

HONDA

Press Information

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24YM HONDA NX500



Model updates: Honda's A2-compatible mini-adventurer gets a new name – and even more rugged style – for 24YM. Power and torque remain the same for the 471cc engine – at 35kW and 43Nm – while an ECU update improves acceleration feel and Honda Selectable Torque Control is now standard. New wheels save 1.5kg of unsprung weight, adding to an overall weight loss of 3kg, and are matched by revised settings for the 41mm Showa SFF-BP USD forks and rear shock. Dual discs up front are worked by two 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.

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1. Introduction

The CB500X, originally launched in 2013 alongside the naked CB500F (now CB500 Hornet) and fully faired CBR500R, injected crossover adventure style to Honda's fun-focussed twin-cylinder 'light middleweight' trio.

Right from the start it was a motorcycle that, without fanfare, quietly got on with the job of being supremely competent and adaptable for a wide variety of owners.

The usefulness was down to a straightforward equation – a perky, well-regarded twin-cylinder engine which produced real torque and drive from low rpm while revving hard up top – plus a chassis that gave a supremely comfortable ride both around town and out on the open highway, all wrapped up in distinctive adventure styling.

It slipped between the role of short-hop commuter to weekend tourer effortlessly. Long travel suspension ironed out irregular road surfaces, wide handlebars provided leverage, and the upright riding position offered both comfort and a wide field of view for the rider.

In 2016 a first upgrade brought with it a larger fuel tank, more wind protection and taller screen, as well as LED lighting, spring preload-adjustable front forks and adjustable brake lever. The 19YM evolution delivered more sophisticated adventure style, more engine performance and a number of chassis upgrades. 22YM saw the addition of high-quality Showa 41mm SFF-BP USD forks, dual front discs, lightweight swingarm and redesigned front wheel.

For 24YM Honda's equation for this bike is improving, but not changing in its essence. The

name is new, however. The NX500 is carving out its own identity, with aggressively redesigned styling, premium technology and a variety of detail upgrades that are sure to continue its journey into the hearts and minds of European riders.

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2. **Model Overview**

The letters NX have quite a history with Honda and the single-cylinder NX650 Dominator – which debuted in the late 1980s with unique mix of road and off-road style – is fondly remembered across Europe.

NX means ‘*New X-over*’ which is exactly what the new NX500 is. Fun on a winding road, fun on a gravel trail and ready to go the distance, its all-round credentials are reinforced with an impressive update to its adventure styling. The wheels too are lighter, and the suspension settings front and rear have been upgraded to improve ride quality.

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.

The 24YM NX500 will be available in the following colour options:

Grand Prix Red

Matt Gunpowder Black Metallic

Pearl Horizon White

3. **Key Features**

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3.1 Styling & Equipment

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- ***Sharp new adventure style incorporates aerodynamics to improve stability at speed***
- ***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 easy to use and backlit for night-time***

Directed by the design theme of 'Daily Crossover', wherever it goes – city block, winding road, highway or gravel trail – the NX500 looks the part, wearing new style that mixes compact adventure-style usability with an imposing silhouette and solidity of form

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 LED taillight. All other lighting is also LED.

Premium technology – in the form of a brand new, 5-inch full colour TFT screen inherited from the XL750 Transalp – 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 the Play Store or the App Store, connect to the NX500, and go.

A slim seat profile allows for free movement around the machine and aids easy ground reach and, to help manoeuvrability, the steering angle is 38° from centred to full lock.

Gunmetal grey tapered steel handlebar elevate control further still. Seat height is 830mm and the upright riding position is very accommodating, while providing excellent visibility. Overall dimensions are 2,165mm x 830mm x 1,415mm, with 180mm ground clearance.

The fuel tank holds 17.5L including reserve, and, combined with the engine's excellent fuel economy of 3.6L/100km (27.8km/l) (WMTC mode), gives a range of over 480km.

3.2 Chassis

- ***41mm Showa Separate Function Fork Big Piston (SFF-BP) USD forks***

and rear shock feature fine-tuned settings

- ***New, lighter weight wheels***
- ***Dual 296mm discs, Nissin axial mount two piston calipers***

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 1,445mm with rake and trail of 27.5°/108mm and front/rear bias percentage of 48.7/51.3. Kerb weight is 196kg – 3kg lighter than the CB500X.

Showa 41mm Separate Function Fork Big Piston (SFF-BP) USD forks divide the functions – Big Piston pressure separation damper in one leg, spring mechanism in the other – and reaction and ride quality are top draw. They feature 135mm axle travel (150mm cushion stroke) and have new spring rate and damping settings to improve reaction and feel for both road and off-road riding.

The single-tube shock absorber, with 135mm axle travel (60mm cushion stroke) has new settings to match the front and its large-diameter piston ensures excellent temperature management; it offers 5-stage preload adjustment. Constructed from 2mm steel, the swingarm employs a hollow cross member – it is stiff rotationally and flexible laterally to improve handling.

Completely new are the cast aluminium wheels. Going from a conventional Y-shaped 7-spoke design to Y-shaped 5-spokes saves 800g front and 700g rear. This reduction of unsprung weight works with the revised suspension settings to improve handling and feel in all situations. The 19-inch front is matched to a 17-inch rear; trail-pattern tyres are sized 110/80-R19 and 160/60-R17.

Dual 296mm front discs are worked by Nissin axial mount, two-piston calipers; the rear 240mm disc a single-piston caliper.

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***

The A2-licence 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 designed in parallel with the motorcycle for perfect cohesion are available for the NX500, as individual innovative parts that complement the unit or grouped in packs, and ready to bolt straight on with an official Honda guarantee:

Adventure Pack

For the rigours of the open road, the Adventure Pack enhances the off-roader appearance while adding extra comfort and protection. Fog Lights improve visibility in poor weather conditions and are mounted on top of the Front Side Pipes, finished in black, which help to protect the motorcycle. The Knuckle Guards protect the hands from the cold and flying debris, while the Smoked Screen and Wheel Stripes add style. A Tank Pad shields paint from zip damage.

Travel Pack

A set of dual 16.5L semi-rigid plastic panniers with an easy attachment system combine with a Rear Seat Bag with up to 22L of capacity make traveling easier.

Urban Pack

For daily riding in and out of town this is the perfect setup; a 38L Top Box offers plenty of storage space and comes complete with Pillion Backrest and handy Inner Bag. The Main Stand allows easy chain maintenance and convenient parking on uneven surfaces.

Comfort Pack

For added comfort and practicality, the Heated Grips take the cold out of winter days, with up to 5 heat levels and memory function while being displayed on the TFT. The Wind Deflectors help keep turbulent traveling air away from the rider's lower body. An ACC Socket offers a charging point under the seat and the 3L Tank Bag allows convenient carrying with a see-through pocket for smartphones and a rain cover.

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
Bore and stroke	67mm x 66.8mm
Compression Ratio	10.7: 1
Max. Power Output	35kW @ 8,600rpm
Max. Torque	43Nm @ 6,500rpm
Noise Level	Lurban 74.0dB Lwot 77.0dB
Oil Capacity	3.2L
FUEL SYSTEM	
Carburation	PGM FI electronic fuel injection
Fuel Tank Capacity	17.5L (inc reserve)
CO2 Emissions WMTC	82 g/km
Fuel Consumption (WMTC)	3.6L/100km / 27.8km/l (WMTC mode)
ELECTRICAL SYSTEM	
Battery Capacity	12V 7.4AH
DRIVETRAIN	
Clutch Type	Wet multiplate, Assisted slipper clutch
Transmission Type	6 speed
Final Drive	Chain
FRAME	

Type	Steel diamond
CHASSIS	
Dimensions (L`W`H)	2,165mm x 830mm x 1,415mm
Wheelbase	1,445mm
Caster Angle	27.5°
Trail	108mm
Seat Height	830mm
Ground Clearance	180mm
Kerb Weight	196kg
Turning radius	2.4m
SUSPENSION	
Type Front	Showa 41mm SFF-BP USD forks,
Type Rear	Prolink mono with 5 stage preload adjuster, steel hollow cross swingarm
WHEELS	
Type Front	Multi-spoke cast aluminium
Type Rear	Multi-spoke cast aluminium
Rim Size Front	19M/C X MT2.5
Rim Size Rear	17M/C X MT4.5
Tyres Front	110/80R19M/C59H
Tyres Rear	160/60R17M/C69H
BRAKES	
ABS System Type	2 channel
Type Front	Dual 296mm x 4mm disc with Nissin axial mounted two 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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