sections can effected either from the rear passenger compartment or by pulling one of the two control levers located at the sides of the luggage compartment. This permits fast and simple folding down of the backrest, either partially (40:60) or completely, whilst loading. Furthermore, the fastening mechanism for the luggage compartment cover has been further improved. When removing the cover casing, it is only necessary to press a release button to open the fasteners on both sides. Likewise, hooking up and unhooking of the separation net between the rear passenger compartment and the luggage compartment has now been optimised.

A wide, gas spring assisted opening in the luggage compartment floor offers space to safely store smaller pieces of luggage. In addition, the luggage compartment floor panel can be completely removed, creating a recess in the luggage compartment in which – using the Fix-kit from the BMW range of accessories – two bicycles with detached front wheels and mounted on their forks can be transported in the luggage compartment of the BMW 5 Series Touring.

The luggage compartment cover is raised and lowered automatically, rear window can be opened by remote control.
Maximum permissible payload for the new BMW 5 Series Touring is 650 kg. Thanks to a now even more generously dimensioned luggage compartment hatch, it is now even easier to load bulky items for transportation. Not only the width but also the height of the hatch has been significantly increased due to a new tailgate hinge mechanism, which is completely integrated into the surface of the roof. In spite of the coupe-like roofline of the new BMW 5 Series Touring, utilisable luggage compartment height has been increased in comparison to the predecessor model. Four fastening points fitted to the luggage compartment floor as standard permit secure storing of smaller pieces of luggage using fastening straps. The stainless steel loading sill inlay is a high-quality, durable feature.

An actuator integrated into the D-pillar and which comes as standard, moves the sliding cover of the new BMW 5 Series Touring luggage compartment. When either the tailgate or the separately opening rear window is opened, the cover automatically slides upwards. As soon the tailgate or the rear window is closed, the cover is, in turn, automatically lowered. Electric tailgate operation is optionally available for the BMW 5 Series Touring. The tailgate can then be opened by pressing a button on the remote control for the central locking function integrated into the car key. The tailgate is automatically locked by pressing a button located on the lower edge of the lid.

A further button on the remote control serves to open the separate rear window, which then, assisted by two gas springs, automatically moves upwards. The separately opening rear window facilitates the loading of smaller items of luggage when there is confined space available behind the vehicle.

Innovative and elaborately designed details underline the intelligent functionality that makes utilising the variable transportation capacities of the new BMW 5 Series Touring a pleasant experience. A luggage compartment package is optionally available, comprising in addition to bag hooks, fixing straps, fixing net and the four fastening points fitted as

standard, two further adjustment points flexibly mounted on a rail and the backrest inclination adjustment function for the rear seat.

Moreover, the new BMW 5 Series Touring can be equipped with a tow coupling featuring an electrically operated pivot-mounted ball head. Maximum permissible towed load is 2,000 kg.

5. Driving Experience: Unrivalled Dynamics, Uncompromising Supremacy.

- **Two straight-six petrol engines, two diesel engines, power range from135 kW/184 bhp all the way to 225 kW/306 bhp.**
- **Cutting-edge suspension technology: double-track control arm front suspension and integral air suspension at the rear.**
- **Unique throughout the entire segment: Integral Active Steering and Adaptive Drive.**

The new BMW 5 Series offers Sheer Driving Pleasure in unique style, remaining faithful to the philosophy of the brand while nevertheless setting new highlights at the same time. Just like the 5 Series Sedan, the 5 Series Touring is further enhancing its leading position as the most sporting car in its segment, but also offers even more driving comfort than its predecessor. This double progress in two areas is ensured by the most advanced drivetrain and suspension technology.

The engine range featured in the new BMW 5 Series Touring boasts powerful and fast-revving petrol and diesel engines. Specifically, the range starts with two straight-six petrol engines delivering 225 kW/306 bhp and 150 kW/204 bhp respectively, with a 180 kW/245 bhp straight-six diesel and a four-cylinder diesel engine with 135 kW/184 bhp rounding off the portfolio. The suspension consists of a double-track control arm front axle and the integral V rear axle in a combination that promotes both agility and driving comfort, giving the car very harmonious anti-roll and transitional behaviour. In addition, the new BMW 5 Series Touring features as standard a rear-axle air suspension with self-levelling.

Optional Dynamic Driving Control enables the driver to adjust the set-up of the car to his personal preferences and wishes. As a further option, the new BMW 5 Series Touring may be fitted with Dynamic Damper Control or Adaptive Drive, a system that additionally offers an electronically controlled anti-roll stability management, and, as yet a further innovation in this class, BMW Integral Active Steering.

Six-cylinder petrol engines: setting the standard for fast-revving response, smoothness, efficiency and innovation.
Modern straight-six petrol engines guarantee up-to-date driving pleasure also in the new BMW 5 Series.

The power units in the BMW 535i Touring and the BMW 523i Touring all combine spontaneous power and performance with unique revving qualities, outstanding efficiency, and supreme smoothness.

Delivering 225 kW/306 hp and offering a unique technological concept, the most powerful six-cylinder in the new BMW 5 Series clearly confirms both the sporting character of the touring and the innovative power of BMW's engine development specialists. Indeed, the 3.0-litre six-cylinder in the BMW 535i Touring is the first engine to combine BMW TwinPower Turbo Technology, High Precision Injection, and variable VALVETRONIC valve management. The turbocharger system applying the TwinScroll principle to separate the ducts of three cylinders at a time both in the intake manifold and in the turbocharger itself, as well as VALVETRONIC valve control developed to an even higher standard, ensure a fascinating response at all times.

The engine develops its maximum torque of 400 Nm/295 lb-ft all the way from 1,200 to 5,000 rpm, with maximum output at 5,800 rpm. In conjunction with High Precision Injection likewise optimised to an even higher standard, this ensures a balance of performance and fuel economy quite unparalleled in this power class. The new BMW 535i Touring accelerates from a standstill to 100 km/h in just 6.0 seconds, its top speed is limited electronically to 250 km/h or 155 mph. Fuel consumption in the EU test cycle, on the other hand, is 8.6 litres/100 kilometres (32.8 mpg imp), the CO_2 rating is 201 grams per kilometre.

The six-cylinder power unit featured in the new BMW 523i Touring comes with an even more sophisticated version of High Precision Injection with an even greater focus on efficiency. Displacing 3.0 litres, this naturally aspirated engine receives its supply of fuel by direct injection in the lean-burn mode, maintaining this highly efficient injection process with a reduced amount of fuel in the fuel/air mixture throughout a broad load range and also at higher engine speeds. This combines the fast-revving driving characteristics and the dynamic build-up of power so typical of a BMW six-cylinder with particularly low fuel consumption and emissions.

In the new BMW 523i Touring, this technology provides for maximum output of 150 kW/204 hp at an engine speed of 6,100 rpm and peak torque of 270 Newton metres/199 lb-ft all the way from 1,500 – 4,250 rpm. Acceleration from a standstill to 100 km/h comes in 8.2 seconds and the top speed of the new BMW 523i Touring is electronically limited to 231 km/h or 143 mph. This sporting performance goes together with average fuel consumption in the EU test cycle of 7.9 litres/100 kilometres (35.7 mpg imp) and a CO_2 rating of 185 grams per kilometre.

Six-cylinder diesels: supreme torque and optional BluePerformance technology ready to fulfil the EU6 emission standard.

Representing a brand-new generation of straight-six turbodiesels, the 3.0-litre power unit in the BMW 530d Touring offers even more torque and pulling force, enhanced smoothness and supreme economy. These qualities typical of a BMW diesel are ensured by an all-aluminium crankcase, the enhanced turbocharger system with variable turbine geometry and the latest generation of Common Rail fuel injection. Fuel is supplied by means of upgraded piezo injectors now operating at a maximum pressure of 1,800 bar. The injectors positioned right in the middle and the valves in vertical arrangement ensure a smooth and consistent combustion process, serving to reduce emissions from the engine right from the start.

This superior six-cylinder diesel develops maximum output of 180 kW/245 hp at an engine speed of 4,000 rpm, with peak torque of 540 Nm/398 lb-ft from 1,750 to 3,000 rpm. This kind of power accelerates the new BMW 530d Touring to 100 km/h in 6.4 seconds and gives the car a top speed of 243 km/h or 150 mph. Average fuel consumption in the EU test cycle, in turn, is 6.4 litres/100 kilometres (equal to 44.1 mpg imp), with CO_2 emissions of 169 grams per kilometre.

In standard trim the new BMW 530d Touring – just like all other versions of the new BMW 5 Series – fulfils the EU5 emission standard. Equipped with optional BMW BluePerformance technology available also on this model in conjunction with automatic transmission, the diesel engine of the new BMW 530d Touring offers even better emission management. In this case the diesel particulates filter and the oxidation catalyst housed in the same unit interact with an NO_X storage catalyst for further reduction of nitric oxides in the exhaust gas. This high-tech exhaust gas management ensures that the new BMW 530d Touring already fulfils the requirements of the EU6 standard, which does not come into force until 2014. And like the diesel particulates filter, the NO_X storage catalyst does not require any maintenance or additional operating media throughout the entire service life of the car.

Four-cylinder diesel:
increased power, leadership in efficiency even greater than before.

The engine range featured in the new BMW 5 Series Touring is rounded off by an upgraded turbodiesel setting new records in terms of efficiency in this segment of the market. The 2.0-litre four-cylinder diesel in the new BMW 520d Touring combines a composite aluminium crankcase, the latest generation of Common Rail direct fuel injection and a turbocharger with variable turbine geometry. The increase in power and efficiency over the former model ensured in this way results from consistent optimisation

of the combustion chambers, the charge system and the cylinder head, as well as the new arrangement of the ancillary units helping to reduce frictional losses to an even lower level than before.

Thermodynamically optimised, the charge system in the four-cylinder diesel engine ensures an optimum flow of power at all speeds and under all loads. An electric adjuster sets the turbine blades in the turbocharger to the current load status of the engine within fractions of a second, the engine thus following the gas pedal immediately both at low speeds and under full load whenever the driver requires maximum power and performance. The fuel injection system with magnetic valve injectors operating at a pressure of up to 1,800 bar ensures precise dosage of fuel as well as a consistent, low-emission combustion process.

Maximum power of the four-cylinder is up by 5 kW to 135 kW/184 bhp at an engine speed of 4,000 rpm. Up by 30 to 380 Newton-metres or 280 lb-ft, maximum torque comes all the way from 1,750 to 2,750 rpm. This accelerates the new BMW 520d Touring to 100 km/h within just 8.3 seconds and gives the car a top speed of 222 km/h or 137 mph. Average fuel consumption in the EU test cycle of 5.2 litres/100 kilometres (equal to 54.3 mpg imp) and a CO_2 rating of 137 grams per kilometre give the BMW 520d Touring even greater leadership than before as the most efficient car in the upper midrange segment.

Optimised six-speed manual gearbox with dry sump lubrication featured as standard.

Innovative technology ensures enhanced driving pleasure and optimised efficiency also in transmitting the power of the engine to the rear wheels of the new BMW 5 Series Touring. Benefiting from dry sump lubrication, the six-speed manual gearbox on the BMW 535i Touring and BMW 520d Touring has significantly lower drag losses and avoids oil splash losses completely in the interest of even greater efficiency.

Likewise, the new BMW 530d Touring and BMW 523i Touring come with new versions of the six-speed manual gearbox optimised for efficiency with conventional oil supply. The gearshift lever re-designed on all models and the shift bars again upgraded in their standard allow a smooth gearshift with optimum precision and steady shift forces, emphasizing the sporting quality of the manual gearshift so typical of BMW to an even greater extent than before.

Significant innovation with unique efficiency: eight-speed automatic transmission.

The new eight-speed automatic transmission featured for the first time in the BMW 760i twelve-cylinder Luxury Performance Sedan is available as an option for all variants of the new BMW 5 Series Touring available at market launch. When fitted, this makes the new BMW 520d Touring the first car in the world to combine a four-cylinder power unit with an eight-speed automatic transmission. This innovative transmission offers a unique combination of gearshift comfort, sportiness and efficiency at a standard never seen before, far superior in every respect to the automatic transmissions offered by the competition. As yet a further option the new BMW 5 Series Touring is also available with a Sport Automatic variant of the eight-speed transmission allowing manual selection of gears by means of shift paddles on the steering wheel. The control logic applied in this case follows the principle already featured on BMW M Cars, the driver shifting up on the right and down on the left paddle. A further feature of the Sport Automatic is the special design of the electronic gearshift lever on the centre console.

The eight-speed automatic transmission boasts a particularly innovative gearset configuration, four single gearsets and five shift units interacting to provide the eight forward gears and one reverse gear. The arrangement of these components to be seen here worldwide for the first time on an eight-speed automatic transmission ensures that only two of five clutches are moved along open in each gear, significantly reducing drag losses in comparison with the automatic transmissions currently in the market.

With the number of gears being increased to eight, gear increments when shifting are smaller than before despite the greater range between the lowest and highest transmission ratio. While accelerating, the harmonious shift in transmission ratios ensures a particularly smooth and steady increase in speed, short reaction and gearshift times compared to the six-speed automatic transmission, providing even greater comfort and driving dynamics. A further advantage is that only one clutch has to be opened when shifting up or down, while direct detection of the right gear lane enables the driver to shift the transmission by more than two gears at a time, again with extremely short reaction and gearshift times. The process of shifting down from eighth to second gear when accelerating spontaneously (kick-down) again comes with a direct gearshift opening up only one clutch.

Sophisticated suspension technology for enhanced agility and comfort.

The technically sophisticated suspension on the new BMW 5 Series Touring combines very sporting driving qualities with an even higher level of motoring comfort. The double-track control arm front axle made of aluminium allows clear separation of the wheel guidance and damping functions again in the interest of motoring comfort. Hardly influenced in the slightest by lateral forces, the dampers are able to respond particularly sensitively to bumps or unsmoothness on the road. At the same time, the kinematic configuration of the front axle, with the precisely matched wheel camber, keeps the tyres smoothly and consistently on the road for optimum grip, ensuring effective transmission of high lateral forces even without a particularly firm set-up potentially detrimental to motoring comfort. Yet a further advantage is that adverse forces on the steering are reduced to a minimum, the car handling even the most dynamic driving situations with high lateral acceleration smoothly and with superior comfort.

The newly developed Integral V rear axle likewise made of aluminium also offers all the features for enhanced driving dynamics and motoring comfort. Via the wheel supports, the rear axle subframe, the swinging arm and three track arms, the rear axle takes up drive and dynamic forces acting on the suspension with maximum efficiency. Innovative elastokinematic suspension of the swinging arms, in turn, serves to set off longitudinal forces by direct, straight spring action to the rear. Forces acting in radial and axial direction on the swinging arm rubber mounts are thus clearly separated from one another. And last but not least, the rear axle ensures first-class acoustic and vibration comfort by effectively separating the suspension from the road and the drivetrain. In addition, the new BMW 5 Series Touring features as standard a self-levelling air suspension at the rear, which provides for a constant vehicle height under all driving and load conditions. Each change in load is immediately taken account of and compensated as required by the individual wheels.

On the new BMW 5 Series Touring the double-track control arm front axle and the integral rear axle form a roll axis running almost parallel to the road itself. This gives the car exceptionally harmonious and stable behaviour in bends, with the front and rear axle always interacting efficiently in their roll and transient behaviour.

Adaptive Drive: even more dynamic and with unique comfort.

As an option the new BMW 535i Touring and BMW 530d Touring come with BMW Adaptive Drive comprising Dynamic Damper Control and Dynamic Drive active anti-roll stability management. Controlled electronically,

the dampers adjust both to the road surface and the driver's style of motoring in order to prevent any undesired movement of the car possibly caused by bumps or high lateral acceleration. BMW is the world's first car maker to use the damping system first featured in the new BMW 7 Series with continuous and independent adjustment of the inbound and rebound strokes. This offers a unique combination of a firm suspension set-up and a comfortable response to bumps on the road. The driver is able to set the damper control map himself by means of Dynamic Drive Control, choosing from a comfortable, a normal and a sporting mode. Dynamic Damper Control is available as an individual option for the BMW 520d Touring and the BMW 523i Touring.

Dynamic Drive anti-roll stability reduces side roll of the car in fast bends and in a sudden change of direction. Depending on driving conditions, sensors determine the current side roll and swivel motors in the anti-roll bars both front and rear quickly and precisely build up appropriate counter-forces. This also shifts the distribution of forces between the front and rear axles, adjusting the car's steering behaviour and load change according to specific requirements in each situation and as a function of the suspension mode chosen.

Precise and efficient:
EPS Electric Power Steering making its debut in the BMW 5 Series.
The new BMW 5 Series models are the first cars in their segment to feature EPS Electric Power Steering. This innovative steering system enhances both the precision and comfort of the steering process, at the same time ensuring the handling typical of BMW with maximum efficiency. Contrary to conventional mechanical/hydraulic systems, steering assistance is provided in this case by an electric motor activated only when assistance is necessary or desired by the driver. When driving in a straight line or when taking a bend with a steady steering angle, on the other hand, the consumption of energy is reduced to zero. The system is a major factor in the reduction of consumption and emissions within the framework of BMW EfficientDynamics.

Precise, smooth and harmonious set-up of the steering with the feedback typical of BMW ensures maximum steering accuracy at all times. In the Sport mode of Dynamic Drive Control and with DSC switched off, the degree of steering forces is slightly increased in accordance with the style of motoring desired.

EPS serves to control steering feedback from the system with particular precision. At the same time EPS comes as standard on the new BMW 5 Series Touring with speed-dependant Servotronic steering

assistance. When parking and steering at low speeds, for example, the driver hardly has to make any effort, while at higher speeds power assistance is intentionally reduced for optimum contact to the road and in the interest of well-balanced directional stability. A further point is that EPS eliminates bumps coming from the steering and any other adverse vibrations very effectively. And by evaluating dynamic driving signals in an appropriate process, EPS gives the driver authentic steering feedback particularly under very dynamic driving conditions. Moreover, the electric power steering provides the prerequisites for the integration of the optional parking assistant.

Integral Active Steering:
greater agility in town, enhanced comfort in a quick lane change.
Available as an option, Integral Active Steering is another innovation exclusive to the new BMW 5 Series models in the upper midrange segment. IAS combines the Active Steering on the front wheels already available on the former model with rear-axle steering, the steering angle and steering assistance therefore being controlled for the first time both front and rear by electric motors.

On models fitted with Integral Active Steering, steering forces are controlled by Servotronic and the steering angle is masterminded by an additional active steering transmission acting on the front axle, in each case as a function of road speed. At the same time the system also varies the steering angle of the rear wheels through a concentrically arranged motor acting through spindle drive on the rear axle. Both front and rear, Integral Active Steering adjusts the steering angle through an electric motor masterminded by a control unit receiving data on wheel rotation speed, movement of the steering wheel, the yaw rate and lateral acceleration to ensure optimum steering behaviour under all conditions.

Active Steering on the front wheels enables the driver to manoeuvre the car smoothly and easily at low speeds with just small movements of the steering wheel and without crossing over his hands. At higher speeds, in turn, the same movement of the steering wheel turns the wheel by a smaller angle for optimum precision when steering into bends. Turning the rear wheels by up to 3 degrees, Integral Active Steering further enhances the agility and manoeuvrability of the car in city traffic and on winding mountain roads, with the rear wheels turning opposite to the steering angle of the front wheels at speeds of up to 60 km/h. This not only reduces the turning circle by approximately 0.5 metres, but also increases the driver's motoring comfort by reducing the steering effort required.

At higher speeds, Integral Active Steering gives the car an extremely comfortable and superior response when changing lanes and in bends. With the rear wheels turning in the same direction as the front wheel, the BMW 5 Series Touring follows the course set out by the driver precisely and smoothly in every situation. When changing direction under dynamic driving conditions, the car is therefore able to master a high level of lateral acceleration without the yaw rate increasing to the same extent. This ensures a significant increase in motoring comfort.

Dynamic Drive Control:
the ideal set-up for every situation.

The new BMW 5 Series Touring sets new standards in the upper midrange segment not only in terms of driving dynamics, but also in its driving comfort. Right from the start the suspension technology featured as standard provides a good balance of driving dynamics and comfort. And depending on driving conditions as well as individual preferences, the driver may place the emphasis on both the sporting and/or the comfort character of the new touring. All this is made possible by Dynamic Drive Control which, in conjunction with the optional Sport Automatic, Integral Active Steering and Dynamic Damper Control or, respectively, Adaptive Drive, comes as standard on the BMW 5 Series Touring.

Dynamic Drive Control masterminds the progressive action of the gas pedal, the response of the engine, the steering assistance map, the thresholds of DSC Dynamic Stability Control and, where fitted, also the dynamic gearshift of the automatic transmission and the control map on Dynamic Damper Control, the anti-roll stabilisation and Integral Active Steering. The driver is able to set the suspension configuration he prefers simply by pressing a button on the centre console, using a toggle switch to choose among the NORMAL, SPORT and SPORT+ modes. In conjunction with Dynamic Damper Control and, respectively, Adaptive Drive, there is also the COMFORT mode for a particularly smooth style of motoring. All this enables the driver to activate a pre-configured, fully harmonised set-up put together individually through appropriate adjustment of the car’s drivetrain and suspension components.

On the road the differences between the individual modes come out very clearly indeed. The SPORT mode, for example, provides far more direct steering behaviour and a more spontaneous, direct response to the gas pedal. In addition, Dynamic Drive Control enables the driver to choose an individual configuration for the SPORT mode to meet his particular requirements. Through the iDrive control system, therefore, the driver is able to choose either the normal or the sporting set-up for both the drivetrain and suspension components. Hence, he may, if he wishes, use the sporting

set-up on the drivetrain components even if road conditions would not suggest a harder damper configuration.

Another button enables the driver to choose the appropriate DSC setting. As an example, he may activate a special traction mode for starting off and driving more easily on loose sand or in deep snow. This is effected by DTC Dynamic Traction Control, a special mode of DSC, raising the response thresholds of Driving Stability Control. The DTC function for Driving Stability Control is also activated in the SPORT+ mode.

This DSC-Off mode activates an electronic locking function similar to the rear axle differential in the interest of a more sporting and ambitious style of motoring. To optimise traction, a drive wheel spinning when accelerating out of a tight bend is slowed down appropriately, with pulling forces being maintained through the other, opposite wheel on the axle.

Lightweight brake system:
free of fading, precise and comfortable.

Reliable brakes free of fading, offering comfortable and convenient control, and extremely precise dosage help to further enhance the dynamic driving qualities of the new BMW 5 Series Touring. The new BMW 5 Series comes with lightweight brakes in swing-calliper technology and with inner-vented brake discs, where the friction ring is riveted on to the aluminium cover. This principle patented by BMW and now also used by other car makers, together with the aluminium callipers in frame design on the front axle, serves to significantly reduce unsprung masses.

Depending on the engine, the brake discs measure up to 374 millimetres or 14.7 inches in diameter. Together with these large brakes, the wheels fitted as standard are also larger than on the previous model. All versions of the touring come on light-alloy wheels measuring 17 inches. The tyre dimension, in turn, is 225/55 R 17. Further light-alloy wheels measuring 17, 18 and 19 inches respectively are available as an option.

The brake system is supported by DSC Dynamic Stability Control with a wide range of functions. Over and above its stabilising effect, DSC incorporates further functions for safe and dynamic motoring at all times. These include the ABS anti-lock brake system, ASC Automatic Stability Control, Trailer Stability Control, CBC Cornering Brake Control as well as DBC Dynamic Brake Control automatically maximising brake pressure on the two axles as soon as the system detects that the driver wishes to brake hard. Under extremely high brake temperatures, an appropriate increase in brake pressure prevents any fading, while regular Dry Braking optimises

brake performance in wet conditions and the Brake Standby function builds up moderate brake pressure whenever the driver takes his foot off the brake pedal abruptly. And last but not least, the Start-Off Assistant supports the driver when setting off on a gradient.

Electromechanical parking brake and Auto-Hold function.
The electromechanical parking brake on the new BMW 5 Series Touring is activated by pushing the appropriate button on the centre console in one simple process. To release the parking brake, all the driver then has to do is press the same button while at the same time pressing down the brake pedal itself. This avoids unintended release of the parking brake with the ignition switched off. And while driving, finally, the driver is able to activate an ABS-controlled emergency braking function by pushing the parking brake button longer than usual.

The electromechanical parking brake comes complete with an Auto-Hold function. This combination quite unique in the market serves in particular to enhance motoring comfort in stop-and-go traffic. As soon as the car comes to a standstill, Auto-Hold automatically holds the car in position by exerting constant pressure on the brakes also on a gradient until the driver presses down the gas pedal. So he is not required to keep the brake pedal pressed down while the car is at a hold. The Auto-Hold function is activated and deactivated by a separate button on the centre console.

Driving dynamics intelligently controlled:
Integrated Chassis Management and FlexRay technology.
The systems incorporated in the new BMW 5 Series Touring in the interest of enhanced driving dynamics are perfectly connected by Integrated Chassis Management (ICM). This high-performance electronic control function analysing the car's driving behaviour by evaluating numerous sensor signals at one central point, coordinates the drivetrain and suspension functions within fractions of a second to provide maximum stability under all driving conditions. And even when conditions change suddenly – for example on changing surfaces when spontaneously turning the steering, accelerating or applying the brakes abruptly – ICM responds by intervening precisely in the DSC actuators and, where fitted as an option, by acting on the Integral Active Steering and Adaptive Drive.

Interaction of the car's suspension control systems and the drivetrain is equally unique and unparalleled, the high-speed FlexRay data transmission system serving to coordinate all systems and sub-systems fast and reliably. Developed by a consortium of specialist companies to production standard under the guidance of BMW, FlexRay offers a data transfer capacity never

seen before, 20 times higher than with a conventional data transmission system. BMW is the world's first car maker to introduce FlexRay technology in its production models.

6. BMW EfficientDynamics in the New BMW 5 Series Touring: Consistently Strengthening its Leading Position.

- **Supreme all-round economy featured as standard the world over.**
- **BMW 530d Touring with BMW BluePerformance fulfilling the EU6 emission standard.**
- **BMW 520d Touring with Auto Start Stop fitted as standard offering the lowest fuel consumption and CO_2 levels in its segment.**

The new BMW 5 Series is the epitome of driving pleasure in the upper midrange market. Intelligent functionality adds further facets to the highly attractive touring model. The many qualities of the new touring reflect the broad range of competence offered by the world's leading manufacturer of premium cars. The essential features thus also include an unparalleled balance of fuel economy and driving pleasure resulting from the BMW EfficientDynamics development strategy featured in the new BMW 5 Series Touring worldwide as standard and in a particularly wide range of equipment and technologies. Outstanding economy and exemplary emission management are therefore further good reasons to enjoy supreme driving pleasure in the BMW 5 Series.

All drive units available for the new BMW 5 Series Touring were created as part of the BMW EfficientDynamics development strategy. Apart from the petrol and diesel engines optimised for minimum consumption, various transmissions offering a particularly high standard of efficiency, lightweight construction on a broad scale, refined aerodynamics in every detail and numerous other efficiency features ensure that every version of the new BMW 5 Series offers exceptionally low fuel consumption and emissions in its respective performance class. As a result, the new BMW 520d Touring continues to strengthen its leading position as the most fuel-efficient car in its segment. In combination with automatic transmission, the BMW 530d Touring is even available as an option with BluePerformance technology. As a result, it already fulfils the EU6 emission standard today not coming into force until the year 2014. Thus, the BMW brand is consistently strengthening its leading position in the reduction of emissions for compliance with the EU6 standard.

The petrol engines in the new BMW 5 Series Touring: a perfect combination of innovations for supreme efficiency.

Offering the spontaneity, fast-revving performance and refinement so typical of the brand, combined with unparalleled efficiency, the petrol engines featured in the new BMW 5 Series Touring come with a standard quite unparalleled in the market. Both straight-six engines available for the BMW 5 Series Touring at market launch come with outstanding technical innovations created in the context of BMW EfficientDynamics. And the specific combination of technologies gives each of the two drive units its own quite unique characteristics.

The most important feature shared by the two petrol engines is fuel supply by means of second-generation direct fuel injection. Already well-known as High Precision Injection, this advanced system uses injectors positioned in the middle between the valves and in the immediate vicinity of the spark plug for the precise dosage of fuel, measurably reducing fuel consumption also in everyday traffic. A particularly efficient version of High Precision Injection is to be admired in the six-cylinder engine driving the new BMW 523i Touring. Direct injection in the lean-burn mode gives this model particularly good fuel economy. Referred to as stratified charging, this process forms various interacting layers of different fuel/air mixtures within the combustion chamber, the share of petrol in the mixture decreasing continuously with an increasing distance from the spark plug. A particularly rich and therefore ignitable fuel/air mixture is therefore available only in the direct vicinity of the spark plug. As soon as this mixture is ignited, the leaner layers at a greater distance from the spark plug will also burn in a clean and consistent process.

In the straight-six engine featured in the new BMW 535i Touring High Precision Injection is combined with turbocharging. BMW TwinPower Turbo Technology provides power and performance characteristics a naturally-aspirated engine would only be able to offer on much larger capacity, making it heavier and obviously consuming more fuel and generating more emissions. In addition, the six-cylinder in the BMW 535i Touring combines BMW TwinPower Turbo and High Precision Injection with fully variable VALVETRONIC valve control. The result is infinite adjustment of valve stroke and valve timing on the intake side, reducing throttle losses in the charge cycle to a minimum and making particularly efficient use of the energy in the fuel. A further advantage is the response of the engine optimised to an even higher standard. Developing 225 kW/306 bhp, the power unit featured in the new BMW 535i Touring accelerates this outstanding sedan to 100 km/h in 6.0 seconds, combined with average fuel consumption in the EU test cycle quite unique in this class of just 8.6 litres/100 kilometres, equal to 32.8 mpg.

The permanent, ongoing development of drive units in the context of BMW EfficientDynamics also means the optimisation of weight. Hence, the drive unit in the new BMW 535i Touring is largely made of aluminium, while the straight-six engine in the BMW 523i Touring comes with a composite magnesium/aluminium crankcase again some 24 percent lighter than a comparable aluminium block.

Such optimisation of weight benefits not only the efficiency, but also the agility of the respective vehicle. All versions of the new BMW 5 Series Touring come with almost perfect 50:50 weight distribution front-to-rear. In combination with rear-wheel drive, such harmonious axle load distribution is indeed crucial to the dynamic and, at the same time, superior driving behaviour of the new BMW 5 Series Touring.

Full of torque, light, efficient:
the latest generation of diesel engines.

The diesel versions of the new BMW 5 Series Touring also offer state-of-the-art drivetrain technology. All-aluminium construction, Common Rail direct fuel injection of the latest generation and turbocharging give both the four- and six-cylinder diesels truly impressive torque and pulling force, supreme smoothness and unparalleled efficiency.

The BMW 530d Touring comes with a representative of a new generation of straight-six diesels – outstanding power units featuring a wide range of innovations for unusually efficient and clean combustion. Further weight reduction compared with the former engine also serves to improve the efficiency and agility of the BMW 530d Touring. The engine displaces 3.0 litres and comes with an optimised turbocharger system with variable intake geometry providing superior power and torque from an early point. Fuel supply through Common Rail direct injection of the latest generation is provided by piezo injectors operating at a pressure of up to 1,800 bar. Compared with the respective predecessor, the new BMW 530d Touring offers an increase in engine output by 7 kW, with average fuel consumption in the EU test cycle down by up to 4 percent.

As an option the new BMW 530d Touring with automatic transmission may be further upgraded with BMW BluePerformance Technology. Offering this unique system, BMW is once again increasing its lead in the introduction of exhaust gas management, substantially reducing nitric oxide emissions (NO_X) to an even lower level. On the new BMW 530d Touring with BMW BluePerformance, the diesel particulates filter and the oxidation catalyst likewise featured as standard are supplemented by an NO_X storage catalyst operating without the slightest maintenance throughout the entire lifecycle

of the car and not requiring any additional operating media. As a result, exhaust management of this standard already reduces nitric oxides to the level not required by law until the introduction of EU6 in 2014.

Consistent enhancement of its four-cylinder diesel also gives the new BMW 520d Touring yet a further improved balance of performance and fuel economy. Maximum output of this 2.0-litre aluminium engine is up by 5 to 135 kW/181 bhp, peak torque is up by 30 to 380 Newton metres/280 lb-ft. At the same time, the new BMW 520d Touring offers average fuel consumption of 5.2 litres/100 kilometres (equal to 54.3 mpg imp) in the EU test cycle and a CO_2 rating of 137 grams per kilometre, thus enhancing its leadership as the most fuel-efficient and lowest-emission car in its segment.

Making its debut in the BMW 5 Series: Auto Start Stop function.
The new BMW 520d comes as standard with an Auto Start Stop function reducing the engine idle period when coming to a short stop at road junctions or in traffic congestion: As soon as the driver moves the gearshift lever to neutral and takes his foot off the clutch pedal, the engine is switched off automatically. Then, once the driver is able to go on, all he has to do is press the clutch to start the engine without the slightest delay.

All manual gearbox versions of the new BMW 5 Series Touring furthermore come as standard with a gearshift point indicator. An arrow symbol flashing on in the instrument cluster and specifying the optimum gear shows the driver the ideal point to shift gears. Then, depending on driving conditions, the electronic engine control unit calculates the optimum point for shifting gears in the interest of maximum fuel economy.

Brake Energy Regeneration including a recuperation display.
Likewise featured as standard, Brake Energy Regeneration, ensuring intelligent management of energy flow in the car, concentrates the generation of electric power for the on-board network on overrun and the application of the brakes. This takes the usual load off the engine and ensures highly efficient generation of electric energy largely without any additional consumption of fuel. As long as the engine is pulling the car, on the other hand, the generator is generally disconnected in order to provide more power for that Sheer Driving Pleasure so typical of BMW.

In the new BMW 5 Series Touring the instrument cluster is supplemented by a recuperation display. This graphic display next to the current consumption indicator at the bottom of the rev counter provides information on the generation of electric power in overrun and while applying the brakes,

the blue arrow being activated as long as Brake Energy Regeneration feeds energy generated without the consumption of fuel into the on-board network.

Electric Power Steering and on-demand management of ancillary units for reduced consumption of energy.

On-demand management of ancillary units and Electric Power Steering serve to further refine energy management in the car. The coolant pump masterminded as a function of current demand, for example, consumes far less energy than a conventional system permanently running under full capacity. The pressure-controlled fuel pump, the use of on-demand pump technology on the suspension control system and the map-controlled oil pump on the BMW 523i and BMW 535i, in turn, also help to maximise the use and consumption of energy.

Introduction of a new steering system for the BMW 5 Series likewise helps to boost efficiency. The servo motor on EPS Electric Power Steering is activated only when power assistance is really required or is desired by the driver. These technologies reduce the demand for electric energy, with the amount of primary energy converted into electricity by the generator dropping substantially in the process. And with the loss of power on a conventional a/c compressor also being reduced significantly by intelligent control, the compressor on the new BMW 5 Series Touring is separated by a magnetic clutch from the drive belt as soon as the air conditioning is deactivated.

Reduction of friction losses is an overriding objective pursued consistently on all engine units and ancillaries. Use of a special light transmission fluid in conjunction with a reduced amount of fluid in the final drive reduces both friction and oil splash losses immediately after setting off. Like the new BMW 7 Series, the new BMW 5 Series Touring also comes with its final drive in aluminium, warming up more quickly and reducing thermal loads at high speeds.

The reduction of air resistance also serves to cut back fuel consumption. As a result, all versions of the new BMW 5 Series Touring come with active cooling air flaps opening or closing specifically according to current driving conditions. This further improves the aerodynamic qualities of the car whenever the demand for cooling air remains at a low level, just as the extra-smooth underfloor promotes the flow of air beneath the vehicle.

Efficient power transmission: manual gearbox with dry sump lubrication and eight-speed automatic transmission.

The new BMW 5 Series features a new generation of six-speed manual gearboxes and, as an option, an eight-speed automatic transmission. All transmissions stand out through an even higher degree of efficiency, compact dimensions and low weight. The new manual gearbox on the BMW 535i Touring and the BMW 520d Touring comes with dry sump lubrication and a modified gearset concept for even greater gearshift comfort and even lower drag losses within the gearset. Fully controlled oil supply serves furthermore to avoid oil splash losses otherwise suffered in the process of distributing large amounts of oil.

The eight-speed automatic transmission also complies in full with the principles of BMW EfficientDynamics, likewise featuring innovative gearset configuration with additional gears and a larger spread of increments versus the former six-speed automatic transmission without any negative effects in terms of size, weight and the inner efficiency of the system. Shifting gears very quickly and providing direct access to the target gear lane when shifting back for maximum acceleration, the eight-speed automatic transmission gives the new touring even greater driving dynamics and performance. At the same time converter slip restricted to the setting-off process and reduced to a minimum even under such conditions, the high degree of inner efficiency, low frictional losses with only two clutches open at a time, longer transmission ratios in higher gears and transmission management for driving smoothly at low engine speeds, all act together to considerably reduce fuel consumption versus the former six-speed automatic transmission. Even this is not all: In combination with the eight-speed automatic transmission, the six-cylinder models offer even lower consumption figures and CO_2 ratings than their counterparts with manual gearbox. As an example, average fuel consumption of the new BMW 530d Touring with manual gearbox in the EU test cycle is 6.4 litres/100 km or 44.1 mpg imp, average fuel consumption of the same model with eight-speed automatic transmission is 6.3 litres/100km or 45.8 mpg imp.

Intelligent lightweight construction offering even greater fuel economy.

Appropriate choice of the right materials helps to optimise weight also on the new BMW 5 Series Touring, enhancing both the agility of the car as well as its fuel economy and emission rating. This optimisation of weight combines with a further increase in passive safety and is ensured in particular through the appropriate use of high-strength multi-phase steel, ultra-high-strength hot-moulded steel and aluminium.

The large share of high-strength and ultra-high-strength steel gives the safety passenger cell of the new BMW 5 Series Touring maximum stiffness and stability without the additional use of material. With optimised weight, the positive properties of the steel used allow an increase in mean body strength and stiffness by 30 percent over the former model. The standard of lightweight construction quality defining the torsional stiffness of the vehicle as a function of its footprint and weight has also been significantly improved. Spring supports made of pressure-cast aluminium enhance the driving dynamics of the new BMW 5 Series in two respects, making the entire front section even stiffer and, through their low weight, further improving the overall balance of the car.

For the first time the doors of the BMW 5 Series Touring are made of aluminium, reducing weight by approximately 23 kg or 50 lb versus a conventional structure. The front side panels, the engine compartment lid and a large number of the front and rear axle components are also made of this particularly light metal.

7. BMW ConnectedDrive in the New BMW 5 Series Touring: New Possibilities Through Intelligent Networking.

- **BMW exclusive driver assistance systems and mobility services including innovative office functions via Bluetooth.**
- **Unique: BMW Parking Assistant and Surround View.**
- **Further improvement: Active Cruise Control with Stop & Go and collision warning with brake application function.**

Offering a wide range of driver assistance systems and mobility services unique the world over either as standard or optional in the context of BMW ConnectedDrive, the new BMW 5 Series sets new standards in its segment in terms of superior, comfortable and safe motoring. The range comprises a number of features presented for the first time in the new BMW 7 Series and now being introduced, again for the first time, in the upper midrange segment. The various services of BMW ConnectedDrive are supplemented by further innovations which made their world debut in the new BMW 5 Series Sedan and are now also available on the BMW 5 Series Touring. The innovations in the area of driver assistance systems include the BMW Parking Assistant, Surround View, a collision warning with brake activation function in combination with Active Cruise Control incorporating Stop & Go and a Speed Limit Device.

Also, the selection of services in areas such as traffic information, emergency call functions, vehicle, enquiry and office services, travel and leisure time planning as well as the Internet has been further enhanced. All of these features focus on the optimum integration of mobile phones and external entertainment devices into the in-car iDrive operating system. This serves as a basis for the innovative office functions available via Bluetooth. BMW is the world's first and only manufacturer to offer these functions in the context of BMW ConnectedDrive, providing an even higher standard of infotainment in the automobile.

All of these functions available in conjunction with BMW ConnectedDrive focus consistently on three targets: to enhance personal comfort, to optimise the safety of all the car's occupants and to offer the most modern infotainment standards in the automobile. To meet all these requirements, the exchange of information between the driver, the car itself and the surrounding world is coordinated by BMW ConnectedDrive in a particularly intelligent, target-oriented manner. Up-to-date traffic data or driver assistance

systems based on camera and sensor technology give the driver all the information he needs and requires at any time. To make this possible, BMW ConnectedDrive bundles all innovative offers and technologies in the most appropriate manner, making Sheer Driving Pleasure even more comfortable, safer and intense while intentionally leaving the task of selecting information and acting appropriately to the driver as the commander in control of all activities. Benefiting from BMW ConnectedDrive and the innovative driver assistance systems offered in this way, the driver gains greater competence, supremacy and safety in virtually all driving situations.

The innovative BMW Parking Assistant: extra comfort ensured through fully automatic steering and optimum user guidance.
The range of comfort- and safety-relevant driver assistance systems offered by BMW ConnectedDrive is now being supplemented by yet another important innovation. The BMW Parking Assistant, a system presented for the first time on the BMW 5 Series Sedan and now optionally available on the new BMW 5 Series Touring, supports the driver in safely and comfortably manoeuvring into parking spaces running parallel to the road.

The BMW Parking Assistant supports the driver from the start in choosing appropriate parking spaces. Ultrasound sensors integrated in the side indicator surrounds consistently measure the length and width of possible parking spaces next to the road or on the side lane when travelling at a speed of up to 35 km/h. The system thus looks for parking spaces exceeding the length of the car by at least 1.20 metres or 47 inches. Whenever the BMW Parking Assistant is not activated, this measuring process is conducted in the background without emitting any particular signals. But as soon as the driver comes to a stop and shifts to reverse, the iDrive Control Display informs the driver of a suitable parking space by presenting an appropriate symbol. Once the driver has activated the system, all parking spaces sufficient for the car are presented while driving by. In both cases, the driver simply has to press the Controller to use the Parking Assistant for extra convenience.

From this point on, all the driver has to do is operate the gas and brake pedals and supervise the actual driving manoeuvre while the Parking Assistant moves the steering wheel appropriately in order to back up precisely into the parking space available. As the main feature the driver then receives information guiding him though the parking process. Acoustic and visual messages from PDC Park Distance Control and from the Surround View system likewise available for the first time help the driver to adjust his distance from other vehicles or obstacles ahead of or behind the car in the parking space chosen.

Innovative Surround View:
perfect overview when manoeuvring the car.

The new BMW 5 Series Touring is also available with a back-up camera providing images presented in colour and in an optimum perspective on the Control Display. Interactive tracking lines show the driver the optimum steering wheel angle for parking as well as the tightest turning circle. The rear-view camera is particularly helpful when hooking up a trailer, a zoom function serving to enlarge the size of the image around the towbar. Special static lines in the image help the driver in correctly assessing the distance to another vehicle or object while an interactive docking line geared to the angle of the steering wheel enables the driver to back up to the trailer towbar smoothly and precisely.

Surround View, a BMW exclusive feature, provides an even more comprehensive and complete picture of the car and its immediate surroundings. In addition to the back-up camera and the PDC sensors, Surround View uses two cameras in the side mirrors, the data obtained in this way on the car and its surroundings being processed by a central computer. This serves to provide an overall picture presented on the Control Display and showing both the car and its surroundings from a bird's eye perspective. This clear overview then enables the driver to manoeuvre precisely even in confined space.

Side View is a sub-system of the Surround View option providing specific assistance to the driver in appropriate situations. Side View uses two cameras integrated in the front wings of the car and serving to monitor traffic moving crosswise to the vehicle. The images obtained in this way are likewise transmitted to the Control Display and not only ensure additional comfort in manoeuvring but also provide an early overview of traffic conditions to the left and right of the car, particularly when driving out of a narrow and unclear driveway or car park.

Innovative services offered by BMW ConnectedDrive.

The range of optional services provided by BMW ConnectedDrive to the benefit of the driver of the new BMW 5 Series Touring is truly fascinating. Through BMW Assist, BMW ConnectedDrive offers the driver a wide range of helpful and user-oriented support in many situations both before setting off, while driving, and at his destination. In all, BMW Assist offers an Enhanced Emergency Call function automatically locating the current position of the car, enhanced traffic information, a comprehensive Enquiry Service and the interactive My Info communication channel including the Google Send-to-Car function. BMW TeleServices, in turn, enable the driver, for example, to automatically arrange a service appointment for his car, data determined

by the On-Board Condition Based Service diagnostic system on the current condition of components subject to wear and tear being transmitted by telephone to the customer's BMW Service Partner. And last but not least, the new remote control functions offered by BMW ConnectedDrive enable the driver to lock and unlock the doors to his car and identify its current location down to the last metre by telephone, covering the entire world as a global service.

Innovative navigation functions: the Google services.
Customers using the BMW Assist mobility service can directly access local information provided by the world's most widely known online search engine from within the car via the Google business directory search function. Location and destination of the vehicle are automatically identified and the results within the area, i.e. the address, telephone number and distance, are then displayed. Furthermore, the results are shown on one of the familiar maps supplied by Google Maps on the Internet. Therefore, analogous to searching a business directory, it is also possible to search the Google Maps database. The results are then easily transferred to the navigation system at the push of a button. If the URL is provided in the search result, the website can be directly accessed via the link from within the car, provided it is equipped with the optional Internet function.

Furthermore, BMW Assist customers are provided with additional information obtained from Google Maps on a specifically selected destination, using the options menu of the navigation system. This includes all current information also supplied by Google Maps on the Internet, such as pictures, reviews and opening times, for example.

The BMW ConnectedDrive service "My Info" offers the additional possibility to directly transfer complete address datasets and short messages from a PC to the vehicle via the BMW Assist Internet portal. This can be done either by the driver himself or by an authorised person. "My Info" is complemented by "Send to Car" functions by which addresses can be searched for on the Internet using Google Maps and then directly transferred to the vehicle by the driver or an authorised person. This also applies to the "HRS Send to Car" with which it is possible to transfer the address dataset pertaining to a room booked through the Hotel Reservation Service (HRS) from one's own PC to the vehicle. Both address and telephone number can be accessed from within the vehicle under the menu item "News" and transferred directly to the navigation system or mobile telephone.

Driver profiles: fast and convenient transfer of personal settings.
The Driver Profile service offered by BMW ConnectedDrive facilitates the transfer of a multitude of personal settings such as seat position, position of exterior mirrors and steering wheel, favourite radio stations, driver assistance options as well display and communication functions. These settings are stored in a profile, which can also be transferred to other BMW vehicles. This is effected either directly via BMW Online or using a USB stick. In this way all changes to the settings are immediately transferred, without the driver having to readjust every single function to his individual preferences. Certain functions such as the language used by the navigation system or interior lighting can be configured on a PC and then transferred via BMW Online or a USB stick. Each setting is dependent upon the equipment featured in the vehicle.

Innovative Office functions via Bluetooth:
optimised use of infotainment provided exclusively by BMW.
BMW is the world's first and only car manufacturer to offer innovative Office functions via Bluetooth for further enhanced entertainment in conjunction with BMW ConnectedDrive. In order to optimise the integration of smartphones, the amount of data that can be transferred to the vehicle via the Bluetooth interface has been further increased. Using the new Office functions provided by BMW ConnectedDrive, calender entries, text messages (SMS), tasks and memos can now be shown on the control display of the iDrive system and communicated by voice output. Using the telephone function, it is possible to transfer contact lists, including image files, from an external mobile phone to the vehicle via the Bluetooth interface. Therefore, in the event of an incoming call, the control display supplies not only the telephone number and name but also the image of the person calling.

Wireless entertainment: Bluetooth Audio Streaming.
A further innovation is the transfer of audio files from external devices via Bluetooth. This permits wireless operation of remote control of the mobile audio player as well as the transfer of stored audio files to the vehicle's entertainment system. The driver's very own music library stored in the audio player is shown on the control display of the iDrive operating system. Title selection is effected via the Controller and is also possible whilst making a telephone call.

Album cover display for particularly convenient selection of music.
The use of the new entertainment functions offered by BMW ConnectedDrive is now even more attractive due to the representation of album covers on the control display when selecting music. This information supports a fast and intuitive classification of available music files. This

is guaranteed when accessing external audio players integrated into the vehicle via USB interface. The USB cable of the Apple iPod, which now permits the use of all previous and new functions, can be used to connect this player with the vehicle.

Simple vehicle software update for the latest mobile phones.
In addition and for the first time, BMW ConnectedDrive offers drivers the possibility to download from the Internet a vehicle software update for the integration of the latest mobile telephones or audio players. After transferring the software to the vehicle using a USB stick, the new devices can also be completely incorporated into the iDrive system, permitting integrated use of all functions.

Clever and communicative:
news including Text-to-Speech function.
The BMW Online News menu comprises the items “Top News”, “Germany”, “The World”, “Trade & Industry”, “Stock Market”, “Sport” and “Panorama” as well as “My News (RSS feeds)”. The latest news from all over the world is supplied directly online by the news agency Agence France-Presse (AFP). The greatest advantage of this is that this information becomes available inside the car at the same time as it is passed on to radio and newspaper editorial departments by the AFT agency. Furthermore, drivers are able to gain access to the news that interests them in particular

If desired, the voice output of news, RSS feeds and the latest weather forecast can be activated using the Text-to-Speech function. This makes driving not only more comfortable, but also safer, as the hands remain on the steering wheel and the eyes on the road at all times.

Innovative combination: collision warning with brake activation function combined with Active Cruise Control and Stop & Go.
The new BMW 5 Series Touring comes as standard with cruise control incorporating an independent brake function. This system controls both the engine and the brakes and, on cars with automatic transmission, the choice of gears, in order to maintain a specific speed pre-selected by the driver. Cruise control consistently identifies longitudinal and lateral acceleration of the car and, where required, reduces the speed of the vehicle by intervening in engine management and the brake system in order to avoid any impairment of comfort in a bend. Where necessary, cruise control also intervenes in the brakes when driving downhill to maintain a controlled driving process at a controlled speed, also when towing a trailer.

Active Cruise Control complete with a Stop & Go function available as an option gives the driver even greater support and assistance. This sophisticated system also comprises an automatic distance control function for cruising smoothly in flowing traffic on the autobahn or a country road and maintaining the distance chosen from the vehicle ahead in stop-and-go traffic at a very low speed. As soon as the distance from the vehicle ahead pre-set by the driver is no longer maintained, Active Cruise Control adjusts the speed of the car by intervening in engine management and building up brake pressure, thus consistently maintaining the right speed in accordance with traffic conditions. As a result, way the vehicle is decelerated and even brought to a halt safely whenever required.

The maximum stopping power generated by Active Cruise Control with Stop & Go is 4 metres/sec^2, which is however limited at higher speeds to a more comfortable 2.5 metres/sec^2. Should the driver be required to intervene because the driver ahead is applying the brakes extremely hard, he will be prompted to do so by appropriate optical and acoustic signals. The release thresholds for the Brake Assistant are lowered at the same time and the Brake Standby function in the DSC system is activated.

After coming to a halt for more than three seconds, the driver is required when setting off again to briefly press down the gas pedal or press the Resume button on the multifunction steering wheel in order to accelerate the car. A further point is that with the system active, the driver is able to control his speed himself at any time by pressing down the accelerator or brake pedal, thus retaining his responsibility at all times.

Active Cruise Control with Stop & Go available throughout the road speed range from 30 – 180 km/h (19 – 112 mph) uses the latest generation of radar sensor technology, a full range radar, to perform its function. This innovative radar sensor is integrated inconspicuously in the front air dam of the car, does not require any individual adjustment, and is largely immune to contamination or dirt from outside. The measuring beam emitted by the system is sufficiently broad at short distances of up to approximately 50 metres or 165 feet in order to recognise vehicles on adjacent lanes within certain limits. Whenever another vehicle moves over to the same lane as the driver's car, Active Cruise Control with Stop & Go adjusts the speed of the BMW 5 Series smoothly and softly to the speed of the new car now ahead.

In combination with Active Cruise Control, the new BMW 5 Series Touring is available for the first time with a collision warning incorporating a brake activation function. While both of these systems may be activated independently of one another, they are harmonised and matched to one

another in their functions. Collision warning with its brake activation function triggers an alarm in two stages. The pre-warning is an optical message presented as a red car symbol on the instrument cluster and, when fitted, also on the Head-Up Display, telling the driver to increase his distance from the vehicle ahead. As soon as this symbol appears, the brakes are pre-loaded, the release thresholds on the Adaptive Brake Assistant are lowered, and the Brake Standby function on DSC Dynamic Stability Control is activated. This ensures rapid build-up of full brake pressure in an emergency, the shorter stopping distance made possible in this way reducing the risk of a front-to-rear collision. There is no such pre-warning whenever Active Cruise Control with Stop & Go is in use, since this sophisticated system automatically maintains and reinstates an appropriate distance at all times.

The second stage in the collision warning process is activated in the event of an imminent collision (= greater risk), regardless of the operating status of Active Cruise Control. Whenever the driver is required to intervene very quickly, the system sends out an acute warning – in this case not only an optical, but also an acoustic message. It also initiates the braking process required, slowing down the car with stopping power of up to 3 metres/sec^2 for a maximum of 1.2 seconds. In combination with a signal flashing on and off in the instrument cluster or, respectively, in the Head-Up Display and an acoustic warning signal, the driver is urged to act immediately. And with the brake system again being pre-loaded, the various functions are already in standby to avoid a collision or, should the worst come to the worst, to significantly reduce the consequences of an impact.

Lane Change Warning monitoring traffic approaching from behind.
Optional Lane Change Warning in the new BMW 5 Series warns the driver of potentially critical situations when overtaking. Using two radar sensors at the rear end of the car, the system monitors traffic conditions on the adjacent lanes, covering an area extending from the blind angle on the next lane all the way back about 60 metres or almost 200 feet. A triangular yellow light symbol integrated in the housing of the driver's exterior mirror shows the driver that a vehicle is in the critical range, requiring him to check out the situation carefully.

Should the driver set the direction indicator nevertheless, indicating that he is about to change lanes, the LED signal will warn him by flashing on and off. He will also be warned by discreet but unmistakable vibration of the steering wheel.

Lane Departure Warning: camera-based system warning the driver from unintended lane departure even in the dark.
Likewise available as an option, Lane Departure Warning detects unintended departure from the appropriate lane at a speed of at least 70 km/h or 43 mph. This system is made up of a camera fitted near the interior mirror on the windscreen, a control unit for comparing data and a signal generator making the steering wheel vibrate as in the case of a Lane Change Warning. Lane Departure Warning operates as a function of road speed. At high speeds, the system interacts quickly as soon as the car draws close to the side of the road. It does not send out a warning signal, however, if the driver has indicated his intention to change lanes or direction by setting the direction indicator.

The camera incorporated in the Lane Departure Warning system monitors the road markings on at least one side of the car, a control unit calculating the position of the vehicle in relation to such road markings. The system also works in bends, on narrow roads and in the dark, once the headlights have been switched on, making it very helpful under very many everyday driving conditions.

Speed Limit Info and Speed Limit Device.
The camera fitted in the interior mirror also allows the installation of another driver assistance system for extra comfort on the road. Combined with the Professional navigation system, Speed Limit Info helps the driver to keep informed on the speed limit on the route he is currently taking. To provide this function, the camera permanently monitors both the signs along the road and variable speed signs above major routes such as expressways and the autobahn, comparing the data obtained in this way with the data saved in the navigation system. The camera is indeed even able to consider additional road signs applicable, for example, only in rainy weather, as well as temporary speed limits, for example at construction sites.

The speed limit determined is presented by way of a symbolic speed sign in the instrument cluster or, as an option, on the Head-Up Display until the speed limit changes or is lifted altogether. Relieving the driver of an important chore through its function, Speed Limit Info increases motoring comfort particularly on long distances. The new BMW 5 Series Touring is available in addition to Speed Limit Info with a new Speed Limit Device limiting the maximum speed of the car to any maximum figure set in advance between 30 and 230 km/h (19 and 143 mph). The driver operates the Speed Limit Device by buttons on the left spoke of the steering wheel. And should he wish to drive faster even though the speed limit function has been activated, all he has to do is press down the gas pedal hard for a few seconds to override the

limit set in advance. As soon as the car then returns to a speed beneath the limit set, the speed limit function is activated once again.

Head-Up Display: important information right in front of the driver.
The Head-Up Display available as an option for the new BMW 5 Series Touring also follows the philosophy of intuitive control providing appropriate information at all times, thus applying the same optimised concept as in the cockpit. Information relevant to the driver such as his current speed, warnings provided by the driver assistance systems and navigation data is presented by the Head-Up Display directly in the driver's line of vision, in an ergonomically particularly good and clear position on the windscreen. The driver is able to take in and use this information without re-focusing his line of vision or taking his eyes off the road.

The intensity of this projection is automatically adjusted to surrounding light conditions, with the additional option to adjust the level of brightness through the iDrive menu. The driver is also able to choose the information he would like to receive on the windscreen in addition to road speed and warnings from the driver assistance systems. Depending on the level of equipment in the car, such additional information may be High Guiding data from the navigation system, information from the Speed Limit Info, Check/Control, status reports from the Active Cruise Control with Stop & Go, the collision warning unit and Lane Departure Warning as well as warnings from the BMW Night Vision system. The information selected is presented exclusively on the Head-Up Display when activated, and no longer in the instrument cluster. Given the sheer number and diversity of driver assistance systems available in the new BMW 5 Series Touring, the range of information available on the Head-Up Display reaches a standard and level of perfection never seen before.

Greater safety when driving at night:
BMW Night Vision even able to detect individual persons.
BMW offers an optional night vision system for the BMW 5 Series Touring which is even able to detect individual persons. The second generation of BMW Night Vision sets new standards in avoiding accidents when driving at night. The main feature is a thermal imaging camera fitted at the front end of the car. This camera provides a video image in real time presenting people, animals and other heat-emitting objects in high resolution on the central Control Display even when they are outside of the headlight beam.

This presentation on the screen is supplemented in the case of BMW Night Vision by the automatic detection of persons on or next to the road. To provide this function, the video data is analysed by a control unit

using intelligent algorithms to find pedestrians and cyclists potentially on collision course with the car. Once the system detects a possible risk involving such persons, the driver is warned by the Control Display and the optional Head-Up Display. This warning is restricted to pedestrians and cyclists who, on account of the speed, steering angle and yaw rate involved, are on a calculated collision course with the vehicle.

High-beam assistant offers support for optimum visibility.
The optional High-Beam Assistant in the new BMW 5 Series Touring offers additional safety when driving at night. Taking current driving conditions into account, this system switches the high beam on and off automatically as required, consistently giving the driver optimum visibility and at the same time relieving him of the chore to constantly monitor the high beam in the case of oncoming traffic. Processing images generated by a camera integrated in the interior mirror, the High-Beam Assistant recognises vehicles driving ahead in the same direction up to a distance of approximately 400 metres or 440 yards and oncoming vehicles up to a distance of about 1,000 metres or 1,100 yards. A further feature is that the high-beam is switched off automatically as soon as the surrounding light reaches a certain level of intensity, as is the case within city limits for example.

Just in case: emergency call function automatically locating the current position of the car.
Part of the optional BMW Assist telematics service, the BMW ConnectedDrive Enhanced Emergency Call function makes sure that in the event of a collision the rescue services are informed in detail on the type of collision and the risk of injury in good time before arriving at the scene of an accident. This allows them to prepare appropriate medical treatment of the persons injured well in advance.

Information transmitted to the BMW Call Center by the Enhanced Emergency Call function automatically locating the vehicle specifies not only the exact location but also the mobile telephone number connected to the car, the chassis number, type of vehicle, its colour as well as data compiled by sensors in the car indicating the type and intensity of the collision. Activation of restraint systems as well as the occupancy and belt status on the front seats are also identified. The system is even able to detect head-on, rear-end, side-Apart from sending out an automatic emergency call, the Enhanced Emergency Call function enables the driver or passenger to manually activate an emergency call going straight to the BMW Call Center.

8. Equipment: Intuitive Operation, Innovative Comfort Features.

- **iDrive control system with direct selection and preference buttons as standard.**
- **2-zone automatic climate control as standard, 4-zone automatic climate control as an option.**
- **Maximum travel comfort thanks to hard disk navigation and passenger compartment entertainment system.**

A high-class and modern cockpit design, ergonomically optimised controls and innovative comfort features enhance the experience of driving the new BMW 5 Series Touring. The extensive range of standard equipment, which not only includes the latest generation of the BMW iDrive control system but also automatic climate control with separate temperature adjustment for both the driver's and front seat passenger's side, underscore the vehicle's premium character. For additional individualisation and a further increase in travel comfort there are a number of variegated and innovative equipment options available.

Greater supremacy thanks to clear arrangement of control functions.
The cockpit design reflects typical BMW driver orientation in perfection owing to a resolutely implemented spatial subdivision of the driver-relevant and comfort-oriented functions required for superior motoring. Displays and controls for driving functions are located on the driver's side whilst the comfort-related elements are located more to the middle of the instrument panel. This arrangement was also implemented on the multifunction steering wheel, which has been redesigned for the BMW 5 Series. On this steering wheel, the function buttons for cruise control and the control elements for the audio system and telephone are – as in the cockpit arrangement – also positioned separately from each other.

Besides this horizontal arrangement, the vertical structure of the driver workplace also ensures fast and intuitive orientation in the new BMW 5 Series Touring. All primary display functions are to be found in the upper area of the cockpit – and, therefore, at eye level. The control elements are located in the lower area – ergonomically and optimally accessible – and can, thanks to varying haptic coding by size, shape and surface texture, also be operated without the driver having to take his eye off the road.

Located on a keypad in the immediate vicinity of the light switch panel are the switches for activating various driver assistance systems, which help the driver perceive his or her surrounding environment.

As a standard feature, the engine in the new BMW 5 Series Touring can be started by pressing the Start/Stop button as soon as the remote control key is inside the vehicle. Therefore, it is no longer necessary to insert the key, as was previously the case. Direction indicators and windscreen wipers are operated using conventional control levers located on both sides of the steering column. The buttons for seat adjustment are ergonomically and optimally arranged on the outer side of the seat. Controls for the seat memory function are located in the interior door lining and can be activated prior to entering the car.

On the centre console beneath the audio system, the new BMW 5 Series Touring features a separate control panel for operating the automatic climate control, heating and air ventilation. The automatic climate control function fitted as standard comprises separate temperature settings for both the driver's side and the front seat passenger's side, auxiliary ventilation, anti-mist sensor and residual heat utilisation. Automatic climate control with additional functions, which also include automatic air recirculation, solar compensation and separately adjustable air distribution for the driver's and front seat passenger's side, is available as an option. Furthermore, the car can be equipped with 4-zone automatic climate control with comfort nozzles, air vents on the B-pillar and a separate control panel for the rear seat passenger compartment.

Instrument cluster with Black Panel technology.
Black Panel technology on the instrument cluster combines classic flair with the latest innovations in technology. The system is made up of a high-resolution colour display, control and warning lights, as well as four circular dials in the traditional style of a sports car presenting information on the most vital driving functions. As an additional feature, the display is able to present information on route guidance and even road lane recommendations provided by one of the optional navigation systems.

When not in use, the instrument cluster forms a homogeneous black surface presenting only the chrome-finished surrounds, the gauge needles, the numbers and scale markings on the dials as well as the red warning field in the rev counter as permanently visible features. The integrated displays for current fuel consumption, the remaining range on the fuel left in the tank, the mileage, the time of day, the outside temperature, feedback from the driver assistance systems, Check/Control messages, the gear and shift

point indicator as well as the recuperation indicator are shown on a 5.7-inch-wide info display located at the lower edge of the instrument cluster and visible only when activated. And last but not least, the display provides instant feedback when changing the mode in Dynamic Driving Control and when operating the audio, telephone, or navigation functions.

BMW iDrive with direct selection and preference buttons.
The new BMW 5 Series Touring comes as standard with the BMW iDrive control system operating all entertainment, information, navigation and telecommunication functions either featured as standard or fitted as an option. In perfect ergonomic position, the Controller allows convenient and intuitive selection and activation of functions through standardised tipping, turning and pressing motions. A picture of the Controller presented on the Control Display and the clear menu structure ensure easy orientation in choosing the next step in operating the system.

Measuring 7 inches on the standard and 10.2 inches on the optional Professional navigation system, the Control Display is integrated in the dashboard at the ideal level and distance from the driver, ensuring superior and safe use and operation, with the driver hardly having to take his eyes off the road.

Direct selection buttons on the Controller enable the driver to choose very quickly and conveniently between CD, radio, telephone and navigation functions. The range of such direct selection buttons is rounded off by the MENU, BACK and OPTION keys, while eight preference buttons on the centre console allow the driver to save and directly select radio stations, telephone numbers and destinations in the navigation system as well as further menu items available via iDrive.

Yet another unique feature of BMW iDrive is multi-mode operation by voice entry and controller. The driver is able to easily and conveniently switch from one of these entry modes to the other while conducting one and the same task if he wishes, leaving the voice detection function in full operation also while making an entry via the controller, thus using both functions at the same time. Voice entry also allows direct access to music titles as well as verbal entry of complete addresses. The driver is able to read out the place, the name of the street and the number of his destination in one single command, with the system subsequently arranging the individual items in the required order to reach the destination desired.

Navigation system Professional with hard disc memory.
BMW iDrive also offers its full benefits when the car is fitted with one of the optional navigation systems. On both the Business and Professional navigation system, maps in high resolution are combined with arrows guiding the driver to his destination. Full-screen map presentation on the Professional navigation system furthermore offers an incomparably detailed overview of the region through which the driver is currently travelling. Both maps and individual symbols may be displayed as three-dimensional graphics, and the system is also able to present an elevation map showing the various levels of altitude. Selected sights along the route are highlighted as true-to-life photo graphics with a pre-view map helping the driver choose his destination.

As an alternative to full-screen presentation, the driver may activate an assistance window in the control display, presenting either further images/graphics, information from the on-board computer or data relating to the entertainment programme. A special map function serving to highlight traffic conditions offers a clear visual impression of the latest traffic jam and congestion reports, while the High Guiding function with integrated driving lane recommendations transmits detailed views such as rights of way at a complicated road junction from the screen directly to the instrument cluster or, where fitted as an option, straight to the Head-up display.

Yet a further function offered by BMW ConnectedDrive is BMW Routes. Before setting off, the driver and his passengers are able to put together their personal routes with the help of a route planner on the Internet, then conveniently transmitting such routes via BMW Online directly into the car or using a USB stick for direct entry into the navigation system, which will then guide the driver to his destination along the chosen route and offer additional information on interesting sights while following the route selected.

The navigation system Professional comes with an 80 GB hard disc saving all navigation data. Fitted permanently to the car, this data system serves among other things to maintain the driver's personal music archives, enabling him or any other user to transmit music files from perhaps a CD, an external MP3 player or a USB stick, using the storage capacity available for this purpose on the hard disc of more than 12 GB. The optional mobile phone preparation kit complete with a Bluetooth interface enables the user to operate the car's telephone functions via iDrive. And with the music player being connected to the mobile phone as an additional feature, the MP3 function of Smartphones such as the Apple iPhone can also be integrated in the car's control system.

Rear Seat Entertainment systems for maximum touring comfort.
The new BMW 5 Series Touring is available as an option with two versions of the rear seat entertainment system. These systems comprise a DVD player, remote control, the option to connect external MP3 players, game consoles and headsets as well as two high-resolution displays integrated in the front-seat headrests and adjustable for angle. This allows direct access to all audio and video sources within the car, such as DVD changer or TV function.

The displays featured at the rear measure 8 inches across in the standard version and 9.2 inches on the rear seat entertainment system Professional, also allowing individual access to the navigation system as well as full use of the Internet at the rear with the help of BMW ConnectedDrive. A further option is to use the displays in the rear seat entertainment system Professional independently of one another.

Unique the world over: the Integrated Owner's Manual.
The new BMW 5 Series Touring comes as standard with an Integrated Owner's Manual absolutely unique the world over. Via the iDrive system, the Integrated Owner's Manual gives the driver information whenever required on all the features and functions of his car, presenting operating instructions clearly and understandably by means of visual animation together with sound messages and slide shows. Short and clear texts as well as interactive graphics ensure that the information provided is easily understood.

9. Body and Safety: Strong Character.

- **Mean body stiffness up by 30 percent.**
- **Targeted use of high-strength and ultra-high-strength steel; doors, engine lid and spring supports made of aluminium.**
- **Active engine lid for optimum pedestrian safety.**

The exterior design of the new BMW 5 Series Touring offers a perfect balance of aesthetic looks and sporting dynamics in a unique interpretation of the touring concept. The body structure sets new standards in terms of solidity and intelligent lightweight construction. The use of the most appropriate materials serves to meet the highest demands on passive safety and at the same time optimise the weight of the car in the interest of enhanced efficiency and driving dynamics. A wide range of safety components interacting precisely with one another in a carefully coordinated overall concept guarantees excellent occupant safety whenever a collision is unavoidable. The safety concept of the new BMW 5 Series Touring also incorporates fundamental structural and innovative technologies for optimising pedestrian safety on the road, thus adding reliable protection in all conceivable crash situations to the sheer driving pleasure so characteristic of a BMW. Hence, the new BMW 5 Series naturally meets all requirements for achieving excellent results in all crash tests the world over.

Like the sedan, the new BMW 5 Series Touring comes with an extremely stiff passenger cell, intelligent use of high-strength multi-phase steel and hot-moulded ultra-high-strength steel, giving the safety passenger cell maximum stiffness on relatively low weight. Compared with the former model, mean stiffness of the body structure is up by approximately 30 percent in the interest of optimum passive safety and as the foundation for excellent driving dynamics. The lightweight quality rating, that is torsional stiffness as a function of the car's footprint and overall weight, is also absolutely outstanding.

Aluminium doors reducing the weight of the car by 23 kg or 51 lb.
Apart from the engine lid, the front side panels and the front spring supports on the body, the doors of the new BMW 5 Series Touring are also made of aluminium. Indeed, the use of aluminium doors alone instead of conventional steel components serves to reduce the overall weight of the car by approximately 23 kg.

With its particular moulding requirements, aluminium demands a far more sophisticated production process than steel. A new structural concept developed by BMW nevertheless allows the use of aluminium in the proven shell plate structure, maintaining the design features typical of BMW also when using this extra-light material.

Longest wheelbase in the segment for perfect proportions, harmonious axle load distribution, generous interior space and maximum occupant safety.

The wheelbase of the new BMW 5 Series Touring measures 2,968 millimetres or 116.9 inches, thus setting a new record in the upper midrange segment. This sets the starting point for the ideal proportions of the car crucial to both its looks as well as its driving characteristics and the high standard of occupant safety provided by the new BMW 5 Series Touring. Short overhangs and a longer front section than on the former model, with the engine fitted further behind the front axle, provide weight distribution close to the ideal of 50:50 on all variants of the new BMW 5 Series Touring. At the same time, the proportions offer optimum conditions for implementing the demanding safety concept with maximum occupant safety as well as innovative features serving to protect pedestrians in the event of a collision.

The seating position has been further optimised over the former model both front and rear, with legroom on the rear seats of the new BMW 5 Series Touring increased by 13 millimetres or 0.5 inches. Luggage compartment capacity is 560 litres, and the folding rear-seat backrest available as an option provides greater flexibility in enlarging the car's transport capacities. In addition to its 40:20:40 split, the rear-seat backrest can be either partially or completed folded down, whilst it is also possible to vary the backrest inclination angle. Through adjustment in the upright position, the luggage compartment volume is increased by 30 litres. Storage capacity is 1,670 litres with the backrest completely folded down.

Panorama sunroof: more light and harmonious design.

The panorama sunroof allows a precise flow of fresh air into the car and bright light within the passenger compartment, emphasising the sheer generosity of the ambience inside the BMW 5 Series Touring. It is electrically driven, features a light-proof inside lining and is significantly superior to the conventional glass sunroof in terms of size and function. The glass panel now measures 116 cm/46" in length and 94.2/37" cm in width, with an opening of 44 cm/17". The rigid structure of the rear glass panel, which is firmly screwed into the car body, contributes additionally towards the vehicle's stiffness. A further highlight is the harmonious integration of the glass panel into the outer skin of the car ensured by the contoured sweep at the front

end of the glass panel following the front edge of the roof. Precise mechanical alignment ensures a highly accurate connection of the front edge of the glass roof and the seal on the sliding roof, also when the roof is in vent position, preventing any unpleasant noise caused by air swirl.

The control unit for the electric operation of the panorama sunroof is integrated into the roof liner together with the interior light switches. The interior roller blind is also electrically driven, the inside matching the decor of the roof liner, harmoniously blending in with the car's interior. Moreover, the space-saving integration of the blind into the roof liner provides additional headroom at the rear of the car.

Comprehensive occupant protection on all seats.
Highly load-resistant bearing structures, generous and exactly defined deformation zones as well as highly efficient restraint systems coordinated by the car's high-performance electronic control units set the foundation for a high standard of passive safety in the new BMW 5 Series Touring. Forces generated in a head-on collision are diverted by several load paths in the floorpan, on the side frame, in the bulkhead and in the roof, absorbed by the deformation zones and thus kept away from the passenger cell. The load-bearing structures forming the load paths are made largely of multi-phase steel and hot-moulded steel, an additional bumper system around the front axle serving to spread out the forces acting on the front section of the car.

Reinforced side structures in the B-pillars and the side-sills, extra-strong door reinforcements and stable crossbars on the seats limit the depth of deformation as well as the speed of intrusion in the event of a collision from the side. With its reinforced pillars and roof supports, the passenger cell also offers safe survival space for the occupants in the event of a rollover.

Inside the new BMW 5 Series Touring, the frontal and hip thorax airbags are supplemented by curtain head airbags at the side for both rows of seats as a standard feature. Depending on the type and severity of a collision, the integrated safety electronics determine the restraint effect provided and the time of release.

All seats feature three-point inertia-reel seat belts and belt force limiters, with an additional belt latch tightening function on the front seats. To prevent cervical spine injury in the event of a collision from behind, the front seats come as standard with crash-activated headrests. Masterminded by the car's safety electronics, these headrests move up instantaneously in the event of a collision, closing the gap between the front end of the headrest and the occupant's head by up to 60 mm or 2.4" front-to-rear and up to

40 mm/1.6” in a vertical direction. The occupant’s head is therefore very close to the headrest even before being moved back by the forces acting on the car. This enhances the stabilising and protective function of the headrests and reduces the risk of injury or hyperextension of the occupant’s cervical spine.

Moreover, both ISOFIX child seat fastenings at the rear and the option to deactivate the front passenger’s airbag naturally come as standard. The safety steering column on the new BMW 5 Series, in turn, comes with a load-related deformation element as well as an extra-large spacer unit protecting the driver additionally from collision forces coming from the engine compartment.

Active bonnet for optimised pedestrian safety.
To optimise the high standard of passive pedestrian safety, the new BMW 5 Series Touring comes, depending on national specifications, with an active bonnet, which automatically moves up in the event of a collision with a pedestrian. The pyrotechnical release mechanism is activated at speeds of between 25 and 55 km/h (16 - 34 mph) as soon as data acquired by sensors at the front of the car indicate a collision with a pedestrian, raising the bonnet at the front and the rear.

This provides additional deformation space beneath the bonnet, thus absorbing impact energy and serving to lessen the risk of injury, or at least the consequences of an accident.

Optimum visibility: bi-xenon headlights, LED daytime driving lights and Adaptive Headlights with variable light distribution.
The dual round headlights on the new BMW 5 Series Touring so typical of the brand ensure excellent illumination of the road in the dark and in the event of poor visibility due to bad weather. On the standard headlights, LED light rings serve as positioning lights, again in typical BMW style, forming a clear and consistent circle of light. Further standard features are the fog lamps and the light sensor automatically activating the low beam according to ambient brightness. A rain sensor determining the intensity of precipitation and thus allowing automatic adjustment of the windscreen wipers is likewise fitted as standard.

The new BMW 5 Series Touring is available as an option with bi-xenon headlights, in which case the LED units in the characteristic light rings can be operated in two stages. Dimmed to approximately 10 percent of their full power, they serve as positioning lights. Switched to 100 percent, they provide a daytime light function in typical BMW style.

In conjunction with the optional bi-xenon headlights, the new BMW 5 Series Touring can be equipped with the latest generation of Adaptive Headlights with cornering lights, variable light distribution and adaptive headlight range control. Adaptive Headlights ensure that the road is sufficiently illuminated when taking bends. Each turning direction of the headlights is effected in relation to steering angle, yaw rate and vehicle speed. The cornering light function is integrated into each headlight. When cornering, an additional light cone is produced in order to illuminate the road in the direction the vehicle is moving.

The adaptive headlight range control function also takes vertical road contours into account. When driving over hillcrests, through tunnels or on steep ramps the light cone is lowered or raised accordingly in order to ensure optimum illumination of the road without dazzling oncoming traffic. Adaptive Headlights also feature variable light distribution, a function that also guarantees an optimised illumination of the carriageway on straight roads. The innovative control system automatically facilitates according to speed an amplification of the field of vision through adequate widening of the light cone.

The rear lights on the new BMW 5 Series Touring generate their strong effect and clear visibility through three-dimensional, homogeneously glowing light bodies. The taillights, brake lights and direction indicators feature LED technology. To avoid collisions from behind, the new BMW 5 Series Touring is equipped with a special warning system for motorists behind. This is a further development of the Adaptive Brake Lights introduced by BMW as the world's first manufacturer to offer such a feature. When applying the brakes particularly hard and when ABS is activated, drivers following from behind are immediately alerted by the brake lights conspicuously flashing on and off, prompting drivers behind to brake equally as hard. After the car has come to a standstill following particularly powerful application of the brakes, the hazard warning flashers are automatically activated.

10. Model history: The perfect Business Touring for Four Generations.

- **BMW 5 Series: successful since 1972, also available in the touring version since 1991.**
- **Sporting elegance meets supreme functionality. Constantly growing market shares thanks to a proven concept.**
- **Unique position as the most dynamic, active and innovative vehicle in the segment is being further strengthened.**

More than 5.5 million units sold over five model generations reflect the success story of the BMW 5 Series. The figure 5 in the model designation was introduced in 1972 and has since been a symbol of sportingly elegant, powerfully performing and innovative automobiles in the midrange segment. Since 1991, the BMW 5 Series Touring has also contributed towards the steadily growing popularity of the BMW 5 Series. Right from the start, this body version was tailored to suit an exceptionally discerning, modern, active and versatile target group. And now the concept of the perfect Business Touring car for drivers who really appreciate the driving pleasure typical of the brand, have high demands on the aesthetics and quality of their car and, over and above that, know how to use the freedom gained from enhanced functionality, is being continued in its 4th model generation.

The outstanding qualities that characterise every BMW of the 5 Series are based on a tradition that goes back as far as the 1960s. At that time, the models BMW 1500, BMW 1800 and BMW 2000, then referred to as the “new class”, became the company’s most successful model series, ensuring BMW’s international breakthrough as a producer of modern, highly coveted automobiles with an individual character. The origin of the Touring also goes back a long way, with the car manufacturer BMW proving at an early stage its competence in the development of innovative and trend-setting vehicle concepts.

The Touring versions of the BMW 02 Series produced from 1971 onwards also combined a variable utilisable interior, including a large tailgate, with unlimited driving pleasure and an individual, sportingly elegant design. Finally, the second generation of the BMW 3 Series Sedan was very successfully complemented by a Touring version. Since then, the Touring has established itself as an inherent part of the model range both in the BMW 3 and BMW 5 Series.

1991: debut of the BMW 5 Series Touring.
During development of the third-generation BMW 5 Series launched in 1988, designers had already taken into consideration the creation of an additional body variant. Very soon, the trade press was making speculations about a Touring version, constantly linked with the expectation that this BMW 5 Series model would also possess typical BMW handling characteristics as well as an elegant, stylish and unique design. These assumptions were soon finally affirmed at the 1991 Frankfurt Motor Show.

The look of the third generation of the BMW 5 Series Sedan, which was designed under the direction of design boss Claus Luthe, had already been characterised by a distinctive wedge-shaped silhouette. Designers transferred this sophisticated character to the first BMW 5 Touring. Beyond the B-pillar, the five-door model featured an entirely independently conceived design. Great importance was attached to sound insulation. Although the generously dimensioned interior was in itself an ideal resonator for acoustic disturbance, in practice there were no noticeable negative differences compared to the sedan. Right from the beginning, the BMW 5 Touring has been equipped with self-levelling technology on the rear axle.

The BMW 5 Series Touring also reached sedan standards in terms of comfort features. Furthermore, a variable double sliding/lifting sunroof, a forerunner of the panorama sunroof on the current BMW 5 Series Touring, was available as a model-specific option. The separately opening rear window has also been a typical feature of the BMW 5 Series Touring since the first generation.

The BMW 5 Series Touring was available with almost all engine variants also featured in the sedan and, if desired, with four-wheel drive. From 1992 onwards, the model range also included a BMW M5 Touring. The BMW 5 Series Touring was also a pioneer in the field of alternative drive technologies. 1995 saw the launch of the BMW 518g Touring, whose engine could be powered either by petrol or natural gas. The track record of the five-door car underlines the concept combining additional utility with attractive design. Around 125,000 BMW 5 Series Touring units were sold by 1996. All told, sales of the third-generation BMW 5 Series totalled more than 1.3 million units worldwide.

The second generation of the BMW 5 Series Touring: sales figures doubled.
1997, two years after the launch of the new version of the sedan, the second generation of the BMW 5 Series Touring debuted, both body variants continuing the sportingly elegant style of the predecessor in an evolutionary manner. Interior space was increased further, with the luggage compartment

through-loading width of the second BMW 5 Series Touring up by a remarkable 16 centimetres or 6.3 inches. The dual round headlights installed together behind a single glass cover were a striking front-end feature. In the year 2000, they were equipped for the first time with typical BMW corona rings for the position and daytime running lights. With features such as multifunction steering wheel, active seats and Dynamic Stability Control, the BMW 5 Series presented itself technically as a particularly high-class representative of its segment.

In order to enhance driving dynamics and safety, the body of the BMW 5 Series Touring featured a 50 percent higher torsional stiffness than the predecessor model. The suspension developed for the sedan and the touring was made almost entirely of aluminium, making it around 36 percent lighter than the conventional construction. The newly developed all-aluminium engines also contributed considerably towards weight optimisation.

The second generation of the BMW 5 Series Touring featured a choice of ten different engine variants with four, six and eight cylinders and a power output ranging between 100 kW/136 bhp and 210 kW/286 bhp, four of which were diesel power units. Thanks to a convincing combination of driving pleasure, elegance and variable passenger compartment space, this model established itself stronger than ever before as a premium Business Touring car. In the year 2001, the trade magazine for the fleet market, “FIRMEN AUTO”, voted the BMW 530d Touring company car of the year in the category “Premium Estate Car”. Accordingly, its market success also developed positively. Of the more than 1.48 BMW 5 Series units sold between 1995 and 2004, around 266,000 units were Touring models, meaning that the second generation of the BMW 5 Series Touring had more than doubled the sales figures achieved by the first version.

2004: BMW 5 Series Touring of the third generation – progressive and efficient.

The third generation of the BMW 5 Series introduced in 2003 impressed right from the start with progressive design and innovative technology. This model, which was again available as a sedan and from 2004 as a touring, set standards above all in terms of active safety, driver assistance systems and efficiency. Typical BMW design vocabulary, with convex and concave surfaces and flowing transitions between the front end, sides and rear end, also gave the third generation of the BMW 5 Series Touring a characteristic note. Once again, equipment standards featured in both the sedan and the touring were increased in equal measure. The interior with its clear and concise

functionality offered a driving experience characterised by the iDrive control system fitted as standard.

Engines featuring either an aluminium or composite aluminium-magnesium crankcase as well as a weight-reduced aluminium front end facilitated a particularly balanced distribution of weight between the front and rear axles. A further new development was the integral rear axle made of aluminium. Stability control DSC with additional functions, Active Steering and the Adaptive Drive system with Electronic Damper Control contributed towards the outstanding quality of the suspension technology. The BMW 5 Series Touring of the third generation came as standard with rear-axle pneumatic suspension with automatic self-levelling. Highlights introduced in the field of driver assistance systems included the Head-up Display and the systems BMW Night Vision, Active Cruise Control with Stop & Go function as well as Lane Departure Warning.

The engine range available for the BMW 5 Series Touring was extended to include six petrol and four diesel engines with a power output ranging from 125 kW/170 bhp for the BMW 520i to 270 kW/367 bhp for the BMW 550i. A 5-litre V10 high-revving power unit, delivering 373 kW/507 bhp and featuring individual throttles and optimised dynamic oil supply, was developed for the BMW M5 Touring.

Starting in 2007, all versions of the third-generation BMW 5 Series Touring were enhanced as standard through a wide range of BMW EfficientDynamics technologies varying appropriately from one model to another. Innovations such as Brake Energy Regeneration, a gearshift point indicator, active air flap control and on-demand ancillaries gave all models in their respective class an unparalleled balance of performance and fuel economy. The ultimate benchmark for efficiency in the upper midrange segment was in particular the BMW 520d Touring, achieving an average fuel consumption in the EU test cycle of 5.3 litres/100 kilometres (equal to 53.3 mpg imp) and a CO_2 emission rating of 140 grams per kilometre, the best figures in the upper midrange segment despite an engine output of 130 kW/177 bhp.

Offering striking design, innovative technology and exemplary efficiency, the fifth generation of the BMW 5 Series consistently continued the triumphant success story of this model family. The BMW 5 Series Touring, which was again able to surpass its predecessor in terms of sales, has made a significant contribution towards this success. From 2005 to 2008, the BMW 5 Series was the best-selling car in its segment for four years in a row, with worldwide sales of this model generation amounting to more than a million units by the end of 2007. Just a little later, in January 2008, the BMW Dingolfing Plant was able

to celebrate a particularly impressive anniversary, with five million BMW 5 Series units having come off the production line there since 1973.

11. Production: Supreme Quality through Efficiency and Precision.

- **New BMW 5 Series Touring built together with the BMW 7 Series and the BMW 5 Series Gran Turismo and the new BMW 5 Series Sedan at the BMW Dingolfing Plant.**
- **Use of shared components among several models guarantees efficient production and the same high standard of quality as in the luxury class.**
- **Innovative production technology going straight into large-scale production.**

Analogous to the new BMW 5 Series Sedan, the third generation of the BMW 5 Series Touring is based on the same newly developed vehicle architecture also featured in the BMW 7 Series Luxury Sedan. Joint production of the BMW 5 Series Touring, the BMW 5 Series Sedan, the BMW 5 Series Gran Turismo and the BMW 7 Series at the BMW Dingolfing Plant, together with the joint use of components, ensures a highly efficient production process and a supreme level of quality meeting the most demanding standards.

The BMW Dingolfing Plant in Lower Bavaria has been part of BMW's global production network since 1967 – a network now embracing no less than 24 production plants in 13 countries. In 1973, the production of car components in Dingolfing was joined by the production of complete BMW cars at BMW's new Plant 2.4. Numerous prizes and awards confirm the supreme standard of the largest BMW Plant the world over. In all, more than 7 million BMWs have been built in Dingolfing so far, clear proof of a more than 40-year story of success. Today the Plant employs 18,600 BMW associates, more than 12,000 thereof working in automobile production at Plant 2.4.

The model history of the BMW 5 Series is also closely connected with the BMW Dingolfing Plant. Shortly after the start of production of the first model generation in 1972, the BMW 5 Series was moved from BMW's original plant in Munich to the new plant in Dingolfing. And since then, all generations of the BMW 5 Series, the sedan as well as the touring, have been built in Lower Bavaria. Apart from all versions of the BMW 7 Series, the BMW 6 Series as well as the BMW 5 Series Gran Turismo are currently built in Dingolfing – and now the new BMW 5 Series Sedan and the

BMW 5 Series Touring are also being integrated into the local production process. Representing the largest production volume at the Plant, the BMW 5 Series accounts for up to two-thirds of the total production capacity. Flexible use of the production facilities allows continuous, ongoing adjustment of the individual model series within overall production at the Plant, thus ensuring both consistent use of production capacity and rapid delivery of new cars to the customer. A further advantage is the many options provided in this way to increase the efficiency of the production process.

Greater efficiency and quality through common vehicle architecture and modular components.
The BMW 7 Series, the BMW 5 Series Gran Turismo, the new BMW 5 Series Sedan and the new BMW 5 Series Touring share many features and joint processes in both development and production. Indeed, the joint architecture of these vehicles developed in a common process sets the foundation for integrated production allowing a flexible response to customer demands.

The modular system of vehicle components provides further synergy effects. These components share the same basic concept and are used in model-specific and modified variants also for the new BMW 5 Series Touring. In their function and quality, these components follow the same supreme standards already applied to the luxury sedan in the BMW 7 Series. One example is the development of the axle subframes as an overriding construction on both model series, with appropriate fastening and attachment openings for the track of each model. Another example is the seats in the new BMW 5 Series Touring, the BMW 5 Series Sedan, the BMW 5 Series Gran Turismo and the BMW 7 Series, which again share the same structure but differ from one another through their stitching and leather upholstery. The technology required for the air conditioning, to mention yet another example, comes in various modules beneath the surface, then being fitted in accordance with the customer's wishes both in the BMW 5 Series Touring, the BMW 5 Series Sedan, the BMW 5 Series Gran Turismo and the BMW 7 Series.

Permanent progress in production: modular processes.
The latest know-how gained in the development of modern production processes is applied at the BMW Dingolfing Plant in the production of cars. The BMW Group adheres to the principle of value creation-oriented production. An important example of such new processes is the modular concept: Proceeding from the use of shared vehicle components on the BMW 7 Series, the BMW 5 Series Gran Turismo, the BMW 5 Series Touring and the BMW 5 Series Sedan, the production specialists apply standardised

production processes that combine supreme quality in the manufacture of various models on one line with standardised production planning. Examples of such modular processes are the installation of the car's seats, the process of fitting the chassis supports, the installation of front and rear ends as well as the underbody assembly production in the body shop. Further progress in production is ensured in the creation of value along the production line and in logistics. BMW's objective in all cases is to ensure a concise flow of individual parts – the one-piece flow process – all the way from the supplier to the actual completion of the car itself.

Innovative production processes in the body shop.
Innovative production technologies have been developed for the production of several models in correspondingly high numbers. One example is the production of aluminium doors with the support of the BMW's Aluminium Competence Centre in Dingolfing. The know-how gained in the research processes conducted here, as well as the innovative developments made possible in this way, benefit all of the BMW Group's brands.

The large share of aluminium in the body components of the new BMW 5 Series Touring enables the experts in Dingolfing to contribute even more of their outstanding competence in this technology. The large load-bearing aluminium plate shells within the doors, in turn, ensure a high standard of all-round stiffness. And to join the individual components with one another, the Plant uses both laser welding and structural bonding.

The BMW Dingolfing Plant also uses innovative processes in the production of steel panel components. Two new steel panel presses involving an investment of approximately Euro 50 million will serve in future to give the body components of the new BMW 5 Series Touring a unique standard of quality. BMW is the world's first car maker to use hard-pressing technology at the Dingolfing Plant, with hot-galvanised steel plate first being moulded cold and subsequently heated to a temperature of more than 900°C or 1,650°F. Then the components are cooled down in a pressing tool with integrated water-cooling to approximately 70°C or 160°F within a few seconds, being hardened in the process with maximum efficiency. This gives the components involved three to four times the stiffness of conventional steel plates.

The ProgDie rapid-action press also new in the production process likewise offers an exceptionally high standard of efficiency in production and the use of energy. Among the world's largest presses of its kind, the ProgDie integrates several steps in production and is able to turn out up to 160 components in 40 strokes per minute. Up to 21 work processes are conducted at the same

time, from the first stamping process through various elongation processes all the way to the final insertion of stamped components. In ProgDie production, the individual strips of material come straight off the steel plate cylinder and are consistently moved through the die in each step. This ensures particularly efficient use of material and a reduction in the consumption of energy. Compared with conventional pressing processes, this saves approximately 5 million kilowatt hours of electricity each year.

Supreme quality right from the outset.
To fulfil BMW's strict quality standards right from the start when launching a new model such as the BMW 5 Series, BMW not only conducts many tests and examinations with pre-series cars but also applies the so-called cubing method. More than a year before the start of production, the quality and accuracy of more than 800 parts and modules are tested at the plant on a completely accurate body model. Weighing approximately three tonnes, this model is milled according to the car's development data out of massive, shrinkage-free special aluminium down to an accuracy of 0.1 millimetres. In several iterations on this model, first the prototypes and then the first components are fitted in position together with the various suppliers to check the precise dimensions and perfect fit of components with one another and on the body as a whole prior to the start of series production.

Modular strategy serving to promote customer-oriented production.
A highly sophisticated system referred to as the Customer-Oriented Sales and Production Process (COSP) ensures that each car ordered by the customer is completed exactly on time and fully in accordance with the customer's specific wishes and requests. COSP is also ensured by highly flexible production based not only highly developed logistics but also on the most efficient processes. Particularly the processes conducted on the assembly line benefit from the use of pre-assembled modules delivered as a whole straight to the production line. The complete front-end, for example, is one single module delivered just-in-sequence to the line, where subsequently only a few final steps are required. The bodies-in-white for the various models are built in any random order and combination according to the data provided by production management. In conjunction with modular supply, this allows highly flexible and very lean production taking up minimum storage space and enabling the BMW Plant to respond quickly to the customer's wishes and any subsequent changes. Customers profit from this high level of change flexibility as they can alter the configuration of the cars they ordered up until six days before the start of assembly.

Emission-free foundry.

The new BMW 5 Series Touring comes with petrol and diesel engines featuring cylinder heads and crankcases from the world's first emission-free foundry in Landshut. To avoid emissions in the casting process, the light-alloy foundry at the BMW Plant is converting the production of sand cores in the die-casting process, replacing conventional organic binding agents by inorganic binding agents particularly friendly to the environment. This reduces emissions potentially harmful to the environment to almost zero.
Introducing this innovative production method, the light-alloy foundry is reducing emissions from combustion residues in general by 98 percent.
This ultra-low-emission production process is being introduced in Landshut initially for the aluminium crankcases and cylinder heads of BMW's six-cylinder diesel engines. And currently the process of inorganic sand core production is being carried over step-by-step to the entire range of production in the light-alloy foundry.

12. Technical Specifications.
BMW 523i Touring, BMW 535i Touring.

		BMW 523i Touring	BMW 535i Touring
Body			
No of doors/seats		5/5	5/5
Length/width/height (unladen)	mm	4907/1860/1462 [1]	4907/1860/1462 [1]
Wheelbase	mm	2968	2968
Track, front/rear	mm	1600/1626	1600/1626
Ground clearance		141	141
Turning circle	m	11.95	11.95
Tank capacity	app ltr	70	70
Cooling system incl heater	ltr	9.0	9.3
Engine oil[2]	ltr	6.5	6.5
Weight, unladen, to DIN/EU	kg	1715/1790 (1730/1805)	1765/1840 (1770/1845)
Max load to DIN	kg	650	650
Max permissible	kg	2365 (2380)	2415 (2420)
Max axle load, front/rear	kg	1070/1380	1100/1400
Max trailer load (12%), braked/unbraked	kg	1900/750 (2000/750)	2000/750 (2000/750)
Max roofload/max towbar dwnl	kg	100/90	100/90
Luggage comp capacity	ltr	560-1670	560-1670
Air resistance	Cd_x x A	0.31 x 2.35	0.32 x 2.35
Power Unit			
Config/No of cyls/valves		Straight-six / 6 / 4	Straight-six / 6 / 4
Engine technology		Direct fuel injection (High Precision Injection), lean-burn	BMW TwinPower Turbo, Direct fuel injection (High Precision Injection), VALVETRONIC variable valve control
Capacity, effective	cc	2996	2979
Stroke / bore	mm	88.0/85.0	89.6/84.0
Compression ratio	:1	12.0	10.2
Fuel grade		min RON 91	min RON 91
Max output	kW/bhp	150/204	225/306
at	rpm	6100	5800
Max torque	Nm/lb-ft	270/199	400/295
at	rpm	1500-4250	1200-5000
Electrical System			
Battery/installation	Ah/–	80 (90)/luggage comp	80 (90)/luggage comp
Alternator	A/W	210/2940	170/2380
Driving Dynamics and Safety			
Suspension, front		Double-track control arm axle with separate lower track arm level, aluminium, small steering roll radius, anti-dive	
Suspension, rear		Integral V multi-arm axle, aluminium, with steering function, anti-squat and anti-dive, double acoustic separation, self-levelling air suspension	
Brakes, front		Single-piston aluminium swing-calliper disc brakes in frame structure	
Diameter	mm	330 x 24/inner-vented	348 x 36/inner-vented
Brakes, rear		Single-piston aluminium swing-calliper disc brakes	
Diameter	mm	330 x 20/inner-vented	345 x 24/inner-vented
Driving stability systems		Standard: DSC incl ABS and DTC Dynamic Traction Control, CBC Cornering Brake Control, DBC Dynamic Brake Control, Dry Braking function, Fading Compensation, Start-Off Assistant; optional: Dynamic Damper Control (BMW 523i), Adaptive Drive (BMW 535i)	
Safety equipment		Standard: airbags for driver and front passenger, side airbags for driver and front passenger, head airbags for front and rear seats, three-point inertia-reel belts on all seats with belt stopper, belt tightener and belt force limiter at the front, crash-activated headrests at the front, crash sensors, Tyre Defect Indicator	
Steering		Electric Power Steering (EPS) with Servotronic; optional: Integral Active Steering	
Steering transmission, overall	:1	17.1	17.1
Tyres, front/rear		225/55 R17 97W	225/55 R17 97W
Rims, front/rear		8J x 17 light-alloy	8J x 17 light-alloy

			BMW 523i Touring	BMW 535i Touring
BMW ConnectedDrive				
Comfort			Optional: BMW Assist including Enquiry Service, remote-control functions and V-Info+, BMW TeleServices, integration of mobile terminals	
Infotainment			Optional: access to the internet, BMW Online including Parkinfo, National Info, Google Directory Service, News, Weather Realtime, office functions, Bluetooth Audio Streaming, BMW Routes	
Safety			Optional: Adaptive Headlights with Bending Lights, variable light distribution and adaptive headlight range control, High-Beam Assistant, Park Distance Control, back-up camera, Surround View including Side View and Top View, BMW Night Vision with detection of persons, Head-Up Display, Parking Assistant, collision warning with brake activation function in combination with Active Cruise Control with Stop & Go, Lane Change Warning, Lane Departure Warning, Speed Limit Info, Speed Limit Device, Automatic/Enhanced Emergency Call	
Transmission				
Type of gearbox			Six-speed manual (optional: eight-speed automatic with Steptronic)	
Gear ratios	I		4.323 (4.714)	4.110 (4.714)
	II	:1	2.456 (3.143)	2.315 (3.143)
	III	:1	1.659 (2.106)	1.542 (2.106)
	IV	:1	1.230 (1.667)	1.179 (1.667)
	V	:1	1.000 (1.285)	1.000 (1.285)
	VI	:1	0.848 (1.000)	0.846 (1.000)
	VII	:1	– (0.839)	– (0.839)
	VIII	:1	– (0.667)	– (0.667)
	R	:1	3.938 (3.295)	3.727 (3.295)
Final drive		:1	3.231 (3.385)	3.231 (3.077)
Performance				
Power-to-weight ratio		kg/kW	11.4 (11.5)	7.8 (7.9)
Output per litre		kW/ltr	50.1	75.5
Acceleration	0–100 km/h	sec	8.2 (8.4)	6.0 (6.1)
	0–1000 m	sec	29.0 (29.5)	25.4 (25.8)
In 4th gear	80–120 km/h	sec	9.1 (–)	6.1 (–)
Top speed		km/h	231 (227)	250 (250)
BMW EfficientDynamics				
BMW EfficientDynamics, standard features			Brake Energy Regeneration with recuperation display, gearshift point indicator (on manual gearbox models), intelligent lightweight construction, on-demand operation of ancillary units, air flap control, Electric Power Steering (EPS), detachable a/c compressor, tyres with reduced roll resistance	
Fuel Consump in EU				
Urban		l/100km	10.9 (10.8)	11.9 (11.9)
Extra-urban		l/100km	6.2 (6.1)	6.7 (6.5)
Combined		l/100km	7.9 (7.8)	8.6 (8.5)
CO_2		g/km	185 (182)	201 (197)
Emission rating			EU5	EU5
Insurance classification				
KH / VK / TK			[3]	[3]

Specifications applicable to ACEA markets, data relevant to homologation applicable in part only to Germany (weight)
Figures in brackets apply to automatic transmission models

[1] With roof aerial: 1488 mm
[2] Oil filling quantity
[3] Data not yet available

BMW 520d Touring, BMW 530d Touring.

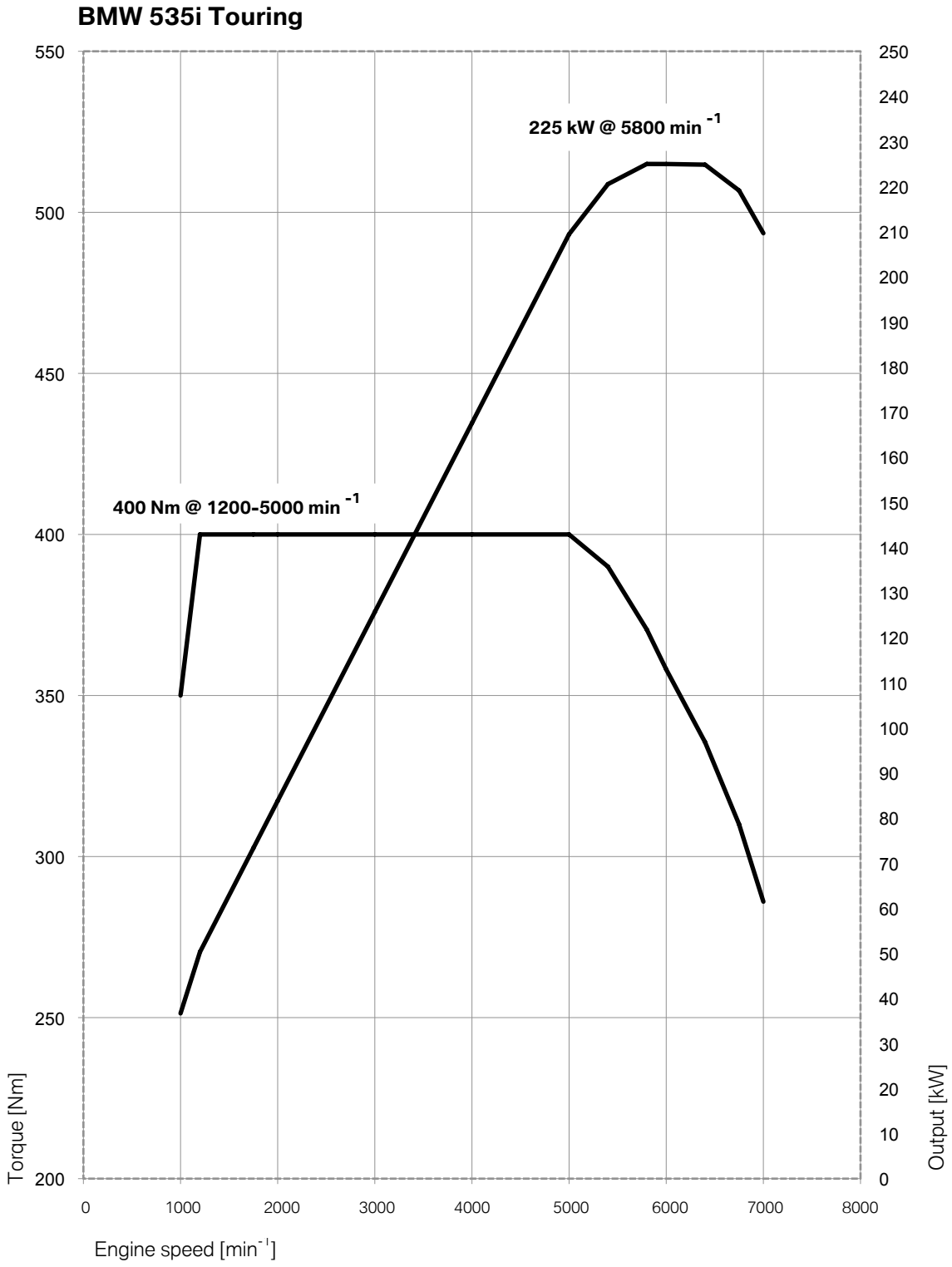
		BMW 520d Touring	BMW 530d Touring
Body			
No of doors/seats		5/5	5/5
Length/width/height (unladen)	mm	4907/1860/1462 [1]	4907/1860/1462 [1]
Wheelbase	mm	2968	2968
Track, front/rear	mm	1600/1626	1600/1626
Ground clearance		141	141
Turning circle	m	11.95	11.95
Tank capacity	app ltr	70	70
Cooling system incl heater	ltr	7.0	8.0
Engine oil [2]	ltr	5.2	7.2
Weight, unladen, to DIN/EU	kg	1710/1785 (1715/1790)	1800/1875 (1805/1880)
Max load to DIN	kg	650	650
Max permissible	kg	2360 (2365)	2450 (2455)
Max axle load, front/rear	kg	1060/1400	1125/1400
Max trailer load (12%), braked/unbraked	kg	2000/750	2000/750
Max roofload/max towbar dwnl	kg	100/90	100/90
Luggage comp capacity	ltr	560-1670	560-1670
Air resistance	Cd x A	0.31 x 2.35	0.31 x 2.35
Power Unit			
Config/No of cyls/valves		Straight-six / 4 / 4	Straight-six / 6 / 4
Engine technology		Common Rail direct fuel injection, turbocharger with variable intake geometry	Common Rail direct fuel injection, turbocharger with variable intake geometry
Capacity, effective	cc	1995	2993
Stroke / bore	mm	90.0/84.0	90.0/84.0
Compression ratio	:1	16.5	16.5
Fuel grade		Diesel	Diesel
Max output	kW/bhp	135/184	180/245
at	rpm	4000	4000
Max torque	Nm/lb-ft	380/280	540/398
at	rpm	1750-2750	1750-3000
Electrical System			
Battery/installation	Ah/–	80 (90) / luggage comp	90 / luggage comp
Alternator	A/W	180 / 2520	180 / 2520
Driving Dynamics and Safety			
Suspension, front		Double-track control arm axle with separate lower track arm level, aluminium, small steering roll radius, anti-dive	
Suspension, rear		Integral V multi-arm axle, aluminium, with steering function, anti-squat and anti-dive, double acoustic separation, self-levelling air suspension	
Brakes, front		Single-piston aluminium swing-calliper disc brakes in frame structure	
Diameter	mm	330 x 24/inner-vented	348 x 30/inner-vented
Brakes, rear		Single-piston swing-calliper disc brakes	
Diameter	mm	330 x 20/inner-vented	330 x 20/inner-vented
Driving stability systems		Standard: DSC incl ABS and DTC Dynamic Traction Control, CBC Cornering Brake Control, DBC Dynamic Brake Control, Dry Braking function, Fading Compensation, Start-Off Assistant; optional: Dynamic Damper Control (BMW 523i), Adaptive Drive (BMW 535i)	
Safety equipment		Standard: airbags for driver and front passenger, side airbags for driver and front passenger, head airbags for front and rear seats, three-point inertia-reel belts on all seats with belt stopper, belt tightener and belt force limiter at the front, crash-activated headrests at the front, crash sensors, Tyre Defect Indicator	
Steering		Electric Power Steering (EPS) with Servotronic; optional: Integral Active Steering	
Steering transmission, overall	:1	17.1	17.1
Tyres, front/rear		225/55 R17 97W	225/55 R17 97W
Rims, front/rear		8J x 17 light-alloy	8J x 17 light-alloy

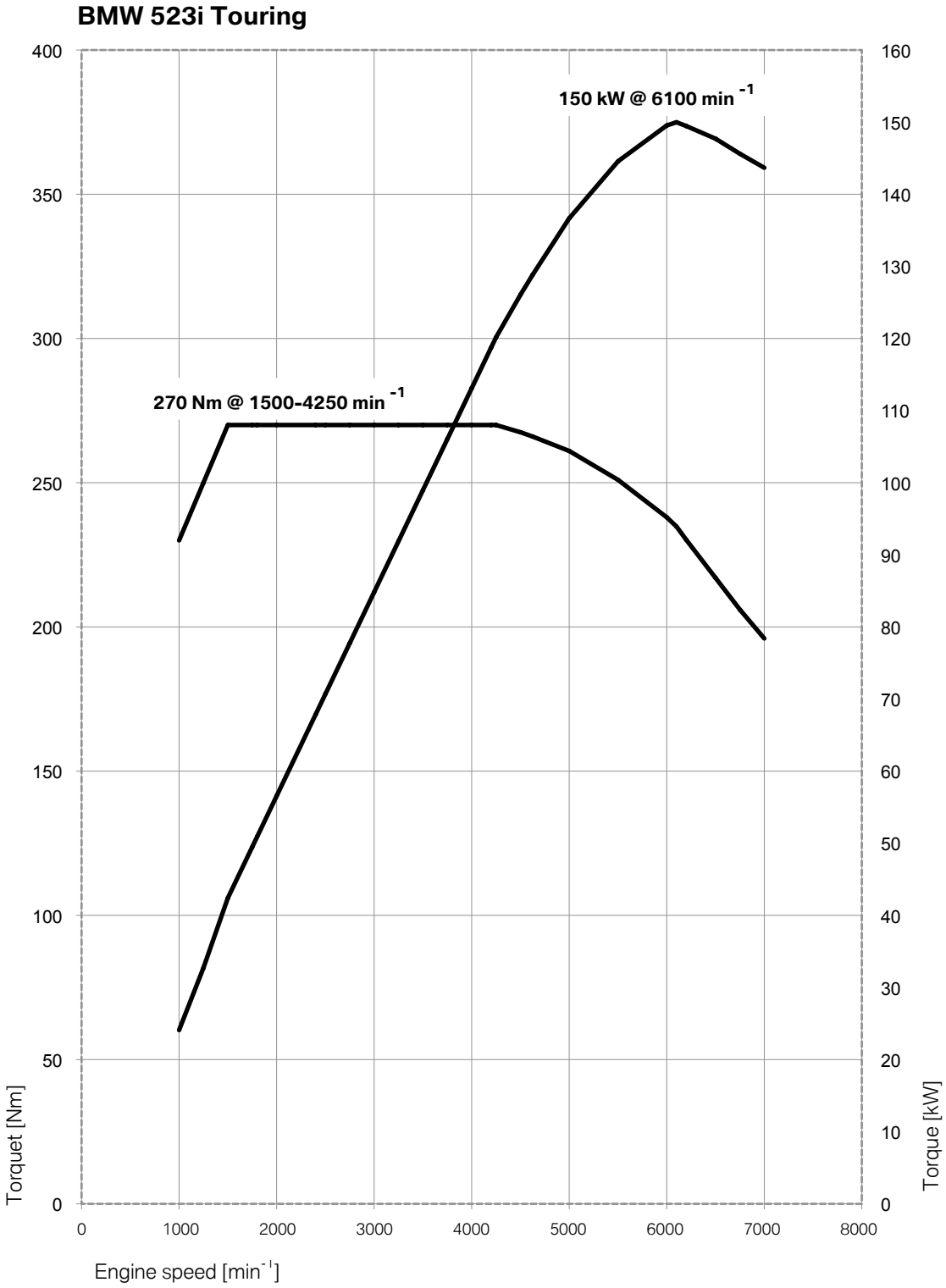
			BMW 520d Touring	BMW 530d Touring
BMW ConnectedDrive				
Comfort			Optional: BMW Assist including Enquiry Service, remote-control functions and V-Info+, BMW TeleServices, integration of mobile terminals	
Infotainment			Optional: access to the internet, BMW Online including Parkinfo, National Info, Google Directory Service, News, Weather Realtime, office functions, Bluetooth Audio Streaming, BMW Routes	
Safety			Optional: Adaptive Headlights with Bending Lights, variable light distribution and adaptive headlight range control, High-Beam Assistant, Park Distance Control, back-up camera, Surround View including Side View and Top View, BMW Night Vision with detection of persons, Head-Up Display, Parking Assistant, collision warning with brake activation function in combination with Active Cruise Control with Stop & Go, Lane Change Warning, Lane Departure Warning, Speed Limit Info, Speed Limit Device, Automatic/Enhanced Emergency Call	
Transmission				
Type of gearbox			Six-speed manual (optional: 8-speed automatic with Steptronic)	
Gear ratios	I		4.110 (4.714)	5.080 (4.714)
	II	:1	2.248 (3.143)	2.804 (3.143)
	III	:1	1.403 (2.106)	1.783 (2.106)
	IV	:1	1.000 (1.667)	1.260 (1.667)
	V	:1	0.802 (1.285)	1.000 (1.285)
	VI	:1	0.659 (1.000)	0.835 (1.000)
	VII	:1	– (0.839)	– (0.839)
	VIII	:1	– (0.667)	– (0.667)
	R	:1	3.727 (3.295)	4.607 (3.317)
Final drive		:1	3.385 (2.929)	2.563 (2.471)
Performance				
Power-to-weight ratio		kg/kW	12.7 (12.7)	10.0 (10.0)
Output per litre		kW/ltr	67.7	60.1
Acceleration	0–100 km/h	sec	8.3 (8.3)	6.4 (6.4)
	0–1000 m	sec	29.3 (29.4)	26.8 (26.7)
in 4th gear	80–120 km/h	sec	7.1 (–)	5.3 (–)
Top speed		km/h	222 (220)	243 (242)
BMW EfficientDynamics				
BMW EfficientDynamics, standard features			Brake Energy Regeneration with recuperation display, gearshift point indicator (on manual gearbox models), intelligent lightweight construction, on-demand operation of ancillary units, air flap control, Electric Power Steering (EPS), detachable a/c compressor, tyres with reduced roll resistance	
Fuel Consump in EU				
Urban		ltr/100 km	6.2 (6.5)	8.1 (8.0)
Extra-urban		ltr/100 km	4.6 (4.6)	5.3 (5.3)
Combined		ltr/100 km	5.2 (5.3)	6.4 (6.3)
CO_2		g/km	137 (139)	169 (165)
Emission rating			EU5	EU5[3]
Insurance classification				
KH / VK / TK			[4]	[4]

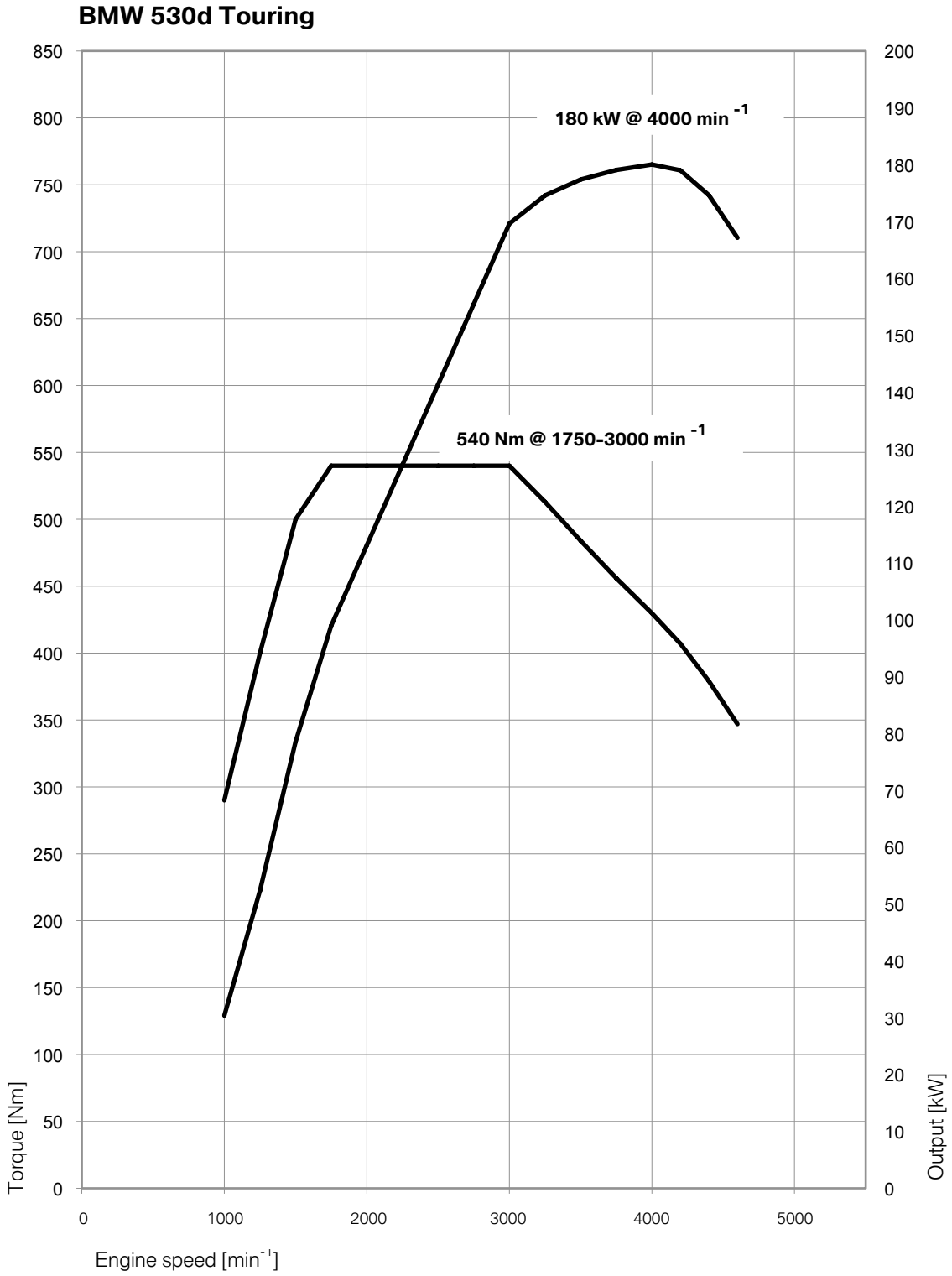
Specifications applicable to ACEA markets, data relevant to homologation applicable in part only to Germany (weight)
Figures in brackets apply to automatic transmission models

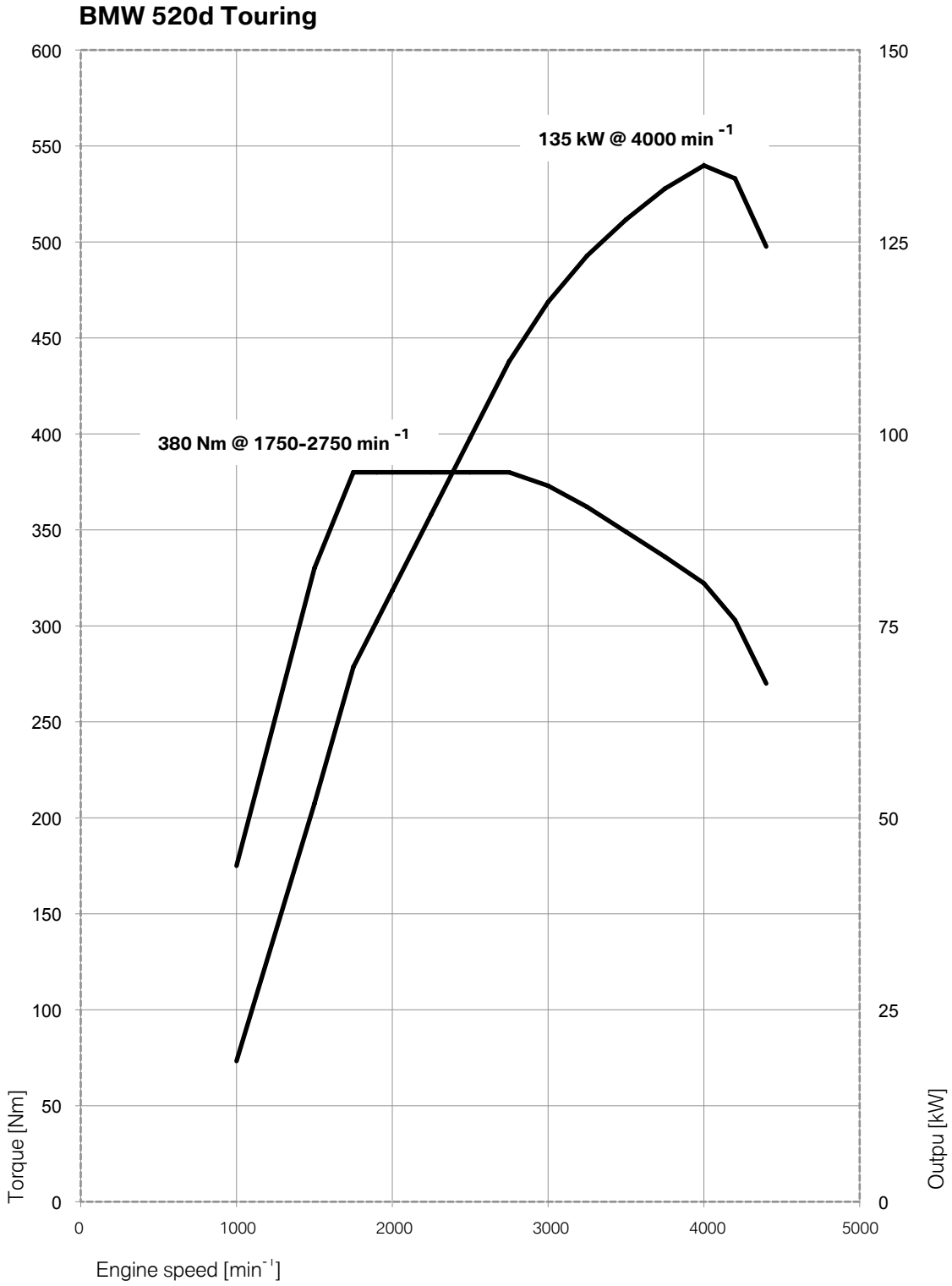
[1] With roof aerial: 1488 mm
[2] Oil filling quantity
[3] EU6 with optional BMW BluePerformance technology
[4] Data not yet available

13. Power and Torque Diagrams.




BMW 523i Touring
150 kW @ 6100 min -1
270 Nm @ 1500-4250 min -1
Torquet [Nm]
Torque [kW]
Engine speed [min-1]
0
50
100
150
200
250
300
350
400
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
0
1000
2000
3000
4000
5000
6000
7000
8000


BMW 530d Touring
180 kW @ 4000 min -1
540 Nm @ 1750-3000 min -1
Torque [Nm]
Output [kW]
Engine speed [min-1]
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
0
1000
2000
3000
4000
5000


BMW 520d Touring
135 kW @ 4000 min -1
380 Nm @ 1750-2750 min -1
Torque [Nm]
Outpu [kW]
Engine speed [min-1]
600
550
500
450
400
350
300
250
200
150
100
50
0
150
125
100
75
50
25
0
0
1000
2000
3000
4000
5000

14. Exterior and Interior Dimensions.