

**2002**  
**CR250R**  
**PRESS INFORMATION**

# Introduction

The new, 2002 CR250R has been totally redesigned from top to bottom with exciting new bodywork and its first totally new engine in 10 years delivering world-beating power and performance that will take it to the head of its class. Its lightweight, new aluminium twin-spar frame has also been specially modified for lighter, more responsive handling and more assured control over the rough and tumble of the world's toughest motocross courses. When total victory—and a whole lot of fun—are the order of the day, leave it to the new CR250R to have you tearing up the berms and flying over the jumps with the best in the class.

## Colours

- **Explosion Red (with White number plate and sidecovers)**

# New Features

## Engine

- Powerful, all-new case-reed engine replaces earlier piston reed valve configuration with a redesigned air intake tract and a newly developed, motor-driven RC exhaust valve that significantly improves low-end and midrange power delivery while maintaining the CR250R's renowned high-rpm performance.
- Crankshaft location changed for shorter overall dimensions, more compact proportions and more stable power output. Crank pin also increased from 24 to 25mm for greater rigidity to match changes in power output. Bore, stroke and compression remain the same as last year.
- Lightweight 38mm flat-slide Mikuni TMX carburettor provides both initial throttle crispness and instant throttle response to complement the new engine's power characteristics.
- Carburettor insulator reshaped to match new crankcase reed valve with 120cc increase in volume and air filter and airbox opening increased 12mm in size to provide a 40-percent increase in airflow capacity, contributing to improved mid- to high-end performance.
- New, wider crankcase reed featuring two-stage carbon fibre four-petal reed valve replaces earlier 6-petal configuration for excellent off-idle throttle response as well as stronger top-end and over-rev power delivery.
- All-new, electrically controlled RC exhaust valve features NSR road racer-inspired rotary flap design. Compact electronic control module calculates correct exhaust valve position from engine rpm and signals a DC servo motor to move the RC valve. The new, cable-operated RC valve no longer simply opens and closes, but now gradually adjusts its opening for a broader torque curve, smoother low- to midrange transitions, and optimised performance throughout the powerband.

- Digital, map-type Capacitor Discharge Ignition (CDI) and RC valve servo-motor control both incorporated into single, compact 16-bit CPU module that performs instant calculations for high-accuracy ignition and exhaust valve timing, and top performance throughout the engine's rev range.
- Exhaust header and expansion chamber redesigned to maximise top-end power delivery and ease maintenance with new bolt-on flange and slip-on, spring-held header.
- ACG output increased to match requirements of new ignition and RC valve, which are powered by a condenser charged by the ACG.
- Eight-plate clutch provides enhanced surface area to handle the engine's stronger torque while carefully matched clutch springs provide a light feel at the lever.
- New, lightweight magnesium clutch cover reduces weight by 221g, while new aluminium ACG cover improves sealing.
- Durable five-speed close-ratio transmission now features a thicker 4<sup>th</sup> and 5<sup>th</sup> gear for greater reliability to match the engine's power, adding even more durability in demanding conditions.
- Transmission countershaft spline changed to involute-type for improved shift feel. Shift fork shaft stopper pin also lengthened for fewer parts and smoother operation.
- Dual radiators permit more forward-located engine placement while providing excellent cooling capacity.

## **Chassis**

- All-new, third-generation twin-spar aluminium frame and swingarm provide optimal balance of compliance, rigidity and strength, as well as a 500g reduction in weight and a narrower form for enhanced riding comfort.

- Main spars located between new forged steering head and taller press-forged pivot plates feature refined bend and cross-sectional shape for more compact proportions and enhanced riding ease. Forging and extrusion thicknesses tuned for optimised rigidity and a 300g reduction in weight. Upper cross-member dimensions also made more compact. Vertical, lateral and torsional rigidity all optimised for increased compliance while maintaining excellent stability.
- Semi-double-cradle design features single large-diameter, tapered downtube formed using Honda-original swaging technology. Two rugged box-section rails attached to base of downtube support the engine.
- Bottom frame rails and swingarm pivot height both raised for increased ground clearance that makes possible more aggressive assaults over washboards and other rough terrain. Modified caster angle and 13mm shorter wheelbase combine to realise lighter handling, while seat and tail lowered for enhanced ride and control.
- New steps combine with more compact cross-members for a 500g reduction in weight.
- The new CR's more streamlined tank and seat line realise even greater manoeuvring freedom and riding comfort.
- Handlebar position moved 2.5mm up and 3mm back, seat height raised 5mm, and steps raised 10mm to position the rider's legs at the narrowest cross-section of the frame for smoother, more aggressive riding and less contact with the ground.
- Seat cushion follows the shape of fuel tank, providing a smooth transition to increase rider mobility and comfort.
- Fuel tank volume increased by 200cc.

## **Suspension & Brakes**

- Lightweight, 47mm inverted Showa twin-chamber cartridge fork with aluminium piston rod is 349g lighter and features 315mm of travel, 16-position rebound damping adjustability and 16-position compression damping adjustability. Inner surfaces of front fork outer tubes and rear damper case are molybdenum-coated for smooth, low-friction operation.
- Lightweight and rigid, computer-designed aluminium swingarm features dual-axis, double-taper design with larger, thinner-wall cast aluminium cross-member for 20% increase in overall rigidity and 175g lighter weight.
- Integrated remote reservoir Pro-Link rear suspension features fully adjustable Showa rear damper with separate, concentric low-speed (19 positions) and high-speed (4 turns) compression damping adjusters and 22-position rebound damping for 319mm of smoothly progressive wheel travel. Spring and damper settings retuned to closely match changes in frame. Pro-Link features same ratio, but new bolt, washer, Delta-Link designs reduce weight by 90g.
- Rear damper's large, 50mm piston and integrated remote reservoir combine to ensure consistent performance under demanding riding conditions.
- Front and rear wheels feature lightweight, new HRC Works-type aluminium spoke nipples, and new aluminium axle nut for a 140g reduction in unsprung front wheel weight. New rear wheel hub and spoke layout combine with new aluminium spoke nipples to realise a 200g reduction in unsprung weight.
- Front wheel features large-diameter front axle, narrower hub and wide wheel-bearing span for lighter weight and added rigidity.
- Rear axle diameter of 25mm and large-diameter bearings provide significant rigidity to withstand torturous track conditions.

- Optional 20-inch front wheel improves cornering traction and rider comfort.
- Compact dual-piston front brake calliper, anodised aluminium brake pistons and lightweight front brake disc reduce unsprung weight for improved turning and handling.
- New HRC Works-type rear brake system now features integrated master cylinder and fluid reservoir, eliminating the remote reservoir and hose. Together with a smaller calliper and smaller-diameter rear master cylinder piston, overall system weight is 300g lighter, and easier to service.
- New rear calliper guard and disc cover also combine to reduce unsprung weight by an additional 200g. Large 240mm rear brake rotor features 14-percent increase in swept area for optimum braking control. Disc rotor cooling surface area also increased to reduce heat fade.

## **Equipment**

- New frame design allows larger rear air intake ducts in sidecovers, providing a smoother flow of air into the newly designed aircleaner box for reduced turbulence resulting in increased mid- and high-rpm performance.
- Brake lever and shift pedal redesigned to fit the improved riding position. Brake pedal features a revised ratio to match new rear brake master cylinder design.
- New wide, cleated stainless steel footpegs are self-cleaning, resist corrosion, provide excellent grip and fold for extra ground clearance.
- Cleated rear brake pedal and shift lever made of lightweight aluminium.
- Rubber-mounted handlebar improves comfort and reduces rider fatigue.

- CR handlebar holders provide three different mounting positions: standard CR250R holders are centrally located and optional (CR125R-type) holders provide +/-3mm fore or aft positioning to match rider preference.
- Works-type handlebar grips add to rider comfort.
- Adjustable front brake lever.
- New, more durable front brake hose guide.
- Lighter, new front disc brake cover helps protect rotor and calliper from damage.
- New chain guide material offers improved wear resistance with 300 percent increase in durability. Chain roller now features a tough, double-sealed bearing.
- Chain roller features new double seal bearing for greater toughness when racing in mud.
- Removable rear sub-frame allows easy maintenance.
- New washable two-stage foam air filter for optimal engine protection and easy maintenance.
- Rebuildable silencer ensures maximum performance and minimal noise.
- Comfortable, durable controls and high-quality fasteners.
- Stainless steel clutch cable for long life.
- Honda Racing-inspired colours and graphics.

## Specifications

## CR250R (ED-type)

Engine	Liquid-cooled 2-stroke single
Bore × Stroke	66.4 × 72mm
Displacement	249.3cm <sup>3</sup>
Compression Ratio	8.5 : 1
Carburettor	38mm Mikuni TMX flat slide (TMX11B)
Max. Power Output	43.4kW/8,000min <sup>-1</sup> (DIN)
Max. Torque	51Nm/7,750min <sup>-1</sup> (DIN)
Ignition	Digital electronic with 3-D mapping and electronic advance
Starter	Primary kick
Transmission	5-speed
Final Drive	Roller chain
Dimensions	(L×W×H) 2,190 × 823 × 1,269mm
Wheelbase	1,491mm
Seat Height	950mm
Ground Clearance	346mm
Fuel Capacity	7.7 litres
Wheels	Aluminium rim/wire spoke
Tyres	Front 80/100-21 51M Rear 110/90-19 57M
Suspension	Front 47mm inverted leading-axle telescopic fork with adjustable compression/rebound damping, 315mm axle travel Rear Pro-Link with adjustable compression/rebound damping, 319mm axle travel
Brakes	Front 240mm hydraulic disc with dual-piston calliper and sintered metal pads Rear 240mm hydraulic disc with single-piston calliper and sintered metal pads
Dry Weight	96.5kg

All specifications are provisional and subject to change without notice.