



SUV world premiere – the new CrossBlue Coupé

Auto Shanghai

China, April 2013

EN

Note:

You will find this press kit as well as images and movies on the CrossBlue Coupé concept car online at: www.volkswagen-media-services.com.

User ID: `cbcplugin` | password: `04-2013`

TDI, TSI, DSG and Twincharger are registered trademarks of Volkswagen AG or other companies of the Volkswagen Group in Germany and other countries.

All fuel efficiency and performance data given in this press release are predicted values as of April 2013.

World premiere of CrossBlue Coupé in Shanghai: **Volkswagen presents high-tech plug-in hybrid SUV**

305 kW/415 PS CrossBlue Coupé consumes just 3.0 l/100 km of fuel

Volkswagen plug-in hybrid SUV can cover up to 33 km in all-electric mode

Wolfsburg/Shanghai, April 2013. At the 2013 Shanghai Auto Show, Volkswagen is giving the public a spectacular glimpse of the future – and of a new SUV design era – in presenting the world premiere of the CrossBlue Coupé. Klaus Bischoff, Head of Design for the Volkswagen Brand: “The disproportionately high growth in the SUV segment gives us designers the opportunity to implement an even stronger diversification of models. In the CrossBlue Coupé we are showing the potential of our Volkswagen design DNA. This concept vehicle will undoubtedly have an influence on future SUV models.” The Head of Design continues: “The CrossBlue Coupé lives by a harmonious triad: rugged in appearance, sporty in proportions and showing a reserved elegance in its sculptural shapes and lines.” Oliver Stefani, lead designer for the project on Klaus Bischoff’s design team: “A highlight is the front-end design of the CrossBlue Coupé. The established theme of horizontal lines as a brand signature is perfected by complete integration of the headlights. Distinctive chrome accents in the lower area emphasise the SUV character of the CrossBlue Coupé and are intuitively perceived as corresponding to the upper grille.”

Dynamic sports car performance. The CrossBlue Coupé is powered by a plug-in hybrid system that is as fuel efficient as it is sporty. A V6 turbo direct petrol injection engine (TSI) works together with two electric motors here; maximum system power is as much as 305 kW/415 PS. When the car’s full power potential is utilised, the SUV becomes a sports car: The Volkswagen accelerates to 100 km/h in a mere 5.9 seconds, and its maximum speed is 236 km/h.

Fuel efficiency of a compact. Despite its impressive dynamic performance, the CrossBlue Coupé has a combined fuel consumption of just 3.0 l/100 km (in the new European driving cycle or NEDC). Even in hybrid mode fuel consumption (sub-cycle with discharged battery

powered by just the TSI drive), the SUV – which is nearly 4.9 metres in length – consumes just 6.9 l/100 km of fuel. This value enables a theoretical range of around 1,190 kilometres (with a fuel tank capacity of 80 litres) before the car needs to be refuelled.

Zero emissions in the city. The CrossBlue Coupé can be driven in all-electric mode, i.e. without any emissions at all, over a distance of up to 33 kilometres (at a maximum speed of 120 km/h). To intentionally use this especially eco-friendly mode in urban areas, the driver can push a button to select the all-electric drive mode. As a production vehicle, the concept vehicle – which is based on the new modular transverse matrix (MQB) – could also be fitted with conventional drive systems (four and six-cylinder engines) configured for a wide variety of fuels (petrol, diesel, CNG).

Comfort of a premium class SUV. This Volkswagen, equipped with five comfortable seats and a boot that can hold up to 1,101 litres of luggage, depending on the configuration, belongs to the SUV avant-garde, both technically and visually. The CrossBlue Coupé is also one of the safest SUVs worldwide thanks to the electronic stabilisation programme, an all-wheel drive with “propshaft by wire” that is engineered for dynamic performance and safety and up to ten airbags.

Dynamic exterior design

Sharp proportions. The CrossBlue Coupé is exactly 4,889 mm long, 2,015 mm wide and just 1,679 mm high. These dimensions give the CrossBlue Coupé a very low-profile, very wide and extended appearance that expresses exceptional confidence together with its large track widths (1,709 mm front, 1,726 mm rear), 2,980 mm wheelbase that is extremely long in relation to the exterior length and 22-inch alloy wheels (with 285/44 tyres) that were specially designed for the concept car.

Sporty side profile. The concept features a long and broad bonnet with integrated air inlets, a roof line that is also long (with integrated roof spoiler) and, as mentioned, a very short front overhang. A number of other design features are also stylistically impressive. For one, the SUV is equipped with a very low-profile A-pillar and what is known in design jargon as a very “fast”, i.e. markedly swept-back C-pillar. This C-pillar resembles a spanned arch that terminates with an arrow pointing forward. Another stylistic feature is an arrow in the form of a completely re-designed character line. Designers have combined two lines here. The first dominant line starts in the upper area of the rear lights and runs precisely at the height of the door handles; the second line starts beneath the rear lights and ends in the front wing. The space between the two lines narrows towards the front and ends beneath the A-pillar in a stylised chrome air outlet. These very precise lines create very special dynamics and significantly reduce the visual centre of gravity of the SUV which is painted in “CrossOrange Metallic”. The paint shows exceptional depth, which is achieved by using special pigment particles (“Coloured Aluminium”).

The chrome accents above the side sill on the doors are practically reflections of the double character line; also worked in here is “Anthracite” trim that matches the colour of the lower side sill panels and of the wheel arch trim.

Volkswagen designers also came up with completely new styling for the 22-inch alloy wheels of the CrossBlue Coupé. Designed in polished aluminium, they exhibit five V-shaped dual spokes whose inner surfaces have a matt look. At the wheel centre, the round VW logo with five trim pieces painted in body colour present another design element.

Despite the dynamic styling of the vehicle’s sides, everyday practicality is not by any means an afterthought in this Volkswagen. Examples are the wide opening doors that enable optimal entry and exit. This is further enhanced by extending the doors down further into the sill area

– yet another improvement for getting in and out of the car. Moreover, this keeps the sills clean – and clothing as well.

The ports for the fuel tank and battery were uniformly integrated into the design of the CrossBlue Coupé. As is usual with Volkswagen, the fuel filler neck is located under a lid on the right side of the vehicle. The cover for the electrical outlet is located symmetrically on the left side. It consists of one socket for charging the high-voltage battery and another for connecting electric devices; this interface (16 A, 230 V) makes the CrossBlue Coupé an emergency generator as needed.

Front end has 3D look. A key element of the Volkswagen design DNA is the predominance of horizontal lines. The front end of the new CrossBlue Coupé follows this DNA to perfection – yet with completely new styling. Volkswagen has created a new layout of the entire front end by systematically integrated its lighting architecture into the body design here. Key elements of the front end design here are the free-standing LED headlights, LED light signature and radiator grille trim.

The radiator grille trim – consisting of two polished aluminium struts and the VW logo – is now a 3D element extending into the headlights. The lateral ends of the upper strut are used for the daytime running lights; this creates an “eyebrows” light signature that gives the CrossBlue Coupé a very special charisma. Meanwhile, the lower cross strut is a pure aluminium element that extends from beneath the free-standing LED headlights into the wings. The entire radiator grille unit is surrounded by a high-gloss black frame.

The lines of the LED light signature extend into the area below the bumper that is painted in “Cross Orange”. Here, these lines of the LED running lights border the lateral air inlets and the central engine air intake – the LED elements trace the three-dimensional body edges with light. Underbody protection terminates the lower front end.

Exclusive rear section. As with the front end, the designers implemented the LED rear lights in a 3D look and with aluminium elements. The upper area of the rear lights extends from the centre of the boot lid right into the wings or character lines; this carries the side profile theme into the rear view, which extends into the rear lights. The borderline is marked by an aluminium stripe under which two more lighting elements are integrated on each side.

The prominent tailpipes are designed in stainless steel; they were integrated into a polished aluminium trim panel that runs horizontally. Beneath this is a rugged anthracite-coloured area, in which a stainless steel underbody protection panel has been designed, like at the front end. The anthracite-coloured elements that terminate the body, together with the wheel arch trim in the same colour, create a stylistic feature that runs around the entire car. Practical: The boot lid opens and closes electrically.

Exclusive high-tech interior

Urbane ambience of an elegant lounge. An especially prominent feature of the elegant and clean interior of the five-seat CrossBlue Coupé is a horizontal dashboard, which, like a wing, extends into the door trim on each side. The dominant materials here are a velvety soft Nappa leather in two colour tones (“Anthracite Pearl” and “Asphalto”), chrome surfaces (polished in the top view, but sandblasted matt on their chamfered edges), dark aluminium and naturally-treated wood accents that are processed without any chemical additives. Configurable ambience lighting is also integrated in the interior in two colours (according to the driving mode); in its main mode it matches the “Cross Orange” of the exterior paint. The interplay of forms, colours and materials makes a masculine impression that is typical of an SUV, but it also creates the urbane ambience of an elegant lounge.

At the very top, the dashboard is framed by “Anthracite Pearl” coloured leather with dark contrasting seams. On the next level down, there

is a cross panel made of dark aluminium that integrates the cockpit display (12.3 inch), air vents and central info display (10.1 inch). There is a delicate chrome strip in the middle of this area; the air vents and displays also have chrome surrounds.

On the next lower level, designers have incorporated an anthracite-coloured wood inlay – made of spruce wood that is manufactured into a work of art. It extends to the sides as well as over the centre console; the wood grain of this porous 3D veneer precisely follows the shapes of the dashboard. Below the wood inlay there is an area designed in lighter-coloured Nappa leather (“Asphalto”). The ambience lighting runs in a narrow strip between the wood and leather on the dashboard and the centre console as well as on the door trim panels; on the dark surfaces, the illuminated strip gives the effect of flowing magma as it winds its way through volcanic rock. The roof pillars and roofliner are trimmed in a dark Alcantara (in “Graphite” colour).

Five comfortable seats. The seat system is also fully upholstered in elegant Nappa leather. The breathing-active natural material is especially pleasing to the touch, and the leather surfaces emit an elegant shimmer due to a slight pearl effect. The individual seat panels are designed in either the dark “Anthracite Pearl” or the contrasting “Asphalto”. The colour shading visually emphasises the masculine sculpting of the seats. Reverse seams that run horizontally in the seats, as well as another reverse seam on the armrest between the driver and front passenger seats, are sophisticated manufacturing features with handcrafted qualities. The rear bench seat (three seating positions with a bucket seat look at the outer seats) has a $\frac{1}{3}$ to $\frac{2}{3}$ split, folds and offers fore-aft adjustment.

The car comes to life. The way in which Volkswagen integrates contemporary technologies in an elegant material world of aluminium, wood and leather makes a unique statement. As soon as the driver’s door is opened, the controls “come to life”. When the “Engine” (Start) pushbutton is pressed, the switches for climate and headlight control

instantly lift from their rest positions. Synchronous to this, all of the display layouts appear on the monitors, and the ambience lighting is activated.

Form and function in harmony. All significant switches in the passenger compartment (except for the hazard lights switch) are designed as soft touch switches; their touch control is similar to that of a touchscreen. The uppermost level of the centre console contains the button controls for seat heating and air circulation as well as the hazard lights switch. As noted, beneath these, the three turn knobs for climate control (four-zone automatic climate control) travel outwards when the ignition is activated. The left and right knobs control the temperature, and the middle knob controls the blower level; the temperature setpoint and blower level are shown directly in their respective control knobs.

Arranged conveniently on the right side, next to the gear lever grip, are the button controls for individual operating modes and ESC deactivation (e.g. when driving in deep snow): “Sport” and “Eco”, “Offroad” and “ESC Off”, “Charge” and “EV” (electric driving). For optimal ergonomics and an intuitive layout, the gear shift panel in this area on the driver’s side ascends later and then at a steeper angle than on the passenger’s side.

The 6-speed gearbox operates with short actuating travel. The selection lever – located at the far left of the gearshift panel – was furnished with a new by wire switch logic: Like a joystick, the selection lever continually returns to its middle position; the classical “D”, “R” and “N” levels are activated by a short kick; shifting into the “P” position is by a separate pushbutton that is ergonomically integrated in the selector lever. The start-stop button (“Engine”) was intuitively integrated on the right of the gear shift lever.

Infotainment touchscreen. Located centrally on the centre console is a 10.1 inch touchscreen with proximity sensors. The large touchscreen is not only used to control all infotainment and entertainment functions, but also to access the status of the hybrid system. The type

of representation changes according to the driving mode. Consider navigation: in the “Sport” mode, buildings are “suppressed” in the 3D map representation; they recede for a clearer and less busy graphic image during fast driving. On the other hand, an animated 3D representation is shown in the “Eco” mode, in which buildings rise up on the horizon; those who have seen the science fiction movie “Inception” will recognise this special effect.

Programmable instrument cluster. The instrument cluster (12.3 inches) is designed with analogue “hardware” – i.e. with two classic round instruments (“tubes”) – but its software is completely digital and therefore user programmable. And so it offers a wide variety of functions and displays. One example: The CrossBlue Coupé can be driven in five different drive modes: “Eco,” “Sport,” “Offroad,” “EV” and “Charge.” The selection switches for these drive modes are located in the middle of the centre console, which appears to be free floating, to the right of the gear shift lever. Information specifically related to the “Eco” mode is animated in “Orange”, while the theme colour switches to red for the dynamic “Sport” mode. The basic scales and figures are always shown in white.

The type of information that is precisely and clearly displayed also changes between the “Eco” and “Sport” modes. In the “Eco” mode, the Powermeter and battery status are two of the items shown in the left round instrument, while the right instrument assumes speedometer and fuel gauge functionalities. In the middle instrument – identical in both modes – users can access functions such as the gear indicator, driving ranges, compass, weather, clock and – in Navigation mode – the remaining distance to the destination. It is also possible to access detailed information about the local area (Points of Interest [POI] or the locations of friends). In “Sport” mode, the left round instrument shows the tachometer and displays torque and battery status at its centre; the Powermeter is also “reduced”.

iPad in the head restraints. A mobile mini iPad has been integrated in each of the head restraints of the first seating row, so that guests in the rear seating area can also fully enjoy the audio, video and online programme. Meanwhile, a Dynaudio sound system delivers a crystal-clear world of sound.

Space for loading. A 537-litre boot opens up behind the second row of seats (loaded up to the lower edge of the side windows; with integrated spare wheel). If a tyre mobility set is on board instead of the spare wheel, cargo capacity is increased to an impressive 609 litres. When the second row of seats is folded down, the load volume rises to an astonishing 1,101 litres (1,029 litres with spare wheel).

Efficient and dynamic drive technology

MQB as high-tech alliance. The technical basis of the CrossBlue Coupé is the new Modular Transverse Matrix (MQB) of Volkswagen AG. Within the MQB, certain parameters are maintained uniformly across model series and brands – such as the mounting orientations of all engines. The modular component system also offers variable parameters that can be optimally and individually implemented in a wide variety of models. They include the wheelbase (CrossBlue Coupé: 2,980 mm), track widths and wheel sizes. All new MQB models are designed so that – along with the classic types of drive systems (petrol and diesel engines) – they can always be built as natural gas, hybrid or E-models as well.

Efficient alliance of V6 TSI and E-motor. In the concept car now being presented in Shanghai, the MQB front suspension and four-link rear suspension, the electromechanical MQB steering, the 220 kW / 299 PS V6 TSI of the EA390 engine series and an automatic 6-speed DSG (DQ 400 E) meld with electrical components. They include the lithium-ion battery in the centre tunnel as well as the front E-motor with 40 kW and the rear E-motor with 85 kW.

Maximum fuel economy. With its combination of pioneering fuel economy and the highest standards of driving dynamics, the CrossBlue Coupé – which can be driven to a top speed of 236 km/h – is an SUV that is as efficient as it is sporty. As already noted, one of the most innovative plug-in hybrid systems ever (V6 TSI + two E-motors + dual-clutch gearbox + “propshaft by wire”) has let Volkswagen achieve a predicted fuel consumption of 3.0 l/100 km for the all-wheel drive SUV according to the European standard for electric hybrid vehicles ECE-R101.

Maximum dynamic performance. Despite its tremendous efficiency, the 305 kW CrossBlue Coupé exhibits dynamic performance. The SUV completes the sprint from 0 to 100 km/h in an extremely short 5.9 seconds. Its V6 TSI develops a maximum torque of 500 Newton meters from low revs starting at 1,800 rpm. The electric motors also make a powerful appearance. In the CrossBlue Coupé, the electric motors contribute 180 Newton meters (front) and 270 Newton meters (rear). In boosting – when the full power potentials of the engine and electric motors are combined – the drive system can produce a total system torque of up to 700 Newton meters.

Zero emissions whenever possible. The CrossBlue Coupé can be driven in five different operating modes: “Eco,” “Sport,” “Offroad,” “EV” and “Charge”. The default mode, in which the Volkswagen is started, is the classic “Eco” hybrid mode; it optimally manages use of the drive sources. The electric motors are used for propulsive power as often as possible in this mode. The driver can switch to the Sport mode by pressing a button; in this case, the vehicle exploits the maximum power of the drive system. As described above, there are also an Offroad mode (permanent all-wheel drive), EV mode (driving with zero emissions) and a Charge mode (battery charging).

EV mode. Powered by its lithium-ion battery, the CrossBlue Coupé can cover a distance of up to 33 km in pure electric mode; in this mode, its top speed is limited to 120 km/h. In EV mode, only the 85 kW E-motor

at the rear axle provides propulsion. In all-electric driving, the V6 TSI is decoupled from the drivetrain by opening the clutch, and the engine is shut off. As soon as there is a need for TSI power – because of the battery charge state or other parameters – it is coupled to the drivetrain again, jolt-free, within fractions of a second.

Battery in the centre tunnel. In all-electric driving, the E-motors are supplied with energy from one of the eight modules that make up the lithium-ion battery. The battery has an energy capacity of 9.8 kWh and is housed in the centre tunnel. The power electronics unit – which is integrated in the front engine compartment and operates at a voltage level of around 375 Volt – manages the flow of high-voltage energy to and from the battery and the electric motors. Meanwhile, a DC/DC converter supplies the body electrical system with the 12 Volt electrical power it requires. The electric drive system does not impose any limitations on interior space whatsoever. The battery can be charged either by external power sources (230 Volt connections) or while driving.

Charging at the push of a button. The driver can intentionally switch over to Charge mode (by pressing another button on the centre console). In this mode, the battery is charged by petrol engine while driving, e.g. so that enough electrical energy can be stored in the battery for later zero-emissions driving at a destination in an urban area. Various other operating modes, described below, are automatically set as a function of the specific driving situation.

Coasting. As soon as the driver releases the accelerator pedal, the engine and electric motors are decoupled from the drivetrain, provided that the battery is sufficiently charged. This is referred to as “coasting”. No emissions are generated here either.

Battery regeneration mode. Whenever the driver releases the accelerator pedal or applies the brakes, and the battery is insufficiently charged, the two electric motors act as generators and feed energy recovered from the brakes into the lithium-ion battery. In this case, the TSI is also shut off and decoupled from the drivetrain.

Boosting. When very sporty performance is called for, the E-motors form an alliance with the TSI. This combining of forces is known as “boosting”, in which the CrossBlue Coupé is driven by all four wheels.

Offroad with “propshaft by wire.” All four wheels are also driven whenever the driver intentionally activates Offroad mode (once again by pressing a button on the centre console). In this case, and when the battery’s charge is low, the front electric motor – which is now supplied with energy by the V6 TSI – operates exclusively as a generator and supplies electrical power to its counterpart at the rear axle. Since the energy for driving the rear wheels flows by wire and not mechanically, this is referred to as “propshaft by wire”. The all-wheel drive system is still operational, even when the battery is in a low charge state, because the TSI drives the rear E-motor via the front E-motor in Offroad mode.

Driving with the TSI. When the petrol engine is the sole source of propulsive power, the CrossBlue Coupé is a pure front-wheel drive vehicle. The concept car is still very fuel efficient here, because of the efficient technology of the turbocharged six-cylinder engine with direct fuel injection. Another indication of the V6 TSI’s efficiency is what is known as “hybrid fuel consumption”; this is measured in a sub-cycle of the European ECE-R101 standard, in which the CrossBlue Coupé is driven with a fully discharged battery, so that it is essentially only powered by the TSI engine. This test yields a very good combined fuel consumption of 6.9 l/100 km.

- **Name:**
CrossBlue Coupé
- **Character:**
SUV with TSI plug-in hybrid for up to five persons
- **World premiere:**
20 April 2013, Shanghai
- **Fuel consumption (NEDC for plug-in hybrid vehicles):**
3.0 l/100 km
- **Driving performance:**
V/max. 236 km/h
V/max. electric mode 120 km/h
- **Dimensions:**
Length 4,889; width 2,015 mm; height 1,679 mm;
track widths: front/rear 1,709 mm/1,726 mm
- **Weight:**
Unladen weight: 2,220 kg (concept car with battery system)
- **Drive units / power / transmission:**
V6 TSI 220 kW;
E-motors: front 40 kW, rear 85 kW;
system power (TSI + battery) 305 kW; 6-speed DSG
- **Battery:**
Eight lithium ion modules;
energy capacity 9.8 kWh
- **Drivetrain:**
Front-wheel drive (via TSI and front E-motor);
all-wheel drive (via TSI and E-motor(s));
rear-wheel drive (via rear E-motor)
- **Driving modes:**
Eco mode, Sport mode, Offroad mode, EV mode, Charge mode

