

YAMAHA IT175F

*The Smallest of the
Monoshock Enduros
Is Nimble, Tough and
Surprisingly Fast*



■ One drawback to modest virtue is that it's so, well, modest. When Yamaha introduced the high-volume serious enduro bike in the form of the YZ-descended IT line, the big fuss was made over the big engines. The IT400 and IT250 went like blazes. Steering, um, well, not too well. Every model year since the big push has been to make the ITs lighter and more nimble.

To make them, in general, what the IT175 has been all along.

The smallest of the true enduro bikes is an endearing little piece. It shares with the larger ITs the features that distinguish a serious enduro bike from a bike with an



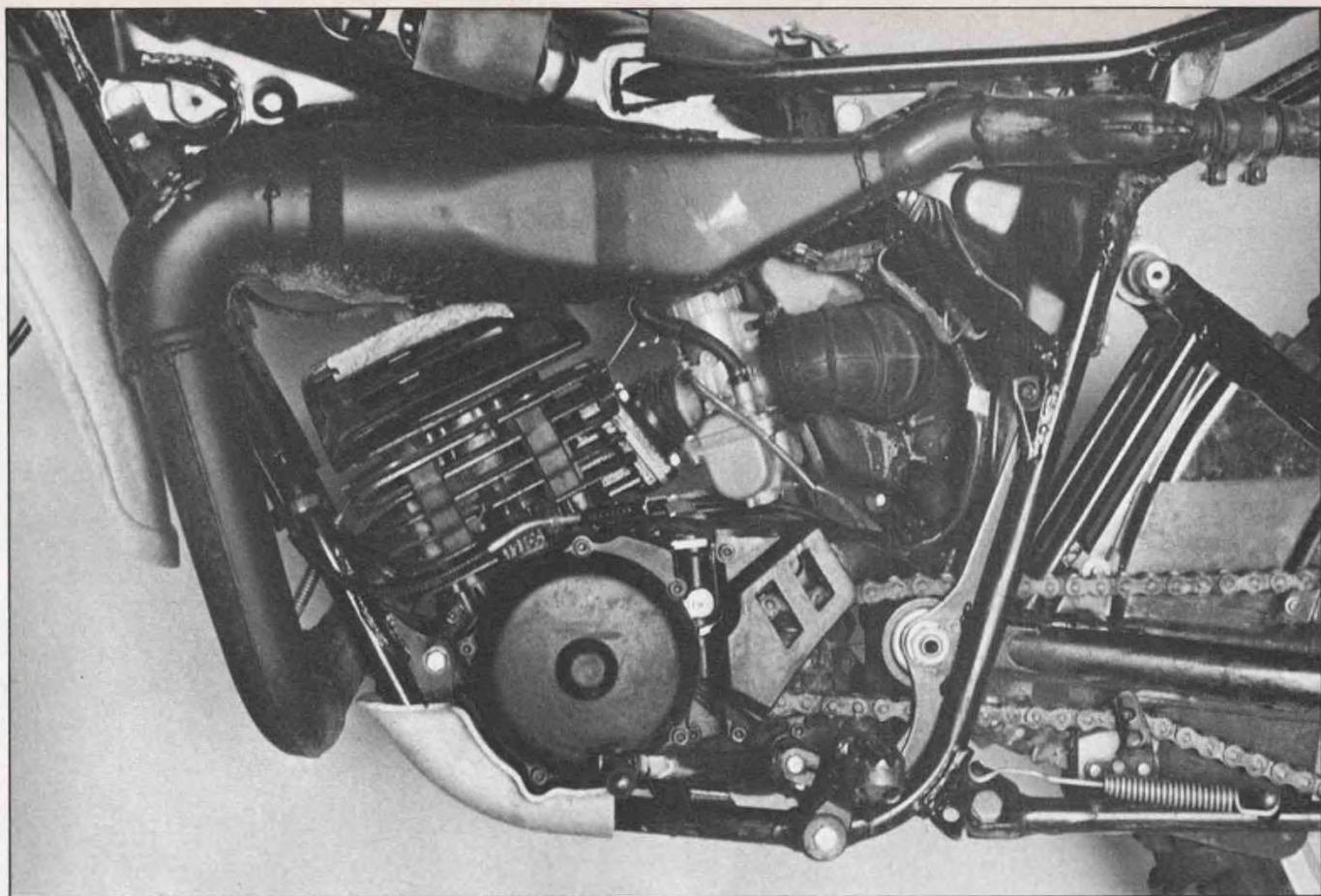
enduro decal on the side. There's the useful little headlight with integral number plate, the tool bag fastened to the rear fender, the tommy bar attached to one side of the front axle, the tightly shaped skid plate, folding brake and shift levers, snail chain adjusters and both wheels mount so as to be quickly removed, if not as quickly as the experts in the ISDT do it.

Also like the bigger versions, the IT175 has the motocross-descended suspension: leading axle forks and monoshock rear. Rear wheel travel has been increased this year, from 7.3 in. to 8.1. Although that's a modest change, it puts the IT above average for the class. The duplex cradle frame, with large backbone serving as the housing for the monoshock, is mild steel. Major change for the '79 model is the steering rake, pulled back from 32° to 29.5°, another change shared with the big 'uns.

One modest advantage unique to the 175 concerns the engine. Top enduro bikes currently are usually built around motocross models.

With the big versions, because Yamaha already had a 400 and a 250 motocrosser, those ITs simply got the MX engines, tuned down, softened and in some model years a little outmoded. When you only squeeze 30 bhp out of a 40 bhp package, so to speak, you get an engine that's plenty strong and maybe larger and heavier than the power output can justify.

The IT175, though, didn't have a direct counterpart. What the IT175 is, is a 125 motocross engine, made bigger to fit the class and with porting, carb and such juggled just enough to give as much power as before, but delivered in calmer fashion. The six-speed transmission is matched to the engine, with wide ratios so there's a >



Engine has benefited from several years of refinement; pulls well at low speed and makes power on top.

speed for every purpose. The exhaust pipe is double wall, with the expansion chamber reworked for mid-range and the complete system tucked out of the way. The silencer has a forestry-legal spark arrester, so the IT can be used on public land and is polite about it.

The engine has worked well since it was introduced, so for 1979 the factory made only minor changes. The intake and exhaust ports are higher, with 1mm added to the bottom. This extends the duration of the port openings, without losing effective compression, and adds power to the middle of the rpm range.

At 241 lb. with half a tank of mix the IT175 isn't especially light and is a tad heavier than its rivals, the Suzuki PE175 and Honda XR185. Oddly, in light of the weight, the IT feels on the small side.

The numbers don't show this. When the fork was pulled back the wheelbase lost a fraction of an inch, and when extra travel was given to the rear wheel, ground clearance had to be increased as well, but in general the dimensions haven't changed much in three years the 175 has been on the market. The various measurements, that is, bar width, seat height, peg height, tank length, etc., are close to the Honda and Suzuki figures, but every rider above five-foot-ten commented that the IT felt not quite full size. More like a 9/10s scale motorcycle, which isn't a bad thing to be in this class.

There's a break in the family tree here.

The YZ125 tested with the other 125 motocrossers this month also feels smaller than the others, while some of its parts, mostly the rear suspension, don't work especially well.

The smallish IT, though, descended from the same line of thought and using the same themes, works very well. We suspect some of this comes from not fiddling with a good thing. Every model year Yamaha fits another version of the mono-shock. First time we tried the monoshock

we said it would be better when the bugs were worked out. We say the same thing in effect in the 125 group test. Thing is, the bugs don't seem to get worked out because they do a rework instead.

The IT isn't the focus of the factory's eyes, which is one reason we say the IT's virtues are modest. The rear shock for the '79 IT175 has been updated since new, but not wildly changed. The damping can be adjusted with the body in place, the spring load can be changed but you must remove the body, and because the IT worked so well from day one, we didn't fool with it at all.

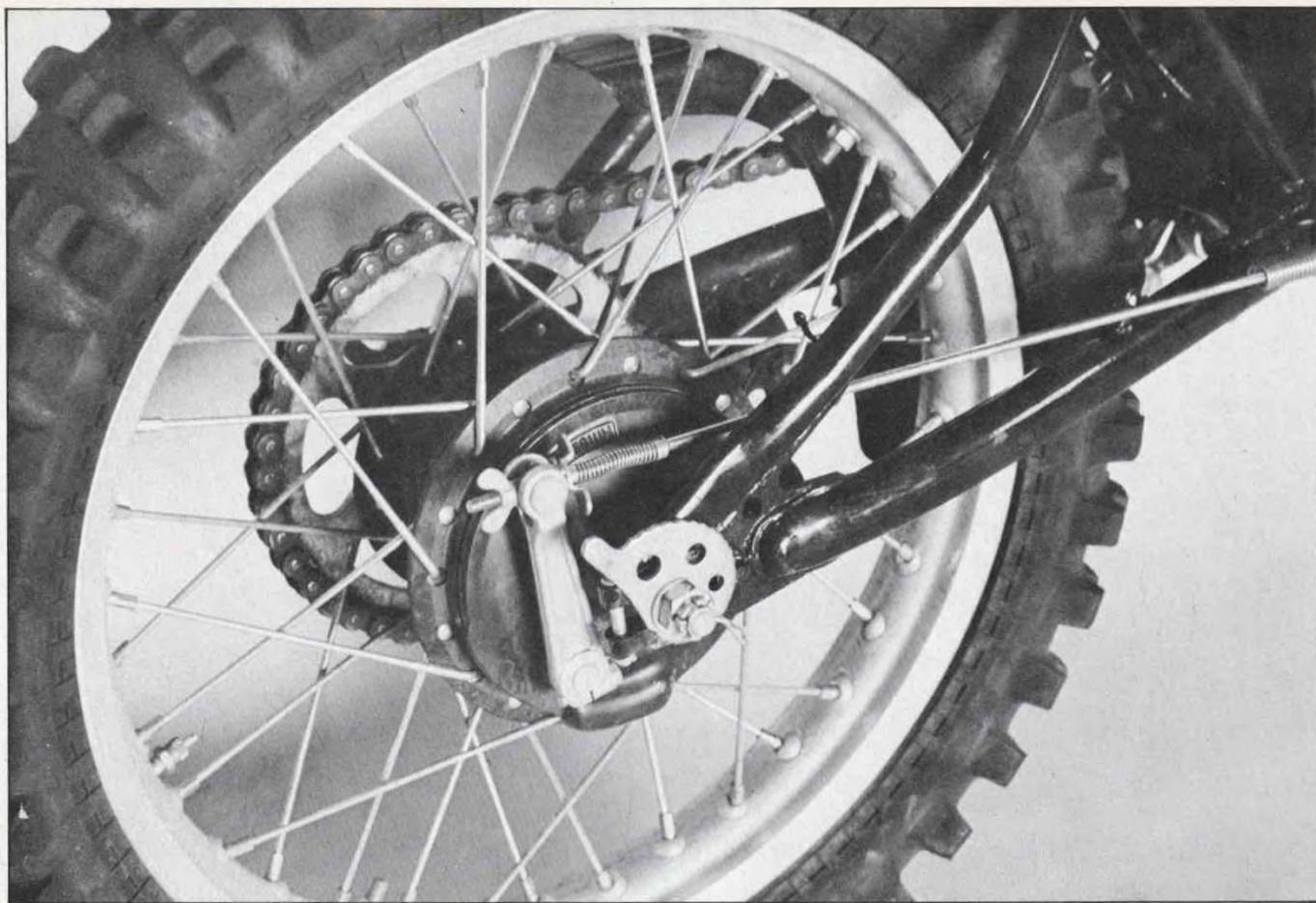
Both ends of the bike are biased toward hard and fast trail riding. The forks are stiff on cross-grain and the back feels overdamped just a click or two on choppy ground and the occasional rain rut.

With the pace stepped up, the fork stiffness pays off by resisting sudden motion and bottoming. The rear doesn't go solid unless you really hit a bad one by surprise. Best part under those circumstances is that the rear does . . . not . . . kick. Emphasis added because the worst flaw the monoshock has shown to date, enduro or MX, big model or small, is that when the back wheel goes most of the way down, on a ledge or a whoop or even (not on purpose, of course) a rock, the wheel decompresses with such vigor as to whang the rider with the seat.

The IT isn't terribly good at whipping across whoops with heavier riders, say 150







Quick-release rear brake lever is tucked behind axle. Snail chain adjusters allow fast work but sometimes require sharp blows with a Mojave Hammer, that is, a rock. Swing arm is steel.



lb. or more. The engine will provide enough speed to use up all the travel, and the IT gets into a pitching motion made more obvious by the bike's small feel. A lighter or shorter rider probably won't notice this.

The steeper rake has quickened the steering. Not to an extreme, as it still responds slowly, compared with the other enduro machines anyway. The high center of gravity—big monoshock above the engine, small engine below the monoshock, means you can move the c.g. a long way

per degree of lean, which you can't do as well when the weight is lower, and the IT will take a firm bite on turns, flat or bermed, provided the rider has shifted his weight forward and fed lots of lock into the steering. The IT did as well in sand as the power would allow. Steers fine, but because it is only a 175, in deep sand an adult's weight will make it hard for the engine to keep the tires skimming along the surface in top gear.

Enough power? What enough means depends on the rider. We had the IT250

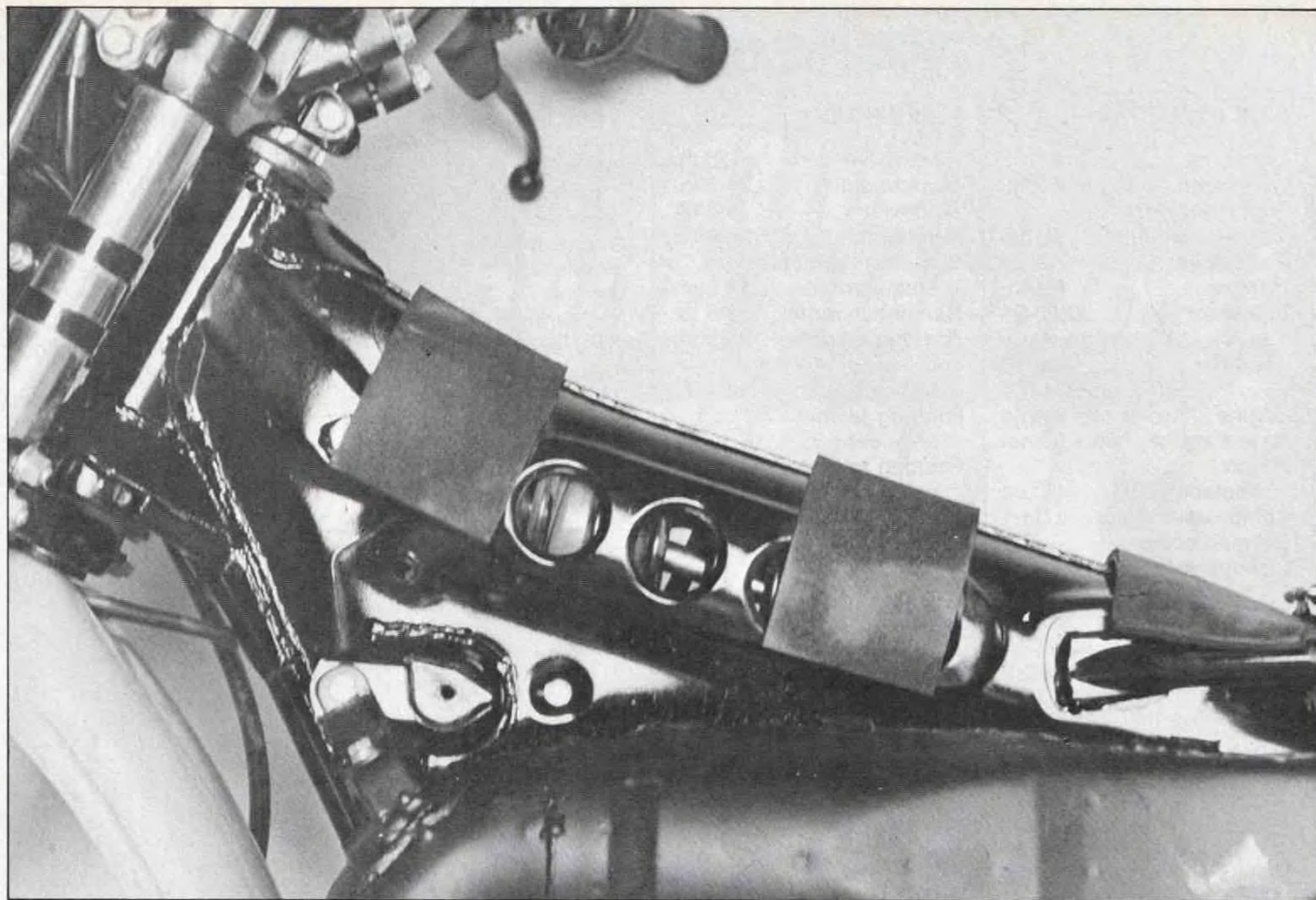
couple months back and a play rider on one of our expeditions commented that he liked the speed fine, but when he rolled it full open the 250 felt as if the front end was light and the rear snaking and skipping as it got on ragged edge of traction. Our fastest man said he knows the feeling, but the IT250 doesn't do that. Really fast bikes like the Maico 250 do that.

Depends on what we mean by fast and enough power.

Perhaps the IT175's best modest virtue is that it doesn't skip or skate. The power comes in three distinct levels, each suited to what various riders will want.

First, with light throttle and early shifts, the 175 is as tractable as could be. Starts well hot or cold, by the way, and ran flawlessly for several months—we enjoyed riding the little gem so much we kept forgetting to do the actual test, which is also why the photographs show more mud than is our custom. Not so much as a spark plug was needed and we never found a rider over the age of consent whom we couldn't trust not to keep the IT in hand. Putt around the campsite all day, if needed.

Stage Two is novice on the trail, running the engine between chug and shriek. Plenty of mid-range power, enough to get up the routine hill if you've got enough run and shift down before the thing bogs. Seems like a good performer and there is, as noted above, no sensation of forces



Monoshock body lives inside the large backbone. Damping can be adjusted with the shock in place.

about to be unleashed. Good stable platform, easy to ride.

Stage Three is a bonus gift: There is force waiting to be unleashed. One of the crew went out to do a top speed run, more for the record than for a record, and came back astonished. First thing he knew he was rocketing down a dirt road with 70+ showing on the speedo, blazing across hardpack and through the occasional sand furrow. Like an arrow, he said, this little rascal will go.

And it will. There is a top end, the best in class. The Honda 185 will do its best, the Suzuki 175 has a few mph more than the Honda, but the IT will dust 'em both. Keep it on the pipe and it becomes a real enduro bike. Plus, because the power comes on in a straight line, the good rider can hang the back wheel out and keep it there without any sudden jolts. Nice.

Aside from the feeling of being somehow too big for the bike, the test riders reported no problem with controls. The brake and shift levers do look outboard, but neither got kinked and nobody mentioned the seat or the levers pro or con, usually a sign that they are okay.

Front brake worked well, the back also except that we set it on the loose side, partially because Yamaha dirt bikes mostly are touchy, and partially because the engine isn't torquey and too much rear brake can stall the thing without the rider being aware of using that much pressure. As with >



Leading axle forks offer average travel, handle large bumps better than small ones.

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SPECIFICATIONS

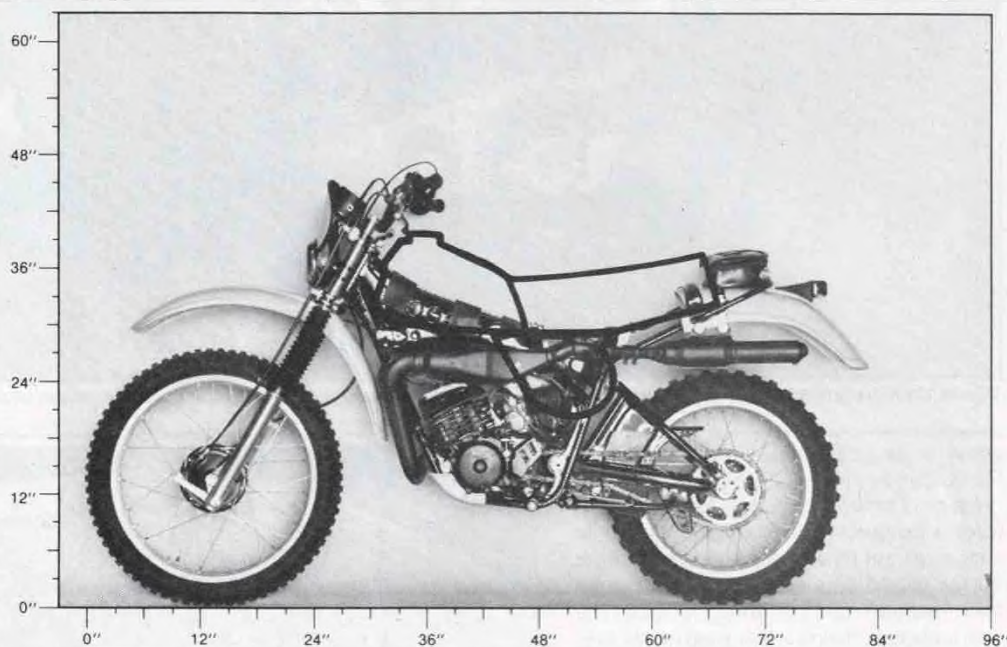
List price	\$1257
Fork travel	7.7 in.
Fork stanchion tube diameter	36mm
Rear wheel travel	8.1 in.
Tire, front	3.00-21 IRC knobby 4 p.r.
Tire, rear	4.00-18 IRC knobby 4 p.r.
Engine	two-stroke Single
Bore x stroke	66 x 50mm
Piston displacement	171cc
Compression ratio	7.4:1
Claimed power	na
Claimed torque	14.5 ft. lb. @ 7500 rpm
Carburetion	34mm Mikuni
Ignition	CDI
Lubrication system	premix
Primary drive	helical gear
Gear ratios, overall:1	
6th	9.26
5th	11.03
4th	13.12
3rd	16.54
2nd	22.83
1st	34.08
Oil capacity (transmission)	1.3 pt.
Fuel capacity	2.5 gal.
Fuel tank material	plastic
Swing arm material	steel
Starter	primary kick
Air filtration	oiled foam
Frame material	steel

DIMENSIONS

Wheelbase	55 in.
Seat height	34.5 in.
Seat width	6.5 in.
Seat length	20.5 in.
Seat front to steering stem center	14.5 in.
Handlebar width	33.5 in.
Footpeg height	12.75 in.
Footpeg to seat top	21 in.
Footpeg to shift lever center	6 in.
Footpeg to brake pedal center	5.25 in.

Swing arm length	18.25 in.
Swing arm pivot to drive sprocket center	3.5 in.
Gas tank filler hole size	2.12 in.
Ground clearance	10.25 in.
Fork rake angle	29.5°
Trail	5 in.
Test weight w/half tank fuel	241 lb.
Weight bias, front/rear percent	46.6/53.4
FEATURES	

Forks adjustable with air?	no
Rear shock damping adjustable?	yes
Rear shock rebuildable?	no
Provision to check transmission oil level?	yes
Does owners manual show how to disassemble complete engine?	yes
Does pipe burn rider?	no
Brake pedal height adjustable?	yes

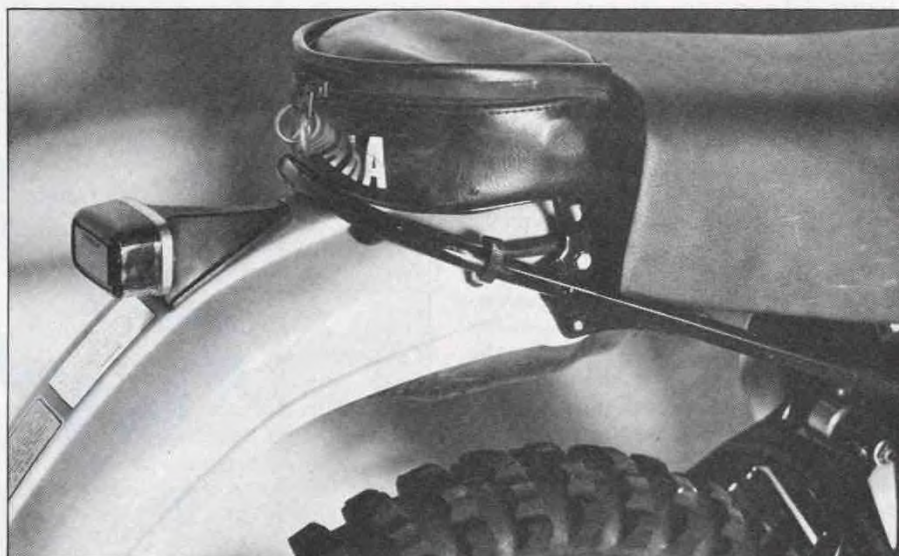


the other ITs, the 175 did a General Washington across every stream we could find. Fuel consumed is a function of power produced so it follows that the 175 went a goodly distance on its 2.5 gal.

Okay, the IT175 isn't perfect. We had occasion earlier this year to try a '78 IT175 completely equipped by DG Performance. Different bike, with more power, more wheel travel, all the extras a serious rider would need to make the ISDT team. A competitive racer would need this level of equipment to perform at this level of skill and speed. If the other chaps can go 80 through the rocks, you'd better be ready to do the same.

But the fullrace IT is fearsomely expensive.

The 175 engine puts a limit on rider size in some areas. It's fast . . . for a 175. This isn't like being fast like an IT250. In terrain where you can't run an IT400 or such wide open, the 175 would work well for fast riders of light weight or play riders of adult



stature. But if you're average or more, and you ride where you can use power, or want to win now and again, the 175 probably

will need some modifications or you'll need a larger engine.