

# CRF450X

**2009** Press Information



## Introduction

---

Closely based on the high-flying big-bore CRF450R, the enduro-focused CRF450X has been claiming victories in such off-road arenas as the Baja and WORCS series races since it first appeared on trails across the world.

Featuring breathtaking power and a slim, easy-to-ride form, it takes off-road riding to exhilarating peaks of fun and excitement. Its rugged, long-travel suspension systems are augmented by the Honda Progressive Steering Damper (HPSD), which eases control and smoothes handling in cornering and over rugged terrain. Are you chasing the ultimate accolade, or searching for the incomparable thrills that come from cutting loose on an amazing new cross country trail? The mighty CRF450X is the definitive tool to give you both the adrenaline and the stamina to push your own limits time and time again, and keep you coming back for more. The rest is up to you!

## Colours

---

- Extreme Red (with White number plate and sidecovers)

## Features and Benefits

### Engine/Drivetrain

- Powerful liquid-cooled, electric-start 449cm<sup>3</sup> 4-stroke 4-valve Unicam engine is designed to produce power across a wide rpm band for easy-to-control operation.
- Push-button electric starter ensures easy start-ups in all conditions.
- Innovative Honda Unicam valve train provides both the light weight of a compact single-cam design and an optimum combustion chamber shape for maximum power at all engine rpm.
- Unicam valve train features a single carburised camshaft directly actuating two 35mm titanium intake valves. The camshaft's centre exhaust lobe actuates two 30mm steel exhaust valves via a forked, low-friction, roller rocker-arm.
- Electric starter drives the clutch side of the crankshaft to provide superior lubrication of starter gears, and produce a narrow engine with a short, strong crankshaft.
- Lightweight titanium intake valves permit use of smaller valve springs, reducing overall engine height.
- Magnesium ACG cover, clutch cover and cylinder head cover reduce engine weight.
- Forged 12 : 1 compression slipper piston is lighter than conventional designs, for quick-revving response while maintaining excellent cylinder sealing and high-rpm power.
- Lightweight NiCaSil cylinder lining ensures cooler and quieter operation for extended engine life.
- 40mm Keihin FCR-type carburettor features four rollers on the flat slide for light throttle effort, smooth operation, crisp throttle response and excellent rideability.
- Carburettor features a throttle position sensor (TPS) that helps maintain linear throttle response throughout the rpm range.

- Twin-sump lubrication system separates oil supply to crankshaft, piston and valve train from supply to clutch and transmission. This ensures a steady supply of cool oil to the clutch, eliminates clutch and transmission material contamination of the engine oil, reduces the amount of circulating oil and permits the use of a smaller oil pump.
- Exhaust system uses a lightweight stainless steel exhaust header and an aluminium silencer equipped with a spark arrester which complies with all local fire and noise regulations.
- Dual radiators feature a refined core area for improved heat dissipation compared to conventional dual-radiator designs. Coolant recovery tank is located underneath engine for improved mass centralisation. Coolant tank is protected by a plastic skid-plate.
- Gear-driven balancer reduces vibration and drives the water pump.
- Eight-plate clutch provides the surface area necessary to handle the engine's massive torque, while carefully matched clutch springs provide a light feel at the lever.
- T-ring-sealed chain is approximately 1.6mm narrower and stronger compared to conventional chains.
- Durable and versatile 5-speed wide-ratio transmission.

### Chassis/Suspension

- Advanced fourth-generation twin-spar aluminium frame.
- Lightweight and compact Honda Progressive Steering Damper (HPSD) developed by Team Honda for improved cornering ability and reduced rider fatigue.



- HPSD features a compact damper attached to the lower triple-clamp and the steering head to augment more aggressive steering characteristics and assist straight-line handling. Tuned specifically for higher speed, non-motocross, off-road riding applications, the CRF450X damper incorporates different valving and settings compared to units mounted on motocross models. HPSD provides confident straight-line control at high speeds, a planted feel in corners, less rider fatigue and outstanding handling over a wider variety of terrain and riding conditions.

- Semi-double-cradle frame design features a single, large-diameter tapered down-tube for optimised frame rigidity, with two rugged box-section rails attached to its base to support the engine. A forged aluminium steering head provides a compact and extremely durable mount for the frame spars and engine down-tube.

- Suspension and chassis tuned for competitive off-road riding needs.

- Lightweight 47mm Showa inverted twin-chamber cartridge-type fork with aluminium dampers is derived from the CRF450R and features settings unique to the CRF450X. The fork offers 315mm of travel, 16-step rebound and 16-step compression damping adjustability, as well as stiffer springs for improved mid-stroke action. The inner surfaces of the front fork outer tubes receive the same honing treatment as Works bikes for low-friction operation.

- Pro-Link rear suspension system features single, fully adjustable Showa rear damper with optimised damper settings and 313mm of wheel travel, separate low-speed (13-step) and high-speed (3.5-turn) compression damping adjusters, and 17-step adjustable rebound damping.

- Large 50mm rear damper piston diameter provides consistent performance under demanding riding conditions.

- Swingarm features a dual-axis, double-taper design with a large cast aluminium cross-member offering high strength and light weight.

- Front wheel features large-diameter front axle and wide wheel-bearing span for excellent rigidity.

- 18" rear wheel features same lightweight rear hub and HRC Works-type lightweight aluminium spoke nipples as used on CRF450R for reduced unsprung weight and enhanced protection against flat tyres.

- Large 25mm diameter rear axle and large-diameter bearings provide optimum rigidity and strength to withstand torturous track conditions.

- Compact dual-piston front brake calliper, anodised aluminium brake pistons and lightweight 240mm Works-style brake rotors minimise unsprung weight for improved turning and handling.

- HRC Works-type rear brake system integrates the rear master cylinder and fluid reservoir into one compact, lightweight unit.

- Dunlop 742FA front tyre improves turning feel and traction.

### Additional Features

- All plastic body components (including radiator shroud, side covers, rear fender, seat base, fuel tank, front fender, and front headlight) designed for slim, aggressive styling, enhanced manoeuvrability and lighter weight.

- Ample 7.2-litre fuel tank capacity.

- Powerful 35-watt halogen headlight features innovative lens design for wide range of illumination.

- Resettable, easy-to-read three-digit competition odometer.

- Eye-catching LED taillight integrated into rear fender.

- Rider ergonomics optimised by positioning rider's legs at frame's narrowest width for improved comfort and handling feel.

- Seat cushion uses foam construction that follows the shape of the fuel tank, providing a smooth transition to increase rider mobility and comfort.



- Rear brake pedal and shift lever made of lightweight aluminium and designed to complement the riding position.
- Wide, cleated stainless steel footpegs are self-cleaning, corrosion-resistant, provide excellent grip and fold for extra ground clearance.
- Convenient sidestand integrated into left foot-peg bracket can be easily removed for competitive off-road riding needs.
- Aluminium Renthal handlebar (971 bend) is rubber-mounted to reduce rider fatigue and improve comfort.
- Handlebar holders provide two different mounting positions to match rider preference.
- Works-type handlebar grips add to rider comfort.
- Adjustable front brake lever.
- Hot-start lever conveniently located on clutch perch.
- Quick-adjust clutch perch.
- T-ring sealed chain is narrower, stronger and lighter than conventional O-ring chains.
- Chain guide material offers improved wear resistance, with service life five times greater than conventional materials.
- Skid-plate and engine guards feature a unique three-piece design.
- Front disc brake cover helps protect rotor and calliper from damage.
- Removable rear sub-frame allows easy maintenance.
- Comfortable, durable controls and high-quality fasteners.
- Stainless steel clutch cable for long life.
- Honda Racing-inspired colours and graphics.



# Specifications

General		
Model		CRF450X
Mold Type		ED-type
Engine		
Type		Liquid-cooled 4-stroke 4-valve SOHC single
Displacement		449cm <sup>3</sup>
Bore x Stroke		96 x 62.1mm
Compression Ratio		12 : 1
Max. Power Output		33.2kW / 7,500min <sup>-1</sup> (95/1/EC)
Max. Torque		43.1Nm / 7,000min <sup>-1</sup> (95/1/EC)
Fuel System		
Carburation		40mm Keihin FCR flat-slide carburettor with throttle position sensor (TPS)
Fuel Tank Capacity		7.2 litres
Electrical System		
Ignition System		Computer-controlled digital capacitor discharge with electronic advance and lighting coil
Starter		Electric / Primary kick
Drivetrain		
Transmission		5-speed
Primary Reduction		2.739 (63/23)
Gear Ratios	1	2.231 (29/13)
	2	1.625 (26/16)
	3	1.235 (21/17)
	4	1.000 (19/19)
	5	0.826 (19/23)
Final Reduction		3.923 (51/13)
Final Drive		#520 T-ring sealed chain
Frame		
Type		Semi-double cradle; aluminium twin-spar
Chassis		
Dimensions	(LxWxH)	2,178 x 821 x 1,273mm
Wheelbase		1,478.2mm
Caster Angle		27° 5'
Trail		115mm
Seat Height		962.6mm
Ground Clearance		345.4mm
Kerb Weight		122kg

Suspension		
Type	Front	47mm Showa inverted leading-axle twin-chamber cartridge-type telescopic fork with 16-step adjustable compression and rebound damping; 315mm axle travel
	Rear	Pro-Link with Showa damper, adjustable low-speed (13-step) & high-speed (3.5-turn) compression and 17-step rebound damping; 315mm axle travel
Wheels		
Type	Front	Aluminium rim/wire spoke
	Rear	Aluminium rim/wire spoke
Rim Size	Front	21M/C x 1.60
	Rear	18M/C x 2.15
Tyre Size	Front	80/100 21M/C (54R)
	Rear	110/100 18M/C (70R)
Brakes		
Type	Front	240 x 3mm hydraulic disc with dual-piston calliper and sintered metal pads
	Rear	240 x 4mm hydraulic disc with single-piston calliper and sintered metal pads