



Press Information 2001



Silver Wing



Silver Wing

Introduction

As Europe's diverse scooter market continues to grow, the world's major motorcycle manufacturers have been exerting an unprecedented effort to expand their lineups with a host of exciting new models that offer innovative features, more luxurious comfort and, notably, larger displacement and power to meet the growing demand among older, more discerning customers who have recently discovered the comfortable and convenient features that scooters offer as a viable alternative to the car.

Interestingly enough, while larger displacement scooters have won a strong following among commuters and people on the go as comfortable, convenient, and dependable vehicles for handling daily transport closer to home, very little emphasis has been placed on the scooter's adaptability to more far-ranging applications, like touring.

In fact, as the surge of 250cc-class scooters has rapidly introduced a growing range of more affluent riders to the performance and luxurious comfort to be had in larger scooters, an increasing receptiveness has been detected for the next step in scooter performance: a full-sized, mid-displacement model that provides the powerful, yet even-tempered

performance of a 600cc engine coupled with the spacious proportions to allow two to ride—or even tour for days—in long-lasting comfort. With this in mind, Honda set about to develop the new Silver Wing.

photo: prototype





Silver Wing

Development Concept

The new Silver Wing is designed to appeal to more affluent and mature riders with more in the way of time to enjoy the pleasures of the road, rather than only the drudgery of daily commuting. Released together with Honda's 250cc-class technological showpieces, the JAZZ and JAZZ ES-ABS, the new Silver Wing pioneers yet another new route to riding pleasure.

Long the exclusive domain of full-sized motorcycles, tandem touring provides a unique sense of togetherness in the experiences and enjoyment that are shared. Guided by the key phrase 'Double the Fun,' the Silver Wing's design team set out to create a new full-sized scooter with comfortably compact proportions that offer the strong performance

and unruffled handling to carry two in comfort on long, overnight rides. Younger couples out for a good time; married couples out to reacquaint themselves with the joys of the road; and even parents and children out to make new discoveries and meet new adventures around each bend in the road. These are the people the engineers at Honda are trying to reach.

Providing the riding comfort and luxurious accommodations of a second car, but without the traffic and parking hassles that can often make driving an exercise in frustration, the Silver Wing slips down narrow paths and crowded roadways as easily as its boundless joys slip under the skin.

With such features as an advanced yet highly compact new fuel-injected DOHC parallel twin engine for an instantly strong surge of power and acceleration, a sturdy frame and suspension system for responsive, sportbike-level handling and control, and the confident operating ease of such features as Honda's advanced Combined Brake System, the superb new Silver Wing expands the pleasures of riding and touring to the user-friendly scooter class, and opens a delightful new door to the joys of the road.

photo: prototype





Silver Wing

Styling

Not much bigger than the popular scooters of the 250cc class, the new Silver Wing grabs attention with its highly aerodynamic, fully integrated scooter design. Although purposefully developed to carry two in comfort, and powered by a small yet high-powered 600cc engine, the Silver Wing's compact proportions and well-balanced light weight lend a confident sense of riding ease that can be enjoyed by a much broader range of people who perhaps till now have not shown a great interest in motorcycling and the pleasures it has to offer.

The cleanly composed lines of the Silver Wing project a stunning look of aerodynamic elegance that

envelops the rider in quiet, comfortable luxury. Designed for supreme long-distance cruising and touring comfort and secure confidence at higher speeds, its bodywork integrates a newly designed 'piggy-back'-style dual-bulb headlight into its sharply tapered nose.

New 'Piggyback'-Style Dual Multi-Reflector Headlights

Cleanly integrated behind a large, clear plexiglass front lens, this unique new multi-reflector headlight incorporates a wide-throw low beam that provides a brilliantly illuminated view of the night-time road ahead. Directly beneath it is a compact high beam headlight located in the narrow 'V' of the Silver Wing's nose.

The combination of these lights provides superb illumination and optimal night-time visibility.

Following the lines of the front cowl expanding up and away from the headlight are two large, triangular, flush-mounted front indicators that feature clear, untinted lenses over yellow bulbs for a modern sense of style that provides excellent visibility for other traffic. At the rear, the Silver Wing's long, flowing lines terminate in a large, angular tail section that incorporates the taillight and large rear indicators into its sculpted design.

photos: prototype



Silver Wing - 20014 - E



Silver Wing

Styling

Air Management Design

One of the primary considerations in the Silver Wing's design was providing superior wind protection for both the rider and passenger, especially at the rapid highway speeds at which it is easily capable of cruising, and here the Silver Wing excels. Its pointed nose cuts cleanly through the air to create a pocket of calm behind the flush-mounted windscreen. Located above and at

either side of the headlight are small, discreetly positioned air ducts that provides a steady flow of air into the cockpit area to not only help deflect the onrushing wind up and away from the rider and passenger, but also provide a refreshing current of cool air to the rider. The automotive-type louvred ducts built into the Wing's wide instrument panel keep the rider rolling down the road in supreme comfort.

To ensure optimal engine cooling efficiency, large air intake ports positioned behind the front wheel flow cooling air first through the radiator, then down the length of the bodywork, around the low-centre-of-gravity fuel tank and back toward the engine before exiting through lower side vents and out the rear of the body.

photo: prototype





Silver Wing

Styling

Comfortable Seating Accommodations

The Silver Wing's wide, plush, deeply stepped tandem seat features comfortable contoured back rests for both rider and pillion passenger. The rider's backrest also offers five steps of forward and rearward adjustability to provide a perfect fit and luxurious lumbar support for nearly all riders, big and small. On either side of the central floor tunnel, the Silver Wing's roomy floorboards taper upward to provide

a long forward and rearward range of foot positioning freedom that ensures blissful hours of riding and touring comfort. At their rear, beneath the seat, the floorboards taper sharply inward to provide a more relaxed and comfortable reach to the ground when stopped.

The pillion section of the seat is raised 150mm above the rider's seat to offer passengers a broad, comfortable perch with supple back

support for a clear, unobstructed view of the road ahead.

Spacious, cleanly integrated cast aluminium foot rests fold down to provide comfortable support and a remarkably broad range of foot positioning freedom. To the sides of the seat, the rails of the rear spoiler offer relaxed and comfortable hand holds.

photos: prototype





Silver Wing

Styling

Spacious Carrying Capacity

Under the pillion portion of the Silver Wing's comfortable dual seat is hidden a deep and capacious Met-In compartment that has been specially designed with enough space to carry two full-face helmets or a compact, B4-sized attaché case and more. The pillion seat opens up and to the side, and its spring-loaded hinge conveniently holds the seat up when raised to free both hands for loading and unloading.

Two large, flip-up lids integrated into either side of the front panels positioned in front of the Silver Wing's beautifully styled, automotive-like instrument panel conceal extra glove boxes for carrying smaller objects. The locking box on the left opens to offer a surprisingly large-capacity compartment for carrying such things as gloves or even a rain suit. The smaller compartment on the right conveniently holds such essentials as small change and ticket stubs.

Behind the pillion seat, the sleek cast aluminium rear spoiler also doubles as a convenient carrier for tying down larger loads that can't be easily fit into the large Met-In compartment.

photos: prototype



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Silver Wing

Engine

The new Silver Wing is powered by a newly developed 582cm³ parallel twin-cylinder engine that was specially designed to provide a smooth, high-powered surge of quick-accelerating performance from its compact configuration.

Featuring a high-performance double overhead camshaft (DOHC) configuration and four valves per cylinder, the engine's exceptionally compact and narrow dimensions were made possible by a new vertically split crankcase design that eliminates the need for the centre journal that would normally reside between the big-end bearings for the two connecting rods. Also eliminated were the space and weight this journal would normally contribute.

The engine's lightweight 'slipper'-type pistons also contribute to its strong performance by helping to reduce internal drag for sharp response and quick acceleration.

Dual Primary Balancers

The engine's 360° crankshaft moves both of the two lightweight pistons in unison, with each firing on alternate strokes. To counteract the vibration inherent in this design while keeping the crankcase dimensions as small as possible, two primary balancers were incorporated into the crankcase. Spinning at the

same speed as the crankshaft, one is positioned above and forward of the crank and the other is positioned lower and to the rear. The combination of their movements helps cancel out primary vibration in both the vertical and longitudinal axes.

High-Performance DOHC Configuration

Raised 25° from the engine's horizontal axis, the Silver Wing's double overhead camshaft (DOHC) cylinder head features a 4-valve-per-cylinder configuration that permits the spark plugs to be positioned directly in the centre of the combustion chamber roof for the fastest, most efficient ignition and combustion. The configuration's direct valve actuation and bucket-over-shim adjustment also ensure high-performance power output and long valve clearance maintenance intervals.

The camchain drive is located on the right side of cylinders, where it makes a further contribution to the engine's narrow dimensions, and features a maintenance-free automatic camchain tensioner.

PGM-FI Electronic Fuel Injection System

Honda's high-accuracy PGM-FI digital electronic fuel injection system ensures strong, responsive performance and quick, easy starts for the latest in smooth, trouble-

free operation. Like the systems used on several of Honda's high-performance street bikes, this system features a compact dual-throat injector body controlled by an advanced Electronic Control Unit (or ECU). The ECU's advanced circuitry integrates the high-precision electronics of both the fuel injection system and the digital ignition system into one compact 'black box' that accurately monitors the engine's speed, temperature and throttle angle to ensure ultra-precise fuel metering and combustion control for strong performance that instantly adapts itself to all sorts of weather and riding conditions.

Pollution-Reducing Air Induction System

Like many of Honda's most recent motorcycles, the Silver Wing demonstrates Honda's persistent concern for the environment by featuring a simple yet effective air induction system. This system injects a small jet of air into the exhaust ports on their exhaust strokes to help complete the burning of exiting exhaust gases by prolonging the combustion of any unburned fumes and other exhaust gases into the exhaust ports. The system results is greatly reduced levels of unburned fumes and other pollutants that alone ensure easy compliance with Europe's current EURO-1 emissions regulations.



Silver Wing

Engine

Low-Emissions Catalyser System

Complementing the effects of the air induction system, a highly effective catalyser element is installed in the Silver Wing's exhaust system to help reduce the emissions of hydrocarbons (HC) and nitrous oxides (NO_x) to well below the strict requirements of Europe's EURO-2 planned emissions regulations. Since no oxygen sensor is used to provide 'O₂' feedback to the PGM-FI system's ECU, this low-emissions system is not a standard HECS3 system such as used on several of Honda's other larger displacement motorcycles.

Compactly Configured Belt Drive System

The Silver Wing's proven V-Matic final drive transmission system provides strong, smooth and linear acceleration under all riding conditions. Sealed in the Wing's rigid cast aluminium swingarm, the concentrically mounted belt drive pivots around the frame-mounted engine's crankshaft for both reduced engine

and driveline length and minimal effect on belt tension through the suspension stroke. The cast swing-arm also features a uniquely formed shape that tapers sharply inward from its wide pivot mounts to allow ample room for the Silver Wing's large-capacity oval muffler.

Large-Capacity Oval Muffler

The Silver Wing's uniquely designed 7-litre, stainless steel canister-style muffler features an attractive oval design that helps maintain the Silver Wing's slim profile while minimising noise emissions. The muffler features an elegant chrome cover for the ultimate in style, and a rubber bumper strip along its lower length to provide protection against damage from tip-overs and brushes with low objects.

Compact, High-Efficiency Radiator

Located under the seat and in front of the frame-mounted engine, the Silver Wing's compact, high-efficiency radiator receives a steady

stream of cooling air from the intake vents located behind the front wheel. A thermostat-operated electric fan provides extra cooling capability when temperatures rise when stopped or in heavy traffic.

Like Honda's high-performance CBR600F and CBR900RR Fireblade, the Silver Wing's engine also features a compact liquid-cooled oil cooler mounted to the front of its crankcase, where it provides optimum cooling efficiency and a convenient mount for the spin-on, cassette-type oil filter.

A lightweight, oil-cooled ACG provides strong electrical output for the fuel injection system and all other electrical necessities.

photo: prototype





Silver Wing

Chassis

The Silver Wing's rigid tubular steel frame was specially designed to provide light, responsive handling and confident control in virtually all riding situations, and especially when riding fully loaded with a passenger in tow. Unique to most scooters of any displacement, the Silver Wing's engine is mounted directly to its frame, instead of pivoting with the swingarm in a unitary configuration. This con-

figuration helps improve mass centralisation for lighter and easier control. The engine is rubber-mounted to help minimise the transmission of vibration to the rider.

Large-Capacity Fuel Tank

Developed with long-distance travels in mind, the Silver Wing features a large-capacity 16-litre fuel tank, which is one of the largest in the scooter class. Providing a wide range

of long-distance riding enjoyment, it also makes possible nearly a week's normal daily operation on a single tankful of fuel. Positioned low and forward in the frame, the fuel tank contributes to the Wing's mass centralisation while providing a convenient filler spout behind an integrated locking cover built into the floor tunnel that allows easy access without having to leave the seat.

photo: prototype





Silver Wing

Chassis

Motorcycle-Class Suspension

Designed to carry two in comfort, the Silver Wing's suspension system must be made to handle heavier loads than most scooters while ensuring precise and confident control in nearly all riding conditions. Its motorcycle-class hydraulic front fork features large-diameter 41 mm fork tubes solidly gripped by the steering head's lower triple-clamps. Featuring a trailing axle configuration, the lower fork sliders provide a full 120mm of long-stroke axle travel, not to mention solid, responsive control and confident handling even when carrying a passenger.

The Silver Wing's rear swingarm is supported by two heavy-duty dampers featuring dual-rate springs and 5 steps of preload adjustment for a comfortable, well-controlled ride, as well as 120mm of axle travel and high torsional rigidity. The rearward positioning of the dampers also helps maximise the available storage space in the Wing's large Met-In compartment, while also contributing to its lightweight design.

The Wing's lightweight and elegantly styled 4-spoke cast aluminium wheels are shod with wide-body tubeless tyres that offer a plush,

easy ride while eliminating inner tube maintenance hassles. The larger 14-inch diameter of the front wheel contributes to the Silver Wing's responsive and sporty performance while providing optimal handling control and riding comfort at all speeds.

photo: prototype





Silver Wing

Chassis

Hydraulic Combined Brake System

For enhanced operating ease, especially for less expert riders, the Silver Wing features Honda's exclusive Combined Brake system for optimised braking operation, easy control and enhanced riding confidence. This advanced, scooter-oriented system uses a Combined three-piston front disc brake calliper that stops its large-diameter

256mm rotor between sintered metal pads, and a compact dual-piston calliper rear brake that grips a 220mm rotor.

In this system, the right-side brake lever controls the two outer pistons of the front brake calliper, much like a conventional motorcycle brake system.

The left-side brake lever, however, controls not only the rear brake, but also the centre piston of the front brake calliper by way of a delay valve that assures a more smoothly controlled balance of braking forces when only the left-side lever is used, thus realising a responsive feel on par with many large motorcycles.



photos: prototype





Silver Wing

Equipment

Fully Integrated Instrument Panel

With the look of an expensive sport sedan and featuring an attractive oval motif, the Silver Wing's large, fully integrated instrument panel provides an impressive view of all operating conditions. Its large-face central speedometer is surrounded by an instantly responsive electronic tachometer on the left and a large, oval LCD providing readouts for coolant temperature, fuel, odometer/tripmeter and a clock on the right. Elegantly underlined by a row of large, bright indicator lights, the speedometer also features a small red LED for its anti-theft security system.

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

Now featured on several of its most impressive road bikes, Honda's innovative H.I.S.S. anti-theft security system utilizes an ingenious electronic interlock that prevents the engine from being started by any other than the motorcycle's two original keys. Since the H.I.S.S. disables the motorcycle at the heart of its ignition system, it cannot be bypassed by either hot-wiring the ignition or exchanging the ignition switch module, thus rendering impossible one of the most common types of motorcycle theft: being ridden away. The combination switch also features rugged construction

to resist tampering. A large, yellow diamond-shaped H.I.S.S. sticker on the Silver Wing's front panel provides clear indication of the presence of this security system to ward-off potential thieves.

Accessory Electrical Needs

A convenient 12V-1A electrical socket is provided for powering a cellular phone, personal music player or other accessories.

Optional Equipment

A complete range of optional touring, utility and dress-up parts are now being developed for the Silver Wing.

photo: prototype





Silver Wing

Specifications

Specifications

Silver Wing (ED-type) (95/1/EC-values)

Engine	Liquid-cooled 4-stroke 8-valve DOHC parallel twin
Bore × Stroke	72 × 71.5mm
Displacement	582cm ³
Compression Ratio	10.2 : 1
Carburation	Electronic fuel injection
Max. Power Output	36kW/7,500min ⁻¹
Max. Torque	50Nm/6,000min ⁻¹
Ignition	Computer-controlled digital transistorised with electronic advance
Starter	Electric
Transmission	V-Matic belt drive
Dimensions (L×W×H)	2,265 × 765 × 1,395mm
Wheelbase	1,595mm
Seat Height	740mm
Ground Clearance	140mm
Fuel Capacity	16 litres (including 3.5-litre reserve)
Wheels	Front 14 × MT2.75 4-spoke cast aluminium Rear 13 × MT4.50 4-spoke cast aluminium
Tyres	Front 120/80-14 58S Rear 150/70-13 64S
Suspension	Front 41mm hydraulic telescopic fork, 120mm axle travel Rear Dual conventional damper with 5-step spring preload adjustment, 120mm axle travel
Brakes	Front 256 × 5mm single disc with Combined 3-piston calliper and sintered metal pads Rear 220 × 6mm dual-piston calliper disc with sintered metal pads
Dry Weight	204kg

All specifications are provisional and subject to change without notice.