BMW Media Information 05/2018

Page 1

The new BMW M5 Competition. Long version.



BMW M GmbH is unveiling the most powerful and sportiest version yet of its high-performance BMW M5 sedan. The new BMW M5 Competition (fuel consumption combined: 10.8 – 10.7 l/100 km; CO₂ emissions combined: 246 – 243 g/km)* raises the bar for dynamism, agility and precision in its class.

With engine output upped to 460 kW/625 hp (an increase of 19 kW/25 hp on the new BMW M5), even sharper response and bespoke chassis tuning, a driving experience with motor racing undertones is guaranteed at all times. The new BMW M5 Competition succeeds in blending supreme performance and a superbly exclusive aura with the unruffled ease in everyday use for which BMW M models are renowned.

A history of success: Competition symbolises the ultimate in performance and exclusiveness.

The launch of the new BMW M5 Competition also marks the creation of a new product category, as BMW M GmbH will in future be offering the most powerful variants of its high-performance cars as standalone models. This restructuring of the M portfolio has been prompted by the strong popularity of the various model-specific M Competition packages with power upgrade. M Competition packages were first offered for the predecessor to the current BMW M5 and are currently available for the BMW M4 Coupe, BMW M4 Convertible and BMW M3 Sedan. Some 40 per cent of all previous-generation BMW M5 models sold worldwide were equipped with an M Competition package. The line-up's crowning glory came in the form of the BMW M5 Competition Edition, which was capped at just 200 units and boasted an uprated power output of 441 kW/600 hp along with an ultra-exclusive standard specification.

The new BMW M5 Competition will be available from the start of production in July 2018. The main markets for both the BMW M5 and BMW M5 Competition are expected to be the USA, UK, Germany, Japan and Canada.

^{*} The fuel consumption, CO_2 emissions, electric power consumption and operating range figures were determined according to the European Regulation (EC) 715/2007 in the version applicable. The figures refer to a vehicle with basic configuration in Germany and the range shown considers the different sizes of the selected wheels/tyres and the selected items of optional equipment.

BMW Media Information 05/2018

Page 2

Engine: more power and performance characteristics all of its own.

The emotion-packed driving experience that defines the new BMW M5 Competition stems from the unique performance characteristics of its engine. The high-revving power unit with M TwinPower Turbo technology developed for the standard BMW M5 has undergone meticulous retuning to optimise torque and power delivery.

The 4.4-litre V8 now generates maximum output of 460 kW/625 hp, available at 6,000 rpm. Peak torque stands at 750 Newton metres (553 lb-ft) and can be enjoyed across an extremely wide rev range – from 1,800 to 5,800 rpm (i.e. a 200-rpm wider band than in the standard version of the new BMW M5). This means the linear power build-up with which M models have become synonymous is sustained for even longer – into a rev band where the engine's maximum output comes into play. The high-revving concept with its roots on the race track has therefore been harnessed by the V8 unit in the new BMW M5 Competition to generate formidable propulsive force. The modified power delivery results in a faster 0 to 100 km/h (62 mph) acceleration time of just 3.3 seconds, while the 200 km/h (124 mph) mark is reached from a standing start in 10.8 seconds – 0.3 seconds quicker than in the standard version of the new BMW M5.

M Sport exhaust system develops an unmistakable sound.

The V8 engine's technological wizardry also includes a cross-bank exhaust manifold. Here, precisely directed exhaust gas flows ensure exceptionally quick turbocharger response along with an optimised gas-exchange cycle. To further reduce the pollutants contained in the exhaust gases, the new BMW M5 Competition is also fitted with a particulate filter.

The new BMW M5 Competition comes with a model-specific M Sport exhaust system as standard. This version of the flap-controlled, twin-pipe exhaust system produces an extremely distinctive soundtrack with an even sportier tone – especially when the engine is being pushed hard and at high revs – and thereby further intensifies the emotionally rich experience created by the V8's immense propulsive power. The various engine modes, which can be selected at the push of a button, include changes to the sound emitted by the exhaust system. For example, the acoustic profile activated by Sport Plus mode is even more purposeful in nature. The driver can also vary the engine's aural character using the M Sound Control button, enabling a quick switch to a far more understated drive sound. The M Sport exhaust system makes a great visual impression too, thanks to the black chrome embellishers of the tailpipe pairs nestled neatly into the left and right of the rear apron.

BMW Media Information 05/2018

Page 3

Specially designed engine mounts optimise responsiveness and cornering characteristics.

The new BMW M5 Competition features a model-specific engine mounting, which has a noticeable impact on its performance abilities. The engine mounts have modified characteristics and an increased spring rate – from the 580 N/mm of the standard-spec new BMW M5 to 900 N/mm. The drive unit's firmer connection to the vehicle's structure is clearly perceptible, resulting in even more direct engine response and immediate transmission of its power to the drivetrain. The car also turns into corners with noticeably greater directness and precision on account of the mounting's stiffer characteristics. Last but not least, the more rigid engine mounts enhance the driving experience further still by bringing the V8's unmistakable aural properties into the cabin to even more arresting effect.

Flawless power transfer courtesy of eight-speed M Steptronic transmission and M xDrive.

The task of relaying the new BMW M5 Competition's engine power is again handled by the eight-speed M Steptronic transmission, whose design and functionality have both been carefully crafted for extremely dynamic performance. Incredibly short shift times and swift, precise responses to every nudge of the accelerator ensure that the engine's capabilities are instantly translated into on-road performance. Three different modes offering a choice of efficient, sporty or ultra-dynamic driving can be activated using the Drivelogic rocker switch on the gear selector. Manual gear selections are possible with either the selector lever or the shift paddles on the steering wheel. And a specially designed transmission oil cooler keeps the transmission operating within the desired temperature window, even when the car is being pushed to the limit on the track.

The M xDrive system, which made its debut in the standard version of the new BMW M5, likewise has all the tools required to deliver scintillating performance. The intelligent all-wheel-drive tech is capable of effortlessly directing the BMW M5 Competition's even greater power to the road in thrilling fashion. And it generates just enough extra traction to achieve acceleration times worthy of a super-sports car. The centrally controlled interaction between M xDrive and the Active M Differential is largely responsible for channelling the engine's remarkable output to the car's wheels without any loss of power en route. The engine's torque is distributed between the front and rear wheels with creamy smoothness and fully variably by means of the transfer case's electronically controlled multi-plate clutch, before the Active M Differential splits it again between the two rear wheels, as appropriate.

BMW Media Information

05/2018 Page 4

The rear-wheel bias of the M xDrive system is another contributory factor in the tremendous agility of the high-performance sedan. The system also makes it possible to program in an individual power distribution configuration, and the driver is able to influence both the way in which the DSC (Dynamic Stability Control) works and how drive torque is apportioned between the front and rear axles – all at the press of a button. As an alternative to the basic setting, the new BMW M5 Competition also offers a choice of M Dynamic mode for controlled drifts and particularly playful handling, as well as three other modes with DSC deactivated that are geared towards track driving. Besides the 4WD and 4WD Sport modes, there is also the option of pure rear-wheel drive (2WD), which allows experienced and skilled drivers to revel in the experience offered by past generations of the BMW M5 – i.e. handling in its purest form, with no control systems holding the car back.

Individually tuned chassis for the ultimate in precision and performance.

Like every BMW M car, the new BMW M5 Competition is equipped with chassis technology matched perfectly to the performance characteristics of its engine. The associated modifications ensure precisely controllable handling at all times, even in extremely dynamic driving situations. This is all down to the M-specific kinematic and elastokinematic properties of the high-performance sedan's double-wishbone front suspension and five-link rear suspension. They result in neutral steering behaviour and a linear build-up of lateral force up to the car's dynamic limits. An M-specific version of the Variable Damper Control system is likewise fitted, the Comfort, Sport and Sport Plus modes selectable at the press of a button activating different damper settings. Meanwhile, the electromechanical M Servotronic steering conveys a sense of supreme accuracy on turn-in, while also delivering clear feedback.

As well as lowering the vehicle by seven millimetres, the model-specific chassis tuning also includes judicious tweaks to the wheel suspension, springs and dampers. The increased camber at the front axle enhances the car's ability to absorb lateral forces through high-speed corners. Fitting the toe links with ball joints instead of rubber mounts has resulted in even more precise wheel guidance at the rear axle. And the spring rate of the rear anti-roll bar is also firmer, causing the body roll that occurs through high-speed corners to be distributed with a pronounced rear bias.

The front axle of the new BMW M5 Competition is equipped with a newly designed mounting for the anti-roll bar. Making the springs at the front and rear axles ten per cent stiffer than on the standard version of the new BMW M5 has produced a firmer ride, which also has a positive impact on steering response. Plus, shorter auxiliary springs reduce fluctuation

BMW Media Information

05/2018 Page 5

in wheel loads, as does the unique tuning of the damper hydraulics. The athletic character of the new BMW M5 Competition really comes to the fore in the three modes selectable at the touch of a button. This means the direct connection of chassis to driveline can also be clearly felt in Comfort mode. Selecting Sport mode activates the damper settings perfected for testing on the Nürburgring's Nordschleife circuit. And Sport Plus lends itself to ultra-dynamic driving on grand prix tracks.

Serenely controllable handling through corners.

The upshot of all these modifications is enhanced performance capabilities best appreciated on the track. The new BMW M5 Competition exhibits an even higher degree of steering precision in dynamically extreme driving situations. Its serenely controllable cornering abilities, even at the limit, will be keenly appreciated by drivers. Directional stability under high lateral forces and the car's obedient nature when turning into corners and accelerating out of them have also reached new heights. At the same time, these dynamic gains have only resulted in a relatively modest dilution of ride and suspension comfort.

The outstanding stopping power of the new BMW M5 Competition is provided by low-weight M compound brakes, featuring six-piston fixed callipers and perforated, inner-vented brake discs at the front wheels and single-piston floating callipers with integrated parking brake at the rear. There is also the option of M carbon-ceramic brakes, distinguished by their even lower weight, extreme thermal stability and excellent resistance to wear.

Standard specification for the new BMW M5 Competition includes exclusive M light-alloy wheels sporting a Y-spoke design in a bi-colour finish. The 20-inch forged wheels are shod with mixed-size tyres measuring 275/35 R 20 at the front and 285/35 R 20 at the rear.

Exclusive and highly expressive design features.

The light-alloy wheels specially developed for the new BMW M5 Competition play a part in its exceptional performance capabilities and also add to the model's exclusive looks. Other distinctive design features of the Competition include door openers that are painted entirely in body colour and a host of details finished in high-gloss black. On the new BMW M5 Competition, this discreetly sporty black tone is used for the mirror bases and mirror triangles, plus the exterior mirror caps and the mesh of the signature M gills in the front flanks. This colour scheme combines harmoniously with the BMW Individual high-gloss Shadow Line trim for the side window surrounds and B-pillar trim.

BMW Media Information

05/2018 Page 6

The kidney grille's surround brings extra high-gloss black accenting to the front end of the new BMW M5 Competition, and those travelling behind will also be able to pick out the new car by the high-gloss black detailing for the rear bumper covering. This, in turn, forms a colour-coordinated composition with the tailpipes in black chrome. Both the rear spoiler and "M5" boot lid logo – which gains "Competition" lettering – are also finished in high-gloss black.

Moving inside the new BMW M5 Competition, black seat belts with an understated striped pattern in BMW M GmbH colours and floor mats with model-specific piping plus an "M5" logo provide the finishing touches to an interior oozing high-class sports car presence. Another distinctive identifier is the "M Competition" graphic that appears in the instrument cluster to greet the driver as it is starting up.

The fuel consumption, CO₂ emissions and electric power consumption figures were determined according to the European Regulation (EC) 715/2007 in the version applicable. The figures refer to a vehicle with basic configuration in Germany. The range shown considers the different sizes of the selected wheels/tyres and the selected items of optional equipment, and may vary during configuration.

The values for the vehicles marked * are already based on the new WLTP test cycle and have been translated back into NEDC-equivalent values in order to ensure comparability between the vehicles. With respect to these vehicles, for vehicle-related taxes or other duties based (at least inter alia) on CO₂ emissions, the CO₂ values may differ from the values stated here (depending on national legislation).

The CO_2 efficiency specifications are determined according to Directive 1999/94/EC and the latest version of the Pkw-EnVKV, and based (for classification) on the fuel consumption and CO_2 values as per the NEDC cycle.

Further information on official fuel consumption figures and specific CO_2 emission values of new passenger cars is included in the following guideline: Leitfaden über den Kraftstoffverbrauch, die CO_2 -Emissionen und den Stromverbrauch neuer Personenkraftwagen' (Guideline for fuel consumption, CO_2 emissions and electric power consumption of new passenger cars), which can be obtained free of charge from all dealerships and at https://www.dat.de/en/offers/publications/guideline-for-fuel-consumption.html.