

YZ250/125/80

YAMAHA



## '93 YZ. *Nothing will stop you now!*

Youth or adult, amateur or professional, Yamaha YZ is the one to race in '93.

And that's because we've made a whole lot of major improvements to the range—including an all new 80—that could make 1993 your best season ever.

If you've got the will to win, then you need the bike that can take you there.

Yamaha YZ.

# 250/ 125

For the new season the 125 and 250 have been uprated and improved just where it really matters!

Redesigned cylinder heads, revised porting and reshaped YPVS valves boost the crucial low to mid range power on both bikes, and for more efficient cooling we've fitted larger capacity radiators.

New low-boy pipes have allowed our design team to fit massive 8-litre airboxes for better overall engine performance, and both YZs now benefit from lighter action clutches for effortless operation.

Chassis improvements include a detachable subframe,

re-designed Deltabox swinging arm and revised Monocross linkages for superb all-round handling performance on the toughest tracks.

With even more explosive bottom end power and substantially uprated frames and suspension systems, the '93 model YZ125 and YZ250 are as serious about winning as you!





**80** Completely new. That's the only way to describe the '93 model YZ80. Totally redesigned motor now features crankcase reed-valve induction and a ceramic-composite plated cylinder for improved performance through the whole rev range. And for increased intake and exhaust efficiency the smallest YZ uses a larger capacity airbox and low-boy pipe.

Redesigned frame is physically larger and stiffer than previously, and features a new flex resistant swinging arm giving 280mm rear wheel

travel. And to handle the increased power output the new YZ80 is equipped with the latest design upside-down front forks with a massive 275mm of wheel movement.

The all-new YZ80. If you're not on one you'll probably be behind one!



# Research and Development: The Key to Our Success.

For the last 20 years we've been producing some of the very best motocross machinery available. And that has been made possible because we believe in constant research and development backed up by our highly successful World Championship Motocross and U.S. Supercross racing programmes.

Both the 250 and 125 feature reshaped cylinder heads and revised porting which boost low to mid-range power for dynamic gating and devastating acceleration out of corners.

Bottom end power has been boosted even further by the use of low-boy exhausts on both models which has allowed our engineers to increase airbox capacity from 5 to 8 litres—while larger radiators keep the engine running cooler and therefore more efficiently.

Clutch capacity is increased by the addition of extra plates, and for a lighter easy action we've reduced spring rates.

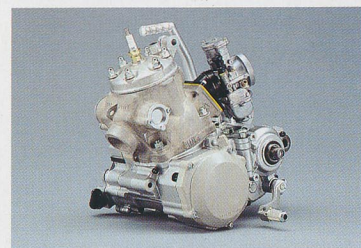
With a superior powerband making the machine quicker and easier to ride, the new 250 and 125 motors are sure to be powering to a whole lot of race wins in the new season!

The lessons learnt on the Grand Prix track have also been successfully applied to the all-new YZ80, the most advanced youth motocross machine we have ever built.

Like the 125, the latest 80 features a ceramic-composite plated cylinder and crankcase reed-valve induction for increased performance at all engine speeds. And just like both of the bigger YZs the 80 features a large capacity airbox and low-boy pipe which substantially increase intake and exhaust efficiency.

For quicker acceleration gears 1, 2 and 3 are close ratio, while gears 4, 5 and 6 are more widely spaced for higher top-end speeds.

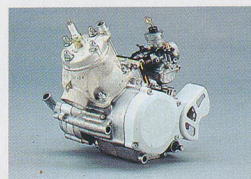
Delivering increased power output right through the range, the latest YZ80 motor is going to shake up the opposition in a big way!



YZ250



YZ125



YZ80



Developed from experience gained from our highly successful Grand Prix motocross teams, the '93 YZ frames have been completely redesigned for improved serviceability and performance.

Using our proven semi-double cradle layout, the new YZ250/125 frame is now manufactured from larger diameter thin-wall tubing, making it lighter and considerably stronger.

New feature for '93 is the fully-detachable rear subframe which gives access to the shock and airbox, and for easier maintenance we've fitted a quickly adjustable shoulder bolt at the steering head.

New engine mountings on the 250/125 reduce vibration and facilitate routine servicing, while a more durable swinging arm-mounted guide keeps the drive chain under control.

Frame design on the YZ80 is totally new, and like the adult YZ models it uses large diameter thin-wall tubing to achieve maximum rigidity without any weight penalty, and to cater for bigger riders the overall size is increased.

A detachable left rear subframe gives access to the airbox and shock, and for improved handling on rough tracks the ground clearance is increased by 35mm.

YZ frame technology. Fresh from the Grand Prix track.

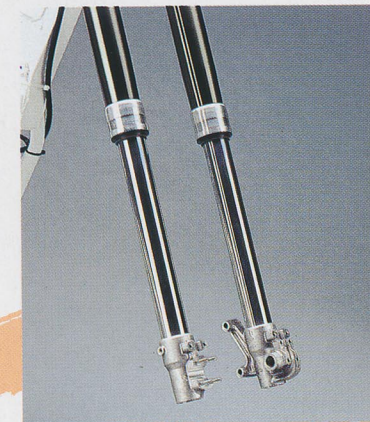
It's not outright power that makes a winning motocross bike—it is how effectively you can lay the power down that really matters. So for 1993 our designers have introduced important improvements on all our YZ models that will help cut your lap times.

Biggest changes of all are seen on the all-new YZ80 which is now equipped with the very latest suspension system. New upside-down front forks give a massive 275mm travel while a completely new Monocross rear end maximises traction and offers an impressive 280mm wheel movement.

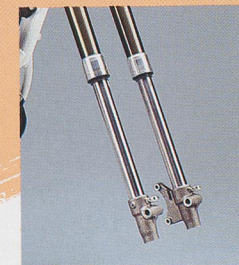
With Yamaha factory teams competing successfully in motocross Grand Prix and U.S. Supercross there's not a lot we don't know about suspension. And for the new season we've redesigned the YZ250/125 rear linkage and shock for superior handling on all kinds of track.

To handle the extra low to mid range torque we've also developed a stronger Deltabox swinging arm which is more flex resistant to give accurate rear wheel tracking.

Together with new low-friction front fork internals the '93 YZ suspension package is our best ever. And with 20 years experience at the top that means something!



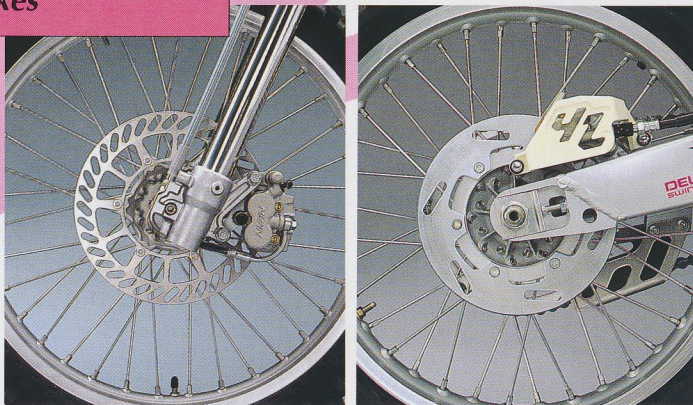
YZ250/125



YZ80

### Front/rear brakes

Efficient braking is as important as high engine performance in a race. And to make our YZ250/125 brakes stop even better for '93 we've fitted new sintered pads and upgraded the stainless steel used on the 204mm front and 189mm rear discs.



### Deltabox swinging arm



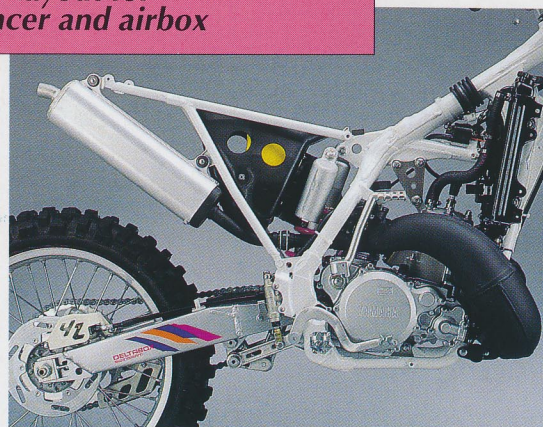
YZ Monocross rear suspension system is operated by a Deltabox swinging arm connected to a revised linkage for improved handling. Light and immensely strong, this race developed design is flex resistant and keeps the rear end in shape even when under severe loads.

### Side cover, etc.



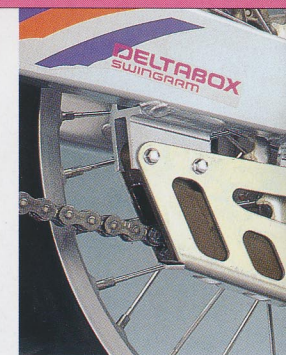
To further improve rider mobility on the new YZs we've redesigned the seat and produced new slimline sidepanels which allow you to move around the bike with ease. Maintenance is also made simple by the standardisation of bolt sizes on the bodywork.

### New layout for silencer and airbox



For improved performance over the whole rev range the new YZs get a substantially larger 8-litre airbox and redesigned air filter which is stronger than the previous model. And to keep noise levels below the set limits a new highly efficient oval silencer is fitted.

### Improved chainguide



# YZ80. Grand Prix technology for everyone!

## Low-boy exhaust pipe

New low-boy exhaust has enabled our engineers to install the large capacity airbox for improved overall engine performance. This design is also more compact than the conventional layout and allows the use of a larger, more effective oval silencer to comply with current noise regulations.

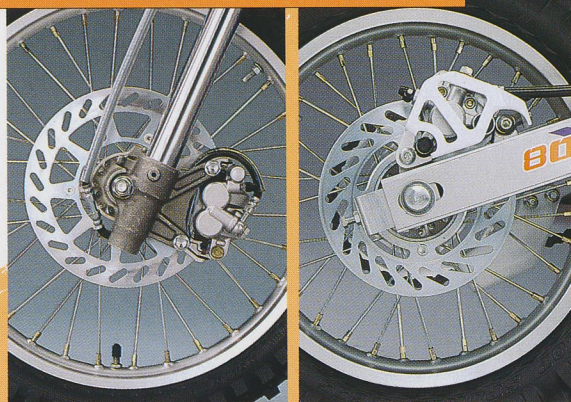
## New transmission

Gearbox on the 80 has been completely redesigned to make best use of the changed power characteristics of the new motor. 1st, 2nd and 3rd gears are now close ratio for quicker acceleration, while gears 4, 5 and 6 have a wider spacing for higher top speeds.

## Seating position, etc.

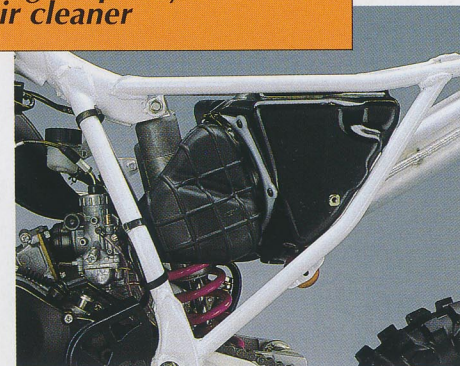
Physically bigger than its predecessor, the latest 80 is designed for a broader age group of riders. New long travel upside-down forks and Monocross rear end give 35mm extra ground clearance, and both seat height and wheelbase are increased to suit the older riders before they move up to a YZ125.

## Front and rear discs



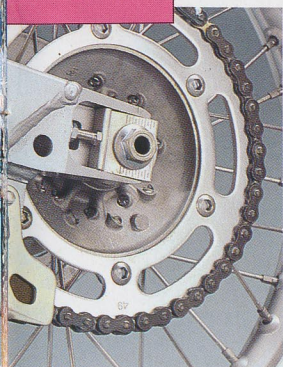
For '93 the smallest YZ is fully equipped with discs on both the front and rear wheels for excellent stopping performance. A large diameter 220mm slotted front disc gives powerful, progressive braking, and at the rear a 190mm disc replaces last drum.

## Large capacity air cleaner



Like the larger YZs the 80 is equipped with a much larger airbox using a wider inlet which feeds the new crankcase reed-valve motor. This system ensures that the high performance engine gets all the air it needs for efficient combustion at all throttle openings.

Attention to detail can be seen in the new design chainguide. Developed from our Grand Prix machines, the new guide is designed to be stronger and more efficient in keeping the chain running in line, which ultimately ensures maximum power is transmitted to the rear wheel.





# **TECHNICAL SPECIFICATIONS** **ENGINE**

	YZ250	YZ125	YZ80
Type .....	2-stroke, liquid-cooled, piston/reed valve, single cylinder, with YPVS	2-stroke, liquid-cooled, crankcase/reed valve, single cylinder, with YPVS	2-stroke, liquid-cooled, crankcase/reed valve, single cylinder, with YPVS
Displacement .....	249.0 cc	124.0 cc	79.4 cc
Bore and stroke .....	68.0 X 68.8 mm	56.0 X 50.7 mm	6.0 X 47.8 mm
Compression ratio .....	9.0~11.0 : 1	9.0~10.9 : 1	8.5 : 1
Max. power (DIN) .....	52.0 PS (38.0 kW) @8,500 rpm	38.0 PS (27.9 kW) @11,000 rpm	28.0 PS (20.6 kW) @12,000 rpm
Max. torque (DIN) .....	4.7 kg-m (46.0 Nm) @7,500 rpm	2.52 kg-m (24.7 Nm) @10,500 rpm	1.7 kg-m (16.7 Nm) @11,000 rpm
Lubrication .....	Premix	Premix	Premix
Carburetion .....	TM 38SS X 1	TM 35SS X 1	VM 26SS X 1
Ignition .....	CDI	CDI	CDI
Starter system .....	Kick	Kick	Kick
Fuel tank capacity .....	7.7 litres	7.7 litres	5.0 litres
Oil tank capacity .....	0.75 litres	0.6 litres	0.5 litres
Transmission .....	5-speed	6-speed	6-speed
Final transmission .....	Chain	Chain	Chain

## **CHASSIS**

Overall length .....	2,193 mm	2,166 mm	1,803 mm
Overall width .....	850 mm	850 mm	735 mm
Overall height .....	1,225 mm	1,225 mm	1,105 mm
Seat height .....	998 mm	998 mm	854 mm
Wheelbase .....	1,496 mm	1,466 mm	1,257 mm
Min. ground clearance .....	394 mm	396 mm	347 mm
Dry weight .....	97.0 kg	87.5 kg	66.0 kg
Front suspension .....	Telescopic forks	Telescopic forks	Telescopic forks
Rear suspension .....	Swinging arm (Monocross)	Swinging arm (Monocross)	Swinging arm (Monocross)
Front brake .....	Single 204 mm Ø disc	Single 204 mm Ø disc	Single 220 mm Ø disc
Rear brake .....	Single 189 mm Ø disc	Single 189 mm Ø disc	Single 190 mm Ø disc
Front tyre .....	80/100-21 51M	80/100-21 51M	70/100-17 40M
Rear tyre .....	110/90-19 62M	100/90-19 57M	90/100-14 49M

*Always wear a helmet, eye protection and protective clothing. Yamaha encourage you to ride safely and respect fellow riders and the environment. Specifications and appearance of Yamaha products shown here may vary according to requirements and conditions, and are subject to change without notice. For further details, please consult your Yamaha dealer.*

## **Mitsui Machinery Sales (U.K.) Ltd**

Sopwith Drive  
The Brooklands Industrial Park  
Brooklands, Weybridge, Surrey KT13 OUZ  
Tel.: 0932-35 80 00



*In harmony with nature*  
Printed on wood free and  
chloride free paper.

**YAMAHA**  
YAMAHA MOTOR EUROPE N.V.  
3MC YZ-93E