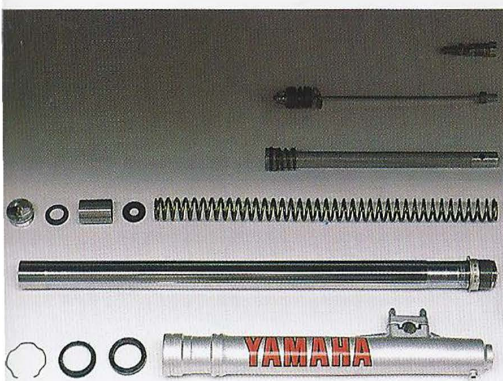


YZ80/125/250/490



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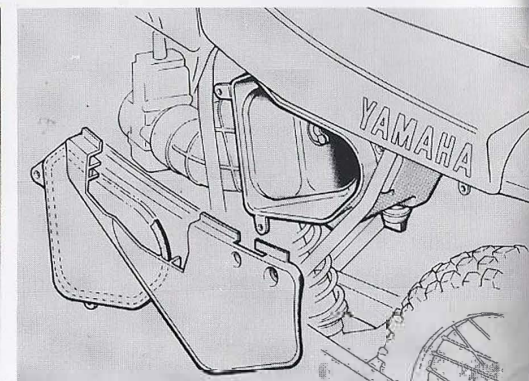
*T.C.V. fork increases damping under load.*



*Brake Actuated Suspension System helps keep rear-wheel on track.*



*Each of our YZ's comes with a powerful front disc brake.*



*Every Yamaha YZ comes with a high capacity air filter system.*

# Buy a 1987 YZ and we'll give you the works.

Factory MX racing, for us as well as all other manufacturers, has always been the ultimate test of new technology for production line models.

But this is where the Yamaha philosophy of race track experimentation has traditionally parted company with other companies.

Frankly, we've never understood how to accurately judge a stock rear suspension system if the frame it's suspending is a one-off chrome molybdenum piece. Or what you can learn from a stock engine filled to the gills with trick after-market components.

So the Yamahas you see guys like Broc Glover riding have always been the Yamahas you see guys like you riding.

And despite the lack of one-off frames and hand made internal components, the guys like Broc Glover have done exceedingly well.

Our racing heritage includes more National and World MX Championships than any other manufacturer.

So it isn't surprising that Yamahas have fared just as well on local circuits with local riders. Or that Yamahas have performed so well for so many dirt riders who simply want an ultra-reliable, ultra-high performance play bike.

And the 1987 YZs will be even better. With more superior power spread over wider powerbands. Suspensions that respond very smoothly. And handling that's quick, precise and stable because of advanced Yamaha technology and research.

In addition, every YZ offers benefits that aren't bolted to the motorcycles

themselves. Benefits like an extensive network of knowledgeable dealers dedicated to helping you have your best season ever. And our exclusive 30-day limited YZ warranty.

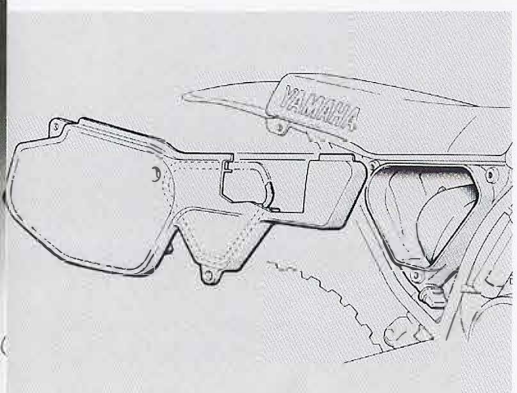
Not to mention our generous rider support program. Such as Yamaha Team Centers to help you with technical advice and instant access to parts. Along with Wrench Reports sent to Yamaha owners from Yamaha factory engineers that will help you coax the most performance from your motorcycle.

The machinery you're about to study in-depth represents the culmination of years of motocross leadership. Read it carefully.

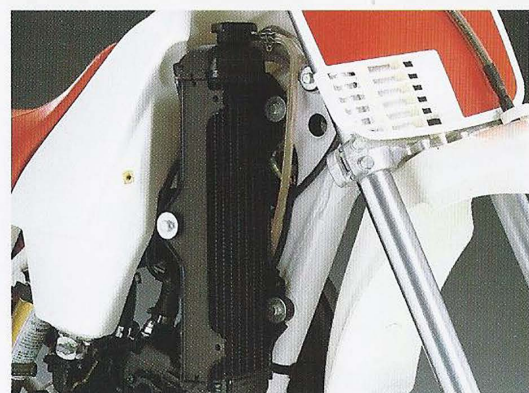
You can bet our factory riders will.

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*A more efficient air filter helps increase reliability.*



*Watercooling means this year's YZ80 puts out more power lap after lap.*



*Our little YZ shares monocross suspension with our bigger YZ's.*



*YPDI helmets, goggles and gloves. Don't leave home without them.*

# It's just like our bigger YZ's. Only smaller.

If our new YZ80 looks remarkably similar to our new YZ125 or YZ490, it's no accident.

Because our smallest YZ shares more with our largest YZ than just the Yamaha name.

They share the same type of powerful two-stroke reed-valve engine, the same type of ultra-trick Monocross rear suspension and heavy-duty telescopic front suspension with disc brake. And ultimately, they share the same ability to out-perform other machines in their class.

Which, more than anything else, is what Yamaha YZs are all about.

During 1986 our YZ80 won its share of races. During 1987 it'll win even more.

Due not to any one thing in particular but to many things. Among them: An engine with significantly more power than last year's model thanks to a new porting configuration and larger reed valve assembly.

And yet, while we dramatically increased its power, we also dramatically increased its reliability. By using a more efficient air filter, a new exhaust system with an o-ring for better sealing and a special cylinder sleeve with a thicker outer circumference for reduced thermal deformation. Translation: It dissipates heat better for less distortion. Hence, greater reliability.

To make certain that all of this newfound power gets to the ground, our engineers modified the rear suspension to provide steadier damping and prevent bottoming.

And to make certain that it stops as well as it goes, YZ80's now use brake pads with a higher degree of metallic content. Which not only improves the way they stop under dry conditions, they're actually 10-15% more effective under wet conditions.

Which, along with a 190mm front disc, twin-piston floating caliper and a new master cylinder with its view window located in front instead of the rear for better visibility, gives our YZ80 a state-of-the-art braking system. Just like the ones you'll find on our bigger machines.

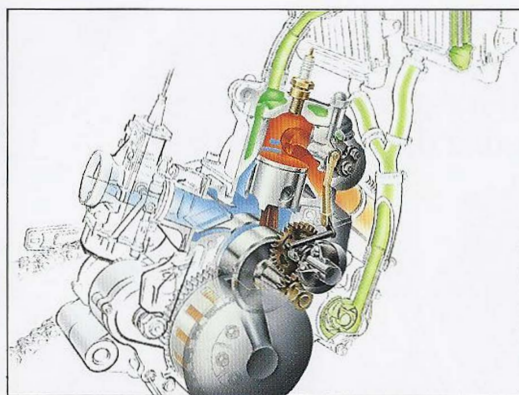
Only smaller.

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*This year's YZ125 benefits from a frame that's both lighter and stronger.*



*A less restrictive intake passage and new flat side carb make for more power.*



*Suspension features an improved lever ratio and rear-suspension adjustability.*



*Motocross boots from YPDI offer superior protection and comfort.*

# To fully appreciate our new YZ125, take a ride on somebody else's.

We're sure the other guy's machine will perform well. We have no doubt about that. But we're also sure it won't perform as well as ours. We have no doubt about that either.

Not just in terms of sheer horsepower, although our new YZ125 is more powerful and flexible than ever thanks to a new cylinder with more efficient port timing. As well as a less-restrictive intake passage into the crankcase and redesigned flat slide carburetor.

And yet, while our six-speed, liquid-cooled engine is more powerful than ever before, it's also smoother and more reliable than ever before. Smoother because we balanced the

crank to reduce engine vibration. And more reliable because we machined a groove into the right crankcase to improve bearing lubrication and added a larger and more efficient air cleaner. (Actually it's the same one we use on our YZ250 and YZ490.)

Of course, any mention of our engine would be incomplete without a mention of the patented Yamaha Power Valve System (Y.P.V.S.). An ingeniously simple and extremely reliable device consisting of a cylindrical valve cut into the exhaust port. The valve matches the shape of the port and rotates to reduce or increase the port height. Which, in turn, changes the exhaust port timing and provides loads of torque at low rpm and plenty of speed at higher rpm. All the while improving overall power and combustion efficiency.

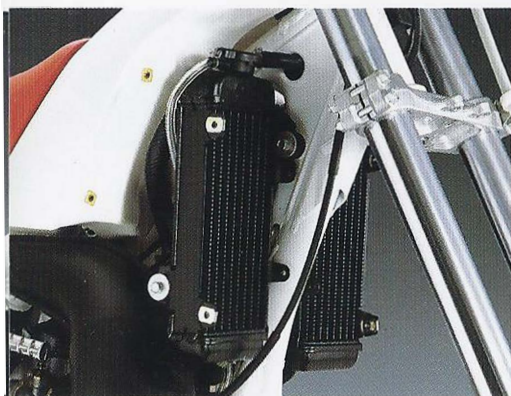
The chassis in this year's YZ125 has undergone just as many changes as the engine. Changes that include an improved rear suspension setting and lever ratio. A steering shaft of lightweight aluminum. Lighter front hubs. Stronger footrests. A friction-reducing needle-bearing swing arm with a roller-bearing chain tensioner. And, of course, Yamaha's exclusive T.C.V. front suspension — an innovation that dramatically improves handling.

All in all, it's the best-performing 125 you can buy. To fully appreciate just how good it is, take a ride on somebody else's 125.

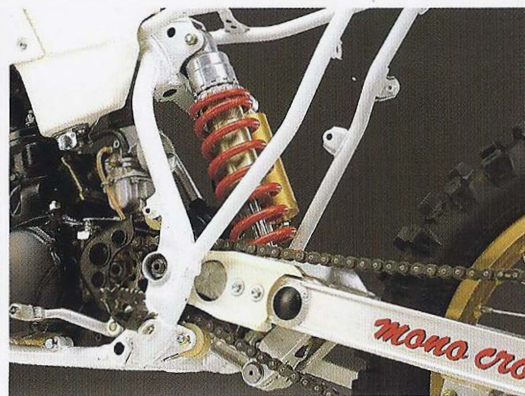
You'll see what we mean.

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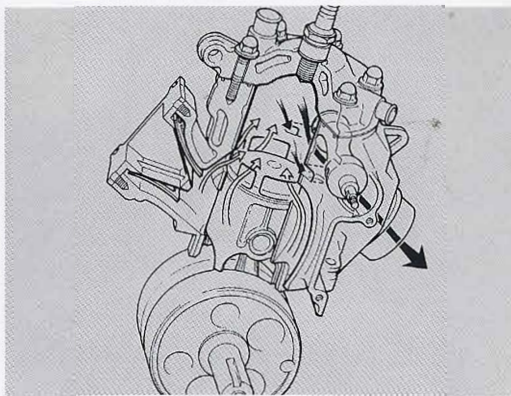
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*Our watercooling system keeps temperatures low and horsepower high.*



*Monoshock rear suspension and Brake Actuated Suspension System.*



*New porting and the addition of flow adjusting plates make for more power.*



*YPDI off-road apparel provides outstanding wear and good looks.*



# The Yamaha YZ250. A perfect example of the trickle up theory.

Our new YZ250 shares many of the same new features as our new YZ125. Which is not surprising. State-of-the-art engineering works as well on one machine as it does on another. Regardless of size.

The 246cc liquid-cooled engine has been extensively modified to put out not just more power but to do so within a much wider powerband. Something we accomplished, in part, by reducing the capacity of the cylinder head to increase the compression ratio. Increasing the diameter of the exhaust pipe. And completely redesigning the cylinder porting.

Like our YZ125, we also changed the silencer material from steel to lightweight aluminum. And once we changed what it's made of, we changed how it's made. By switching to easily removable screws to hold it together instead of not-so-easily removable rivets. As a result, it's far easier to work on, should the need arise.

Like our YZ125, we also modified the clutch pressure plate for smoother action. And changed the primary reduction ratio in the five-speed transmission to complement the new power characteristics of the engine.

And like the YZ125, we equipped the YZ250 with larger and more efficient brake shoes, lighter spokes, stronger rims and a needle-bearing swing arm. As well as heavy-duty 43mm front forks with our new Travel Control Valve arrangement.

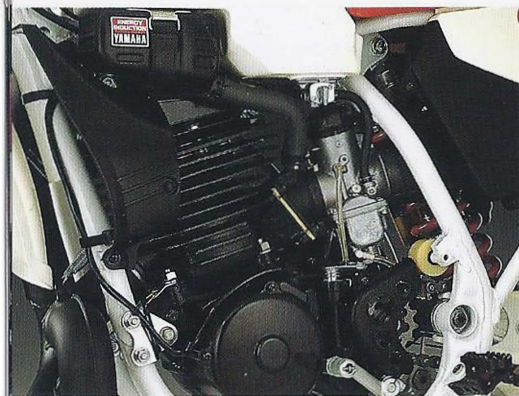
TCV is a location-dependant device which changes the front fork damping force according to the location of the stroke. How? Through a special spring built into the front fork which senses the main spring load and alters the opening of the orifice and valve that are interlocked with the main spring. As a result, the level of damping is directly proportional to the speed and severity of the bumps.

Of course, you may not care much about these technical features. But what you should care about is the way it makes a YZ handle.

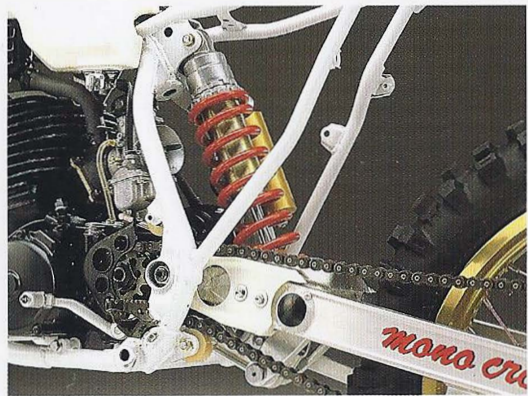
Beautifully.

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*New porting and the addition of flow adjusting plates make for more power.*



*Monoshock rear suspension and Brake Actuated Suspension System.*



*Up front you'll find a set of massive forks along with a 220mm steel disc.*



*Yamaha offers a full line of motorcycle apparel and accessories.*

# Introducing a motorcycle that outperforms most of its riders.

In all fairness, there are not many people who can use a YZ490 to its fullest. Who can really appreciate what it has to offer.

If you are one of the people who can, continue reading. If you're not, we suggest you look into another YZ. Perhaps the Yamaha YZ250.

Because our YZ490, with its eyeball-jerking amounts of horsepower and torque, is an awesome piece of machinery. Made even more awesome this year because of a few changes we've made.

Like porting the air-cooled cylinder for even more power. (We didn't bother watercooling the engine since

it already has more power than most people know what to do with. Besides, air-cooling is much less complicated.)

We also redesigned the intake manifold adding flow adjusting plates for improved efficiency. Added an o-ring to the existing gasket to improve exhaust sealing. And modified the exhaust silencer for better performance and easier maintenance.

However, there are some things about the YZ490 we didn't change. Like the front brake. It's still a massive 220mm carbon steel disc. We didn't change the frame either. It's still a rugged lightweight design with a 58.1 inch wheelbase. Nor did we change its Monoshock rear suspension with its Ohlins-type shock absorber, piggyback reservoir and unique B.A.S.S. feature.

Our Brake Actuated Suspension

System utilizes a stepped rod which is built into the compression adjuster on the shock absorber and also connected to the brake pedal. Every time the pedal is depressed, the rod is pulled. And every time the rod is pulled, a valve on the shock absorber opens and the rear suspension compression damping is reduced immediately.

Which means there's a lot less chance of wheel hopping when you hit the rear brake. Or skittering when you corner. The rear wheel stays where it's meant to be.

All of which helps the YZ490 do something it's very good at.

Win races.

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## YZ80 SPECS

<b>ENGINE</b>	
Type	2-Stroke, Liquid Cooled, Single
Displacement	82.5cc
Bore and Stroke	48.0 × 45.6mm
Compression Ratio	8.6:1
Maximum Torque	10.1ft-lbs (1.4kg-m) @ 11,500rpm
Carburetion	Mikuni VM26SS
Ignition	Capacitor Discharge
Starting	Kick
Lubrication	Pre-mix
Transmission	6-Speed
<b>CHASSIS</b>	
Overall Length	70.7" (1,795mm)
Overall Width	30.1" (765mm)
Overall Height	41.7" (1,060mm)
Wheelbase	48.6" (1,235mm)
Ground Clearance	11.4" (290mm)
Seat Height	31.5" (800mm)
Dry Weight	135lbs (61.3kg)
Fuel Tank Capacity	1.32gals (5.0)
<b>Suspension</b>	
Front	Telescopic Fork
Rear	Swingarm with Monocross
<b>Brakes</b>	
Front	Single Disc
Rear	Drum
<b>Tires</b>	
Front	70/100-17
Rear	90/100-14
Color	White

## YZ125 SPECS

<b>ENGINE</b>	
Type	2-Stroke, Liquid Cooled, Single
Displacement	123cc
Bore and Stroke	56 × 50mm
Compression Ratio	8.4 ~ 10.5:1
Maximum Torque	16.5ft-lbs (2.28kg-m) @ 10,000rpm
Carburetion	Mikuni TM34SS
Ignition	Capacitor Discharge
Starting	Kick
Lubrication	Pre-mix
Transmission	6-Speed
<b>CHASSIS</b>	
Overall Length	84.1" (2,135mm)
Overall Width	33.5" (850mm)
Overall Height	48.8" (1,240mm)
Wheelbase	57.1" (1,450mm)
Ground Clearance	13.8" (350mm)
Seat Height	36.8" (935mm)
Dry Weight	192lbs (87kg)
Fuel Tank Capacity	1.98gals (7.5)
<b>Suspension</b>	
Front	Telescopic Fork
Rear	Swingarm with Monocross
<b>Brakes</b>	
Front	Single Disc
Rear	Drum
<b>Tires</b>	
Front	80/100-21
Rear	100/100-18
Color	White

## YZ250 SPECS

<b>ENGINE</b>	
Type	2-Stroke, Liquid Cooled, Single
Displacement	246cc
Bore and Stroke	68 × 68mm
Compression Ratio	8.54 ~ 10.12:1
Maximum Torque	30.4ft-lbs (4.2kg-m) @ 7,500rpm
Carburetion	Mikuni VM38SS
Ignition	Capacitor Discharge
Starting	Kick
Lubrication	Pre-mix
Transmission	5-Speed
<b>CHASSIS</b>	
Overall Length	85.4" (2,170mm)
Overall Width	33.5" (850mm)
Overall Height	48.4" (1,230mm)
Wheelbase	57.9" (1,470mm)
Ground Clearance	13.4" (340mm)
Seat Height	37.6" (955mm)
Dry Weight	215lbs (97.5kg)
Fuel Tank Capacity	2.11gals (8.0)
<b>Suspension</b>	
Front	Telescopic Fork
Rear	Swingarm with Monocross
<b>Brakes</b>	
Front	Single Disc
Rear	Drum
<b>Tires</b>	
Front	80/100-21
Rear	110/100-18
Color	White

## YZ490 SPECS

<b>ENGINE</b>	
Type	2-Stroke, Single
Displacement	487cc
Bore and Stroke	87 × 82mm
Compression Ratio	6.94:1
Maximum Torque	44.1ft-lbs (6.1kg-m) @ 6,000rpm
Carburetion	Mikuni VM40SS
Ignition	Capacitor Discharge
Starting	Kick
Lubrication	Pre-mix
Transmission	5-Speed
<b>CHASSIS</b>	
Overall Length	85.6" (2,175mm)
Overall Width	33.5" (850mm)
Overall Height	48.2" (1,225mm)
Wheelbase	58.1" (1,475mm)
Ground Clearance	13.2" (335mm)
Seat Height	37.4" (950mm)
Dry Weight	226lbs (102.5kg)
Fuel Tank Capacity	2.64gals (10.0)
<b>Suspension</b>	
Front	Telescopic Fork
Rear	Swingarm with Monocross
<b>Brakes</b>	
Front	Single Disc
Rear	Drum
<b>Tires</b>	
Front	80/100-21
Rear	110/100-18
Color	White

Specifications subject to change without notice.

**YAMAHA**  
We make the difference.™

30 day limited warranty. Warranty terms are limited. See your Yamaha dealer for details. Dress properly for your ride with a helmet, eye protection, long sleeved shirt, long trousers, gloves and boots. Specifications subject to change without notice. Designed for off-road, operator use only. Intended for experienced rider only. Yamaha and the Motorcycle Safety Foundation encourage you to ride safely and respect the environment. For further information regarding the MSF rider course please call 1-800-447-4700. Do not drink and drive. It is illegal and dangerous.