Cycle

HONDA XR200R

If you've been disappointed with past off-road four-strokes, rejoice: Honda's new suspension system has transformed the XR200R into a serious enduro bike.

● IN THE PAST, HONDA'S XR OFF-ROAD bikes suffered for their four-stroke design. Although they have always been great playbikes, when compared with "genuine" two-stroke enduro bikes, they've fallen a bit short. Four-stroke engines typically have less peak horsepower than two-strokes of similar displacement, although the thumpers come out ahead in powerband width, low-end grunt and tractability. While that trade-off may be acceptable to thumper fans, other things have traditionally handicapped four-strokes: four-stroke engines carry more top-end paraphernalia which makes them relatively heavy and expensive. To offset this expense, four-strokes have historically been equipped with cheaper, inferior suspension components than two-strokes have.

Honda puts great stock in their 200cc XR. It's the best-selling XR nationwide, and Honda feels the 200 offers much to the potential buyer because it strikes a good balance; the power-to-weight ratio is favorable, if not trend-setting, and the bike is a good dollar value in these inflated times. Most of the XR200s sell in the eastern United States, where tight, wooded trails and a 200cc enduro class make the Honda attractive. Eastern enduro fans now have good reason to rejoice. The Honda 200 has been substantially improved for 1981 and it carries a new designation: XR200R. The playbike-oriented XR200 is still available for less demanding riders, but Honda feels the new 200R is now the most capable bike in the lineup for genuine enduro use.

Some things cannot be changed. The contrasting two-stroke/four-stroke power characteristics remain, but the XR200R eliminates most of the other disparities. Tipping the scales at 241.5

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pounds fully gassed, the new 200 is 12 pounds heavier than last year's Yamaha IT175, but 1.5 pounds lighter than the 1980 Suzuki PE175. The XR's price of approximately $1499 should be in the same neighborhood as the "serious" two-stroke enduro bikes, and there's a surprise: the little Honda thumper comes with first-rate, adjustable suspension.

The most obvious addition to the XR200R is the Pro-Link rear suspension. Like all other Pro-Link systems, the 200R's rear end features a box-section swing arm that compresses a single remote-reservoir shock through a pivoting linkage. This linkage produces mechanically a rising-rate system that gives progressive springing and damping characteristics. The net result is a rear end that is soft and responsive through small stutter bumps, yet stiff over larger bumps and drop-offs.

In actual use the Honda's rear suspension is responsive and comfortable through its 9.3 inches of travel, but a bit soft. After the new shock spring acquired some miles and began to sag, our 180-pound tester bottomed it too often. Our 140-pound rider, too, could bottom the shock at high speeds and over large jumps. Dialing in the maximum amount of spring preload helped, and it suited the lighter tester. Honda will offer a heavier accessory spring; faster and heavier riders may be interested in a swap.

We first rode the bike with the adjustable damper set on the standard Number Two position, but soon clicked it up to full (Number Four). The standard setting offers very light damping, and we could see no purpose for the Number One setting. Jumping to Number Four increases the damping action noticeably, but some testers thought a corresponding Number Five or even Six would facilitate high-speed riding on familiar trails. The XR is more than serviceable with its present rebound damping range; heavier damping options would make it nearly ideal.

The XR200R also has a new fork for 1981. Last year's marginally effective 31mm-diameter fork tubes have been replaced by 35mm tubes with air caps. The 200 yields 9.8 inches of front-end travel and fork action is responsive thanks to dual Syntallic bushings which reduce stiction. Standard fork pressure is four psi and maximum recommended pressure is 14 psi; we liked the fork with the stock oil level and six to eight psi. The distance between fork legs has increased from 156 to 164mm, and the steering head now rides on tapered roller bearings that replace last year's ball bearings. A larger 3.00 x 21 front tire replaces the 2.75 x 21 tire used on the 1980 XR200, and the steering-head area has new gusseting to add stiffness.

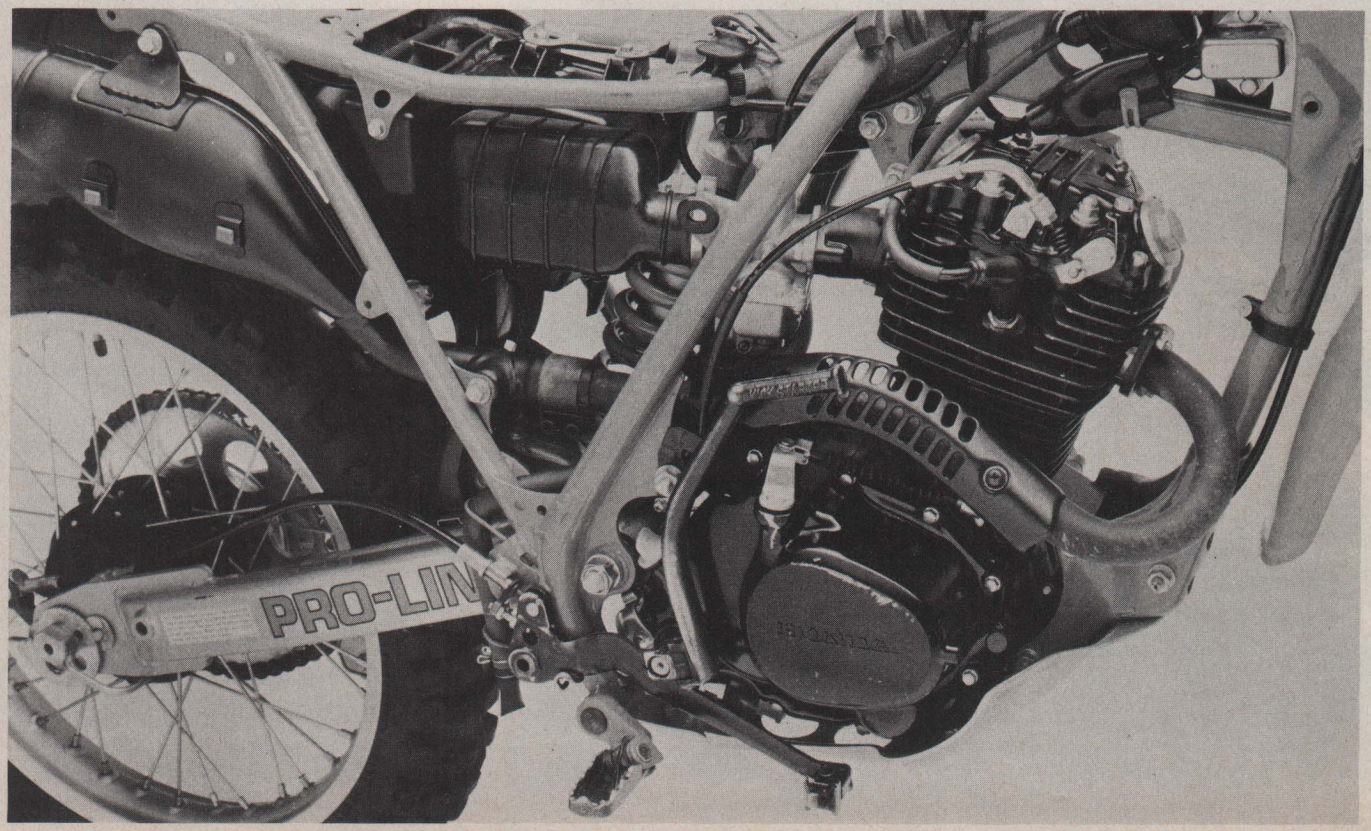
Rake and trail of 28.7 degrees and 4.9 inches combine with a compact 53.3-inch wheelbase to produce light, quick handling. The Honda is a delight on the toughest, tightest trails; it works with you instead of against you. The XR's low-speed nimbleness isn't, however, accompanied by a sacrifice in high-speed stability. The front end hunts a bit in deep sand, but at speed over hard pack or through deep whoops the XR remains stable and predictable.

The XR's 12.9 inches of ground clearance tops any of last year's 175 two-stroke enduro bikes, but the Honda could use an increase in its 13.1-inch footpeg height. As it is, the XR offers a reasonable compromise between sufficient clearance and an overly high seat. You can drop the fork tubes 20mm (0.8 inch) in the triple clamps to gain more clearance, a move that will also slow slightly the XR's quick steering.

The XR200 engine boasts a family tree that is one of the oldest among Japanese motorcycles. Descended from the old SL100, the XR's dependable single overhead camshaft engine still features a two-valve head, but it displaces an actual 195cc in this configuration. The 200R engine runs a high 10:1 compression ratio, but it readily digests a diet of what gas stations now pass off as "Super."

A 26mm Keihin slide-type carburetor takes care of the fuel mixing chores. Our XR carbureted cleanly up to an elevation of 6800 feet, and it always fired up easily, hot or cold. Although a 200cc single-cylinder four-stroke is hardly capable of leg-breaking kick-back during starting, Honda has incorporated an automatic decompression mechanism into the engine's kickstarter.

Through the first portion of the kickstart stroke the lever engages a cable which opens the exhaust valve. This drops the cylinder pressure and allows the piston to travel freely over top dead center. As the kickstart lever continues through its arc, the cable releases and lets the exhaust valve close so the normal compression process can begin. The automatic compression release isn't es-

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sential, but it works easily and well, making life more pleasant for beginners.

As expected, the XR200R doesn't make stunning amounts of horsepower and torque. The Honda's 17.33 horsepower trails last year's two-stroke enduros by two to five ponies, a significant difference. The XR actually makes more torque than the 1980 Kawasaki KDX175, but it trails the Suzuki and Yamaha by about 1.5 pounds-feet. The importance of these differences depends largely on rider skill and the terrain usually traveled.

In wide-open desert conditions or on fast fireroads, the XR feels underpowered and strained; it's simply out of its element. On slow, rough trails, however, the Honda's broad powerband complements its quick, light handling and generous ground clearance, making the XR nearly perfect.

The Honda's torque curve stays above 10 pounds-feet from 3000 to 9000 rpm, a span that's about two times wider than the two-stroke 175s, and the 175s' horsepower curves don't catch the XR's until about 7000 rpm. In certain real-world situations, this spread becomes a distinct advantage.

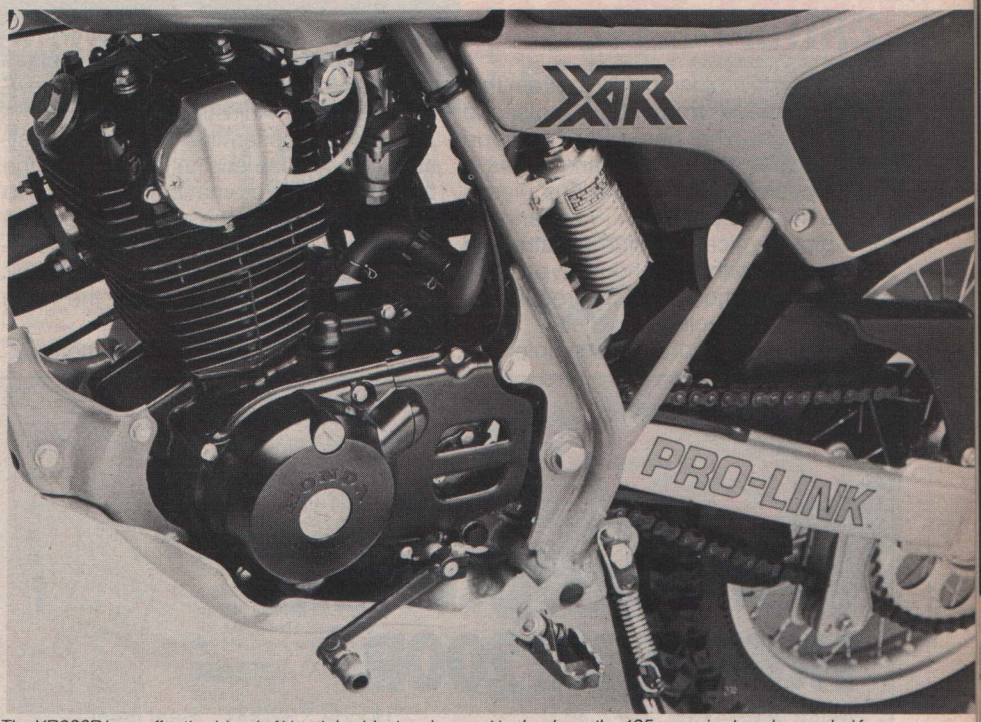
One portion of our regular enduro-style test loop includes a particularly treacherous stretch of mountain trail strewn with broken shale and bowling-ball-sized rocks. This trail gains over 2000 feet of elevation over a little more than 1.6 miles—an average grade of 24 percent. The academic discussions and dyno comparisons all become so much dust in the wind when it comes time to tackle the mountain. Either the bike makes it, or you get off and push.

When we topped the mountain, we were laughing with delight; we were amazed at how easily the little 200 made the climb. We had secretly feared that the Honda just wouldn't have enough power to make the entire climb, but the XR never even gave a hint of stalling. We had even purposely worked against the bike at times by rolling off the throttle, picking the rough line and choosing the wrong gear. But the Honda proved to be able as well as forgiving, the latter a trait not common to high-strung, ultra-performance engines.

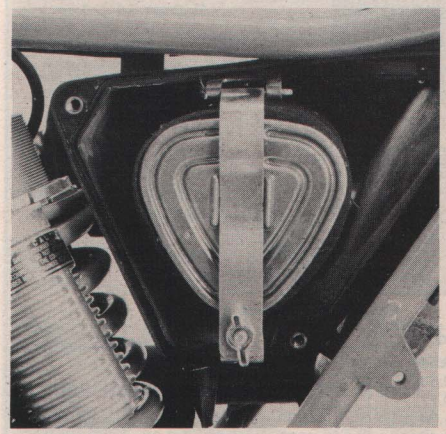
The XR200R comes complete with an optional silencer that reduces noise output to the 86 db(A) level as tested by the California Highway Patrol. California dirt bikes must pass this sound test in order to qualify for certified use on public lands. The fiberglass-packed insert is easy to install or remove; it's held in with two Phillips-head screws. Without the insert the XR200 is much louder, but it still passes the AMA race-bike sound test of 96 db(A) measured at a distance of 20 inches from the exhaust pipe. The United States Forestry Service approves the Honda pipe as a spark arrestor with or without the optional silencer.

The XR feels stronger without the in-

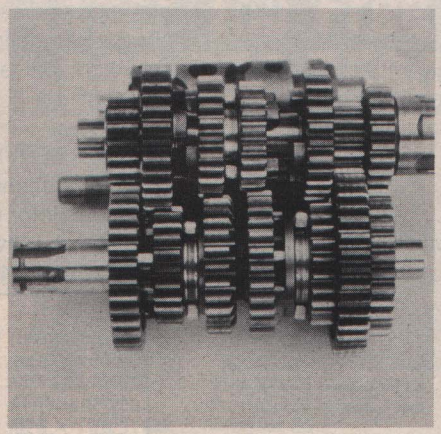
New front end sports many changes, including larger fork tubes, tapered roller bearings and air caps.



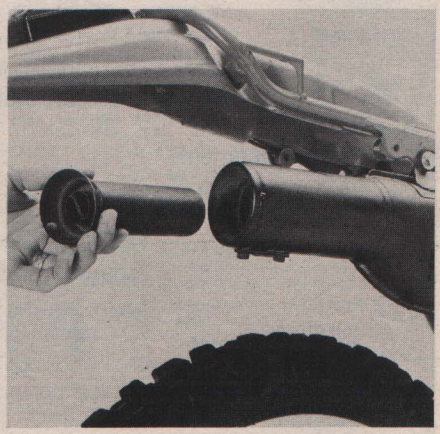
The XR200R is an effective blend of Honda's oldest and newest technology: the 195cc engine has descended from the old SL100, while the new single-shock Pro-Link rear suspension system offers four-way adustable damping.



The XR offers easy air filter access for convenient servicing; one wing nut keeps the element in place.



Slight alterations to the angle cut on each gear's engagement dogs help smooth the Honda's shifting.



Installing the optional silencer raises peak horsepower slightly, but also makes midrange power sag.

sert, and we assumed as a matter of course that the silencer lowered peak power output. To substantiate our seat-of-the-pants evaluation we compared power outputs on the dynamometer. To our surprise, we were wrong. The muffled 200R makes 0.15 more horsepower at its peak of 8500 rpm while making a scant 0.02 pounds-feet less torque at the 7000 rpm peak. The loss to back-pressure was all at the lower speeds.

Surprising as the dyno results were, real-world performance is affected more by the sag the silencer puts in the mid-range power. This brings us to the classic motorcycling dilemma of power versus noise. Although the power drop with the insert is noticeable, it's not serious; the fully muffled XR still climbed our test mountain with aplomb. Some testers found the louder state of tune distasteful and were willing to give up some power for the added peace and quiet; others found the noise unobjectionable and the added power desirable. We suspect that most owners will leave the insert unused; at least the option is there.

Honda reworked the XR200R transmission in response to complaints about recalcitrant shifting. A combination of subtle changes was made to the shift forks, to the gearshift plate and cam, and to the engagement dogs on each gear. The revised gearbox shifted easily and positively; lever throw is short and the XR shifts cleanly with or without the clutch.

The six-speed box has ratios spaced well apart to take advantage of the broad powerband. First gear is fine for creeping along at walking speeds; we used second and third most of the time while climbing the mountain. Fifth and sixth end up being overdrive ratios suitable for cruising on the flat and downhill sections.

The brakes at both ends are strong and progressive, with good feel. The rear is a non-floating unit, but it doesn't chatter much. Both units resist water well during brief stream crossings; after a thorough soaking they require only a moderate amount of dragging to dry them and restore braking action.

When the inevitable get-off occurs you'll be glad all the body parts are plastic. The plastic gas tank replacing the metal items of the past holds a total of 2.0 gallons, including a 0.4-gallon reserve. Since the XR200 yields about 40 miles per gallon, the seemingly petite capacity should satisfy most riders. The tank's filler neck is wide enough so you can monitor fuel level while filling up, and the gas cap doesn't let a drop drool out.

Thoughtful features abound on the new 200R. The shift and brake pedals have folding tips; the clutch and brake levers are dogleg-style items which have the ball-ends blended in and reversed in an attempt to eliminate brush snagging; the speedometer has an odometer resettable backward or forward by tenths, and the reset knob is flexible to resist damage; the rear wheel is a quick-release design that Honda has patented.

The fender-mounted vinyl tool bag fea-

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tures a tough, molded plastic bottom that resists damage from stray tools and spark plugs. The bag offers a good amount of storage space and it has a small pouch to hold the various pieces for the multi-purpose tool. You can perform most typical trailside repairs and adjustments with the enduro-type tool. Adjusting the shock preload requires a special tool not included in the kit.

Maintenance chores are simple and few with the XR200R. A magneto-type capacitor-discharge ignition eliminates points maintenance, and the two valves are easy to adjust since they have screw-type adjusters. Adjusting the cam chain is a snap: just loosen the tensioner adjusting bolt while the engine is idling and the tensioner will automatically position itself; retightening the adjusting bolt to lock things in place takes about five seconds more, and the job's done. The air cleaner is easy to get to and the foam element is reusable.

While the entire spectrum of motorcycles has progressed greatly in the past few years, Honda has done an excellent job of developing four-stroke off-road bikes. No longer can the XRs be dismissed as "only playbikes." Although the XR200R still can't take on the two-stroke enduro bikes in sheer horsepower, it's more than able enough in other areas to be counted as a serious contender, especially in tight, rough conditions. And if you don't compete in enduros, that's just fine; the best XR enduro bike in history is also the best XR playbike to date. ◉

Cycle Test Specifications HONDA XR200R

Make and model ..... Honda XR200R
Price, suggested retail (as of 12/15/80) .. Approximately $1499

ENGINE
Type ..... Four-stroke single with chain-driven single overhead camshaft and two-valve head
Bore and stroke ..... 65.5 x 57.7mm (2.58 x 2.27 in.)
Piston displacement ..... 195cc (11.9 cu. in.)
Compression ratio 10.0:1
Carburetion ..... (1) 26mm Keihin
Exhaust system ..... Upswept pipe with USFS-approved spark arrestor and optional muffler
Ignition ..... CDI, magneto
Air filtration ..... Oiled foam
Oil filtration ..... Wire screen
Oil capacity ..... 1.1 liters (1.2 qts.)
Bhp @ rpm ..... 17.33 @ 8500
Torque @ rpm ..... 11.83 @ 7000

TRANSMISSION
Type ..... Six-speed, constant mesh, wet clutch
Primary drive ..... Straight-cut gear, 3.33:1
Final drive ..... #520 DID chain, 3.85:1
Gear ratios (at transmission) ..... (1) 2.769:1, (2) 1.941:1, (3) 1.450:1, (4) 1.30:1, (5) 0.923:1, (6) 0.785:1

CHASSIS
Type ..... Single downtube, semi-full cradle
Suspension, front ..... Leading axle, air/spring fork with 249mm of travel
rear ..... Swing arm with one damper adjustable for damping and pre-load with 236mm of travel
Wheelbase ..... 1355mm (53.3 in.)
Rake/trail ..... 28.7°/125mm (4.9 in.)
Brake, front ..... Single-leading-shoe drum brake
rear ..... Full-width drum, rod actuated
Wheel, front ..... Semi-conical hub; DID 1.60 x 21 rim
rear ..... Full-width hub; DID 1.85 x 18 rim
Tire, front ..... 3.00 x 21 Bridgestone Gritty-ED3
rear ..... 4.10 x 18 Bridgestone Gritty-ED6

Seat height ..... 889mm (35.0 in.)
Ground clearance ..... 327mm (12.9 in.)
Footpeg ground clearance ..... 346mm (13.1 in.)
Fuel capacity, main/reserve ..6.0/1.5 liters (1.6/0.4 gal.)
Curb weight, full tank ..... 109.5 kg (241.5 lbs.)
Test weight ..... 182.1 kg (401.5 lbs.)

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