



HONDA *Come ride with us.*

CBR1100
SUPER BLACKBIRD



CBR1100X - 991 - E

Introduction

Introduced two years ago as Honda's flagship entry to the big-bore Super Sport class, the CBR1100XX Super Blackbird soon took centre stage with a class-leading combination of advanced high-speed aerodynamics, breathtaking power, effortless middleweight-class handling, and peerless long-term sport touring riding comfort. Developed under the guiding concept of 'The World's Greatest Super Sport,' the 'Double-X' soon gained a devoted following, as affirmed by its subsequent unit sales far exceeding projected figures.

Featuring such advanced technologies as the first dual-shaft balancer ever used in a Super Sport motorcycle engine for remarkably smooth operation at all engine speeds, Honda's innovative Dual Combined Brake System for the ultimate in braking confidence and control, and an attention-grabbing 'piggy-back'-style dual headlight for the smallest frontal area (and related drag coefficient) of any streetbike in its class, the Super Blackbird impressively redefined the standards of 'big-bike' performance and sport touring excellence.

For its next generation, the Super Blackbird's design team set out to improve upon its power and potential with the addition of several new, yet proven technologies to carry it higher still into the upper realms of superbike performance. With the logical inclusion of a programmed fuel injection system, a new high-pressure Direct Air Intake system and other high-precision engine control systems, the Super Blackbird achieves a full-bodied increase in overall performance coupled with smoother, easier operation and enhanced reliability.

These new systems also make possible the development of a new low-emissions version of the Super Blackbird to be introduced in Germany and Switzerland as further proof of Honda's uncompromising dedication to reducing the impact of motor vehicles on our fragile environment. All these factors come together in the all-new CBR1100XX Super Blackbird as it reasserts its claim to the title of 'The World's Greatest Super Sport.'



Styling Concept

Unchanged from its introduction, the CBR1100XX's air management design takes an unprecedented approach to aerodynamic efficiency and high speed potential. Rather than throwing more brute horsepower at the barriers to higher speed, the XX's design team chose the 'path of least resistance' by minimizing the most significant obstacle to ultimate top speed:

wind resistance and drag. This was achieved with a remarkably small bullet-nosed front cowl made possible by a revolutionary new 'piggyback' headlight design, and a narrow frontal aspect that reduces its coefficient of drag to levels less than that of a 250cc machine.

Even more remarkable is that no corners were cut in maintaining

the CBR1100XX's superb level of wind protection for both rider and pillion passenger. The fairing's organic design cuts through the air like a bullet, providing light and easy handling and a comfortable ride at even the astounding autobahn speeds the XX is easily capable of achieving.



CBR1100XX - 993 - E

Colouring Concept

The new-generation 1999 CBR1100XX Super Blackbird features three new, high-quality colour variations that give dynamic emphasis to its stunning, high-speed aerodynamic design and blistering performance. Cleanly executed with no lines and graphics except for identifying markings, these colour variations project a strong, purposeful image that draws attention to the CBR1100XX's muscular, performance-oriented lines. They include:

- A regal, wine-coloured candy red that accentuates the Super Blackbird's curves with a luxurious look of shimmering luxury.
- A deep pearlescent black that shimmers with rainbow-coloured reflections under the sun, and projects a sinister urban sophistication in keeping with the CBR1100XX's world-beating performance potential.
- A lively, eye-catching new candy blue that quickens the pulse and tickles the heart like nothing ever seen before in this class of motorcycle.

Other styling changes for the new CBR1100XX include an eerie new, multi-hued diffraction coating on the lower half of the windscreen

that changes colour as the angle of reflected light changes. Also, new matte-finish gold-coloured engine case covers replace the gloss black covers featured on the current model, gold coloured aluminium brake rotor hubs replace the current model's black-painted stainless steel hubs, and chrome-plated louvers positioned deep inside the nose cowl's new air intake ducts replace the currently used mesh steel inserts.

Colours

- Candy Glory Red
- Pearl Prism Black
- Candy Phoenix Blue



CBR1100XX SUPER BLACKBIRD

Air Management Design

Although the Super Blackbird's basic external design remains identical to the slim, highly aerodynamic speed machine that debuted in 1997, under the distinctive bodywork of

this second generation Super Sport touring flagship lie several major changes that result in a significant increase in the CBR1100XX's overall performance. The first clue to

this power-packed difference can be seen in the nose ducts of the fairing, which now contribute an eye-opening surge in the Super Blackbird's high-speed power output.



CBR1100XX - 995 - E

New Direct Air Intake System

While the CBR1100XX's cavernous 9.5-litre aircleaner still receives a steady stream of cool outside air from the two ports located on either side of the fairing's upper cowl, the two nose ports that used to direct air only to the oil cooler are now connected to a pair of specially designed intake ducts that feed large volumes of high-pressure air directly into the aircleaner for a major boost in top-end power and high-speed performance. The only visible outside difference is in the replacement of the screens positioned immediately behind the port entrances of the current model by a set of vertical lou-

vres positioned deeper in the duct to keep insects and other foreign objects from entering the system while maximizing the system's free-breathing performance. Specially moulded deep in the one-piece air ducts, the recessed positioning of these louvres ensures a steady buildup of air pressure inside the duct, since the forward-positioned screens of the current model would tend to deflect nearly as much air as they let pass through at high speeds.

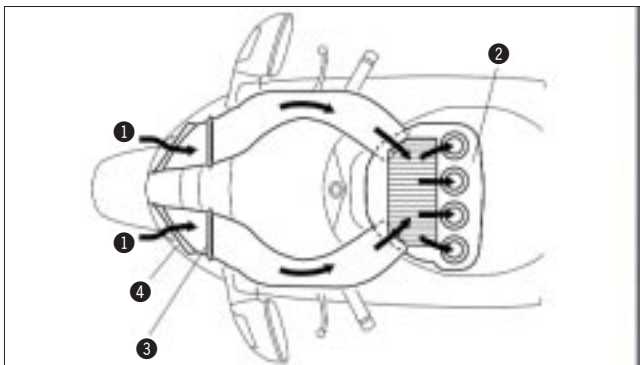
Although the ideal shape for these new Direct Air Intake ducts under controlled conditions at full operat-

ing capacity might be something closer to a straight tube, in the real world of ever-changing variables the engine's intake demands when the throttle is snapped opened at lower speeds would suck all the air out of the ducts before a speed could be reached that would create enough air pressure to sufficiently replenish the air in the system. Therefore, the Super Blackbird's new Direct Air Intake ducts were designed with uniquely shaped large-volume air cavities that ensure a steady supply of air to the engine for quick acceleration from all speeds.

Direct Air Intake (Top view)

- ① Air flow
- ② Aircleaner box
- ③ Louvre
- ④ Intake duct

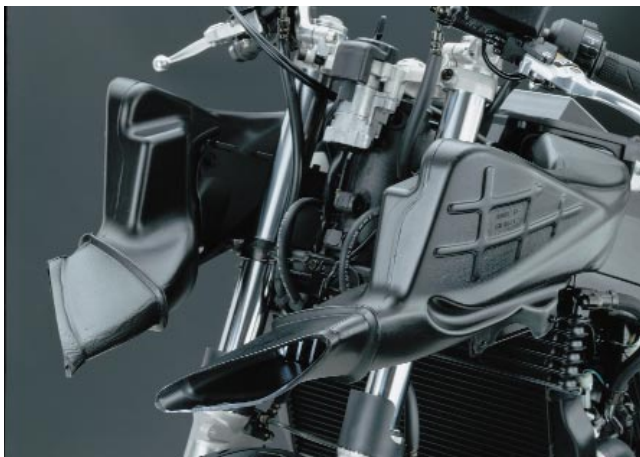
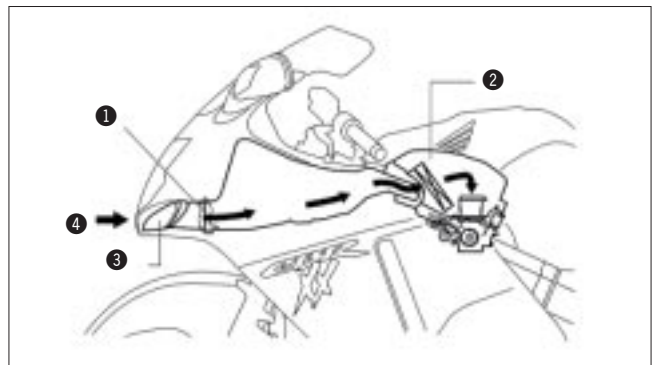
Direct Air Intake (Top view)



Direct Air Intake (Side View)

- ① Louvre
- ② Aircleaner box
- ③ Intake duct
- ④ Air flow

Direct Air Intake (Side View)



CBR1100XX - 996 - E

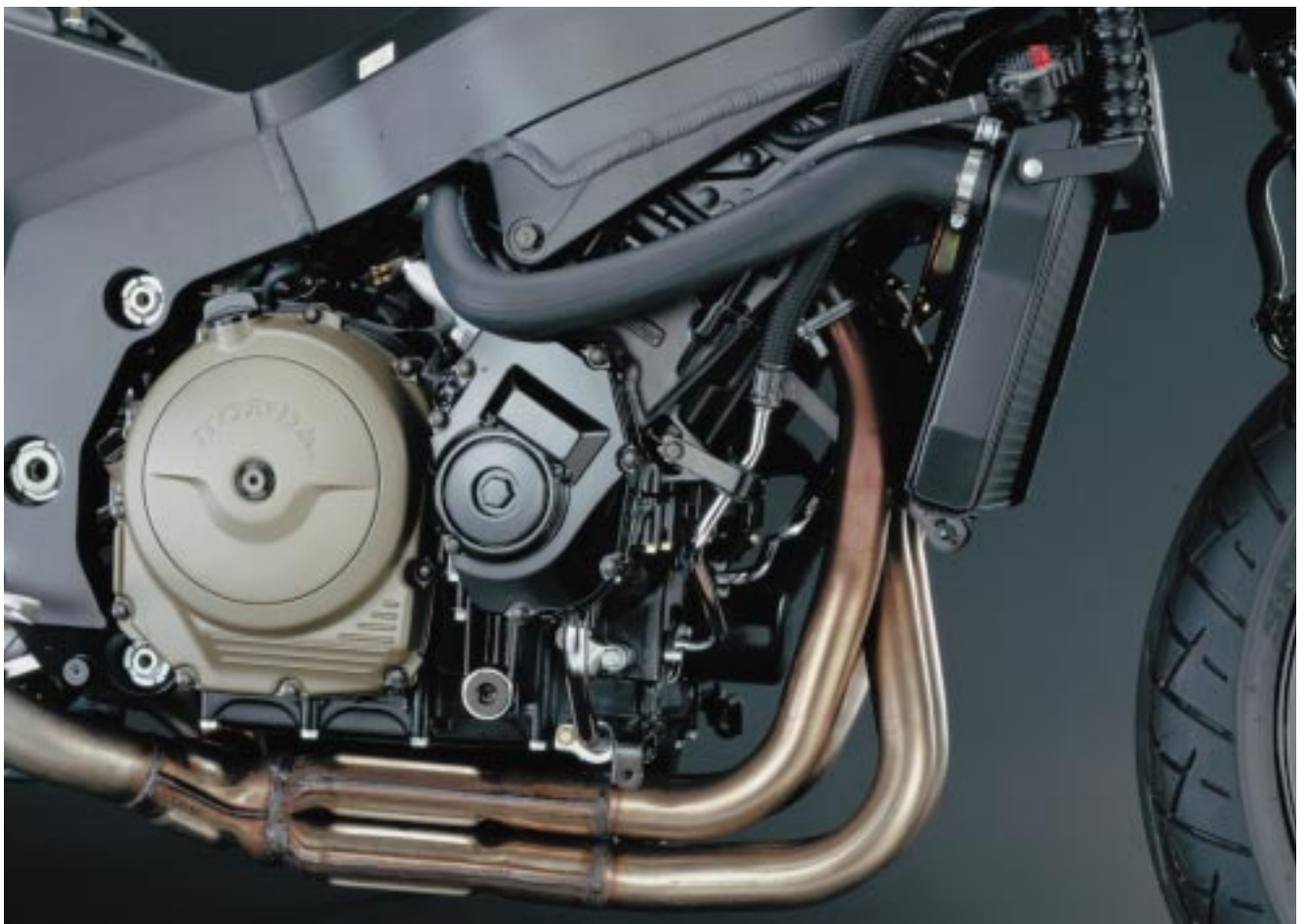
Engine

**Compact, Lightweight and Powerful
1,137cm³ Engine**

The CBR1100XX's high-powered, liquid-cooled DOHC inline-4 engine features the same compact configuration and advanced, high-performance design with which it first debuted. Unchanged are the engine's open-deck casting and side-mounted cam drive, which help realize its ultra-narrow design,

its innovative dual-shaft balancer, which makes possible its remarkably smooth operation and permits the engine to be rigidly mounted in the machine's lightweight dual-spar diamond-configuration aluminium frame, and its high-accuracy 3D map-type digital electronic ignition system, which ensures superb response throughout the XX's wide powerband. For 1999, the XX's engine receives

the benefits of several new technological developments that not only give it a stronger surge of power and performance to keep it running at the top of its class, but also ensure it provides its riders with long years of flawless operation, fewer annoying distractions from the joys of riding and, in a sign of the times, minimized impact on the environment.



CBR1100XX - 997 - E

Engine

New PGM-FI Electronic Fuel Injection System

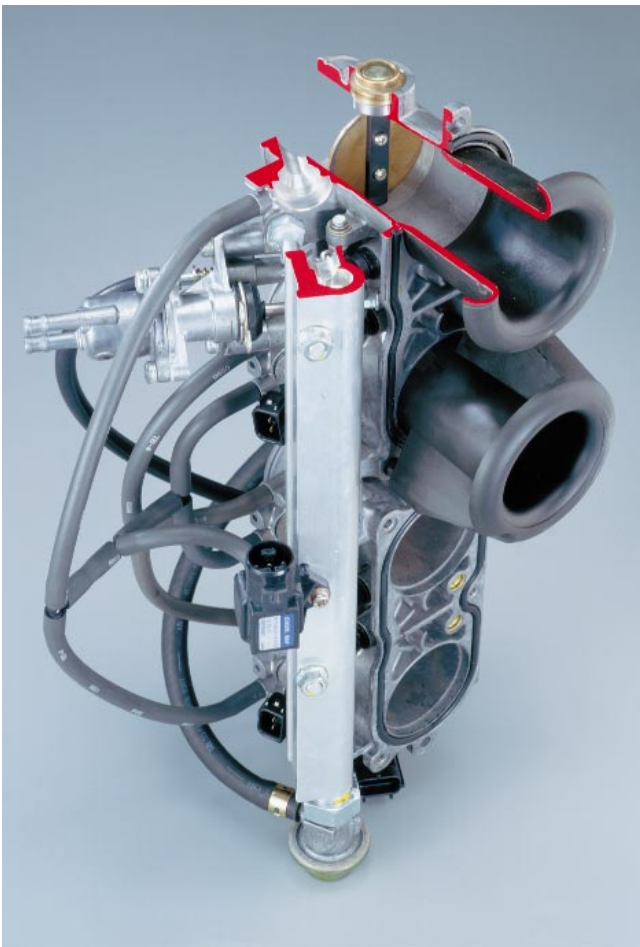
Like the '98 VFR that debuted last year to worldwide acclaim, this year's new Super Blackbird now comes equipped with a high-performance computer-controlled PGM-FI Programmed Fuel Injection system based on the system originally developed for Honda's RC45 Superbike racer. Featuring an advanced design that integrates its Electronic Control Unit (ECU) with the digital electronic ignition in a single compact 'black box,' this all-new system ensures ultra-precise fuel metering for top performance over a wide range of operating conditions and an 8% improvement in fuel consumption figures over the current model. Also, in combination with some

other specialized components, the system helps make possible the achievement of some of the lowest emission figures ever attained in a large-displacement motorcycle.

While large volumes of cool, power-producing air are supplied by the large-capacity, free-breathing aircleaner, which receives an extra boost at higher speeds from the new Direct Air Intake system, the PGM-FI system's four 42mm throttle bodies are fed a steady supply of fuel from an electronic fuel pump built into the large, 24-litre fuel tank. The incoming fuel is then preheated by a line feeding off the coolant system to ensure optimal fuel atomization and a stable air/

fuel mixture is delivered to all cylinders for reliably smooth, powerful and efficient performance in all weather conditions.

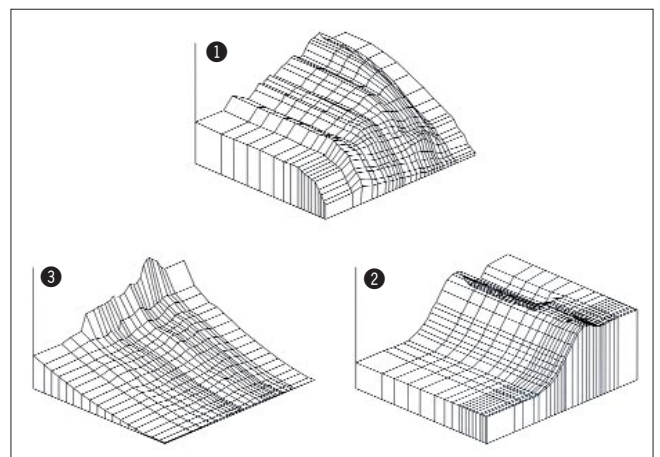
Even the injector bodies' plastic velocity stacks have been specially tuned for optimal performance. The two velocity stacks for cylinders 2 and 3 are 10mm longer than those for cylinders 1 and 4. This difference in length helps smooth the intake timing for each cylinder. Likewise, the internal diameters of the stacks narrow by approximately 1mm at their base in order to maximize their venturi effect and accelerate the flow of air into the cylinders.



PGM-FI Fuel Injection Programming Maps

- ① *Position Throttle Map*
- ② *Ignition Timing Map*
- ③ *Intake Pressure Map*

PGM-FI Fuel Injection Programming Maps



CBR1100XX - 998 - E

Engine

New Automatic Bypass Starter

A quick inspection of the Super Blackbird's right-side handlebar controls finds the distinct absence of a choke lever. However, the lever wasn't merely repositioned, it was eliminated entirely. Partly this is due to the incorporation of the CBR1100XX's new fuel injections system, which provides precisely the correct volume of fuel for most operating and starting conditions. But mostly this is due to the incorporation of a new Automatic Bypass Starter system that provides an extra shot of air to assist starting and warm-up when coolant temperatures fall below 40° C. Below this temperature, fluid viscosity becomes thicker, internal mechanical friction increases, and fuel tends to condense along the inside walls of the throttle bodies and intake ports. These factors combine to create an inertial

resistance that is too great for the fuel injection system alone to overcome, thus making cold weather start-ups difficult and initial warm-up operation rough and irregular.

The bypass starter features a small piston built into each throttle body which opens and closes an internal auxiliary air passage. When open, these air passages provide an extra shot of air into the combustion chambers that enhance combustion and temporarily increase the idling speed. On the system used in the VFR introduced last year, this piston is manually operated by way of a handlebar-mounted lever, what would be the 'choke' lever on a conventionally carbureted machine. However, the XX's new bypass starter system features an actuator that automatically adjusts the bypass starter's position in response to engine

temperature. Upon initial cold start-up, this actuator holds the bypass starter piston open to optimize the flow of air into the intake ports relative to engine temperature. As the engine heats up, and the extra air is no longer required, warm coolant passing through the actuator causes an internal wax to melt, expand, and push the piston rod in to gradually close the auxiliary air passage. At this point, an adequate volume of air flows through the throttle bodies to ensure steady idling without requiring assistance from the bypass starter. With the addition of this automatic bypass starter system, start-ups are now as quick and simple as the touch of the starter button, warm-up operation is kept to a minimum, and engine operation is as smooth as can be—whatever the conditions.

By-Starter Auto-Choke System

① *Warm conditions*

(Over 40°C coolant temp.)

② *Air flow*

③ *Max. stroke*

④ *Wax*

⑤ *Coolant*

⑥ *Intake port*

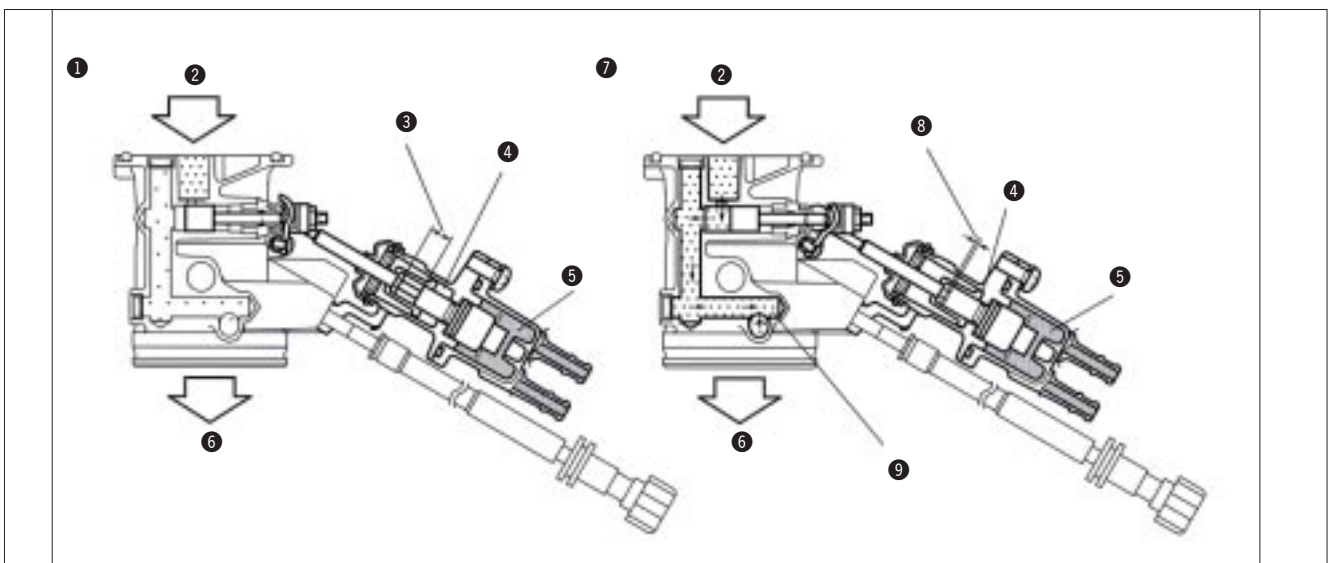
⑦ *Cold conditions*

(Under 40°C coolant temp.)

⑧ *Min. stroke*

⑨ *Air/fuel mixture*

By-Starter Auto-Choke System



CBR1100XX - 999 - E

Engine

New 'Knock Sensor'

Whether mechanical or electronic, an engine's maximum spark advance for each engine speed range is usually set at a much lower degree than would be best for optimal combustion, particularly at higher engine speeds. This setting discrepancy owes to the problem of detonation or 'knock' that can occur if the ignition timing becomes too far advanced. Thus, the spark advance is generally set below the lowest level in the engine's entire rev range that detonation is likely to occur. This setting maybe fine for eliminating 'knock,' but is not the best for achieving an engine's most efficient performance.

The Super Blackbird's new digital ignition system now features a new 'knock sensor' that automatically and precisely adjusts the spark advance to maintain it at the optimal setting for all engine speeds while minimizing the occurrence of detonation, or knock. Mounted to the rear of the cylinder block, this knock sensor detects even the most minute instances of detonation and transmits that information to the ECU. The ECU then quickly and automatically retards the spark advance in intervals of 2' until no further knocking is detected, then gradually increases the advance in much smaller intervals of 0.35' to maintain

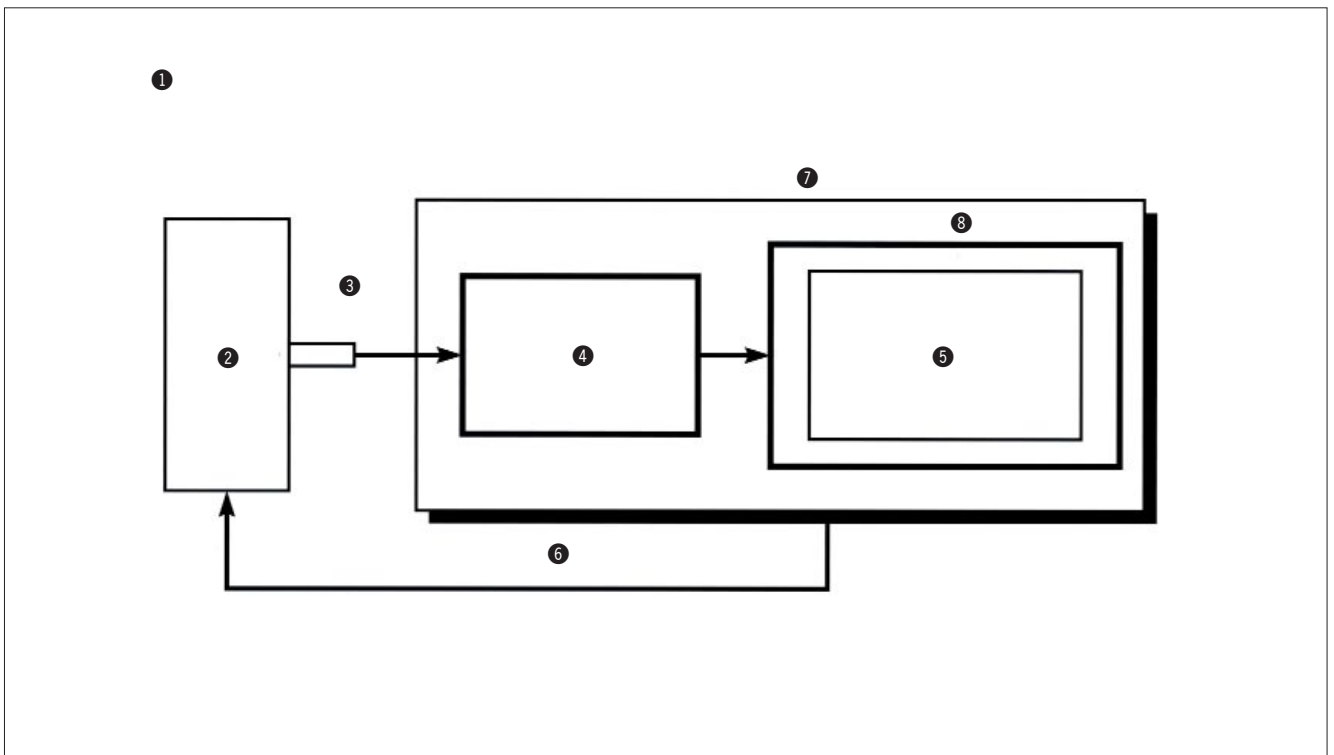
it at the optimum angle just below where detonation occurs.

The addition of this system greatly improves engine performance, response and drivability, especially in the 3,000 to 6,000rpm range. However, while it is designed to prevent detonation under normal operating conditions, the system is NOT designed to compensate for the use of low-octane fuel nor protect the engine from other unusual conditions that might induce detonation.

Knock Control System

- ① Engine conditions
(Engine speed, throttle angle)
- ② Engine
- ③ Knock sensor
- ④ Knock IC
- ⑤ Ignition controller
- ⑥ Ignition signal
- ⑦ ECU
- ⑧ CPU

Knock Control System



CBR1100XX - 9910 - E

*Engine***New Stainless Steel 4-2-1-2 Exhaust System**

The CBR1100XX's new stainless steel 4-into-2-into-1-into-2 exhaust system features thinner wall tubing for a 300g loss of weight compared to the painted steel system it replaces. Its large 6.4-litre polished stainless steel canister-style silencers were also modified with thinner-wall internal plates to achieve a 640g reduction in combined weight.

To give the engine a more solid boost of low-to-midrange power and stronger acceleration, the arrangement of the exhaust pipes was changed from the current model's 180° pairing of the pipes leading from cylinders 1 & 2 and 3 & 4 to a 360° pairing of cylinders 1 & 4 and 2 & 3. While this new grouping tends to reduce the engine's top-end power output somewhat, the Super Blackbird's

new Direct Air Intake system more than compensates for the loss with its big surge in high-speed performance.



Engine

**Low-Emissions HECS-3
(Honda Evolutional Catalyzing System)**

Demonstrating Honda's concern for the environment and dedication to minimizing the motorcycle's contribution to air pollution, Honda has chosen to incorporate its highly effective HECS-3 catalyzer system into the German and Swiss versions of the CBR1100XX to reduce its

emissions output to unprecedented levels for its class. First introduced last year on the new VFR, the system's low emissions figures are made possible by the incorporation of the engine's new fuel injection and air injection systems and the further addition of an exhaust pipe-mounted oxygen sensor and a pair of compact cylindrical catalyzers built into the

silencers' inlet tubes. Remarkably, the system's resulting emissions figures are below even those tentatively proposed for Europe's future EURO-2 emissions regulations, while its fuel consumption figures are fully 15% lower than for the current model.



CBR1100XX - 9912 - E

Engine

Air Injection System

Now featured on several Honda models in the interests of reduced exhaust emissions, and included on all versions of the '99 CBR1100XX, this new, relatively simple system directs a precisely timed jet of fresh air from a small airbox mounted atop the engine's cylinder head cover down to each cylinder's exhaust port, just behind the exhaust valve. This shot of extra oxygen to the hot, pressurized gases rushing out of the combustion chamber helps prolong the burning of the exhaust's residual fuel and pollutants into the port. The result is more complete and efficient combustion,

and a reduction in carbon monoxide (CO) and hydrocarbon (HC) emissions that ensures complete compliance with Europe's current EURO-1 emissions regulations.

'O2' Exhaust Sensor

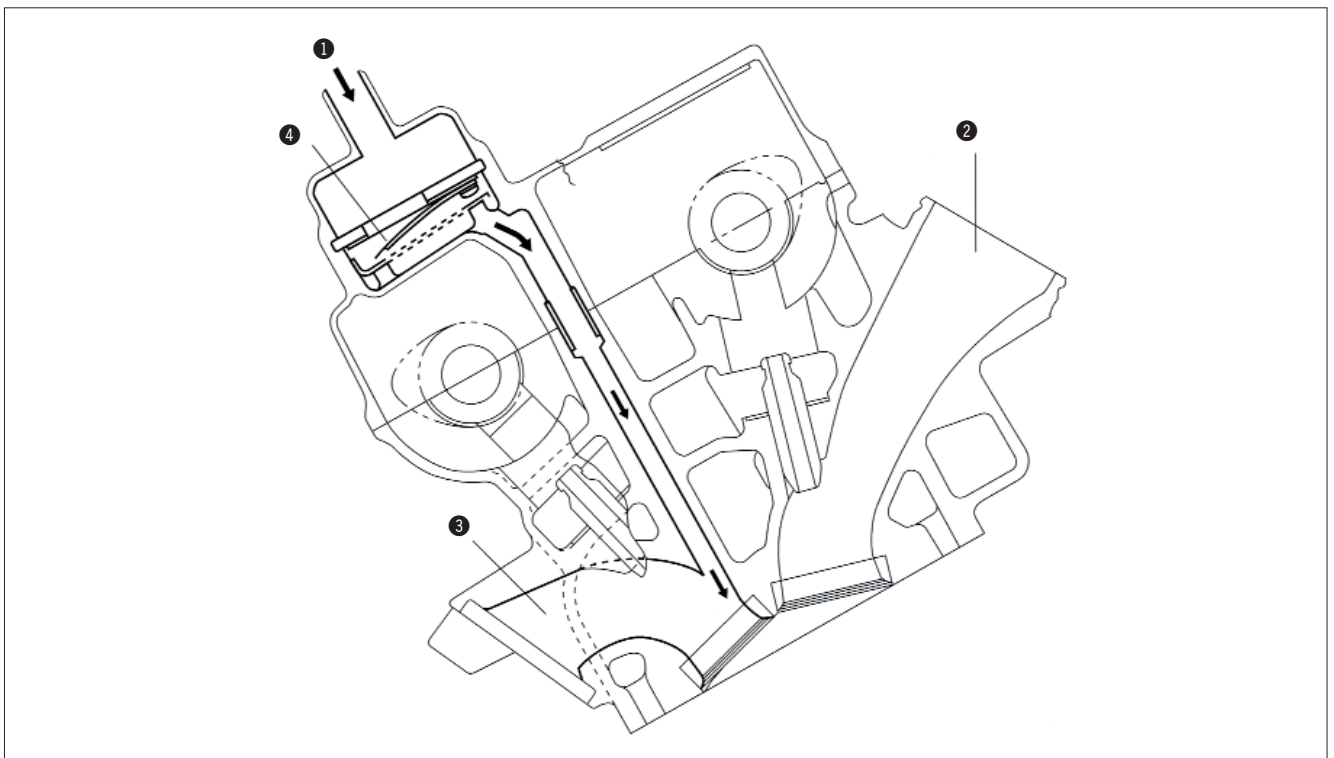
Like the system featured on last year's VFR, the ECU of the CBR1100XX's new PGM-FI system continually monitors several critical variables of engine operation in order to ensure precise fuel control. For the low-emissions version of the XX, the ECU also monitors the digital output of a single oxygen sensor mounted in the exhaust system just before the junction leading to the two silencers.

This oxygen sensor constantly measures the fluctuating oxygen levels in the engine's exhaust gases, allowing the CPU to instantly calculate combustion efficiency and adjust the intake's air/fuel mixture accordingly. In order to maintain a precise balance of hydrocarbons (HC) and carbon monoxide (CO) emissions on one hand and nitrous oxides (NO_x) emissions on the other, this 'O2 feedback' system maintains the air/fuel ratio within a pre-designated tolerance range centred on an optimal ratio of 14.7 : 1 that permits the catalyzers to perform at their highest efficiency under most operating conditions.

Air Injection System

- ① Air flow
- ② Intake port
- ③ Exhaust port
- ④ AI reed valve

Air Injection System



CBR1100XX - 9913 - E

Engine

'3-Way' Catalyzer

The final components in the CBR1100XX's low-emissions system are the cylindrical catalyzer units installed in the exhaust system immediately before each of the canister-type silencer bodies. These compact '3-way' catalytic converter elements complete the system's high-efficiency operation by chemically minimizing the emissions of CO, HC and NO_x gasses.

New Transmission Friction Damper

In an effort to minimize the annoying 'clunk' of metal against metal that often occurs when motorcycles are shifted into gear from neutral at stop, particularly in cold conditions, the CBR1100XX's engineers developed a simple yet effective new damping system that softens the jolt. Mounted on the transmission's main shaft, this hard rubber 'friction' damper quickly slows the spinning main shaft when the clutch is pulled in to reduce the difference in speed between it and the stopped countershaft, thus reducing the shock to the gears on the two shafts as they mate, and significantly reducing the resulting 'clunk.'

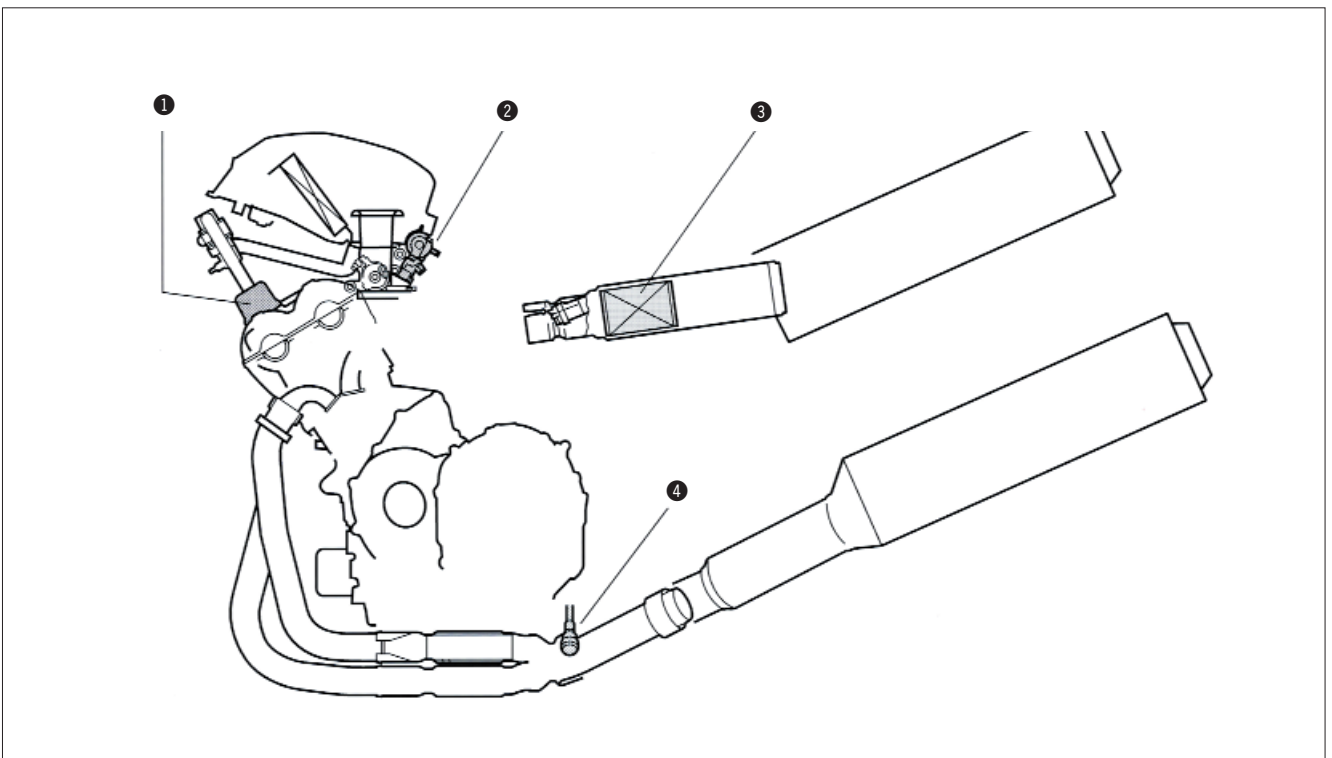
New, Lighter-Action Clutch

Although the CBR1100XX's hydraulic clutch action was never especially heavy, efforts were still made to make it as light and easy-to-use as possible. This lighter action was achieved with a change in the clutch ratio and improvements to the master cylinder that combine to reduce clutch lever pressure by approximately 15%. The use of a newly developed clutch friction plate material and stronger springs also permitted a reduction in the number of plates from nine to seven while maintaining the same diameter and rugged capacity to match to the engine's enormous power.

Low-Emissions System

- ① Air injection system
- ② Fuel injector
- ③ Catalyzer element
- ④ O₂-sensor

Low-Emissions System



CBR1100XX - 9914 - E

Engine

Maximized Cooling Efficiency

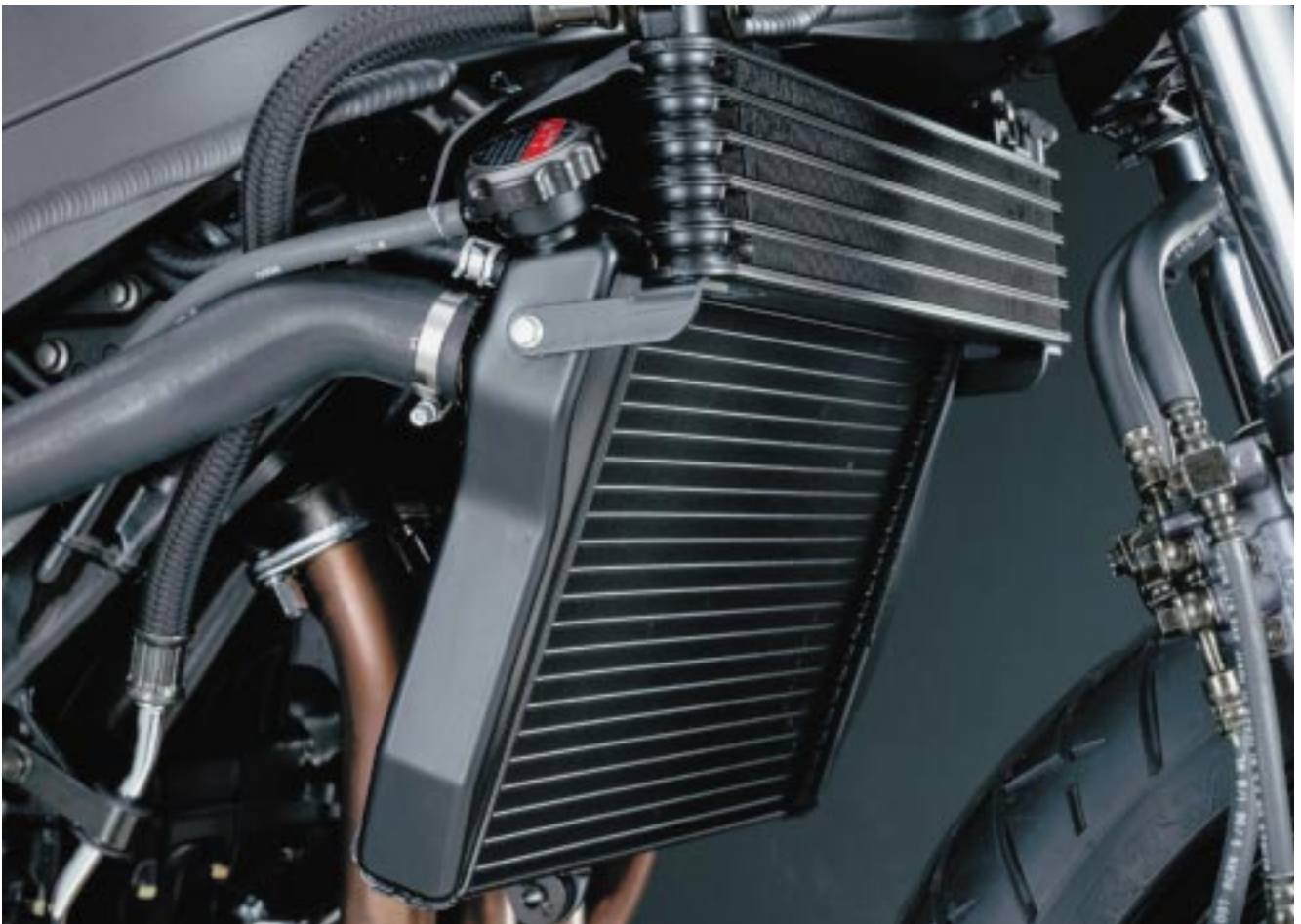
The new CBR1100XX's cooling capacity was also improved with the addition of a new, larger-volume aluminium radiator. Positioned lower in the fairing to make room for the new Direct Air Intake system, this new radiator features a thinner core (reduced from 32 to 24mm) but a broader surface area that improves cooling efficiency.

The radiator also features a new fan that draws air more efficiently to ensure optimum cooling when stopped or stuck in traffic. Instead

of rotating within a circular frame, as in a conventional design, the blades of the fan are now joined to the outer ring, which now also rotates close to the rear surface of the radiator. This new design concentrates the fan's suction effect through the radiator, rather than also drawing air ineffectively in from around the blades, thus maximizing its suction power.

The CBR1100XX's oil cooler was also moved down from its current position in front of the steering head to make room for the new Direct Air Intake system. Now mounted

directly to the upper edge of the radiator, where it catches a steady current of air entering the fairing from above the front wheel, the new oil cooler was also made wider for a significant increase in volume that combines with the new positioning to ensure greatly increased cooling capacity over a wider range of riding conditions.



CBR1100XX - 9915 - E

Chassis

Rigid, High-Performance Aluminium Frame
Providing a superb balance of light weight and rigidity, the CBR1100XX's aluminium frame features a pair of massive extruded dual-box-section spars welded to a rigid cast steering head and lightweight gravity die-cast pivot plates in a diamond configuration that incorporate the low-vibration engine as a stressed member for exceptional structural strength and remarkably lightweight handling.

Already built to the highest specifications, its only modification was made to the shape of the crossbar extending between the frame's main spars just behind the steering head. The previous extrusion had a tendency to resonate and amplify certain engine sounds such as gear shift noise. The irregular oval shape of the new crossbar eliminates this noise problem.



Chassis**Optimized Cartridge-Type Front Fork**

The Double-X's highly rigid and responsive 43mm cartridge-type front fork still features the same H.M.A.S. design for confident handling and compliant damping. The only modifications to this system include the substitution of new aluminium cartridge rods in place

of the current fork's steel pieces for a small but significant weight reduction, and the fine-tuning of its damping settings to provide smoother operation over a wider range of riding conditions. The fork's steel stanchion tubes are still protected by cast resin chipping guards mounted on top of the fork sliders.



Chassis**Refined Dual Combined Brake System**

The CBR1100XX's 'Evolution' version Dual-CBS is essentially unchanged from the current model. Exclusive to Honda's most advanced motorcycles, the system features a complete set of three specially designed three-piston calipers interconnected by two separate hydraulic systems and a compact servomechanism that applies a controlled ratio of hydraulic pressure to the rear brake whenever the front brakes are engaged. The system provides

a balanced distribution of braking forces to both wheels for smoothly assured braking control when either the front brake lever or rear brake pedal are used.

A delay valve smoothes front brake engagement to minimize front-end dive during minor speed corrections for more confident ease of operation over irregular road surfaces, such as slippery downhill grades and wet cobblestone roads.



Chassis

To further enhance the system's sport riding performance, this year its integral proportional control valve (PCV) received new settings that provide a more powerful feel of front wheel braking forces, especially when the foot brake is used. The new PCV settings also provide a smoother, more linear roll-off

of the rear wheel's braking force after the rear brake's maximum pressure limit has been reached.

Further changes to the brake system include new aluminium inner brake rotors like those used on the CBR900RR Fireblade that hold the floating rotors with seven

inserts instead of the six used by the current machine's stainless steel inner rotors. An increase in the size of the front wheel bearings also resulted in a wider spacing between the rotors' mounting bolts. The rear disc brake features the same standard, single-piece 256mm rotor.



CBR1100XX - 9919 - E

*Electrical Accessories***New Anti-Theft Ignition Security**

As concerns about motorcycle theft continue to grow, Honda has made concerted efforts to help its customers protect their investments. From introducing convenient carrying spaces for carrying strong 'U'-locks and chains to providing handy and effective lock-down points in a motorcycle's frame and bodywork to secure them, Honda motorcycles help their owners fight back against theft.

Being introduced this year for the first time ever on Honda's newest, most popular motorcycles—and notably on the Super Blackbird—is an innovative new anti-theft ignition system that prevents the engine from being started by any other than the motorcycle's two original keys.

This new anti-theft system features a special coded chip implanted in each of the keys supplied with the motorcycle and a coil antenna built into the ring surrounding the upper edge of the key switch that instantly detects the presence of an encoded key. This code is then transmitted to the ignition and fuel injection system's ECU (electronic control unit) and compared against the two code numbers (one for each key) that the ECU is programmed to recognize.

If the code is correct, as indicated by the new LED positioned in the lower right quadrant of the tachometer, the engine can be started normally. However, if the key code doesn't match the ECU's code, even if the key is identical

in every other way, the ignition remains switched off and the engine cannot be started. Likewise, since the engine is disabled at the ignition's 'black box,' it cannot be bypassed by either hot-wiring the ignition or exchanging the combination switch module. The system also features a more robustly constructed combination switch that more effectively resists tampering.

While the Super Blackbird's new anti-theft ignition system cannot protect the motorcycle against every possibility of theft, it does effectively prevent the motorcycle from being ridden away, thus preventing one of the most common forms of theft, and hopefully convincing potential thieves and joyriders to look elsewhere.

CBR1100XX - 9920 - E



Electrical Accessories

New Design Taillight

The Super Blackbird also features an all-new taillight that now draws a stronger design parallel to its distinctive 'piggyback' headlight. This larger new 'dual element' taillight positions its two bulbs

in the same over/under 'piggyback' layout as the headlight, and features a distinctive new dual multi-reflector design that provides a brighter, more attention-getting view for those following from behind.



CBR1100XX - 9921 - E

Equipment

Advanced Radial Tyres

The cutting edge of tyre technology also continues to advance each year, and the CBR1100XX keeps the pace with a new set of 'Z'-rated tyres that ensure optimum control

and handling comfort at high speeds. As before, these are mounted on elegant, lightweight hollow-section triple spoke cast aluminium wheels.



CBR1100XX - 9922 - E

Equipment

Larger, New 24-Litre Fuel Tank

The addition of the CBR1100XX's new fuel injection system also allowed the aircleaner to be repositioned several centimeters farther forward while maintaining its current volume. This repositioning provided an extra space into which the underside of the fuel tank could be expanded, resulting in an additional two litres of fuel capacity, and subsequently a significantly extended touring range.

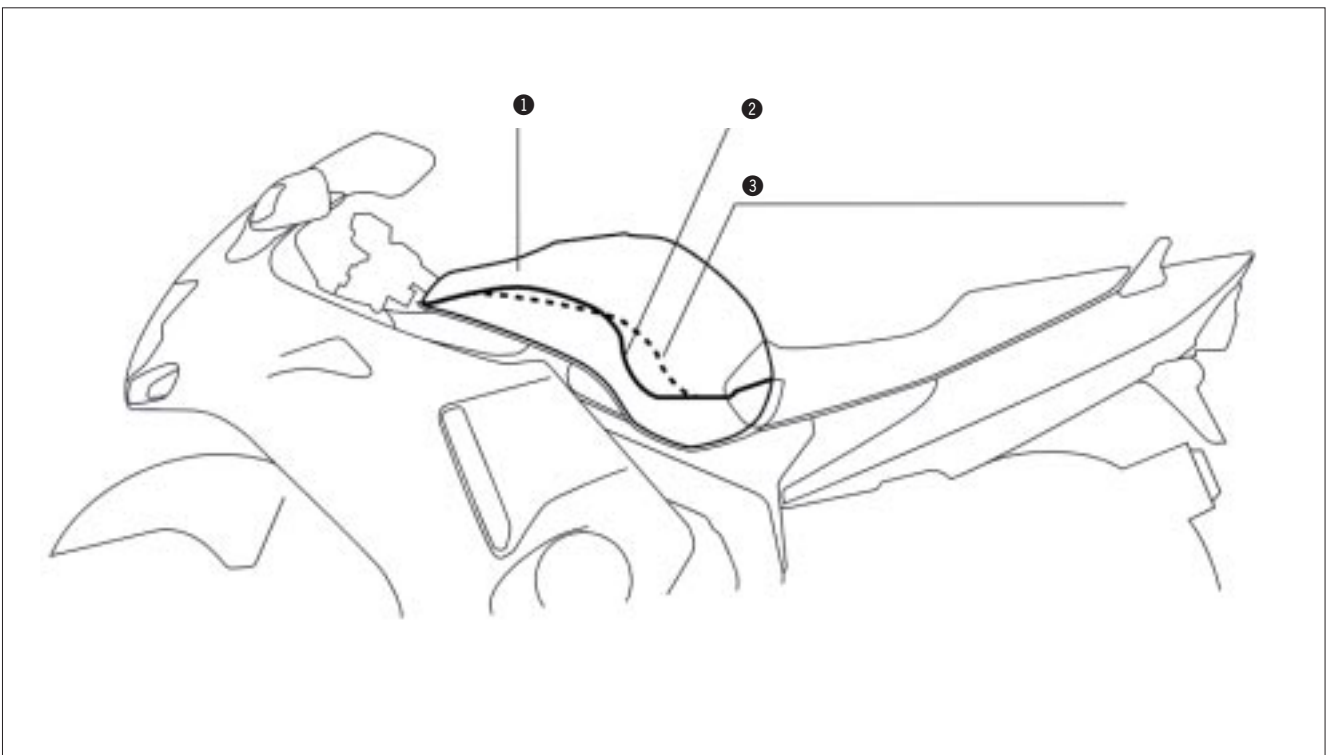
The tank incorporates an electric fuel pump to ensure a steady supply of fuel to the injectors, while the low-emissions version of the Super Blackbird features a narrower, 'lead-free-type' inlet that prevents leaded fuel from accidentally being added, which could seriously damage the exhaust system's built-in catalyzers. (This special inlet reduces capacity to 23 litres.)

Fuel Tank Cross-Section Comparison

- ❶ Fuel tank
- ❷ New CBR1100X (24 litres)

- ❸ Current model (22 litres)

Fuel Tank Cross-Section Comparison



CBR1100XX - 9923 - E

Equipment

Weight-Saving Componentry

To keep the CBR1100XX's weight to a minimum, even with the addition of its new fuel injection and Direct Air Intake systems, no components were overlooked in the quest of lighter weight. The CBR's aluminium footpegs were reduced in size for a savings of 100 grams, handlebar castings were redesigned, realizing another 80 grams weight reduction, and even the brake

lever was trimmed, although for a slightly different, somewhat amusing reason.

It seems that at the nearly 300km/h autobahn speeds the Super Blackbird is capable of reaching, the wind pressure on the current brake lever's frontal surface area was strong enough to engage the brake light switch.

So, to minimize the chance of this odd, unexpected effect, the brake lever's frontal aspect was slimmed and rounded to make it more 'aerodynamic' and thus less likely to be moved by the wind. Strange, but true, and all in the interests of making EVERY detail of the CBR1100XX Super Blackbird the best it can possibly be.



CBR1100XX - 9924 - E

Specifications

Specifications

CBR1100XX Super Blackbird (ED-type)

Engine	Liquid-cooled 4-stroke 16-valve DOHC inline-4
Bore × Stroke	79 × 58mm
Displacement	1,137cm ³
Compression Ratio	11 : 1
Carburation	Electronic fuel injection
Max. Power Output	164PS/9,500rpm (DIN) (121kW/9,500min ⁻¹)
Max. Torque	12.7kg-m/7,250rpm (DIN) (124Nm/7,250min ⁻¹)
Ignition	Computer-controlled digital transistorized with electronic advance
Starter	Electric
Transmission	6-speed
Final Drive	'O'-ring sealed chain
Dimensions	(L×W×H) 2,160 × 720 × 1,170mm
Wheelbase	1,490mm
Seat Height	810mm
Ground Clearance	130mm
Fuel Capacity	24 litres (including 4-litre warning light reserve)
Wheels	Front/Rear Hollow-section triple-spoke cast aluminium
Tyres	Front 120/70 ZR17 (Radial) Rear 180/55 ZR17 (Radial)
Suspension	Front 43mm H.M.A.S. cartridge-type fork, 120mm axle travel Rear Pro-Link with stepless rebound-adjustable gas-charged H.M.A.S. damper, 120mm axle travel
Brakes	Front 310mm × 5mm dual hydraulic disc with Combined 3-piston calipers and sintered metal pads Rear 256mm × 5mm single hydraulic disc with Combined 3-piston caliper and sintered metal pads
Dry Weight	223kg