

## Volkswagen

### The Beetle

# International Driving Presentation

Berlin, July 2011

#### Notes:

You will find this press release and images of the Beetle on the Internet at: www.volkswagen-media-services.com.

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All fuel economy and emissions data cited in this press release are forecast values as of June 2011.



Videos on the Beetle – directly to your Smartphone:

- 1. Load QR Reader as an app (e.g. "i-nigma")
- 2. Open app and set camera to QR code
- 3. Download starts automatically



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Technical data





The Beetle Heritage.mp4

## Icon of automotive history

## The original is back. The Beetle!

Take a seat, start the engine, and be astonished.

The Beetle of a new era focuses fully on dynamics

• Wolfsburg / Berlin, July 2011. Volkswagen is launching a new Beetle into the market. And this is anything but a commonplace event in the automotive world. That is because the original model of this car series – the Beetle – is one of the three most successful cars ever, with 21.5 million (first generation) units sold. Now, the successor to these icons is making its way to the market.

### Beetle shaped people's consciousness

• The Beetle has always held a special place in people's hearts. Over the years, it has shaped people's collective consciousness. Children painted a Beetle when they painted a car. Americans bought a Beetle when they bought a Volkswagen. Germans drove a Beetle when they drove the Economic Wonder of the 1950s. Europeans chose "Made in Germany" when they chose a Beetle. South Americans were excited about a Beetle, when they were excited about an extremely rugged car built on their continent.

### New Beetle produced a car cult

Then the New Beetle debuted in the late 1990s. It brought with it
Beetle Mania and a new automotive exuberance. Americans were
excited about it, and Europeans too. The original Beetle wrote



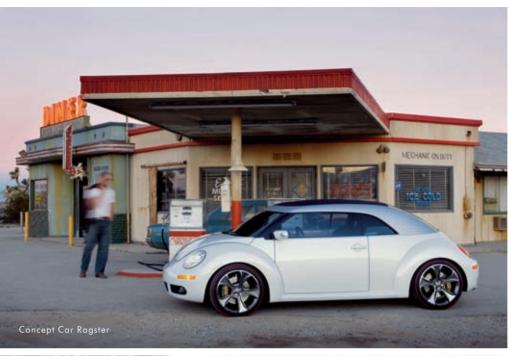
history as the car that moved the masses; the New Beetle offered a certain lifestyle, and it sold over one million units – alongside the Golf, which had long taken over the job of the original Beetle and became the most successful car in the world! By the dawn of the new millennium, it had become clear: the classic car, whether a Beetle or New Beetle, and whether it was from the 1950s, 60s, 70s, 80s or 90s, had become a cult car. Furthermore, the various generations of the Beetle aka Beetle aka New Beetle reflected what is certainly the most recognisable automotive design in the world – a design that continues to win over the hearts of people of all generations.

### Beetle of the year 2011 as the icon of a new era

• Those who want to drive a car that shows emotion, offers dynamic performance, and yet provides lots of space – and as number 1 in the car pool, masters everyday tasks and long journeys – will in the future think of the Beetle. This should be noted straight away, because dynamic performance alone no longer suffices: at 4.3 l/100 km (European 1.6 TDI) and 33 mpg (American 2.0 TDI), the new car is the most fuel-efficient Beetle ever.

### Design of the original, re-interpreted

• Coke bottle, iPhone, Ray Ban Aviator, Leica M9, Beetle – how do you reinvent a design that is so recognisable and independent? There is a clear answer to this: you can only do it if you understand the product





and the brand. Volkswagen Design Chief Walter de Silva (Group) and Klaus Bischoff (Volkswagen Brand) "understand" both, and therefore they set this as the objective for the Beetle: "Design a new original!" And that is how the design of the 2011 Beetle came to be in Wolfsburg – a car of today, as well as a design tribute to the automotive seed of an entire corporate group. And unmistakable indeed: If one were to take the first Beetle and the new Beetle and place them together – shining light just over the roofs and viewing them from the side – one would see that the lines of the rear sections are nearly identical.

### Dynamics in the style of the Ragster

• A comparison to the 1998 New Beetle shows this: nothing remained as it was on the previous car model. "The Beetle is now characterised by a clean, self-confident and dominant sportiness. The car not only has a lower profile; it is also substantially wider, the front bonnet is longer, the front windscreen is shifted further back and has a much steeper incline. All of this creates a new dynamism," explains Klaus Bischoff. The roof profile actually runs distinctly lower and can be considered a continuation of the Ragster concept car shown in Detroit in 2005 – a type of hot rod based on the New Beetle. The latest generation Beetle is bolder, more dynamic, more masculine.

### Entirely new proportions

• The figures confirm this: the new one is 1,808 mm wide (84 mm wider), 1,486 mm high (12 mm lower) and 4,278 mm long (152 mm longer). This has resulted in entirely new proportions. The gain in length means that the roof could be extended further, the front windscreen could be shifted back, and the rear section could follow the contour of the original Beetle. The new focal point is the C-pillar. In parallel, the development team increased the car's track widths (front: 1,578 mm with gain of 63 mm; rear: 1,544 mm with gain 49 mm) and wheelbase (2,537 mm with gain of 22 mm). All of this gives the Beetle a powerful appearance with muscular tension.

### 3 equipment lines

• In Europe, America and Australia/New Zealand, the Volkswagen will launch on the market in the 3 equipment lines "Beetle" (base version), "Design" (mid line) and "Sport" (top version). In China, the "Design" and "Sport" versions will be offered. Each of the equipment lines has an entirely independent character.

### Black Turbo and White Turbo at launch

For the market launches in Europe and the USA, Volkswagen has created 2 very special versions – the "Black Turbo" and "White Turbo" – which are based on the high-performance Beetle Sport 2.0 TSI DSG (147 kW/200 PS). They will be available alongside the other

equipment lines. In the USA, the Beetle White Turbo will be delivered with a "Candy White" exterior, while in European countries the body colour will be "Pure White". On both sides of the Atlantic, the Beetle Black Turbo is painted in "Deep Black". Exterior features of the special editions include the "Turbo" signature on the sides (above the side sills) and on the colour-contrasting mirrors and wheels: on the White Turbo Beetle, the machine polished "Tornado" alloy wheels are in black as are the door mirror housings; on the Black Turbo Beetle, both of these features are trimmed in White. Inside, meanwhile, the dashboard, steering wheel badge and door panels are painted in body colour.

### Tell me your name!

• This time, there really is a country-specific nickname on the back of the car – that is, a name like Käfer, Beetle, Vocho, Coccinelle, Fusca, Maggiolino or 甲壳虫. Only if the customer wants this, of course. If a country really exists whose vernacular does not include a nickname for the bestseller, this is not a problem either: the Beetle signature can be selected. And of course there is another name available as an option: Volkswagen!



#### Interior also shows character

• This is especially noticeable on the dashboard. The shape and use of colour in the painted or carbon-look front facia panel ("dash pad") hark back to the design of the first Beetle, yet the new car does not have a retro look. In Europe, for example, this panel is in "Monochrome Black" on the base model ("Beetle"); the panel in the "Design" equipment line is always painted in the exterior colour of the car body. Customers choosing the "Sport" – the new top version – get a panel with carbon look ("Carbon Fibre"). Regardless of which colours are used, Volkswagen drivers will be able to locate the car's interior features with their eyes closed, such are the ergonomics of the cabin.

### Comeback of the Beetle box and auxiliary instruments

• Similar to the original Beetle, the new car has an extra glovebox ("Beetle box") integrated in the front facia whose lid folds upward (the standard glovebox that is integrated with it opens downward). Another classic feature: the optional auxiliary instruments above the selected audio/navigation system: oil temperature, clock with chronometer function and boost pressure gauge. Also new: the steering wheels specially designed for the Beetle with painted accents in the spokes that differ depending on the equipment line.

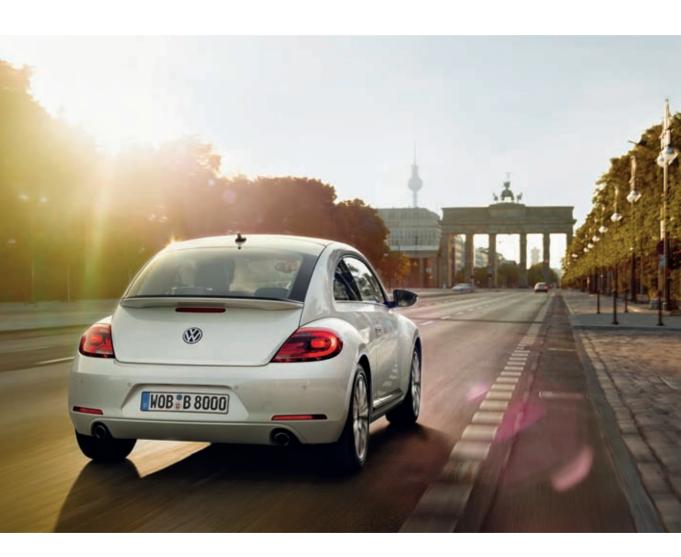


### It simply fits

• A distinguishing feature of the contemporary Beetle is that its interior ergonomics and packaging are based on completely new parameters. While drivers in the air-cooled Beetle travelled in a very low-slung seat, and drivers of the New Beetle could feel as if they were being chauffeured, because the bonnet was so far forward, the latest Beetle now offers a driving experience that is a lot sportier. Every feature is within easy reach. In addition, Volkswagen has once again succeeded in implementing a quality of interior finish that goes beyond all class limits.

### Plenty of space for 4 and lots of luggage

• The car's styling, ergonomics, operability and quality interact to create a new, friendly car with a highly individual nature. In addition, it offers everyday practicality: 4 adults have plenty of space, even on long journeys, and the boot can handle up to 905 litres of luggage. The panoramic tilt/slide sunroof lets the sunshine in during the winter, and a Fender sound system entertains during the drive. The Keyless Access locking and engine starting system is available for the first time in the Beetle; it operates without a traditional door or ignition key. And the latest generation engines ensure that the environment and budgets are impacted as little as possible. Engine power outputs range between 77 kW/105 PS and 147 kW/200 PS. The most fuel-efficient engine for Europe – the 1.6 TDI with 105 PS



– consumes the noted 4.3 l/100 km. In the USA, the most fuel-efficient engine is the 2.0 TDI, which attains a Highway fuel economy of 40 mpg and offers fun that is in harmony with the environment.





21st Century Beetle Speed.mp4

## Key facts summary

- Name: The Beetle
- World debut: 18 April 2011 (Shanghai, New York, Berlin)
- Market launch, North America: September / October 2011
- Market launch, Germany: October 2011
- Market launch, Europe: November 2011 (right-hand steering version: January 2012)
- Market launch, Asia: February 2012
- Market launch, South America: end of 2012 / beginning of 2013
- · Character: Icon
- Equipment lines: "Beetle", "Design", "Sport"
- Power range: 77 kW/105 PS to 147 kW/200 PS
- Combined minimum fuel consumption, Europe: 4.3 1/100 km (1.6 TDI)
- Combined fuel economy, USA: 33 mpg (2.0 TDI)
- Engine specifications: Petrol engines: TSI (petrol direct injection engines, except 2.5-litre engine for USA). Diesel: TDI (common rail engines). All EU engines fulfil Euro-5 emissions standard; all US engines fulfil BIN5 / ULEV PZEV
- Debut of original Beetle: 1938
- Debut of New Beetle: 1998

- Total units built to date: > 22.5 million
- Designers: Walter de Silva (Group), Klaus Bischoff (Brand).

  Exterior: Marc Lichte (team leader), Chris Lesmana, Nisan Kucam.

  Interior: Tomasz Bachorski (team leader), Ingo Brückmann.

  Colour and Trim: Oona Scheepers (team leader), Susanne Gerken
- **Dimensions**: 4,278 mm length, 1,808 mm width, 1,486 mm height, 2,537 mm wheelbase, 310 to 905 litres cargo capacity





## Evolution of a legend

## New proportions create dominant sporty look

### World's most recognisable automobile design transferred to contemporary times

Wolfsburg/Berlin, July 2011. What happens when a company reinterprets a design – as in the case of the Beetle? The Coke bottle, iPhone, Ray Ban Aviator, Porsche 911, Leica M9 and the Beetle – can you reinvent a design that is so recognisable and independent? The unequivocal answer is yes. But it is necessary to understand the product and the brand; then it works! Volkswagen Design Chief Walter de Silva (Group) and Klaus Bischoff (Volkswagen Brand) "understand" both the product and the brand, and so they set this as the objective for the Beetle: "Design a new original!" The Beetle of 2011 is the new original.

### Beetle design - unique

### Cult car

Under the leadership of Bischoff, the crew set to work, taking on the inspiring challenge of designing a new Beetle. The designers still had to work with an icon, which – in terms of its unique form – was really only comparable to the Porsche 911 among German automobiles. The designers knew that they wanted to develop the original Beetle profile more than they had with the 1998 New Beetle. To get back to the car's roots. A key priority was very dynamic proportions. An interesting aspect was that more than a few of the members of the team actually





own their own air-cooled Beetles. It has also become a cult car among younger designers at Volkswagen.

### Tribute

And that is how the final design of the 2011 Beetle came to be in Wolfsburg – a car of today as well as a design tribute to the automotive seed of an entire corporate group. And unmistakable indeed: If one were to take the first Beetle and the new Beetle and place them in a room together – illuminating their roof lines and viewing their silhouettes – one would see nearly identical lines in the rear sections. Clearly, the Beetle makes fundamental stylistic references to the original Beetle. And that is how it should be!

#### Statement

A comparison to the 1998 New Beetle shows this: nothing remained as it was on the old car: "The Beetle is now characterised by a clean, self-confident and dominant sportiness. The car not only has a lower profile; it is also substantially wider, the front bonnet is longer, the front windscreen is shifted further back and has a much more swept-back angle. All of this creates a new dynamism," explains Klaus Bischoff. While the New Beetle was defined by 3 semi-circles – front wing, rear wing, domed roof above it – the new model has broken free of this geometry. The roof profile actually runs distinctly lower and can be considered a continuation of the Ragster concept car shown in Detroit





in 2005 – a type of hot rod based on the New Beetle. The new Beetle is bolder, more dynamic, more masculine.

#### **Dimensions**

The new car is 1,808 mm wide (gain of 84 mm), 1,486 mm high (12 mm lower) and 4,278 mm long (gain of 152 mm). This has resulted in entirely new proportions. The gain in length meant that the roof could be extended further, the front windscreen could be shifted back, and the rear section could follow the contour of the original Beetle. The new focal point is the C-pillar. In parallel, the development team increased the car's track widths and wheelbase. All of this gives the Beetle a powerful appearance with muscular tension.

### Volkswagen DNA - styling for our times

### Precision

Despite all of its individuality, the car's styling follows the Volkswagen design DNA created by Walter de Silva and Klaus Bischoff. It clearly expresses itself in the horizontal image created by the front bumper, front air inlet, straight lines of the bonnet edges, the precisely drawn line between the A-pillar and C-pillar and styling of the rear lights. The Beetle of today transfers the original design of the icon to the year 2011 – to the age of interactivity.



#### Icons

All of the Beetle's typical styling characteristics were preserved, and this should come as no surprise; after all, it was vehicles like the Beetle, Microbus and original Golf that had a decisive influence on Volkswagen's "design DNA". Of course, some of the Beetle's longstanding characteristics remain: these include its flared wings and the clean design of its rear lights, the shape of the bonnet, the side and door sills and – more than ever – its ability to integrate large wheels (up to 19 inch). A new feature is the rear spoiler that is homogeneously integrated in the design (standard for TSI engines with 118 kW/160 PS and 147 kW/200 PS); it aggressively maintains contact with the road on this Volkswagen, which has a top speed of up to 225 km/h, depending on the engine, and is available in the 3 equipment lines "Beetle", "Design" and "Sport". Incidentally, the top surface of the rear spoiler is always black, while its underside is painted in body colour.

### Functionality - only Volkswagen with round headlights

### Far-sighted

Another aspect of Volkswagen's design DNA is that the car should not only look good, but it should also offer exceptionally good functionality. The 2 doors open wide, and they are not too long; this makes it easy to enter and exit the car even in tight parking spaces. Naturally, the Beetle is the only Volkswagen to be equipped with round headlights.



Optional bi-xenon headlights are available for the first time; mercury-free xenon gas discharge lamps with a power consumption of 25 Watts per headlight are used for the projection module. When bi-xenon headlights are ordered, daytime running lights are also included, each of which consists of 15 LEDs arranged along the outer border of the headlight housing.

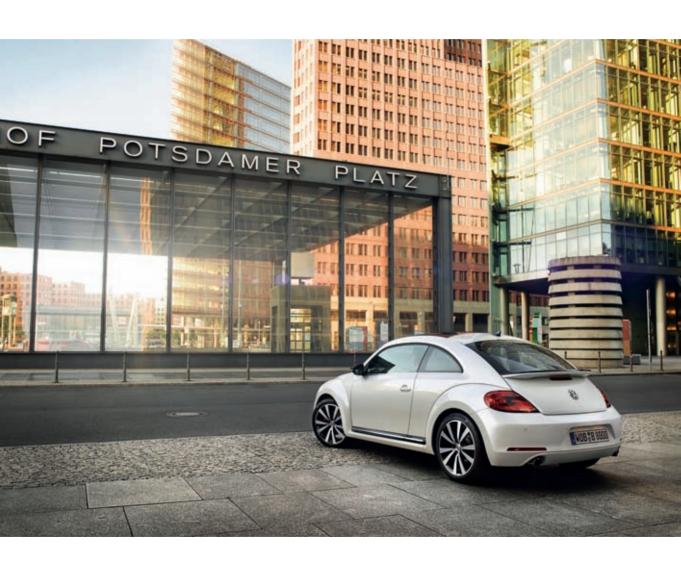
### Touring car

In the space where the original Beetle once had its engine, there is now a bootlid on the Beetle, which swivels upward – together with the rear windscreen – when it is opened, making space for ample luggage or lots of shopping (310 to 905 litres of cargo capacity). Located to the left and right of the bootlid are the rear lights. As on all Volkswagens, they exhibit an unmistakable night look (c-shaped). And as on every Beetle and New Beetle, their basic shapes are integrated in the design of the flared rear wings. The lights themselves are fully designed in dark red – except for 2 small white areas for the turn indicator and backup lights.

### 12 colours - for every one of life's feelings

### Colourful

The Beetle's colours – 12 different hues – make everyday life more colourful. There are colours that make the Beetle fun, that make it fun to drive, that make a car that is as unique as a fingerprint. The

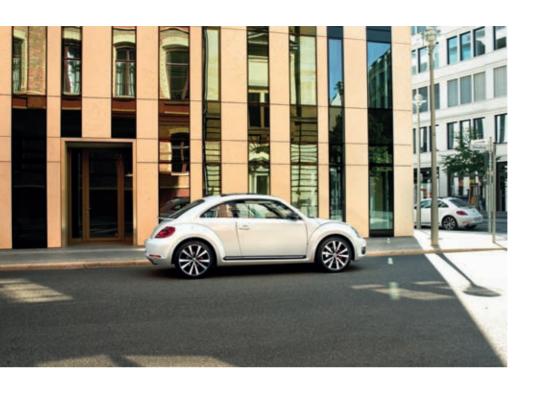


classic monochrome colours are "Candy White" and "Black". 3 other monochrome exterior paints are also available: "Saturn Yellow" (bright yellow), "Tornado Red" (sporty red) and "Denim Blue" (bright, marine blue). In the range of metallic colours, Volkswagen has created these mixes: "Reef Blue" (dark blue), "Toffee Brown" (deep brown), "Platinum Grey" (elegant dark grey), "Reflex Silver" (resilient light grey) and "Moon Rock Silver" (stylish beige). Last but not least, 2 pearl effect paints are offered: "Deep Black" (glossy dark black) and "Oryx Pearl White" (bright like pearls).

### Wheels – 9 wheels in 16, 17, 18 and 19 inch sizes

### Standard wheels

3 equipment versions, 3 standard wheels, 3 characters: Volkswagen delivers the entry-level version of the Beetle – simply named "Beetle" – with 16-inch wheels whose covers look like aluminium wheels with their 6 dual spokes. The Beetle in the "Design" trim level drives out of the factory on standard 16-inch "Whirl" alloy wheels with 10 spokes. This wheel type is also offered as an option on the "Beetle" equipment line. Those choosing the "Sport" line, the most dynamic Beetle version, drives away on standard 17-inch "Spin" wheels. "Spin" has 5 distinctive spokes. This wheel is offered exclusively on the Beetle Sport.



#### Special wheel options

Alternative wheels are available. These include the 17-inch "Rotor" alloy wheels (with 5 dual spokes) and "Circle". The "Circle" wheel is offered in 2 colour versions: in the "Circle White" version, the alloy wheel is painted white, while it is black in the "Circle Black" version; the wheel caps and trim rings of both wheels are always in chrome. "Rotor" and "Circle" wheels may be combined with any of the equipment line versions. Demonstrating how the distinctive Beetle has considerably more sports appeal than the previous model are its 18-inch wheels. Take the "Disc" wheel for example: here a large, shiny disc or stylised wheel cover is visually joined to 8 ribs of the rim flange. Also setting sporty accents is the new 18-inch "Twister" wheel (5 spokes, inside light aluminium, outside matt black). These two 18-inch wheels may also be ordered on any Beetle. However, this does not apply to the wheel innovation for this model series - the 19-inch "Tornado" wheel (5 dual spokes), which exclusively customises the Beetle Sport. 9 different wheels: that's a lot of wheels for such a new car. And yet, precisely such a wide diversity of customisation is typical of the Beetle programme.

# Safety – effective protection

## All round safety

Let's get to the point. In The Beetle, Volkswagen is building an automobile that is one of the safest in terms of both active and passive safety. The ESP electronic stabilisation programme is standard, as is an effective network of front and side airbags that protects in the passenger compartment. Naturally, the car body – much of it laserwelded and galvanised – exhibits one of the best torsional rigidity values in the segment at 26,000 Nm/°. Naturally, because safety must be a fundamental quality in a car.



# Original inside too

# Made to feel good – an interior like no other

## Four-seater offers sporty ergonomics and fascinating interior styling

Wolfsburg / Berlin, July 2011. "My team has achieved a noteworthy coup with the Beetle: its interior design is as unique as it is unmistakable, and very much a Beetle design, just like the car's exterior styling," is how Klaus Bischoff, Head of Design for the Volkswagen Brand, sums up what most observers will find when they look inside the new Beetle. An interior space has been created that is marked by a love for details, that is perceived as a genuine tribute to the Beetle, and that melds high-tech and classic elements into a new interior world. Above all, however, it is an interior that fits perfectly and is unlike anything else currently being offered in the automotive world.

# Forms – an interior that is the sum of its parts

#### Charisma

Its many details make the interior refreshingly unique. There is the rather swept-back front windscreen that harks back to the world of classic cars. There it is – and the name fits – the instrument panel that combines innovative technologies and controls with painted surfaces and a glovebox in the style of the original air-cooled Beetle. The car offers a lot of space and comfort for 4 people and up to 905 litres of cargo capacity. The seats themselves are as well suited for a loop around the Nordschleife race course they are for a 4,500 kilometre



trip on Route 66. And there are forms that are never just created for their looks, but always serve a purpose. Take for example the form and colour of the dashboard, which visually connect to the time of the first Beetle, and yet are not retro. On the base model ("Beetle"), this facia is in "Monochrome Black"; in the "Design" equipment line, it is always body-coloured. Those customers ordering the "Sport" get a carbon look ("Carbon Fiber"). The specific version of the dashboard is colour co-ordinated with the door trim panels and accents of the new 3-spoke steering wheels designed specifically for the Beetle. The "Beetle" version has black textured door trim panels and a steering wheel cover in "Titan Black". The Beetle with "Design" equipment is delivered with surfaces painted in the exterior colour in these areas. The "Sport", on the other hand, has black painted door trim panels and steering wheel accents in "Dark Metal" paint.

# Colour schemes – as you like it

## Three colour ambiance lighting

In the Beetle, to the left of the steering wheel, there is not only a small wheel for brightness control of the instrument backlighting, but also (as an option) a second one with the scaling "0", "r", "w" and "b". This wheel is used to control the colours of this innovative ambiance lighting system from Volkswagen. Red, white and blue. The indirect lighting itself is located in the door trim panels, while direct lighting is



implemented as a light ring around the door-mounted loudspeakers. Ambiance lighting is offered as a pack in combination with the also optional Fender sound system (see section Customisation).

#### Single colour ambiance lighting

A version without the light ring around the loudspeakers is offered as a standard feature on the "Sport" equipment version. Both the "small" and "large" versions of ambiance lighting have brightness control together with adjustment of the instrument backlighting.

## User controls – the Beetle was and still is intuitively driveable

#### It fits

Regardless of the lighting, drivers will be able to find any of the interior details – with their eyes closed. This means not only current Volkswagen owners but any drivers. And yet everything has been redesigned or rearranged. In front of the driver, 3 round instruments (tachometer, speedometer, fuel gauge) supply all of the key information in the central speedometer (in the middle) there is a multifunction display. From the "Design" equipment line, the adjustable air vents and instruments have chrome bezels. This also applies to the audio/navigation systems that are optimally located in the driver's visual field on the dashboard, framed by 2 air vents. Beneath this are the climate control panel, also redesigned, a central switch bar for the hazard lights and finally the



gear shift grip with the start button for the engine (optional) located to the left of it.

#### Time travel

Similar to the Beetle of the air-cooled era, the new car has an extra glovebox integrated in the front facia whose lid folds upward (the standard glovebox that is also integrated opens downward). Another classic feature: the optional auxiliary instruments above the selected audio/navigation system: oil temperature, clock with chronometer function and boost pressure gauge. The oil temperature gauge shows when the engine is ready to go to the race track where the chronometer can be put to good use. And the boost pressure gauge? It optimises either driving fun or fuel-efficiency – depending on the driver's inclination and mood.

## Ergonomics and quality – a Volkswagen.

## Handy

A distinguishing feature of The Beetle – the third generation if you will – is that its interior ergonomics and packaging are based on completely new parameters. While drivers in the air-cooled Beetle travelled in a very low-slung seat, and drivers of the New Beetle felt as if they were chauffeured because the bonnet was so far forward, the latest Beetle now offers a very sporty driving experience. Every feature is within easy



reach: the one hand automatically grips the steering wheel above the cross-spoke and easily finds the light switch that is slightly offset from it. As in a sports car, the gear shift lever is always intuitively in the optimal position for the other hand. Compared to the New Beetle, the space around the gear shift grip was enlarged; this simplifies shifting work in sporty driving and during quick gear shifts.

### **Transparent**

In the roof area are the controls for the panoramic tilt/slide sunroof. The round turning knob is used to adjust the opening of the transparent roof in various stages. When the control is pressed, the roof tilts upward (for details on the panoramic tilt/slide sunroof, see section Customisation).

#### Consistent

Volkswagen has once again succeeded in implementing a quality of materials that goes beyond all class limits. The first car in the world to accomplish this was the Golf, generation IV. Today, this also applies to the Polo and even more so to the Beetle. The car's styling, ergonomics, operability and quality interact to create a new, friendly car with a highly individual nature.

# Space and comfort - no tight spots

#### Dimensional work

In front, the four-seat Beetle is now somewhat lower in profile, since the domed roof of its predecessor has been eliminated. It now offers 1044 mm interior height (with panoramic tilt/slide sunroof: 1049 mm) instead of the previous 1,082 mm. However, the difference will hardly be missed, even by very tall drivers, since the New Beetle's interior was a "cathedral" among compact cars. Meanwhile, in the rear seating area, the longer roof section even results in a distinctly better feeling of space than in the New Beetle. Available here – with or without the panoramic roof – are 942 mm; that is about 10 mm more than on the previous model. Legroom has also increased in the rear; it is now 831 mm. The Beetle also shows noticeable growth in interior width (front: 1,459 mm / rear: 1,308 mm).

#### Seat comfort

The Beetle has a completely redesigned seating system, which make a substantial contribution towards the car's high level of comfort and unlimited touring ability. Besides standard seats, "sport seats" are used in the "Sport" model (for details on the seating systems, see section on Customisation).

## Travelling cult

The boot now has a significantly larger capacity at 310 litres instead of 209 litres. When the standard split rear bench is folded down, cargo capacity even increases to 905 litres; and it is easy to load through the wide opening boot lid. Since the Beetle uses a platform that is technically closely related to the Golf VI (shortened by 50 mm), the track widths and pass-through width also increased in the boot. Here it is now possible to use a pass-through width of 960 mm. The boot length is 737 mm when the rear bench seatback is up; when it is folded down the length is 1,493 mm. This means that nothing aboard the Beetle keeps it from handling a long road trip. Incidentally, practical bag hooks in the walls of the boot help in both small and large everyday cargo transport tasks.





21st Century Beetle Urban.mp4

# The friendly world car

# According to taste and budget - "Beetle", "Design" or "Sport"

## Specific equipment lines for key world markets

Wolfsburg/Berlin, July 2011. The Beetle is an automotive statement. Accordingly, it can also be adapted according to customers' individual tastes. Generally, the first step is in the engine line-up; for the Beetle, Volkswagen will offer a total of 5 engines with a power range from 77 kW/105 PS to 147 kW/200 PS in Europe. In the USA, there will be 3 engines (103 KW/140 PS to 147 kW/200 PS); and China will also get 3 engines (77 kW/105 PS to 147 kW/200 PS). The second step in customisation is in the selection of an equipment version. For the regions Europe, America and Australia/New Zealand, Volkswagen has produced 3 packs: "Beetle", "Design" and "Sport". In China, the Beetle will be available in the versions "Design" and "Sport". Each of the equipment lines has a fully independent character.

#### Tell me your name!

This time, there really is a country-specific nickname on the back of the car – that is, a name like Käfer, Beetle, Vocho, Coccinelle, Fusca, Maggiolino or 甲壳虫. Only if the customer wants this, of course. If a country really exists whose vernacular does not include a nickname for the bestseller, this is not a problem either: the Beetle signature can be selected. And of course there is another name available as an option: Volkswagen!

Standard features of 3 lines: "Beetle", "Sport" and "Design"

**European combinations** 

The 2 entry-level engines (diesel and petrol engines with 77 kW/105 PS) can be ordered together with the "Beetle" and "Design" equipment lines; the "Sport" level is not offered with these engines. All 3 equipment lines can also be combined with the 2 mid-power levels (103 kW/140 TDI and 118 kW/160 PS TSI). The top engine (TSI with 147 kW/200 PS) is offered exclusively on the "Sport" version.

**USA** combinations

The base engine (125 kW/170 PS) can be ordered with the "Beetle" and "Design" versions. Volkswagen is offering the Clean Diesel (103 kW/140 PS) in an extensively featured "Design" version as a "TDI". In the USA, the "Sport" will be offered exclusively with the 147 kW/200 PS engine. "Design" and "Sport" are each offered in 3 customisation levels, as is usual between New York and San Francisco. All US versions have air conditioning. Different to in Europe, new cars in the USA are usually purchased from the dealer's lot in preconfigured versions; individual ordering of a car with detailed individual options, as in Europe, is the exception in America.







#### China combinations

In China, 2 of the petrol engines (TSI with 77 kW/105 PS and 118 kW/160 PS) are available with the "Design" version. The 160 PS engine can also be ordered as an alternative engine for the Beetle Sport. Also coupled with the "Sport" in China is the top engine with 147 kW/200 PS. Both equipment lines are offered in 2 different versions. All Beetle versions in China have a standard DSG automatic transmission and air conditioning. As in the USA, customers usually purchase preconfigured vehicles in China.

## "Beetle" - base model eliminated

#### "Beetle" exterior

And this is how the "Beetle" looks in detail (example of European version): the base version of the Beetle can be recognised by ... Never mind, it is not so easy any more. Because the bumpers are painted in body colour now. Okay, the expert will see that the air inlet screen, door handles and side guard strips are all in black, and the car has 16-inch wheels mounted on it. But only on a second look; and on a Beetle with dark paint it would likely even take a third look to notice. As is usual at Volkswagen, lateral turn indicators are integrated in the door mirror housings. A Volkswagen standard that is hidden: galvanising of the body. Rust? Unlikely. But what you will see is the rear spoiler that is standard in this version from a power output of 118 kW/160 PS.



#### "Beetle" interior

When the doors are opened, a knowledgeable observer can make this out as the base version, but not based on different quality properties. There are no differences. One car, one quality. What is conspicuous: what is called the "Dash Pad", the part of the dashboard that is oriented forward, and painted in a sporty black. Other standard features include 3 cupholders (2 in front, 1 in rear), the legendary assist straps on the B-pillars, large storage bins in the doors, Easy Entry system, the centre badge of the 3-spoke steering wheel also in black, gear shift gate and drink holder with chrome borders, split/folding rear bench seat and height adjustable front seats. The seats are upholstered with active-breathing fabric in "Beetle" pattern. Other details upgraded in chrome or designed in chrome include the parking brake lever grip, climate control elements, interior door handles and the badge of the rotary light switch.

#### "Beetle" functional features

The Beetle – designed with frameless doors – scores in this category too with a wide array of standard features. Always in the car are features such as Hill Climb Assist, electric windows and mirror adjustment, comfort turn indicators (1 press = 3 flashing cycles), vertical and axial adjustments for the steering column, vanity mirrors in the sun visors, multifunction display Plus, RCD 310 radio-CD system with 8 loudspeakers and diversity antenna, an electromechanical and

speed-dependent control of the power-assisted steering, warning tone when the light is not turned off and a warning tone and visual indicator when a seatbelt is not fastened (system acquires all seating positions), 2 reading lights and naturally central locking with wireless remote control.

#### "Beetle" safety

Every Beetle across the globe has the ESP electronic stabilisation programme (including ABS, Brake Assist, EDS, ASR and trailer stabilisation), daytime running lights, height-adjustable head restraints all around, 3-point safety belts (with belt tensioners in front), ISOFIX fixtures in the rear bench seat for secure fastening of compatible child seats, front airbags, combined head and side airbags for driver and front passenger, reflectors in the doors and automatic hazard light activation (under hard braking).

#### "Beetle" USA version

In America, the 'base' version was designed for commercial users and government services. Due to its different vehicle speed conditions, this version is equipped with a different brake system (drum brakes at rear) and all-season tyres. Modified features include an air conditioning system, cruise control and tyre pressure monitoring. The 2.5-litre version is also delivered with hydraulic-assist steering.

# "Design" - more colour in life

## "Design" exterior

The "Design" version builds on the "Beetle" and offers a plus in exclusivity. Above all, more colour is used. The European version illustrates this: it begins outside with body-coloured door handles and side guard strips (the latter with chrome decorative strips). In this case, the decorative trim under the side windows is made of anodised aluminium; the black air inlet screen in front is upgraded with a chrome strip. 16-inch alloy wheels ("Whirl" type) with 215 tyres rounds out the appearance.

#### "Design" interior, functionality, safety

Inside, the Dash Pad painted in body colour immediately catches the eye. In front of the front passenger is the "Beetle bin", which is part of the Dash Pad; it lies behind a hinged cover that swings upward and is also painted in body colour. It is opened with a silver clasp. Also painted in body colour: the upper door trim panel. This is all intended to be a tribute to the first generation Beetle, and it adds magic to the interior, giving it a very special flair. Also standard: storage pockets on the back of the front seats and the chrome badge of the rotary light switch and chrome borders for controls of the ventilation system or optional air conditioning. Also designed in chrome are the ring trim around the instruments, the decorative rings around the lateral air vents and the

radio module together with the air vents integrated there as well as accents for the electric window switches. The "Design" version also includes comfort seats in front, elegant seat covers in "Design" pattern, a 3-spoke steering wheel with decorative accents in body colour, woven floor mats (front and rear), front fog lights with static cornering lights as well as indirect background lighting in the vicinity of the 2 reading lights between the driver and front passenger.

### "Design" USA versions

The "Design" equipment line is offered in 3 versions. Compared to the European version, the USA "Design 1" has such features as 17-inch alloy wheels ("Circle Black" type), artificial leather upholstery plus seat heating (front), 3-stage ambiance lighting, leather-trimmed steering wheel and leather-trimmed parking brake grip as well as a Bluetooth hands-free system. The "Design 2" pack is based on "Design 1" and adds the Keyless Access engine starting and locking system, multifunction steering wheel, SAT radio, centre armrest in front, panoramic tilt/slide roof and RCD 510 radio system. The "Design 3" version builds upon "Design 2". Here standard additional features include 18-inch alloy wheels ("Disc" type), RNS 315 radio-navigation system and the Fender sound system.

#### "TDI" USA versions

The Beetle with Clean Diesel is delivered in the "TDI" equipment versions (3 versions). "TDI 1" is based on "Design 1", but it also offers features such as 17-inch "Rotor" alloy wheels and is equipped with Keyless Access, multifunction steering wheel, SAT radio, centre armrest in front and 3 auxiliary instruments above the centre console. The "TDI 2" pack is based on "TDI 1" and adds the panoramic tilt/slide sunroof and the RCD 510 radio system. In turn, "TDI 3" is based on "TDI 2"; here, added features include the RNS 315 radio-navigation system in place of the RCD 510 radio system and the Fender sound system.

#### "Design" China versions

The "Design" equipment line is offered in 2 versions. Both of them are essentially based on the European version, but they add market-specific auxiliary equipment. For example, compared to the European version, the "Design 1" in China adds a dual clutch transmission (DSG), leather-trimmed steering wheel and parking brake grip, smokers pack, air conditioning, cruise control, 3 auxiliary instruments above the centre console and a centre armrest. "Design 2" is based on "Design 1", but also includes sport seats, leather upholstery with seat heating in front, panoramic tilt/slide sunroof and heated windscreen washer nozzles.





## "Sport" - a matter of dynamics

## "Sport" exterior

Those customers who choose the "Sport" version get – with the exception of the legendary New Beetle RSI – which is being offered in a limited edition of 250 vehicles – the most dynamic Beetle ever. And this not only refers to its powerful yet efficient turbocharged engine, which is illustrated by the European version: it starts off with 17-inch alloy wheels ("Spin") and 215/55 tyres. Also standard are red painted brake callipers (on the 147 kW/200 PS), black painted door mirror housings (in the style of the Golf R and Scirocco R) and side guard strips (the latter with chrome accents), rear spoiler, chrome strip in the air inlet screen, chrome-plated tailpipes (on the 147 kW/200 PS) and anodised aluminium trim strips. All of these features create one stylistically consistent unit, like that of a top level sports car. So, the Beetle Sport is not only a first-class companion for recreation, but also for business.

## "Sport" interior, functionality, safety

Inside, the Beetle Sport offers a Dash Pad in carbon look plus the Beetle bin, ambiance lighting (one colour), sport seats with lumbar supports (front) in "Sport" pattern (with storage pockets on the backs of the front seats), a 3-spoke leather-trimmed steering wheel with black painted accents, leather-trimmed parking brake grip and gear shift grip, door sill plates, pedals in aluminium look, chrome surrounds of the



controls for the air conditioning system that is standard here, black painted upper door trim panels and woven floor mats. Also standard: front fog lights with static cornering lights and indirect background lighting in front.

### "Sport" USA versions

Similar to the "Design" equipment line, the "Sport" is also offered in 3 stages. Compared to the European version, the "Sport 1" adds such features as 18-inch alloy wheels ("Twister" type) and auxiliary instruments above the centre console. "Sport 2" is based on "Sport 1"; here, additional onboard features include Keyless Access, multifunction steering wheel, SAT radio, front centre armrest, panoramic tilt/slide sunroof, RCD 510 radio-CD system and the Fender sound system. Clearly, "Sport 3" is an extension of "Sport 2" and contains additional leather sport seats and the RNS 315 radio-navigation system instead of the RCD 510.

## "Sport" China versions

Just like on the "Design" equipment line, the 2 "Sport" versions are also based on the European pack of equipment features. Features added to "Sport 1" in China include a DSG dual clutch transmission, multifunction steering wheel, leather upholstery with seat heating, automatic climate control system, cruise control, 3 auxiliary instruments above the centre console, front centre armrest, panoramic tilt/slide roof, Park Assist



(front and rear), heated windscreen washer nozzles, RCD 510 radio-CD system, folding door mirrors, Light & Sight pack and an anti-theft warning system. The most exclusive equipment pack is in the "Sport 2" version; here, along with 18-inch alloy wheels, standard features include a multifunction steering wheel with DSG shift paddles, Fender sound system, 3-stage ambiance lighting and sport chassis.

## Optional features - high-tech meets cult car

In addition to the 3 equipment lines, the Beetle can be customised by adding features from the options list. Here is an overview of the most significant features:

## Bi-xenon headlights and LED daytime running lights

For the first time, Volkswagen is offering the Beetle with bi-xenon headlights. The outer edges of the xenon module are framed by 15 LEDs that make up the daytime running lights and parking lights on each headlight. An option that can be ordered with bi-xenon headlights is LED licence plate lighting.



#### Panoramic roof

It is transparent, and it can be tilted or opened. The precise name is therefore panoramic tilt/slide sunroof. It is 80 per cent larger (glass area) than on the previous model. Incidentally, the thermally insulating glass blocks 99 per cent of UV radiation and 92 per cent of thermal energy. The panoramic roof does not reduce the interior height of the Beetle, because it opens towards the exterior. When the roof is opened, a wind deflector protects against air turbulence in the car's interior. The rotary switch for opening and closing the transparent roof is intuitive in its operation. When the switch is pressed upwards, the sunroof also moves upwards (tilt function). Meanwhile, if the sunshine is too bright, a sunshade can be pulled out that spans the entire opening (even if the roof is open).

### Radio-CD and radio-navigation systems

The New Beetle was exclusively available with radio-CD systems specially designed for this model. However, there was no navigation system. Volkswagen is now taking a completely different approach, and offering all of the systems that are available in models such as the Golf, Jetta and Passat on the new Beetle. As standard, the Beetle has the already very good audio system RCD 310 with 8 loudspeakers (4 tweeters and 4 woofers) and dual tuners. The top system among the audio systems is the RCD 510 with integrated CD changer, SD card interface and touchscreen. Offering an economically attractive entry



into the area of radio-navigation systems is the RNS 315 with 5-inch touchscreen ( $400 \times 240$  pixels), CD player, SD card slot and dual tuners. The top radio-navigation system model is the RNS 510. It offers up such refinements as a 6.5-inch touchscreen, DVD player, voice control, SD card slot and 30-Gigabyte hard drive. In the USA, a SAT radio is also available.

## Sound system from Fender ...

Anyone who knows about the world of rock music is familiar with such greats as Jimi Hendrix and Eric Clapton. The first played Fender guitars, while the latter still does. Now, the legendary producer of US musical instruments and amplifiers – in a joint venture with Panasonic – is exclusively sharing its know-how with the Volkswagen brand. The result is an optional Fender sound system that is being offered in the Beetle. Those choosing this sound system also get interior ambiance lighting that can be set to one of 3 colours (white, red, blue). Besides providing indirect illumination in the door trim area, it also includes light rings around the loudspeaker boxes in the doors.

### ... and its technology

The Fender sound system consists of 2 tweeters installed in the interior door mirror triangles and two in the rear side trim. They are equipped with neodymium magnets and woven domes. In the front doors, there are woofer loudspeakers with dual voice coils, which are arranged in



the rear side trim. There are also woofers in the rear side trim panels, each with a single voice coil. In addition, a subwoofer with dual voice coil is housed in an enclosed bass box that is integrated in the Beetle's boot. The centrepiece of the sound system is a 10-channel amplifier with Class A/B power amplifiers and 400 Watts. In Europe, the Beetle is the first car to be equipped with a Fender sound system.

## **Keyless Access**

The Keyless Access locking and engine starting system is appearing for the first time in the Beetle; it operates without a door or ignition key. When one of the door handles is touched, the system detects access authorisation from a transmitter carried in the person's jacket, trousers or hand bag; it then unlocks the Beetle and enables an engine start via the engine start button located in front of the gear shift grip. Locking of the Volkswagen is also activated by touching one of the 2 door handles; in this case, however, a specially marked surface is used.



## **Ambiance lighting**

In the Beetle, to the left of the steering wheel, there is not only a small wheel for brightness control of the instrument backlighting, but also (as an option) a second one with the scaling "0", "r", "w" and "b". This wheel is used to control the innovative ambiance lighting system. The settings "r" "w" and "b" stand for the colours of the ambiance lighting: red, white and blue. The indirect lighting itself is located in the door trim panels, while direct lighting is implemented as a light ring around the door-mounted loudspeakers. Ambiance lighting is offered as a pack in combination with the also optional Fender sound system.

### **Auxiliary instruments**

Another classic feature: the optional auxiliary instruments above the selected radio-CD or radio-navigation system: oil temperature, clock with chronometer function and boost pressure gauge. The oil temperature gauge shows when the engine is ready to go onto the race track where the chronometer can be put to good use. And the boost pressure gauge? It optimises either driving fun or fuel-efficiency – depending on the driver's inclination and mood.

#### **ParkPilot**

When the Beetle is ordered with ParkPilot, the driver can access a visual display on the screen of the radio-CD or radio-navigation system that assists in parking. The display image shows a top view of the Beetle that symbolically depicts potential obstacles in front of and behind the car at their precise locations. In addition, there is an acoustic warning: an intermittent tone increases in frequency as the car approaches the obstacle, eventually becoming a continuous tone.

## Leather upholstery with sport seats

Particularly elegant is the leather upholstery that is also available in a two-tone version. In this case, the Beetle is equipped with sport seats in front, while other features include storage pockets on the backs of the front seats as well as lumbar supports and seat heating in front.



# Powertrain and running gear

# Sustainability counts

# Most fuel-efficient Beetle consumes just 4.3 l/100 km

## 6 efficient engines with power outputs from 105 PS to 200 PS

Wolfsburg/Berlin, July 2011. The new Beetle debuts with 4 petrol and 2 turbodiesel engines. 4 of them are charged four-cylinder engines, while 1 engine is a five-cylinder naturally-aspirated engine. All of the four-cylinder engines have direct fuel injection.

## 4 petrol engines

77 kW/105 PS (1.2 TSI) for China and Europe.

118 kW/160 PS (1.4 TSI) for China and Europe.

125 kW / 170 PS (2.5 MPI) for America.

147 kW/200 PS (2.0 TSI) for America, China and Europe.

### 2 diesel engines

77 kW/105 PS (1.6 TDI) for Europe.

103 kW/140 (2.0 TDI) for America and Europe.

#### **Sustainable**

Never before has the Beetle aka Beetle been more fuel-efficient. The best example is the Beetle 1.6 TDI with 77 kW/105 PS. At 4.3 l/100 km (equivalent to 112 g/km  $\rm CO_2$ ), this diesel version with BlueMotion Technology (Stop/Start system, battery regeneration) is the most fuel-efficient Beetle that has ever been built. Reduction in fuel consumption



compared to the previous model: 20 per cent. In America, the Beetle will be offered as a turbodiesel for the first time. As a US version, the Beetle 2.0 TDI (103 kW/140 PS) fulfils the emissions standards for all 50 states, thanks to the  $\mathrm{NO}_{\mathrm{X}}$  storage catalytic converter it uses, and it attains a Highway fuel economy of 40 mpg; in the City cycle, fuel economy is 29 mpg, and combined fuel economy is 33 mpg. By the way, the Volkswagen not only achieves these fuel economy values in the version with a 6-speed manual gearbox, but also – and this is also a technology debut in the Beetle – with the optional 6-speed dual clutch transmission.

# Petrol engines - specifics of the 4 engines

#### 1.2 TSI with 77 kW/105 PS

Among the engines, one technological highlight in efficiency is the 1.2 TSI with 77 kW/105 PS. The turbocharged four-cylinder engine follows the downsizing philosophy of the globally successful 1.4 TSI, 1.8 TSI and 2.0 TSI engines. And this means: maximum power with minimum fuel consumption. The "small" TSIs are characterised by very impressive driving performance. For example, the 105 PS Beetle 1.2 TSI reaches 100 km/h from a standstill after just 10.9 seconds, and if necessary it can accelerate to 180 km/h. This performance data sits in sharp contrast to its very low fuel consumption and emissions values, particularly with the BlueMotion Technology pack that attains



 $5.5\ l/100\ km$  and  $129\ g/km\ CO_2$ . The  $1.2\ TSI$  produces its peak power at  $5,000\ rpm$ . Its maximum torque of  $175\ Newton$  metres is available from  $1,500\ rpm$ . The Beetle  $1.2\ TSI$  is delivered with a 6-speed manual gearbox as standard. Optionally (and as standard in China), this engine can also be equipped with the 7-speed DSG developed by Volkswagen. In this case, fuel consumption is also very low:  $5.9\ l/100\ km$  (equivalent to  $137\ g/km\ CO_2$ ).

### 1.4 TSI with 118 kW/160 PS

At the next power level, Volkswagen is implementing a turbo- and supercharged four-cylinder engine with a power of 118 kW/160 PS (at 5,800 rpm) in the new Beetle. A look at the engine's specific power is of interest here: the 1.4-litre engine attains 84.3 kW or 114.3 PS per litre engine displacement. Its maximum torque of 240 Newton metres is available at a low 2,000 rpm. Like the 122 PS TSI, this engine is also exceptionally economical: 6.6 l/100 km (equivalent to 153 g/km CO<sub>2</sub>). When the 160 PS TSI is combined with the 7-speed DSG (standard in China), fuel consumption drops to 5.9 l/100 km (139 g/km CO<sub>2</sub>)! Fuel economy data like this makes the Beetle 1.4 TSI DSG a pleasant surprise in the engine programme. By comparison, the previous model with 110 kW/150 PS attained a value of 8.9 l/100 km in the automatic version. Despite 10 PS more power, fuel consumption was reduced by 3.0 l/100 km or 34 per cent. Driving performance of the Beetle 1.4 TSI is also impressive: after just 8.3 seconds, the Volkswagen is moving at 100 km/h; its top speed is 208 km/h (207 km/h with DSG).

#### 2.5 MPI with 125 kW/170 PS

This five-cylinder engine with a power output of 125 kW/170 PS (at 5,600 rpm) and 2,480 cc was developed specifically for the USA, Canada and Mexico. The 20 valve five-cylinder engine equipped with multipoint fuel injection enables a high level of agility: it accelerates the Beetle to 60 mph in just 8.0 seconds; when a 6-speed automatic is installed, this value is 8.3 seconds. Even at its top speed of 118 mph the acoustics of the five-cylinder engine always remain muted. The engine's maximum torque of 240 Newton metres comes at 4,250 rpm. For the manually shifted Beetle, fuel economy values are 22 mpg (City), 31 mpg (Highway) and 25 mpg (combined); the same engine with a 6-speed automatic attains 23 mpg (City), 30 mpg (Highway) and 25 mpg (combined).

### 2.0 TSI with 147 kW/200 PS

Volkswagen is implementing the 2.0 TSI in the Beetle worldwide. This engine, familiar from the Golf GTI, enjoys a cult status, particularly in Europe, because it goes to work with extremely sporty performance yet is highly efficient. The turbocharged engine attains a combined fuel consumption of 7.4 l/100 in Europe; the equivalent  $\rm CO_2$  value is 173 g/km (USA: 21 mpg City, 30 mpg Highway). In the version with 6-speed DSG (standard in China), the European driving cycle values are 7.7 l/100 km and 179 g/km  $\rm CO_2$  (USA: 22 mpg City, 30 mpg Highway). The large TSI develops its maximum power from 5,100 rpm. Its maximum torque of 280 Newton metres is already available from 1,800 rpm. The Beetle 2.0



TSI has a top speed of 225 km/h or 130 mph (electronically limited); DSG: limited to 223 km/h or 130 mph. The Volkswagen completes the sprint to 100 km/h in 7.5 seconds; in America, the most powerful Beetle sprints to 60 mph in 6.8 seconds.

## Diesel engines - details of the 2 engines

#### 1.6 TDI with 77 kW/105 PS

The 1.6 TDI with 77 kW / 105 PS (from 4,400 rpm) and 240 Nm torque (from 2,000 rpm) is one of the most advanced diesel engines in the world. Like all Volkswagen TDI engines with common rail direct injection, these 16-valve four-cylinder TDIs also exhibit the best acoustic properties, excellent responsiveness and extremely low fuel consumption and emissions values. Naturally, the Beetle 1.6 TDI has a particulate filter. At 4.3 l/100 km (equivalent to 112 g/km CO<sub>2</sub>), this diesel version – when equipped with BlueMotion Technology modifications – is the most fuel-efficient Beetle ever built. This means that fuel consumption on TDI engines that have always been fuel-efficient has been reduced by 20 per cent. On the Autobahn, the new Beetle 1.6 TDI with BlueMotion Technology is capable of a top speed of 180 km/h - so, in this case fuel economy does not come at the price of performance. Like all of the Beetle's TDI and TSI engines, the 1.6 TDI is also offered with an optional dual clutch transmission. The 7-speed DSG used here achieves a combined fuel consumption value of just 4.7 l/100 km (124 g/km CO<sub>2</sub>).



#### 2.0 TDI 103 kW/140 PS

Also exceptionally fuel-efficient is the 140 PS TDI (4,200 rpm) in the new Beetle. This extremely torque-strong turbodiesel (320 Nm from 1,750 rpm) is capable of a top speed of 198 km/h, yet it has a combined fuel consumption value of just 4.9 l/100 km (equivalent to 129 g/km  $\rm CO_2$ ). When shifted with a 6-speed DSG, the European driving cycle yields a combined fuel consumption value of 5.3 l/100 km (equivalent to 139 g/km  $\rm CO_2$ ). On both transmission versions, the European Beetle 2.0 TDI accelerates to 100 km/h in 9.5 seconds; its top speed is 198 km/h (DSG: 195 km/h). The US version of the Beetle 2.0 TDI equipped with a  $\rm NO_x$  storage catalytic converter and a manual transmission attains a (combined) fuel economy value of 33 mpg! The best: the Beetle 2.0 TDI also attains this value with its highly efficient automatic transmission, the 6-speed DSG.

### DSG – one of the most efficient transmissions in the world

## 6- and 7-speed DSG

Except for the 2.5 MPI (available with manual transmission or torque-converter automatic), any of the new Beetle's engines may be combined with a dual clutch transmission (DSG). It is either a 6-speed or 7-speed DSG, depending on engine torque values. Besides having different numbers of forward gears, another way in which the DSG systems differ technically is in their clutch types. While 2 dry clutches operate in the



7-speed DSG, the dual clutch of the 6-speed DSG runs wet in an oil bath. The two DSG versions are application-specific. While the 6-speed DSG shines when paired with torque-strong engines (up to 350 Newton metres), the 7-speed DSG is especially effective in combination with smaller engines (up to 250 Newton metres of torque).

# Running gear – first-class handling properties

#### New rear suspension in lightweight construction

In all versions, the Beetle is equipped with a standard ESP electronic stabilisation programme. When it comes to the layout of the car's running gear, Volkswagen has implemented a MacPherson-type strut suspension at the front with helical springs and telescoping dampers. At the rear, a newly developed suspension in lightweight construction supports the Beetle's very good handling properties. Transverse forces are supported by an anti-sway bar here. In the context of repositioning the Beetle, the very lightweight running gear concept represents the optimum. In addition, the running gear also offers excellent driving stability when the car is fully loaded. Fitting into this picture is the very smooth yet precise operation of the electromechanical power steering (for all TDI and TSI engines / 2.5 MPI: hydraulic power steering). The Beetle 2.0 TSI will be delivered globally with a four-link rear suspension; this running gear layout can handle the higher dynamic loads of the top engine.



## Differential lock for top petrol engine

To ensure the 2 strongest Beetle versions apply their power to the road properly when driving quickly through bends, the models with 160 PS/118 kW (European version) and 200 PS/147 kW (global) come with a standard, factory-fitted XDS electronic differential lock which is essentially an extension of the familiar EDS functionality. XDS improves handling in fast bends and calibrates the car towards more "neutral" steering; it does this by using active brake intervention to prevent wheelspin of the unloaded wheel on the inside of the curve, which in turn improves traction.

# **Technical data**

The Beetle		77 kW (105 PS)
Engine, electrics		
Type of engine		4-cyl. petrol engine TSI
Engine position		Front transverse installation
Effective displacement	cm³	1,197
Mixture formation		Direct petrol injection
Emissions control system		3-way catalytic converter with Lambda probe
Power output	kW (PS) at rpm	77 (105) 5,000
Max. torque	Nm at rpm	175/1,550 - 4,100
Performance (at curb weight + 200 kg)		
Acceleration 0-80/100 km/h	s	7.2/10.9
Top speed	km/h	180
Fuel consumption (99/100/EC)		
Fuel type		Premium 95 RON
Combined cycle	I/100km	5.9*
Emissions (CO <sub>2</sub> )	g/km	137*
Exhaust emissions classification		Euro 5
Power transmission		
Gearbox		Six-speed manual gearbox
Exterior dimensions		
Number of doors		2
Length/width/height	mm	4,278/1,808/1,486
Wheelbase	mm	2,537
Track, front/rear	mm	1,578/1,544
Luggage compartment		
Length, rear seat raised/folded down	mm	838/1,493
Volume by VDA measurement: rear seat raised/folded down	I	310-905
Weights* (DIN)		
Unladen weight	kg	1,199
Capacities		
Fuel tank	1	55

<sup>\*</sup> provisional data

The Beetle		147 kW (200 PS)
Engine, electrics		
Type of engine		4-cyl. petrol engine TSI
Engine position		Front transverse installation
Effective displacement	cm³	1,984
Mixture formation		Direct petrol injection
Emissions control system		3-way catalytic converter with Lambda probe
Power output	kW (PS) at rpm	147 (200) 5,100
Max. torque	Nm at rpm	280/1,700 - 5,000
Performance (at curb weight + 200 kg)		
Acceleration 0-80/100 km/h	s	5.4/7.5
Top speed	km/h	223
Fuel consumption (99/100/EC)		
Fuel type		Premium 95 RON
Combined cycle	l/100km	7.7
Emissions (CO <sub>2</sub> )	g/km	179
Exhaust emissions classification		Euro 5
Power transmission		
Gearbox		Six-speed direct shift gearbox (DSG)
Exterior dimensions		
Number of doors		2
Length/width/height	mm	4,278/1,808/1,486
Wheelbase	mm	2,537
Track, front/rear	mm	1,578/1,544
Luggage compartment		·
Length, rear seat raised/folded down	mm	838/1,493
Volume by VDA measurement: rear seat raised/folded down	I	310-905
Weights* (DIN)		
Unladen weight	kg	1,364
Capacities		
Fuel tank	I	55

<sup>\*</sup> provisional data