

HONDA

Press Information

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21YM HONDA CRF300 RALLY



Model updates: Increased cubic capacity for Honda's mini-adventurer, plus revised air intake, inlet cam timing and exhaust system that inject more peak power and considerably stronger torque across the rev-range. Shorter gearbox ratios are topped with a taller 6th gear while an assist/slipper clutch maintains allows confident control of the rear wheel. Handling on any terrain is improved with a new swingarm and more laterally flexible frame, increased ground clearance, longer travel suspension and revised riding position. Increased capacity for the fuel tank extends range; the seat is now rubber-mounted and lower, and there are rubber inserts for the footpegs. The handlebars use internal weights, indicators are now flexibly mounted and the finishing touch is an easy-to-read, positive LCD instrument display. Kerb weight is reduced by 4kg to 153kg, making for a 13% improvement in power to weight ratio.

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1. **Introduction**

A small capacity dual-purpose motorcycle covers many bases: it slips easily through congested city traffic thanks to lightweight and slim proportions matched with superb manoeuvrability, while its suspension, ground reach and seat height deliver a fun and comfortable ride on rough tarmac and trails. In essence it opens up a whole new range of two-wheeled opportunities, whatever the rider's experience level.

With styling DNA drawn directly from the HRC CRF450 RALLY Dakar racer, the CRF250 RALLY, based on the trail-ready CRF250L, brought something new to the market on its launch in 2017. It not only looked ready to compete in a desert stage, but also delivered a real taste of adventure to riders who prefer a light, easy-to-manage machine.

For 2021, alongside the CRF300L*, the CRF300 RALLY makes its debut. Lighter, more powerful and even better equipped to explore – around the world or around the block – the CRF300 RALLY is good to go.

*See separate CRF300L press kit.

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2. **Model Overview**

Now 286cc, the CRF300L's new engine produces 10% more peak power of 20.1kW @ 8,500rpm, and 18% more peak torque at 26.6Nm @ 6,500rpm. Inlet cam timing has been revised, alongside both air intake and exhaust system for much stronger mid-range torque and power. Gear ratios 1-5 are shorter, for improved response, while 6th is taller for more relaxed high-speed cruising. An assist/slipper clutch now manages the rear wheel under

hard down changes and offers 20% less load at the lever.

A redesigned steel frame, aluminium swingarm and bottom yoke are major contributors to a 4kg overall weight loss and feature revised rigidity balance for feedback and feel. Steering geometry has been adjusted in detail to match, and the forks have an extra 10mm travel.

Sharp-edged bodywork features a larger, 12.8L capacity fuel tank and comfortable, broad seat, distinctive asymmetric dual LED headlight and new, positive LCD instrument display. The riding position, too, has been altered to encourage the light steering manoeuvrability needed off-road and, just as usefully, around town.

3. Key Features

3.1 Engine

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- ***Larger capacity 286cc engine puts out an extra 1.9kW and 4Nm***
- ***Revised gearbox ratios for both acceleration and cruising***
- ***Assist/slipper clutch with 20% lighter lever load***

An extra 14% cubic capacity for the single-cylinder, liquid-cooled DOHC engine – from 250cc to 286cc – is acquired by a 63mm stroke, as opposed to 55mm. Bore remains unchanged at 76mm, as does compression ratio of 10.7:1. Peak power of 20.1kW arrives @ 8,500rpm, peak torque of 26.6Nm @ 6,500rpm (up from 18.2kW @ 8,500rpm/22.6Nm @ 6,750rpm). The full dyno graph curves tells the full story beyond the peak power and torque uplift: the new engine is considerably stronger, everywhere, from 2,000rpm up.

To match the engine's heavier punch and again, to smarten pick-up and acceleration, gear ratios 1-5 are shorter while 6th gear is taller, for more relaxed highway cruising. Addition of an assist/slipper clutch reduces lever load by 20% and manages rear wheel 'hop' on rapid downshifts – great for control, on or off-road. On the highway, top speed goes from 129km/h to 135km/h.

Revised timing of the intake cam specifically boosts low- to mid-range response – the rpm range most used around town or off-road – and works with a redesigned air filter, exhaust downpipe, muffler and ignition timing. An iridium spark plug, along with precise metering of

fuel from the PGM-FI injection system, further enhances combustion efficiency and improves environmental credentials.

The engine uses an offset cylinder, reducing internal frictional losses, while the piston itself incorporates a special surface material, plus molybdenum coating. The oil pump features an internal relief structure that prevents aeration of relieved oil. The crank journal employs a half-split, press-fit metal bearing while the crank bearing uses a cast-iron bush. A primary balance shaft further reduces vibration.

The cooling system uses a 12.7kW heat-release radiator, sited on the left of the bike, protected with a polypropylene grill baffled to improve airflow. A thin guide-ring cooling fan is used to maintain even temperatures at low speeds, either in congested traffic or tricky off-road situations.

The CRF300 RALLY's engine is fully EURO5 compliant.

3.2 Chassis

- ***Handling and agility improved on any terrain from wide-ranging updates***
- ***Significant weight saving from a new frame and swingarm***
- ***Revised rigidity balance for both, for increased feedback and feel***
- ***Long travel front and rear suspension***

A total of 4kg has been saved overall from the CRF300 RALLY's chassis, with wet weight now of 153kg. The steel semi-double cradle frame is completely new and contributes 2.15kg to the weight loss. Just as importantly, to promote handling feel and connection to front/rear traction, its flexibility balance has been tuned with 25% less lateral rigidity.

This has been achieved with decreased width (-30mm) for the main down tube and smaller, 25.4mm diameter lower down tubes (from 28.6mm) plus a 20mm decrease in width across the central bracing tube.

To match, the one-piece cast aluminium swingarm is not only 550g lighter, it features a 23% reduction in lateral rigidity. It's also 15mm narrower just behind the pivot point and smooth, cross-sectional shaping is used to create uniform deflection. Extruded aluminium is used for the chain adjustment collar. The steel bottom yoke of the previous design has been changed for aluminium; this shaves 730g from an area high relative to the centre of gravity for faster steering response.

The 43mm Showa inverted fork gains 10mm of stroke to 260mm, with spring weight and damping settings revised for precise control over a wide range of terrain and speeds. Pro-Link rear suspension features a 260mm axle stroke; the Showa shock absorber is a single tube design.

Ground clearance has been increased, from 270mm to 275mm, thanks to revisions to the lower frame, engine crankcases and oil drain plug. Rake and trail are now set at 27.5°/109mm (from 27.6°/113mm) with 10mm longer wheelbase of 1455mm.

The front brake uses a single 296mm disc gripped by a two-piston caliper, the rear a 220mm disc and single-piston caliper; in common with the CRF competition machines the rear master cylinder is now a lightweight, integrated design. The discs feature a wave design – also taken directly from the CRF250R/CRF450R – with exceptional self-cleaning abilities in adverse conditions. 2-channel ABS is standard.

Lightweight aluminium rims further reduce unsprung mass; for 2021 the Alumite surface has been polished to a gloss finish. Block pattern enduro-style tyres (front, 80/100-21 51P and rear 120/80-18 62P) provide traction in a wide range of riding situations.

The 21-inch front wheel and 18-inch rear increase stability on rough terrain and allow the fitment of more off-road specific tyres if required. Application of a machined rear sprocket and M8 bolts (instead of M10) plus hollow rear axle saves 240g and 160g respectively.

3.3 Styling & equipment

- ***Lighter, slimmer bodywork incorporates larger 12.8L fuel tank***
- ***Broader seat for comfort, now rubber mounted and 10mm lower in height***
- ***Positive LCD display even easier to read***

The CRF300 RALLY is designed to cover distance and its styling reflects this. Derived from the parts used by the CRF450 RALLY, the 'floating' screen, upper/lower fairing and side shrouds effectively shield the rider to offer excellent defence against the elements. Hand guards offer further protection, both for the hands and the brake and clutch levers. A skid plate protects the machine's underside and the gear lever features a folding tip.

From the machine's mid-section back, the refreshed style is MX-sharp; the rear number

plate bracket is much smaller, for a 300g saving; further weight has been saved by the aggressive shape of the front mudguard. The fuel tank grows in volume by 2.7L, to 12.8L; with 32.3 km/l achievable (WMTC) mode cruising range of over 410km is possible.

The seat is rubber mounted for comfort and the footpegs also now feature rubber inserts. Seat height is 885mm, 5mm taller than the CRF300L and 10mm lower than before. It features the same narrower profile up front as its sibling, but with an 20mm width across the seated area for long riding days.

To foster easy, light control the riding position has been subtly altered: the handlebars have been pulled back slightly, while the foot rests have been lowered and also moved back, to make gear changes in heavy off-road boots easier. And the CRF300 RALLY features internal handlebar weights to minimise vibration. The sidestand, too has been redesigned with a 10% larger area for its (now) folding footplate.

A redesigned, 70g lighter LCD display features large black digits on a crisp white display, for instant readability. The speedo numbers are also 6mm larger, at 23mm. Information includes gear position indicator, fuel mileage and consumption, average speed, stopwatch and rev-counter. The headlight is a compact, asymmetric dual LED unit, matched to a bulb taillight. The indicators, too, are LED and now flexibly mounted.

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4. **Accessories**

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Tailor-made accessories for the CRF300 RALLY include 38L top box, rear carrier bracket and mounts.

5. **Technical Specifications**

ENGINE	
Type	Liquid-cooled, single cylinder DOHC
Engine Displacement (cm ³)	286cc
No. of Valves per Cylinder	4
Bore ´ Stroke (mm)	76mm x 63mm

Compression Ratio	10.7:1
Max. Power Output	20.1kW/8500rpm
Max. Torque	26.6Nm/6,500rpm
Oil Capacity	1.8L
FUEL SYSTEM	
Carburation	PGM-FI electronic fuel injection
Fuel Tank Capacity	12.8L
Fuel Consumption	32.3km/L
ELECTRICAL SYSTEM	
Battery Capacity	12V-7AH
DRIVETRAIN	
Clutch Type	Wet multiplate, assist/slipper clutch
Transmission Type	6-speed
Final Drive	Chain
FRAME	
Type	Steel semi-double cradle
CHASSIS	
Dimensions (LxWxH)	2230 x 920 x 1415mm
Wheelbase	1455mm
Caster Angle	27.5°
Trail	109mm
Seat Height	885mm
Ground Clearance	275mm
Kerb Weight	153kg
Turning radius	2.3m
SUSPENSION	

Type Front	43mm telescopic USD fork
Type Rear	Prolink
WHEELS	
Wheels Front	Aluminium spoke
Wheels rear	Aluminium spoke
Tyres Front	80/100-21M/C 51P
Tyres Rear	120/80-18M/C 62P
BRAKES	
ABS System Type	2 channel ABS
Brakes Front	296 mm x 3.5mm disc with two piston caliper
Brakes Rear	220 mm x 4.5mm disc with single piston caliper
INSTRUMENTS & ELECTRICS	
Instruments	LCD
Headlight	LED
Taillight	Bulb

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.