

TY250S





# A VERY SPECIAL BIKE FOR A VERY SPECIAL SPORT

Trials is often called ballet on wheels. It is one of motorcycling's most specialized sports. As such, it requires some of the most sophisticated, single-purpose machinery on two wheels.

Yamaha's remarkable TY250S offers the most advanced technology available in world-class trials bikes. Technology gathered on roads and racetracks around the world.

Its 246 cc reed-valve two-stroke produces its maximum torque at only 2,500 rpm. Response to throttle applications is instant and controllable, with minimum wheelspin. The four low gears of the 6-speed gearbox are close-spaced, with a gear

for every obstacle. The top two are wider spaced for higher speeds.

The TY250S's most unique feature is its Monocross rear suspension. It gives the ultimate in rear wheel control with rising rate damping and long travel, and eliminates the problem of bent rear shocks. All in a compact, lightweight street-legal package.

There's also an internal brake actuating lever that can't get bent; flush, hollow front axle; Autolube remote engine lubrication....the list goes on and on.

For a closer look at this very special machine, see your local Yamaha dealer—and don't forget your dancing shoes.



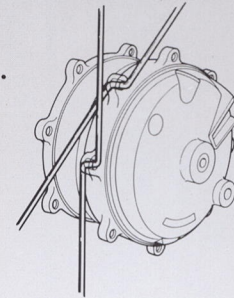
Front fork has stiff, 36 mm tubes and aluminium fork brace for flex-free steering. Front wheel has 180 mm of travel and the hollow axle is flush with the fork sliders.

Short-throw clutch cam gives lighter pull and smooth operation for delicate clutch control in any situation.

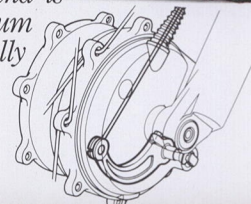
Compact 30/30W headlamp is mounted in a lightweight, damageresistant shell. Gives bright illumination for safe riding at night on forest trails.

Front and rear fenders are made of lightweight, flexible polypropylene for amazing durability.

Yamaha's unique Z-spokes are much stronger than conventional spokes. They reduce rim bending, prevent hub deformation and require less maintenance.



The waterproof front drum brake has a lightweight brake plate of magnesium alloy and is actuated by a cast aluminium cam lever mounted internally where it can't get bent.



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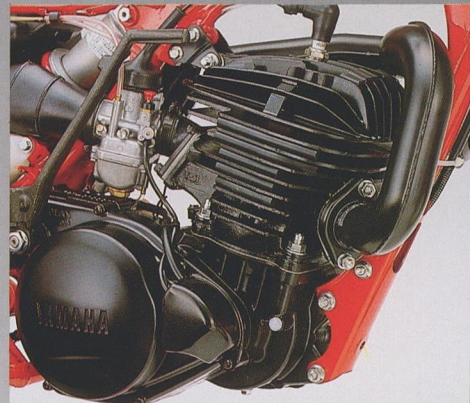
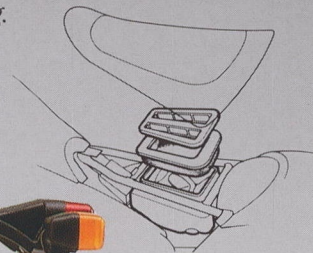
Handlebars have a cross-bar for added strength. Lock-to-lock steering is 65°-65° for cutting the tightest turns, and lever positions are freely adjustable.

Single-downtube frame features "diamond" tube pattern for superior rigidity in a light, compact package. Tubes are made of high tensile strength steel.

Yamaha's Autolube oil injection system eliminates gas/oil mixing with remote oil tank and oil pump.

The large air filter is located in a sealed compartment, high up beneath the seat. The seat is quickly detachable for easy filter cleaning.

Slim fuel tank permits unhindered front and rear movement and holds a full 5 litres.

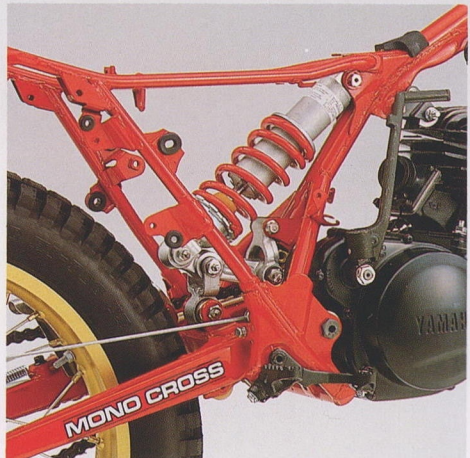


**246 cc TWO-STROKE REED VALVE SINGLE**

With a "square" bore and stroke of 68 mm, reed-valve induction and full-circle flywheel, the TY250S's torque peak is at an amazingly low 2,500 rpm. Maximum output comes at 4,500 rpm. This results in the smooth, low-rpm power so essential for trials riding. The CD ignition never needs adjustment.

**MONOCROSS REAR SUSPENSION**

Yamaha's unique Monocross suspension system boasts rising rate linkage and a De Carbon-type gas/oil shock that is fully adjustable. Coupled with a tapered, box-section swing arm, rear wheel travel is a full 160 mm.



Rear view mirror(s) standard equipment.



Nickel-plated silencer is press-formed for volumetric efficiency. Expansion-chamber design keeps incoming fuel/air mixture in combustion chamber for superior low-end torque.

Newly developed trials tyres were specially designed for the TY250S. Proven in the World Trials Championship, they offer superior traction and longer wear.

Engine cases are protected from damage by lightweight aluminium skid plate.

Rear brake pedal location is adjustable for trial and road riding.

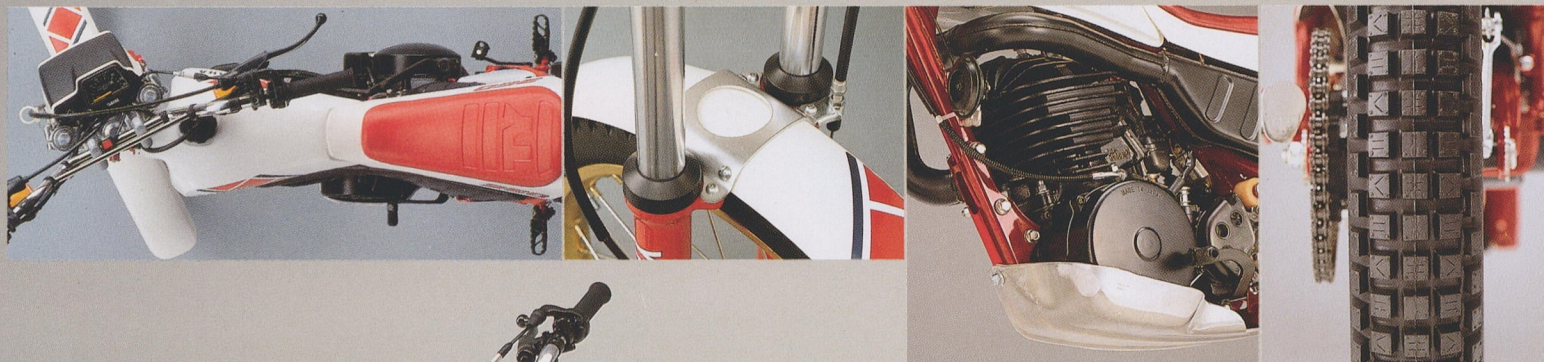
6-speed gearbox has four close-spaced gears for low-speed trials riding and two wider-spaced gears for higher speeds.

Chain tensioner keeps the 520 chain at proper tension and prevents chain from jumping sprockets.

Snail-cam chain adjusters allow quick and accurate rear wheel adjustments and facilitate rear wheel removal.

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## TY250S SPECIFICATION

### ENGINE

Type . . . . . 2-stroke, single  
 Displacement . . . . . 246 cc  
 Bore and stroke . . . . . 68.0 × 68.0 mm  
 Compression ratio . . . . . 7.6 : 1  
 Lubrication . . . . . Autolube  
 Carburetion . . . . . Y26P  
 Ignition . . . . . C.D.I.  
 Starter system . . . . . Kick  
 Fuel tank capacity . . . . . 5.0 ℓ  
 Oil tank capacity . . . . . 0.4 ℓ  
 Transmission . . . . . 6-speed  
 Final transmission . . . . . Chain drive

### CHASSIS

Overall length . . . . . 2,070 mm  
 Overall width . . . . . 805 mm  
 Overall height . . . . . 1,100 mm  
 Seat height . . . . . 785 mm  
 Wheelbase . . . . . 1,325 mm  
 Ground clearance . . . . . 330 mm  
 Dry weight . . . . . 90 kg  
 Suspension

Front . . . . . Telescopic forks  
 Rear . . . . . Monocross suspension

### Brakes

Front . . . . . Drum  
 Rear . . . . . Drum

### Tyres

Front . . . . . 2.75-21-4PR  
 Rear . . . . . 4.00-18-4PR

*Specifications and appearance of Yamaha motorcycles shown in this catalog may differ according to local requirements and conditions and are subject to change without notice. For further details, please consult your Yamaha dealer.  
 Always wear a helmet and eye protection.*

