



**Suzuki Press Office**

**Suzuki Grand Vitara  
Press Pack**



## **SUZUKI POWERS INTO THIRD VITARA DECADE WITH GRAND VITARA RANGE**

- Minor change Grand Vitara on sale 2013.
- Marking 24 years of Suzuki Vitara/Grand Vitara and more than 2.9 million worldwide sales.
- Switchable 4WD system offers true off-road capability and responsive on-road performance.
- 3 door and 5 door versions.
- Electronic Stability Programme (ESP®) fitted as standard across the range.
- 1.6 VVT petrol available in SZ3 and SZ4 3 door models only delivers 106 PS and 34.5mpg combined.
- Euro 5 emissions 2.4 litre petrol engine unit incorporates balancer shaft for smoother running performance and lower NVH levels.
- 2.4 petrol offers two levels of specification; 3 door and 5 door SZ4 and 5 door SZ5.
- 1.9 DDiS engine available as five door SZ5 model now emits 174g/km CO<sub>2</sub> down from 179g/km – one VED band lower meaning reduced VED costs.
- Equipment for SZ4 three door models includes 17 inch alloy wheels, rear privacy glass and in-dash CD player with MP3 compatibility.
- Equipment for SZ5 1.9 DDiS and 2.4 five door includes 18 inch alloy wheels, High Intensity Discharge (HID) headlamps, electrically operated glass sunroof, leather seats with front seat heating and Satellite Navigation.
- UK Vitara/Grand Vitara sales of more than 185,000 since introduction in 1988.

### **Introduction**

Suzuki launched its first Vitara 24 years ago, creating the world's first compact SUV and tapping into a new market for vehicles that deliver true off-road performance with responsive, fun-to-drive on-road performance. Since then, the stylish and versatile SUV has steadily evolved and kept pace with growing demand for good-looking, versatile 4x4s that are as rewarding on the open road as they are motoring off the beaten track.

### **Model range**

Following the successful launch of the revised Grand Vitara SZ model range with 2.4 litre petrol engine in October 2008; Suzuki extended the SZ range in July 2009 with the addition of the 1.6 litre petrol to the three door model line-up. This was followed in September 2009 with the introduction of the 1.9 DDiS five door.

For 2013, Grand Vitara has received minor changes throughout. At the front of the car, the front bumper, grille and foglamp position has been revised. Additional changes include inner headlight black accents on 5 door models, and new design 17 inch and 18 inch alloy wheels. Moving to the rear, a spare wheel has been

mounted to the rear door, eliminating the need for a puncture repair system. This change means the Grand Vitara grows in length by 200mm (five door models) and 170mm (three door models).

Suzuki has a unique offering in the SUV market, with no other manufacturer offering two engines (1.6 and 2.4) in a compact SUV three door body style. The three door is an important model in the range and represents 50 per cent of all Grand Vitara sales in the UK which is around 2,000 cars for 2012.

### **Exterior and interior styling**

Both SZ4 and SZ5 models are fitted with different design ten spoke alloy wheels; SZ4 models have 17 inch alloys whilst SZ5 models have 18 inch alloys. Cabin ambience is refined and sophisticated, with a clean, easy to monitor dashboard layout and control buttons and switches that are weighted to convey a sense of quality and precision.

Moving inside, the changes continue; SZ4 (3 door and 5 door) and SZ5 (3 door) models are finished with a new design seat trim. SZ5 five door models additionally feature wood trim inlays to the centre console and integrated door armrests which further enhance all-round cabin quality.

Details include a multi information display in the main instrument cluster, giving the driver clear information on vehicle status, including fuel consumption, mileage, driving range and gear position for automatic transmission equipped models (option on 2.4 litre model only). The steering wheel mounted switches are illuminated for greater ease of use together with a modern design control panel for the climate control unit. For five door models, door tweeters are included together with a centre speaker on the dashboard which allows sound to be echoed off the roof to create a surround-sound effect.

New for 2013 is the 6.1 inch touchscreen Colour Navigation System (standard on SZ5 5 door models). The navigation system is powered by Garmin and includes comprehensive European mapping with downloadable updates and content. Voice recognition is another key feature which allows the user to plot routes or find addresses without taking their hands off the steering wheel.

The navigation system forms part of the infotainment centre – allowing a number of music options; CD, radio, SD card, media player (including iPod® and iPhone®) connected via the USB port, as well as via Bluetooth® music streaming and phone connectivity.

All other models in the Grand Vitara range are now fitted with a single CD player.

### **Enhanced active and passive safety**

- Electronic Stability Program (ESP®) fitted as standard across range
- Rear disc brakes for 1.9 DDiS and 2.4 models
- Strengthened rear suspension

Recognising the safety potential of electronic stability systems, Suzuki equips the entire Grand Vitara range with ESP® as standard. ESP® uses selective wheel braking and controls engine output as necessary to stabilise the vehicle if it detects understeer or oversteer situations which could possibly result in total loss of control. ESP® also incorporates a traction control feature to prevent wheel spin during standard starts or a loss of grip during sharp acceleration.

SZ5 1.9 DDiS and 2.4 Grand Vitara models are also equipped with ventilated rear disc brakes. Combined with the front discs, they give superior braking performance and also return to peak braking condition quicker if the vehicle passes through deep water.

To accommodate the new rear brakes, the subframe and dampers are strengthened and all models benefit from ABS with EBD as standard.

### **The flagship 2.4**

The Grand Vitara 2.4 litre is available in three and five door body styles with two trim grades; SZ4 (3 door and 5 door) and SZ5 (5 door).

At the heart of the model is a 122kW/166PS 2.4 litre petrol engine (five door slightly more powerful at 124kW/169PS). The unit makes full use of advanced technical and design features to deliver improved power and torque; since March 2012 tailpipe emissions are lower at 201g/km for the three door model and 204g/km for five door models.

The engine incorporates a series of features that at launch were seen for the first time on a Suzuki designed powerplant. These included a three-stage variable air intake and a tumble control valve in the intake ports to achieve the best possible fuel-air mixture.

Further innovative measures introduced to reduce engine noise and vibration include a balancer shaft, built into the oil pump to save space; a “silent” timing chain, and a new bearing cap to support the crankshaft, made from lightweight but hard wearing ductile cast iron. A stiffer engine block, revised engine mounts,

detail changes to propeller shaft components and extra insulation all contributed to bring noise and vibration levels in the 2.4 model even lower than before.

Attention to detail extends to the thickness of the glass in the front doors and also the quality of the carpeting to maximise sound insulation performance.

The Grand Vitara remains a full-blooded 4x4. Its monocoque construction incorporates a built in ladder frame and additional strengthening elements to provide the rigidity needed for serious off-road driving. At the same time, the all-round independent suspension ensures stability and comfort when driving on tarmac.

### **2.4 litre petrol engine in detail**

The 2.4 litre petrol (J24B) unit makes full use of advanced features to achieve high efficiency, smoothness and driveability. Offering more power and more torque, it is ideally equipped to tackle both the open road and challenging back roads with equal aplomb.

The engine is the first Suzuki unit to benefit from a variable intake system in which rotary valves in the intake manifold change the length of the intake ports in line with engine speed. The result is improved intake efficiency throughout the rev range.

This system adjusts intake port length in three rather than two stages, thus gaining the maximum potential from intake pulses. Optimising intake efficiency in this way means the engine delivers higher torque.

#### Quiet performance

- Hard-wearing ductile cast iron used for bearing cap
- Balancer shaft incorporated in oil pump
- “Silent” timing chain and chain adjuster
- Plastic cylinder head cover

The engine’s construction is designed in detail to give quieter performance. The bearing cap which supports the crankshaft is made of ductile cast iron, in which extra magnesium is used for greater strength and wear resistance, and is cast into the lower case. This arrangement limits differences in thermal expansion between the bearing cap and crankshaft and so suppresses noise and vibration.

The engine also features a balancer shaft, which rotates to offset vibration created by the reciprocating movement of the pistons. Its alignment and weight are carefully calculated to achieve maximum effectiveness and it is integrated into the oil pump, to promote quietness without taking up extra space.

Where conventional timing chains consist of linked rollers, those used on the 2.4 litre engine are made up of a series of linked tooth-shaped plates. This so called “silent chain” slides against the sprocket teeth as it meshes with them, making it significantly quieter than a roller chain, where the rollers strike between the sprocket teeth at about a 90° angle, creating much more noise.

A chain adjuster keeps the timing chain optimally tensioned, limiting any power lost because of chain wear. It also reduces vibration, further preventing chain noise and wear. The cylinder head cover has a plastic, floating structure, which also helps reduce vibration and noise.

Fuel economy and environmental performance

- Tumble control valve for optimum fuel-air mixture
- Electronic throttle control

The 2.4 litre engine is the first from Suzuki to feature a tumble control valve in each intake port. When the valve is closed, the passage is made narrower, creating a strong tumble flow in the combustion chamber. This in turn promotes a uniform mixture of fuel and air that allows complete combustion. This means a leaner mixture can be used during engine start-up, giving the engine better emissions performance.

The air-fuel ratio is precisely and optimally controlled by an electronically controlled throttle valve, which operates according to information from a number of sensors. This ensures improved fuel economy and emissions levels.

### **SZ5 1.9 DDiS**

Strong fuel economy and torque across a wide rev band are the key characteristics of the common rail 1.9 litre intercooled and turbocharged diesel engine which was revised in 2010 to meet Euro 5 emissions regulations. These revisions resulted in improvements to fuel consumption and tailpipe emissions, achieving 41.5 mpg on the combined cycle with carbon dioxide emissions of 179g/km.

For 2013, this has been revised further to achieve 174 g/km CO<sub>2</sub> – which means the VED band for Grand Vitara models fitted with the 1.9 DDiS engine has been reduced by one band to H. An additional improvement is an increase in combined fuel economy to 42.8mpg from 41.5mpg.

The 1.9 litre engine also incorporates a Dual Mass Flywheel for enhanced drivability and smoother running. Minor modifications were also made to the engine mountings and suspension bushings to minimise vibration and harshness. The engine has a remarkably flat torque curve and achieves peak torque of 300Nm (221lbft) at just 2,000rpm, ensuring the flexibility typically demanded by SUV drivers. With this level of torque, the DDiS model is ideal for towing with its braked capacity of 2,000kg.

### **1.6 litre petrol**

Suzuki has adopted a subtly different engineering approach for the 1.6 16v VVT three door model compared with the rest of the range, taking into account changing market trends and driver preferences. Compared to its stablemates, it is more of a soft-roader: it benefits from permanent four wheel drive, but does not use the centre differential lock featured on the five door 1.9 DDiS and 2.4 Grand Vitara models. This means it retains all the safety benefits of four wheel drive on the road, along with useful levels of traction in typical off-road conditions such as muddy fields or gravel roads.

The three engines offered in the Grand Vitara range deliver strong performance and efficiency. All feature drive-by-wire throttle management and advanced induction control systems to achieve excellent fuel economy. The 106PS 1.6 litre engine has variable valve timing and delivers 34.5mpg on the combined cycle with emissions of 189g/km.

### **Range equipment**

All SZ3 models feature six airbags, automatic air conditioning with pollen filter, CD player with radio and four speakers and 16 inch alloy wheels as standard equipment. Additional specification on the SZ4 three door model includes rear privacy glass, 17 inch alloy wheels. 2.4 SZ4 three door models are now fitted with cruise control and 3 spoke leather covered steering wheel.

Equipment on the SZ4 five door includes 17 inch alloy wheels, seven speaker CD system, but omits rear privacy glass. Five door 2.4 SZ5 models add satellite navigation, leather seats with front seat heating, 18 inch alloy wheels, rear privacy glass and electrically operated glass sunroof as standard. The 1.9 DDiS is available as a five door SZ5 model only.

The Grand Vitara has a comprehensive passive safety package, including front, side and curtain airbags for driver, front seat passenger and rear passengers (outer rear seats on five door models). ISOFIX child seat mountings with top-tether anchor are fitted as standard on the rear seats. The front seatbelts are height adjustable and incorporate pretensioners and force limiters.

In the event of an accident, the reinforced cabin structure, impact absorbing crush zones, and the design of the 'built-in ladder frame' construction direct impact energy away from the cabin. The cabin itself is further reinforced with measures including door impact bars and deformation-resistant members. Pedals are designed to minimise protrusion into the footwell, and a head impact protection structure supplements the protection provided by the curtain airbags.

### **Less noise, more comfort**

The 4x4 system uses propeller shafts with low vibration constant velocity joints with sliding type joints at the front end of each shaft for even lower vibration transmission. The transmission of noise and vibration to the body is also suppressed by the use of a liquid filled differential mount.

A series of detailed measures were introduced on SZ five door versions to further insulate the cabin from wind noise intrusion. The front door glass was increased in thickness from 3.5 to 4.0mm and a lower seal added to the trim of both front and rear doors. The interior carpeting also has higher sound insulation performance.

### **All-independent chassis**

Grand Vitara has a remarkably rigid body thanks to Suzuki's 'built in ladder frame' design, which features strategic strengthening without undue weight gain. It comprises two longitudinal elements running the length of the body, with six cross members and two parallel longitudinal elements running in the outer sills.

Its resistance to twisting and bending means that the full potential of the advanced all wheel independent suspension can be realised. The result is a smooth and responsive on-road ride and rock solid off-road traction and stability. The relatively low weight of the upper body also contributes to linear handling response.

The front suspension features MacPherson struts, with an independent multilink set-up at the rear. The suspension's low profile design maximises interior space, while offset, separate springs and shock absorber units improve ride quality.

### **Permanent four wheel drive**

The four wheel drive system is permanently engaged and it provides surefooted progress at all times, ensuring secure performance in low grip conditions. The driver does not have to worry about switching it in or out every time the surface changes.



Using a torque sensing limited slip centre differential absorbs differences between front and rear wheel speeds and gives the benefit of all wheel traction. It helps reduce fuel consumption and provides the characteristic ‘braking effect’ and understeer of four wheel drive systems with rigid centre transfers. Unlike systems that operate predominantly in two wheel drive and automatically engage four wheel drive via a centre clutch when differences in front and rear wheel speeds are detected, there is no delay in the Grand Vitara’s system; four wheel drive is doing its work all the time.

There is a full complement of four wheel drive features, enabling drivers to tackle tougher off-road conditions. On 1.9DDiS and 2.4 models, four transmission modes are available, which are easily engaged by means of a rotary switch on the dashboard.

Feature	Description
<b>4H</b>	High-range 4x4 mode with free centre differential is ideal for most conditions, offering the smooth, quiet performance and neutral cornering of conventional 4x2s. Front and rear torque is split 47:53, improving on-road response while delivering excellent off-road traction. The torque-sensing diff ensures immediate throttle response.
<b>4H Lock</b>	In this high-range 4x4 mode, a clutch locks the centre differential to eliminate any speed difference between the front and rear wheels, providing outstanding traction to power through deep snow or mud.
<b>4L</b>	Low range four wheel drive (again with a locked centre differential) enables Grand Vitara to cope with more challenging conditions. The transfer gear ratio is about twice that of the 4H Lock mode at 1.970, offering excellent low-end traction.
<b>N</b>	Neutral mode allows the vehicle to be towed. With the centre differential free, there is less risk of driveline wear and tear.

### Heritage - 24 years of the Suzuki Vitara

- The world’s original compact SUV
- More than 2.9 million sold worldwide
- UK sales of more than 180,000 since introduction in 1988

It’s a testament to the enduring appeal of Suzuki’s Vitara and Grand Vitara that 2.9 million have been sold worldwide in the 24 years since the original model made its debut.

In 1988, Suzuki created a new category of four wheel drive vehicles – the compact Sports Utility Vehicle (SUV). At an affordable price, Vitara combined the comfort of a saloon with the all-terrain performance of a true off-roader.

Suzuki's development of smaller, nimble 4x4s began with the original Lightweight Jimny (LJ), a modestly powered machine that steadily evolved through the 1970s and led to the introduction of the SJ "Samurai" in the early 1980s. Samurai's market success helped propel Suzuki to the position of the world's leading manufacturer of compact, fully off-road capable vehicles by 1988, the perfect platform on which to extend its 4x4 range with an all-new vehicle.

That new model was the original Vitara. Measuring just 3.57m long, it remained true to the concept of a compact off-roader and was equipped for cross-country driving with on-demand four wheel drive and reduction gearing. At the same time, it boasted much improved comfort and everyday driving characteristics, comparable to a compact saloon. Two versions of the four seater were unveiled: a three door hardtop and a convertible that strengthened Vitara's appeal to its target youthful market. Both versions were powered by an 80hp 1.6 litre petrol engine. Suzuki's instincts were quickly proved right as by the end of 1989, Vitara had already notched up more than 64,000 global sales.

The first major development of the range came in 1990 with the introduction of the five door Vitara Long, designed to provide a level of passenger and luggage space on a par with a mid-size saloon and so extend the model's appeal to young families. Reaching a wider market helped move sales into six figures.

The first diesel Vitara joined the range in 1996, a 71hp 2.0 litre model with 172Nm of torque at 2,000rpm. Further choice was offered in the shape of the X90 derivative, a quirky two seater model with removable two piece glass roof.

The second generation Vitara arrived in 1998, at the end of a decade when it had achieved the status of Europe's best-selling 4x4, with more than 310,000 units sold. Longer, wider and higher, it gained new engines and a new version: Grand Vitara. The first Grand Vitara measured 4.19m long and was built on a completely redesigned chassis. Power options were two petrol engines, a 94hp 1.6 litre four cylinder and a 144hp 2.5 V6.

The five door model was soon followed by a new three door Vitara in hard top and convertible body styles with 2.0 litre petrol and diesel power units. In 2001, the diesel was replaced by a technically advanced and efficient common rail injection unit, giving significantly more power and torque.

Suzuki still had more to offer the SUV market and in 2001 unveiled the Grand Vitara XL-7 at the Detroit motor show. With length increased to 4.66m, there was now room on board for seven passengers plus luggage. Power came courtesy of a 173hp 2.7-litre V6 petrol engine that was subsequently re-engineered to deliver 184hp.



Way of Life!

The third generation Grand Vitara was presented to the public at the 2005 Frankfurt motor show and was the second of Suzuki's world strategic models, following the launch of Swift.

With a sleek, edgy design that echoed the styling of the original Vitara, the new model marked a further evolutionary step with a new, highly rigid monocoque chassis with built in ladder frame; full-time four wheel drive in place of the previous part-time system; and multilink independent rear suspension in place of the rigid axle.

The new generation model added real impetus to Grand Vitara's worldwide success, with more than 175,000 global sales in 2006 – a record performance at the time.