

# CBR600RR

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The Power of Dreams



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**2007**  
**CBR600RR**  
**PRESS INFORMATION**

# Introduction

Completely new from stem to stern, Honda's astounding new 2007 CBR600RR launches a blistering assault on the roads and tracks of Europe with a sleek and slippery new, aerodynamically designed race-ready form; a lighter and more powerful new 600cc Dual Sequential Fuel Injected inline-4 engine with the smallest dimensions in its class; a slimmer and lighter weight new Fine Die-Cast aluminium frame that realises both a shorter wheelbase and a longer swingarm; and an impressive list of high-performance features which all come together to herald the arrival of the electrifying new champion of the mid-displacement Super Sports class.

Packed with racing technologies handed directly down from Honda's mighty MotoGP champion, the RC211V, the astounding CBR600RR debuted in 2003 as a mid-sized sports bike designed primarily to reassert Honda's leadership in the highly competitive environment of World Supersport racing. Subsequently, its class-leading combination of top performance characteristics carried the CBR600RR to three consecutive World Supersport championships following the 2002 title held by the CBR600F-Sport, and total domination of its class in *every* year since its auspicious debut. It also excelled at providing one of the most exciting blends of top performance and remarkable riding ease to ever make a rider with a need for speed feel like a champion. Its incredible race-winning capability and far-reaching performance potential also made the CBR a thrilling and confidence-inspiring mount for those who simply love to ride...fast.

Time, however, gradually caught up with the CBR600RR, and the competition has grown to become especially intense in the hottest-selling category in the world of street bikes. In order to reassert its domination of the class, the CBR required more than just another makeover and the addition of a few new performance features to a well-proven design. Instead, the time had come to start again on a clean page to incorporate all the design, manufacturing and racing innovations gleaned over the years since the CBR saw the first light of day. The time had come to lay a king to rest and prepare the stage for the coming of a new champion.

# Development Concept

## **A New Dimension in 600cc Super Sports Design**

Setting out to create a more intensely competitive yet more widely enjoyable next-generation successor to the brilliant CBR600RR would be no mean feat. However, unhindered by the limitations of trying to improve on an existing machine, the CBR600RR's development team were given the freedom to explore the vast possibilities and hidden potential of drastically new design innovations in the quest for even greater advances in performance and handling.

Thus, formulating their ideas for an all-new middleweight Super Sports leader around the main design concepts of "Lighter Weight for Ultimate Control" and "New Dimensions in 600cc Super Sports Design," the team focused on achieving an even stronger power-to-weight ratio—with all its inherent benefits—through lighter weight and reduced drag everywhere. Engine, frame, bodywork, even the instrument panel; nothing was overlooked in quest for a lighter and faster CBR.

## **True to Function**

As development progressed and initial drawings graduated to prototype production, other concepts came into play. The idea of achieving "Ultimate Fun on Winding Roads" played a big part in guiding the team's efforts in minimising extraneous weight and more effectively centralising the new Super Sports machine's overall mass. The concept of "True to Function" also played an decisive role in the complete redesign of the new CBR's chassis extremities and bodywork to achieve not only a visible sense of lightness and speed, but also the most focused and competitive performance ever, leading to the concept and goal of creating a CBR600RR that is "Fastest on the Track; Fastest Everywhere."

The pursuit of lighter weight everywhere was certainly the fundamental key to the new CBR600RR's design, and the results reveal themselves in the most compact inline-4 engine to ever power a middleweight Super Sports riding machine. With a targeted 8 kilogramme reduction in overall weight, engine components were lightened by a combined total of over 2kg, the frame was trimmed by a remarkable 4.5kg, other chassis components took away a further 1.2kg, and even the CBR's electronics were lightened by a small but significant 400g. No part, however small, was overlooked in the process of trimming weight for the desired advances in performance. The end result is lighter weight that translates to sharper acceleration and swifter, smoother handling.

Although the current CBR600RR is aggressively oriented toward high-rpm racetrack performance, the new model was designed to improve on these features while also making the machine's full performance potential more easily accessible to a wider range of riders. While the team certainly sought to improve on-track performance and handling for experienced riders on familiar roads, one of their main goals was to also improve the ability of less expert riders to fully enjoy the thrill of the curves, especially on unfamiliar winding roads being travelled for the first time, thereby expanding the CBR's range of riding enjoyment while dramatically increasing its full performance potential.

Factors considered in the determination of the best way to achieve this enhanced winding road riding enjoyment were of course the engine's feel of power and acceleration, particularly through a wide midrange, and quick, linear response to every input. Also, handling that provides an almost fluid response that reacts smoothly and instantly to rider inputs, which has been achieved through a 22mm shorter wheelbase, enhanced mass centralisation and the addition of a new HESD (Honda Electronic Steering Damper) system. Overall fit and finish also play a big part in the CBR's enjoyment factor, as does the exterior design's sense of aggressive style and overall attractiveness, which sets a new standard for audaciousness in the middleweight Super Sports class.

With its impressively designed new compact form, new smaller and more powerful engine, new lighter weight Fine Die-Cast aluminium frame and a host of other dynamic features like its new HESD, the 2007 CBR600RR sets the stage for another generation of world domination on the road and on the track, and everywhere the electrifying thrill of riding makes the pulse quicken. Stamped with the genetic imprint of its RC211V racing lineage, the new CBR600RR is positioned to let every rider feel in no uncertain terms that they too can be The Fastest on the Track... and the Fastest Everywhere.

# Styling

From its compact, sharply angular nose to its sleekly curved tail, the new CBR600RR exudes the look of a future champion in the making. Every curve in its startling new form is the direct result of a new 'True to Function' design theme that guided its development team in stripping away everything not directly applicable to pure function and measurable improvements in performance. From nose to tail cowl, every piece of bodywork and related hardware was refined and redesigned with the goal of achieving unprecedented advances in mass centralisation and air management, not to mention improvements in the CBR's power-to-weight ratio, for maximised overall performance on the street and on the track. The result is a total combination of chassis and bodywork design that has been dramatically lightened in look, positioning of mass and actual weight in the creation of an incredibly lightweight and compact new Super Sports leader.

## **Dramatic New Airfoil Styling**

The new CBR600RR's stunning bodywork sets a new precedent in Super Sports design with a large gap of separation visible between the front upper cowl and the fairing's side cowls. This design innovation is based on air management design borrowed from the wings and fins used on both fighter planes and Formula One racers to more efficiently direct air around and through its more compact form while giving visual expression to the aerodynamic functionality of its wind tunnel-tested fins.

## **Improved Mass Centralisation**

Exceptional efforts made in the quest for improved mass centralisation and lighter weight at the CBR's extremities led to significant reductions in size and weight of nearly all the motorcycle's main components, from its new front cowl to its lighter and more compact centre-up exhaust silencer and surrounding seat cowl.

For a start, the shape of the front upper cowl is now more compact, with its nose and surrounding form repositioned 30mm rearward and closer to the steering head for reduced inertial influence on turning and cornering response. The new lower cowl has also been made more compact, and now more closely surrounds the exhaust headers reaching down under the engine to direct airflow for more effective cooling while visually emphasising the CBR's improved aerodynamics. This slimmer form also extends to the radiator, which is now 40mm narrower in width and 33mm longer in height for more compact proportions while maintaining its excellent cooling capacity.

The rear seat cowl was also significantly reduced in size and slimmed in shape for a more compact form and reduced mass at the bike's extremities, which combines with the shorter, more compact exhaust silencer to make a major contribution to swifter, more responsive handling. In fact, the seat cowl is now so small in size that it seems to be merely resting atop the silencer for a lighter and more compact integrated look.

### **New Ram Air Induction System**

Another important part of the new CBR600RR's aerodynamic design is its effect on the engine's power production, as can be seen in the middle of the front cowl, which is now highlighted by an impressively large air intake port built right into its nose, precisely where the pressure of air hitting the front cowl's nose at speed is at its strongest. Modelled on the system developed for the World Superbike-winning VTR1000 SP-2, this new port feeds directly through the new frame's open steering head casting to the CBR's larger-volume airbox. This new ram air system provides a direct, unimpeded flow of high volumes of cool, dense air to the intake tracts at high speeds, for a strong surge of torque-filled performance that tears up the twisties and dominates the track.

Positioned between this prominent port and the steering head is a large and very strong FRP intake port extension that has been made structurally strong enough to support the entire front cowl and its associated components, including its lightweight Line Beam headlights.

### **Improved Riding Ease and Manoeuvrability**

Although the new CBR600RR's riding position remains essentially unchanged, the rider's hip position on the seat was moved rearward approximately 15mm for enhanced mass centralisation to match the positioning of the new engine, and the area where the seat joins the rear of tank has been made significantly narrower and smoother, with less protruding edges in the legs' contact area for easier manoeuvrability, especially in competitive racing conditions. The handlebars have also been raised 10mm compared to the previous model, enhancing riding ease for a wider range of handling capability and long-term comfort. The handlebar-to-seat distance remains essentially the same as before.

### **Lighting The Road**

Further highlighting the CBR600RR's aggressive new form are the same distinctive pair of low-profile Line Beam headlights, which project a modern image in keeping with its racing roots. Less than half the height of the headlights seen on most road bikes, these lightweight, ultra-sleek units feature compact, high-illumination multi-reflector designs projecting through clear lenses to provide a brilliant night-time view of the road ahead.

Compact, grey-tinted indicator lenses cover amber bulbs for a sharper, more modern look, while the CBR's LED taillight, which was integrated into the underside of the tail on its earlier versions, now protrudes out from under the exhaust's upward slanting tail pipe for a cleaner and more functionally integrated image.

# Colouring Concept

The new 2007 CBR600RR's livery is now closely modelled on its bigger brother, the CBR1000RR Fireblade, with four dramatic new colour variations to choose from. Leading with a dramatic red and black combination that accentuates the lines of its new Honda Wing mark graphics, the new RR makes a bold statement of the Honda Racing DNA coursing through its veins. In contrasting metallic grey on black, the CBR exudes a powerful image of total control, while an attractive two-tone blue and white variation grabs attention with its refreshingly modern style. Finally, a bold black and grey on white colour variation stamps the new CBR600RR as a fast-paced leader of road and track for now and the future.

## Colours

- **Italian Red (with Graphite Black and Matte Ray Silver middle cowl)**
- **Graphite Black (with Matte Ray Silver Metallic middle cowl)**
- **Candy Tahitian Blue (with Pearl Sunbeam White and Matte Caledonite Blue Metallic)**
- **Pearl Sunbeam White (with Achilles Black and Axis Grey Metallic middle cowl)**

# Engine

In the four years since its introduction, the CBR600RR's high-powered 600cc inline-4 engine has proven itself to be a force to be reckoned with both on the street and on the circuit. Delivering a broadly responsive range of power and acceleration, its compact configuration also helps realise optimal mass centralisation for a significant contribution to the RR's quick handling.

However, for the CBR600RR's next generation, even greater efforts to reduce size and weight were needed to achieve its new development goals of even sharper and more responsive handling, as well as significant increases in its power-to-weight ratio. So, an entirely new engine was designed and developed, incorporating much of Honda's most advanced race-bred high-performance engine technology to create a more efficient and powerful mill featuring the smallest size and lightest weight in its class.

## **The Smallest and Lightest Engine in the 600cc Class**

Achieving the new RR's stated goals of sharper and faster performance necessitated not merely a reworking or redesign of an established engine configuration, but an entirely new rethink from first drawings to final assembly. The end result is, in a word, remarkable. Not only are the new engine's front-to-rear and top-to-bottom dimensions by far the smallest in its own 600cc class, its front-to-rear length is also smaller and more compact than any inline-4 engine in the 250cc class as well.

This new engine's smaller dimensions were achieved through a total rethinking and, among other changes, repositioning of the engine's main shafts within the crankcase in a tight triangulated configuration that narrows the crankshaft-to-countershaft distance by over 30mm. Combined with detailed changes elsewhere in its design, these closer dimensions make possible a drastic reduction in crankcase size and, by extension, weight. The crankcase castings alone weigh over 900g less than its predecessor, representing the largest part of the engine's exceptional 2kg reduction in weight compared to the current model.

Other modifications to reduce engine weight include a new magnesium head cover (330g lighter), new nutless connecting rods, new single exhaust valve springs matched to smaller and lighter lifters, a smaller new neodymium ACG magnet and many more detailed changes that all add up to the realisation of the new engine's astoundingly smaller configuration and lighter weight.

## **Stronger Performance**

Of course, for an engine designed to be competitive on the race circuit as well as on the street, the other primary goal in the development of the CBR600RR's new engine was gaining a stronger, more widely useable range of power and performance. Many of the new technologies and improvements made were developed and tested on the CBR1000RR Fireblade and adapted to the new engine, including modified intake and exhaust ports and changes to the intakes velocity stack lengths and taper, and to the ECU programming governing the control of its two-stage PGM-DSFI fuel injection system. The CBR's lighter weight new stainless steel exhaust system also features new in-line exhaust valve to control exhaust pressure for maximised performance.

Resulting performance is not only stronger throughout the engine's wide powerband, but also smoother and more linear for more easily accessible and widely enjoyable top performance. The new engine also features a noticeably stronger pull of torque between 7,000 and 10,000 that not only experts, but all riders can better take advantage of for more exciting winding road riding. Likewise, for those times when a greater range of acceleration is needed, such as on the racetrack, the engine's power peak has also been extended 500rpm compared to the current model.

## **Improved PGM-DSFI Dual Sequential Fuel Injection System**

Amply supplied with large volumes of cool, dense air by its new nose-mounted ram air intake duct, the new CBR600RR uses essentially the same two-stage PGM-DSFI fuel injection system as before to ensure optimal fuel atomisation and cylinder charging at all engine speeds. One set of injectors installed at the entrance to the intake ports provides an ideal air/fuel mixture for quick starts and strong, smooth low-to-midrange acceleration. At higher engine speeds, when both the throttle and ram air intake are opened wide, the system's second set of injectors installed in the roof of the aircleaner kick in to deliver a minutely timed jet of fuel that cools the high-volume air intake to create a denser mixture that improves volumetric cylinder filling efficiency for stronger acceleration.

For 2007, the system's aircleaner has been increased in volume by 0.7 litres and its fuel feed lines have been simplified with new lighter moulded plastic tubing and connectors replacing the current model's brazed metal fuel lines. Also, a new IACV (intake air control valve) minimises excessive torque reaction and smoothes response to smaller changes in throttle input by realising more gradual reductions of air and fuel intake when the throttle is closed and then opened.

### **New Pistons and Connecting Rods**

The CBR's lightweight forged aluminium pistons are treated with a molybdenum shot process that impregnates the surfaces of the piston skirts with durable, low-friction molybdenum such as used on the pistons installed in the CBR1000RR Fireblade. Featuring a thinner lower oil ring for further reduced friction, the pistons are also cooled from underneath by new high-pressure oil jets built into the crankcase, which provide a stream of oil to the undersides of the pistons that effectively wicks away heat build-up.

Also featured on the Fireblade, lighter new nutless connecting rods use standard threaded bolts screwed directly into tapped holes in the rods to hold their endcaps in place. This makes an important contribution to the engine's greatly reduced reciprocating weight, and combines with the pistons' minimised friction to realise more instantly responsive power and quicker acceleration.

### **New Knock Sensor**

The new CBR600RR's engine has also been equipped with a knock sensor that maintains optimum spark advance during mid-to-high speed operation while constantly monitoring combustion performance for any signs of detonation. Should the knocking of detonation be detected, the system automatically retards the spark advance just enough to eliminate the problem. Specially programmed to distinguish the sound of detonation from other engine noises, this system can even correct for the use of low-octane fuel, instantly retarding timing until any signs of detonation or knock disappear, and then gradually advancing the timing again to a point just short of the knock zone to maintain optimal combustion characteristics at all engine speeds.

### **New Low-Lash Transmission**

The CBR's new transmission also takes full advantage of the engine's performance characteristics for stronger acceleration while complementing the engine's reduced torque reaction to greatly reduce the amount of gear lash felt during transitions between acceleration and deceleration. This new transmission also features new reverse-taper shift dogs that contribute more positive gear shifts in racing applications and help realise much smoother and more instantly responsive riding experience than that found on virtually any other machine in the new CBR's class.

# Chassis

Infused with race-bred technology, the CBR600RR's innovative Fine Die-Cast aluminium frame represents a major advance in chassis design by making possible the most effective centralisation of the motorcycle's main components for light handling and quick response to every rider input. Its advanced manufacturing technique helps realise an organically formed structure that offers an optimal balance of light weight and rigidity, which allows the machine to settle more securely into turns and change lines with assured ease, whatever the riding conditions or its rider's level of expertise.

In order to further advance the new CBR's development concept of achieving more easily enjoyable winding road and circuit riding performance, its frame was entirely redesigned around its remarkably compact new engine. Also, the CBR's extraordinary reductions in front and rear mass play a major role in its improved mass centralisation, resulting in a significant improvement in the machine's yaw moment and cornering response.

## **Newly Designed FDC (Fine Die-Cast) Frame**

With the goal of reducing weight and centralising mass, the number of component parts and welds used to make the frame was significantly reduced. From the eleven sections used in the construction of the current RR's frame, now only four larger castings are used to make the new CBR600RR's frame. These are its large new steering head casting with its new apex-located ram air port, the two intermediate side engine hanger rails, and a single large U-shaped rear pivot mount section that wraps under the rear of the engine to surround the swingarm pivot and create an exceptionally rigid form. While all sections were hollow-formed with approximately the same 2.5mm wall thicknesses as the sections used in the construction of the current model, the new frame is fully 700g lighter than the unit it replaces, as well as being stronger, slimmer and more compact.

## **The Heart of the Matter — Reduced Engine Size**

As noted above, the new CBR600RR's engine features exceptionally compact dimensions which permit more effective positioning within the frame for optimised mass centralisation and improved handling. Its smaller fore-to-aft length also made it possible to shorten the CBR's wheelbase by a remarkable 20mm (from 1,395 to 1,375mm) while simultaneously gaining an extra 5mm in swingarm length (to 573mm) and extending the steering head by 13mm, as measured from the crankshaft. The

chassis' shorter wheelbase combines with the extended steering head, which increases leverage on the vehicle's rotating axes, to realise sharper, more responsive handling for more aggressive control on winding roads and circuit corners, yet still remain confidently reassuring for riders of not fully expert skill levels.

To complement the effective 15mm rearward repositioning of the engine's centre of gravity, the rider's seating position was also shifted back 15mm to achieve even lighter, more responsive manoeuvrability and handling control. The machine's overall centre of gravity was also raised by 3mm over the current model to achieve more neutral response to rider inputs, easier side-to-side flickability and smoother handling.

### **Race-Ready Suspension Components**

With such extraordinary efforts made in the total redesign of the CBR600RR's engine, frame and geometry, its suspension systems are better able to do their jobs more effectively, so it was felt that no changes were needed in their configurations. Handling is overseen by the same impressive 41mm inverted HMAS cartridge-type front fork, which provides smoothly responsive performance coupled with excellent rigidity and low unsprung weight for the precise and confident control that world-class racing demands.

Integrated into the CBR's rigid but lightweight swingarm is essentially the same Unit Pro-Link rear suspension system pioneered on the race-winning RC211V MotoGP racer. Its highly advanced design completely isolates the frame from the shocks and stresses generated by conventional rear suspension systems, especially under aggressive riding and racing conditions. This system also eliminates the need for extra frame reinforcement to counter those stresses, thus allowing the frame to be designed lighter than other more conventional designs, while freeing up space to permit the lower, mid-chassis positioning of the fuel tank, thus making another large contribution to mass centralisation and superior riding control. Its integrated HMAS rear damper features a built-in remote gas reservoir and full preload and damping adjustment, providing smoothly progressive control and assured handling for top performance on both road and track.

### **Wheels and Brakes**

Another factor that plays an important role in achieving the lighter weight and more centralised mass required of such a high-performance road and track machine are the CBR's triple-spoke cast aluminium wheels, which feature compact hubs for an ultra-lightweight design that also minimises unsprung weight. Like its predecessor, the front

wheel is stopped by a high-performance pair of radial-mount brake callipers like those featured on both the CBR1000RR and the RC211V MotoGP racer. Held together by three horizontal bolts for both stronger grip and more even distribution of brake pressure across the entire surface area of the pads, and gripping large-diameter floating rotors, these brakes provide highly efficient braking control with excellent feel at the lever. At the rear, a compact and highly responsive single-piston calliper stops a 220mm disc between sintered metal pads for a supremely confident balance of braking performance on par with the world's most narrowly focused and highly competitive racers.

# Equipment

## **New Generation Honda Electronic Steering Damper (HESD)**

The new CBR600RR receives another significant innovation from the CBR1000RR Fireblade in the form of its new Honda Electronic Steering Damper (HESD), which helps maintain smoothly predictable high-speed handling while having remarkably little effect on control at slower speeds. In a further innovation from the CBR1000RR Fireblade's system, the CBR600RR's new, more compact HESD unit is secreted away underneath the steering head, where it is mounted to the frame and connected to the lower triple-clamp by an articulating arm that moves the unit's damping vane within its oil chamber.

As before, handlebar movement directly actuates the vane built inside the unit's oil chamber to move oil from one side of the chamber to other through a tight circuit of oil lines regulated by an electronic solenoid. As vehicle speed and acceleration increase, these oil lines are gradually constricted by the solenoid to provide an effective damper against sudden movement of the front fork and handlebars, such as might occur when encountering a large bump in a high-speed corner. As vehicle speed slows, the lines gradually open, reducing the damping effect to virtually undetectable levels.

This new generation of the Honda Electronic Steering Damper offers an exceptional level of technological sophistication and seamless operation that effectively demonstrates Honda's commitment to pursuing advancements in riding ease and comfort in highly competitive Super Sports machines like the new CBR600RR.

## **New, More Compact Instrument Panel**

The new CBR600RR also sports a totally new and more compact instrument panel design, with its tachometer featuring larger, more easily distinguished odd numbers and smaller even numbers for easier recognition and differentiation. As before, a large LCD panel provides a high-visibility readout of vehicle speed, odometer, trip meter fuel gauge and clock. Brilliant ISO-marked LED indicator lights are positioned around the perimeter of the panel. The instrument panel also comes alive when the ignition key is switched on with an eye-catching startup routine that flashes the indicators and sweeps the tachometer needle.

### **Honda Ignition Security System (HISS)**

To help keep the new CBR600RR out of the hands of thieves and joyriders, Honda's effective HISS anti-theft system features a fail-safe electronic interlock that prevents the engine from being started with anything other than the motorcycle's two original keys. Totally disabling the engine at the very heart of its ignition system, the system cannot be bypassed by either hot-wiring the ignition or exchanging the ignition switch module, thus effectively deterring joyriders and greatly reducing the chance of ride-away theft.

# Optional Equipment

The new CBR600RR also features an extensive assortment of optional parts and equipment which has been specially designed by Honda Access Corporation to enhance all aspects of its road and track performance. These include:

- A 70% black-tinted windscreen which impressively accentuates the CBR600RR's sharp look of aggressive race-ready performance. Height is same as factory standard model. WVTA-approved.
- A motion-and vibration-sensitive Averta alarm system that emits a piercing wail if tampering is detected.
- A colour-matched pillion seat cowl that snaps into place to accentuate the CBR600RR's purposefully competitive look.
- A specially made 3D carbon fibre print instrument panel cover, which fits over the plastic frame of the instrument panel to give the bike a more focused look of sharp, high-tech performance.
- A tailor-made 3D carbon fibre print top bridge cover, which completely covers the top surface of the upper triple-clamp to give the bike a more focused look of sharp, aggressive performance. Its carbon fibre pattern matches that featured on the optional instrument panel cover.
- A carbon fibre print tank pad and fuel lid cap cover that enhance protection. The carbon fibre pattern matches that featured on the optional instrument panel cover and top bridge cover.
- A luxurious indoor cycle cover, which features a racy silhouette of the CBR printed large in Honda Red for a strong visual impact while protecting the bike indoors.
- A U-lock designed to fit into the compact space located under the locking pillion pad.
- A tilting tubular steel rear paddock stand that lifts the motorcycle by the end of its swingarm to facilitate cleaning and all rear wheel maintenance.

# Specifications CBR600RR ED-type

## Engine

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Type	Liquid-cooled 4-stroke 16-valve DOHC inline-4
Displacement	599cm <sup>3</sup>
Bore x Stroke	67 x 42.5mm
Compression Ratio	12.2 : 1
Max. Power Output	88.1kW / 13,500min <sup>-1</sup> (95/1/EC)
Max. Torque	66Nm / 11,250min <sup>-1</sup> (95/1/EC)
Idling Speed	1,400min <sup>-1</sup>
Oil Capacity	3.5 litres

## Fuel System

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Carburation	PGM-DSFI electronic fuel injection
Throttle Bore	40mm
Airecleaner	Dry, cartridge-type paper filter
Fuel Tank Capacity	18 litres (including 3.5-litre LCD-indicator reserve)

## Electrical System

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Ignition System	Computer-controlled digital transistorised with electronic advance
Ignition Timing	Independent 4-cylinder 3D-mapped computer control
Sparkplug Type	IMR9C-9H (NGK); VUH27D (ND)
Starter	Electric
Battery Capacity	12V / 8.6AH
ACG Output	343W
Headlights	12V, 55W x 1 (low) / 55W x 1 (high)

## Drivetrain

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Clutch	Wet, multiplate with coil springs
Clutch Operation	Mechanical; cable-actuated
Transmission	6-speed
Primary Reduction	2.111 (76/36)
Gear Ratio	1 2.666 (32/12)
	2 1.937 (31/16)
	3 1.661 (29/18)
	4 1.409 (31/22)
	5 1.260 (29/23)
	6 1.166 (28/24)
Final Reduction	2.562 (41/16)
Final Drive	#525 O-ring sealed chain

## Frame

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Type	Diamond; Fine Die-Cast aluminium
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## Chassis

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Dimensions	(LxWxH)	2,010 x 685 x 1,105mm
Wheelbase		1,375mm
Caster Angle		23° 55'
Trail		98mm
Turning Radius		3.2m
Seat Height		820mm
Ground Clearance		135mm
Dry Weight		155kg
Kerb Weight		184kg (F: 95kg; R: 89kg)
Max. Carrying Capacity		180kg
Loaded Weight		364kg (F: 130kg; R: 234kg)

## Suspension

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Type	Front	41mm fully adjustable inverted HMAS cartridge-type telescopic fork, 120mm axle travel
	Rear	Unit Pro-Link with gas-charged remote reservoir damper, adjustable spring preload and compression and rebound damping, 130mm axle travel

## Wheels

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Type	Front	Hollow-section triple-spoke cast aluminium
	Rear	Hollow-section triple-spoke cast aluminium
Rim Size	Front	17M/C x MT3.50
	Rear	17M/C x MT5.50
Tyre Size	Front	120/70 ZR17M/C (58W)
	Rear	180/55 ZR17M/C (73W)
Tyre Pressure	Front	250kPa
	Rear	290kPa

## Brakes

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Type	Front	310 x 4.5mm dual hydraulic disc with radial-mount 4-piston callipers, floating rotors and sintered metal pads
	Rear	220 x 5mm hydraulic disc with single-piston calliper and sintered metal pads

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