HONDA

Press Information

FOR IMMEDIATE RELEASE

21 September 2020

21YM HONDA CB125F

Model updates: *Honda's perennially popular entry-level CB125F is a brand-new motorcycle for 2021 and a huge 11kg lighter. Its low friction eSP ('enhanced Smart Power') engine significantly improves fuel economy while maintaining performance and now features an ACG starter. The revised bodywork takes styling cues from bigger CB stablemates, and equipment includes an LED headlight, centre stand and digital dash with ECO meter.*

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1. Introduction

An entry-level 125cc motorcycle has to be a multi-faceted machine. To some it represents the most economical way of getting from A to B, both in terms of initial affordability and running costs. To these riders it must be durable, easy to live with and economical: simple, trouble-free transport at its most fundamental.

But to many new riders a 125 is the start of their motorcycling adventure, their first 'real' bike. So, it must deliver all of the above, plus everything else that a motorcycle should – the excitement, freedom and instinctive pleasure that two wheels bring to everyday life. Yet it also has to be easy for a novice to manage as they learn, with a build quality and styling that instil tangible pride of ownership.

For any manufacturer, welcoming and introducing fresh entrants to their brand is important. The right initial experience can lead to a lifelong association, and the CB125F has long served this function for Honda - a tough, user-friendly entry-level motorcycle that offers the perfect first rung on the ladder. The CB125F was a new model name for Honda in 2015; it maintained the previous CBF125's core strength of robust simplicity but built strongly on that strong foundation in terms of quality, ease of use and style.

For 2021 the CB125F is renewed again, with a complete refresh that makes it even more desirable and cost effective. The new CB125F is a great bike to simply get you where you need to be – or from where to begin the ride of a lifetime.

Mr. Ken Tomiyasu – Large Project Leader (LPL) 2021 CB125F:

"For us, benchmarks are important. So, we have set about a quiet revolution with our all-new CB125F, keeping its useful around-town performance but adding much greater fuel economy. It also features advanced low-friction technologies in the eSP engine, confident handling from its chassis, and looks that an owner can be really proud of. We are very proud that so many people will begin their motorcycling journey with Honda on CB125F, and know that it will provide pleasure and practicality in equal measure."

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2. Model Overview

The new CB125F is a serious small machine, whose development involved the filing of no fewer than 19 patent applications. Made at Honda's Atessa facility in south east Italy it offers a huge jump in fuel economy from its air-cooled enhanced Smart Power (eSP) engine, with no loss of performance.

It's also 11kg lighter, with a redesigned frame and an up-to-date, big-bike re-style; an LED headlight and revised digital dash are quality finishing touches. The 2021 CB125F will be available in the following colour options:

Splendor Red

Pearl Cool White

Black

3. Key Features

3.1 Engine

- ***New enhanced Smart Power (eSP) engine offers 27% extra fuel economy, with no loss of performance***
- ***Low friction technologies include offset cylinder, needle bearings for the roller/rocker arms and piston oil jet***
- ***ACG starter also generates electricity and contributes greatly to the engine's 7kg weight loss***
- ***5-speed gearbox and sealed final drive chain***

The CB125F's new air-cooled, 124cc 2-valve SOHC single-cylinder eSP ('enhanced Smart Power) EURO5-specification engine has been engineered from its inception to maintain optimum performance for busy urban streets but with extra, serious frugality and supreme reliability.

Peak power of 8kW is delivered @ 7,500rpm, with peak torque of 10.9Nm @ 6,000rpm (as

opposed to 7.8kW @ 7,750rpm/10.2Nm @ 6,250rpm). Bore and stroke is set at 50 x 63.1mm, with compression ratio of 10.0:1. Standing start acceleration over 200m 12.4s, but more importantly, the fuel efficiency is vastly improved – leaping from 51km/l to 66.7km/l, giving a potential range of over 700km from the 11L fuel tank.

Honda has developed its eSP engines – and the engineering that goes into them – on a growing range of 125cc scooters over the last 5 years. The focus is around building in, from a clean sheet, low-friction technology to every facet of the engine; the CB125F's eSP engine benefits hugely from eight years of accumulated know-how.

And it starts with weight. The new eSP design is 7kg lighter than the engine it replaces. Its cylinder is offset, reducing friction between the piston skirt and bore, while the piston itself is cooled by an oil jet from underneath, again reducing friction. Valve operation is via rocker-roller arms equipped with needle bearings.

An Alternating Current Generator (ACG) is also part of the eSP formula and combines electricity generation with starting duties, saving weight while simplifying layout. The effort needed to start the engine is reduced thanks to a swing-back system that returns the crank to its position before air intake – giving the engine a 'running' start – and a decompression mechanism that negates cranking resistance due to compression. In use the ACG starter is extremely quiet. The gearbox is 5-speed and final drive is via sealed chain.

3.2 Chassis, Styling & Equipment

- ***New tubular steel frame saves 1.7kg; twin rear shocks are preload adjustable***
- ***Sharp re-style adds big-bike presence and extra CB family DNA***
- ***The nose fairing houses an LED headlight and digital dash***
- ***Wet weight of 117kg is 8.6% lighter than the previous model***

The new tubular frame uses high-tensile steel in its construction and is 1.7kg lighter. It suspends the engine from a sturdy central spine and features geometry that provides the best balance between ride comfort and straight-line stability, with a focus toward light steering input and sporty feel at all lean angles. Rake and trail are set at 26° and 92.4mm, with wheelbase of 1280mm and wet weight is 117kg, a full 11kg lighter.

Dual rear shocks offer 5-step spring preload adjustment and complement the 31mm

diameter telescopic fork's compliance and ride quality; stylish 18-inch die-cast aluminium split-spoke front and rear wheels increase stability and ride quality over rough city streets. Tyres are sized 80/100 front and 90/90 rear. A 240mm front disc is worked by a dual piston caliper, with back up from the 130mm rear drum. The Combined Braking System means that activation of the rear brake also applies some braking force to the front.

The 2021 CB125F wears aggressive new styling, with echoes of larger bikes in the CB family, around its redesigned chassis. The broad-shouldered fuel tank and silver-finished shrouds in particular take their cues from the CB-R Neo Sports Café family, while a CB500F-influenced angular nose fairing and blacked-out fly screen provide some wind deflection, and a sharper attitude. It also houses a new LED headlight and digital dash that displays the information that matters, including a gear position indicator as well as real-time and average fuel economy, distance to empty and *ECO* indicator, for when riding in the most efficient way. The start/stop button is an integrated switch (the previous model did not feature a stop button as standard) as is the high beam/passing switch.

The engine, exhaust downpipe, fork lowers and wheels are blacked out, underlining the strong lines and bold paintwork. The muffler too, is blacked out but also finished with a chrome heat shield. Bright red detailing is to be found on the shock springs and spark plug HT cap. Other quality finishing touches include 3D Honda Wings on the shrouds and mirror/indicator shaping that emulates the design language of the whole machine.

With its intended use as an everyday commuter, gateway machine to the world of motorcycling - and riding school stalwart - the CB125F's riding position is upright and relaxed, with more forward-set footpegs and wide tubular handlebars giving optimum control, rider confidence and all-round visibility. Seat height is 15mm higher at 790mm and offers room for two adults comfortably; a passenger grab rail is also standard, as is a centre stand.

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4. Technical Specifications

ENGINE	
Type	Air cooled 4 stroke OHC single
Displacement	124cc

No of Valves per Cylinder	2
Bore & Stroke	50 x 63.1mm
Compression Ratio	10.0:1
Max. Power Output	8kW @7,500rpm
Max. Torque	10.9Nm @ 6,000rpm
Noise level (dB)	73.5dB(Lwot) 71.8dB(Lurban)
Oil Capacity	1L
FUEL SYSTEM	
Carburation	PGM-FI electronic fuel injection
Fuel Tank Capacity	11L
Fuel Consumption (WMTC)	66.7 Km/L
CO2 Emissions WMTC	34 g/km
ELECTRICAL SYSTEM	
Battery Capacity	12V-5A·h
DRIVETRAIN	
Clutch Type	Wet, multiplate with coil springs
Transmission Type	5 speed
Final Drive	Chain
FRAME	
Type	Tubular steel
CHASSIS	
Dimensions (L´W´H)	2015mm x 750mm x 1100mm
Wheelbase	1280mm
Caster Angle	26°
Trail	92.4mm

Seat Height	790mm
Ground Clearance	160mm
Kerb Weight	117KG
Turning radius	2.04m
SUSPENSION	
Type Front	31mm telescopic
Type Rear	Dual shocks – 5 stage preload
WHEELS	
Type Front	18in five spoke aluminium
Type Rear	18in five spoke aluminium
Tyres Front	80 / 100 18M/C
Tyres Rear	90 / 90 18M/C
BRAKES	
System Type	CBS
Type Front	240mm single disc with two piston caliper
Type Rear	130mm drum
INSTRUMENTS & ELECTRICS	
Instruments	Speedometer, milometer, fuel gauge, rpm counter, gear position indicator
Headlight	LED
Taillight	LED

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.