

2004 CBR125R

NEW Long box-section steel swingarm supported by progressively damped Monoshock rear suspension for smoothly reassuring control. Mounts compact single-piston rear brake calliper.



NEW Sleekly contoured 10-litre fuel tank combines with the engine's excellent fuel economy to provide long days of riding fun between fill-ups, as well as superb control when the roads turn twisty.

NEW Aggressive racer-replica styling features full-coverage aerodynamic fairing incorporating a pair of brilliant multi-reflector headlights into its sharply angled, eye-catching design.



NEW Slim, integrated instrument panel incorporates separate coolant temperature and fuel level gauges, as well as large electronic speedometer and tachometer dials like the big bikes.



NEW Aggressive-looking stainless steel exhaust silencer provides a spirited sound to accompany the CBR's spirited riding. The system's built-in catalytic heat tube ensures easy compliance with strict EURO-2 emissions regulations.

NEW Rigid twin-spar steel tube frame holds the engine as a stressed member for accurate and responsive handling that boosts confidence in one's riding abilities.



NEW Sturdy and responsive 31mm hydraulic front fork provides 109mm of smoothly damped axle travel for quick and sure handling, and a comfortable ride.



NEW Compact, lightweight liquid-cooled 125cc SOHC single-cylinder engine provides strong performance and features effortless push-button electric starting and a balancer shaft for long hours of comfortable riding enjoyment. Its slick-shifting 6-speed transmission ensures quick acceleration for exhilarating sport riding enjoyment.



NEW Large 276mm drilled front disc brake stopped by a strong dual-piston calliper that provides responsive braking control with excellent feedback for spirited riding.

NEW Sleek, racer-look 6-spoke cast aluminium wheels feature slim U-section spokes like Honda's most famous racers, and mount wide, low-profile tyres that offer the look and feel of a true Supersport.

Photo: ED type

2004

CBR125R

PRESS INFORMATION

Introduction

As a novice's first important step into the exciting world of motorcycle riding, Europe's large 125cc class provides a mind-boggling range of bikes to choose from. Everything from no-frills commuters to swift and stylish scooters, decked-out factory custom cruisers and fully equipped racer replicas that on first glance appear to be better suited to the circuit than to city streets. All provide both learners and more experienced riders with ample performance and important riding experience while making a definitive statement about a rider's sense of style and self-image.

One of the most popular segments of this market has, of course, been the racer replicas. Offering exciting styling and an aggressive riding position, often in tune with the bikes ridden by the world's most popular Grand Prix riders, and outfitted for some of the top riding performance in the class, these swift and quick-handling little road bikes give younger riders the thrilling chance to imagine that they too have both the skills and the machine to chase round the circuits in pursuit of the fastest line to the chequered flag.

Honda's most popular offering in this niche for many years has been its top-class NSR125R. Made exclusively for and in Europe, the NSR was styled for performance and offered an enticing assortment of high-tech features backed up by an eye-opening blast of riding fun that helped this compact 2-stroke powerhouse win fast friends from one end of the continent to the other.

However, as popular as the NSR has been over the years, changes in the times and growing environmental concerns necessitated a rethink of the economic and socially responsible viability of continuing to produce a vehicle powered by its inherently pollution-producing 2-stroke engine. Therefore, in line with rapidly tightening European pollution controls, it was decided that the time had finally come to bid a fond adieu to this perennial favourite, and set a new course for the future of Honda's 125cc motorcycle production.

But, what to replace it with? Only another in a similar line of racer replicas would do, but one powered by a more environmentally friendly 4-stroke engine that could also offer the added benefits of low running costs and easier operation. Something that could appeal to a wider segment of new and young riders looking for

some competitive spice in their first real motorcycle. No mere dressed-up commuter, this new 125cc-class fun bike must offer many of the technological features, sporty performance and stylish, high-quality attention to detail seen on Honda's larger sport bikes, but at a much more affordable price that would prove to be an irresistible attraction to new and younger riders.

That all-new fun bike is the new CBR125R. An exciting new addition to Honda's 125cc lineup that exudes an unmistakable look of Supersport riding capability, and provides a swift, quick-handling and exhilarating introduction to the sporty end of the broad motorcycle spectrum that new riders will quickly learn to love and better riders will appreciate for the exciting range of riding capability it has on offer.

Development Concept

The new CBR125R was specially developed to not only fill the gap left by the popular NSR125R, but do so while achieving more responsive handling, higher fuel economy and much lower exhaust emissions than its predecessor. It also manages to achieve all this at an astoundingly low entry price that should prove especially attractive to newer and younger riders by being nearly half the cost of the NSR125R that it replaces.

Generally, younger riders are the ones most attracted to the look and feel of the racer replicas in this class, and are drawn to these machines by their bold designs, aggressive image of race-ready prowess and pulse-quickenning feel of performance. The new CBR was designed to appeal to these hot-blooded bike lovers with racy lines that take a strong hint from the impressive, class-leading CBR600RR and the RC211V MotoGP champion that precedes it at the cutting edge of motorcycle racing development.

Wrapped in a no-nonsense, racer-like twin-spar frame and rolling on cast aluminium wheels that wouldn't look the least bit out of place on the world's most famous racing circuits, the CBR125R's strong and efficient new liquid-cooled 4-stroke SOHC engine is lighter and more compact than the unit that powered the NSR, thus making a significant contribution to the bike's lighter and more agile handling, and strong acceleration. That it is also cleaner, quieter and less of a fuel guzzler—thus making it easier on the pocketbook—are also important drawing cards in its favour which will prove to be even greater attractions as riders come to know and love this new 125cc Supersport.

Still, riding fun is the name of the game in this class segment, and the new CBR delivers with sharp, precise control that will have riders of other, larger bikes wondering how it's able to keep up. With impressively sporty styling that quickly turns heads and a deceptively easy-going riding disposition that still sets hearts on fire when wound to the max, the new CBR125R provides a perfect introduction to the exhilarating joys of Supersport riding and racer-like control while being friendly to both the people and environment around it.

Styling

The new CBR125R certainly commands attention with its aggressive racer replica design and glare of dual headlights calling to mind the powerful CBR600RR. Besides looking sharp, its bodywork also achieves an ultra-low drag coefficient which makes it comparable in wind-cheating performance to many of the latest race bikes.

Dual Multi-Reflector Headlights

The new CBR's sleekly integrated dual multi-reflector headlights stare menacingly forward from its aerodynamic front cowl, projecting both a distinctive look that calls to mind Honda's world-beating CBR600RR, and a brilliantly illuminated view of the road ahead when riding fun goes on long after the sun goes down.

Above the headlights, the CBR's windscreen provides ample wind protection for its compact size, and features a graduated black-out pattern at its lower edge that visually blends into the upper edge of the CBR's wide instrument panel for a look of detailed refinement.

Comfortably positioned clip-on cast aluminium handlebars mounted above a silver-painted cast aluminium upper triple-clamp provide a Supersport look and feel like the big bikes, while aluminium back plates behind the foot rests and cast aluminium pillion peg holders accentuate the CBR's look of carefully machined refinement.

The fairing's aerodynamic lines flow back to incorporate the CBR's slimly proportioned 10-litre fuel tank behind black resin shrouds. Since the CBR's excellent fuel economy permits it to ride farther on a tankful of fuel, the tank's capacity is 3 litres less than that of the NSR125R, for a significant savings in both weight and fuel costs. With beautifully contoured knee indents contributing to the CBR's excellent control in tight twisties, the fuel tank is topped by an impressive aeronautic-style flush-surface locking fuel cap for a clean, uninterrupted silhouette.

The CBR's solo-style rider's seat utilises a comfortably contoured closed foam construction pad like those found on the world's top racers, which provides plenty of room to move and manoeuvre when the riding turns aggressive. Forming a comfortable fanny pad for the rider to rest against, the raised pillion seat features a

locking flip-up pad that conceals ample space to carry such essentials as a light rain suit, gloves and other small necessities. Behind it, the sportily styled seat cowl terminates into a large taillight encased behind a form-fitted clear plastic shell for a high-tech look of impressive style.

Fully Electronic Instrument Panel

Behind the windscreen, the CBR's fully integrated instrument panel features four sporty-looking meters spread out across its slim face. Front and centre, the two large speedometer and tachometer dials provide accurate electronic readouts of their operating parameters, with the speedo topping out at 200 km/h and the tacho reading all the way up to a screaming 13,000 revs. To the left, a coolant temperature gauge provides a constant readout of engine operating conditions, while the fuel gauge on the right provides an accurate warning of upcoming fuel stops—which are made fewer and farther between by the new CBR's miserly fuel economy, ensuring long days of riding enjoyment between full-ups.

Colouring Concept

Since its aggressive, racer-like looks make up one of the new CBR125R's prime attractions, a Honda racing red colour scheme was obviously a first choice to decorate its appealing bodywork. In this regal red colour variation, which is actually a brighter hue than the Winning Red seen on Honda's other Supersports, the CBR's eye-catching fairing, tank and seat are contrasted by a bold Honda Wing mark-based pattern that provides a strong visual link to Honda's stable of winning Supersport racers.

The new CBR's two other attractive colour variations include a solid black monotone which projects a daring image of top performance, and an alluring candy blue that is a shade lighter than the blue featured on the CBR600RR, yet further heightens this smaller machine's impressive visage.

The new CBR125R also features a metallic grey undercowl similar to that seen on the CBR600RR and MotoGP champion RC211V before it, with a large, contrasting Honda logo mark arrayed across its surface for all to see. Even the 'R' marks in its name stickers are closely based on the 'RR' markings gracing the lines of the CBR600RR, further accentuating its stylistic ties to that superb mid-displacement Supersport machine.

Colours

- Millennium Red (with Matte Moonstone Silver Metallic)
- Candy Lightning Blue (with Matte Moonstone Silver Metallic)
- Black (with Matte Moonstone Silver Metallic)

Engine

The new CBR125R's strong and responsive liquid-cooled single-cylinder engine represents a new addition to Honda's extensive 125cc 4-stroke lineup. Featuring a straightforward single overhead camshaft (SOHC) 2-valve head configuration for highly efficient combustion and excellent low-to-midrange power output, this lightweight and compact new powerplant achieves remarkably strong, high-revving performance for its class, coupled with ultra-low exhaust emissions and excellent fuel economy. This new engine design also contributes to the new CBR125R's much lighter overall weight which, at 116kg, is 19kg less than the NSR, and translates into lighter, more agile handling and more exhilarating riding performance.

Fed by a responsive 28mm constant velocity carburettor, and fired by a high-accuracy computerised CDI, this impulsive, quick-revving little single provides robust, instantly responsive performance that comes on strong throughout its wide rev range. A push-button electric starter brings it to life in an effortless instant, and gets the CBR zipping down the road in a hurry.

This new engine is also equipped with a built-in balancer shaft that ensures a smooth and predictable power delivery for long hours of riding enjoyment with minimal irritating buzzes of vibration.

Drive is supplied to the rear wheel by way of a smooth-shifting close-ratio 6-speed transmission, which gets the new CBR quickly up to speed while taking full advantage of the engine's wide powerband to provide the quickest acceleration in Honda's extensive 125cc lineup.

Efficient Liquid-Cooled Operation

The new CBR's highly efficient liquid-cooling system features a compact radiator which keeps performance strong and stable whatever temperatures the season may hold and however hot the riding becomes. The system also helps reduce mechanical noise for quieter and less irritating day-to-day operation. The radiator's thermostat-controlled fan maintains a cool head in the grind of traffic, and provides a well-earned cool down after a heated session of spirited riding.

Clean Performance

Low exhaust emissions were also a primary design goal for the new CBR125R, and this sharp little racer replica performs admirably while easily clearing Europe's strict EURO-2 emissions regulations. This was accomplished with both precise carburettor settings and the incorporation of a built-in AI (Air Induction) system, which introduces a stream of clean air directly from the aircleaner to the engine's exhaust port to ensure more complete burning of the gases exiting the combustion chamber on the exhaust stroke. A crankcase emissions control system also recycles engine oil vapours from the engine into the intake for more complete combustion without permitting fumes to escape and foul the atmosphere.

Completing the cleaning process, a catalytic heat tube installed in the exhaust system further reduces emissions of carbon monoxide (CO), hydrocarbons (HC) and nitrous oxides (NO_x) by scrubbing the exhaust with its high-temperature chemical reaction.

Reaching down directly under engine, and coming up and out on the right side to terminate into a crisp stainless steel silencer with tapered end tube like many of the hottest race bikes, the CBR's exhaust system provides a stimulating look and a staccato beat of performance, for an pulse-quickenning accompaniment to spirited rides.

Chassis

Lite, effortless handling is a hallmark of Honda's renowned lineup of sportbikes, and the new CBR125R is certainly no exception in this regard. Its impressive twin-spar frame centres on a robust pair of five-sided thin-wall pressed steel main spars that reach straight back from the steering head to the compact welded-on swingarm pivot plates to provide exceptional rigidity for sharply responsive handling that makes short work of the tightest corners and curves, and boosts confidence in both the CBR's range of control and one's riding abilities.

The engine is held as a central stressed member within the frame, and is bolted into place between the main spars and supported by slim box-section hangers reaching down from the steering head area. Extensions reaching up from the rear end of the spars join together at the top to provide a solid mount for both the upper end of the CBR's monoshock damper and its box-section steel seat rail assembly. Eye-catching cast aluminium pillion step holders reach down from their mounting positions on the lower support tubes of the seat rail to provide a comfortable perch for pillion passengers.

Top-Class Suspension System

The CBR125R's remarkably responsive handling also results from the combination of its short wheelbase and top-class suspension components. Up front, a responsively compliant 31mm hydraulic telescopic fork provides a full 109mm of smoothly damped axle travel and quick, confidence-inspiring handling whether simply taking a quick jaunt across town or tearing up the tarmac on some little-known stretch of winding road far away from the crush of the city.

The CBR's rear suspension duties are taken up by a rigid 511mm-long box-section steel swingarm supported by a sturdy, long-travel monoshock damper. This high-performance system provides 120mm of progressive, shock-absorbing performance and reassuring control of rear wheel operation in all riding conditions, from rough cobblestone streets to the undulating curves of the hills that make motorcycle riding such exhilarating enjoyment for novices and experts alike.

Taken together, this advanced balance of chassis features combine with the CBR125R's lighter overall weight to provide quicker, more confidently assured

handling than even the famed NSR125R, and impressively extends Honda's renowned racing spirit all the way to the 125cc class.

Racer-Look Wheels and Brakes

Accentuating its ties to Honda's winning stable of GP racers, the new CBR125R's slim and lightweight six-spoke cast aluminium wheels feature an aggressive U-section spoke design that evokes the CBR's indisputable racing lineage. Wide, low-profile tyres extend the racer look while providing superb road-holding performance for virtually all the road and riding conditions that may be encountered on the exciting CBR125R.

With impressive disc brakes front and rear, one can be sure that stopping power is another area where the CBR125R excels. Its front wheel is adorned by a large-diameter 276mm drilled front disc rotor which is ably stopped by a compact and powerful dual-piston calliper that provides excellent feedback for assured braking performance. At the rear, the CBR's 220mm disc brake is stopped by a small, swingarm-mounted single-piston calliper that assures an optimal balance of braking control in all riding situations.

Specifications**CBR125R (ED-type)****Engine**

Type	Liquid-cooled 4-stroke 2-valve SOHC single
Displacement	124.7cm ³
Bore x Stroke	58 x 47.2mm
Compression Ratio	11 : 1
Max. Power Output	9.7kW/10,000min ⁻¹ (95/1/EC)
Max. Torque	10.1Nm/8,000min ⁻¹ (95/1/EC)
Idling Speed	1,400min ⁻¹
Oil Capacity	1.3 litres

Fuel System

Carburation	28mm VK-type carburettor
Aircleaner	Dry, cartridge-type paper filter
Fuel Tank Capacity	10 litres

Electrical System

Ignition System	Capacitor Discharge (CDI)
Ignition Timing	12° BTDC (idle) ~ 30° BTDC (8,000min ⁻¹)
Sparkplug Type	CR8E (NGK); U24ESR-N (ND)
Starter	Electric
Battery Capacity	12V/5AH
ACG Output	230W
Headlights	12V 35W x 2 (low) / 35W x 2 (high)

Drivetrain

Clutch	Wet, multiplate with coil springs
Clutch Operation	Mechanical; cable-actuated
Transmission Type	6-speed
Primary Reduction	3.350 (67/20)
Gear Ratios	1 3.454 (38/11)
	2 1.941 (33/17)
	3 1.450 (29/20)
	4 1.173 (27/23)
	5 1.041 (25/24)
	6 0.923 (24/26)
Final Reduction	2.800 (42/15)
Final Drive	O-ring sealed chain

Frame

Type Diamond; steel twin-spar

Chassis

Dimensions (LxWxH) 1,920 x 675 x 1,070mm
Wheelbase 1,294mm
Caster Angle 25°
Trail 88mm
Turning Radius 2.5m
Seat Height 776mm
Ground Clearance 172mm
Dry Weight 115kg
Kerb Weight 124kg (F: 59kg; R: 65kg)
Max. Carrying Capacity 180kg
Loaded Weight 304kg (F: 100kg; R: 204kg)

Suspension

Type Front 31mm telescopic fork, 109mm axle travel
Rear Monoshock damper, 120mm axle travel

Wheels

Type U-section 6-spoke cast aluminium
Rim Size Front 17M/C x MT1.85
Rear 17M/C x MT2.15
Tyre Size Front 80/90-17M/C 44P
Rear 100/80-17M/C 52P
Tyre Pressure Front 200kPa (rider only)
Rear 200kPa (rider only)

Brakes

Type Front 276 x 4mm hydraulic disc with dual-piston calliper and sintered metal pads
Rear 220 x 4mm hydraulic disc with single-piston calliper and sintered metal pads

All specifications are provisional and subject to change without notice.