

April, 2018 Suzuki Motor Corporation

Lighter, quicker new Suzuki Swift Sport

The third-generation Swift Sport features a lower, wider stance, more aggressive styling, and a torque-to-weight ratio that propels the Swift Sport into genuine hot hatch territory. "We know that our customers value a dynamic driving experience above everything else," says Swift Sport chief engineer Masao Kobori, "so we've made the new Swift Sport lighter, faster and more stimulating in every way."



New Swift Sport highlights

Hot hatch performance

Kerb weight is down 80kg to only 975kg, maximum torque is up 70N·m to 230N·m, and the Swift Sport's acclaimed handling is more responsive than ever. The result is genuine hot hatch performance that takes the Swift Sport to the next level.

Strong visual presence

The Swift Sport's athletic stance and performance credentials are enhanced by an exclusive front grille and bumper, and aerodynamic front-lip spoiler, side skirts, rear diffuser and roof-end spoiler. 17-inch polished and wheels dual alloy exhausts complete the picture.

Stimulating driver experience

The new interior stimulates the driver's senses. Accent panels, colour-contrasted gauges and precision dials provide visual impact, while semi-bucket seats and high-quality textures keep the driver firmly in control of the fun.



Swift Sport: hot hatch performance

With a 1.4 BOOSTERJET engine producing 230N·m of torque, and a total kerb weight that is 80kg less than its predecessor, the lighter and quicker Swift Sport has evolved into a genuine hot hatch that makes exhilarating sports driving a reality.

1.4 BOOSTERJET Engine

The 1.4 BOOSTERJET petrol engine delivers high power with good fuel economy. The new turbocharger helps the engine produce impressive torque from low in the rev range, while the small displacement and direct fuel injection system optimises fuel consumption.

The direct fuel injection system features sevenhole injector nozzles, enabling increased fuel pressure and highly atomised fuel injection, resulting in higher engine output and a cleaner exhaust.

The turbocharger system is equipped with normally-closed wastegate valve control, which defaults to the closed position to provide excellent response in normal driving, and opens to minimise fuel consumption when cruising.



Weight Savings, Improved Chassis and Body Rigidity for Better Handling

The new Swift Sport rests on the "HEARTECT" platform, a new-generation Suzuki platform that delivers enhanced fundamental vehicle performance through light weight and high rigidity.



A comprehensive overhaul of the underbody's structure and component layout has resulted in the replacement of the segmented frame of the previous platform with a continuous frame that increases underbody stiffness. The new frame is characterised by a smooth, curving form that efficiently disperses energy, enhancing collision safety. Overall body rigidity has been further improved with an increase in spot welds, improving steering-yaw rate linearity and control.

In addition to the "HEARTECT" platform and the lightweight, shock-absorbing "TECT" body, detailed optimisation of interior parts, seats and other components has resulted in a total kerb weight of just 975kg.



The torque-to-weight ratio of the new Swift Sport is approximately 4.2 kg/ $N \cdot m$, making it one of the most competitive hot hatch models in the market.

Other features of the 1.4 BOOSTERJET engine:

- · Variable fuel pressure control system, reducing PM (particulate matter) and PN (particulate number)
- · Dual intake air pressure sensor control for high-response
- · Air-cooled intercooler to improve volumetric efficiency by cooling intake air
- · Short-port intake manifold, exhaust manifold-integrated cylinder head, and a pendulum-type mounting system for light weight and compactness

Engine specifications

ENGINE		
Туре		1.4 BOOSTERJET (petrol)
Number of cylinders		4
Number of valves		16
Piston displacement	cm3	1.373
Bore x stroke	mm	73.0 x 82.0
Compression ratio		9,9
Maximum output	kW/rpm	103/5,500
Maximum torque	N∙m/rpm	230/2,500-3,500
Fuel distribution		Direct injection

6-speed manual transmission

To achieve short-stroke and nimble shifting, enhancements have been made to the same 6-speed manual transmission used in the previous Swift Sport. Actuating force has been tuned for improved shift smoothness and increased driver feedback, complemented by further engineering refinements to increase direct feel and rigidity.

Suspension

Fitting with its position as Suzuki's flagship sports model, the advanced handling capabilities found in previous Swift Sport models have been further refined in the new Swift Sport, with greater driving stability, optimized roll rigidity, and improved dynamic response.

• Front

Carrying on from its predecessors, the new Swift Sport uses Monroe®* front shock absorbers, which have a reputation for high performance. To improve roll stability, the thickness of the stabiliser joint bars have been increased, with a Teflon seat added to the stabiliser mount. The wheel hub and wheel bearings have been made into a single unit, and the width between the bearings has been expanded, together resulting in a 15 percent increase in camber rigidity during cornering. These advancements provide an added degree of stiffness without excessively increasing the spring rate of the springs or the front stabiliser, while maintaining supple movement in roadtyre contact.







Rear

The rear suspension was specially designed to ensure superior stability even at high speeds. The trailing arm was designed and developed exclusively for the new Swift Sport to minimise deformation during cornering. The new model's toe rigidity has been improved by 1.4 times compared to its predecessor, and camber rigidity is higher by a factor of nearly three. The torsional rigidity of the torsion beam has been tuned to provide optimal roll stiffness. As with its predecessor, the new Swift Sport uses Monroe[®]* rear shock absorbers, with a revised valve structure and optimised damping force characteristics for enhanced handling and control on the road.



*Monroe[®] is a registered trademark of Tenneco Automotive.



Swift Sport: strong visual presence

The Swift Sport features an exclusive frontal design. The front grille and bumper project the nose beyond that of the standard Swift, conveying a sense of tautness and imminent action. Muscular shoulders, blacked-out A-pillars and vertically arranged front and rear lamps, as introduced in the rest of the new Swift model range, are brought into vivid relief in the Swift Sport with black aerodynamic under spoilers spanning the front, sides and rear, and a roof-end spoiler that balances aerodynamic advantage with sports aesthetics.





Engineering ultimate driving excitement into the new Swift Sport



"We know that our customers value a dynamic driving experience above everything else, so for the third-generation Swift Sport our development concept was "Ultimate driving excitement".

"We had a brilliant foundation to work from, because the new Swift HEARTECT platform is incredibly light and rigid. Our team had hundreds of new design and engineering ideas, but these ideas only made it off the drawing board if they added performance and emotion.

We've made the car lower and wider, and packed it with lightweight technology."

"It's lighter, sharper, quicker. It's more aggressive and emotive, but we've also refined the elements that make it practical to use every day—the clutch feel, the manual transmission shift throw, the seats and steering wheel. Everything that puts the driver at the heart of the experience."

"There's a history to the Swift Sport. Since 2005, it's been the special model that combines the practical convenience of a hatchback with true sports performance. With the third generation we've moved the game on to the next level as a genuine hot hatch. And I'm confident that when you drive it you're going to go WOW!"

–Masao Kobori



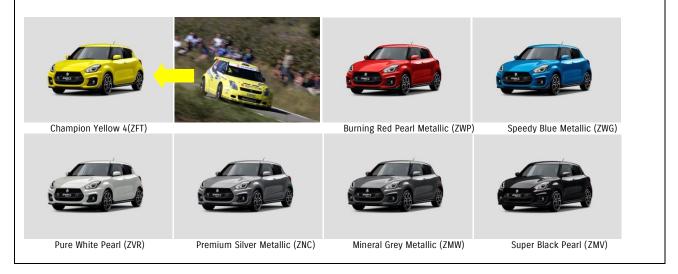
Other design details of the new Swift Sport:

- A unique "staggered" design for the large-opening honeycomb grille
- · Carbon fibre-style embossing for the front grille, front-lip spoiler, side skirts and rear diffuser
- Thin-spoke 17-inch alloy wheels
- Tapered shape for dual exhaust tips that relay presence with their wide light-reflecting surfaces

The wheelbase is 20mm longer than the previous Swift Sport, while tread is 40mm wider both front and rear, helping increase straight-line stability. In keeping with the design focus on performance and emotional connection, the body has been lowered 15mm and widened 40mm, creating a more grounded, athletic stance.

Body Colours

The exclusive Champion Yellow originates from the colour scheme of the Suzuki Works rally car, which participated in the Junior World Rally Championship. In total, seven colours are available, including the new Burning Red Pearl Metallic and Speedy Blue Metallic introduced across the entire new Swift model range.





Swift Sport: stimulating driver experience

The new Swift Sport creates an immersive, interactive sports driving environment, starting with red interior accents and a driver-oriented instrument panel that immediately stirs the driver's imagination. The main gauges pop with contrasting colours, and new boost and oil temperature gauges enhance the sports driving experience. Precision-crafted, high-quality textures and materials are used throughout the cockpit, including in the Swift Sport's semi-bucket shape front seats that let the driver and passenger share the sports driving sensation.



Every driver contact point is tuned for sports functionality and enjoyment. The D-shaped steering wheel with dimpled leather gives a secure grip, with a satin finish, piano black accents and red crossstitching. The chrome finished shift knob and sports alloy pedals complement the sports driving experience.

Also featured in the new Swift Sport is a Bluetooth®compatible Smartphone Linkage Display Audio Display* unit with a 7-inch touchscreen and a SD Card 3D-map navigation.



Enables operation of smartphone applications through Apple CarPlay, Android Auto m or MirrorLink m .

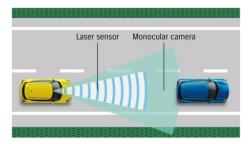


Keeping it safe

Advances in the performance and driving feel of the new Suzuki Swift Sport have been matched with significant safety features, including advanced forward detection, Dual Sensor Brake Support, lane departure warning and other key technologies.

Advanced forward detection system

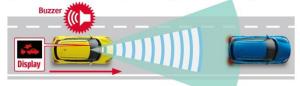
The new Swift Sport now features Suzuki's forward detection system, which uses the combination of a monocular camera and a laser sensor. The system offers superior functionality by combining a monocular camera, which excels at mid-to-long distance detection and recognition of such traffic elements as pedestrians and lane markers, and a laser sensor, which excels at short-distance and nighttime detection.



Dual Sensor Brake Support (DSBS)

When moving, the new Swift Sport uses two sensors—a monocular camera and a laser sensor—to determine if there is a risk of collision with a forward vehicle or pedestrian. Upon detecting a potential collision, the car either alerts the driver, assists braking, or autobrakes, depending on the situation.

1. Alerts the driver with an audio warning and visual warning.



2. Deploys brake assist to increase braking force if the risk of collision is high and the driver panic brakes.



3. Applies strong automatic braking if the risk of collision increases





Lane departure warning*

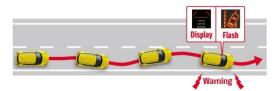
At 60km/h or faster, the lane departure warning function is designed to predict the path of the vehicle and issue warnings, such as steering wheel vibration, to alert the driver.

The new Swift Sport features Suzuki's first-ever adoption of a lane departure prevention system. At speeds of between 60 and 160km/h, the lane is recognised via a monocular camera. When sensors detect that lane departure is likely to occur, the system automatically assists the driver in returning the vehicle back into the lane by controlling the steering via the electric power steering system.



Weaving alert function*

At 60km/h or faster, the weaving alert function is designed to calculate the driving pattern and issue audio and visual warnings if the vehicle is "wandering" due to driver drowsiness, etc.



High beam assist*

At 40km/h or faster, high beam assist is designed to automatically switch the headlights between "High" and "Low", detecting the presence of other vehicles and the lighting environment.

Adaptive cruise control

The adaptive cruise control system uses millimetre-wave radar to gauge the distance to the vehicle in front, and automatically maintains vehicle-to-vehicle distance in line with the setting selected out of three levels (short, medium and long.) When there is no vehicle in front, the system maintains the speed (from 40km/h to 160km/h) set by the driver.

*Availability depends on vehicle configuration.

Other safety technologies

- Radar Brake Support^{*1}
- Emergency stop signal
- · ESP®*2
- · Tyre pressure monitoring system

- TECT^{*3} impact-absorbing body
- · 6 SRS airbags
- Pedestrian injury mitigation body

^{*1}For vehicles not fitted with monocular and laser sensor cameras

- ^{*2}Registered trademark of Daimler AG.
- ^{*3}Total Effective Control Technology