

2004 CBF500



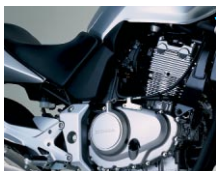
NEW Sporty-looking seat specially designed with a low 770mm height and tapered contours that provides shorter and less experienced riders with both an easy reach to the ground and to the widely spaced tube-type handlebars for more confident control.

The new CBF500's styling exudes a modern look of simple elegance, with a large, attractively sculpted 19-litre fuel tank and broad tandem seat specially designed to carry two in easy comfort.

Pillion passenger comfort ensured by a broad seating area, a pair of easy-to-grip tube-type grab rails on either side of the seat, and attractive cast aluminium pillion step brackets that ensure a comfortable leg position for rides long and short.



NEW Stiff box-section steel swingarm supported by rugged and responsive Monoshock rear suspension featuring high-performance HMAS damper for superb control over a wide range of riding conditions.

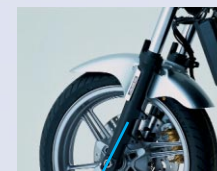


NEW Free-revving 499cm³ liquid-cooled parallel-twin engine tuned for stronger low-to-midrange torque and an easy, confidently responsive and reassuring power delivery that responds smoothly to all rider inputs.

NEW Specially outfitted ABS version also available, featuring a compact yet highly effective Antilock Brake System (ABS) for smoother, more confident braking performance in virtually all riding conditions.

NEW Lightweight, strong and simply designed Mono-Backbone frame like that used by Honda's popular Hornets grips the engine as a stressed member in a diamond configuration for optimum rigidity and handling ease.

NEW Large, fully electronic dual dial instrument panel similar to that mounted on the CB900F Hornet features accurate and responsive meter readings and large digital LCD readout of trip and odometer readings, as well as coolant temperature gauge and low fuel warning light.



NEW Compliant 41mm free valve-type front fork provides progressive damping for a comfortable ride and features wide fork span for lighter, easier handling in tight traffic and Supersport-level high-speed control.

NEW Attractive cast aluminium wheels feature light, modern and sporty twin 6-spoke design and mount the first high-performance radial tyres in their class. Wheels are ably stopped by a responsive 296mm dual-piston calliper front and 240mm single-piston calliper rear disc brakes.



The new CBF500 can also be fitted a broad selection of optional equipment including rear carrier, two sizes of top box, AVERTO anti-theft alarm system, hand grip heaters and much more.

Photo: ED type

2004

CBF500

PRESS INFORMATION

Introduction

The European motorcycle market is filled with a plethora of bikes to suit virtually any taste in riding style and desired level of performance, especially at both the upper and lower ends of the scale. Obviously, the greatest amount of manufacturer attention is paid to the models representing the more prestigious upper reaches of their lines, where fully experienced riding aficionados have a wide selection of racer-style sports bikes, agile naked machines and easy-riding cruisers to choose from. Down in the beginners' class of scooters and motorcycles ranging up to 125cc in displacement, Honda and all other motorcycle manufacturers produce a mind-boggling array of bikes designed to appeal to all ages and tastes with fun and highly economical modes of transport.

The naked class alone has seen a significant surge in popularity of late, with models in the midrange 600cc class—as represented by Honda's own popular Hornet—all the way to the litre-bike class and beyond seeing noticeable rises in sales. Besides signifying a general shift in tastes toward the more basic fundamentals of motorcycle riding enjoyment, the naked class—and its midsize segment in particular—offer the further appeal of relatively low entry and running costs, and greatly reduced insurance premiums.

Another factor playing an important part in this surge in naked bike popularity is the steadily growing number of women recently entering the sport. No longer content to just watch from the sidelines or sit perched on the back riding pillion, many women are heading off to riding schools with intention of experiencing all the exhilarating enjoyment of riding motorcycles for themselves. However, once license is in hand, the choice of bikes available can often be limited by the daunting reach to the ground on many midsize and larger machines, especially to those still gingerly gathering the experience needed for confident control.

Model representation has always been a bit weak in the next step up from the 125cc machines of the learner's class, with a scattering of 250cc class motorcycles and few other larger models filling the seemingly wide gap between the entry level and the much bigger and more powerful 600s.

For nearly a decade now, Honda's quiet but remarkably popular CB500 has been something of a well-kept secret, winning quite a following among despatch riders and

riding schools, and even weekend racers, many of whom competed in the Honda-sponsored CB500 Cup races and then graduated to bigger and better things on the world's most famous racing circuits. Often first purchased as merely a 'cheap and easy commuter,' the CB500 soon proved itself to be a great 'all-rounder,' ably doing its duty as day-to-day transport, but still offering ample reserves of eye-opening performance to scratch up tight and twisty roads with the best of the supersports, or cruise along happily on the motorways.

Still, ten years after its initial debut, the CB500 was long overdue for a major freshening up. Not just in its style and looks, but in its total concept. What was called for was a more modern and distinctively European look and feel offering a broader appeal to both experienced riders and those looking for a comfortable and confidence-building step up into the world of 'real' motorcycles. A machine that encouragingly combines such fundamental requirements as an easy reach to the ground when at stop, light, responsive handling not only at speed, but in the hustle and bustle of urban traffic conditions, and a predictable power delivery that never gets out of hand. A friendly mount that eases a new rider into the fun of riding a step at a time, yet still has ample capacity for spirited performance when called upon to deliver.

Taking all these factors and desires into consideration, Honda's naked bike development team drew up plans to inject some new excitement and far-ranging attraction into the 500cc class. Incorporating carefully selected technologies and design features that have proven themselves on other machines, and energising them with the same friendly and snappy 499cm³ liquid-cooled parallel-twin that powered the CB500, the sleek new CBF500 sets a new standard in its class for easily accessible riding fun and excitement. Nothing too radical and nothing high-strung; just a good, solid all-round fun machine that will prove to be as fast and reliable a friend on the road as any rider could want.

Development Concept

In setting out to redefine the standard in this important 500cc class, Honda's engineers endeavoured to create an attractive new midsize model that could entice new riders with its lower seat height and relatively compact proportions. A full-sized motorcycle that still provides a comfortable and confidence-building ride for motorcycling novices on their way up the displacement ladder from scooters and small bikes to the challenges of larger displacement motorcycles, yet one that also offers ample performance and sport riding potential to satisfy more experienced riders and even budding weekend racers.

Starting with the same well-liked, free-revving liquid-cooled parallel-twin engine powering the CB500, performance was tuned for stronger low-to-midrange torque and an easier, more reassuring power delivery that responds smoothly to all rider inputs and allows a rider to grow into its full range of excitement at a supremely comfortable pace. Attention was also given to bringing this engine up-to-date where exhaust emissions and environmental protection were concerned.

The new CBF500's chassis is an evolutionary development based on the strong yet simple Mono-Backbone frame used in Honda's popular Hornets. Joining high-performance suspension components and newly adapted radial tyres in an optimally balanced configuration, this new chassis delivers light, responsive handling that feels right, whatever one's body proportions and level of riding experience.

Styling is crisp, clean and elementally attractive, providing just enough imaginative design touches in its curvaceous lines to fascinate, while staying true to the fundamentals of a motorcycle's primary purpose. Therefore, few distractions from the innate enjoyment of the ride. This is a machine meant to encourage and caress, to calm nerves and let new riders know they've made the right choice in a riding partner that will stay true for years to come.

With strong performance, responsive brakes and a version featuring Honda's most advanced Antilock Brake System, the new CBF500 has everything a rider could need to experience a full-bodied range of riding enjoyment. From first glance to the last satisfied look after a long enjoyable day on the road, it beckons, 'Try me and see.'

Styling

The slim and sporty CBF500 features a sleek, light of weight new naked design that really grabs attention on the street. Initially formulated in Honda's R&D Europe (Deutschland) GmbH design studios by a multinational team of designers and engineers, the new CBF exudes a modern look of subdued yet flowing elegance, with a large, attractively sculpted 19-litre fuel tank and broad tandem seat specially designed to carry two in easy comfort.

Its stylish seat cowl features a comfortable two-piece seat and a much slimmer side profile than the earlier CB500, for a lighter and sportier image. Designed especially to meet the requirements of novices and shorter rider statures with its low 770mm height, the seat's contours position the rider a bit more forward than usual, providing not only an easy reach to the wide tube-type handlebars, but also to the ground, thanks to the combination of its lower height and its specially engineered cross-sectional curvature. Slim and more compact sidecovers join the lines of the tank and seat in a flowing look of light weight and agility while ensuring the rider's reach to the ground is unimpeded.

For ideal pillion passenger comfort, the rear seat features a broad seating area, with a pair of easy-to-grip tube-type grab rails on either side of the seat, and elegantly designed cast aluminium pillion step brackets that ensure a comfortable leg position for short trips around town or longer trips to farther distant locales.

The CBF's round headlight is a standard-issue halogen type like that used on the CB500, which provides ample illumination for night-time rides and daytime visibility. Front indicators take on Honda's latest compact aero look with brilliant multi-reflector style lenses, while at the rear a single-bulb multi-reflector taillight cleanly and elegantly integrates into the upturned tail of the seat cowl with two large rear indicators for an eye-catching look of distinctively European sense of cosmopolitan style.

Modern Dual Dial Instrument Pod

The CBF's lightweight and sporty-looking instrument cluster incorporates a pair of large, high-accuracy fully electronic speedometer and tachometer dials like those featured on the impressive Hornet 900 for instantly responsive readout of all operating

parameters. An analogue coolant temperature gauge takes up residence in the tachometer dial while a multi-function liquid crystal display in the speedometer shows odometer and trip meter readings which can be easily reset with the rubber button on the assembly's lower panel. Under the smoked plastic lens between the dials lie the CBF's highly visible LED indicators, which include the usual assortment of lights plus a low fuel level indicator which lights up when the fuel tank is down to its last three litres, and a failure indicator for the ABS system featured on the CBF500's ABS version. A handy one-touch hazard light switch positioned on the right-side handlebar switch pod flashes all indicators to provide a clear warning to other drivers when needed most.

Colouring Concept

The sleek new CBF500 will be exclusively released on the streets of Europe in three stylish colour variations that draw attention to its attractive lines, superb quality of construction and uniquely European sense of modern style. These colours include a brilliant, attention-getting metallic silver that accentuates the CBF500's modern lines, a chic solid black that impresses with its emphasis sophisticated simplicity, and a bright candy blue that exudes a sporty sense of quality and performance that's right at home on every city street and country lane each day finds it.

Colours

- Force Silver Metallic
- Black
- Candy Xenon Blue

Engine

The sporty new CBF500 is powered by essentially the same compact yet high-performance liquid-cooled DOHC parallel-twin engine first introduced in 1994 in the CB500. Featuring a counter-balancer for silky-smooth operation at high revs and low, and high-performance slanted flat-slide VP carburettors for quick and powerful response, this engine delivers a near-perfect combination of easy operation and peppy performance with the added benefits of superb fuel economy, low emissions and highly reliable operation over the long run.

Long popular with amateur racers, this proven liquid-cooled 499cm³ engine is built on a 180° crankshaft pumped by lightweight pistons which were designed to produce high engine revs by reducing power-robbing friction and reciprocating mass. Positioned in front of the crankshaft, its gear-driven counter-balancer keeps operation smooth by eliminating the buzz of primary vibration.

Above, the head's double overhead camshafts are driven by a centrally positioned silent camchain equipped with a maintenance-free auto-tensioner, and press directly on four bucket-type valve lifters per cylinder in essentially the same configuration featured in Honda's most high-performance engines. Tuned for stronger emphasis on more powerful midrange and roll-on acceleration, smoother response and enhanced riding ease that should make it popular with both experts and novices, this superbly simple system also offers the advantage of a long 24,000km valve adjustment interval.

High-Accuracy 3D Map-Type Ignition

In the interests of sharper, smoother and more precisely controlled engine performance, the new CBF500 also features one of Honda's more advanced computer-controlled ignition systems. Utilising a 3-dimensional mapping system and a 16-bit processor that monitors throttle angle for highly accurate control over the spark timing of each of the engine's two cylinders, this new ignition system ensures strong performance and smooth operation at all engine speeds, and combines with the parallel twin's excellent low-end torque to resist bogging down when the throttle is opened at

low speeds in the higher gears, while providing snappy acceleration when one wants to get on the move in a hurry.

Responsive Flat-Slide VP Carburettors

As cool, clean air enters the combustion chambers through a large-capacity aircleaner that ensures smooth, strong performance, fuel is quickly and efficiently fed into the intake airstream by a pair of highly responsive slanted flat-slide VP carburettors which deliver superb all-round performance and smooth, linear acceleration throughout the engine's wide rev range, not to mention easy starting and confident control whatever the situation calls for. With throttle cables moved from centre to the left in line with the new frame configuration, a new throttle sensor has been attached to right-side carburettor, and is wired directly to the new computerised electronic ignition system. Fuel economy has also been improved over that of the CB500, for even lower fuel costs and, complementing the CBF's larger fuel tank, a longer touring range on a single tank load.

Gear-driven directly off the crankshaft like the counter-balancer, the CBF's smooth-shifting 6-speed transmission compliments the engine's strong low-to-midrange torque output with a powerful feel of acceleration. To further ease riding operations, especially for novices, the clutch features a wider friction zone for smoother standing starts.

Other changes made to this exciting little twin for adaptation to the new CBF500 include a minor crankcase modification to accept a sensor for the bike's new electronic speedometer. Also, the new CBF500 comes equipped for a cleaner and more environmentally friendly future with an Air Induction system that introduces a stream of cool air into the exhaust port to ensure complete combustion of exhaust fumes. Its sleek 2-into-1 exhaust system is also equipped with not one, but two highly effective heat tubes coated in catalytic material which significantly reduce the emissions of carbon monoxide (CO), nitrous oxides (NO_x) and hydrocarbons (HC) into the air to well below EURO-2 regulated levels for impressively clean performance. This cleaner exhaust feeds out of a slim, new canister-style oval silencer, which provides a stirring exhaust note, as well as a trim form to complement the CBF's impressive good looks.

Chassis

The new CBF500 is built on a newly designed Mono-Backbone frame based on the simply designed yet highly rigid single rectangular tube frame currently used by the Hornet and Hornet 900. This stout yet relatively lightweight 75 x 45mm cross-section steel tube backbone extends from the steering head back and down to the lower rear engine mount in one solid beam. Attached at the front are a pair of rigid, square-section engine hangers that tightly grip the engine's upper head area, while at the back a conventional twin braced tubular seat rail provides support not only for rider and passenger, but for the secure mounting of an optional top box if desired. Up front, the engine's compact yet high-capacity radiator takes up residence under the steering head to keep cooling operation stable and reliability high whatever the weather and riding conditions.

High-Performance Suspension Components

The CBF500's suspension components were specially selected to maximise riding ease while still providing superb control for riders who enjoy putting their riding skills to the test. Up front, instead of the 37mm front fork used on the CB500, a hefty 41mm free valve-type fork like that featured on the popular Hornet provides Supersport-level control, while its wide 204mm fork span (CB500: 182mm) and short 30mm offset ensure light, effortless response that breeds confidence in riders of all skill levels, from motorcycle novices to weekend racers. Contributing to responsive handling ease out in tight traffic conditions and slow parking manoeuvres is a wider 72° side-to-side steering lock (CB500: 68°) for easier control in all riding and parking situations.

At the rear, the new CBF500's suspension system shows the influence of Honda's latest sports bike developments. Its large 35 x 75mm box-section steel swingarm provides greater rigidity and more confident control than even the large 30 x 50mm unit fitted to the extensively raced CB500. Likewise, its new Monoshock suspension system is based on the high-performance systems featured on the Hornets, with a rugged new dual-chamber HMAS damper like that featured on many of Honda's leading Supersports.

Smooth-Handling Radial Tyres

For the first time ever in this midsize class of motorcycle, the new CBF500 mounts high-speed rated radial tyres on its stunning new-configuration cast aluminium 6-spoke wheels to bring it a full rank up in handling performance. While slimmer and less expensive bias-ply tyres have been the conventional treads of choice on light twins and motorcycles not geared for out and out high-speed performance, radial tyres offer significant improvements in handling ease and ‘seat-of-the-pants’ control. A difference in responsiveness and cornering confidence that even novice riders can immediately feel. With high-performance tread patterns, these wide new 120/70 front and 160/60 rear tyres completely supersede the 110/80 front and 130/80 rear tyres mounted on the CB500 for even greater road and track handling ability that will surely have riders of all levels of experience feeling the confidence to push a little harder and lean a little deeper into the corners.

Wheels and Brakes

The CBF500’s new 6-spoke wheels feature a sporty and highly attractive double-spoke design. The front wheel also spins on a larger-diameter 20mm axle (CB500: 15mm) to ensure optimal rigidity and handling confidence.

Strong and sure braking control is supplied up front by a new single dual-piston calliper firmly gripping a large 296mm drilled rotor between sintered metal pads. At the rear, a 240mm rotor is stopped by a single-piston calliper mounted on the swingarm in a conventional front and rear hydraulic disc brake system.

ABS Version for the Ultimate in Braking Control and Confidence

The new CBF500 is also available in a superb ABS version that not only offers the full range of high-performance features found on the standard CBF, but also features the added confidence and control of a compact and smoothly effective Antilock Brake System. Like the system currently featured on Honda’s flagship Silver Wing ABS scooter, this new ABS provides exceptionally smooth and confidence-

inspiring braking control in the most extreme braking conditions, where riders of all skill levels need it most.

At the heart of this system is a single, ultra-compact motor-driven modulator that controls the operation of both front and rear brakes, and is overseen by a high-speed 16-bit computerised ECU. Constantly monitoring the Hall-effect sensors mounted to the front and rear brake calliper mounts, the ECU tracks the rotating speed of a pair of pulsar rings attached to the wheels. The slightest hint of tyre slippage—registered as a minute fluctuation in the relative speeds of the front and rear wheels, and usually far too small for the rider to detect—causes the ECU to exert control over the modulator and stop tyre slip before it starts with a rapid cycling of brake pressure Decrease-Hold-Increase micro-intervals that continue to apply just enough brake pressure to provide smooth and steady deceleration, but without allowing either the front or rear wheel to slip and lose control.

Honda's latest ABS system is one of the simplest and most effective such systems in motorcycling, and was deemed an eminently worthy addition to the fine new CBF500 for promoting the ultimate in riding confidence and control. With the added abilities provided by ABS, the CBF500's already excellent braking response and performance are further dramatically improved, resulting in significantly more comfortable and confident braking control. Over variable traction surfaces, such as wet crossing lines or metal plates, this added control can make all the difference in maximising a rider's confidence and security, and should prove to be a welcome feature in helping riders to utilise the CBF500's brakes to their full potential.

As with all other Honda models equipped with this advanced ABS, the system's ECU features a self-diagnostic program which constantly monitors all main electronic and hydraulic system components. If any malfunction is detected, the system automatically shuts itself off and reverts to standard, fully reliable brake operation, while a red LED warning light on the instrument console provides a visible indication of system irregularities and the need for timely service.

Optional Equipment

The new CBF500 also comes fully equipped with a wide range of optional parts and accessories designed by Honda Access Corporation to greatly extend its day-in-and-day-out range of riding enjoyment. This extensive lineup includes:

- A light grey-tinted clear polycarbonate flyscreen designed to surround the headlight provides a sharp and refreshing complement to the CBF500's sleek naked form while also providing a measure of wind deflection from the rider's chest area at speed.
- A rear carrier with build-in side hand grips and mounting points for adding on an optional top box.
- A large locking 45-litre top box constructed of strong and durable ABS resin in a light grey colour can carry two full-face helmets and much more with security and ease. Features handy, quick-detach locking mounting system.
- A stylish 35-litre top box designed to carry a full-face helmet and more. Features painted lid in matching body colours and handy quick-detach locking mounting system for security and ease of use.
- A ruggedly constructed expanding top box inner liner bag that greatly facilitates the packing and transport of box contents.
- A convenient, easily attached and removed 13-litre magnetic mount tank bag for keeping important and oft-used items close at hand.
- A motion and vibration-sensitive anti-theft AVERTO security system that warns off potential tamperers and thieves with a piercing wail. The CBF500 comes pre-installed with the necessary wiring to facilitate installation.
- An adhesive-backed tank protector pad designed to be attached anywhere extra protection from scuffing and scratches is desired.
- A set of battery-powered grip heaters to keep hands comfortably warm on cold days and nights.
- A sturdy U-lock designed to fit easily under the locking seat.
- A rugged, full-coverage bike cover to protect the motorcycle against foul weather and strong sunlight.

- A conventional centrestand, which provides more secure parking on variable ground surfaces while facilitating rear wheel maintenance.
- A rear maintenance stand, which lifts the bike up by its rear swingarm for convenient tyre changes and other service.
- Decorative chrome rings for installation on the speedometer and tachometer dials (set of two).

Specifications**CBF500 (ED-type)****Engine**

Type	Liquid-cooled 4-stroke 8-valve parallel twin
Displacement	499cm ³
Bore x Stroke	73 x 59.6mm
Idling Speed	1,300min ⁻¹
Oil Capacity	3.5 litres

Fuel System

Carburation	34mm slanted flat-slide VP-type carburettor x 2
Aircleaner	Viscous, cartridge-type paper filter
Fuel Tank Capacity	19 litres (including 3.5-litre warning light reserve)

Electrical System

Ignition System	Computer-controlled digital transistorised with electronic advance
Ignition Timing	14° BTDC (idle) ~ 33° BTDC (3,500min ⁻¹)
Sparkplug Type	CR8EH-9 (NGK); U24FER9 (ND)
Starter	Electric
Battery Capacity	12V/8.6AH
ACG Output	310W
Headlights	12V 60W (low) / 55W (high)

Drivetrain

Clutch	Wet, multiplate with coil springs
Clutch Operation	Mechanical; cable-actuated
Transmission Type	6-speed
Primary Reduction	1.947 (74/38)
Gear Ratios	1 3.461 (45/13)
	2 2.235 (38/17)
	3 1.750 (35/20)
	4 1.478 (34/23)
	5 1.280 (32/25)
	6 1.130 (26/23)
Final Drive	#525 O-ring sealed chain

Frame

Type	Mono-backbone; rectangular-section steel tube
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Chassis

Dimensions	(LxWxH) 2,170 x 762 x 1,175mm
Wheelbase	1,481mm
Caster Angle	26°
Trail	109mm
Turning Radius	2.8m
Seat Height	770mm
Ground Clearance	140mm

Suspension

Type	Front 41mm telescopic fork, 120mm axle travel
	Rear Monoshock damper with 7-step adjustable preload, 125mm axle travel

Wheels

Type	Twin U-section 6-spoke cast aluminium
Rim Size	Front 17M/C x MT3.50
	Rear 17M/C x MT5.00
Tyre Size	Front 120/70 ZR17M/C (58W)
	Rear 160/60 ZR17M/C (69W)

Brakes

Type	Front 296 x 6mm hydraulic disc with dual-piston callipers, (*ABS) and sintered metal pads
	Rear 240 x 5mm hydraulic disc with single-piston calliper, (*ABS) and sintered metal pads
	* CBF500 ABS

All specifications are provisional and subject to change without notice.