

YZ125/250/490



WE DON'T QUIT WHILE YOU'RE AHEAD.

The motocross machine that goes fast enough and handles well enough hasn't been built yet.

It probably never will be.

But, every year, one comes close.

Almost always the initials are YZ. And it's built by Yamaha.

The reason Yamahas come out ahead might be because they start out ahead.

This year's YZs are no exception.

They've got features that are years ahead of anything you're likely to see from the competition.

Innovations that make for faster engines, better suspension and improved handling. Innovations that add up to the absolute finest racing machines ever to come from Yamaha.

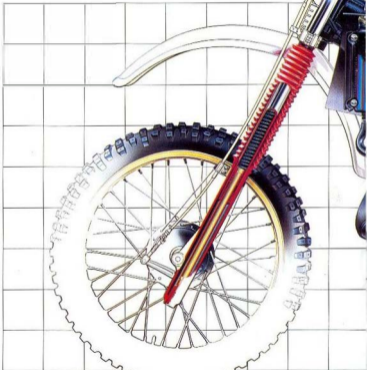
Or anyone else.

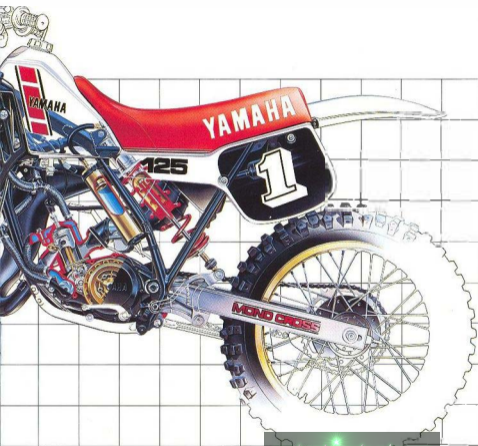
THE YZ DICT: TAKE IT TO THE LIMIT.

Last year, our engineers were given a real challenge—make the YZs even lighter without sacrificing strength or reliability.

Never wanting to avoid a challenge, our engineers went to work. They shaved off ounces here and pounds there. They made the hubs smaller and tougher for less unsprung weight. They designed a new swingarm out of super-strong, super-light box-section aluminum. They made the radiators lighter and re-positioned them below the gas tank, improving the center of gravity. Not even the spoke nipples were overlooked. The new ones were borrowed from our OW works bikes and are machined from aluminum.

All of which adds up to a lot less.





In fact, if the new YZs were any lighter, they'd be illegal. Amazingly, they tip the scales at exactly the FIM weight limits for their classes.

**NEW IMPROVED
MONOSHOCK: NEW AND
IMPROVED AGAIN.**

For the last six years, while the competition was out inventing their versions of single shock suspension, we were out improving the original Monocross. We added travel every year. We increased the shock damping. We gave the system more adjustability.

And last year, we improved it so much you couldn't even recognize it.

Good old Monocross became good new Monocross, and in the process, it also became a true rising-rate suspension system.

What rising rate means to suspension is simple.

At rest, the suspension is extremely soft. As the rear wheel begins to move upward,

the suspension begins to stiffen. The farther the rear wheel travels the stiffer both spring rate and the shock damping become.

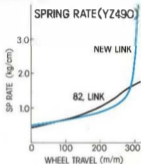
What rising rate means to you is smooth, supple action over small stutter bumps and whoop-de-doo's. Stiffer, more solid response for deep ruts and big jumps.

So what could be better?

Leave it to our engineers to find a couple of things. Improvements like making the monoshock itself smaller, lighter and more compact and then re-designing the pivot and strut system to allow the shock to sit lower in the frame further lowering the center of gravity. The new pivot also modifies the rate of damping

increase to fit more riders and more tracks with less adjustment.

As a result, the rear wheel stays in contact with Mother Earth longer than ever, so you can go faster than ever. Over more kinds of terrain than ever.



THE ONLY MOTOCROSS BIKES THAT COME WITH TWO ENGINES.

The two-stroke engine is almost perfect for motocross. It's lightweight, compact, powerful and easy to cool.

Now about the "almost."

With the typical two-stroke engine you have to set the exhaust port timing for one of two things: low-end torque or high-end speed. Or, find a happy medium and lose a little on both ends.

As you might expect, we've got a different approach.

Our YPVS on the YZ125 and YZ250.

YPVS translates into Yamaha Power Valve System. And that translates into getting two engines in one. One set for torque, the other for speed.

The heart of YPVS is a cylindrical valve that's cut into the exhaust port. The valve is cut to match the shape of the port and rotates to reduce or increase the exhaust port height, which, in turn, changes the exhaust port timing.

And you don't have to lift a finger.

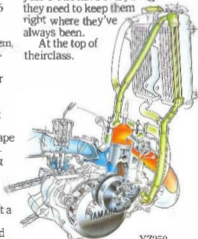
Just twist the throttle and

YPVS automatically gives you plenty of torque at low rpm and plenty of speed at high rpm. All the while, improving overall power output, combustion efficiency, and, wonder of wonders, gas mileage.

As if that weren't enough, the '83 YZs come with a list of other new features as long as your arm. From folding shift levers to new hand controls. But instead of telling you about each one, we suggest you take a look at the photos on the next few pages.

All things considered, this year's YZs have everything they need to keep them right where they've always been.

At the top of their class.



YZ250

YZ125

Introduced last year, our rising-rate Monocross suspension has been improved to offer better response over more varied terrain. And to handle more different sizes of riders with less adjustment.

FIM-type covers keep your number way out in view when you're way out in front.

New link system allows the Monoshock to sit lower in the frame.

The Monoshock itself has been re-designed to be lighter and more compact. Of course, it still offers over thirty settings for compression damping, rebound damping and preload making it the most adjustable system available.

Close-ratio, constant mesh six-speed transmission has a positive feel.

Works-type seat and fuel tank design provide maneuverability and comfort.

Re-positioned radiator helps lower the center of gravity, improving handling.

New, stronger lighter rims and hubs.

The Yamaha Power Valve System automatically adjusts exhaust timing to give you the best of both worlds—high-end speed and low-end torque.

www.yamaha-motor.com



YZ250

The Monoshock itself has been re-designed to be lighter and more compact. Of course, it still offers over thirty settings for mono-cross damping, rebound damping and preload making it the most adjustable system available.

Works-type fuel tank and seat provide maneuverability and comfort.

Re-positioned radiator helps lower the center of gravity, improving handling.

Now that the YZ250 comes with water-cooling, peak horsepower tuning is greatly increased. Water-cooling also increases the length of time that horsepower can be maintained.

Introduced last year, our rising-rate Monocross suspension has been improved to offer better response over more varied terrain. And to handle more different sizes of riders with less adjustment.

Front brake is a twin-leading shoe unit for more stopping power.

The 246cc two-stroke powerplant has a new, longer stroke for increased torque.

www.legends.yamaha-riders.com

Magnesium brake plate and cast aluminum brake cam lever reduce unsprung weight.

Ratios in the positive-shifting, five-speed transmission have been improved for more versatility.

The Yamaha Power Valve System automatically adjusts exhaust timing to give you the best of both worlds—high-end speed and low-end torque.

Tires feature a new tread design for better traction and are mounted on new stronger, lighter rims.



YZ490

The Monoshock itself has been re-designed to be lighter and more compact. Of course it still offers over thirty settings for compression damping, rebound damping and pre-load making it the most adjustable system available.

Introduced last year, our rising-rate Monoshock suspension has been improved to offer better response over more varied terrain. And to handle more different sizes of riders with less adjustment.

FIM-type side covers keep your leg from covering your number.

Works-type seat for more comfort and maneuverability.

Remote reservoir provides extra oil for the monoshock, keeping it cool for more consistent operation.

Capacitor Discharge Ignition (CDI) produces a hot, efficient spark under all riding demands.

The single-down-tube high tensile-strength steel cradle frame is light, strong and provides a low center of gravity.

The leading-axis front forks have a large tube diameter for better handling.

Divisible, extra-wide polypropylene fenders are designed to prevent mud build-up.

The full-floating rear brake allows the shoe to rotate and pivot with the frame, independent of the swing arm. Braking is smoother and more predictable.

Super-strong, super-light box-section swing arm keeps the rear wheel tracking straight and true.

Wide-ratio four-speed transmission lets you spend less time shifting and more time on the gas.

487cc two-stroke engine combines with Yamaha Energy Induction System (YEIS) to provide stomp-pulling torque and plenty of top speed.

A powerful, double-leading-shoe front brake provides maximum control and stopping ability.

www.regulus-yamaha-enduros.com





YAMAHA MOTOCROSS HELMET: Designed by Simpson. Small approved. Lightweight Kevlar construction and super fit. Unique, protective styling for visibility and venting. Available in white or red.

NEW TRIC GLOVES: Hard wearing, supple leather. Tough nylon stitching, foam padded blue leather palms, red stretch nylon back with protective TRIC pads. Ventilated fingers are curved for easier grip. Knitted wrist.

TRIC "MESH" JERSEY: Tough, eyelet nylon mesh, for super body ventilation. Co-ordinated, matching tank graphic for bold Team Yamaha identification. Poly/Cotton sleeves, neck and cuffs.

NEW TRIC PANTS: Bold red and white front, blue back for new Team Yamaha look. Heavy duty nylon construction. High back waistband serves as a kidney belt. Leather reinforced knees. Expandable Spandex mesh lining for better ventilation in crotch and leg area.

ENGINE	YZ125	YZ250	YZ490
Type	2-Stroke, Liquid Cooled	2-Stroke, Liquid Cooled	2-Stroke, Reed-Valve
	Y.P.V.S., Single	Y.P.V.S., Single	Y.P.V.S., Single
Displacement	123 cc	246 cc	487 cc
Bore and Stroke	56.0 x 50.0 mm	68.0 x 68.0 mm	87.0 x 82.0 mm
Compression Ratio	7.8 - 9.9 : 1	7.4 - 9.2 : 1	7.4 : 1
Maximum Torque	15.1 ft.-lbs. (2.1 kg-m) @ 10,500 rpm	28.4 ft.-lbs. (3.9 kg-m) @ 7,500 rpm	42.7 ft.-lbs. (5.9 kg-m) @ 6,500 rpm
Carburetion	Mikuni VM34	Mikuni VM38	Mikuni VM38
Ignition	Capacitor Discharge	Capacitor Discharge	Capacitor Discharge
Starting	Primary Kick	Primary Kick	Primary Kick
Lubrication	Pre-Mix	Pre-Mix	Pre-Mix
Transmission	6-Speed	5-Speed	4-Speed
CHASSIS			
Overall Length	84.1 (2,135 mm)	85.4 (2,170 mm)	86.6 (2,200 mm)
Overall Width	33.5 (850 mm)	33.5 (850 mm)	33.5 (850 mm)
Overall Height	48.8 (1,240 mm)	48.4 (1,230 mm)	48.0 (1,220 mm)
Wheelbase	57.1 (1,450 mm)	57.9 (1,470 mm)	59.1 (1,500 mm)
Ground Clearance	13.8 (350 mm)	13.2 (335 mm)	13.0 (330 mm)
Seat Height	37.0 (940 mm)	37.8 (960 mm)	37.6 (955 mm)
Dry Weight	190 lbs. (86.5 kg)	212 lbs. (96.5 kg)	223 lbs. (101.5 kg)
Fuel Tank Capacity	1.5 Imp. gal. (7.0 l)	1.9 Imp. gal. (8.5 l)	2.3 Imp. gals. (10.5 l)
Suspension			
Front	Telescopic Fork with Proportional Valve	Telescopic Fork with Proportional Valve	Telescopic Fork with Proportional Valve
Rear	Swing Arm with Monoshock	Swing Arm with Monoshock	Swing Arm with Monoshock
Brakes			
Front	Drum	Drum with Double Leading Shoe	Drum with Double Leading Shoe
Rear	Drum	Drum	Drum
Tires			
Front	90/80-21	90/80-21	100/80-21
Rear	130/80-18	140/80-18	150/80-18
Coloring	White	White	White

Always wear a helmet and eye protection. Specifications are subject to change without notice. Rear view mirror(s) standard equipment.

www.legends.yamaha-motor.com

YAMAHA
THE WAY IT SHOULD BE.™