

DUCATI SUPERBIKE

More World Championship-winning race technology than ever before

The 2009 Superbike range presents five models: The **lightweight and agile 848**, the **awesomely powerful new 1198**, and for those who demand the ultimate in specification, **the 1198 S and 1098 R**, both now with race-level Ducati Traction Control systems for the road. To mark his 3rd Superbike World Championship and to celebrate the career of Troy Bayliss, who will now retire from motorcycle racing, Ducati will build a **1098 R Bayliss Limited Edition**.

Engineered by the stopwatch

The Ducati 848, 1198 and 1098 R Superbikes are the most advanced, most powerful twin-cylinder motorcycles ever built. They are the product of a team of designers and engineers who have combined their Ducati MotoGP and World Superbike technologies to create the finest sport bikes in the world. From race-level engine specifications to world championship-winning traction control, the results are pure excellence. The Ducati Traction Control (DTC) system further underlines Ducati's technology flow from racing to production and demonstrates how solutions developed for the track can be applied to enhance safety on the road.

Designed by the race track

The look and stance of the Ducati Superbikes are the result of intense race development and Ducati heritage. Their striking aerodynamic shapes create a natural riding position, confirmed by Ducati development and factory team riders as the optimum for speed and agility. Their passion for racing has shaped the Superbike family.

Pure Ducati

Ducati Superbikes are race bikes, pure and simple. They are immediately recognisable for their purposeful, no-nonsense attitude. Performance is first and foremost in every detail.

Trademark Ducati features like the high tail section and compact front end combine with twin under-seat silencers and single-sided swingarm to express the sheer engineering beauty of aerodynamics and agility. Add the Testastretta Evoluzione engines as the hearts of the machines and the result is all-out performance Ducati Superbikes that look fast even when parked.

Winning is Ducati's passion

Ducati Superbikes, designed, engineered and built in Bologna, Italy, have always represented the pinnacle of Ducati motorcycle technology and racing success. For Ducati, racing and winning are a way of life and a way of thinking for their designers, engineers and everyone at the factory. Their unique engineering solutions are proven on the race track, where the only way to win is to have technical superiority and dependable performance.

Ducati have dominated World Superbike racing, winning 13 World Championships and taking the Manufacturers' title 15 times. Furthermore, Ducati have won more individual World Superbike races than all other manufacturers combined. Add these unequalled performances to the historic achievement of winning the 2007 MotoGP World Championship, and their results speak for themselves.

DUCATI 1198

More powerful, lighter and safer

The new **DUCATI 1198**, while maintaining the same look as the previous 1098, is in fact a totally new bike. The 1198, which **produces a powerful 170hp (125kW)** from its new Testastretta Evoluzione engine, and has **a dry weight of just 171kg (377lb)**, incorporates all of the World Superbike technology derived directly from the 2008 World Championship winning race bike of Troy Bayliss.

The 1198 is powered by the powerful Testastretta Evoluzione, a liquid cooled, L-Twin, Desmodromic engine, the crowning glory of Ducati's development and perfection of the L-Twin engine, that produces **170hp (125kW) @ 9,750rpm** and **a class-beating 97lb-ft (13.4kgm) of torque @ 8,000rpm**.

From **data acquisition systems integrated** as standard equipment, to ingenious dual construction methods for its **weight-saving single-sided swingarm** and to the **road-going Ducati Traction Control**, Ducati's innovative trackside solutions continue to flow.

The innovative **Ducati Traction Control system**, supplied as standard equipment on the 1198 S model, enables the retrieval and analysis of data collected from your previous track session or road trip. DTC monitors front and rear wheel speeds to detect rear wheel-spin under acceleration and electronically reduces engine power to restore traction. DTC, which offers a choice of eight profiles, provides a **considerable increase in safety** during mid-corner acceleration.

The new 1198 Testastretta Evoluzione engine

The Testastretta Evoluzione engine is the crowning glory of Ducati's development and perfection of the L-Twin engine. World Superbike dominance for almost two decades is the result of continual commitment to their twin-cylinder configuration. Ducati now share the reward for that commitment as World Championship-winning technologies flow from the factory race team into production engines.

The incredible 1198 and 1198 S are powered by a liquid cooled, L-Twin, Desmodromic engine that produces 170hp (125kW) @ 9,750rpm and a class-beating 97lb-ft (13.4kgm) of torque @ 8,000rpm.

The 1198 achieves its new capacity by using exactly the same 106x67.9 bore and stroke as the factory race bike. Volumetric efficiency through the four valves per cylinder has been enhanced by increasing the valve diameters approximately 4% to 43.5mm for the inlet and 35.5mm for the exhaust. They are actuated by racing-type rocker arms, 'super-finished' for reduced friction and fatigue, and double overhead camshafts with radical profiles that achieve approximately 10% more lift than their predecessors.

These incredible valve performances are only possible because of Ducati's unique Desmodromic system, where valve closure is activated mechanically. At high rpm it would be almost impossible for the valve to follow the steep closure profile of the cam lobe if it were relying upon a normal valve spring. With the Desmo system, the valve is closed mechanically with the same accuracy as it is opened, enabling steep cam profiles and radical cam timings. This system is used on every single Ducati motorcycle including their world-beating Superbike and Desmosedici MotoGP bikes.

With increased capacity and improved volumetric efficiency, the elliptical throttle bodies have also increased in cross-sectional area by 13.3% compared to the 1098. Now boasting a size equivalent to 63.9mm diameter, the inlet body is exactly the same as the 'R' model.

The race-designed 1198 pistons have a distinctive double-ribbed undercrown to achieve high strength and reduced friction by using minimal piston wall surface area. Using technology developed for the Desmosedici MotoGP project, the design enables reliable operation of the 106mm diameter pistons when performing at high rpm.

The 1198 Testastretta Evoluzione engines are the lightest ever used in Ducati Superbikes, thanks to a new crankcase manufacturing technology which reduces weight by an incredible 3kg (6.5lbs). The vacuum die-cast process ensures consistent and precise wall thickness and increased strength from

absolute material purity. The weight-saving cam covers in magnesium-alloy are evident by their gold colour, while the alloy outer clutch and generator covers now sport a black finish.

In line with the increased power and torque output, the 1198 gearbox introduces 'R' model internal ratios. The new gears are machined from the same high-strength steel used in Ducati Corse race applications and are subjected to a shot-peening treatment that further ensures their strength and reduced fatigue.

The 1198 and 1198 S feature a beautiful and efficient exhaust system. Incredibly lightweight, it has been engineered with a power-increasing symmetrical 2-1-2 layout that uses 52mm-57mm diameter tubing with a wall thickness of 0.8mm (.030in). It is equipped with a catalytic converter and two lambda probes for smooth engine mapping and Euro3 conformity. The system terminates with Ducati's trademark twin under-seat silencers, delivering that unmistakable signature sound of the big bore Desmo 90° L-Twin.

Superbike Technical Chassis

Advanced chassis

The 848 , 1198 and 1098 R chassis and suspension received detailed study and a 'performance-first' priority approach to development. The goal was to achieve considerable weight saving and build-in strength and rigidity to manage the high-powered Testastretta Evoluzione engines. While the 'R' models are purely 'monoposto', Ducati built 'biposto' practicality into the 848 and 1198 with a passenger seat and footpegs. As with the race bikes from which they are derived, each and every component is designed to contribute to achieving superior road holding and stability.

Trellis frame

Developed in cooperation with Ducati Corse, the lightweight Trellis frame features 34mm main section tubes with a material thickness of 1.5mm. The result is an incredibly rigid construction that remains one of Ducati's lightest frame solutions ever. Adding style to performance, the two colour versions for the 848 use frames finished in 'red' and 'racing grey' while both colours for the 1198 use 'racing black' frames and both 1198 S a sophisticated 'bronze' finish. The 1098 R frame is finished in 'red' .

Front suspension

Both the 848 and 1198 feature fully adjustable 43mm Showa forks, with an additional special low friction titanium oxide treatment applied to the sliders of the 1198, while spectacular 43mm Öhlins with low friction titanium nitride-treated sliders are used on the 1198 S and 1098 R. Both front suspension solutions have radial brake caliper mountings providing superior road holding and incredible feedback to give every rider more confidence and control.

Rear suspension

The lightweight Trellis frame and single-sided swingarm have enabled a compact and weight-saving rear suspension linkage system that features separate lower pick-up points for the push-rod and suspension unit. This 'tandem' design effectively reduces stress around the linkage pick-up area of the Trellis frame. Working together with this highly efficient linkage is a fully adjustable Showa single shock for the 848 and 1198, and an incredible Öhlins unit for the 1198 S. The higher specification Öhlins for the rear of the 1098 R uses TTX^R twin tube technology and offers totally separate damping adjustment in compression and rebound. It uses experience gained in MotoGP to minimise friction and reduce the risk of cavitation under extreme conditions. The 1198, 1198 S and 1098 R rear suspension system has an adjustable rear ride-height, independent of spring pre-load and other suspension settings - valuable when seeking the perfect set-up for personal riding style or track conditions.

Single-sided swingarm

The dual construction technique used for the single-sided swingarm sees the main operational components use individual aluminium castings so as to ensure strength around the pivot points, wheel hub and suspension links, with fabricated aluminium sections used to complete the construction into a single, beautifully engineered component. The 848 swingarm is colour finished in natural aluminium while both 1198, 1198 S and 1098 R swingarms are in black.

Superbike Control

Race-bred brakes

With motorcycles as capable as the new Ducati Superbikes, superior braking power is fundamental.

The lightweight 848 features progressive and consistent race-bred braking performance as standard equipment with a tried and tested formula that includes twin radially mounted Brembo calipers each with quadruple 32mm pistons gripping 320mm discs.

The 1198, 1198 S and 1098 R uses Brembo's powerful Monobloc caliper racing technology. Machined from a single piece of alloy, the calipers achieve a higher rigidity and resistance to distortion during

extreme braking. The resulting increase in hydraulic efficiency not only delivers incredible braking power, but also provides an enhanced and precise 'feel' at the brake lever. The twin Monobloc calipers each have quadruple 34mm pistons that grip huge 330mm discs to help achieve spectacular brake performance. The weight of the discs has been kept to a minimum by employing racing-style narrow braking surfaces.

Super lightweight wheels

The lightweight front wheels of the 848, 1198 and 1198 S and 1098 R substantially reduces the moment of inertia, enabling a faster change of direction and enhanced acceleration and braking performances. The construction of the rear wheels are equally as impressive with considerable weight savings over traditional Ducati single-sided swingarm fitments.

The 848 is equipped with Y-shaped, 5-spoke wheels which are finished in black while the 1198 rides on new style 10-spoke wheels finished in a subtle graphite grey. As usual, the 1198 S goes to the next level by rolling out on the new 7-spoke GP replica wheels. These beautifully lightweight, forged-aluminium, machine-finished wheels are colour-matched to the Trellis frame in a sophisticated bronze. Lightweight Marchesini Y-shaped, 5-spoke wheels created from forged then machined alloy and finished in 'racing gold' are used for the 1098 R, and a matte black finish selected to contrast against the special livery of the 1098 R Bayliss.

While the 848 uses Pirelli Dragon Supercorsa PRO 120/70 ZR17 front and 180/55 ZR17 rear tyres, the 1198, 1198 S and 1098 R models are fitted with Pirelli Diablo Supercorsa SC at 120/70 ZR17 for the front fitment and 190/55 ZR17 for the rear. These tyres provide shoulder areas designed to maximize contact patch area and length and carcass specially designed for stiffness under heavy braking and precision during high speed cornering.

Magnesium subframe

Producing a front subframe in magnesium underlines the attention to weight-saving detail. Its construction provides secure support for the headlamp, instruments and fairing and the weight-saving around this high, forward position contributes considerably to overall 'feel' and control of the machine.

Aerodynamic bodywork

Carefully designed for aerodynamic efficiency and to hug the sleek lines of the chassis, the 848, 1198 and 1098 R bodywork enables the rider to blend effortlessly into the race-oriented riding position.

Its race-developed fairing design ensures perfect integration with the cooling system by providing efficient flow through the advanced, large surface area coolant radiator, which is assisted by lightweight, high flow electric fan assemblies and oil coolers. Aerodynamically shaped air ducts positioned just below the headlamps are precisely calculated to provide ample air delivery to the pressurised airbox.

The lightweight bodywork contributes considerably to overall performance by reducing weight, protecting the Testastretta Evoluzione engine's power output, and assisting the rider to effortlessly 'tuck in' from the wind stream and reduce drag to achieve maximum straight-line track speeds.

Superbike Electronics and Innovation

Instrumentation

This pure racing digital instrumentation originating from Ducati's MotoGP project, has no switches or buttons to compromise its clean, minimalist lines. Instead, information additional to the default read-outs is managed from the left-hand handlebar-mounted switch gear, allowing the rider to scroll through and select from various menus. The display, which now has a bright white LED back lighting for the 1198 and 1198 S, presents rpm and speed, with the former displayed across the screen in a progressive bar graph. Optionally, the rpm and speed can be displayed in numeric values. Additionally, it displays lap times, DTC level selected (if activated on 1198 S and 1098 R) time, air temperature, coolant temperature, battery voltage, two trips and a trip that automatically starts as the fuel system goes onto reserve. Warning lights illuminate to signify neutral, turn signals, high-beam, rev-limit, low oil pressure, fuel reserve, DTC intervention (if activated on 1198 S and 1098 R) and scheduled maintenance. The instrument display is also used as the control panels for the DDA and DTC systems as well as listing lap times recorded by using the high-beam flash button as a stopwatch.

Traction control

For the first time ever on a Ducati production motorcycle, a true competition-level traction control system for the road comes integrated into the 1198 S and 1098 R electronics as standard equipment. The Ducati Traction Control (DTC) system further underlines Ducati's technology flow from racing to production and demonstrates how solutions developed for the track can be applied to enhance safety on the road.

DTC uses the same software logic developed and used by Ducati Corse for their world championship winning MotoGP and World Superbike motorcycles and offers a choice of eight settings developed by their professional test riders and racers.

Accessible from the left-hand switchgear and displayed on the digital instrumentation, the system offers a choice of eight profiles. Each one has been programmed with a wheel-spin tolerance matched to progressive riding levels of skill graded from one to eight. While level eight administers a confidence-building, high level of interaction from the system by activating upon the slightest amount of wheel-spin, level one offers a much higher tolerance and so much less intervention for highly competent riders. When the level is selected and DTC activated, the level is displayed on the instrumentation. When the profile that best suits the combination of road or track conditions and riding style has been selected and the DTC system activated, front and rear wheel sensors compare speed differential to sense when rear traction is being broken (wheel-spin). High speed software then makes instant electronic adjustment to the fuel injection, taking immediate control over power output so as to restore traction at the rear wheel. A warning light is displayed during DTC interaction. As soon as the system recognises the return of equal wheel speeds, it re-establishes normal power delivery. In this way, DTC provides a considerable increase in safety during mid-corner acceleration. The DTC system is supplied as standard equipment on the 1198 S and 1098 R models.

Data acquisition

The Ducati Data Analyser (DDA) - complete with PC software, a USB-ready data retrieval card and instructions - evaluates the performances of the bike and its rider, and make comparisons between various channels of information. The DDA is available for the 848 and 1198 from Ducati Accessories, and is supplied as standard equipment on the 1198 S and 1098 R models.

Normally only available on race bikes, DDA records numerous channels of data including throttle opening, vehicle speed, engine rpm, engine temperature, distance travelled, **laps and lap** times. The system also automatically calculates engine rpm and vehicle speed data so as to display gear selection as an extra channel of information. An additional channel of information is now dedicated to recording the DTC index which can then be viewed as a graphic trace and indicates the amount of DTC interaction during wheel-spin. At the end of a ride or track session, an upgraded 4mb of data can be downloaded to a PC ready to compare, analyse and get an inside view of the performance of the rider and motorcycle.

Data can be analysed in graphic form with options to zoom into detail of specific sections. Dragging a trace along a timeline to reveal individual values of the above listed channels enables the user to analyse performance in the same way that data technicians can in factory teams. The latest version software is now compatible with Windows Vista™ and allows data to be compared with that from a completely separate session and for pages of data to be printed off easily.

Lights and indicators

The horizontal twin headlamps, a signature Ducati style from the iconic 916, have been modernised with the latest lighting technology. Two polyellipsoidal units light the way with a powerful beam while maintaining an aggressive look to the front of the machine in pure Ducati Superbike tradition. The units used on the 1198 and 1098 R now save over 0.5kg (1.2lb) over previous versions, reducing weight from a crucial high frontal area which enhances the overall vehicle handling and all-important 'feel' of the front-end.

The rear light employs a specially designed strip of LEDs enhanced by a high diffusion lens shaped into the sleek lines of the tailpiece. The same LEDs are intensified for brake lights.

The directional indicators also use the latest in LED technology for illumination. The frontal indicators are beautifully integrated into the rear view mirrors and, for the 1198, 1198 S and 1098 R, now come with an optional spacer kit enabling an extension of 30mm over the standard mirror stem length.

DUCATI 848

Lightweight moves - heavyweight punch

The 848 is Ducati's most impressive middleweight Superbike ever. Its exceptional lightweight and legendary Ducati chassis set-up combined with the smooth and thrilling torque delivery of the L-Twin Desmo provide the ideal way to enter the world of Ducati Superbikes.

With a dry weight of just 168kg (369lb) the agile 848 is an amazing 20kg (44lb) lighter and 30% more powerful than its predecessor, enabling the middleweight to deliver impressive performances whether riding through mid-town traffic or racing through track-day competition. These incredible achievements are a fitting reward to Ducati's ingenuity and a clear result of the continual attention to detail and development of their twin-cylinder technology.

Iconic features from its bigger brothers, such as the twin under-seat silencers, single-sided swingarm, Trellis frame and beautiful race bodywork, are all part of the 848's DNA. Its family resemblance assures that it is equipped with all the performance advancements of the Superbike family, while adding its own particular refinements to the middleweight sport bike class.

From the first twist of the throttle, the powerful rush of the Testastretta Evoluzione engine confirms that the rules have changed. The 848 is a new class of Superbike.

The 848 Testastretta Evoluzione engine

The potent 848 is powered by a liquid cooled, L-Twin, Desmodromic engine that produces 134hp (98.5kW) @ 10,000rpm and a class-beating 70.8lb-ft (9.8kgm) @ 8,250rpm.

The 94mm x 61.2mm bore and stroke breathes through 4 valves per cylinder fed by racing-style elliptical throttle bodies. Electronically injected and ignited by Marelli, the super-efficient power unit then exhausts through a lightweight 2-1-2 system equipped with a catalytic converter and lambda probe to conform to Euro3 regulations.

The highly advanced 848 engine was the first Ducati Superbike to introduce vacuum die-cast formed crankcases. Achieving a significant weight saving of more than 3kg (6.5lb), this production method also ensured consistent wall thickness and increased strength. Further refinements include a sophisticated wet clutch that offers a power-enhancing 1kg (2.2lb) less weight, greater durability, improved clutch feel, and quiet operation.

DUCATI 1198 S

'S' performance

Producing 170hp (125kW) and with a dry weight of just 169kg (372.6lb), the new 1198 S now incorporates more World Superbike technology than ever before by taking the 1198 motor and adding top-of-the-range suspension, lightweight chassis components and a true racing-style traction control system designed for road use.

The high performance, fully adjustable 43mm Öhlins forks, which sport low friction titanium nitride-treated fork sliders, respond effortlessly to every imperfection in the tarmac. Beyond their advanced engineering solutions, one of the most important characteristics of Öhlins forks is their ability to communicate the condition and quality of the tyre-to-road contact patch, a feature that puts every rider in superior control. The suspension set-up at the rear is complemented with a fully adjustable Öhlins rear shock equipped with a ride enhancing top-out spring and mounted to a single-sided swingarm for outstanding drive and traction. The front-to-rear Öhlins package is completed with a control-enhancing adjustable steering damper.

The 'S' sets the standard for lightweight performance. On any sport or race bike, the most effective area to reduce weight is its 'unsprung weight'. These are components like tyres, brakes and wheels. Lighter wheels have a lower 'moment of inertia' that is beneficial with every direction change and application of the brakes. The 1198 S addresses this important area by mounting new 7-spoke GP replica Marchesini forged and machined wheels. Both front and rear are super lightweight and their

benefit is immediately apparent. The weight saving is further enhanced with the application of a carbon fibre front fender.

The 1198 S is supplied with the Ducati Data Analysis (DDA) and Ducati Traction Control (DTC) systems as standard equipment. The DDA package enables the retrieval and analysis of data collected from your previous track session or road trip. DTC monitors front and rear wheel speeds to detect rear wheel-spin under acceleration and electronically reduces engine power to restore traction.

DUCATI 1098 R

Now updated with Ducati Traction Control for the road, the awesome 1098 R is also available in a 1098 R Bayliss Limited Edition, celebrating Troy's victory in the 2008 World Superbike Championship and the end of a legendary career that has seen three World Championships on three generations of Ducati Superbike.

Built to win

The 1098 R is the ultimate Superbike. The most advanced, most powerful twin-cylinder motorcycle ever. Built with the single objective of winning, it powered Troy Bayliss to victory in the World Superbike Championship in its debut year. Now it has been improved even further.

The 'R' is a race bike, pure and simple. Its competition specification and superior components together with advanced electronics and race-proven chassis technology deliver a level of performance that empowers with confidence and capability. On the road, it distinguishes its rider as a connoisseur of high-performance motorcycles. On the track it instantly promotes the rider to a higher level of skill.

The road-going 'R' version is closer than ever to Ducati's factory race bike. The 1098 R is not a replica - it's the real deal. An incredible 180hp L-Twin Testastretta Evoluzione engine in a race-winning Trellis chassis set-up tips the scales at an unbelievably lightweight 165kg (364lbs) and comes with Ducati Corse's world championship winning traction control system for the road.

Once again, Ducati raises the bar and sets the world standard for sport bikes while turning the heads and racing the hearts of enthusiasts throughout the world.

SuperbikeTechnology

The 1098 R takes all the Superbike family features, reduces weight even further and adds an extra 10 horsepower (respect to the 1198), sand-cast crankcases, titanium valves and con-rods, fully adjustable Öhlins TTXR rear suspension and much more to produce the most awesome performance ever seen in this category.

Underlining its competition intention, the 1098 R is designed as a true 'monoposto' with no provisions to carry a passenger. This has enabled a 50% weight reduction of the rear subframe by producing it in aluminium alloy.

Other specifications particular to the 1098 R includes the fairing belly-pan, upper-fairing internal panels, tank lower side panels, seat assembly and front fender in carbon fibre, making the bodywork a considerable contributing factor to the overall performance of the machine.

In true 'R' style, 1098 R comes with red bodywork complete with white background number plates on the tail section and nose fairing. The Trellis frame is also in 'red' with the front and rear 5-spoke Marchesini wheels finished in 'racing gold'. The fairing belly-pan, front fender and side panels are left in a contrasting natural carbon fibre finish. Finally, the small red, white and green tricolore graphic, neatly shaped between the twin headlamps in the nose fairing, proudly underlines the Italian design, style and precision race engineering of this incredible motorcycle.

Race kit

The 1098 R comes with a race kit (intended strictly for track use only) which boosts power output from 180 to approximately 186hp. The kit consists of a 102dB carbon fibre slip-on muffler kit by Termignoni and a dedicated ECU.

1098 R Testastretta Evoluzione power

The 1098 R engine represents the finest twin-cylinder technology in the world. It produces 180hp (132.4kW) @ 9,750rpm and 99.1lb-ft (13.7kgm) of brute torque @ 7,750rpm in standard mode and an astonishing 186hp when using the supplied race kit (intended strictly for track use only).

The specification of this engine underlines its no-compromise race technology. To help contain the massive 'R' power output, the crankcases have been sand-cast produced, a process that improves the molecular quality of the casting, increasing strength while ensuring that intricate shapes are achieved with absolute accuracy. Confirming the 1098 R's race specification by minimising weight and increasing performance, the crankshaft connecting rods are made in titanium, achieving a 34% saving over the

stock 1198 rods while reducing their reciprocating forces and improving crankshaft acceleration. Cam belt covers moulded in carbon fibre and cam covers cast in magnesium alloy enhance the lightweight package.

The 1198.4cc capacity is the product of a larger bore and stroke of 106x67.9mm and is fed through four titanium valves per cylinder and compressed to a ratio of 12.8:1. The chrome nitride coated valves are larger in the 'R' engine, measuring 44.3mm for the inlet and 36.2mm for the exhaust. They are actuated by rocker arms that are super-finished for reduced friction and fatigue, and double overhead camshafts with radical race profiles.

These incredible valve performances are only possible because of Ducati's unique Desmodromic system, where valve closure is activated mechanically. At high rpm it would be almost impossible for the valve to follow the steep closure profile of the cam lobe if it were relying upon a normal valve spring, but with the Desmo system the valve is mechanically closed with the same accuracy as it is opened, enabling steep cam profiles and radical cam timings. This system is used on every single Ducati motorcycle including our world-beating Desmosedici MotoGP bike.

The pistons utilise the same design developed for the Desmosedici in the Ducati MotoGP program by using a distinctive double-ribbed undercrown to achieve high strength with minimal piston wall surface area and, therefore, less friction.

The 1098 R elliptical throttle bodies equate to diameter measurement of 63.9mm and the 'R' remains the only road-going Ducati to use twin injectors on each cylinder. The first centrally mounted injector feeds through a 4-hole nozzle while the second offset injector feeds through a 12-hole nozzle ensuring progressive and fluid power delivery throughout the rev-range. With this configuration the system has the capacity to provide much heavier fueling when used in competition.

The gearbox's carefully calculated specification allows the use of a high ratio 6th gear, fully enabling the speed increase achieved from using the supplied race kit (for track use only) or additional performance modifications. Also with performance in mind and because of its high resistance to fatigue, the gears are machined from the same high-strength steel used in Ducati Corse race applications and are subjected to a shot-peening treatment that further ensures their strength. Unique to the 'R' version, the dry, multiplate 'slipper' clutch reduces the destabilising effect of aggressive downshifting and helps provide the fine control required when used under extreme track conditions.

The 1098 R uses the same 2-1-2 exhaust system as the 1198, however, it terminates with Ducati's trademark twin under-seat mufflers beautifully formed in super lightweight titanium and stainless steel.

DUCATI 1098 R Bayliss Limited Edition

Troy Bayliss is a Ducati legend. In celebration of his victory in the 2008 World Superbike Championship aboard the 1098 R, and the end of a career that proudly claims three World Championships aboard three generations of Ducati Superbike, the factory have built a **1098 R Bayliss Limited Edition**.

Enjoying exactly the same high specification as the standard 'R' model, the 1098 R Bayliss Limited Edition has a **special colour scheme designed by Aldo Drudi**. The livery, which was used during Troy's final race at Portimao in Portugal, incorporates the key colours of his success. **Sporting the famous number '21' on the pearl white nose and side-fairing number plates**, the red and white paint scheme uses the dark blue background of the Australian national flag to blend beautifully along the side of the bodywork and into the unpainted carbon fibre stripe along the seat unit. This attention to fine detail is also evident in features like the carbon lower-fairing finished in red, except for aerodynamic recess for the side-stand, which remains natural carbon fibre. A subtle '1098 R Bayliss Limited Edition' graphic on the tail fairing leaves no doubt as to what this magnificent bike is.

The striking design contrasts perfectly against the **5-spoke wheels finished in matte black** and additional special features like the carbon fibre heat shield on the exhaust.

The 1098 R Bayliss Limited Edition will be limited to only 500 units and comes with a numbered plaque on the top fork clamp, indicating exactly where in the limited edition the motorcycle was built. The number also corresponds to a numbered commemorative desk-top plaque, beautifully encased for safe keeping and bearing the engraved signatures of Ducati Motor Holding CEO Gabriele Del Torchio and Ducati Corse triple World Superbike Champion, Troy Bayliss.

In addition, the model will be supplied with a **full racing exhaust system** including 102dB carbon fibre mufflers by Termignoni (strictly for track use only), a **dedicated ECU, branded bike cover and rear paddock stand**.

What better way to mark the incredible career of Troy Bayliss than by Ducati building the 1098 R Bayliss Limited Edition.

Troy Bayliss

Troy Bayliss is a Ducati legend. His racing career with Ducati has taken him from amateur obscurity to professional stardom, winning three World Championships on three different generations of Superbike. His 'never-give-up' style fight to the top, powered by Ducati's passion for victory have been food and drink to 'Ducatisti' all over the world.

Arriving in Europe in 1998, Troy immediately found his way by winning the 1999 British Superbike Championship aboard a Ducati 996. His success took him to the AMA series for Ducati in the US, but an early season call-up from the factory to replace the injured Carl Fogarty in World Superbike brought him back across the Atlantic to Europe. It only took a few races before Troy clinched his first world level race win at Hockenheim aboard the 996 R. More of the same performances that year secured the support of thousands of fans, scored him 6th in the World Championship and helped Ducati lift the Manufacturers' title.

2001 was the year that Bayliss had been working for. His 996 R Ducati took him all the way to the top, clinching his first World Superbike Championship title and another Manufacturers' title for Ducati. If 2001 had been the year that proved Troy 'the rider' to Ducati, then 2002 would be the year that proved Troy 'the sportsman' to his fans. A tough and hard-fought season on the 998 R came down to the wire at the final race in Imola. His two 2nd place finishes that weekend were dubbed 'the Superbike races of all time', but it was the way in which he conceded the title and stepped up the podium with a smile on his face that won the hearts of his fans.

For 2003 Troy moved across to Ducati's new MotoGP project aboard the Desmosedici. It may have been his first year on the Grand Prix scene, but his rookie status didn't stop him scoring three podiums and closing the season an incredible 6th in the World Championship. 2004 proved considerably harder, however, and the Australian struggled to 14th in the series.

After a year away from Ducati, Troy returned to the Ducati Superbike team in 2006, hungry to fight his way back to the top and prove that he was still champion material. He did just that. His first year aboard the Ducati 999 R secured him his second World Superbike Championship and returned the Manufacturers' title to Ducati. At the end of the 2006 season he also got the chance to prove that he could win at MotoGP level. Drafted in as a last-minute replacement to the injured Sete Gibernau, Troy qualified the Desmosedici GP6 on the front row of the grid at the Valencia Grand Prix and powered to a convincing, spectacular and popular victory.

In 2007 Troy struggled against injuries as he rode the now ageing 999 R to its absolute limit. Disappointed with finishing 4th in the World Superbike Championship and now considering retirement, the one thing that kept Troy motivated was the imminent arrival of the 1098 R.

With a capacity of 1198cc, in accordance with new Superbike regulations, Troy's 2008 bike powered him back to the top where he belonged. Securing both the Riders' and Manufacturers' titles in Magny-Cours with just one race left on the calendar, Troy achieved his goal and completed a dream career that had seen him win World Championships on three generations of Ducati Superbikes — 996 R, 999 R and 1098 R.

Throughout the year, Troy worked non-stop to develop, improve and perfect the 1098 R ready for his successor and in order that the 1198, 1198 S and 1098 R would be the bikes that carried the most racing technology through to production. In the final race of his career in Portugal, Troy rode the 1098 R in a special celebratory colour scheme. Ducati will now build a 1098 R Bayliss Limited Edition bearing that same livery... the ultimate thank you for an incredible career.

COLOUR SCHEME

| | Tank | Frame | Wheels |
|---------------------------------------|----------------|--------------|---------------|
| 848 | Red | Red | Black |
| | Pearl White | Racing grey | Black |
| 1198 | Red | Racing black | Graphite grey |
| | Pearl White | Racing black | Graphite grey |
| 1198 S | Red | Bronze | Bronze |
| | Midnight black | Bronze | Bronze |
| 1098 R | Red | Red | Racing Gold |
| 1098 R Bayliss Limited Edition | Bayliss | Red | Black |