

HONDA

Press Information

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21YM HONDA FORZA 350



Model updates: Increased cubic capacity for Honda's mid-size sporty/GT sit-in scooter brings with it faster top speed and improved acceleration. The 'enhanced Smart Power+' (eSP+) engine is also now EURO5 compliant. Cosmetic updates add to the premium appeal and improve aerodynamics. The electric screen features an extra 40mm travel and a USB charger adds further convenience. As an option, the Forza 350 can wirelessly connect its rider to various smartphone functions via the new Honda Smartphone Voice Control system.

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1. Introduction

The Forza name has long been a powerful force in Honda's two-wheeled line-up. Its history as a premium, mid-size scooter goes back to the year 2000: the first model set the template, delivering a lively ride, plenty of storage room and an innovative combined braking system. It was well received throughout Europe, where owners found its multi-role capability useful in every aspect of daily life.

While retaining its trademark mix of sporty and GT character, the Forza 300 has constantly evolved, aiming to exceed owners' expectations with every upgrade. In 2004 it gained Honda's S MATIC electronically controlled CVT (Continuously Variable Transmission), a theft-detering Smart key, highly efficient PGM-FI fuel injection for the engine and space for two full-face helmets under the seat.

2005 saw the addition of ABS brakes and, in 2008, luxurious touches like an audio package and speakers plus upgraded S MATIC (with phased auto shift mode) and Combined ABS brakes were added. In 2016 it moved on again, as the Forza 300 with a new 'sit-in' design large enough to carry two people in total comfort, even at highway speeds.

2018 marked the unveiling of a radically revised Forza 300 – lighter, smaller, sharper and sportier – following in the hugely successful wheel tracks of its little sibling, the Forza 125, while retaining all the best attributes of its 'GT' nature. A '*Limited-Edition*' model with Grey/Gloss Black colour scheme and matching Smart top box added an exclusive choice in 2020.

Now, for 2021, it's time for another advance. The Forza 350 is faster, even more useful and, of course, stylishly desirable with it.

2. Model Overview

A 50cc increase injects 16% more peak power, at 21.5kW but the Forza 350's engine is significantly stronger all the way through the rev-range, delivering faster acceleration and a top speed raised just over 6%, to 137km/h. It's also EURO5 compliant.

Cosmetic and aerodynamic updates have been applied to the front fairing sides, mirrors, rear side panels and engine cover for a sleeker overall look with even more premium appeal; the chassis itself is unchanged but now connects to a lighter swingarm, and the electric screen adjusts with an extra 40mm travel to improve wind protection.

The instrument panel has also been refreshed, and the Forza 350 rider now has the possibility of linking to their smartphone via Bluetooth with the new Honda Smartphone Voice Control system which is available as an option from new. A USB socket replaces the ACC charger.

The 2021 Forza 350 will be available in the following colour options:

Pearl Nightstar Black

Matt Pearl Pacific Blue ****NEW****

Pearl Cool White

Matt Cynos Gray Metallic

Pearl Falcon Gray ****NEW****

3. Key Features

3.1 Engine

- ***330cc engine puts out an extra 3Kw peak power @ 7,500rpm and 4.3Nm more torque at 5,250rpm.***
- ***Top speed of 137km/h, and 0.7s faster acceleration to 200m***
- ***'enhanced Smart Power+' technology ensures fuel economy of 30km/l (WMTC mode), with EURO5 compliance***

- **10% lighter crankshaft**
- **Throttle bodies increased in size to 36mm (from 34mm)**
- **Inlet valves' diameter increased to 28mm (from 27mm)**
- **New piston oil jet to improve cooling and combustion efficiency**
- **Revised intake and exhaust ports improve efficiency**
- **Redesigned muffler, with only two chambers**
- **Hydraulic cam chain adjuster and scavenger pump to reduce internal friction**

The Forza 350's new 'enhanced Smart Power+' engine achieves both high environmental performance and strong output characteristic through comprehensive adoption of technologies for friction reduction.

Thanks to the extra 50cc capacity (to 330cc from 279cc, with no gain in overall kerb weight) the liquid-cooled, fuel-injected SOHC four-valve unit's peak power rises from 18.5kW to 21.5kW @ 7,500rpm, with maximum torque increasing to 31.5Nm @ 5,250rpm. The dyno graph comparison graphically displays the whole picture showing how both power and torque rise considerably from 3,500rpm up.

The effect on real-world performance is obvious: top speed increases 8km/h to 137km/h and, from a standing start, the Forza 350 will cover 200m 0.7s faster, at 10.4s.

To earn the extra ccs, the bore goes from 72mm to 77mm while stroke increases to 70.7mm. Compression ratio is set at 10.5:1. To make use of the increased capacity, the length and timings of the valve lifts have been optimised. Compared to the previous model, the closing of the inlet valve and the opening/closing timings of the exhaust valves have been delayed by 5°. The lift amount has also been increased by 0.3mm. The timings of the inlet valve openings remain unchanged.

The crankshaft has also been redesigned and is now 10% lighter. This has been achieved without any change to the dimensions of the journals, while still maintaining the strength and rigidity required to transmit the higher output. Roller-type rocker arm, plain journal crank bearings and sealed crankcases deliver long-term reliability together with strong performance. To enhance piston cooling, an oil jet, as used on the CRF450R, sprays oil right to the back of the piston, advancing ignition timing and improving combustion performance. Oil capacity is 1.7 litres.

A revised intake sees throttle bodies increase to 36mm from 34mm, with inlet valves increasing 1mm to 28mm, increasing efficiency. Air is supplied via a 5.5 litre airbox. Intake and exhaust ports have also been completely redesigned. The intake port now draws air in

more efficiently, utilising a strengthened tumble flow within the cylinder for more consistent fuel combustion. Exhaust gases are now expelled via a straight exhaust port, rather than the curved port of the previous design, further improving efficiency.

To reduce exhaust gas resistance, the new muffler now consists of two distinct chambers rather than three. Improvements to the pipe connecting the expansion chamber as well as the size and location of the catalyser also improve gas flow and purification.

Internal friction is reduced through a 5mm offset cylinder, the introduction of hydraulic cam chain adjuster and the use of a scavenger pump. Used on high performance machines, the pump lowers the internal pressure within the engine, reduces oil agitation and decreases pumping losses and internal rotational friction. A newly adopted balancer shaft further reduces vibrations and contributes to a smooth enjoyable ride.

An automatic centrifugal clutch works a V-Matic transmission (with ratios set for fast low speed reaction and smart acceleration) and belt final drive. Through the 2021 update the engine cover has been redesigned to complement the new bodywork.

The Forza 350's engine is equipped with Honda Selectable Torque Control (HSTC). The system detects any difference between the front and rear wheel speeds, calculates the slip ratio and then controls engine torque via the fuel injection to regain rear wheel traction. HSTC can be switched ON-OFF via a switch on the left handlebar. A 'T' indicator in the digital display flickers when the system is working to manage grip.

The engine is also now homologated for EURO5, which from January 1st 2020 introduced significantly stricter engine emissions standards compared to EURO4. These requirements include substantial reductions in permitted carbon monoxide emissions, an over 40% decrease in total hydrocarbon emissions, tougher misfire detection and the introduction of a particulate matter limit.

Fuel economy is a frugal 30km/l (WMTC mode); the 11.5L tank capacity gives a potential 340km+ range.

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3.2 Styling & Equipment

- ***Electric screen adjusts through 180mm, an extra 40mm, for improved comfort***
- ***Cosmetic updates enhance visual appeal and aerodynamic performance***

- ***Lighter pillion handles save over 1400g***
- ***Room for two full-face helmets under the seat; new USB charging socket***
- ***Smart Key operation of ignition and (optional) 45-litre top box***
- ***Emergency stop signal function warns other road users of sudden braking***

The Forza 350's lines flow back from its electric screen (controlled by a switch on the left handlebar) which, for the 2021 update gets a revised shape and an extra 40mm travel to adjust through 180mm. It's designed to provide wind protection, with airflow directed around and over the rider's head, and reduce wind noise. Stability and comfort at higher speeds – and long distances – can be instantly exchanged for a greater sense of freedom around town, by lowering the screen.

Sculpted for both style and aerodynamic efficiency, the Forza 350's sharp design lines give a clean, smooth modernity, creating an impression of energetic sportiness and premium desirability. The styling team's key words of 'aggressive, technical and powerful' find expression in a new spoiler-type surround below the headlight, refreshed fairing side panels with a distinctive 'Z' design line, and a steeply descending character line for the rear side panels that create a forward-looking, purposeful aesthetic.

Pillion grabrails are now plastic rather than aluminium, saving 1407g, further improving mass centralisation and agility. For comfort at higher speeds a larger front air duct manages negative pressure in front of the rider, reducing the natural effect of the wind pushing the rider back.

Two full-face helmets can be stored under the seat, and it's also possible to partition the storage area to house a helmet and/or rain gear and A4 sized bags. The front left inner fairing pocket is lockable, and its internal space can be arranged for the rider's convenience, to hold a phone and water bottle, for instance. It also houses a USB socket, which replaces the 12V ACC charger of the previous design. All lighting is LED.

Keeping its rider fully connected, the Forza 350 also has the Honda Smartphone Voice Control system available as an option from new, which links the rider to their smartphone while on the move and allows voice management of phone calls and music. A helmet-mounted headset is needed and the smartphone connects via Bluetooth; management of Honda Smartphone Voice Control System is from the left switchgear and dash.

The Forza 350's Smart Key – as well as controlling the main ignition switch knob and compartment locking – also manages the optional 45L Smart top box. With the Smart Key in the rider's pocket the box is unlocked, and automatically locks when the rider walks

away. It can also be locked from the key. To maintain the internal volume of the box the actuator mechanism is located in the rear body of the machine.

The front and rear indicators of the Forza 350 have a new auto-cancelling Emergency Stop Signal feature. Once the ABS modulator detects sudden braking, the hazard lamps flash at high speed to warn other vehicles.

Instruments present analogue speedometer and rev-counter (with redesigned dials) flanking a digital display that can switch between 3 modes: 1) odometer, range remaining and current mpg, 2) trip meter, average mpg and timer and 3) ambient temperature thermometer and battery sensor.

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3.3 Chassis

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- ***Short wheelbase with sharp steering geometry***
- ***Relocated radiator for better cooling***
- ***Compact dimensions paired with a practical seat height***
- ***Both wheels cast aluminium; 14-inch diameter rear and 15-inch front***

A sturdy, yet lightweight, tubular steel frame is at the heart of the Forza 350's reassuring feel on the road. Wheelbase is 1510mm, rake is 26.5° and trail 89mm. The radiator is now located in front of the fuel tank for better cooling performance, and the battery is found between the fuel tank and the under-seat storage area, focusing mass to the centre. Wet weight is 184kg.

Seat height is 780mm and the riding position naturally upright, promoting excellent all-round visibility. Handlebar width is 755mm, with front width of 580mm and mirror width of 860mm; compact dimensions that make slipping through traffic-heavy streets easy.

Rigid 33mm telescopic forks are matched by twin rear shock absorbers – adjustable through 7-stage spring preload – working through a redesigned, and lighter, 1-piece aluminium swingarm.

The cast aluminium 15-inch front wheel is fitted with a 120/70-15 tyre while the 14-inch rear wears a 140/70-14 tyre, offering maximum traction and ride comfort. A 256mm single disc performs stopping duties up front, mated to a 240mm rear, with the benefit of 2-channel ABS for braking control on slippery surfaces.

4. Accessories

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A range of Genuine Honda Accessories are available for the Forza 350. They include:

45-litre Smart top box

Rear carrier rack (direct fitment)

Inner bags

Heated grips

Alarm

5. Technical Specifications

ENGINE	
Type	4 stroke, 4 valve liquid-cooled
Engine Displacement	330cc
Bore and Stroke	77mm x 70.7mm
Compression Ratio	10.5:1
Max. Power Output	21.5kW @ 7,500rpm
Max. Torque	31.5Nm @ 5,250rpm
Oil Capacity	1.7L
FUEL SYSTEM	
Carburation	PGM-FI
Fuel Tank Capacity	11.7L
Fuel consumption	30km/l
ELECTRICAL SYSTEM	
Starter	Electric

Battery Capacity	12V-8.6 AH
ACG Output	340W
DRIVETRAIN	
Clutch Type	Automatic centrifugal clutch; dry type
Transmission Type	CVT
Final Drive	V-Belt
FRAME	
Type	Underbone type; steel
CHASSIS	
Dimensions (LxWxH)	2140mm x 755mm x 1470mm
Wheelbase	1510mm
Caster Angle	26.5°
Trail	89mm
Seat Height	780mm
Ground Clearance	135mm
Kerb Weight	184kg
Turning radius	2.4m
SUSPENSION	
Type Front	φ33 Telescopic
Type Rear	Twin Shock
WHEELS	
Rim Size Front	15 inch
Rim Size Rear	14 inch
Tyres Front	120/70R15
Tyres Rear	140/70R14
BRAKES	

ABS System Type	2 Channel
Front	φ256mm, single disc
Rear	φ240mm, single disc

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.