



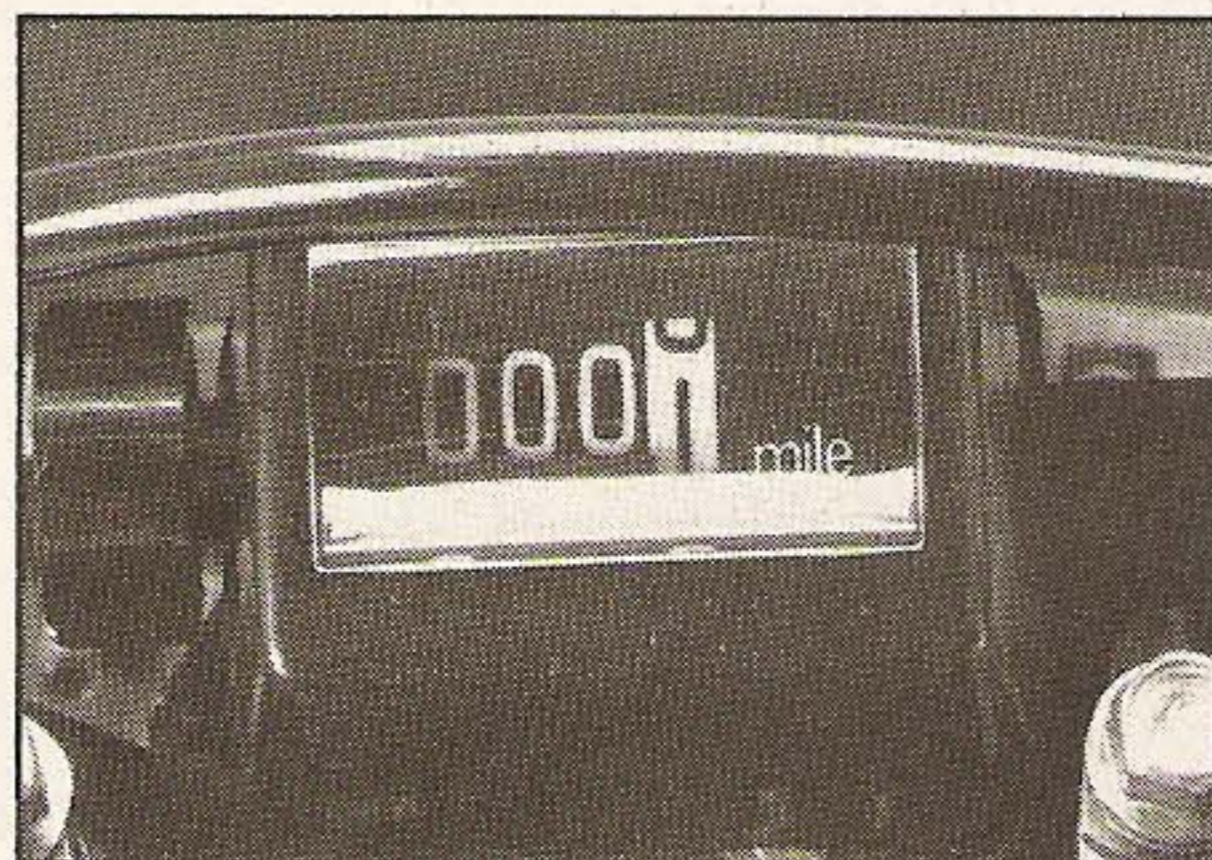
If you were to build the perfect enduro bike, you'd probably end up with something a lot like one of today's 200cc enduro racers. That's because the bikes in that category are a near-ideal compromise between too much and too little. They're big enough to be stable and confidence-inspiring at high speed on rough ground, yet small enough to be nimble through the tight stuff at low speeds; they have enough power to get an expert out of trouble, yet not enough to get a novice *into* it. All in all, a perfect size.

Yamaha feels that its entry in that class for 1984 will be even more "perfect" than ever. After years of competing in that category with 175cc models, Yamaha finally is taking full advantage of the class's allowable displacement range of between 126 to 200cc (for competition purposes, at least) with its new IT200. And the idea is not just for this new model to come closer to achieving that ideal balance of bigness and smallness, but to become the best bike in the class, no matter if it's used for simple playriding or for all-out enduro competition.

Surely, the most important part of that plan is engine displacement, which is up from 171cc on the IT175 to 195cc on the IT200. Yamaha accomplished this increase by lengthening the stroke (from 50mm to 57mm) rather than by increasing the 66mm bore. The YZ125 motocross engine from which both the IT175 and IT200 enduro motors are derived already had undergone a significant overbore when making the jump to 171cc, so a stroke increase helped maintain a reasonable bore-stroke relationship. The longer stroke also helped the IT200 to have what the IT175 lacked: good low-end lugging ability with competitive top-end power. This is because for any given port timing and port width, a longer stroke results in taller ports, thus giving more port area than with a shorter stroke.

Lengthening the stroke did require a new crankshaft and a 5mm longer connecting rod. To handle the added power, the rod's big-end got a larger bearing

YAMAHA'S LIGHTWEIGHT ENDURO GOES BIONIC: IT'S BIGGER, FASTER, STRONGER THAN EVER



and crankpin, and the rod itself was given more oil grooves. The two-ring piston isn't any larger in diameter, but it does ride on a bigger wrist pin; and unlike its counterparts in many other Yamaha two-strokes, the 200's piston is not cut away in the rear. Instead, it just uses two intake holes in its long rear skirt, which promises to result in slightly longer piston life.

Feeding the new motor is a 34mm Mikuni carb that is just upstream of a six-petal reed block. Carrying away the exhaust is a new expansion chamber that has been redesigned to work with the longer stroke to produce more low-end and mid-range power. And to make better use of that increase in power, the 200 has taller (numerically lower) ratios in its primary drive (2.90:1 compared with 3.06:1 on the IT175) and in fifth and sixth gears. The other four sets of gears in the six-speed transmission are identical to those in the 175.

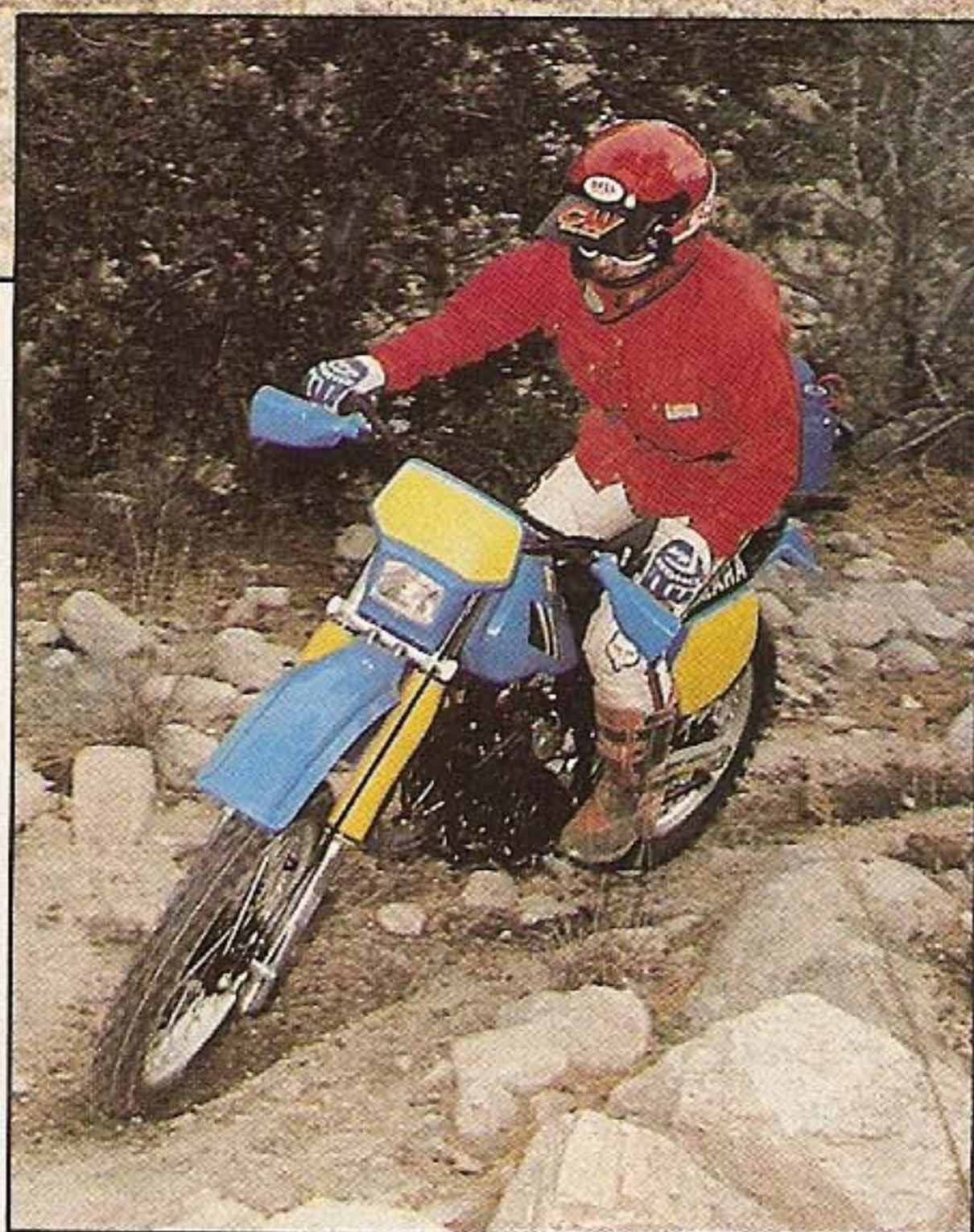
On paper, those engine and gearbox changes might seem small, but in actual

use the IT200's powerplant is miles ahead of the IT175's. The 200 has an unusually wide powerband for an engine of its size, one that starts just above idle and continues all the way up to peak rpm. At first the 200 doesn't *seem* very fast, because there is no sudden burst of power anywhere in the rpm range like on most other enduro machines in its class. Instead, the IT's power is almost linear, like that on enduro bikes of 250cc or larger. But because the 200 has such smooth, steady power at all rpm, it is competitively fast in any sort of dragrace. The Yamaha also lugs exceptionally well, allowing it to crawl up steep hills at extremely low rpm and be exceptionally tractable on slick surfaces—both of which are invaluable traits for enduro riding.

But while the engine's power can't be faulted, the transmission's operation can. The ratios are spot-on, matching the power output almost perfectly, and the shifting usually is flawless, allowing a change of gears quickly and with little effort. But in certain situations that call for a series of rapid downshifts—like when you come blasting into a slow corner at high speed and must tap-dance on the shift lever to notch down three or four gears—the shifting mechanism hangs up and refuses to function until you take your time and make slower, more deliberate stabs at the lever. And finding neutral on the IT200 was frustrating, as well. For while it was easier when the engine was off than when running, locating neutral was never easy. These problems probably pertain just to our particular test bike, though, considering that the IT200's shift mechanism and those on the IT175 and YZ125 models are identical.

There's not much that's identical about the frames on the IT200 and the IT175, however. The 200's steering head is mounted 20mm further rearward than the 175's, and its aluminum swingarm is 20mm longer. Which means that even though the two bikes have the same wheelbase, the 200 has a more forward weight bias compared with its 175cc predecessor. Thus the 200 steers more





crisply and precisely due to having more weight on the front wheel, and it stays a lot more level when flying through the air. And the new frame is narrower in the middle (measured from the bottom of the engine cradle to the top of the seat rails), which has helped lower the seat height by a full inch. Touching the ground on the IT200 is easy for most riders, and that can be a real bonus when the going gets tough in a tight section.

Much of that lowness is due to the IT200's Monocross rear suspension, which positions the shock lower in the frame than did the system on last year's IT175. Actually, the 200 is the last of Yamaha's full-size IT/YZ models to get this latest update of the Monocross design; the '83-model IT175 had the type that used a dog-bone link to connect the swingarm to the bottom of a nearly horizontal shock. But on the 200, the shock mounts almost vertically, and its bottom end attaches to a boomerang-shaped aluminum rocker that pivots on the swingarm. The result is a rear suspension that is more-progressive than the 175's.

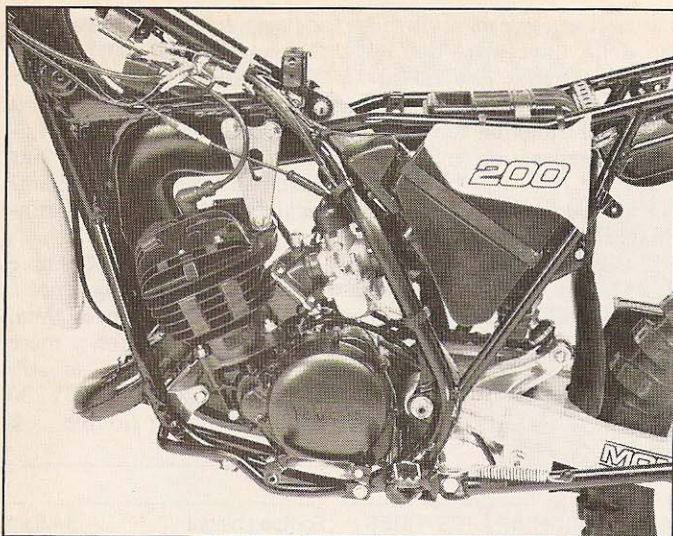
Naturally, the most important part of this system is the rear shock, an aluminum-bodied, Yamaha-built unit that in-

corporates a remote reservoir, along with provisions for adjusting the spring preload and the rebound damping. (Unlike the motocross version of Monocross, the IT's rear shock offers no compression-damping adjuster.) The rebound adjuster's knurled knob is easy to reach and regulate, and can be set to any one of 35 possible positions. The No. 1 position (knob turned in all the way clockwise, then backed out one click) gives the slowest rebound, and the No. 35 position (turned all the way out counterclockwise) provides the fastest rebound. The

standard setting is on the 15th-fastest click. Adjusting the spring preload requires a large wrench that will fit the two locknuts, and a hooked spanner that turns the adjuster ring. Both tools are supplied in the toolkit included in the toolbag mounted on the rear fender.

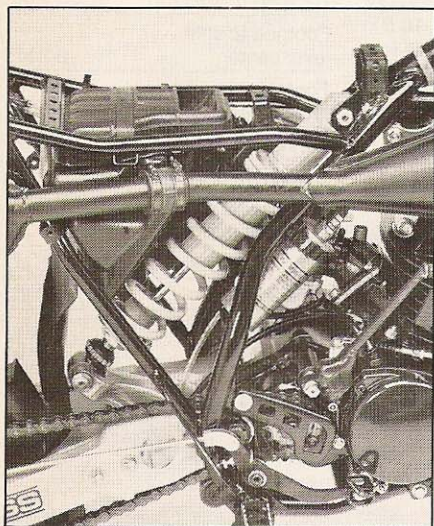
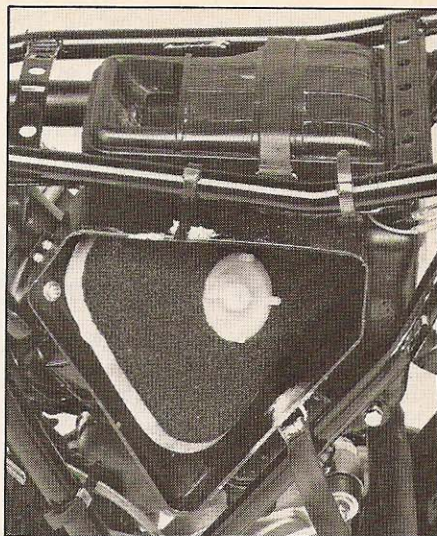
Up front, the IT200's KYB fork that uses 43mm stanchion tubes and offers 10.6 inches of wheel travel is your first clue that this is a serious enduro machine, not a casual playbike. And like the rear suspension, the fork can be adjusted to suit a wide range of riding conditions and rider preferences. The bike's excellent owner's manual describes the proper procedures for changing oil volume and oil weight, for regulating air pressure (the recommended setting is 0 psi), and for setting the compression-damping blow-off adjusters that are incorporated into the bottom of each slider leg. The standard setting for these blow-off valves is at the halfway point, which is four turns out, counterclockwise (all the way in is the stiffest, all the way out—eight turns—is the softest).

Fine-tuning the suspension using all the available adjustments can make a big difference in the way the bike behaves.



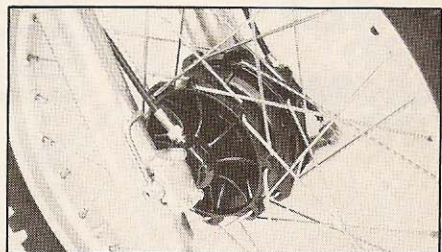
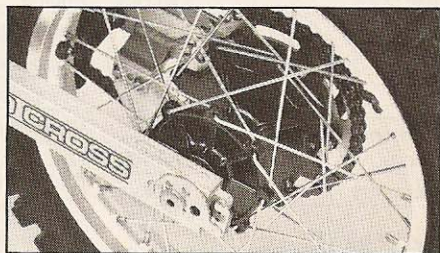
Lengthening the IT175's stroke by 7mm was the first step in developing the IT200 engine. The displacement increase boosts the low-end and mid-range power.

The IT's airbox incorporates a large foam filter that can be removed without using any tools. The airbox top is equally tricky: It routes the air through a maze that removes any water before it can reach the element.



The aluminum-bodied, Yamaha-built shock sits in a more-vertical location and employs the linkage used on last year's YZ125 motocrosser. The remote shock reservoir blocks access to the 34mm Mikuni's idle-speed adjusting screw.

YZ125 wheels fitted with Z-type spokes are standard on the IT200. The spokes continued to loosen throughout the test, but none ever broke.



For example, the fork's damping was a bit harsh and the rear's springing was too soft when both were set as recommended by the factory. Changing to the softest of the fork's damping blow-off settings (using a small, straight-blade screwdriver) rids the fork of most of its harshness; and cranking up the spring preload a few turns, in combination with the No. 2 or No. 3 (of four) rear-shock rebound-damping setting, brings the rear suspension into proper balance and makes best use of the 10.6 inches of wheel travel that are available at each end.

That amount of wheel travel might not seem like much in these days of 12-inch-plus travels, but remember that the IT200 is an enduro machine, not a motocrosser. Besides, it's not quantity but quality that counts. And the IT's wheel travel is of pretty high quality, which allows the bike to pass over rough terrain exceptionally well. The IT rarely kicks or gets out of shape, and even when that does happen it's only on the cobbiest of ground. The rider will, of course, feel the severe bumps, but the smaller ones, the ripples and the rolling whoops, go practically unnoticed.

The IT200 also shines in the woods,

although most of the credit for that goes not to the suspension but to the chassis in general. The steering is quick and precise in tight-turning situations, and the rear end follows the front willingly and predictably. The bike has a light feel and seems to have a low center of gravity, so it maneuvers quickly and—a point not to be overlooked—isn't a bear to pick up if it falls over. The engine, too, is up to the rigors of tight-woods riding, climbing hills easily and allowing the rider to start off in the middle of a steep climb without excessive revving or clutch-slipping.

Even riding in extremely wet conditions is no problem for the 200. The bike's solid-state capacitive-discharge ignition and intelligently designed airbox allow the machine to wade through water up to its cylinder head without any problems. Most of the bike's aquatic ability is due to the airbox top, which funnels in air just under the seat base and runs it through a maze of baffles, thereby separating the air from any liquid it might contain before it can reach the oiled foam filter element. And should you happen to submerge the IT200 and drown it out, the airbox's side cover and the filter element both can be quickly removed without any tools.

Neither will the IT's drum brakes cause any serious problems if and when they get wet. They will, of course, require slightly increased lever pressure any time water gets into the drums, but they dry quickly, usually after only a few seconds of dragging them as the bike is being ridden under power. And once dry, the brakes return to their usual level of performance and provide powerful, progressive and predictable stopping from all speeds.

There also are no surprises when it >

comes to comfort and rider position. The IT's 2.9-gallon gas tank is narrow in the rear and lets the rider move around easily. The seat is comfortable and trim, and it doesn't get in the rider's way when he's footing through a tough section. The peg-to-bar-to-seat relationship is just about spot-on for anyone below about 5-foot-10. The fenders keep most mud and goo from being slung onto the rider. And all the controls are properly placed and work smoothly.

So all in all, Yamaha's new IT200 shapes up as quite an attractive package, a bike that is, in just about every conceivable way, a far better off-road machine

than the IT175 ever was. It's a great playbike for those who don't have an urge to compete, and at the same time is a competent enduro racer for those who do. And it'll carry out either function with very little in the way of preparation or maintenance.

The people over at Kawasaki aren't going to be glad to hear that. Their 200-class bike, the KDX200 (as well as its predecessor, the KDX175), has owned the 200 class of late, but the IT200 is going to give the Kawasaki all the competition it can stand. In fact, the IT's lower seat height and smoother power delivery make it a better choice as a

playbike for many less-experienced riders. But that friendliness hasn't compromised the bike's durability; because after more than 900 miles of extremely hard woods and desert trail riding, and a finish in a tough 100-mile enduro, our IT200 test bike has not suffered one single mechanical failure and is still running strong.

So to many people, this little blue Yamaha will prove to be nothing if not a screaming deal, a bike that gives them everything they could want for a mere \$1749. But to many others—mostly those who ride KDX200s—the IT200 will prove to be nothing but trouble. ☐

SPECIFICATIONS

GENERAL

List price	\$1749
Importer	Yamaha Motor Corp. U.S.A. 6555 Katella Ave. Cypress, CA 90630
Customer service phone	(714) 761-7439
Warranty	90 days

ENGINE/GEARBOX

Engine	two-stroke Single
Bore x stroke	66 X 57mm
Displacement	195cc
Compression ratio	8.4:1
Claimed power	27.6 bhp @ 9000 rpm
Claimed torque	18.8 lb.ft @ 7500 rpm
Carburetion	34mm Mikuni
Ignition	CDI
Lubrication	premix
Primary drive	straight-cut gear
Gear ratios, overall:1	
6th	9.31
5th	11.49
4th	13.30
3rd	15.96
2nd	19.76
1st	29.26
Oil capacity	1.2 pt.
Starter	primary kick
Air filter	oiled foam

SUSPENSION/BRAKES/TIRES

Front	KYB telescopic
Wheel travel	10.6 in.
Tube diameter	43mm
Rear	Yamaha single shock
Wheel travel	10.6 in.
Brakes:	
Front	5.12-in. drum
Rear	5.12-in. drum
Tires:	
Front	90/90-21 Dunlop K790
Rear	120/90-18 Dunlop K790
Wheels:	
Front	1.60-21 aluminum
Rear	1.85-18 aluminum

CHASSIS

Fuel capacity	2.9 gal.
Fuel tank material	plastic
Swingarm material	aluminum
Frame material	steel
Wheelbase	57.5 in.
Seat height	35.8 in.
Handlebar width	32.3 in.

Footpeg height	14.9 in.
Footpeg to seat top	20.7 in.
Footpeg to shift lever center	6.3 in.
Footpeg to brake lever center	5.0 in.
Swingarm length	22.0 in.
Swingarm pivot to drive sprocket center	2.5 in.
Gas tank filler hole	2.1 in.
Ground clearance	13.6 in.
Rake/trail	28°/4.53 in.
Test weight w/half tank fuel	222 lb.
Weight distribution, front/rear, percent	48.2/51.8

**CYCLE
WORLD
TEST:
YAMAHA
IT200**

