SUZUKI

V-STROM 800 DE

Press information

November 2022

Contents

1. Introduction

The new V-Strom 800DE is ready to break new ground. Since the launch of the original V-Strom 1000 in 2002, Suzuki's V-Strom series has continued to break new ground and set standards for excellence in adventure touring. The resounding success of that machine inspired the release of the V-Strom 650 in 2004. Evolution of the series continued throughout the subsequent years, up to and including the recent reveal of the new-for-2023 V-Strom 1050DE, which added yet further capability to explore beyond where the pavement ends. And now, with the V-Strom 800DE, the V-Strom series is ready to break new ground once again.

For development of the new V-Strom 800DE Suzuki followed a series of steps aimed at creating a superior product that focuses on customers. In response to the demands from riders of varying experience levels, Suzuki engineers devised the ideal machine, with an engine and chassis package plus features and specifications that make it the perfect tool for riding on both paved and gravel roads, all while providing outstanding value.

Each department worked together to achieve a balance between highly challenging factors at various development stages. But the result represents a big step forward. The V-Strom 800DE features Suzuki's brand-new 776cc, DOHC, parallel twin engine with four valves per cylinder, and a rugged new frame with long-travel suspension and the highest ground clearance of any V-Strom model to date.

2. Product concept

Adventure is its purpose

The product concept of: adventure is its purpose lets you know that the V-Strom 800DE is always ready to tackle the next adventure, from long days touring to exploring the road less travelled. The characteristics of the new parallel twin engine and chassis layout deliver torque-laden performance, agile handling, and supreme comfort.

It builds on the solid reputation forged by other models in the V-Strom family, but offers something different for those seeking more power, advanced features, and off-road prowess.

The V-Strom 800DE is a new adventure bike set to usher in an exciting new era of dual-purpose riding pleasure from Suzuki. Highlight features include long-travel suspension and high ground clearance, wide tapered aluminium handlebars, a uniquely shaped aluminium swingarm, 21-inch front wheel, inverted front forks, and a colour TFT multifunction instrument panel.

It also includes advanced electronic control systems such as Suzuki Drive Mode Selector, the Suzuki Traction Control System with G (gravel) mode, the ability to disconnect the rear ABS, and a bi-directional quickshifter. The concept is also clearly reflected in the V-Strom 800DE’s thoroughly modern interpretation of aggressive adventure styling.

2. Product concept

Key product features

Engine features:

- Newly-developed 776cc, DOHC, parallel twin engine that delivers a fine balance of smooth, controllable power from low rpm to free-revving performance at the top end.
- The 270° crankshaft configuration helps maintain a pleasant feeling in common with Suzuki's existing V-twin models, such as the V-Strom 650.
- Suzuki Cross Balancer, the first primary balancer of its type on a production motorcycle, contributes to smooth operation and a compact, lightweight engine design.
- Cooling system inlet control helps maintain consistent engine temperature and eliminates rough idle while warming the engine in cold weather.
- The electronic throttle bodies help achieve faithful response and a linear feeling to throttle action.
- The two-into-one exhaust system, with an upswept design, features a dual-stage catalytic converter inside the collector that helps satisfy Euro 5 emissions standards.
- The six-speed transmission enables smooth shifting and improved controllability.
- Suzuki Clutch Assist System contributes to smoother down shifting.

Suzuki Intelligent Ride System (SIRS) features:

- Suzuki Drive Mode Selector (SDMS) allows the rider to select an engine map that is best suited to riding conditions or personal riding style.
- Suzuki Traction Control System (STCS) with three standard modes and a G (gravel) mode, designed to deliver superior performance off-road, plus the ability to switch off.
- Ride-by-wire electronic throttle control system makes for a throttle action feels natural and responds faithfully to the rider's input.
- Suzuki's Bi-directional Quick Shift System (with on/off settings) provides quicker, smoother, more assured shifting without operating the clutch lever, and without closing the throttle on upshifts or blipping it on downshifts.
- The ABS system features a choice of two mode settings for differing road conditions, as well as Rear ABS OFF mode, which offers more control over braking on gravel by letting the rider switch off rear ABS.
- Suzuki Easy Start System starts the engine with one press of the starter button.
- Low RPM Assist function helps maintain engine idle speed for smoother and easier starts.

2. Product concept

Chassis features:

- A rugged steel frame provides solid straight-line stability, agile handling, and sure-footedness off-road.
- The seat rails are engineered to withstand the rigours of riding on loose and unpaved surfaces, and feature a narrow profile for ease of manoeuvrability.
- Fully-adjustable inverted front forks from Showa, featuring a long 220mm stroke to deliver a smooth, controllable ride that easily absorbs bumps and road imperfections.
- Adjustable Showa link-type rear suspension with 220mm of travel contributes to agility and stability. The spring preload can be adjusted easily by hand.
- 220mm ground clearance further aids off-road ability.
- Dual front disc brakes with 310mm discs provide sure stopping power.
- Wire-spoked wheels with corrosion-resistant coating on the spokes.
- Large 21-inch front and 17-inch rear wheels with Dunlop TRAILMAX MIXTOUR adventure tyres with a new semi-block pattern and custom-engineered internal structure.
- A uniquely shaped lightweight aluminium swingarm with enhanced torsional rigidity to support the increased suspension travel and contribute to straight-line stability.
- A large 20 litre capacity fuel tank that helps deliver touring range.
- Wide tapered handlebars use a strong yet flexible aluminium that absorbs shocks on rough surfaces.
- The solid-mount rider seat is designed to withstand the input load of riding on unpaved surfaces and to be comfortable and allow the rider freedom of movement.
- The riding position is designed for comfort and to offer the rider plenty of room, even when riding with a pillion. The design also enables the rider to shift their weight forward for greater control on unpaved surfaces.
- Wide rubber-covered steel footpegs feature a textured surface that prevents slipping.
- The short windscreen is designed to maximise visibility when exploring gravel roads or trails, and also to protect the rider from buffeting when touring at higher speeds.
- Fitted with a plastic under cover as standard equipment.
- Rear carrier makes it easier to load gear or mount the optional top case.

Electric Equipment features:

- A 5-inch colour TFT multi-function instrument panel features a clearly legible display of a variety of information.
- Vertically stacked LED headlights in hexagonal housings topped by an LED position light provide a clear view of the road ahead and create a sharp look with bold presence.
- Compact LED position lights, turn signals and tail light ensure clear visibility and practical durability.
- A USB port is built into the left side of the instrument cluster.

2. Product concept

Styling features:

- Styling for the V-Strom 800DE aims to set a new trend and usher in a new era of design for the future of Suzuki dual purpose bike design, even as it pays homage to the distinctive features of its V-Strom heritage.
- Stays true to the Suzuki design ethos of creating unique styling expressions that gave birth to the distinctive character of the V-Strom series.
- The distinctive beak is positioned higher to visually convey the extended suspension stroke and the model's ability to handle rougher trails.
- The bodywork features flatter surfaces with sharp lines that emphasise the look of toughness.
- The headlight, rear combination light, and long muffler accentuate the image of readiness to perform off-road.
- Dynamic decals create an iconic presence that is instantly recognisable.
- Riders can choose from trio of body colours, carefully chosen to convey the appeal of the V-Strom 800DE's distinctive character and accentuate its functional beauty.

3. Engine design

Introduction

Creating the adventure tourer for a new era began with designing a brand-new engine. The first goal was to design a slim, compact powerplant that would expand the possibilities for overall design flexibility and help realise the most effective chassis geometry for performance gains. That includes creating an optimum riding position, both for riding off-road and on long-distance tours. The second goal was to deliver dynamic go-anywhere performance that riders would find easy to control. The new engine provides plenty of torque and power with a smooth throttle response.

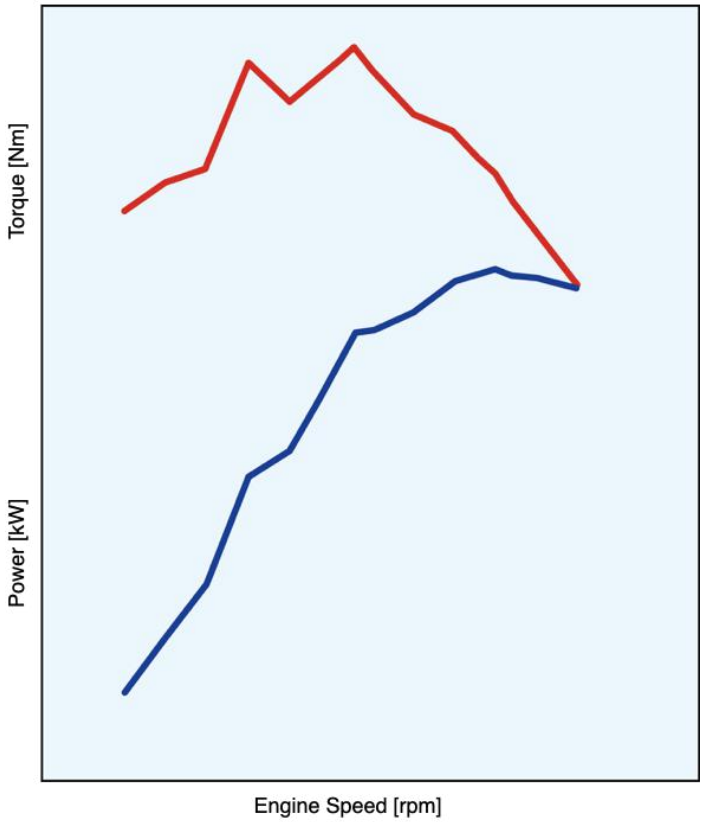
As a result the new 776cc, DOHC, parallel twin engine with four valves per cylinder features a long-stroke configuration that delivers a fine balance of smooth, controllable power from low rpm and the pleasant feeling of free-revving performance through to the top end.

The engine also features a 270° crankshaft design, which delivers plenty of torque, positive traction - extra beneficial off-road - and a pleasing rumble. It also introduces the Suzuki Cross Balancer, an innovative new primary balancer design that contributes to smooth operation and helps achieve a compact and lightweight package that enhances the V-Strom's agile handling. Additionally, the long, upswept muffler design is both striking to look at and designed to not interfere with the bike's long suspension travel.

776cc, four-stroke, liquid-cooled, DOHC, parallel twin engine

3. Engine design

Engine type	Four-stroke, DOHC parallel twin
Cooling system	Liquid-cooled
Displacement	776cc
Bore x stroke	84.0mm x 70.0mm
Maximum power	84.3PS (62kW) / 8500rpm
Maximum torque	78Nm / 6800rpm
Emissions level	Euro 5
Fuel consumption (WMTC)	64.12mpg

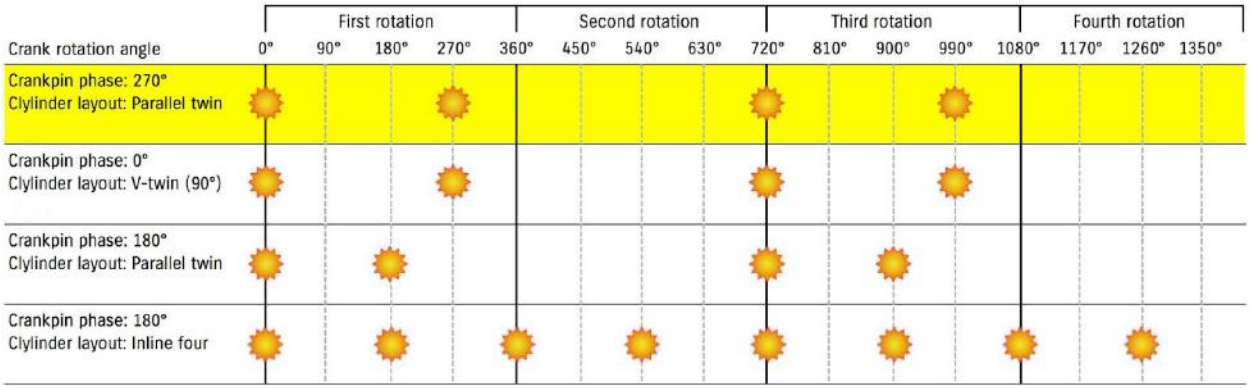


3. Engine design

270° crankshaft

The ignition timing of the engine's 270° crankshaft layout is the same as that on Suzuki's (90°) V-twin. That means it produces a similar pleasing rumble and sound for which bikes like the V-Strom 650 are known. In addition, the 450 degrees of crank revolution between cylinder firings (between 270° and 720° in the chart below), extends the time between power pulses and gives the rear wheel the time it needs to regain traction before the next pulse. The positive traction that results is beneficial when powering out of corners or riding on roads with less grip, and is especially useful when riding on unpaved surfaces.

= ignition timing



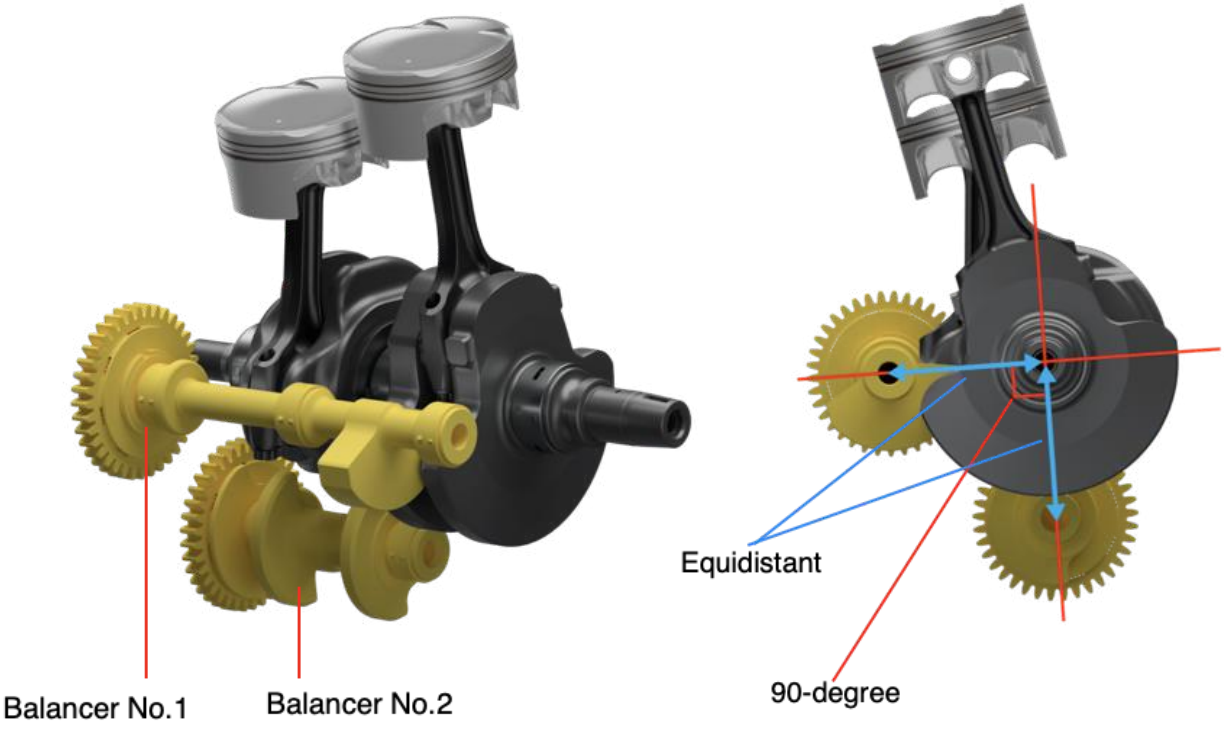
Suzuki Cross Balancer

The new engine introduces Suzuki Cross Balancer. This patented biaxial primary balancer positions its two balancers at 90° to the crankshaft[1], marking a first among production motorcycles[2]. This patented mechanism suppresses vibration to contribute to smooth operation, and it also helps achieve a lightweight powerplant that is more compact from front to rear.

Balancer no.1 cancels the primary vibration generated by the piston (reciprocating weight) of the first cylinder, while balancer no.2 cancels the primary vibration of the second cylinder. Adopting a 270° crankshaft angle cancels secondary vibration, contributing to even smoother engine operation. Furthermore, placing the two balancers at 90° to the crankshaft with each positioned equidistant from the crankshaft cancels primary couple vibration.

[1] Patent granted for biaxial primary balancer that positions its two balancers at 90° to the crankshaft.
[2] Based on Suzuki research as of November 2022.

3. Engine design



3. Engine design

Pistons and connecting rods

The engine uses forged pistons engineered using FEM (Finite Element Method) analysis to maximise strength and minimise weight, despite the engine's 84mm bore. Conical machining inside the wrist pin holes transfers load and mitigates stress transferred to the crowns, and contributes to enhanced durability.

The connecting rods also boast the reliability for which Suzuki is known. This is backed up by thorough analysis and testing conducted to ensure a balance of weight and rigidity, and to stabilise the rods' performance during stroke action.

Suzuki Composite Electrochemical Material (SCEM)

The cylinder bores inside the aluminium, die-cast cylinders are plated using Suzuki's SCEM process. Originally developed for racing and proven on the track, the SCEM cylinder coating promotes better heat dissipation, reduces friction and achieves a consistent wear resistant seal on the piston rings for greater durability.

Ride-by-wire electronic throttle bodies

Each of the two cylinders are fed by a pair of linked 42mm bore, electronic-controlled throttle bodies. APS (Accelerator Position Sensor) play is optimised to deliver the best balance of performance for both everyday use and the demands of adventure touring.

High-pressure fuel injectors

The V-Strom 800DE employs 10-hole, long-nosed, 343kpa, high-pressure-feed fuel injectors that maximise fuel atomisation for better combustion efficiency and lower fuel consumption.

Transmission

The six-speed transmission adopts gear ratios that deliver smooth shifting and exciting acceleration performance.

3. Engine design

Airbox

The airbox and intake pipe designs are optimised using CAE analysis to maximise torque production at low rpm and enable high peak performance. To contribute to the slim and compact chassis design and enhance the freedom of rider movement, the airbox is compact and positioned under the seat. Different lengths for the left and right pipes intakes help secure adequate flow to derive maximum power output.

Location of airbox

Outside

Inside

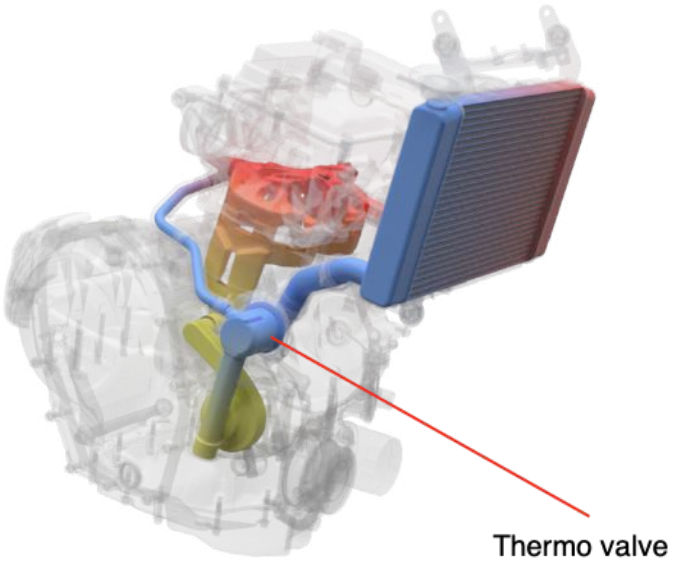
3. Engine design

Efficient cooling

The radiator boasts high cooling capacity to support the parallel twin engine's powerful output. A cooling fan helps stabilise the coolant temperature.

Cooling water inlet control contributes to early stabilisation of water temperature during engine warm-up. Because a thermo valve located at the inlet of the engine cooling circuit adjusts the temperature before the coolant enters the engine, there is less temperature fluctuation during warm-up. This helps stabilise combustion and contributes to cleaner exhaust gas.

The V-Strom 800DE is also equipped with a lightweight, compact liquid-cooled oil cooler that helps keep lubrication temperatures cooler for even smoother and reliable engine operation.



3. Engine design

Distinctive upswept muffler design

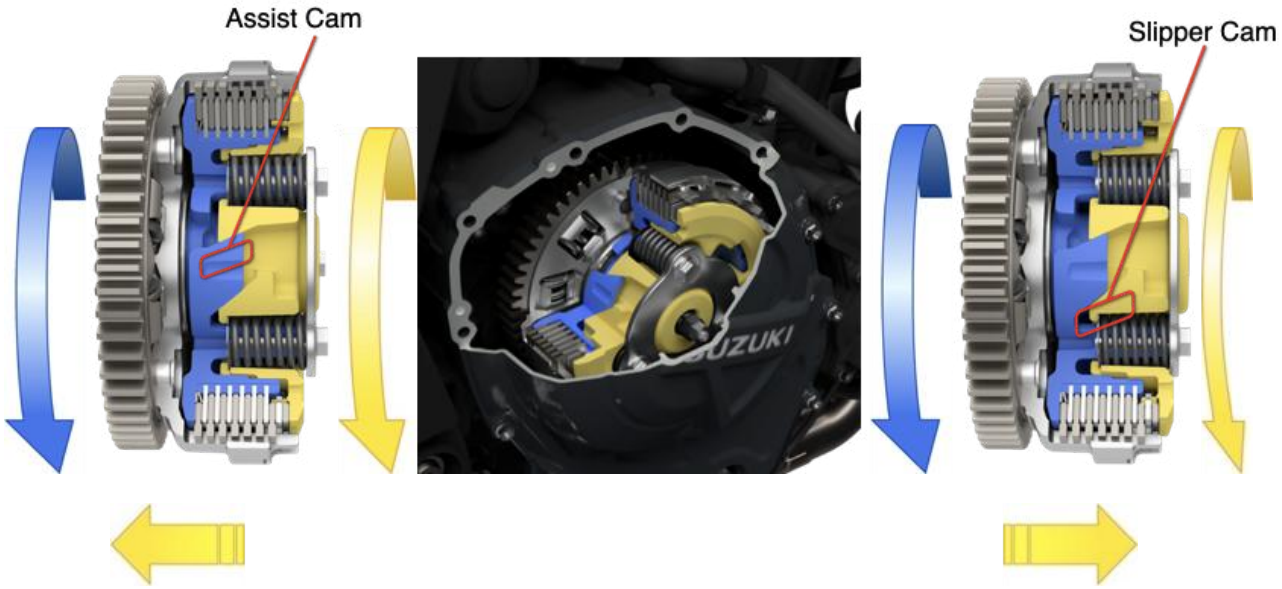
The two-into-one exhaust system for the V-Strom 800DE is designed to produce an exciting exhaust note at highway speeds or heading down trails at low rpm. The two-stage catalytic converter inside the collector helps limit emissions to a level that satisfies Euro 5 standards, while at the same time maximising overall performance.

Exhaust system

3. Engine design

Suzuki Clutch Assist System (SCAS)

The assist function leverages precision-engineered ramps to force the clutch boss and pressure plate together and efficiently transfer torque to the rear wheel under acceleration, all while using softer clutch springs. The slipper clutch partially disengages when downshifting and decelerating to mitigate the effect of engine braking and provides smoother deceleration, which enables the rider to shift down with greater confidence and maintain better control.

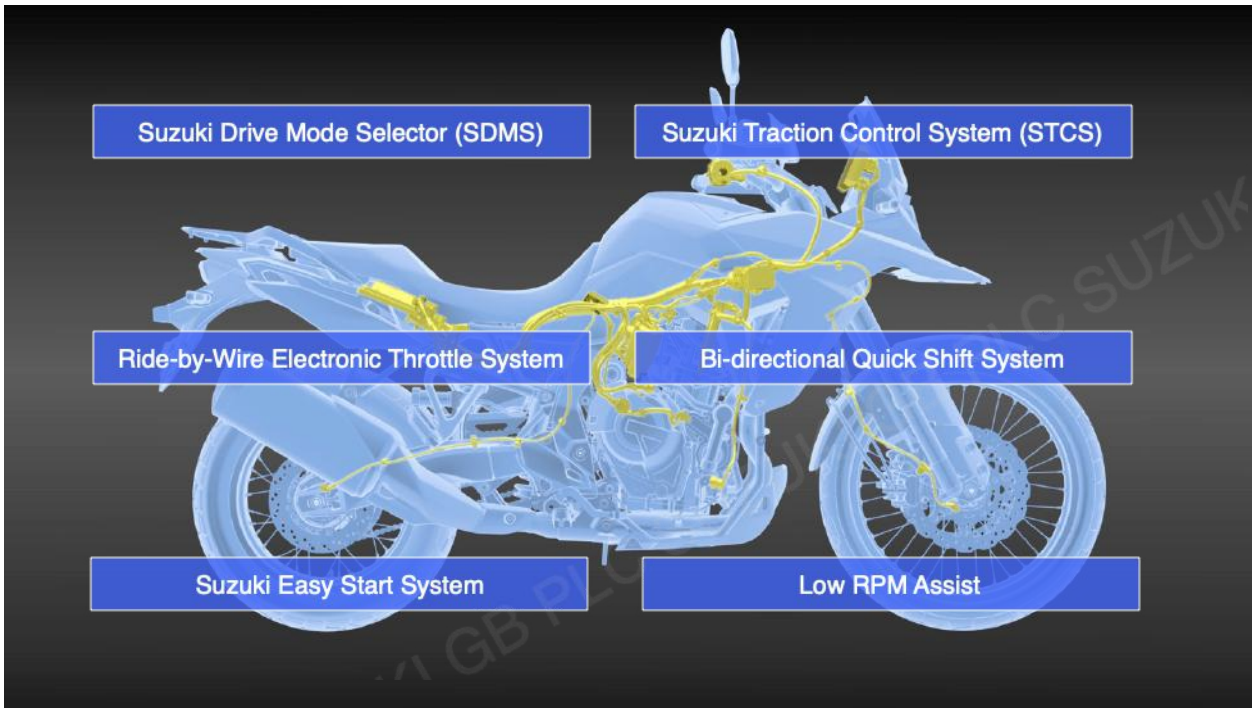


4. Suzuki Intelligent Ride System (SIRS)

Introduction

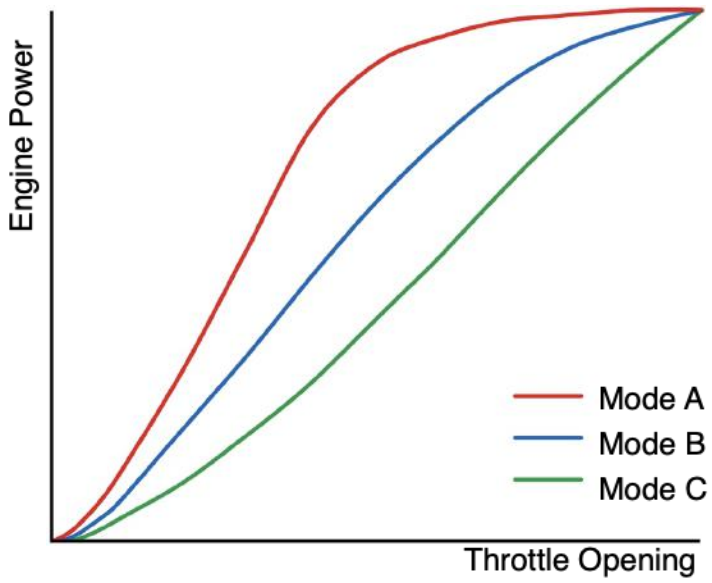
The Suzuki Intelligent Ride System (SIRS) is a collection of advanced electronic rider assist systems, which allow the rider to choose the settings for each system to best suit their preference or to suit the conditions. SIRS helps enhance an already exciting riding experience that inspires confidence and frees riders to concentrate on enjoying the ride.

The robust collection of advanced SIRS electronic systems employed by the V-Strom 800DE include the Suzuki Drive Mode Selector (SDMS), Suzuki Traction Control System (STSC) with G (gravel) mode, a ride-by-wire electronic throttle, bi-directional quickshifter, Suzuki Easy Start System, and Low RPM Assist.



4. Suzuki Intelligent Ride System (SIRS)
Suzuki Drive Mode Selector (SDMS)
SDMS leverages the electronic throttle control system to offer a choice between three modes that deliver different power characteristics to match the riding conditions or preferred riding style. The settings for each mode were thoroughly tested to maximise the V-Strom 800DE's performance in various scenarios.

Power delivery by mode



Mode A (Active) provides the sharpest throttle response as the throttle is opened. Settings for torque characteristics are tuned to deliver exciting acceleration and fully-leverage the engine's power on sporty rides.

Mode B (Basic) reaches the same level of maximum output, but features a more linear curve with softer throttle response. Planned as an ideal setting for touring or commuting or riding off-road, this mode is a good fit for a wide range of riding styles and road conditions.

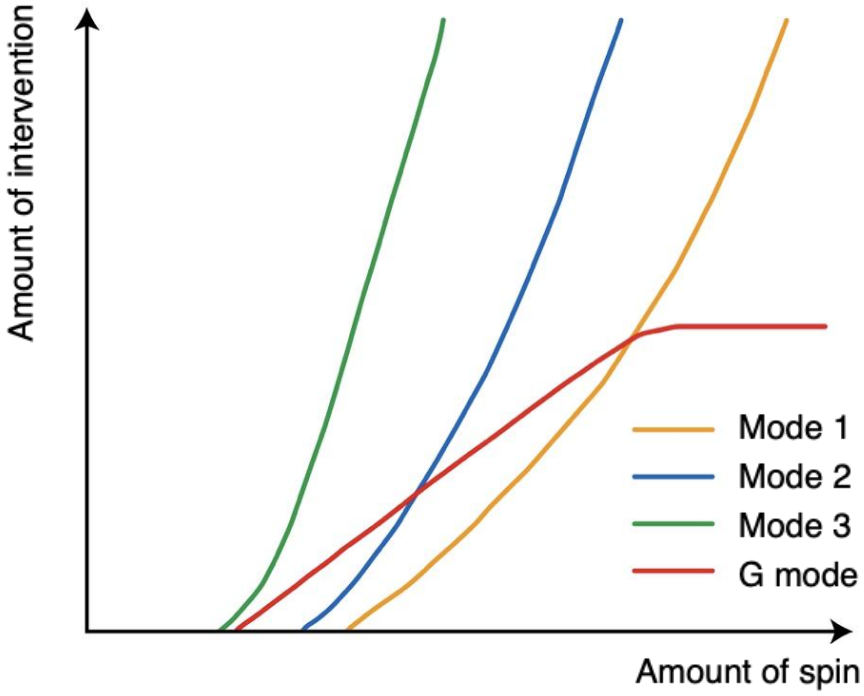
Mode C (Comfort) provides the softest throttle response and more gentle torque characteristics. This is particularly beneficial when touring for long distances, when riding with a passenger, when riding on wet or otherwise slippery surfaces, when road conditions are bad, or even when the rider wants to relax.

4. Suzuki Intelligent Ride System (SIRS)
Suzuki Traction Control System (STCS)
STCS for the V-Strom 800DE enables the rider to better control the bike in diverse and varying conditions, such as riding in inclement weather, and instis greater confidence regardless of the rider's level of experience.

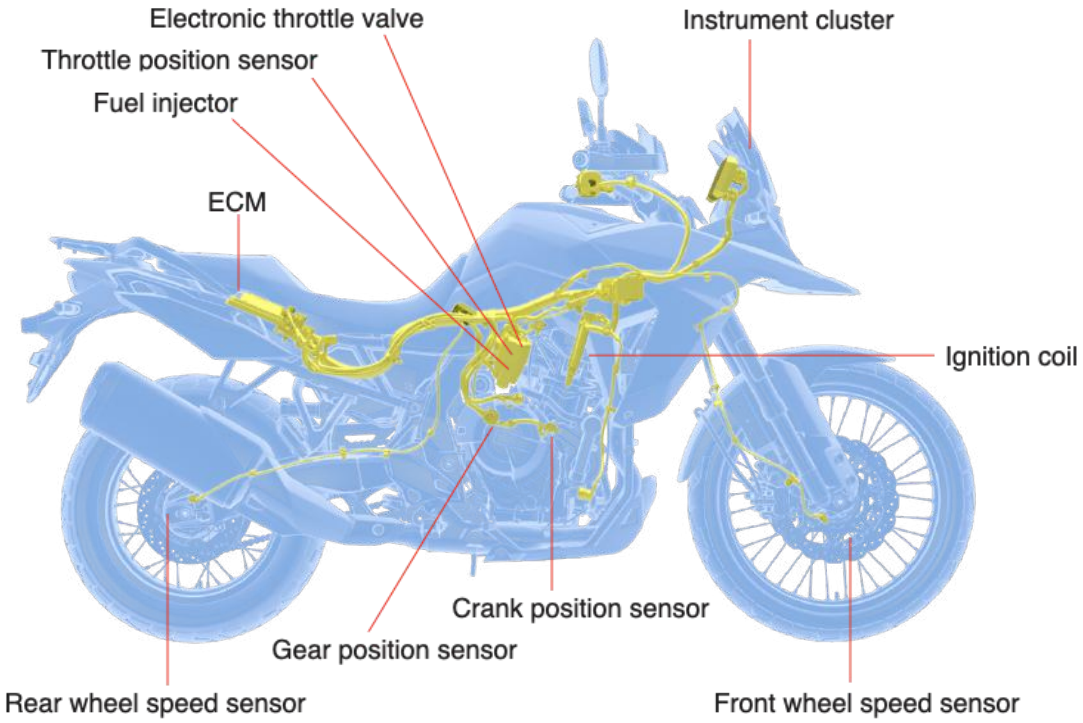
The rider can select from three modes, plus an additional G (gravel) mode for use off-road, or turn the system off altogether. The higher the number of the mode selected, the faster the control takes effect and the more proactive the system is in limiting wheelspin.

The system continuously monitors front and rear wheel speed, engine RPM (as calculated using data from the crank position sensor), throttle position and gear position.

G (gravel) mode
G (gravel) mode retards ignition timing to help the rider better negotiate gravel roads and loose surfaces by allowing more slip. When selected, the mode activates when a slight degree of spin is detected, taking effect almost as quickly as the traction control system's Comfort setting. However, because its maximum level of intervention is set to be less than that of Active, spin is suppressed only enough to help prevent excessive wheel spin, so power continues to be delivered to the rear wheel with minimum interruption. As a result, the rider gets the consistent power output they want, the bike remains controllable, and it is less likely to try to push itself upright or lose traction while cornering. G mode promotes greater confidence and makes it more exciting and enjoyable to explore unpaved roads and trails.



4. Suzuki Intelligent Ride System (SIRS)



Ride-by-wire electronic throttle system
An electronic throttle control system uses the ECM to control the action of the throttle valves and more finely control the relationship between throttle action and engine output characteristics.

Throttle grip action is set to provide faithful response and linear control. This makes the throttle action feel more natural. The system is simpler and more compact than conventional mechanical systems and eliminates cables that would otherwise add clutter to the right side of the handlebars.

Bi-directional quickshifter
The Bi-directional quickshifter allows riders to shift up without closing the throttle or downshift without blipping it, and eradicates the need to operate the clutch lever, also.

The system automatically interrupts power delivery when accelerating and maintaining steady speed just long enough to unload the transmission gear cogs, thereby producing a smoother ride and uninterrupted acceleration when the rider shifts up. When decelerating the system automatically opens the throttle valves just enough to increase rpm and match engine speed to the next-lower gear ratio without manually blipping the throttle or using the clutch.

4. Suzuki Intelligent Ride System (SIRS)

Suzuki Easy Start System

The Suzuki Easy Start System lets the rider start the motorcycle with one quick press of the starter button with no need to pull in the clutch lever when the transmission is in neutral.

Low RPM Assist

Suzuki's Low RPM Assist function monitors engine rpm, gear position, throttle position, and clutch switch data as the rider releases the clutch lever to pull away from a standing start, or when riding at low speeds. It is programmed to help prevent engine speed from dropping excessively as the rider launches the bike to ensure smoother starts. It also promotes more confident riding by helping counteract drops in engine speed when riding in stop-and-go traffic, or when doing U-turns.

Two-mode antilock braking system (ABS)

The antilock braking system (ABS) on the V-Strom 800DE offers two mode settings. Mode 1 provides minimal intervention, so is suited for riding on looser surfaces. Mode 2 is ideal for city riding and regular road conditions.

Rear ABS off mode

The rear ABS can be switched off entirely to improve controllability when braking on gravel or off-road.

Supporting technologies

Controller Area Network (CAN bus)

The V-Strom 800DE's CAN bus reduces the number of wires required by the harness, so contributes to reducing weight.

Engine Control Module (ECM)

A dual-core processor ECM provides optimal engine management that contributes to the operation of critical systems, including those to comply with Euro 5 emissions standards.

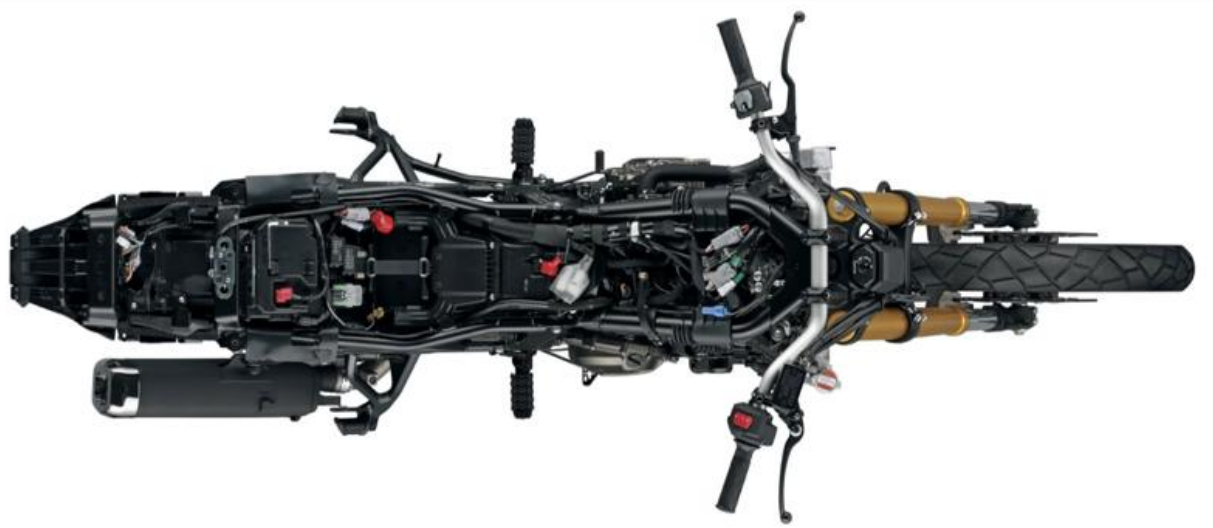
5. Chassis

Introduction

When devising the new V-Strom 800DE the goal was to design a compact, lightweight chassis engineered to maximise performance and comfort. The target was to create a chassis that contributes to comfort when riding on the road, but also to great performance off it, and to providing sure and stable handling in both these environments. The new chassis also had to deliver reassuring straight-line stability when riding at highways speeds, even when carrying a passenger and when the bike is fitted with the genuine-accessory top and sides cases and loaded with gear.

These features are critical in helping to establish the V-Strom 800DE's identity as a top-performing adventure tourer. The layout freedom provided by the compact front-to-rear dimensions of the slim new parallel twin engine contributes to achieving optimum weight distribution and riding position. Of particular note was the ability it afforded in moving the rider's hip point forward. This makes it easier for the rider to use their body weight to ably negotiate tight corners, or to place more weight on the front wheel when standing on the footpegs to explore rougher trails.

5. Chassis



5. Chassis

5. Chassis

Rugged steel frame

Designed around the new engine platform and made from rugged steel pipe, the frame for the V-Strom 800DE was engineered to provide all the strength needed for negotiating rougher trails, to provide excellent straight-line stability, to contribute to agile handling, and to perform well at highway speeds when touring for long distances. The seat rails are engineered to withstand the impacts and pressures of riding off-road and feature a narrow profile that helps riders better control the bike with their legs.

Frame and subframe

Seat rails

5. Chassis

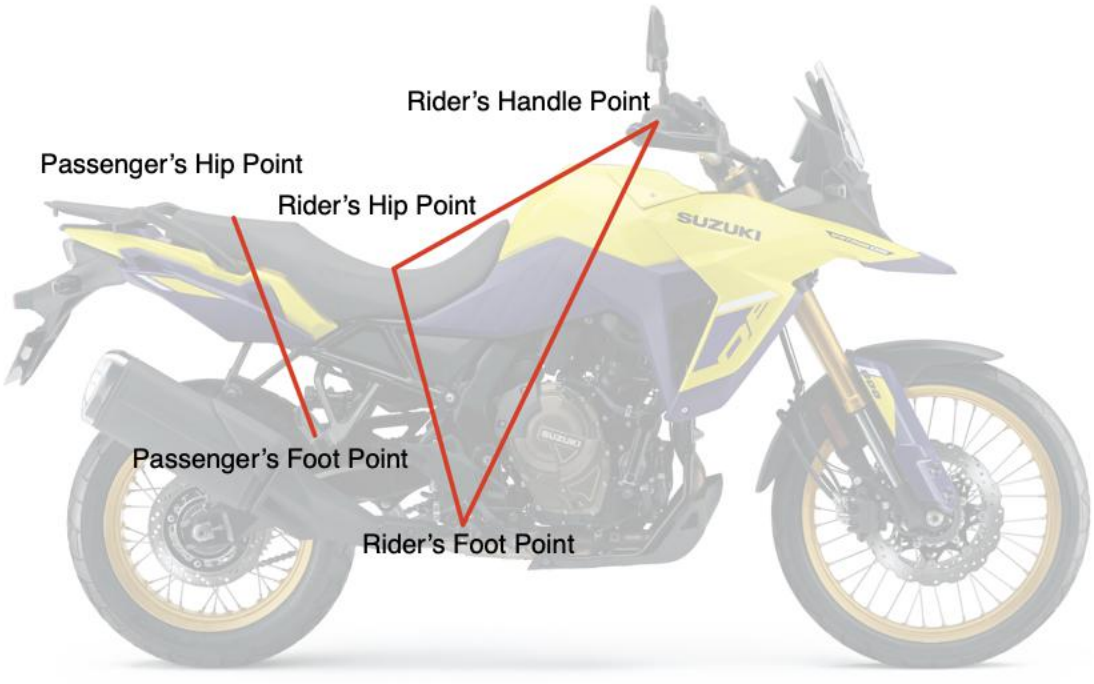
Sure stopping power

Calipers that best match the V-Strom 800DE's fork pitch and wire-spoked wheels bite onto 310mm diameter discs to provide sure stopping power and reliable braking performance. The rear brake has a 260mm diameter disc and uses a single-piston pin-slide caliper.

Chassis geometry

The V-Strom 800DE features a dedicated chassis geometry with a long wheelbase, long rake, tall ground clearance, and a wide handlebar grip. The purpose is to provide maximum stability and controllability when riding on unpaved surfaces, as well as a comfortable riding position that effectively distributes weight to the front and rear. The V-Strom 800DE also lends the passenger added comfort because they have plenty of space and can sit without overly bending their knees. This is true even when the bike is fitted with the top and side cases available as genuine accessories.

The geometry achieved also enhances handling stability, while the adoption of the new parallel twin engine also benefits thanks to its shorter length, which allows the positioning of the rider's hip point further forward than with a V-twin engine. This in turn enables the rider to shift their weight forward and more easily control the handling when traversing trails and other unpaved surfaces, or when negotiating tight corners.



5. Chassis

Showa front and rear suspension

Showa inverted front forks deliver a smooth, controlled ride. They feature stable damping characteristics that make them suitable for adventure touring, and the spring preload and compression and rebound damping can be adjusted, allowing the suspension to be set to best match the rider’s preference or the usage conditions.

The Showa mono-shock rear suspension with a piggyback remote gas reservoir contributes to agility and stability. Not only can the spring preload and compression and rebound damping be adjusted, but the spring preload can be adjusted by simply turning the dial by hand. This is particularly beneficial when preparing to ride with a pillion or carry a load.

The front and rear suspension spring rate, valve, and piston settings are tuned to maximise performance and comfort when riding on all surfaces. They provide 220mm of travel.

Front compression adjuster

Front rebound damping

Rear rebound damping adjuster

Rear spring preload adjuster

5. Chassis

Wire-spoked wheels and semi-block pattern tyres

The V-Strom 800DE features wire-spoked wheels, with a 21-inch aluminium front rim for greater stability and better control off-road, and a 17-inch rear. The new 90/90-21 front and 150/70R17 rear Dunlop TRAILMAX MIXTOUR tyres feature a new semi-block tread pattern with long, straight diagonal grooves that achieve both solid traction on unpaved surfaces and reduce noise when riding on-road. The tread also features wider, deeper grooves exclusive to the V-Strom 800DE that achieve the optimal balance between on-road handling and longevity, and positive grip and agile handling when the rider decides to explore the trails. This custom tread pattern also gives the tyres a more aggressive look appropriate to this dual-purpose adventure tourer. The custom-designed internal structure optimises the balance between tread and side rigidity to improve resistance to shimmy, and to achieve solid stability at highway speeds

Uniquely-shaped and lightweight aluminium swingarm

The V-Strom 800DE adopts a highly attractive and tough aluminium swingarm with a unique shape that enhances vertical, lateral, and torsional rigidity to support straight-line stability in keeping with the model’s chassis geometry and long suspension travel.

5. Chassis

Wide tapered aluminium handlebars

The V-Strom 800DE adopts wide tapered handlebars made from a strong-yet-flexible aluminium that allows them to flex and absorb shock when riding on rough unpaved surfaces. Not only does this provide greater comfort, but the wide grip and positioning also provide positive control, particularly when standing on the pegs.

Large capacity fuel tank

The fuel tank features a capacity of 20 litres that provides greater reassurance when touring for long distances by extending the riding range.

5. Chassis

Seat designed for performance and comfort

The V-Strom 800DE seat features a design with a bottom shape that achieves great rigidity. This durable seat stands up to input load when riding on off-road, as well as to weight shifts as the rider changes position. It uses a denser foam to improve comfort for rider and passenger.

Footpegs

The V-Strom 800DE is fitted with wide, tough, sturdy footpegs designed to offer greater stability when standing on them while riding. These steel footpegs are covered in rubber with a textured surface designed to prevent the rider’s feet from slipping.

5. Chassis

Grab bars and rear carrier

Solid grab bars on each side provide the pillion with a secure grip and also add an attractive and tough-looking design accent. These extend from the integrated rear carrier, which is handy for carrying extra gear and also makes it easier to mount one of the optional top cases.

Windscreen

The small windscreen is designed to maximise visibility when adventuring on the trails, while wind tunnel testing ensures comfort for the rider at higher speeds. The windscreen's three-step height adjustment lets it be adjusted in 15mm increments using a hex key.

5. Chassis

Front mudguard

The V-Strom 800DE uses a three-piece construction front mudguard, which employs a pair of vertical skirt sections flanking the fender. This structure forms a stronger, more rigid mount to the forks that is better capable of withstanding impacts off-road.

Hand guards and radiator guard

Hand guards help protect the rider's hands from the elements and also things like debris and branches on the trails. They also offer protection to 'bars and levers if the bike is dropped. There's also a radiator guard designed to protect against flying stones and other objects.

Plastic under cover

The V-Strom 800DE features a plastic under cover that protects the engine and adds to the tough image.

6. Electric equipment

5-inch colour TFT multi-information display

The V-Strom 800DE's 5-inch, colour TFT multi-function instrument panel features a clearly legible display of a variety of information, while also providing a high quality finish and pleasing view from the rider's perspective.

Day mode

Night mode

The display offers the ability to display large pop-up alerts and warnings while readouts include:

Speedometer	Tachometer
Riding range	Odometer
Dual trip meter	Gear position
Water temperature	Engine rpm indicator
Average fuel consumption (1&2)	Instant fuel consumption
SDMS mode	Traction control mode
Quickshifter (on/off)	Fuel gauge
12 hour clock	Voltmeter
Service reminder	Freeze indicator
ABS mode	ABS rear (on/off)
Ambient temperature	

6. Electric equipment

The tachometer also serves as a programmable engine rpm indicator. It blinks when the engine speed reaches the preset rpm entered by the rider. It can be set in 250rpm increments within a range from 4000rpm to 9500rpm.

LED indicators flanking the display include the left turn signal indicator, MIL (Malfunction Indication Light), neutral indicator, master warning indicator, high-beam indicator, right turn signal indicator, TC (traction control) indicator, low oil pressure warning indicator, ABS indicator, low voltage warning indicator, and coolant temperature warning indicator. All are designed for easy recognition.

It also offers manual or automatic switching settings for the day (white) and night (black) display modes that maximise visibility at any hour and in any riding situation.

LED Lighting

The vertically stacked pair of distinctive, hexagonal LED headlights employ a bright mono-focus LED light source that provides the rider with a clear view of the road ahead. In terms of design, the vertical orientation of the thin, compact headlight assembly topped by an LED position light creates a sharp look that makes the front end look light and ready for action. Compact LED position lights, LED turn signals and an LED taillight ensure clear visibility and practical durability.






6. Electric equipment

USB port

A USB port is built into the left side of the meter cluster. It can provide up to 5V output and 2A maximum current.

Handlebar switches designed for intuitive operation

The ergonomic switch layout makes for ease of operation, allowing the rider to access controls while remaining focused on the road ahead. Selecting modes and making adjustments for each of the advanced electronic control systems simply involves operating the MODE and UP/DOWN switches, which recognise long and short presses, on the left handlebar.

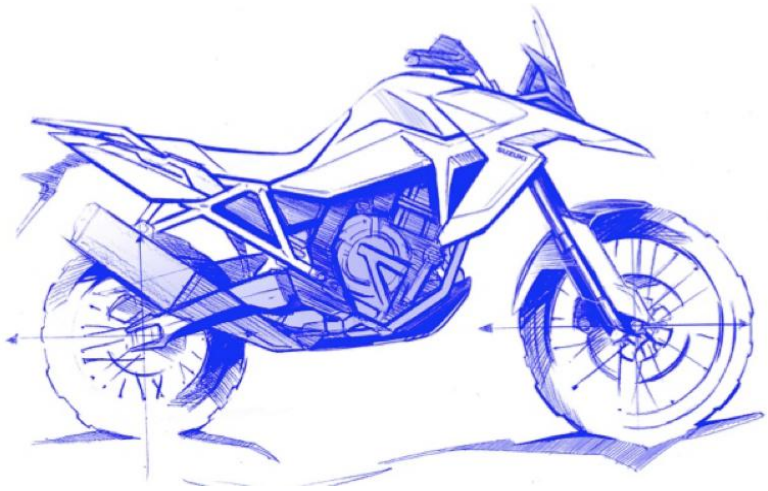
7. Styling design

The V-Strom 800DE design concept is: adventure for a new era. Design targets were set to carry on the tradition of the V-Strom series while at the same time conveying a thoroughly modern look that breaks new ground that puts it ahead of the competition.

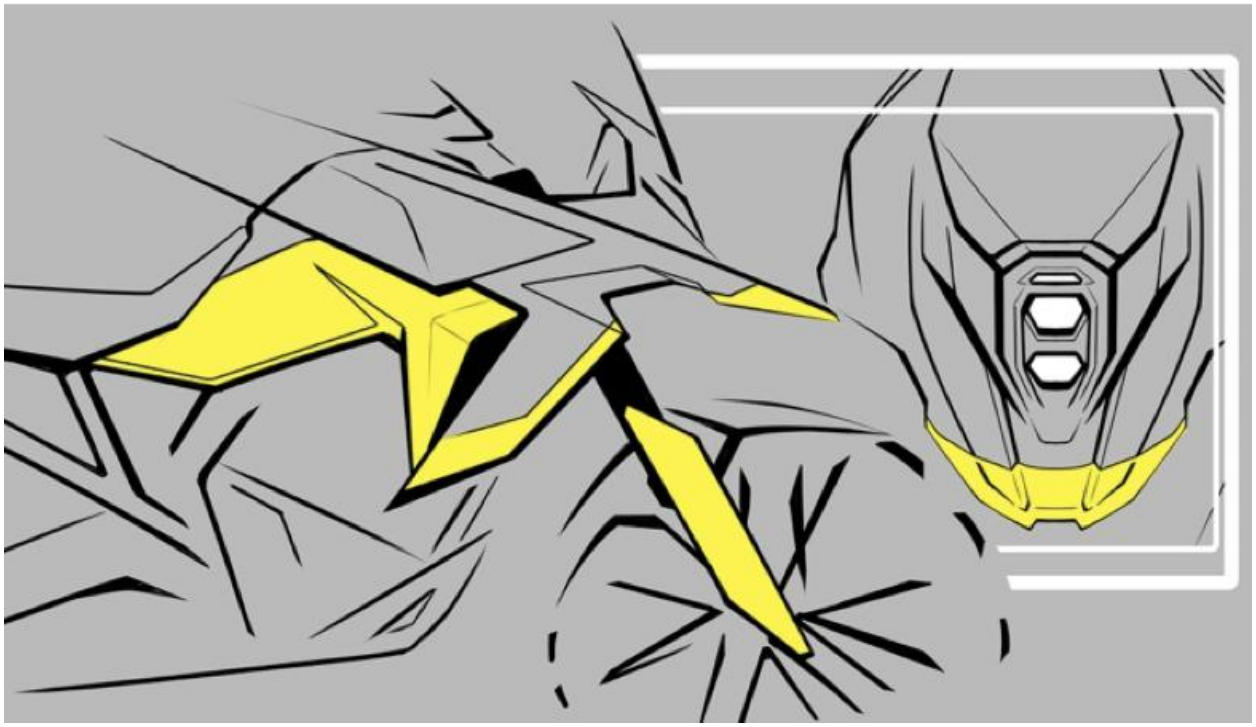
The first key element was to stay true to its V-Strom heritage. For example, the V-Strom 800DE features the latest evolution of the beak design that was first introduced on the 1988 DR-Z 800.

In keeping with the goal of creating a new look that speaks of all-round capabilities, the sharper new beak is positioned higher to create greater distance between it and the front wheel, thereby visually conveying the extended suspension stroke and the model's ability to handle rougher terrain. The beak and other elements of the front end, including the new vertically stacked hexagonal LED headlight assembly, are designed to look slim, light and compact.

The lines of the body work are sharper with flatter surfaces to create a tough look. Bold accents are introduced through the use of moulded colour parts at the tip of the prominent beak, out front and below the fuel tank. And angled lines set into the knee grip area of the moulded panel below the fuel tank lend yet another subtle accent.



7. Styling design



7. Styling design

7. Styling design

8. Colour and graphics

A trio of trendsetting body colours

The body colour lineup for the V-Strom 800DE consists of three colours chosen to best express the appeal of the styling concept, with the look of a futuristic off-road racer, and style that is both dynamic and iconic. Rather than apply two-tone paint, each body colour is complemented by moulded accent pieces in a different colour for a sophisticated appeal.

Champion Yellow No. 2 (YU1) harks back to the heritage of the DR-Z desert racer and pays tribute to the heritage of Suzuki's motocross machines. It is complemented by moulded accent panels in a dark blue. Gold rims add an extra accent and heighten the overall look of quality.

Glass Matt Mechanical Grey (QT7) features a mechanical look that establishes a distinctive character. It is complemented with moulded yellow accent pieces that borrow from Suzuki's motocross heritage to convey the ability to take on trails and other unpaved surfaces.

Glass Sparkle Black (YVB) bring a more subtle quality. It is complemented with moulded accent pieces in a dark blue shade that contrasts the main body colour. It is completed with gold rims.

Champion Yellow No. 2 (YU1)

Glass Matt Mechanical Grey (QT7)

Glass Sparkle Black (YVB)

8. Colour and graphics

Body graphics

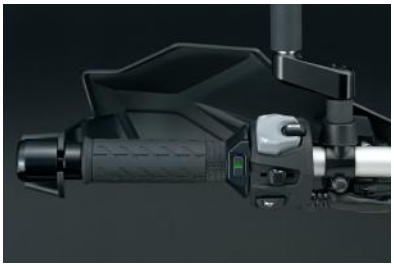
The DE decals on the sides of the cowling pieces in front of the engine reflect the image of number boards used on motocross bikes and other competition motorcycles, while the V-Strom logo is adopted from the bigger V-Strom 1050DE.

The clutch cover and magneto cover are finished in a colour selected to match the V-Strom 800DE's body colour, while the Suzuki name on the clutch cover is finished in a contrasting colour to create an effective accent.

9. Accessories

A number of genuine accessories will be available for the V-Strom 800DE, allowing customers to tailor their V-Strom to better suit their own needs, from various luggage options to additional protection and styling choices.

9. Accessories

		
Aluminium top box 38L Also available in black	Top case carrier set	Aluminium panniers, 37L each. Also available in black
		
Pannier bracket set	High screen	Engine bars
		
LED fog lamps	Centre stand	Aluminium sump guard
		
Heated grips	Brake pedal height adjuster (increase height by 10mm for easier access off-road)	Side stand extender

9. Accessories

		
Low seat (20mm lower)	High seat (30mm higher)	Mirror extender
		
Plastic top box (35L)	Plastic top box carrier plate	Pillion cushion pad for plastic top box
		
Plastic pannier set (26L right, 29L left)	Plastic side case upper bracket	Plastic side case lower bracket
		
Plastic top box (56L)	56L plastic top box carrier plate	Fuel tank pad

9. Accessories

		
Fuel cap trim	Fuel tank protection trim	Navigation bracket for aftermarket accessories
		
DC socket		

10. Colour lineup

Champion Yellow No. 2 (YU1)

Glass Matt Mechanical Grey (QT7)

Glass Sparkle Black (YVB)

11. Specifications

Overall length		2,345 mm (92.3 in.)
Overall width		975 mm (38.4 in.)
Overall height		1310 mm (51.6 in.)
Wheelbase		1570 mm (61.8 in.)
Ground clearance		220 mm (8.7 in.)
Seat height		855 mm (33.7 in.)
Kerb mass		230 kg (507 lbs.)
Engine type		Four-stroke, DOHC, two-cylinder, liquid-cooled
Bore x stroke		84.0 mm x 70.0 mm (3.3 in. x 2.8 in.)
Engine displacement		776cc (47.4 cu. in.)
Compression ratio		12.8 : 1
Fuel system		Fuel injection
Starter system		Electric
Lubrication system		Forced feed circulation, Wet sump
Transmission		Six-speed constant mesh
Suspension	**Front**	Inverted telescopic, coil spring, oil damped
	Rear	Link type, coil spring, oil damped
Rake / trail		28° / 114 mm (4.5 in.)
Brakes	**Front**	Disc, twin
	Rear	Disc
Tyres	**Front**	90/90-21M/C 54H tube type
	Rear	150/70R17M/C 69H tube type
Ignition system		Electronic ignition (transistorised)
Fuel tank capacity		20 L
Oil capacity (overhaul)		3.9 L
Fuel consumption		64.12mpg in WMTC
CO_2 emissions		104 g/km