

Media Information 2011 Crossrunner ABS

Release date: 2 November 2010

Model updates: New model



Introduction

The Crossrunner represents the best aspects of two separate biking genres: the flexibility and exciting attitude of a Naked performance machine with the upright riding position and rugged appearance of an adventure bike.

The Crossrunner mix is more than that, though. This machine has an 800cc V4 motor that provides a thrilling riding experience, be it for short urban trips or for covering vast distances.

Extensive customer research indicated that whilst buyers liked the appearance and the image of adventure bikes, for some the compromised stability caused by long travel suspension, taller seat heights and dual purpose tyres was a concern. The research further revealed that customers wanted a machine that had a unique stylish image and was also great fun to ride in all conditions throughout the year – whether that be on short trips around town or on long rides out across country.

The Crossrunner addresses each of these issues and in doing so delivers a uniquely adaptable riding experience. The best of both worlds.

Development concept

Stability and rider-flattering ease of use were two core design motivations for the Crossrunner project. It was always at the forefront of the design team's minds that this motorcycle should be performance-focused, yet supremely manageable to cater for a wide range of riding capabilities. Beyond the practicalities, the Crossrunner's wide-barred, upright riding position offers a unique riding experience that magnifies the impressions of performance and versatility.

Crossrunner prototypes have endured over 120 sessions in the wind tunnel to maximise stability-enhancing airflow. The net result of this extensive wind-flow research is unwavering stability at all speeds. This airflow technology that helped shape and form the multi-layered fairing panels lends the Crossrunner a distinctive and trend-setting appearance.

The rider's level of machine control is enhanced by the wider than normal handlebar configuration which serves to maximise the leverage effect. This means that the Crossrunner responds accurately yet quickly to small steering inputs.

The Crossrunner has also been designed to maximise pillion comfort. The passenger is seated on a level, low platform to make mounting and dismounting easier and also to maximise the wind protection afforded by the rider. This also creates a feeling of unison between rider and pillion, adding an extra dimension of harmony to the overall riding experience.

This new model also addresses another aspect that focus groups identified as a key area ripe for consideration: the engine. Most sport tourers use an in-line four cylinder engine and most adventure bikes use a twin cylinder powerplant. This created an obvious opportunity for the Crossrunner design team.

The Crossrunner's smooth, flexible and soulful 782cc V4 engine is specifically tuned for the kind of riding suited to this cross-purpose machine. An elastic, turbine-like delivery and smooth, readily accessible power make it very easy for the rider to find an effortless, flowing rhythm – an attribute always appreciated by the pillion.

Main features

- Liquid-cooled 782cc, 4 cam, 90° V4 engine delivers a smooth curve of power with excellent torque throughout the rev range
- Low-slung 4-2-1 exhaust system leaves room for a lower, flatter pillion seat as well as allowing for an attractive exhaust design, excellent cornering clearance and a distinctive V4 engine note
- Natural, upright riding position of a Naked machine is combined with the roominess, comfort and rugged appearance of an adventure bike
- Wide handlebar configuration contributes to quick, accurate response to steering input
- Low passenger seat is designed for easy mounting and positions pillion at similar level to the rider, resulting in better wind protection and an enhanced ride feel

- 'Floating' instrument binnacle is positioned for maximum visibility at all times and includes a digital LCD speedometer, a tachometer, twin trip meters, a coolant temperature gauge, an ambient temperature indicator and a clock
- Honda VTEC system with refined fuelling and ignition maps combine for a smooth progressive power delivery, abundant torque and precise control
- Aluminium alloy twin-spar frame provides excellent rigidity
- 43mm cartridge-type front fork provides supreme front wheel control and excellent rider feedback
- Cast aluminium Pro-Arm swingarm, Pro-Link rising-rate linkage system and gas-charged HMAS damper with adjustable rebound damping combine for comfort and precise control
- High-performing Combined brakes with standard-fit ABS create powerful, assured braking with optimised control and feedback

Styling

The European design team behind the Crossrunner's unique proposition was given the opportunity to design a motorcycle that reflected the riding conditions of this new decade. The Crossrunner had to be exciting to ride but at the same time easy to master, and the styling of the machine needed to reflect these cross discipline attributes.

The Crossrunner had to be comfortable for both rider and passenger. It was also essential that the end product reflected the ultra-high quality finish that Honda has become renowned for.

The bike's sophisticated styling is accentuated by the high and wide handlebars. Positioning the rider this way with an almost straight back and comfortably outstretched arms increases levels of comfort and improves visibility - both ahead and behind.



To place the pillion on a low, flat seat base, the Crossrunner exhaust system is a low-slung 4-2-1 system, rather than the widely adopted under-seat design. This solution also offers a neat, aesthetically pleasing exhaust routing, excellent cornering clearance and a pleasingly muted yet distinctive V4 exhaust note.

Crucial machine data is provided by a 'floating' instrument binnacle, placed high for optimum visibility at all times. This design technique also creates a feeling of room and airiness to visually create a sense of space.

Colours

The Crossrunner will make its European debut in three striking colour versions. In two-tone combinations, they emphasise the unique shapes and layers of the bodywork.

- Graphite Black / Matt Moonstone Silver Metallic
- Pearl Fadeless White / Matt Bullet Silver Metallic
- Candy Blazing Red / Matt Moonstone Silver Metallic

Engine

The traits of the well-proven Honda V4 engine configuration are legendary. Along with the appealing engine note, this distinctive engine architecture provides a smooth curve of power with excellent torque figures from idle to the rev limit.

To provide both optimum low speed torque and peak power, a highly developed version of Honda's revolutionary VTEC system has been specially adjusted. This technology offers variable valve timing to optimise the degrees of valve opening – a unique proposition in the motorcycle market.

Crossrunner engineers have laboured to refine these characteristics. Throttle control linearity – the feeling of heightened rider control – was an early design goal and formed an importantly large part of the Crossrunner's development time.

The net result is a smooth rush of progressive, linear power with abundant torque throughout the rev range and precise control at every parameter of revs, throttle position, gear position and load.

In pursuit of this goal, engineers experimented with several different inlet trumpet shapes and lengths before the optimum settings were achieved.

The 782cc, quad cam, 90 degree V4 runs an over-square bore and stroke of 72.0 x 48.0mm for efficient cylinder filling via the four-valve, down-draught cylinder heads. The liquid-cooled unit feeds its power to the rear wheel via a six speed gearbox, wet clutch and chain final drive.

An added benefit of maximising the progressive nature of the torque and power curves is efficient fuelling, resulting in a 348km range from the 21.5-litre fuel tank.

Chassis

An adaptable engine needs an equally capable chassis, and the Crossrunner delivers this with a proven aluminium alloy, twin-spar frame that provides excellent rigidity for when the rider demands more.

This sportsbike-derived chassis technology is part of the Crossrunner's unique cross-over proposition. The design allows a much lower headstock height than traditional adventure bikes, resulting in much improved levels of rigidity. The twin aluminium alloy chassis spars that closely hug the contours of the compact engine also offer much better levels of lateral rigidity than the tubular steel frames of most Naked machines.

In harmony with this concept of a wide-ranging level of performance parameters, the Crossrunner's suspension is equally adaptable and perfectly suited to a far-reaching range of riding styles.

Up front, 43mm cartridge forks provide supreme front wheel control and excellent rider feedback. The rear wheel is precisely governed by Honda's race-proven Pro-link rising-rate linkage system and a gas charged HMAS damper with coil-over adjustable spring. Both front and rear suspensions provide a uniquely versatile range of damping control to suit the multi-faceted nature of the Crossrunner.

Brakes

With standard-fit ABS, the triple disc braking setup of the Crossrunner is not only powerful, but safe too. Twin 296mm floating discs are arrested by three-piston calipers at the front, whilst the rear 256mm disc brake adopts a twin-piston caliper for precise control.

Extensive development work with the ratio of master cylinder-piston to caliper-piston ratios has achieved a high degree of rider feel for optimised levels of braking control and heightened aspects of rider feedback.

Optional equipment

Honda Access Europe will be providing a range of tailored optional accessories for the Crossrunner. These have been created alongside the bike and are designed to complement its styling, comfort and versatility. The accessories include:

- 29-litre pannier kit. Operated with the motorcycle key, the panniers are aerodynamically shaped and easily detachable. The left pannier can hold one full-face helmet
- Sleek 31-litre top box featuring a locking, quick-detach mounting system. Operated with the motorcycle key, the top box can hold a full-face helmet with room for other luggage
- Tough PVC inner bags for the top box and panniers. These are black with a Honda Wing logo, and come with carrying straps and handles. As an extra convenience feature, the pannier inner bags can be zipped together for easy carrying
- Higher windscreen that offers extended wind protection for taller riders.
- Pair of slim heated grips with an integrated controller for maximum comfort and compact design integration
- Set of two fairing deflectors, offering increased wind protection
- Mainstand that makes rear wheel maintenance easier and provides more secure parking on uneven surfaces
- 12V DC socket for powering additional electrical equipment
- An outdoor motorcycle cover that protects the paintwork from UV rays. The fabric is water-resistant and breathable, allowing the bike to dry while parked. A rope is included to tighten the cover and prevent fluttering in the wind. There are two holes in the front to allow use of a U-lock
- A U-lock and an Averta alarm kit. The alarm has an 118dB siren, a shock detector with 8 sensitivity settings and features a sleep mode to help prevent the battery from draining. Connectors and pre-wiring are included.

Specifications – Crossrunner ABS (E-type)

ENGINE

Type	Liquid-cooled 4-stroke 16-valve DOHC 90° V-4
Displacement	782cm ³
Bore × Stroke	72 × 48mm
Compression Ratio	11.6 : 1
Max. Power Output	74.9kW/10,000min ⁻¹ (95/1/EC)
Max. Torque	72.8Nm/9,500min ⁻¹ (95/1/EC)
Idling Speed	1200min ⁻¹
Oil Capacity	3.8 litres

FUEL SYSTEM

Carburation	PGM-FI electronic fuel injection
Throttle Bore	36mm
Aircleaner	Oil-permeated, cartridge-type paper filter
Fuel Tank Capacity	21.5 litres

ELECTRICAL SYSTEM

Ignition System	Computer-controlled digital transistorised with electronic advance
Ignition Timing	8° BTDC (idle) ~ 50° BTDC (1200min ⁻¹)
Sparkplug Type	IMR9D-9H (NGK); VNH27Z (DENSO)
Starter	Electric
Battery Capacity	12V/11AH (YTZ-12S)
ACG Output	386W
Headlights	12V; 55W × 1 (low) / 55W × 1 (high)

DRIVETRAIN

Clutch	Wet, multiplate with coil springs										
Clutch Operation	Hydraulic										
Transmission Type	Constant mesh 6-speed										
Primary Reduction	1.934 (64/33)										
Gear Ratios	<table> <tr> <td>1</td> <td>2.846 (37/13)</td> </tr> <tr> <td>2</td> <td>2.062 (33/16)</td> </tr> <tr> <td>3</td> <td>1.578 (30/19)</td> </tr> <tr> <td>4</td> <td>1.291 (31/24)</td> </tr> <tr> <td>5</td> <td>1.111 (30/27)</td> </tr> </table>	1	2.846 (37/13)	2	2.062 (33/16)	3	1.578 (30/19)	4	1.291 (31/24)	5	1.111 (30/27)
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6 0.965 (28/29)

Final Reduction 2.687 (43/16)

Final Drive O-ring sealed chain

FRAME

Type Diamond; aluminium twin-spar; pivotless

CHASSIS

Dimensions (L×W×H) 2,130 × 799 × 1,243mm

Wheelbase 1,464mm

Caster Angle 25° 45'

Trail 96mm

Turning Radius 2.8m

Seat Height 816mm

Ground Clearance 140mm

Kerb Weight 240.4kg (F: 115.2kg; R: 125.2kg)

SUSPENSION

Type Front 43mm cartridge-type telescopic fork with stepless preload adjustment, 108mm axle travel

Rear Pro-Link with gas-charged HMAS damper, 7-step preload and stepless rebound damping adjustment, 119mm axle travel

WHEELS

Type Front 6-spoke cast aluminium
Rear 5-spoke cast aluminium

Rim Size Front 17M/C × MT3.50
Rear 17M/C × MT5.50

Tyre Size Front 120/70 R17
Rear 180/55 R17

Tyre Pressure Front 225kPa
Rear 250kPa

BRAKES

Type Front 296mm dual floating hydraulic disc with 3-piston calipers, C-ABS and sintered metal pads

Rear 256mm hydraulic disc with 2-piston caliper, C-ABS and sintered metal pads

All specifications are provisional and subject to change without notice.



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