



Press Information 2000



X-Blade



X-Eleven

Introduction

For quite a few years now, fully covered Super Sport machines have dominated the high-performance classes with their uncompromising combinations of power, speed, handling and high-velocity aerodynamics. However, the basic, unfaired, or 'naked' motorcycle never seems to lose its appeal. Always the closest to the satisfying soul of the riding experience, naked machines heighten the sensation of freedom and intimacy with the elements that a full fairing, although comfortable, just cannot provide.

In the bigger displacement classes, the thrilling feeling of immediacy as one grabs a handful of throttle and lets the beast loose on a wide open road has got to be one of the most soul-stirring experiences there is. Even a growing number of women riders have grown dissatisfied with merely sitting on the back while somebody else drives, and instead want to experience that powerful rush of excitement for themselves. Honda has several naked models out on the market, but none now offers the full-bodied power poten-

tial that Honda's biggest engines are capable of producing. After considerable deliberation and design work, Honda now feels the time is right to correct that deficiency, and make available a naked machine that provides a definitive new level of performance and style unlike anything that's ever been seen or experienced till now. An astounding new naked motorcycle to usher in a new century of riding exhilaration and pleasure.



X-Eleven - 20002 - E



X-Eleven

Development Concept

Since the debut of Honda's historic CB750 K0 back in 1968, the Honda name has been synonymous with high-performance motorcycles powered by exciting inline four cylinder engines covering the widest range of displacements and configurations. In recent years, while Honda has generally concentrated on developing its most advanced, high-powered engines for the high-performance Super Sport class, a growing chorus has voiced desires for a more traditional standard, or 'naked' model that offers many of the innovative features found in the Super Sports.

This is especially true in Europe, where unfaired standard machines have won a growing following owing to their well-rounded performance and excellent perceived 'value for money.' However, rather than creating just another general purpose naked machine, Honda's engineers strove to redefine the standards of the class with a full-featured new entry that offers performance and styling unlike anything that has gone before. A solid step in this direction was last year's CB1100F prototype, which was designed to gauge interest in the concept

of a modern, high-powered naked machine. Attracting considerable attention with its muscular proportions and engine boldly displayed hanging from a hidden, diamond-configuration frame, the CB1100F certainly looked the part of a new, dynamic 'Performance Naked' model. However, its slim, single backbone frame had no chance of providing the optimal balance of performance necessary to stand up to the power potential of its intended 1100cc engine.





X-Eleven

Development Concept

From the very start, the main goal in the development of this new Europe-only 'Performance Naked' model was to build a uniquely modern, next-generation naked motorcycle around the remarkable engine powering the CBR1100XX Super Blackbird, thus creating an all-new super-standard offering sharper style and more breathtaking performance than anything else in its class. One critical factor would unquestionably be its feeling of power. Unlike the performance of a fully faired Super Sport motorcycle, which strives for top speed and top performance at high rpms, the new 'Performance Naked' should deliver a breathtaking thrust of power at the twist of its throttle from anywhere in its powerband, without resorting to downshifts in order to access the

stronger performance that develops at higher engine speeds.

The new model's frame should also express the strength and character of its powerful engine, and so a massive twin-spar aluminium frame was specially designed to give the new machine a solid base of smoothly assured handling, regardless of its power and acceleration potential.

Likewise, it was strongly felt that this new 'naked' should not be deprived of the latest innovations in performance, safety and environmental protection that Honda has developed over the last few years. So Honda's world-leading PGM-FI fuel injection, Dual Combined Brake System (Dual-CBS), Honda Evolutional Catalyzing System (HECS3) and Honda Ignition

Security System (H.I.S.S.) were all designated for inclusion in the new machine from its first inception.

The final result is an ultra-modern, high-performance creation dubbed the 'X-Eleven,' which combines the arm-pulling power of a specially tuned traditional inline-four engine with a superbly strong aluminium twin-spar frame and an impressive collection of modern technological innovations wrapped in a fully integrated package of starkly original design. The remarkable new X-Eleven now stands poised to roar down the road with the power and commanding presence of a fighting bull, providing unending excitement and a deeply satisfying thrust of performance for anyone who dares to test its mettle.





X-Eleven

Design Concept

Honda's newest foray into the 'Performance Naked' big bike class features uniquely modern styling that focuses the X-Eleven's mass forward around the engine and fuel tank—somewhat like the muscular shoulders of a fighting bull—and then tapers sharply back through the seat to the aerodynamic slash of its tail cowl to give the impression of a powerful animal poised to charge.

Playing the central part in this aggressive design is the X-Eleven's massive twin-spar aluminium frame, which unmistakably conveys an impression of the machine's imposing breadth. Viewed from the front, the X-Eleven's large, aerodynamically designed radiator shroud commands attention with its large, aggressive, deeply louvered design. This unique creation has its greatest effect at mid-to-high speeds, where it serves the dual purpose of optimising the radiator's cooling efficiency while enhancing the rider's feel of the front tyre on the road.





X-Eleven

Design Concept

Positioned above the large, clear-face multi-reflector headlight, sits an elegantly crafted, fully integrated meter assembly featuring an aerodynamic mini-cowl design that visually links the steering head area's design with the rest of the X-Eleven's sparse, muscular form while providing the added benefit of effectively diffusing the wind blast that often deflects up

from the instruments of standard motorcycles at higher speeds.

Cleanly conforming to the broadly curving lines of the frame, the X-Eleven's giant 22-litre fuel tank provides the ultimate expression of the machine's massive proportions. Deeply angled knee indents accentuate the machine's narrow waist, while behind it, the low,

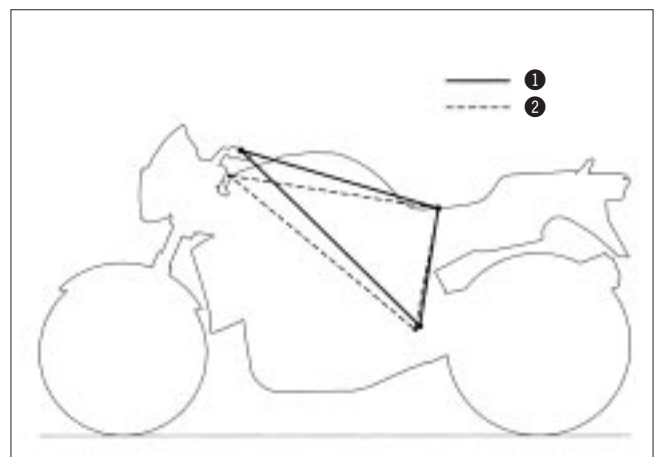
comfortably contoured stepped seat emphasises the sensation of sitting 'in' the beast, rather than merely 'on' it. To the rear, the X-Eleven's sleekly styled seat cowl slices upward to convey a lighter image that further emphasises the massive bulk of the engine, tank and front shroud, while giving maximum exposure to the X-Eleven's monstrous rear tyre.

Riding Position Comparison

① X-Eleven

② CBR1100XX

Riding Position Comparison



X-Eleven - 20006 - E



X-Eleven

Colouring Concept

The all-new 'Performance Naked' X-Eleven leaves its mark on the roads of Europe with massive proportions projecting a commanding presence and a bellowing rumble of power that takes control of the highways with an authority that won't easily be forgotten. To give powerful emphasis to the might of this rampaging beast, its design team settled on three deeply impressive colour variations that complement its modern and aggressive lines with a civilising look of fine quality.

First and foremost is a sullen metallic black that prowls the streets like a beast of prey and comes alive in the bright sunshine to accentuate

the X-Eleven's determined strength and breathtaking performance.

In satin-like candy red, the X-Eleven's bodywork beautifully complements the frame's off-silver colour to give this new streetfighter a powerful daytime appeal that draws rapt attention to the dynamic curves of its unique design. Finally, a brilliant candy blue lightens the X-Eleven's image to call attention to its underlying essence of fun and sporty, free-spirited character.

The X-Eleven's major frame sections are coated in a slightly brown-tinted metallic silver that accentuate its presence while providing a complementary contrast to the colour of its body parts. In bright contrast, its

massive swingarm is clearcoated to show off its wide expanses of high-grade aluminium with a purposeful high-tech look. And with engine block and wide-rimmed triple-spoke wheels painted a lustrous solid black, the engine's covers features a low-reflection metallic gold that combines with the sheen of its stainless steel exhaust pipes to leave a lasting impression of the X-Eleven's superb quality of execution.

Colours

- Mute Black Metallic
- Candy Blazing Red
- Candy Tahitian Blue





X-Eleven

Air Management Design

The X-Eleven's unique 'aero-naked' design sets new standards in both looks and performance in the big bike class. While staying close to the fundamentals of unfaired 'naked' motorcycle design, the X-Eleven takes a unique approach to maximising the machine's total range of enjoyment by introducing some brilliantly designed aerodynamic innovations that bring together form and function to enhance its performance and comfort while retaining the exhilarating 'wind in your face' experience that 'naked' motorcycle riders find the most satisfying.

Aerodynamic Radiator Shroud

If there's any one aspect of the radical new X-Eleven that really breaks with the norm, it is undoubtedly its monstrous front radiator shroud. Bigger and more prominent than anything ever seen on a 'naked' motorcycle, this shroud's innovative design tackles two fundamental problems faced by high-powered unfaired motorcycles travelling at high speeds.

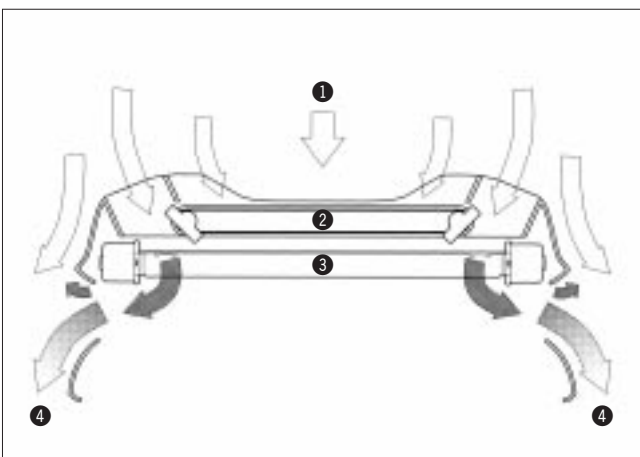
First, due to high-velocity air flow characteristics, the radiator in a conventional naked configuration would have to be prohibitively larger and wider to produce the degree of cooling efficiency required by a high-performance, high-displacement engine like the X-Eleven's, with the end result being greatly reduced high-speed performance as the engine works to push this large 'door' through the air.



Radiator Shroud Air Flow

- ① Inlet Air Flow
- ② Oil Cooler
- ③ Radiator
- ④ Outlet Air Flow

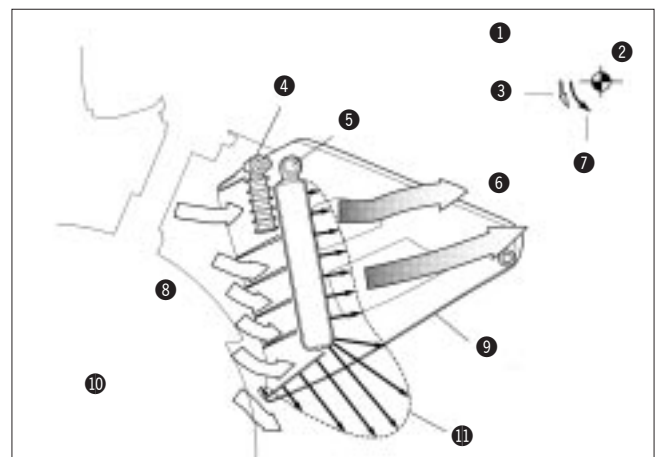
Radiator Shroud Air Flow



Radiator Shroud Air Management

- ① Downforce Comparison
- ② C.G.
- ③ Without Radiator Shroud
- ④ Oil Cooler
- ⑤ Radiator
- ⑥ Outlet Air Flow
- ⑦ With Radiator Shroud
- ⑧ Inlet Air Flow
- ⑨ Radiator Shroud
- ⑩ Front Wheel
- ⑪ Degree of Downforce

Radiator Shroud Air Management





X-Eleven

Air Management Design

To combat this effect, the deep louvres designed into the facing side of the X-Eleven's radiator shroud work to capture large blocks of air, and prevent it from escaping across the flat surfaces of the oil cooler and radiator, thus creating a high-pressure zone that forces the air through the two radiators' smaller ventilation passages to optimise their high-speed cooling efficiency.

The large ports on either side of the shroud also contribute to this effect by creating a vacuum that effectively pulls hot air out from the area between the radiator and the engine, reducing air pressure behind the radiator to further accelerate the flow of air through it.

Another problem faced by high-performance naked motorcycles is a tendency toward an unsettling vagueness in the bike's steering that

results from the turbulent force of wind on the motorcycle at extremely high speeds, making it seem as if the front wheel were losing contact with the ground. For most naked motorcycles, these speeds are rarely ever reached, so the problem is essentially non-existent, but for a naked motorcycle offering the performance of the X-Eleven, this vague sensation of not being able to feel the tyre on the ground can have quite an unsettling effect on riding enjoyment. One way around this would be to install a more aerodynamic fairing, but that would entirely contradict the main appeal of a naked machine. Instead, the X-Eleven's design team worked in the wind tunnel to come up with an entirely different approach.

Taking a hint from high-speed automotive technology, the team investigated the application of the front air dams, or 'spoilers' used

on many race cars to induce a stabilising downward force on the front tyres for faster cornering speeds, and effectively incorporated this design technology into the design of the radiator shroud. The downward angle of the shroud's louvres—especially the dual projections of its curved bottom lip—provide a similar 'spoiler' effect that exerts a steadying downward force on the X-Eleven's front wheel at mid-to-high speeds for a more secure feeling of road contact, while having little effect on handling and cornering at lower speeds.

The X-Eleven's large radiator shroud plays such an important role in optimising both mid-to-high speed handling and high-speed cooling efficiency that its enhanced feeling of solid road contact and unrestricted power at high speeds is simply remarkable.





X-Eleven

Air Management Design

Integrated Aerodynamic Mini-Cowl

Another aerodynamic performance feature of the X-Eleven is, amazingly enough, its fully integrated electronic meter console. While performing its conventional duty as a modern and stylish meter display, the console's curvaceous upper surface features a unique design that reduces the jet blast of air that would normally hit the rider in the upper shoulder to face area. Under high-speed riding conditions, conventional dual meters have a tendency to funnel the rushing

wind upward in the direction of the rider's neck, creating a blast of air that makes unfaired riding at high speeds an uncomfortable ordeal, especially within the range of 150 – 180km/h. The X-Eleven's unique upper meter surface design features a special, wind tunnel-designed dip and cresting rise up its centre backbone, between the two meters, that fans out the gust of air to minimise the blast and greatly improve riding comfort.

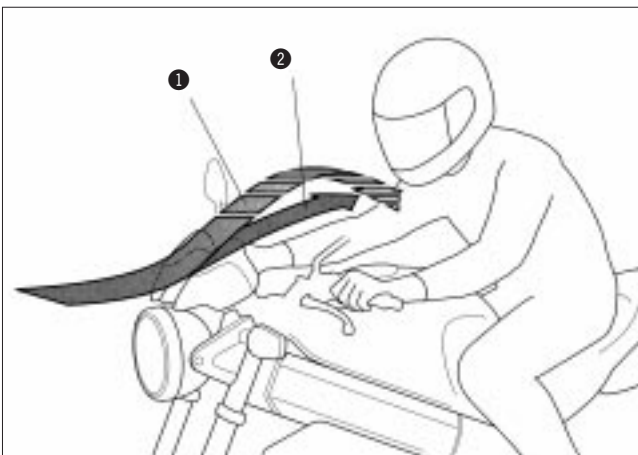
Slim Tail Cowl

Cutting a slim, knife-edged form from the rear of the monstrous fuel tank to the tip of its tail, the X-Eleven's sleekly designed seat cowl presents a sharply aggressive silhouette that catches the eye. Adding to its visual appeal are a set of jet-like triangular ports that seem to give the X-Eleven an extra boost of speed. The seat cowl's slim design also leaves open a wide area above the rear wheel that calls attention to the massive size of its wide, Z-rated tyre.

Mini-Cowl Air Management Design

- ① Air Flow
 - ② Meter Only
- with Mini-Cowl

Mini-Cowl Air Management Design



X-Eleven - 200010 - E



X-Eleven

Engine

The X-Eleven derives its breathtaking rush of power from the same 1,137cm³ liquid-cooled inline four cylinder engine that currently powers the awe-inspiring CBR1100XX Super Blackbird. However, rather than using all of the engine's full maximum power and top speed potential, which would be overkill for the needs of a naked machine, the X-Eleven takes advantage of

the full-bodied potential available throughout the engine's wide powerband, especially in the more often used midrange where greater emphasis can be placed on its grunt of raw acceleration and exhilarating roll-on performance. The X-Eleven's engine was thus tuned with different timing, fuel injection settings and other changes to reduce its top-end performance while filling

out its awesome low-to-midrange power output for brisk blasts of high-torque acceleration from virtually any speed at the twist of its throttle, with no need to shift down to a lower gear to experience that breathtaking rush. The engine's transition through low, midrange and high engine speeds also extends the enjoyment factor for an exciting ride with minimal fuss and bother.





X-Eleven

Engine

Playing a key role in this performance is the X-Eleven's 5-speed gearbox, which provides a wider range of aggressive acceleration than offered by the Super Blackbird's 6-speed unit. Since the X-Eleven won't be shooting for any land speed records, it was felt that a 5-speed gearbox would ultimately provide the greatest riding enjoyment for a naked machine.

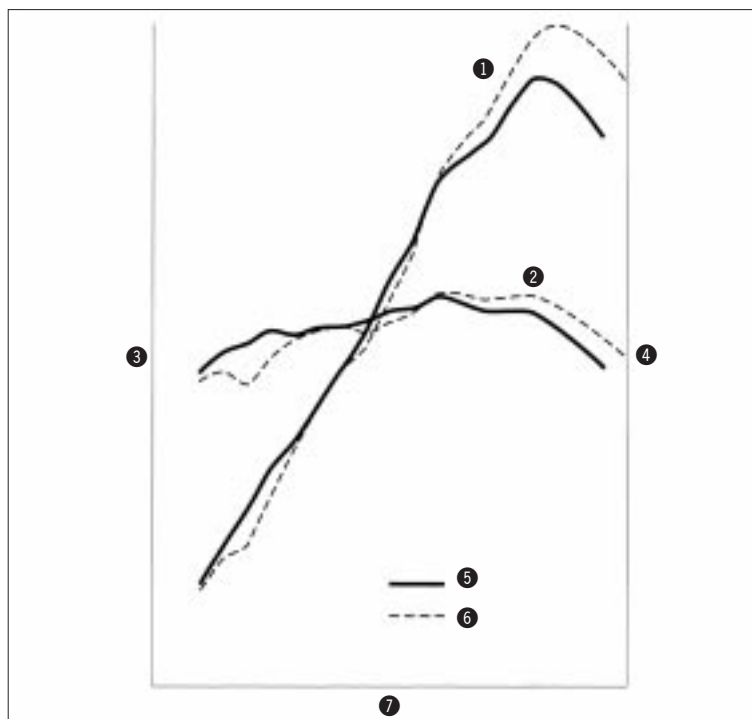
The X-Eleven's engine also uses a single balancer instead of the dual balancer featured in the CBR1100XX Super Blackbird. Unlike the Super Blackbird, which is geared more toward smooth, unruffled high-speed performance, the X-Eleven's engine was designed to provide closer feedback and a more satisfying feel of its raw performance and explosive acceleration in the rpm ranges most naked mo-

torcycles are used. Therefore, a certain amount of pulsating engine vibration was felt to be desirable in order to accentuate the entire motorcycle's visceral feel. Leaving out the second of the two gear-driven balancers used in the Super Blackbird's engine achieved this goal, providing a strong 'seat-of-the-pants' feel of the engine's mighty presence without it becoming an irritating distraction.

Power Characteristics Comparison

- ① Power
- ② Torque
- ③ Power Output (kW)
- ④ Torque (Nm)
- ⑤ X-Eleven
- ⑥ CBR1100XX
- ⑦ Engine Speed (rpm)

Power Characteristics Comparison





X-Eleven

Engine

PGM-FI Electronic Fuel Injection System

Like last year's CBR1100XX Super Blackbird, the new X-Eleven comes equipped with a high-performance, computer-controlled PGM-FI Programmed Fuel Injection system based on the system originally developed for Honda's RVF/RC45 Superbike racer and subsequently used on the late model VFR. The system's advanced design integrates an Electronic Control Unit (ECU) and

digital electronic ignition in a single compact 'black box' for precise fuel metering control. Specially tuned for the X-Eleven, this system ensures top performance over a wide range of operating conditions, remarkably low fuel consumption figures and—in combination with other specialised components described below—some of the lowest exhaust emissions figures ever attained in a large-displacement motorcycle.

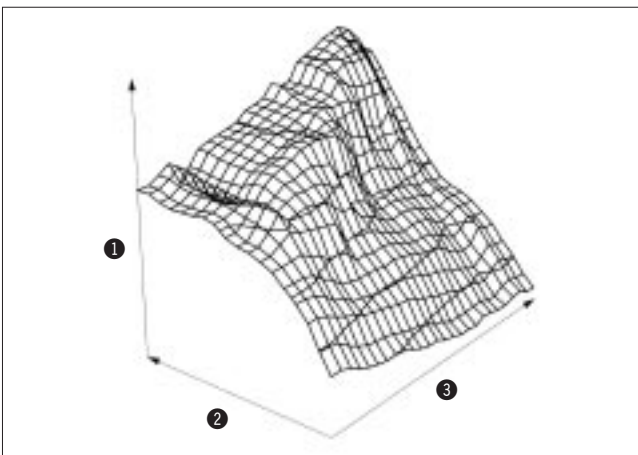
High-Accuracy Map-Type Ignition

Like all the highest performance members of Honda's Super Sport stable, The X-Eleven features a high-accuracy, 3-dimensional map-type programmed ignition system that monitors engine speed and throttle angle to achieve optimal performance and acceleration throughout its rev range.

Throttle Map

- ① Injection Volume
- ② Throttle Opening
- ③ Engine Speed (rpm)

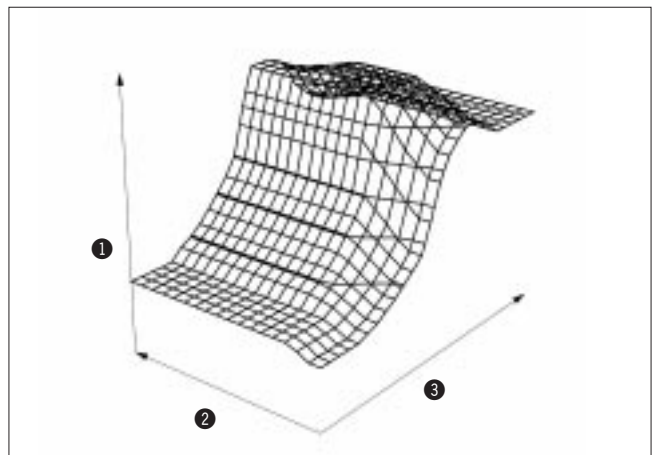
Throttle Map



Ignition Timing Map

- ① Advance (deg.)
- ② Throttle Opening
- ③ Engine Speed (rpm)

Ignition Timing Map



X-Eleven - 200013 - E



X-Eleven

Engine

'Knock' Sensor

Internal combustion engines can experience a phenomenon called detonation or 'knock' resulting from their ignition timing becoming too far advanced and igniting the air/fuel mixture before the piston begins its downward 'ignition' stroke. Too much knock can seriously harm an engine, so most manufacturers set the engine's maximum spark advance to a much lower degree than would be best for optimal combustion, particularly at higher engine speeds.

The X-Eleven's high-performance digital ignition system features a 'Knock Sensor' like that first

introduced on the CBR1100XX Super Blackbird, which incrementally adjusts the spark advance throughout the engine's speed range to maintain it at the optimal setting while minimising the occurrence of knock.

Mounted to the rear of the cylinder block, this Knock Sensor detects the minutest instances of detonation and instantly transmits that information to the ECU. The ECU then automatically retards the spark advance until no further detonation is detected, then gradually increases the advance in much smaller increments to maintain it at the optimum angle just before detonation occurs.

The result is greatly improved engine performance, response and drivability, especially in the 3,000 to 6,000rpm range where the X-Eleven produces its most satisfying thrust of acceleration.

It must be remembered, however, that while the X-Eleven's Knock Sensor 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.





X-Eleven

Engine

High-Efficiency Cooling System

Positioned behind the X-Eleven's impressive front shroud, its large-capacity aluminium oil cooler and large-volume aluminium radiator combine to assure peak cooling efficiency and stable operating temperatures in virtually all riding conditions. As described earlier, the shroud's deeply louvred design ensures a high-pressure volume of air passes through both the radiator and the large oil cooler mounted in front

of it at all speeds for optimal cooling efficiency. The radiator's large, centrally positioned cooling fan features an innovative ringed blade design that maximises the fan's suction power through the radiator to maintain ample cooling efficiency even in the overheating crunch of stop-and-go city traffic.

Stainless Steel Exhaust System

Designed to further optimise the engine's midrange torque,

the X-Eleven's curvaceous stainless steel 4-into-2-into-1-into-2 exhaust system twists down under the engine to rise up on either side feeding into a pair of beautifully polished, large-capacity canister-style mufflers. The forward exhaust pipes feature a buffed gold finish that provides a clean, stylish complement to the engine's gold side covers and the frame's brown-tinted silver finish.





X-Eleven

Engine

Low-Emissions HECS3 (Honda Evolutional Catalyzing System)

As positive proof of Honda's leading position in ongoing efforts to reduce pollution and minimise the motorcycle's impact on our fragile environment, the X-Eleven has been equipped with Honda's most up-to-date low-emissions exhaust system, the Honda Evolutional Catalyzing System, or HECS3. Originally introduced on the Swiss and German versions of Honda's VFR and CBR1100XX Super Blackbird, this highly advanced system takes advantage of the ultra-precise computerised control of the PGM-FI fuel injection system in combination with a high-sensitivity oxygen sensor installed in the exhaust system and a pair of compact cylindrical catalyser elements built into the silencers' inlet tubes to reduce exhaust pollution levels to below those currently required by both Europe's EURO-1 emissions regulations and Germany's stricter Summer Smog 2 (SS-2) regulations. This low-emissions system features the following components.

Air Injection System

Currently featured on several Honda models as an effective means of reducing exhaust emissions, the air injection system directs a spurt of fresh air into the exhaust port of each cylinder to help prolong the burning of residual fuel and pollutants contained in the hot, pressurised gases

rushing out of the combustion chambers on their exhaust strokes. This relatively simple yet highly efficient system ensures more complete combustion for reduced carbon monoxide (CO) and hydrocarbon (HC) emissions that easily comply with Europe's current EURO-1 emissions regulations.

High-Accuracy 'O₂' Exhaust Sensor

Like the system currently featured on the new CBR1100XX Super Blackbird and the VFR, the X-Eleven's fuel injection control unit (ECU) monitors several critical variables of engine operation in order to ensure precise fuel control. One critical factor is the constantly fluctuating level of oxygen present in the engine's exhaust gases, which is checked by a highly sensitive 'O₂ feedback' sensor installed in the exhaust system just before the junction leading to the two silencers.

This system maintains the air/fuel ratio within a close range of tolerance around an optimal ratio of 14.7 : 1. At this ratio, the catalyser elements can perform at their highest efficiency to achieve a minimised balance of hydrocarbons (HC) and carbon monoxide (CO) on one hand and nitrous oxides (NO_x) on the other. Improvements in the accuracy of the fuel injection ECU help extend this optimal balance over a wider range of operating conditions than previously possible.

Dual '3-Way' Catalysers

The last components in the system are the two compact catalyser elements installed in the exhaust system immediately before each of the canister-type silencer bodies. These cylindrical '3-way' elements complete the system's high-efficiency exhaust cleansing operation by chemically removing the emissions of CO, HC and NO_x gases from the exhaust flowing through them.

Maximised 'All-Europe' Performance

With the decision to include Honda's superb HECS3 low-pollution system on the X-Eleven came the desire to include it on every version sold in Europe. However, before that the engine's efficiency and performance needed to be brought up to the same levels as that of the 'stock' version. After extensive redesign and tuning of the system's electronics and exhaust configuration, the X-Eleven's HECS3 system now not only reduces emissions over a wider range of operation than previously achieved, but also results in equally strong engine performance and considerably lower fuel consumption figures than the engine could ever achieve without the system installed. In fact, the system's performance is so good, that the decision was made to feature it in all European markets as a single version, making the X-Eleven the very first 'all-Europe' homologated large-displacement motorcycle ever released by Honda.



X-Eleven

Chassis

Innovative New 'Centre-Pivot' Twin-Spar Aluminium Frame

With an engine that develops the type of power produced by the X-Eleven, a strong and highly rigid frame is called for to stand up to the stresses exerted as power builds. With this in mind, the X-Eleven's design team decided on a massive, perimeter-style twin-spar aluminium frame that encases the engine in a diamond configuration and ties it and the rigid cast steering head together in perfect harmony. Loosely based on the superbly rigid frame featured on the CBR1100XX Super Blackbird, and even adapting the same wheelbase, the X-Eleven's frame features an entirely new innovation in design that combines

the ultimate rigidity of its large triple-box-section main spars with a carefully engineered amount of torsional flex that emphasises the big machine's mass and power as it leans and settles into a corner.

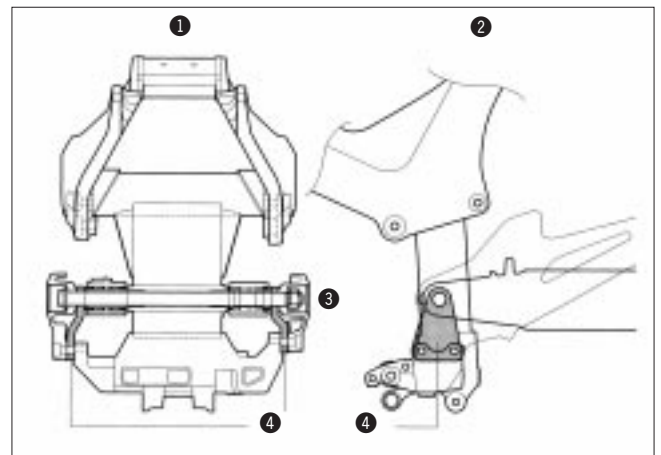
The frame's main spars reach back to join a massive central casting that also provides a mounting point for the rear suspension's monoshock damper. However, this is where its similarity ends. Instead of mounting the swingarm directly to the back of the engine, the frame's large central casting reaches directly downward to provide a solid mount for the swingarm. The X-Eleven's decorative yet strong die-cast aluminium rear step hanger plates then mount on the

end of the swingarm pivot shaft to hold it firmly in place. Rather than providing the ultimate in frame rigidity and quick, responsive handling sought after in a Super Sport machine, which was felt to be too extreme for the type of riding the X-Eleven was created for, the swingarm's centralised mounting was designed to permit a controlled hint of torsional flex to reach the frame at this central location to give the rider more of a feeling of slowly settling into the corners as the bike negotiates the curves. Although the feeling is difficult to describe, one brisk ride makes it clear that the X-Eleven provides an ultimately satisfying blend of rigidity and handling control.

Centre-Pivot Frame

- ① Rear View
- ② Side View
- ③ Swingarm Pivot
- ④ Adjustment Plate

Centre-Pivot Frame



X-Eleven - 200017 - E



X-Eleven

Chassis

Cartridge-Type Front Fork

The X-Eleven's rigid and responsive 43mm cartridge-type front fork features the same H.M.A.S. design used on the Super Blackbird to provide smoothly compliant damping and confident control. Hollow steel cartridge rods are used in the fork tubes for light weight and smooth operation over a wide range of riding conditions. The lower section

of the fork's steel stanchion tubes are protected by cast resin chipping guards mounted on top of the fork sliders.

High-Performance Monoshock Rear Suspension

Unlike many of Honda's highest performance Super Sport machines, the X-Eleven's rear suspension features a single, linkless monoshock

H.M.A.S. damper providing effective and responsive damping to its monstrous triple-box-section aluminium swingarm. Offering a conventional seven steps of spring preload adjustment, this simple, lightweight system provides more than enough performance to match the X-Eleven's phenomenal power output while providing a plush, comfortable ride.





X-Eleven

Chassis

Dual Combined Brake System

Now used on several of Honda's most advanced motorcycles, the Dual Combined Brake System, or Dual-CBS, offers the ultimate in braking convenience, control and confidence. The X-Eleven's advanced system is closely based on the 'Evolution' version featured on the CBR1100XX Super Blackbird. This system uses a set of three specially designed three-piston callipers which are connected together by two separate hydraulic systems. Whenever braking force is applied, the left front brake calliper moves to actuate a compact servo-mechanism mounted on the left-side fork slider, which applies a controlled ratio of hydraulic pressure to the rear brake by way of its secondary master cylinder and proportional control valve, or PCV. The PCV regulates the ratio of front and rear braking force for a precisely balanced distribution of braking con-

trol, and since a more conventional feel was desired for the X-Eleven, its settings were tuned for somewhat more aggressive performance. The PCV's settings also ensure a smooth, linear roll-off of the rear wheel's braking force after the rear brake's maximum pressure limit has been reached.

Although the entire system operates whenever either the front brake lever or rear brake pedal are used, a delay valve smoothes the engagement of the front brake to minimise excessive front-end dive during minor speed corrections, thus allowing more confident operating ease over irregular road surfaces, such as slippery downhill grades and wet cobblestone roads.

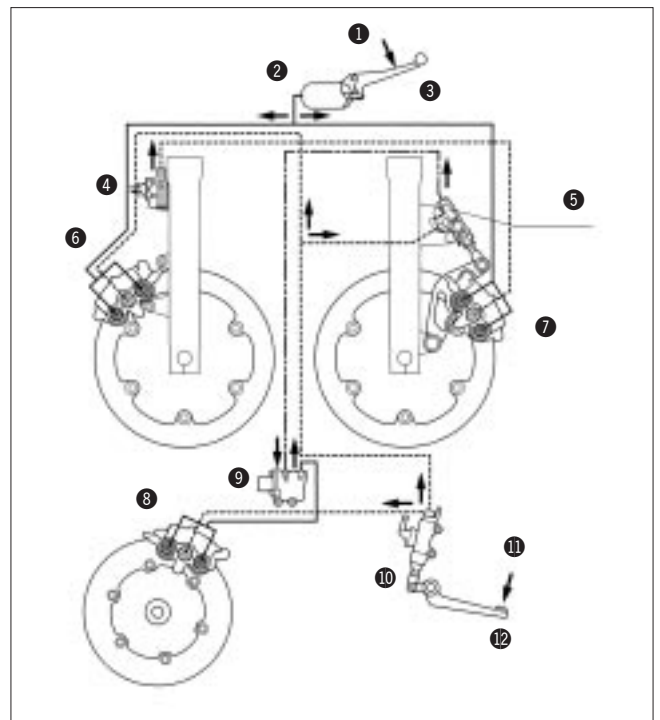
The X-Eleven's large 310mm floating front brake rotors, with their lightweight steel inner rotors and

6-point inserts are essentially the same as those featured on the first generation Super Blackbird. The 256mm rear rotor is also the same as the piece used on the Super Blackbird.

Dual Combined Brake System

- ① Applied Force
- ② Front Master Cylinder
- ③ Hand Brake
- ④ Delay Valve
- ⑤ Secondary Master Cylinder
- ⑥ Right Front Calliper
- ⑦ Left Front Calliper
- ⑧ Rear Calliper
- ⑨ PCV
- ⑩ Rear Master Cylinder
- ⑪ Applied Force
- ⑫ Foot Brake

Dual Combined Brake System





X-Eleven

Equipment

Fully Integrated Meter Display

As explained earlier, the X-Eleven's uniquely styled dual meter assembly makes a significant contribution to aerodynamics and rider comfort.

In another first for Honda, encased within its modern design are a pair of startlingly red meter faces with

white dials and characters backlit for dramatic nighttime riding effect.

Besides its responsive, high-accuracy tachometer and speedometer, the unit carries a large digital LCD odometer/trip meter display and a cleanly integrated needle-type coolant temperature gauge.

All other indicator lamps, including a low fuel warning LED and the H.I.S.S. key confirmation LED, are cleanly integrated into the unit's distinctively moulded form for a clean, modern design that is further complemented by the grey moulded resin upper triple-clamp cover.



X-Eleven - 200020 - E



X-Eleven

Equipment

Honda Ignition Security System (H.I.S.S.)

In recent years, Honda has taken note of the growing problem of motorcycle theft, and has made concerted efforts to help its customers protect their investments. These efforts have resulted in convenient spaces for carrying strong 'U'-locks and chains, handy and effective lock-down points provided in their frames and bodywork, and even ingenious mechanical toggle switches that lock a scooter's centrestand in its down position.

Last year, Honda introduced on several models its latest innovation in the fight against motorcycle theft: a new anti-theft ignition system that

prevents the engine from being started by any other than the motorcycle's original two keys. Now named the Honda Ignition Security System, or H.I.S.S., this highly effective anti-theft system features a ruggedly built combination switch that helps resist mechanical tampering, and an electronic interlock between the special coded chips implanted in each of the two keys supplied with the motorcycle and the ignition system's electronic control unit (ECU).

A coil antenna built into the ring surrounding the upper edge of the key switch instantly detects the presence of an encoded key and transmits the key's code number

to the ECU, which instantly checks the number against either of the two codes it is programmed to recognise. If the code is correct, as indicated by the corresponding yellow LED on the meter panel lighting up, the engine can be started normally. However, if the key code does not match the ECU's programmed number, even if the key is identical in every other way, the ignition remains switched off and the engine cannot be started. Also, since the engine is disabled at the heart of its ignition system, it cannot be bypassed by either hot-wiring the ignition or exchanging the ignition switch module.





X-Eleven

Equipment

While the X-Eleven's anti-theft ignition system cannot protect the motorcycle against every possibility of theft, it does make theft much more difficult and time-consuming, hopefully convincing potential thieves and joyriders to look elsewhere.

A bright yellow diamond-shaped H.I.S.S. sticker placed on the top

of the fuel tank clearly indicates to potential thieves the presence of this highly effective new system.

New Round Multi-Reflector Headlight

The X-Eleven's large, round clear-faced multi-reflector headlight is the first of its kind ever used on a Honda motorcycle. Offering a wide throw of bright nighttime

illumination, this headlight's computer-designed angled reflector projects a bright, sharp beam of light without the blurry indistinct pattern associated with conventional headlights.

The X-Eleven's indicators also feature multi-reflector designs for bright output and easy recognition from long distances.





X-Eleven

Equipment

Innovative Rubber-Mounted Handlebars

The X-Eleven's impressive forged aluminium handlebars at first appear to be of the clip-on variety, directly mounted to the tops of the fork's stanchion tubes. However, a closer look reveals that the handlebars are mounted to a large metal plate that seems to hover over the top of the steering head. In actual fact, this plate is rubber-mounted in two locations to the fork's upper triple-clamp.

This unique mounting configuration provides the solid control and desired forward-leaning positioning afforded by clip-ons, but does so with the comfortable, buzz-free feel of rubber mounting. Also attached to the plate is a decorative moulded resin cover that cleanly complements the uniquely designed instrument panel positioned ahead of it.

Locking Seat

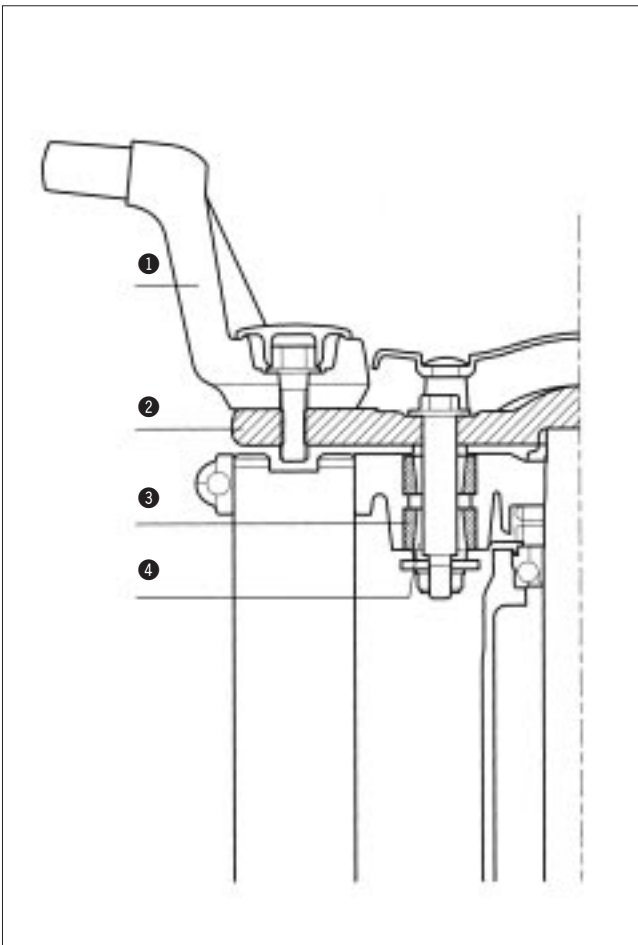
The X-Eleven's wide, comfortable stepped seat is also, at 795mm one of the lowest in its class, making it

an ideal mount for shorter riders and even women to experience the excitement of yanking opening its throttle and blasting into space. Held securely in place by a key lock located below the rear tail-light, the seat opens to reveal a compact storage area for almost any size of U-type security lock, as well as chains, locks, gloves or other small essentials. The seat itself also features a new textured covering material for the rider's position, which eases manoeuvring for extended riding comfort.

Floating Handlebar Mount

- ① Handlebar
- ② Mounting Plate
- ③ Rubber Bush
- ④ Steel Collar

Floating Handlebar Mount





X-Eleven

Equipment

High-Performance Z-Rated Radial Tyres

The X-Eleven's astounding performance places a taxing load on tyres, so only the latest, most advanced tyres can be certain to keep pace with its power and acceleration. Therefore, it mounts a state-of-the-art set of 'Z'-rated ZR tyres manufactured by both Michelin and Bridgestone, which ensure optimum control and handling comfort at the high speeds and high rates of acceleration the X-Eleven is capable of producing. These tyres are mounted on light-

weight, hollow-section triple-spoke cast aluminium wheels that match the X-Eleven's potential with high-performance good looks.

Large 22-Litre Fuel Tank

The X-Eleven's remarkably low fuel consumption seems to contradict its incredible performance potential. Still, its high-precision electronic fuel injection system combines with its advanced HECS3 low-emissions system to squeeze the longest possible hours of operation out of a

single tankful of fuel. The X-Eleven's large, expansive fuel tank holds a full 22 litres of fuel and features a compact electronic fuel pump to provide a steady stream of fuel to its advanced PGM-FI fuel injection system. The tank also features a narrow 'unleaded' inlet hole that helps prevent leaded fuel from accidentally being added, which could seriously damage the exhaust system's built-in catalysers.



X-Eleven - 200024 - E



X-Eleven

Genuine Accessories

Throw-over Panniers

The throw-over panniers offer ample carrying capacity along with easy detachment and meet all CE regulations. They come with a convenient handle that makes for pleasant carrying comfort. The combination of a strong polyester outer shell and a softer, more protective PVC lining makes them sturdy as well as water-repellant. Approximately 20 litre carrying capacity.

Rear Seat Bag

The rear seat bag is easily detachable and its handle makes for pleasant carrying comfort. It offers ample storage space—enough for a helmet—and is made from a rugged combination of polyester and PVC that is water-repellant. Approximately 40 litre carrying capacity.

Fly Screen

The screen offers the rider increased protection from the elements.

As well as decreasing wind turbulence, the screen also reduces rider fatigue considerably.

Magnetic Attaché Case

The nylon attaché case with a 20 litre carrying capacity is the perfect partner to drive to work with. It easily stores A4 files and with its fitted rain cover, protects them against the elements.





X-Eleven

Specifications

Specifications

X-Eleven (ED-type)

Engine	Liquid-cooled 4-stroke 16-valve DOHC inline-4
Bore × Stroke	79 × 54mm
Displacement	1,137cm ³
Compression Ratio	11 : 1
Carburation	Electronic fuel injection
Max. Power Output	136PS/9,000rpm (95/1/EC) (100kW/9,000min ⁻¹) 140PS/9,000rpm (DIN) (103kW/9,000min ⁻¹)
Max. Torque	11.5kg-m/7,000rpm (95/1/EC) (113Nm/7,000min ⁻¹) 11.8kg-m/7,000rpm (DIN) (116Nm/7,000min ⁻¹)
Ignition	Computer-controlled digital transistorised with electronic advance
Starter	Electric
Transmission	5-speed
Final Drive	'O'-ring sealed chain
Dimensions (L×W×H)	2,145 × 750 × 1,115mm
Wheelbase	1,500mm
Seat Height	795mm
Ground Clearance	140mm
Fuel Capacity	22 litres (including 4-litre warning light reserve)
Wheels	Front 17 × MT3.50 hollow-section triple-spoke cast aluminium Rear 17 × MT5.50 hollow-section triple-spoke cast aluminium
Tyres	Front 120/70 ZR17 (58W) (Michelin Macadam 90X, Bridgestone BT57F) Rear 180/55 ZR17 (73W) (Michelin Macadam 90X, Bridgestone BT57R)
Suspension	Front 43mm cartridge-type fork, 120mm axle travel Rear Gas-charged monoshock damper with 7-step adjustable spring preload, 120mm axle travel
Brakes	Front 310mm × 4.5mm dual hydraulic disc with Combined 3-piston callipers and sintered metal pads Rear 256 × 5mm hydraulic disc with Combined 3-piston calliper and sintered metal pads
Dry Weight	222kg

All specifications are provisional and subject to change without notice.