



YAMAHA YZ465G

With its awesome power and works-like suspension, the Yamaha 465 has virtually stunned its competition for 1980.



THE KING OF THE HILL

Power Play

By the Editors of Dirt Bike

It never fails. Every time a killer bike comes out that's an instant hit, there never seem to be enough of them to go around. Such is the case with the YZ465G. It made a big impression on everyone, mostly because it set a new standard for horsepower. Not only lots of horsepower, but good horsepower from idle all the way up to peak revs.

Naturally, there were not enough of the 465s to go around. Dealers were sold out early in the year, and the salesmen who gave discounts for the first few batches sold, can now be found beating their heads against handy brick walls.

In fact, used YZ465s are going for near full retail price in the want-ad section of the bike newspapers. If the 465 is such a good bike, why then are riders here and there selling their mounts?

Probably because they were forced to admit that the bike was too much for them. A novice racer, or a play rider, will often find that the 465 simply overwhelms him with sheer, brute power. More often than not, a pleasant ride consists of recovering from one near disaster after another, just because the bike can get going too fast, too suddenly.

One trip through the gears on flat ground will get the YZ465 up to literally blinding speed. There's no lag between the gears. The bike starts pulling hard in low gear, continues the charge in second, rushes through third, rips through fourth quickly and starts moaning and quivering with unleashed energy in fifth. As fast as the gears can be changed is as fast as the big YZ accelerates. With stock gearing, a rider can find himself charging past 85 mph and edging up to 90. With a larger countershaft sprocket, the top end of the bike enters never-never land and everything gets blurred.

All of that power is what makes the 465 such a popular motorcycle with the racing population, though. To a serious competitor, the more power the better. Just check the line-ups at the local motocross race, in the 500cc Intermediate and Pro ranks. A lot of riders who were sworn to a different brand switched over to Yamaha when they introduced the 465.

To them, the advantage of that extra power means the chance to blow a slower bike away in the straights, rather than trying risky passes in the turns. The results sheets prove the theory successful, too.



Shock adjustment can be done without removing a thing. As for the Bridgestones, they're good for a few races.

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The suspension of the 465 is worth raving about almost as much as the motor. The rear monocross suspension was totally reworked this year, and the shock was turned around so the preload damping could be adjusted right under the rear fender. A flick of the knob will alter the damping, and a few twists of the jam nut will set up the preload.

A remote gas reservoir was slipped onto the other end this year and mounted onto the frame's downtube, which puts another easily accessible shock-adjusting item at the rider's disposal.

As for the forks, they are just as versatile. They offer lots of adjustment possibilities for either the springs, oil level and viscosity, or air pressure. Both the front and rear are as close to the factory works bikes of last year as you'll get; and having ridden a few OWs, we can honestly say that the 465, just like the 250, has roots based in Yamaha's racing department.

The YZ465 is not without flaws, but the fabulous horsepower has made the riding public assume a benevolent attitude. You give the dirt bikers a magnificent motor and they'll put up with everything else on a bike being flawed. Bear witness to the success of the TT500.

Those flaws in the YZ465 are few . . . and easily correctable. Some care must be taken in setting the rear suspension right. We stated that it's a fine setup, but if you have either the damping or preload off on the mono, all the handling characteristics of the 465 are drastically changed. This usually occurs after the mono spring has been broken in and settles. To correct this, simply bump up the preload to stiffen the spring back up. There are also a couple of other alternatives if you're not happy with the stock spring in the first place. White Brothers has a mono modification and adds a short spring from an IT425 to the stock spring.

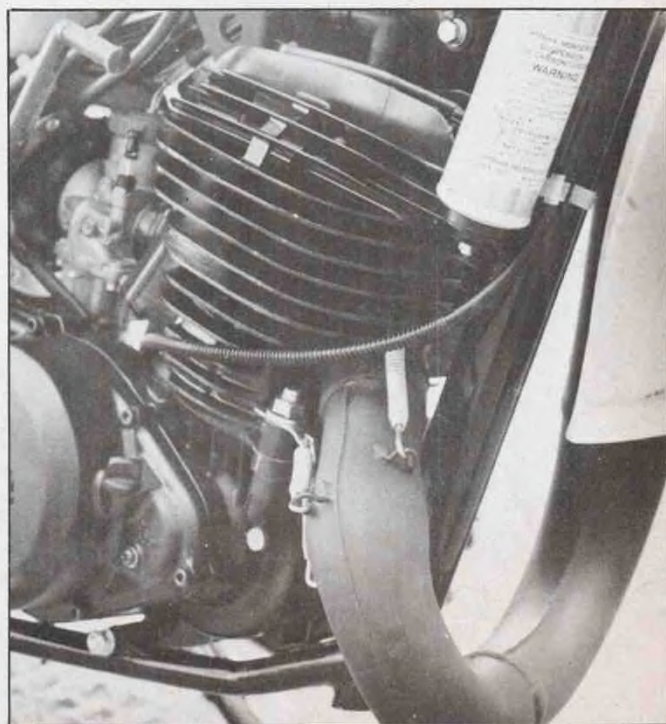
The other option is to run down to the local Yamaha shop and pick up the next-firmer spring that's available, then readjust the preload.

The adjustments available are so numerous that it's easy to screw up the Yamaha. Stick close to your manual, and make one adjustment at a time.

We've heard some complaints about gearbox problems with the 465 and investigated them. We found out that there were indeed some problems, but also found out why. Rex Staten put the gearbox failures in the proper light when he told us that he raced his practice stocker for most of the year without problems, but some friends of his broke theirs regularly. The reason they break them is



Despite the effort Yamaha put into the brakes on the 465, the big YZ is still a handfull to slow down.



Here's the backbone of this whole machine, the 465cc motor.

because the riders are using the gearbox to slow the bike down, rather than using the brakes. And, when a bike as powerful as the 465 is being forced to use the gearbox as a braking system, there's no way it'll hold up.

The more we looked into this, the more it seemed to be correct. We talked to some fast local pros who had absolutely no hassle with the gears, while some novice level play riders were shredding teeth by jamming the bike down gear after gear to get the machine slowed.

Still, the 465 is a hard bike to slow down, in spite of excellent brakes. The front assembly even uses double arms to push the shoes into the drums harder.

In the turning department, our testers had mixed feelings about the 465. It did turn quite well, and can be made into an excellent cornering machine with a little time setting up the suspenders just right, but it felt heavy, and somewhat ponderous. Part of that is due to the largish gas tank. Holding about 2½ gallons, there's a lot of weight on top right there, and since the 465 has a tendency to suck up a lot of fuel, you need the tank to be near full when going into a long moto.

The YZ250G and 465G share many of the same components, especially in the chassis. Still, the 465 feels heavy when compared to the 250. The difference in dry weight is only about

a dozen pounds.

The fuel consumption is also an odd factor, when you consider that both bikes have virtually the same carburetors, 38mm Mikunis, with the exception of the needle jet and a slightly larger main jet—a #370 on the 250, and a #400 on 465.

The open charger uses considerably more pre-mix.

The rear hub on the 465 is the same as the F model 250's rear hub, and is stronger than the 250G hub. Also, the swingarm is longer on the 465 than on the 250.

Bits and Pieces

Probably the most annoying feature on the 465, though, is the difficulty in starting the engine. The kickstarter is long and located high. You just about have to put your knee in your ear to get everything lined up for a solid whack at the lever. And, even then, chances are the bike will not fire until it gets a good half dozen hearty boots. When the bike was dropped during a race, it also proved hard to re-start. Although you may have to take a little ribbing for it, it's a good idea to bring a milk crate with you to the starting line before your race. With the added height and leverage, you'll

get the 465 fired up a lot faster, and save a bunch of the energy you'd normally waste.

It takes a good deal of warming up to get the largest YZ running clean. It pays to do several burnouts and runs through the gears before you try to get a good start at the race track. Failure to do this results in a hesitating, blubbing start at the back of the pack.

Another hot little tip you ought to know about, when at the start with the 465, is the proper gear selection when leaving the gate. In stock form, there's only one gear to use, third. With all of the 465's power, it will rocket out of the gate, keeping the front end low to the ground, and you'll not have to shift for the first forty yards of the straight.

To point out what a difference this can make in your starts, one of our staffers has been racing the 465 regularly in the 500 Intermediates, and has failed to get a good start in every race when he left the gate in second gear. The first time he used third gear, he holeshot both motos, and had a comfortable lead at the end of the starting straight.

The stock Bridgestone knobbies on the 465 worked fine for about three races. After that, we removed them and slapped on some Metzlers. This made a big difference in the way the front end stuck in the corners.

The bars on the 465 are rubber-

Jim O'Neal puts the powerful 465 to work on a soft So. Cal. berm.





YAMAHA YZ465G Specifications

NAME AND MODEL	Yamaha YZ465G
ENGINE TYPE	Air-cooled, reed-valved, two-stroke
BORE AND STROKE	85mm x 82mm
DISPLACEMENT	465cc
HORSEPOWER (CLAIMED)	N/A
CARBURETION	38mm Mikuni
FACTORY RECOMMENDED JETTING:	
MAIN JET	400
NEEDLE JET	Q2
JET NEEDLE	6F16-2
PILOT JET	50
SLIDE NUMBER	3.0
RECOMMENDED GASOLINE	Premium
FUEL TANK CAPACITY	9.0 liters (2.4 gallons)
FUEL TANK MATERIAL	Plastic
LUBRICATION	Pre-mix
RECOMMENDED OIL	Yamalube R
AIR FILTRATION	Air box/foam element
CLUTCH TYPE	Wet, multi-disc
TRANSMISSION	Five-speed, constant mesh
GEARBOX RATIOS:	
1	2.14
2	1.75
3	1.31
4	1.04
5	0.83
GEARING, FRONT/REAR	14/46
IGNITION	CDI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	Champion N3
SILENCER/SPARK ARRESTOR/QUALITY	Yes/ no/fair
EXHAUST SYSTEM	Expansion chamber, up-pipe
FRAME, TYPE	Tubular steel, double cradle
WHEELBASE	1480mm (58.3 inches)
GROUND CLEARANCE	310mm (12.2 inches)

SEAT HEIGHT	935mm (36.8 inches)
STEERING HEAD ANGLE (RAKE)	30 degrees
TRAIL	130mm (5.12 inches)
WEIGHT WITH ONE GALLON GAS	237 pounds (108 kg)
RIM MATERIAL	Aluminum alloy
TIRE SIZE AND TYPE:	
FRONT	3.00x21 4PR knobby
REAR	5.10x18 4PR knobby
SUSPENSION, TYPE AND TRAVEL:	
FRONT	Telescopic air/oil/spring forks, 11.8 inches
REAR	Monoshock gas/oil/spring, 12.2 inches
INTENDED USE	Motocross competition
COUNTRY OF ORIGIN	Japan
PRICE, APPROX.	\$1998
DISTRIBUTOR:	
Yamaha Motor Corp. USA	
6555 Katella Ave.	
Cypress, California 90630	
PARTS PRICES, HIGH WEAR ITEMS:	
PISTON ASSEMBLY, COMPLETE	\$35.75
RINGS ONLY	\$13.32
CYLINDER	\$160.64
SHIFT LEVER	\$10.42
BRAKE PEDAL	\$18.70
FRONT SPROCKET	\$8.28
OVERALL RATING, 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
HANDLING	94
SUSPENSION	97
POWER	99
COST	96
ATTENTION TO DETAIL	98
EFFECTIVENESS, STONE STOCK	97

With all of its muscle, the 465 is a handful for most beginners and novices, but the intermediates and pros will love it.

burn the inside of the left knee, nor did it melt any plastic around the FIM side panels, or on the air box. In the easily removable filtration housing is a two-stage foam element that is removed by unscrewing two wing nuts protruding alongside the boot to the carb, then slipping it out through the side where the side plate was holding it protected. Another little block of foam is held on to the plate where openings let the oxygen into the box.

The saddle is comfortable and angled just right, easily letting the rider assume the proper position over the tank for the corners. The unbreakable fenders aren't unbreakable, as we found out when our rear plastic protector cracked under the strain of a quick lowside.

Summing It Up

The YZ465 holds a unique spot. It is simply the fastest dirt bike you can buy. Period. And that's enough to guarantee its success, even if they don't change it for 1981. The bike is a handful to ride because of the outrageous power, but it's also fun to have a bike that'll respond with so much surge.

In one move, Yamaha has managed to eliminate almost all of the other Open class bikes from contention. Notice that we said "almost." Only Maico, with their 450, can give the 465 a run for the money. And while the Maico might outperform the YZ in the corners, the 465 will get to that corner first. □

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mounted to help eliminate most of the vibration put out by the massive powerplant, but they not only did that job well, but proved to be helpful in another way. When you happen to crash the 465, rather than the bars bending into all different contortions, the rubber mounting absorbs some of the shock, and allows the bars to twist a little bit in the triple clamps, rather than just bend right away. Unfortun-

nately, the rubber mounts allow too much movement and make it difficult to keep the bars from slipping when they get sudden jolts.

The levers were the usual good Yamaha dogleg units that fit the hand nicely, but were a bit too long, and will snap off easily. The shifter hung out, and should be a folding unit rather than just a solid arm. As for the clutch, it was a little tough to pull in, and became a handicap to a rider's tiring arms.

The exhaust pipe didn't stick out or