



## HAYABUSA RELOADED

2021 welcomes the birth of the new generation Hayabusa. Famed for its abundant power, agility and dominant presence, Hayabusa is legendary for establishing the Ultimate Sport category, and dominating this class for the past two decades.

New generation Hayabusa is set to carry riders into the future. Enhanced with even smoother power delivery, nimbler handling, and the latest electronic systems designed for optimal performance, controllability and predictability. All wrapped in a head-turning package, it's a new generation of power ready for the great New Zealand ride.







### SDMS-a for a smarter, surer ride

Suzuki Drive Mode Selector Alpha (SDMS-a) groups together five advanced electronic control systems while enabling riders to select individual settings for each. It optimises performance characteristics and behaviour to best suit varying road surfaces, riding conditions and preferred riding styles. Experiment with the different settings and benefit from the feedback each offers to hone your riding skills and build greater confidence while enjoying the ultimate riding experience. In addition to three factory presets, (A, B, C), SDMS-a offers a choice between three user-defined groups of settings (U1, U2, U3). Modes and settings can be changed using switches on the left handlebar. The current settings are displayed on the TFT LCD panel located in the centre of the instrument cluster.



SUZZ

6-axis, Bosch IMU.

#### IMU

A 6-axis, Bosch IMU (Inertial Measurement Unit) combines accelerometers and gyroscopes in a single compact package that constantly monitors pitch (forward or backward tilt), roll (leaning from side to side), and yaw (turning in relation to initial direction). These measurements are compared against one another as well as readings from wheel speed sensors to keep the Hayabusa aware of its situation at all times and realise several of the advanced S.I.R.S. controls.

# SUZUKI INTELLIGENT



### **Bi-directional Quick Shift System**

Shift up or down more quickly and easily without the need to operate the clutch or throttle. Quick Shift offers two modes. **Mode 1** reacts more quickly to replicate racing-style response, while **Mode 2** offers a lighter touch. To ensure smooth shift action when using Quick Shift, the ECM retards ignition when accelerating or maintaining steady speed and opens the throttle valve when decelerating. Performance of the new assist & slipper clutch ensures even smoother shifts.



#### **Power Mode Selector**

Select between three different engine output modes that control power delivery to match road and riding conditions.

**Mode 1** provides the sharpest throttle response and delivers maximum power for the experienced rider out for a fast ride.

Mode 2 provides softer throttle response and more linear power delivery for daily riding.

**Mode 3** provides the softest throttle response and features a more gentle power curve with reduced maximum output suited to riding on wet or slippery roads.



#### **Anti-lift Control Systen**

An advanced system that maximises acceleration performance while preventing the front wheel from lifting off the ground. Offers a choice of 10 mode settings when turned on, with Mode 1 providing minimal control and Mode 10 making it virtually impossible to lift the front wheel, even when cracking open the throttle with a pillion.

# RIDE SYSTEM (S.I.R.S.)



#### **Engine Brake Control System**

Cancels out the effect of engine braking to suppress rear tyre sliding or skipping and provide smoother, more controllable behaviour. A choice of three modes plus an OFF setting lets you control the effective strength of engine braking to match riding conditions or your preference.



#### **Motion Track Traction Control System**

Takes traction control to a new level by employing data from the IMU to constantly monitor the amount of lean angle and effectively limit slip in corners as well as on straights. It provides greater stability at all times, enabling confident control in varying riding conditions while reducing stress and fatigue. Offers a choice of 10 mode settings, and can be turned off if preferred. The higher number the mode, the faster traction control is engaged and the more proactive the system is in limiting wheel spin.

Note: The Motion Track Traction Control System is not a substitute for the rider's throttle control. It cannot prevent loss of traction due to excessive speed when the rider enters a turn and/or applies the brakes. Neither can it prevent the front wheel from losing grip.





#### **Launch Control System**

Three mode settings allow you to twist the throttle and efficiently launch the bike the way racers leave the start line, matching your engine speed to your level of experience or confidence. **Mode 1** limits engine speed on launch to 4,000 rpm, **Mode 2** operates at 6,000 rpm, and **Mode 3** – the fastest mode – operates at 8,000 rpm.

#### **Active Speed Limiter**

A first in the motorcycle industry, this system lets you set a speed you do not wish to exceed and then accelerate and decelerate as you please up to that speed. This helps lessen worries about the bike exceeding the speed limit.

#### **Cruise Control System**

Cruise Control reduces fatigue on long rides, allowing you to maintain a set speed without operating the throttle. The speed can be easily adjusted upward or downward using the mode/set switch on the left handlebar and set from 31km/h to 200km/h while riding at 2,000 to 7,000 rpm in second gear or higher. The resume function re-engages the system and accelerates to the most recent speed setting after braking.

#### **Emergency Stop Signal**

New to a Suzuki motorcycle, this function rapidly flashes the front and rear turn signals to alert following vehicles if you brake suddenly at speeds of 55 km/h or higher.

#### **Motion Track Brake System**

Combines vehicle posture data from the IMU with front and rear wheel speed sensor data to allow ABS activation not only in a straight line but also when leaning into a corner. The bike is therefore less likely to try to push itself upright or lose traction, instead maintaining its radius and lean angle to better trace your intended line through the corner.

Note: ABS is not designed to shorten the braking distance. Please always ride at a safe speed for road and weather conditions, including while cornering.

#### **Slope Dependent Control System**

Monitors the motorcycle's posture and angle to help prevent rear wheel lift by using the ABS to control brake pressure and compensate when applying the brakes while travelling downhill.

#### **Hill Hold Control System**

Hill Hold Control is designed to automatically engage the rear brake for 30 seconds after coming to a stop while facing uphill on an incline, even when you release the brake lever or pedal. This helps ensure a smooth restart without rolling backwards. The system is disengaged either by quickly squeezing the front brake lever twice, or by accelerating away from a standing start.





#### **Legendary power and reliability**

Refinements implemented throughout the Hayabusa's legendary 1,340cm³ liquid-cooled inline-four engine achieve an even better balance of overall performance, yet greater efficiency and durability, while also satisfying Euro 5 emissions standards. Inheriting the proud legacy of the Ultimate Sport Bike that established the category in 1999, the Hayabusa continues to deliver more torque and power than any other sport bike at the engine speeds typically used in daily riding. A symbol of engineering pride and prowess, it is built to continually deliver the ultimate riding experience.

#### Optimum performance, durability and control

Already renowned for its durability and longevity, the following refinements aim to take it to another level.

- New pistons and connecting rods reduce the weight of moving parts within the engine.
- Crankshaft oil passages are changed to improve engine lubrication.
- The transmission shaft needle bearings are extended in length. Attention to detail goes
  as far as changing the way the engine case bolts are tightened, and even to the threading
  for the screw holes in the upper crankcase.
- Twin Swirl Combustion Chamber (TSCC) design and the new pistons fully leverage advances in CAE analysis to bring in more air as the valves begin to lift and thereby increase combustion efficiency.
- Suzuki Side Feed Injectors (S-SFI) feature a new dual injector design that positions

the secondary injector so its spray strikes a reflecting plate in the funnel and enters the combustion chamber as a fine mist.

- Low-to midrange power output is optimised by this and the combination of the increased capacity of a new air cleaner and longer intake pipe design to make the Hayabusa more controllable in typical daily riding situations.
- Suzuki's ride-by-wire throttle control system provides natural response with linear
  control, while a related change to a 43mm bore size for the throttle bodies also boosts
  low- and mid-range power output.
- Reduced valve-lift overlap and a pipe joining header #1 and #4 exhaust headers also
  help to improve performance and controllability at the most commonly used low- to midrange revs.

## MORE TORQUE.

Ultimate performance is born of the perfect marriage between power and stability, and between the rider and the bike. The Hayabusa delivers this in spades. Abundant power and torque offer a more confident ride in any gear and at any speed. Its chassis and running gear ensure nimble handling to put the rider in full control. All this is skillfully wedded in a bold design with an aggressive stance that highlights its luxurious details and quality craftsmanship. Like its namesake, the Japanese peregrine falcon, the Hayabusa earns its position as the fastest, most agile predator in the wild. It's far more than the sum of its parts.





#### Superior core strength

The Hayabusa's chassis is designed to empower you with sure footing, nimble handling and predictable control that combine to build confidence and enhance the riding experience. It delivers a smooth and comfortable ride that absorbs irregularities in the road surface and responds faithfully to your will. It effectively transfers the abundant power of its legendary powerplant to the pavement while fully leveraging its onboard intelligent control systems to run and brake effectively, whether barreling down a straight or leaning through corners. At the core of this outstanding chassis is the Hayabusa's tried-and-true twin-spar aluminium frame and swingarm. The proven combination of extruded aluminium sections and aluminium castings continues to lend the right amount of suppleness and strength to the overall rigid alloy frame structure. While more costly and demanding to fabricate, extruded aluminium sections - also used by numerous supercars - pay off in achieving the overall balance required by an Ultimate Sport bike that reaches a nominal top speed of 299km/h.

#### Top class suspension

KYB inverted cartridge forks provide 120mm of front wheel travel and feature diamond-like carbon (DLC) coating on the 43mm outer diameter inner fork tubes to reduce friction and improve reaction to small irregularities in the road surface. Spring preload, compression damping and rebound damping are all fully adjustable. The internal structure has been upgraded to better to absorb the road surface and ensure an even smoother, more stable ride with optimum grip. The internal structure of the fully adjustable KYB link-type rear suspension is also revised to maximise comfort and straight-line stability. Additionally, settings for both the front and rear suspension achieve a stable ride with neutral feel at all speeds.





The Hayabusa adopts Brembo's latest Stylema® front brake calipers. Featuring a lighter, more compact and carefully sculpted design intended for use on high-performance motorcycles, these new calipers increase airflow around the brake pads to cool more quickly and deliver immediate response. The front discs are increased in diameter from 310mm to 320mm, featuring a new hole pattern that further improves cooling efficiency.



#### **Bridgestone tyres**

Suzuki worked closely with Bridgestone in developing the new BATTLAX HYPERSPORT S22 tyres especially to meet the extreme needs of the Hayabusa. They provide improved grip, performance in dry and wet conditions, greater all-round traction and agility, while retaining a great level of durability. With a new compound and construction, they demonstrate a marked improvement in straight-line stability and cornering grip, offering a more exciting and confidence-building feel. New 7-spoke wheels not only look great, but are also designed to improve grip feel.





#### Ready to fly

The sleek, aerodynamic silhouette is unmistakably that of the Hayabusa. But the cutting-edge look of its styling and attention to the finest details reveal a lot more. True to its original design concept, the new Hayabusa's long, low stance exudes the power, performance, poise and keen perceptive abilities possessed by a bird of prey. With an upswept tail and mufflers lending to the aggressive stance of its mass-forward shape, this Hayabusa appears to be poised and ready to take flight. Colour and chrome accents contrast with blacked-out panel sections to create a visual impression of the incredible performance potential within. Aerodynamic performance is critically important on a motorcycle capable of reaching top speeds nearing 300km/h. Extensive wind tunnel testing, full use of the latest CAE tools and years of experience all contribute to achieving one of the best drag coefficients found on any street legal motorcycle, and excellent CdA and lift values for top speed stability.

By any measure, ultimate performance is what the Hayabusa is all about.



### **Light your way**

Vertically stacked low beam and projector high beam LED headlights dominate the distinctive signature of the Hayabusa's nose. Position lights with integrated turn signals, a first for a Suzuki motorcycle, flank the outer edges of the large SRAD air intakes. At the rear, a bold new LED taillight and rear turn signal design creates a single, sharp accent running horizontally across the bottom of the tail section.



### Complete instrumentation with TFT screen

Placed in the centre of the outstandingly functional instrument cluster, a new TFT panel offers a birds-eye view of your current ride. This includes real-time lean angle display (with peak-hold function), front and rear brake pressure, rate of acceleration and throttle position.

Also it displays the current SDMS-a system settings. Bigger, bolder numbering on the analog tach and speedometer improve readability, as do the backlit raised scale markings around the periphery.













B5M (Metallic Matte Sword Silver / Candy Daring Red)



B5N (Pearl Brilliant White / Metallic Matte Stellar Blue)

#### SPECIFICATIONS

Overall length	2,180 mm
Overall width	735 mm
Overall height	1,165 mm
Wheelbase	1,480 mm
Ground clearance	125 mm
Seat height	800 mm
Curb weight	264 kg
Engine type	Four stroke, liquid-cooled, DOHC, in-line four
Bore x stroke	81.0 mm x 65.0 mm
Engine displacement	1,340 cm3
Compression ratio	12.5:1
Fuel system	Fuel injection

Starter system		Electric
<b>Lubrication system</b>		Wet sump
Transmission		6-speed constant mesh
Suspension	Front	Inverted telescopic, coil spring, oil damped
	Rear	Link type, coil spring, oil damped
Rake / trail		23° 00' / 90 mm
Brakes	Front	Brembo Stylema®, 4-piston, twin disc, ABS-equipped
	Rear	Nissin, 1-piston, single disc, ABS-equipped
Tyres	Front	120/70ZR17M/C (58W), tubeless
	Rear	190/50ZR17M/C (73W), tubeless
Ignition system		Electronic ignition (transistorised)
Fuel tank capacity		20.0 L





