

HONDA

Press Information

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24YM HONDA CB500 HORNET



Model updates: Honda's A2 naked twin-cylinder streetfighter joins the Hornet family, with aggressive new styling and aerodynamic improvements befitting the iconic name. Power and torque for the 471cc engine meet maximum A2 licence requirement– at 35kW and 43Nm – while an ECU update improves acceleration feel and Honda Selectable Torque Control is now standard. The high-quality chassis specification includes 41mm Showa SFF-BP USD forks, Showa rear shock and dual discs up front with four-piston calipers. A brand-new LED headlight opens up better visibility at night, while a new 5-inch TFT screen offers Honda RoadSync smartphone connectivity, operated by a simplified and backlit 4-way toggle switch.

Contents:

1 Introduction

2 Model overview

3 Key features

4 Accessories

5 Technical specifications

1. **Introduction**

The naked CB500F – originally launched in 2013 alongside the adventure-styled CB500X (now NX500) and fully-faired CBR500R – quietly proved that one of Honda's tried-and-trusted formulas for building popular motorcycles had an enduring relevance.

That formula? An entertaining twin-cylinder engine wrapped in a simple, lightweight, sporty chassis. And, while a 35kW peak power output made it suitable for A2 licence holders, the CB500F always offered so much more than 'entry level' performance. Sure, it was an easy machine to manage, ride and learn on, but those same attributes also made it a genuine pleasure for those stepping up from a 125 or coming down from a bigger machine. Sensible running costs, whatever the situation, added strongly to the appeal.

In 2019, the CB500F was redrawn with uncompromising lines that elevated its technical and mechanical aspects and 22YM saw it receive high-quality suspension in the form of Showa 41mm SFF-BP USD forks and dual front discs, plus new lightweight wheels and swingarm.

For 24YM Honda's formula for the 500 streetfighter continues to evolve. Joining an iconic Honda family, the new CB500 Hornet follows in the wheel tracks of the impressive CB750 Hornet with aggressive new styling, high-end technology and a variety of detail upgrades that are sure to make it one of Europe's most popular motorcycles.

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2. **Model Overview**

A new name and new look give the CB500 Hornet a fresh edge as it rides into 24YM. Premium new tech too, in the form of a 5-inch TFT screen – operated by an intuitive and

easy-to-use lefthand switchgear – features the smartphone connectivity of Honda RoadSync.

The A2-compliant, slipper clutch-equipped twin-cylinder engine benefits from the addition of Honda Selectable Torque Control (HSTC) as well as ECU updates to improve acceleration.

Chassis specification includes Showa 41mm SFF-BP USD forks as before, with dual radial-mount four-piston brake calipers.

The 24YM CB500 Hornet will be available in the following colour options:

Matt Gunpowder Black Metallic

Grand Prix Red

Pearl Himalayas White

3. **Key Features**

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3.1 Styling & Equipment

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- ***New streetfighter style incorporates aerodynamics that improve steering and agility***
- ***New LED headlight and taillight***
- ***New 5-inch full colour TFT screen includes Honda RoadSync connectivity for on-screen turn-by-turn navigation and access to other smartphone functions***
- ***New, simplified left hand switchgear is easy to use and backlit for night-time***

The CB500 Hornet's aggressive new look is inspired by the streetfighter DNA of its big sibling and was led by the design banner '*Digital Dynamism*'. A sensual form front to rear, it also offers mass contrast, with a 'wedge' silhouette weighted forward with very slim rear section, muscular fuel tank and sharp new nose cone fairing.

And there's function to the form; the geometric angles of the fairing also incorporate

headlight side ducts that channel airflow smoothly around to the upper fuel tank area. This aerodynamic package contributes to a linear steering feel with increased handling agility. A new LED headlight design maintains beam penetration but throws out wider light distribution, for increased visibility when riding – and cornering – at night. It's matched to a new sleek taillight, and all lighting is LED.

Premium technology, in the form of a brand new 5-inch full colour TFT screen inherited from the CB1000R, uses optical bonding to improve visibility in bright sunlight, a first for a Honda motorcycle. By sealing the gap between the cover glass and TFT screen with resin, glare is reduced and backlight transmittance improved. It's customisable between Bar, Circle and Simple display patterns and also offers the IOS/Android smartphone connectivity of Honda RoadSync.

This new feature – alongside a simplified, easy-to-use, backlit 4-way toggle-switch on the left handlebar – allows straightforward, on-screen turn-by-turn navigation as well as the option (via a Bluetooth helmet headset) for the rider to make calls or listen to music. All an owner has to do is download the Honda RoadSync app from either the Play Store or the App Store, connect to the CB500 Hornet, and go.

Tapered handlebars offer intuitive feel and leverage. Seat height is low at 785mm, making the CB500 Hornet very easy to manage and its neutral riding position comfortably accommodates riders of any height.

Purposeful-looking aluminium footpegs are lightweight and add a sporting feel. Overall dimensions are 2080mm x 800mm x 1060mm, with 145mm ground clearance. The fuel tank holds 17.1L including reserve and combined with the engine's excellent 3.5L/100km (28.6km/litre) fuel economy, gives a range of over 485km.

3.2 Chassis

- ***41mm Showa Separate Function Fork Big Piston (SFF-BP) USD forks***
- ***Dual 296mm discs, Nissin radial mount four-piston calipers***
- ***Lightweight wheels and swingarm***

Light, strong and unchanged for 24YM, the 35mm diameter steel diamond-tube mainframe has a tuned degree of yield that gives plenty of feedback to the rider as road surfaces change. The shape and position of the engine mounts, plus the frame's rigidity balance, keep vibration to a minimum.

Wheelbase is 1410mm with rake and trail of 25.5°/102mm, and front/rear bias percentage is a perfect 50/50. Kerb weight is 188kg.

Like its sibling the CB750 Hornet, the CB500 Hornet features Showa 41mm Separate Function Fork Big Piston (SFF-BP) USD forks which divide the functions – Big Piston pressure separation damper in one leg, spring mechanism in the other – and reaction and ride quality are top draw.

The swingarm is constructed from 2mm steel and employs a hollow cross member; it is stiff rotationally, and flexible laterally to improve handling. The single-tube Showa rear shock absorber, with its large-diameter piston, ensures excellent response and temperature management and features 5-stage preload adjustment.

Dual 296mm front discs are worked by Nissin radial-mount, four-piston calipers; the rear 240mm disc by a single-piston caliper. Lightweight rims use 5 Y-shaped spokes; the 3.5-inch front wears a 120/70-ZR17 tyre, and the 4.5-inch rear a 160/60-ZR17 tyre.

3.3 Engine

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- ***Lively twin-cylinder powerplant now equipped with Honda Selectable Torque Control (HSTC)***
- ***New PGM-FI settings improve low-rpm acceleration and power delivery across the rev-range***
- ***Assist/slipper clutch eases upshifts and manages rear wheel through downshifts***

Delivering maximum A2-licence performance, the friendly 471cc, 8-valve liquid-cooled parallel twin-cylinder layout offers a well-proportioned balance of physical size and willing, enjoyable power output, with an energetic, high-revving character and zappy top end. And it's very much an engine whose overall performance and character belie its relatively small capacity; peak power of 35kW arrives at 8,600rpm, with 43Nm torque delivered at 6,500rpm.

A 24YM addition is HSTC to manage rear wheel traction for increased peace of mind and a real boost for rider confidence. The system compares front and rear wheel speeds to detect rear slip and controls the fuel injection to *smoothly* reduce torque. HSTC can also be turned off completely if the rider wishes.

Feeding the PGM-FI fuel injection is a more-or-less straight shot of airflow through the airbox and throttle bodies. Optimisation of ignition timing and air/fuel ratio equals more powerful acceleration feel from low rpm, with linear power delivery and throttle feel. The exhaust muffler features dual exit pipes, giving a sporting edge to each pulse, and a rasping high-rpm howl.

Bore and stroke are set at 67mm x 66.8mm and compression ratio is 10.7:1; the crankshaft pins are phased at 180° and a primary couple-balancer sits behind the cylinders, close to the bike's centre of gravity. The primary and balancer gears use scissor gears, reducing noise. The crank counterweight is specifically shaped for couple-balance and its light weight allows the engine to spin freely, with reduced inertia.

Acting as a stressed member, the engine complements the frame's rigidity with four frame hangers. Internally the cylinder head uses roller rocker arms; shim-type valve adjustment allows them to be light, for lower valve-spring load and reduced friction.

A silent (SV Chain) cam chain has the surface of its pins treated with Vanadium, reducing friction with increased protection against wear. Inlet valve diameter is 26.0mm with exhaust valve diameter of 21.5mm. Piston shape is carefully designed to reduce piston 'noise' at high rpm. Friction is reduced by striations on the piston skirt (a finish that increases surface area, introducing gaps in which oil can flow for better lubrication).

The 'triangle' proportion of crankshaft, main shaft and countershaft is efficiently compact and the crankcases employ centrifugally cast thin-walled sleeves; their internal design reduces the 'pumping' losses that can occur with a 180° phased firing order. A deep sump reduces oil movement under hard cornering and braking; oil capacity is 3.2L.

A slick-changing six-speed gearbox is managed by an assist/slipper clutch, eliminating rear wheel 'hop' under hard braking and downshifting.

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4. **Accessories**

A range of Genuine Honda Accessories are available for the CB500 Hornet, as individual items or grouped in packs, and ready to bolt straight on:

Style Pack

For enhanced sporty looks, the Style Pack includes a Meter Visor for the instrument display and added wind deflection, a protective Tank Pad prevents paint damage to the tank, a Seat Cowl for the passenger seat that matches the colour of the rear panels of the bike, and a Wheel Stripe kit for a flash of extra colour.

Comfort Pack

Commuting made easier with the Heated Grips for colder days, an ACC socket to conveniently charge electronic devices while stored under the seat and a Main Stand that makes for easy chain maintenance and safer parking on uneven surfaces.

Travel Pack

Includes the 3L Tank Bag with see-through pocket for smartphones and a rain cover and the 15L Rear Seat Bag, expandable to 22L, which provide flexible and convenient carrying capacity for the weekend trips.

Outside of the main packs, a 35L Top Box and the Rear Carrier required for its installation are also available. All the accessories featured in packs can also be purchased individually.

5. Technical Specifications

ENGINE	
Type	Liquid-cooled 4 stroke, DOHC parallel twin
Displacement	471cc
No of Valves per Cylinder	4
Bore & Stroke	67mm x 66.8mm
Compression Ratio	10.7: 1
Max. Power Output	35kW @ 8600rpm
Max. Torque	43Nm @ 6500rpm
Noise Level (dB)	Lurban 73.5dB Lwot 76.8dB

Oil Capacity	3.2L
FUEL SYSTEM	
Carburation	PGM FI electronic fuel injection
Fuel Tank Capacity	17.1L (inc reserve)
CO2 Emissions (WMTC)	80 g/km
Fuel Consumption (WMTC)	3.5L/100km (28.6km/litre)
ELECTRICAL SYSTEM	
Battery Capacity	12V 7.4AH
ACG Output	23.4A/2000rpm
DRIVETRAIN	
Clutch Type	Wet multiplate, Assisted slipper clutch
Transmission Type	6 speed
Final Drive	Chain
FRAME	
Type	Steel diamond
CHASSIS	
Dimensions (L'W'H)	2,080mm x 800mm x 1,060mm
Wheelbase	1,410mm
Caster Angle	25.5°
Trail	102mm
Seat Height	785mm
Ground Clearance	145mm
Kerb Weight	188kg
Turning radius	2.7m
SUSPENSION	
Type Front	Showa 41mm SFF-BP USD forks,

Type Rear	Prolink mono with 5 stage pre-load adjuster, Steel hollow cross swingarm
WHEELS	
Type Front	5Y-Spoke Cast Aluminium
Type Rear	5Y-Spoke Cast Aluminium
Rim Size Front	17 x MT3.5
Rim Size Rear	17 x MT4.5
Tyres Front	120/70ZR17M/C (58W)
Tyres Rear	160/60ZR17M/C (69W)
BRAKES	
ABS System Type	2-channel
Type Front	Dual 296mm x 4mm disc with Nissin radial-mount four piston calipers
Type Rear	Single 240mm x 5mm disc with single piston caliper
INSTRUMENTS & ELECTRICS	
Instruments	5in TFT Meter with customisable layout, including but not limited to Speedometer, Tachometer, Clock, Gear position, Shift UP Indicator
Headlight	LED
Taillight	LED
Connectivity	Yes (Honda RoadSync)
USB	No
12V Socket	Optional
Auto Winker Cancel	No
Quickshifter	No
Security System	HISS (Honda Intelligent Security System)

Cruise Control	No
Additional Features	ESS

All specifications are provisional and subject to change without notice.

Please note that the figures provided are results obtained by Honda under standardised testing conditions prescribed by WMTC. Tests are conducted on a rolling road using a standard version of the vehicle with only one rider and no additional optional equipment. Actual fuel consumption may vary depending on how you ride, how you maintain your vehicle, weather, road conditions, tire pressure, installation of accessories, cargo, rider and passenger weight, and other factors.

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