



**Press release Frankfurt, September 15, 2015**

## **BORGWARD returns to automotive world stage**

- **The Stuttgart-based group unveils two world premieres at the IAA: the BX7 SUV and the TS version of the BX7**
- **Company with rich heritage announces further new models**
- **Market launch in Germany and the rest of Europe within the next two years**

The time-honoured German automobile brand BORGWARD is returning to the world stage. BORGWARD has unveiled two world premieres at the International Motor Show (IAA) in Frankfurt am Main: the BX7 SUV and the TS version of the BX7. "Our goal is to turn BORGWARD once again into a major international automobile manufacturer, just as it was in its heyday," said Ulrich Walker, CEO of BORGWARD Group AG, in Frankfurt am Main on Tuesday.

Walker said that BORGWARD is scheduled to be launched in Germany and the rest of Europe sometime within the next two years. The company is to introduce its first vehicles to the Chinese and other emerging markets in the first half of 2016. Walker described the current developments on the Chinese market as a process of normalisation. "China remains a growth market, particularly in the SUV segment", he added. The first BORGWARD plant is about to be completed in China.

The market launch in China and further emerging markets is just the beginning. "Our goal for the medium and long term is to be present not only in China and Europe but in all the other major markets as well — and, in particular, in the emerging economies," said Walker. The entry into new markets and the achievement of corresponding sales volumes will be accompanied by the establishment of new production locations.

In the medium term, BORGWARD is targeting global sales of significantly more than 500,000 vehicles. In addition, the product portfolio is to be continuously expanded over the coming years, with at least two new models presented for market launch every year. Initially, the SUV family of vehicles is to be expanded, with other segments to follow later. "The BORGWARD family will be competitive," said Walker. "And our business model is based on sound financial and strategic foundations," he added with reference to the brand's continuing commitment to the basic values that already applied in the time of company founder Carl F. W. Borgward.

As in the past, BORGWARD stands once again for outstanding engineering, design and quality as well as for innovation, sustainability and affordability. "It's what we call 'accessible premium'," said Walker.

Similarly, in terms of design, the aesthetic shapes of the new BORGWARD embody the traditional values of the BORGWARD brand and help create the modern self-confidence of

superior vehicles. BORGWARD models also combine the most advanced communication and entertainment systems with an extensive online service. BORGWARD likewise employs the very latest connectivity systems to enhance the driver's safety and comfort. Outstanding product quality combined with uncompromising reliability and extreme longevity will ensure that upcoming model series become classics of the future.

And, last but not least, sustainability is firmly anchored in BORGWARD's corporate goals. For example, BORGWARD is in favour of an electric drive train. Initially, BORGWARD is launching the BX 7 PHEV — a plug-in hybrid model that will lead the way in the mid-size SUV segment, by offering, for example, excellent driving performance and competitive electric ranges.

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*ABRIDGED VERSION*

**BORGWARD reloaded:**

**First model is the near production-ready BX 7 AWD prototype**

## **The evolutionary**

The time-honoured German premium automaker BORGWARD is back. As was previously announced at the Geneva Motor Show, the automaker with the characteristic diamond-shaped trademark is now presenting its first model since making its comeback in March of this year. The BORGWARD BX 7 AWD is a near-production prototype for the globally popular mid-size SUV market. The newcomer, which is 4.7-metres long, makes a big impression with its innovative all-wheel drive system, potent plug-in hybrid technology and highly advanced communication and entertainment systems. Outstanding safety is guaranteed by the comprehensive and intelligent **"PROTECT"** occupant protection concept that features pioneering handling and driver assistance systems that help prevent collisions. If the worst comes to the worst, passive restraint systems and a highly stable passenger compartment with precisely defined deformation zones provide reliable protection and can significantly mitigate the consequences of an accident for vehicle occupants. In this sense, the near-production BORGWARD BX 7 AWD prototype has the potential to achieve great marks in all international crash-test ratings.

Additional highlights of the new SUV include its outstanding spaciousness for this segment, with up to seven seats and brand-typical high quality design in line with the guiding principle of **"Modern Tradition"**. BORGWARD designers in studios in Stuttgart, Beijing and Oslo are developing the brand-typical design idiom on the basis of this principle. In doing so, they merge ultramodern, sculptural shapes with the traditional values of the BORGWARD brand to create superior and self-confident automobiles.

## **BORGWARD BX 7 PHEV: plug-in hybrid power with 55-km range in the all-electric mode**

The BORGWARD BX 7 AWD T-GDI is equipped with a conventional all-wheel drive system and a 165-kW (224 hp) direct-injection 2.0-litre four-cylinder engine. However, Borgward will also offer a model with a compelling alternative drive system: the BORGWARD BX 7 PHEV. This plug-in hybrid (PIH) demonstrated at IAA, boasts a system output of 295 kW (401 hp), as well as a torque booster that results in a system torque of 650 Nm. The model has a range of 55 kilometres in the all-electric mode, and its NEDC fuel consumption amounts to 2.26 l/100 km.

Here, a direct-injection 2.0-litre four-cylinder turbo-engine powers the front axle via a seven-stage dual clutch transmission. The rear axle is driven by an electric motor that is linked to the front-axle drive system via a sophisticated control unit. This intelligent all-wheel drive system uses a "virtual drive shaft" to mobilize torque at the electrically driven rear axle whenever energy-efficiency, handling or safety considerations require it. Nine plug-in hybrid operating modes are available to the driver. These modes are activated either automatically or else via a rotary/push-button controller in the centre console, whereby each mode is depicted on both the central 12.3-inch media touchscreen and the dashboard display. The normal PIH modes, such as energy recovery, all-electric driving and booster, are supplemented by an off-road programme that enhances the vehicle's assertiveness in rough terrain.

Intelligent operating strategies in combination with GPS navigation, online services and an individual driving style enable energy efficiency to be improved even further. In this way, the energy content of the lithium-ion battery (13.2 kWh) can be optimally exploited to achieve an all-electric range of up to 55 kilometres. Thanks to a unique and intelligent charging management system and new DC/DC converters, it only takes around 30 minutes to charge the battery at a public or private terminal.

## **Superior propulsion: permanent all-wheel drive system with an electronically controlled multiple plate clutch**

The new conventionally powered BORGWARD SUV boasts the most advanced all-wheel drive system available today. Together with specialists from the renowned supplier company BorgWarner, engineers from BORGWARD have adapted the fully variable all-wheel drive system, which has an electronically controlled multiple plate clutch. "Our ultramodern and innovative AWD drive train offers a high level of traction reserve, which means outstanding agility and the highest degree of safety is guaranteed on all surfaces", is how Bernd Kircher, Chief Engineer of the development team, describes the benefits of the fully automated "torque-on-demand" drive system. The BORGWARD all-wheel drive system uses an electronically controlled all-wheel multiple plate clutch equipped with an electric actuator to distribute torque in the best possible manner to the front and rear axles in order to ensure maximum traction in line with the driving situation and road surface conditions. The drive system's fuel economy concept is a completely new development. Here, low weight and a new multiple-disc limited slip differential on the rear axle lend the system a high degree of energy efficiency.

The drive train and the chassis (with the suspension, steering and braking systems) complement one another perfectly. The sporty, digressive electric power steering system with a variable steering ratio and demand-actuated steering power assistance always implements the optimal set-up for the given driving situation. The sophisticated suspension with MacPherson struts on the front axle and a multi-link suspension on the rear axle combines extraordinary stability with balanced driving comfort and a high degree of active safety. The highly stable and sensitively regulated braking system with ventilated brake discs and fixed brake callipers is electronically controlled, which also makes it a key safety feature. The safety package here includes ABS, an electronic braking force distribution system, a braking assistant and an electric parking brake with an "auto hold" function.

### **High safety standard for the best possible occupant protection**

The BORGWARD BX 7 is an SUV whose comprehensive "**PROTECT**" safety concept meets all the requirements for ensuring the greatest degree of occupant safety. Both the vehicle's structure and its restraint systems give the debut model the potential to get great marks in international crash-test ratings, such as 5-star of Euro NCAP. The vehicle body, which includes a highly stable passenger compartment and defined deformation zones in the front and rear, forms the reliable foundation for the high level of occupant protection offered by the BX 7. Critical body segments are reinforced with high-strength, ultra high-strength or hot-formed steel. In the event of a frontal, side or rear collision, several load paths distribute the impact energy and, so far as possible, ensure balanced deceleration levels with which the passive safety systems are precisely aligned. These passive safety systems include two-stage hybrid airbags for the driver and front passenger, side airbags for the driver, front passenger and the second row of seats (6-seat model), and window bags.

In order to ensure that the passive safety systems remain inactive as much as possible, the BORGWARD BX 7 "**PROTECT**" concept also incorporates numerous driver assistance systems that can help prevent accidents. These include a collision assistant system with activebrake intervention, a city braking assistance system with pedestrian detection at speeds up to 70 km/h, a lane-keeping assistant, and a proximity cruise control system for continually maintaining a safe distance to the vehicle ahead at speeds up to 200 km/h. Other systems, such as the 360° panoramic camera, make handling the BORGWARD SUV an even more comfortable experience, especially in complex situations, and also help prevent minor accidents.

### **"Multiple Interaction": networked infotainment**

Intuitive operation, state-of-the-art infotainment and a high level of connectivity with Internet access and extensive online services are all integral components of the BORGWARD brand philosophy. The near-production BX 7 TS AWD prototype already provides a preview of the various possibilities offered by the system known as BORGWARD "**Multiple Interaction**". First, there is the exceptional ease of operation

that doesn't follow the "either/or" principle but instead the notion of "and". More specifically, drivers can choose whether they want to activate and operate the infotainment menus via the direct short-cut buttons in the centre console, the 10 WM control knob or the 12.3-inch touchscreen, which is the biggest in this vehicle class.

Android smartphones and Apple iPhones can be fully networked with the vehicle via the **"Multiple Interaction"** system. Drivers thus have complete access to all smartphone features: They can view contact lists, play the music and use all apps on their smartphones on the large central touchscreen. The vehicle's internal WiFi hotspot allows passengers to connect to the Internet with devices such as smartphones, tablets or laptops, whereby fast and stable data transfer is ensured by a powerful roof antenna.

There are also connection buttons mounted on a ceiling unit in front of the rear-view mirror. The Service button connects the driver to a service agent who makes calls in order to book hotels, purchase theatre tickets or make restaurant reservations, for example. If the driver pushes the SOS button, a service employee will immediately send help in line with the given situation. Specially trained service staff will also contact drivers to inquire about the well-being of vehicle occupants if an airbag inflates or a seat belt tensioner is activated. Depending on the response, certain measures might immediately be taken, up to and including the dispatch of an ambulance to the scene of an accident.

Smartphone apps for Apple iOS and Android systems allow authorised users to access certain vehicle systems anytime and from anywhere. For example, vehicle owners can check the fuel tank level, tyre pressure and oil remotely, obtain information on the next servicing date or the vehicle's location, and lock or unlock the doors. The addresses of destinations such as nearby theatres or sport stadiums can also be sent from a smartphone directly to the navigation system, which will then automatically guide the driver to that destination as soon as he or she starts the engine.

### **"Modern Tradition": an individualist in the SUV mainstream**

Modern BORGWARD automobiles will stand out through their exceptional elegance, dynamic sportiness and commanding presence. The preeminent design attributes of the near-production BORGWARD BX 7 AWD prototype include its wing lines and the OCTAGON radiator grille with the legendary diamond-shaped brand badge. Both attributes are part of the BORGWARD design DNA whose guiding principle is that of **"Modern Tradition"**. This has nothing at all to do with retro design, as BORGWARD Executive Design Adviser Einar J. Hareide points out: "We don't use the designs of classic models like the Isabella as a point of reference when we work on new model series. Instead, we use such unique automobiles as a source of inspiration. We decode the original BORGWARD design DNA, so to speak, and then transplant it into the modern age." For the design team led by Hareide, BORGWARD's history doesn't necessitate the use of certain shapes and forms. Instead, it serves as a guide for the transformation of the ideals of the company's legendary founder, Carl F. W. Borgward, who along with developing brilliant technical solutions also had a profound feeling for outstanding design, whereby the Isabella models are only one example of this.

The wing line design invokes the most diverse wing profiles — from the curved lines of a classic biplane wing to the sharp contours of a jet wing. A long wheelbase and short overhangs in the front and rear form the basis for a sporty silhouette. Additional, almost dramatic, dynamism is produced at the flanks of the BORGWARD BX 7 AWD by the contrast between the extended, coupé-like greenhouse and the taut, vigorous body surfaces beneath the beltline. Muscular and broadly masculine shoulders with the typical wing lines turn up the energy on the sides of the body and pick up the sporty-extravagant tone that originates at the front end. An extended wing profile above the sill, the “hawk line”, emphasises the promise of powerful forward thrust that the BORGWARD BX 7 AWD radiates even when standing still. Attributes that recall classic off-road vehicles — such as considerable ground clearance, short overhangs and a high beltline — enhance in a typical SUV manner the appearance of the all-wheel drive BORGWARD BX 7 AWD, and send a message of outstanding performance off the beaten track as well.

### **A step up: the premium interior of a higher-class vehicle**

“Our ‘Modern Tradition’ concept naturally applies to the vehicle interior as well”, says Ben Nawka, Chief Designer Europe for the BORGWARD team in Stuttgart. “We’ve merged traditional automobile craftsmanship and state-of-the-art technology to create a luxurious wellness ambience.” This design philosophy is very much reflected in the interplay between materials such as velvety-soft Scottish napa leather with the classic BORGWARD contrasting stitching and innovative interior components such as the 12.3-inch central media touchscreen. In addition, the harmonious black/buffalo brown colour combination and the precisely crafted workmanship in the interior create a luxurious ambience that make occupants immediately feel at home.

Depending on one’s individual preferences, it will be possible to configure the BORGWARD SUV as either a five, six or seven-seat model. The second row of the six-seat variant features two comfortable, heated captain’s chairs that can be folded down as well. The seven-seat variant offers maximum variability in that the second row of seats can be folded down. The longitudinal adjustment and 60/40 split either ensures outstanding comfort for passengers or allows for various cargo space configurations with a volume of up to 1,344 litres (VDA standard).

### **BORGWARD BX 7 TS AWD: sporty by tradition**

Even back in the 1950s, particularly sporty BORGWARD models were given the initials “TS” (Touring Sports). As a young yet also long-standing premium automaker, BORGWARD will continue this legacy at its market launch with models like the BX 7 TS AWD. Typical TS regalia include the diamond-shaped chrome insignias and the diamond-shaped chrome BORGWARD badge with red inlays on the OCTAGON grille, as well as specially designed light alloy wheels, bumpers and sill trim, cladding in the vehicle colour and decorative elements made of brushed aluminium.

More specifically, the bumpers, side skirts, greenhouse edging, door handles, exterior mirrors and aerodynamic roof rail with an integrated spoiler all include elements in the elegant matt light metal. The front bumper also houses large air inlets with perfectly integrated fog lamps. The rear bumper is slotted at the side with harmonious integration of rear fog lamps and reflectors. Chrome/red TS lettering adorns the front wings, the rear hatch and the brake callipers on the front six-piston fixed-calliper disc brakes and rear brake unit.

As the top-of-the-line model of the BX 7 series, the athletically dynamic TS is also exceptionally sporty in its spacious interior, which has room for up to seven seats. The sport-enhancing programme includes special napa leather sport seats with the contrasting BORGWARD diamond-shaped stitching, a black leather sport steering wheel flattened on the bottom and with the diamond brand badge in the centre, and sport pedals. Brushed aluminium — the typical material for the exterior trim of TS equipment line — can also be found in the interior. It is used, for example, to enhance the appearance of the dashboard, the hand grips on the centre console and the air-conditioning vents. The leather sport steering wheel, sport pedals, gear-shift lever and door sills with illuminated TS lettering are also enhanced by decorative parts boasting a velvety sheen. Another connecting element involves the fact that all these components feature a decorative design in the form of a stylised jet wing.

*LONG VERSION*

**The BORGWARD BX 7 AWD**

## **An individualist in the SUV mainstream**

With the launch of its BX 7, the time-honoured German automobile brand BORGWARD is celebrating a remarkable comeback. This mid-size SUV prototype, which is close to series production, will be the first vehicle since the 1960s to wear the legendary diamond-shaped BORGWARD badge. This new model embodies the design philosophy of the young yet familiar BORGWARD brand — a philosophy which will go on to inspire all of the company's future model series. **"Modern tradition"** is at the heart of the design philosophy that will help drive forward the development of this brand. As Executive Design Adviser Einar J. Hareide explains, the BORGWARD design philosophy isn't about retro styling: "The styling of our new series is not based on the design of classic models such as the Isabella. What we do instead is to draw inspiration from these iconic vehicles, decode the original design DNA of the BORGWARD brand, and then transplant this into the modern age." For the design team, the history of BORGWARD serves less as a mandate for a specific design than as the basis for transforming the ideals of the company's legendary founder Carl F. W. Borgward. Alongside his expertise in creating ingenious technical solutions, Borgward also possessed a highly refined sense for superb design — as exemplified by models such as the Isabella series.

Elegance, sporty dynamism and commanding presence — these are the qualities of today's BORGWARD automobiles. The design focuses on the vehicle's hallmark OCTAGON-shaped radiator grille and its characteristic wing design, which invokes a host of different wing shapes, ranging from the rounded contours of the classic biplane wing to the angular lines of a modern jet plane. As Roland Sternmann, Global Executive Design Director at BORGWARD, explains, nature was another rich source of inspiration: "We borrowed the wing design for the new BORGWARD BX 7 directly from the world's dynamic nature. Just like a bird of prey, dragonfly or ray, our new SUV offers a completely individual interpretation of the wing shape and is therefore unmistakable." Typical off-roader features such as generous ground clearance, truncated body overhang and a high beltline all reinforce its classic SUV credentials and signals that the all-wheel-drive BORGWARD BX 7 has the performance and capabilities to master all types of terrain.

### **Striking front end with OCTAGON-shaped radiator grille and the diamond BORGWARD badge**

One look suffices to confirm the premium-quality styling of the BORGWARD BX 7. With its distinctive front end, complete with hallmark OCTAGON radiator grille, this new SUV has a unique and unmistakable presence. Diamond-shaped chrome elements within the radiator grille reinforce the three-dimensional, diamond-shaped BORGWARD badge mounted in the centre. Diamond-shaped air inlets, painted glossy black and positioned beneath the OCTAGON grille, continue the design theme and underscore its continuity with the history of the BORGWARD brand — as far back as 1949, the legendary diamond badge adorned the vehicles manufactured in the former company plant in Bremen.

The OCTAGON grille is flanked by two prominent headlamps, each adjoining the frame of the grille, where they take on its distinctive shape. This gives the OCTAGON grille added depth, which in turn endows the BORGWARD BX 7 with an even more dynamic appearance, even when stationary. The imposing headlamps are separated into functional elements by a wing-shaped divider: The upper section houses dynamic xenon dipped-beam and HID main-beam lamps, while below the daytime running lights and turn-signal indicators reprise the brand's hallmark diamond shape. Positioned one above the other, the two rows of optical waveguides have a diamond-shaped profile and are back-lit by LEDs. Fog lamps are discreetly mounted in the outer air inlets of the front bumper, which is painted in the vehicle body colour. The upper contour of the radiator grille is continued by the concave bonnet and extended, by way of a broadening wing line, all the way back to the cowl beneath the windscreen.

### **Side view dominated by wing shapes**

A long wheelbase and truncated front and rear body overhang serve as the basis for a sporty profile. Dynamism that is almost dramatic is generated by the contrast between the elongated, coupé-like greenhouse of the BORGWARD BX 7 and the taut, vigorous body surfaces beneath the beltline. Muscular and broadly masculine shoulders, in combination with characteristic wing lines, accentuate the energetic appearance of the



vehicle's flanks and underscore the sporty and extravagant presence already communicated by the front end. Above the sills, the elongated wing profile — the "hawk line" — boosts the imaginary thrust that the BORGWARD BX 7 emanates even while stationary. Sternmann condenses this essential aspect of the design philosophy in his observation that: "Our SUV could get fined for speeding while parked."

A discreet contour edge stretching from the front wing, via the A-pillar and roof frame, all the way to the foot of the D-pillar subtly accentuates the silhouette of the BORGWARD SUV and heightens the appealing interplay between the greenhouse and bodywork. Integrated in the outer roof frame of the BX 7 TS are roof rails of brushed aluminium that create a formal unity with the floating wing of the roof spoiler. It is this elegant and functional combination that makes the vehicle's side view so unique. No other model in this class features such a high-class solution in this area. This attractive ensemble is completed by a large and generously opening glass sunroof that fits flush into the roof panel and extends from the area above the front seats to the middle row of seats.

This harmonious overall design is also reinforced by the narrow and precisely aligned gaps between body parts — e.g., between the wings and the doors — which help show off the characteristic BORGWARD wing lines to their best advantage. Positioned flush within the wheel arches — which have cladding in the vehicle body colour — are 21-inch wheels fitted with 255/40 R 21 tyres, which further enhance the dynamic stance of the new BORGWARD SUV.

### **View from the back: a harmonious transition to the rear**

At the rear, the commanding chrome BORGWARD script is mounted between three-dimensional rear-light units, which consist partly of LEDs. The rear of the BORGWARD SUV has a horizontal alignment and, in combination with the vehicle's broad wheel track, signals its firm road holding capabilities together with excellent driving stability and superb lateral dynamics. The tapering greenhouse not only enhances the vehicle's aerodynamic properties but also underscores its powerful shoulders and thus adds to its formidable presence. The upper part of the roof area is seamlessly connected to the rear body and culminates in a streamlined rear spoiler, which is positioned above the rear window and connected to the roof rails, as described above. The rear bumper is painted in the vehicle body colour and features a dual-flow exhaust system complete with square, chrome-edged outlets. As at the front, the vehicle rear features the high ground clearance and steep angle of approach characteristic of all true SUVs and therefore boasts the agility to master all kinds of off-road terrain.

The front, rear and side of the vehicle form a seamless whole and elevate advanced premium SUV design to a new level. Therefore, when asked about the most attractive feature of the BORGWARD BX 7 TS, Sternmann prefers to emphasise its virtues as a whole: "Whichever way you look at it, our SUV is an exceptionally coherent piece of work in which the front, rear and side of the vehicle all harmonize and complement one another. That's why, unlike other manufacturers, we don't want to talk about its most attractive feature. Instead, that's for the customer to decide. But then again, the customer will be spoilt for choice!"

## **The BORGWARD BX 7 TS: a sporty tradition**

As far back as the 1950s, especially sporty models from BORGWARD were all endowed with the initials "TS" (Touring Sports). With a conscious gesture towards this proud legacy, this tradition will live on in the resurgent premium carmaker's new models such as the BX 7 TS. The hallmark insignia of a TS model include not only the chrome diamonds that make up the OCTAGON grille and, as its centrepiece, the chrome diamond BORGWARD badge with red inlays, but also specially designed light alloy wheels, bumpers, sill trim, cladding in the vehicle body in a special titanite colour and decorative trim in brushed aluminium. The TS logo in chrome and red adorns the front wings, the rear hatch, the brake calipers of the six-piston fixed-caliper brakes at the front, and the brake assembly at the rear.

The front and rear bumpers, door sills, greenhouse edging, door handles, exterior mirrors and aerodynamic roof rails with integrated roof spoiler all boast decorative elements in elegant, matt aluminium. The front bumper features large air inlets with perfectly integrated fog lamps. The rear bumper incorporates lateral slits neatly housing the rear fog lamps and reflectors.

At night, too, all the BX 7 models are an unmistakable presence. Illuminated diamond shapes in the headlamps and three-dimensional, diamond-like rear lights together create the brand's hallmark lighting design both front and back. A completely new feature — and exclusively reserved for the TS — are side-marker light strips in the rear-door sill and side wings of the rear bumper. These narrow red LED light strips not only add an extra visual enhancement to the sides of the SUV at night, but also increase safety by making the vehicle more visible to crossing traffic.

In addition to the sporty top-of-the-range BORGWARD BX 7 TS model, three other equipment lines are planned for the market launch.

## **Raising the bar: a premium interior on a level with higher-range vehicle classes**

"Given the class of vehicle, the 'premium' description for the interior of the BORGWARD BX 7 TS is practically an understatement," says Ben Nawka, Chief Designer Europe of the BORGWARD team in Stuttgart. Anyone surprised by such a self-assured statement on the part of this young designer would be well advised to wait for a first encounter with the interior of the BX 7. That's because the design and the equipment are at a level normally found only in premium vehicle classes that are significantly higher and substantially more expensive.

"Naturally, we've also pursued our guiding principle of 'modern tradition' within the vehicle. We've melded the traditional craftsmanship of high-class automobile manufacture with cutting-edge automotive technology in order to create a luxurious wellness ambience," explains Nawka. This design philosophy is particularly evident in the juxtaposition of high-grade materials such as velvety soft premium fine Scottish nappa

leather with classic BORGWARD contrasting stitching, on the one hand, and innovative components such as the centrally mounted 12.3-inch multimedia touchscreen, on the other. At the same time, a harmonious colour scheme of black with buffalo brown in combination with high-precision workmanship helps create the luxurious ambience guaranteed to make vehicle occupants feel immediately at home. The business of driving, meanwhile, is significantly eased by the ergonomically designed and intuitive controls, which also have outstanding tactile properties. For drivers and passengers alike, there is a generous amount of room within the vehicle. Depending on individual preferences, the BORGWARD BX 7 can be configured with five, six, or seven seats.

### **Inner values: interior harmonizes with the body design's high quality**

The characteristic design features of the bodywork continue within the vehicle, whereby the typical wing line and diamond-shaped reprises of the BORGWARD badge are particularly eye-catching. For example, the nappa leather trim of the dashboard evokes a further wing line, and diamonds are visible in both the colour-contrasted BORGWARD stitching of the napa leather sport seats and the decorative aluminium trim of the central console.

Linking the dashboard with the door trim, which is also covered with buffalo-brown nappa leather, is a distinctly elevated contour edge that sweeps from the lower edge of the windscreen to the B-pillar, thereby creating a wrap-around effect. Integrated in the upper, matt-black section of the dashboard are domes housing a large, 12.3-inch touchscreen plus round instruments and a central information display. Two open struts beneath the control panel of the automatic multi-zone climate-control system form a visual link with the central console, which houses, amongst other things, a short and ergonomically positioned gear selector for the dual-clutch transmission, a push/turn controller for the infotainment and driving dynamics systems, and a starter button for the engine. The central console flows into a leather-upholstered armrest for driver and front passenger with a storage compartment below.

The roof liner and the inner lining of the body pillars are covered with black DINAMICA imitation leather. With its matt, textured surface, this elegant and sporty material harmonizes well on both a visual and tactile level with the premium fine Scottish nappa leather fittings and enhances the high-quality interior ambience.

### **Characteristic BORGWARD TS insignia add extra luxury to the interior**

As the top-of-the-range model of the BX 7 series, the athletically dynamic TS also boasts some especially sporty design features in its interior. This programme of sport-enhancing elements includes special napa-leather sport seats with contrasting BORGWARD diamond stitching, as described above; a black sport steering wheel, flattened at the bottom, with a centrally mounted diamond BORGWARD badge in chrome and red; and sport pedals. At the same time, brushed aluminium — the material of choice for the decorative trim on the outer bodywork of the TS equipment line — is also to be found within the vehicle. Among other things, these elements enhance the dashboard, the handgrips of the central

console and the air conditioning vents. The leather sport steering wheel, the sport pedals, the gear selector and the door sill panels with illuminated TS logo also feature the enhancing parts with their velvety sheen. As a further connective element, these components all feature a decorative design in the form of a stylised winglet.

### **Comprehensive "PROTECT" safety concept**

## **High standard offering the best possible occupant protection**

The BORGWARD BX 7 is an SUV whose comprehensive "PROTECT" safety concept meets all requirements for ensuring the greatest degree of occupant safety. Both the vehicle's structure and its restraint systems give the debut model the potential to achieve outstanding results in international crash-test ratings such as those of Euro NCAP. The vehicle body, which includes a highly stable passenger compartment and defined deformation zones in the front and rear, forms the reliable foundation for the high level of occupant protection. Critical body segments are reinforced with high-strength, ultra high-strength or hot-formed steel. In the event of a frontal, side or rear collision, several load paths distribute the impact energy and, so far as possible, ensure balanced deceleration levels with which the passive safety systems are precisely aligned.

These passive safety systems thus offer the best possible protection. Whether it's a frontal, side, or rear collision, the seat belt system in the BX 7 is supplemented by, among other things, up to six airbags that engage only if needed in the given crash situation and whose inflation can significantly reduce the severity of the accident for vehicle occupants. The passive safety equipment includes:

- Two-stage hybrid airbags for the driver and front passenger
- Side airbags that protect the shoulders, rib cage and pelvis of the driver and front passenger
- Side airbags that protect the shoulders, rib cage and pelvis of passengers, or those in the outer seats in the second row
- Curtain airbags
- Three-point seat belts with seat belt tensioners and belt force limiters for the driver, front passenger and second row of seats (6-seat model), or for the outer seats in the second row (7-seat model)
- Three-point seat belts for the centre seat in the second seating row (7-seat model) and for the third row

- ISOFIX child safety seat anchoring system for the co-driver-seat
- Seat belt status indicators
- Seat occupant and child safety seat detection for the front passenger seat

Measures designed to protect more vulnerable road users, such as pedestrians and cyclists, are also an integral part of the comprehensive **"PROTECT"** safety concept. Precisely defined spaces between the body and the assemblies below it in the front section provide for amply proportioned deformation paths. This aspect, combined with the specially shaped front bumpers and an active bonnet that rises up at the hinges in the event of a frontal collision, thus further increasing the spaces, results in a high degree of protection potential for both pedestrians and cyclists.

### **Assistance systems as virtual crumple zones**

In order to ensure that the passive safety systems remain inactive as much as possible, the BORGWARD BX 7 **"PROTECT"** concept also includes numerous driver assistance systems that can help prevent accidents. The systems utilize networked sensors such as radars, stereo cameras and conventional camera systems. The following assistance systems support the driver:

- Collision assistant system with active brake intervention
- City braking assistance system with pedestrian detection at speeds up to 70 km/h
- Active or passive lane-keeping assistance system
- Active or passive lane-changing assistance system
- Proximity cruise control for continually maintaining a safe distance to the vehicle ahead at speeds up to 200 km/h
- Traffic sign recognition system
- Side wind compensation system
- Driver-fatigue warning system
- Tyre pressure monitoring system with individual wheel alerts on the dashboard display when tyre pressure drops or is too low

In addition of the 360° panoramic camera make operating the BORGWARD SUV an even more comfortable experience, especially in complex situations, and also help prevent minor damage. Parallel and perpendicular parking are a cinch, and with the help of the assistance systems, drivers can manoeuvre with extreme precision in tight spaces in car parks or in places with confusing terrain. BORGWARD drivers also

need not worry about pulling out of tight exits without seeing anything, as the front and rear cameras can detect pedestrians, cyclists or vehicles approaching from the side, all of which are shown on the central display screen.

### **Trailblazing drive train**

## **Permanent all-wheel drive, cutting-edge four-cylinder engine**

The new conventionally powered BORGWARD SUV boasts the most advanced all-wheel drive system available today. Together with specialists from the renowned supplier company BorgWarner, which has already designed all-wheel drive systems for industry competitors such as BMW and Audi, engineers from BORGWARD adapted the BorgWarner GenV fully variable all-wheel drive system with an electronically controlled multiple plate clutch. "Our ultramodern and innovative AWD drive train offers a high level of traction reserve, which means outstanding agility and the highest degree of safety are guaranteed on all surfaces", is how Bernd Kircher, Chief Engineer of the development team in Stuttgart, describes the benefits of the fully automated "torque-on-demand" drive system. In line with the driving situation and road surface conditions, the BORGWARD all-wheel drive system optimally distributes torque to the front and rear axles in order to ensure the best possible traction in the given situation.

### **Permanent all-wheel drive with variable propulsion**

The BORGWARD operates with 90% propulsion to the front-wheels in normal situations. Only after the vehicle's dynamic handling systems detect an unstable situation will torque be transferred to the rear axle in order to maintain stability. In other words, the all-wheel drive system reacts preventively within milliseconds. That's because unlike conventional systems, the innovative BORGWARD 4x4 drive system uses an electronically controlled all-wheel multiple plate clutch with an electric actuator on the rear axle. This actuator continually receives sensor signals from the dynamic handling systems and uses the data to regulate the transfer of torque to the rear axle. The most ingenious thing about this system is that the actuator can pre-engage the multiple plate clutch and transfer torque to the rear axle before wheelspin occurs. Other systems that do not have an electric actuator always require drive slip in order to control the all-wheel clutch, which makes them less agile and efficient.

### **Fuel economy concept ensures the best possible energy efficiency**

The drive system's fuel economy concept is a completely new development. Here, low

system weight and a new multiple-disc limited-slip differential on the rear axle lend the system a high degree of energy efficiency. It was previously not possible to completely disengage the rear axle in a torque-on-demand drive system due to its design principle. Approximately five percent of total torque always ended up at the rear axle, even if the given driving situation did not require this. The energy and dynamic potential of this torque was thus lost.

“Our all-wheel drive system ensures the greatest possible efficiency because we’re now able to completely disengage the rear axle for the first time”, says Kircher. The benefit offered by the innovative AWD solution is the result of a valve and pump system that can vary the oil level in the clutch housing. If power is not needed at the rear axle, the electronic control system lowers the oil level. This means that unlike the case with conventional torque-on-demand solutions, the clutch plate packs for accelerating and decelerating the vehicle can rotate freely in opposite directions. The rear axle is thus completely disengaged from the drive train and the aforementioned losses are eliminated. In the opposite situation, the control unit adjusts the oil level accordingly within milliseconds and rear-wheel drive is made available without delay.

### **Comfort meets dynamic handling: electric power steering system and multi-link rear suspension**

The drive train and the chassis (with the suspension, steering and braking systems) complement one another perfectly. The sporty, digressive electric power steering system with a variable steering ratio and demand-actuated steering power assistance always implements the optimal set-up for the given driving situation. Drivers thus always receive precise feedback. When travelling rapidly along a winding mountain pass, for example, the more direct steering ratio resulting from the rising steering angle allows for precise driving towards and through curves of different radius. At high speeds on motorways, the steering system ensures the vehicle travels straight ahead by reducing steering power assistance and providing less direct translation around the central steering position. When manoeuvring in a city, maximum steering power assistance is provided — making parking easy, for example.

The sophisticated suspension, with MacPherson struts on the front axle and a multi-link suspension on the rear axle, combines extraordinary stability with balanced ride comfort and a high degree of active safety. The highly stable and sensitively regulated braking system with ventilated brake discs and fixed brake callipers is electronically controlled, which also makes it a key safety feature. The safety package here includes ABS, an electronic braking force distribution system, a braking assistant and an electric parking brake with an “auto hold” function.

### **Powerful: direct injection four-cylinder turbo-engine with 2.0 litres displacement**

An impressive alternative to the BORGWARD BX 7 PHEV cutting-edge plug-in hybrid is offered by the exceptionally sporty BORGWARD BX 7 AWD T-GDI prototype with variable

all-wheel drive and a direct injection four-cylinder engine. The ultramodern 2.0-litre direct-injection engine has an output of 165 kW (224 hp) and delivers maximum torque of 300 Nm starting at 1,750 rpm. This performance, that is perfectly aligned with it, ensures a superior driving experience. The BORGWARD BX 7 AWD T-GDI sprints to 100 km/h in less than ten seconds\* and has a top speed of more than 200 km/h.\*

*All data is preliminary; country and equipment-related deviations are possible at the launch of series production*

## **BORGWARD „Multiple Interaction“**

### **Top infotainment and full connectivity**

Intuitive operability, the very latest in infotainment, full network connectivity with Internet access, and an extensive online service — all these are integral elements of the BORGWARD brand philosophy. Our BX 7 TS AWD prototype, which is close to series production, already provides a taste of the wide variety of features on offer from BORGWARD’s Multiple Interaction system. In the first instance, it will mean enhanced operating comfort that is not limited to “either/or” but instead follows the “and” principle. More specifically, drivers can choose how to display and use the intuitive infotainment menus in accordance with their own preferences:

- The most convenient option is to use the inbuilt touchscreen in the middle of the dashboard. Situated on the left-hand side of the 12.3-inch display — the largest in the SUV class — is a control panel with a virtual push/turn controller that the driver can use to view and activate individual menus and submenus. Activated functions are displayed on the left-hand side of the screen, some in a photorealistic manner.
- The 10 WM (10 way multi functional control knob) — the “analogue” counterpart to this virtual representation — is integrated in the central console. Most activities with this controller are displayed in the control panel of the touchscreen.
- Buttons providing direct access to specific functions are positioned around the central 10 WM. Eight extra buttons on the sides of the 10 WM are for the navigation, radio, media, L/R, link, iCall, back and home.
- In addition, certain functions can be called up via voice command. This feature is activated via a button on the steering wheel, as is standard in this vehicle class.

#### **Eight clearly structured menus for the BORGWARD BX 7**

After the vehicle has been started, the central 12.3-inch touchscreen first displays an animated BORGWARD diamond-shaped badge. Next to appear is the main menu that had been previously selected. The menus in detail:



- Radio — the radio is switched on via touchscreen or push/turn controller. Frequently used functions such as volume, channel selection or mute can be operated via steering-wheel buttons.
- Media — this is used to select the desired input source: USB/AUX IN connector or Bluetooth
- Telephone — activation and operation of mobile phone, which is fully integrated within the on-board infotainment system via Bluetooth.
- Navigation — input of navigation information such as destination or route options.
- Cloud — activation and configuration of the vehicle's on-board WiFi hotspot. Passengers can connect multiple Internet-capable devices and surf at LTE data-transmission rates (provided LTE-network coverage is available) with telematic services platform (TSP).
- Air conditioning — selection of the basic settings for the automatic air-conditioning system. In everyday driving, the air conditioning is operated via the control panel located in the central console, beneath the middle air vents.
- Vehicle settings — selection of a range of basic vehicle settings, including headlamps, interior lights, air conditioning and vehicle locking.
- Default settings — definition of basic settings such as language, display modes, display brightness, Internet access data and alarm system.

### **Full on-board integration of smartphones and tablets**

Both Android and Apple devices can be fully connected to the vehicle via BORGWARD's Multiple Interaction system. This gives drivers full access to all smartphone functions — e.g., to access contact lists, play music of the phone, have text messages read aloud, use various apps, or use the large central touchscreen to view images and videos stored on a mobile phone. Using the on-board WiFi hotspot, vehicle occupants can access the Internet via devices such as smartphones, tablets or netbooks, and enjoy rapid and stable data transfer via the powerful roof antenna.

### **Perfect service with a personal assistant**

Using buttons of iCall beside the 10 WM control knob, driver and passengers can contact a 24/7 service hotline via telephone. Their call will be taken by competent service staff ready to provide advice and concrete assistance so as to make the BORGWARD driving experience even more pleasant and safe:

- The SERVICE function is part of 10 WM and connects the driver with a service employee, who will be only too happy to help with, for example, hotel bookings, theatre tickets, a restaurant reservation with a route sent directly to the car's navigation system.
- The SOS button connects directly to a service employee, who will immediately organise appropriate emergency assistance. Should, for example, an airbag or seatbelt tensioner be activated, specially trained teams will also contact the driver and inquire after the wellbeing of vehicle occupants. Depending on the response, appropriate action will be taken and an ambulance sent to the scene of the accident.

Conversely, certain vehicle data and functions can be remotely accessed at any time via smartphone apps for Apple and Android. These include fuel level, tyre pressure, oil level and the next service date. Similarly, the vehicle can be located via smartphone and remotely locked and unlocked. Directions to the next theatre or sports arena can be sent directly to the vehicle's navigation system via smartphone and are automatically activated as soon as the ignition has been switched on.

BORGWARD intends to provide this service package in Europe initially at no extra charge.

### **BORGWARD demonstrates "e-Propulsion" hybrid technology**

## **Future-proof thanks to flexible energy modules**

At IAA, another compelling demo model besides the BORGWARD BX 7 AWD T-GDI — is the BX 7 PHEV with an alternative drive system, which demonstrates the direction of the future green energy solution from BORGWARD.

The plug-in hybrid boasts an overall system power of 295 kW (401 hp), and — thanks to torque multiplication — an overall system torque of up to 650 Nm, and a range under electrical power of 55 kilometres. Fuel consumption according to NEDC is 2.26 l/100 km (55 g CO<sub>2</sub>/km). The driving performance is particularly impressive: as a result of torque multiplication of the complete drive system, the BORGWARD BX 7 PHEV accelerates to a speed of 100 km/h in a mere 6.35 seconds. Its top speed is 220 km/h.

### **Drive train with four-cylinder turbo-engine, electric motor and KERS**

A direct-injection 2.0-litre, four-cylinder turbo-engine engine powers the front axle via a seven-speed dual-clutch transmission. Fitted to the rear axle is an electric motor with integrated kinetic energy recovery system (KERS), which is linked to the front drive unit via a sophisticated control system. By means of a "virtual drive shaft", this intelligent AWD system applies torque to the electric rear axle whenever this is required by the demands of energy efficiency, dynamic handling or driving safety. At the same time, the system recovers kinetic energy during overrun or braking, so as to recharge the

batteries.

## **Hybrid with nine operating modes for perfect energy management**

All in all, the plug-in hybrid features nine operating modes. These are activated either automatically or via the push/turn controller on the central console, and are displayed in the centrally located 12.3-inch media touchscreen and the dashboard display. Alongside standard plug-in hybrid driving modes such as energy recovery, all-electric driving and boost, the vehicle also features an off-road program to increase performance on challenging terrain. The hybrid operating modes in detail:

### *Vehicle is stationary*

After the vehicle has noiselessly started, both drive units are at rest when the driver is waiting at traffic lights or halted in inner-city traffic. However, vehicle functions such as assistance, safety and infotainment systems, and the lights and air conditioning continue to receive power and therefore remain active.

### *Accelerating in e-mode*

The BX 7 accelerates exclusively via the e-module at the rear axle. As the driver continues to depress the accelerator pedal, there is a seamless transition to the boost mode.

### *Boost*

This is the power mode for maximum use of system capacity and torque to provide optimal acceleration from a standing start (0–100 km/h in 6.35 seconds). The start/stop function is deactivated.

### *E-cruising*

All-electric driving is possible at speeds of up to 140 km/h. As the driver continues to depress the accelerator pedal, there is a seamless transition to the high-speed cruising mode.

### *High-speed cruising*

Analogous to the boost mode, this is the power mode for high speeds. It ensures maximum utilisation of system capacity and torque to provide optimal acceleration and elasticity up to a top speed of 220 km/h. The start/stop function is deactivated.

### *Off-road*

BORGWARD is the first manufacturer to offer a special off-road hybrid driving program in this vehicle class. The vehicle's power electronics link the internal-combustion engine and electric motor in such a way that each wheel receives the maximum transferable torque. This enables maximum off-road capability in slippery conditions or on heavily contoured terrain. The start/stop function is deactivated.

### *Charge-by-drive*

The battery is charged while the internal-combustion engine runs in a mixed driving mode, so that the vehicle can be operated exclusively in electrical and therefore

emissions-free mode after it arrives in a built-up area, for example.

*Energy recovery*

The rear electric motor operates in KERS mode and efficiently converts kinetic energy recovered during braking into electrical energy, which is used to charge the battery.

*Plug-in charging*

Charging time at a public or private e-terminal takes only around 30 minutes.

Intelligent driving strategies in combination with GPS navigation, online services and individual driving style enable a further increase in efficiency. This means that the lithium-ion battery's energy capacity of 13.2 kWh can be optimally converted into electric driving range.