

# 2005 CRF450X PRESS INFORMATION

Starting from the CRF450R, the world's most phenomenal big-bore 4-stroke motocross champion, as their winning design base, Honda's off-road engineers have now created the world's lightest and most powerful off-road racer and fun bike to ever raise a roost and put a smile on your face. Featuring dynamic, wheel-lofting power, a slim form and rugged, long-travel suspension systems for light, neutral handling—*and* the ease of push-button electric starting—the all-new CRF450X is the exciting new bike to have for every kind of high-powered off-road riding fun you can imagine.

## **Colours**

- Extreme Red (with White number plate and sidecovers)

## **Features and Benefits**

### **Unique Features**

- Push-button electric start system for easy start-ups in all conditions.
- Exhaust emissions comply with all local regulations for off-road motorcycles.
- Large 8.6-litre fuel tank capacity.
- Resettable, easy-to-read three-digit competition odometer.
- Spark arrester-equipped silencer complies with all local fire and noise regulations.
- Powerful 35-watt halogen headlight features new lens type for wide range of illumination.
- Eye-catching LED taillight integrated into rear fender.
- Convenient sidestand.
- Easy-access urethane foam air filter.
- Smooth-shifting wide-ratio 5-speed transmission.
- Suspension tuned for enduro riding needs.
- 18" rear wheel provides enhanced protection against flat tyres.
- New T-ring sealed chain is narrower, stronger and lighter compared to conventional chains.

### **Engine/Drivetrain**

- Powerful liquid-cooled 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.
- 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, compact, internal auto decompressor system provides superb cold-starting and hot-starting operation.
- Compact, lightweight engine assembly weighs only 32.2kg.
- Unique 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 from above. The camshaft's centre exhaust lobe actuates two 30mm steel exhaust valves via a forked, low-friction, roller rocker-arm.
- Lightweight titanium intake valves permit use of smaller valve springs, reducing overall engine height.
- High-strength, low-carbon steel crankshaft with carburised main journals for maximum durability at sustained high-rpm operation.
- ACG cover, clutch cover and cylinder head cover are made of magnesium to reduce engine weight.
- Forged 12.5:1 compression slipper piston is lighter than conventional designs, for quick-revving response while maintaining excellent cylinder sealing and high-rpm power.
- Double-carburised connecting rod utilises an updated big-end needle bearing and thrust washers for maximum high-rpm performance and durability.
- Lightweight NiCaSil cylinder lining ensures cooler and quieter operation for extended engine life.
- Press-fitted aluminium spark plug pipe fits between forked exhaust rocker arms, further contributing to compact cylinder head design.
- 40mm Keihin FCR-type carburettor features four rollers on the flat slide, resulting in very 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.
- Vertically split crankcases feature a built-in oil pump, reducing weight compared to conventional designs.

- Exhaust system uses a lightweight stainless steel exhaust header and muffler equipped with spark arrester.
- 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 shield.
- Gear-driven balancer reduces vibration and drives the water pump. Eight clutch plates provide the surface area necessary to handle the engine's massive torque, while carefully matched clutch springs provide a light feel at the lever.
- New T-ring-sealed chain is approximately 1.6mm narrower, and stronger compared to conventional chains.
- Durable 5-speed wide-ratio transmission.

### **Chassis/Suspension**

- All-new 4<sup>th</sup>-generation twin-spar aluminium frame is derived from Honda's CR series of championship motocrossers.
- Forged aluminium steering head and tapered down-tube section designed for optimised frame rigidity. In addition, tall swingarm pivot plates and narrow frame spars create a narrow overall frame cross-section for superb rider comfort and manoeuvrability.
- Semi-double-cradle frame design features a single, large-diameter tapered downtube. Two rugged box-section rails attach to the base of the downtube and support the engine. A forged aluminium steering head provides a compact and extremely durable mount for the frame spars and engine downtube.
- The aluminium frame design is matched to rider ergonomics to maximise handling and control operation.
- 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. 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 a single, fully adjustable Showa rear damper and 315mm of wheel travel, separate low-speed (13-step) and high-speed (3.5 turns) 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.
- Rear axle diameter of 25mm and large-diameter bearings provide optimum rigidity and strength to withstand torturous track conditions.
- Large, 240mm front and rear brake rotors.
- Compact dual-piston front brake calliper, anodised aluminium brake pistons and lightweight front brake rotor minimise unsprung weight for improved turning and handling.
- HRC Works-type rear brake system integrates the rear master cylinder and fluid reservoir, eliminating the need for a remote master cylinder reservoir and hose assembly.

### **Additional Features**

- All plastic body components (radiator shroud, side covers, rear fender, seat base, fuel tank, front fender, and front headlight) are designed for slimmer, more aggressive styling and light weight.
- Airbox features easy access to reusable foam air filter.
- Rider ergonomics are optimised by adapting the handlebar, seat and footpeg height to place the rider's legs at the narrowest cross-section of the frame 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.
- Non-slip seat cover enhances rider control.
- Rear brake pedal and shift lever made of lightweight aluminium and designed to complement the riding position. Brake pedal features optimised ratio to match integrated rear brake master cylinder design.
- Wide, cleated stainless steel footpegs are self-cleaning, resist corrosion, provide excellent grip and fold for extra ground clearance.
- Aluminium Renthal handlebar (971 bend) is rubber-mounted to reduce rider fatigue and improve comfort.
- CR handlebar holders provide three different mounting positions: standard CRF450X holder (CRF450R/CR125R/CRF250X-type) provides +/-3mm fore or aft position to match rider preference, and optional holder (CR250R-type) provides neutral position.
- Works-type handlebar grips add to rider comfort.
- Adjustable front brake lever.
- Quick-adjust clutch perch.
- Chain guide material offers improved wear resistance, with service life five times greater than conventional materials.
- Front disc brake cover helps protect rotor and calliper from damage.
- Removable rear sub-frame allows easy maintenance.
- Washable, two-stage foam air filter for optimal engine protection and easy maintenance.
- Comfortable, durable controls and high-quality fasteners.
- Stainless steel clutch cable for long life.
- Honda Racing-inspired colours and graphics.

**Specifications****CRF450X (ED-type)****Engine**

Type	Liquid-cooled 4-stroke 4-valve SOHC single
Displacement	449cm <sup>3</sup>
Bore x Stroke	96 x 62mm
Compression Ratio	12 : 1
Max. Power Output	36.2kW/7,500min <sup>-1</sup> (95/1/EC)
Max. Torque	46.8Nm/7,000min <sup>-1</sup> (95/1/EC)
Carburation	40mm Keihin FCR flat-slide carburettor with throttle position sensor (TPS)
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

**Chassis**

Frame	Semi-double cradle; aluminium twin-spar
Dimensions (LxWxH)	2,176 x 825 x 1,254mm
Wheelbase	1,481mm
Caster Angle	27° 25'
Trail	110.3mm
Seat Height	963mm
Ground Clearance	348mm
Fuel Tank Capacity	8.6 litres
Dry Weight	113kg

## **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; 313mm axle travel

## **Wheels**

Type	Front 21 x 1.60 aluminium rim/wire spoke
	Rear 18 x 2.15 aluminium rim/wire spoke
Tyres	Front 80/100-21 51M
	Rear 110/100-18 62M

## **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

All specifications are provisional and subject to change without notice.