

# YAMAHA RD50M





# The Yamaha RD50M—A perfect introduction to sporting motorcycling

There's no better introduction to sporting motorcycle riding than Yamaha's RD50M—an ultra-lightweight which perfectly reflects the racing heritage passed on by generations of Yamaha Grand-Prix winners.

Sleekly-styled in a sporty mould, the little Yamaha is a scaled-down package of all the attributes which have made the Yamaha range a major force in world motorcycling.

This year, the addition of cast alloy wheels to the general specification takes the RD50M right

to the top of the pile as far as well-equipped ultra-lightweights are concerned.

It has true "big-bike" hydraulic front forks with heavy-duty external springs shrouded in rubber gaiters.

The cast wheels carry a water resistant rear drum brake and a big 203 mm front disc capable of retarding machines twice the size of the RD50M. The operating caliper for the hydraulically-controlled unit is mounted, racing-style, behind the front fork leg.

The engine has all of the features of the bigger Yamaha two-strokes—torque induction, autolube and integral five-speed transmission.

So—just because the RD50M is small, doesn't mean it isn't sporty. With the name Yamaha and that famous speed-block design on the tank, it could hardly be anything else!



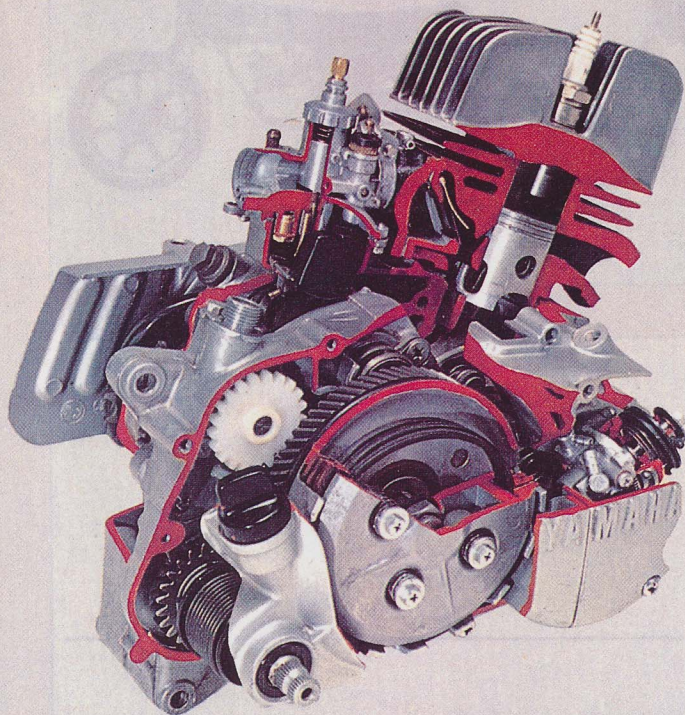


## Engine

At the heart of the RD50M is the 49 cc engine, breathing via the famous Yamaha "torque induction" system and, relying on the pressure-fed "autolube" for its lubrication—an oiling system that has become the password for reliability amongst the two-stroke fraternity.

Bore and stroke of the engine is  $40 \times 39.7$  mm with a 6.8:1 compression ratio and centrally-mounted spark plug.

A 16 mm Mikuni carburettor fuels the engine, controlled by the stainless steel reed valves of Yamaha torque induction. These flat, flexible "reeds" are mounted by one end in a specially-ported block between carburettor and engine. As the piston descends on the induction stroke, the pressure drop inside the engine sucks the

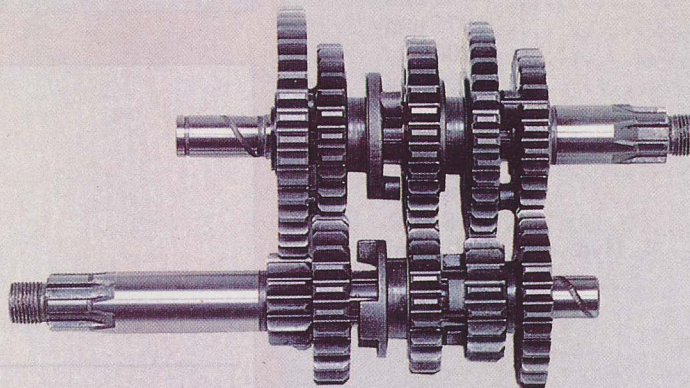


reeds from their seating to allow fuel in. The change in pressure on the compression stroke allows the reeds to spring closed, thus preventing messy blowback through the carburettor and ensuring smooth carburation from near-zero rev/min.

The "autolube" lubrication system pioneered positive oiling amongst the modern generation of two-strokes. Oil is contained in a separate tank from the petrol and fed under pressure into the

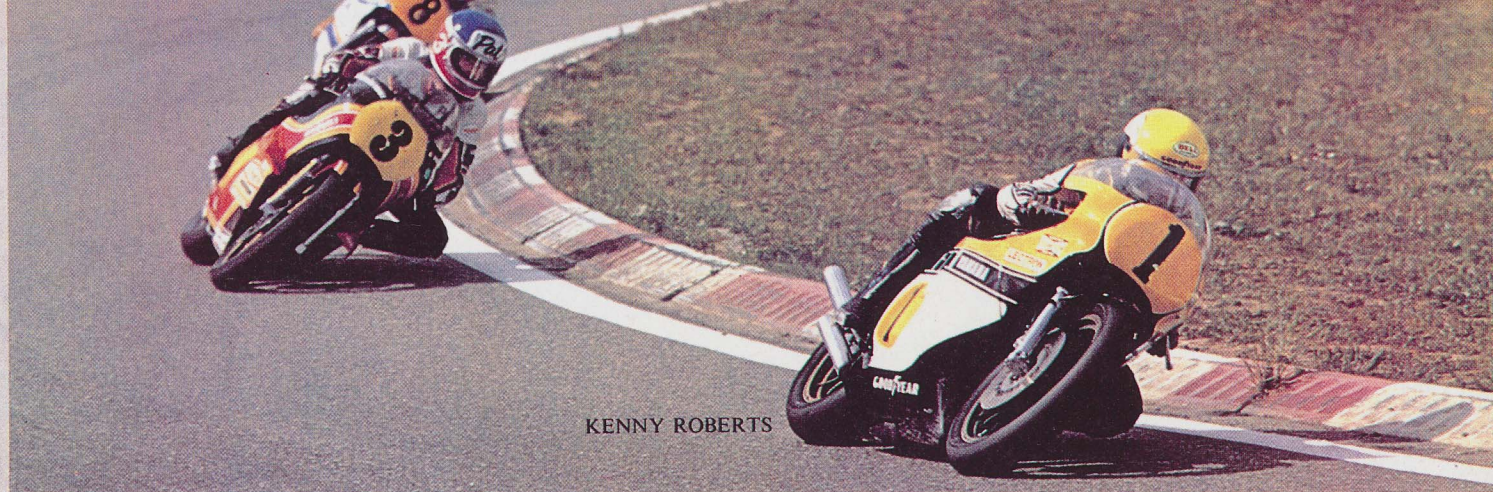
engine via a pump in the crankcase. This pump is controlled by the engine throttle, linked by cable to the twistgrip. The more that the throttle is opened, the more oil is fed to the engine.

Thus the motor gets exactly the correct amount of oil at any given engine speed. Never too much—and certainly never too little!



## Transmission

Geared primary drive transmits the engine power to the five-speed gearbox. Ratios are chosen so that you can always keep the high-revving little motor right on the optimum power band. Small but powerful engines always place heavy demands on the clutch but the multi-plate RD50M unit is more than up to the job.



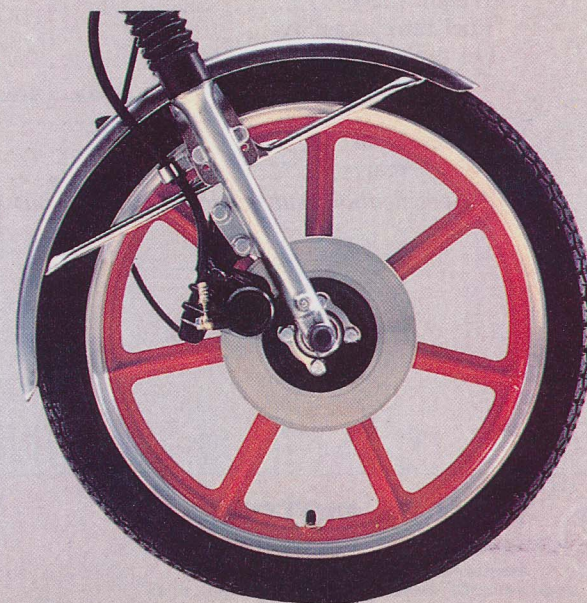
KENNY ROBERTS

## Suspension, Chassis and Brakes

The RD50M duplex downtube, cradle frame follows a design used with success on Yamaha lightweight road racers of just a few seasons ago. It combines with heavy-duty, hydraulic front forks to make a superbly-stable and safe-handling little sportster.

Rigid, cast-alloy wheels aid that handling and considerably enhance the visual appeal into the bargain. At the rear is a drum brake of waterproof, double-flanged design, 110 mm in diameter.

For maximum braking power in safety, Yamaha have fitted a hydraulic 203 mm disc brake at the front. Just like Yamaha's Grand-Prix racers, the operating caliper is mounted behind the front fork leg.





## RD50M

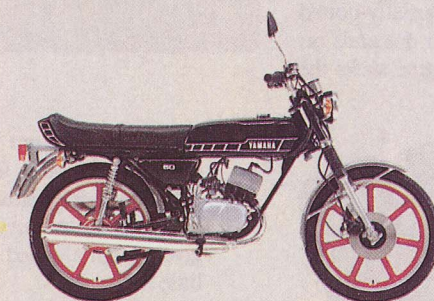
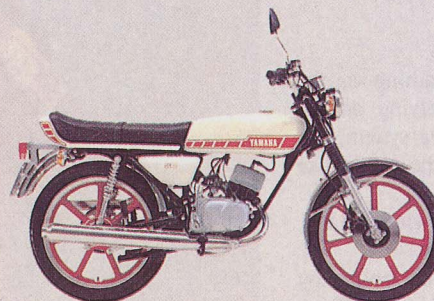
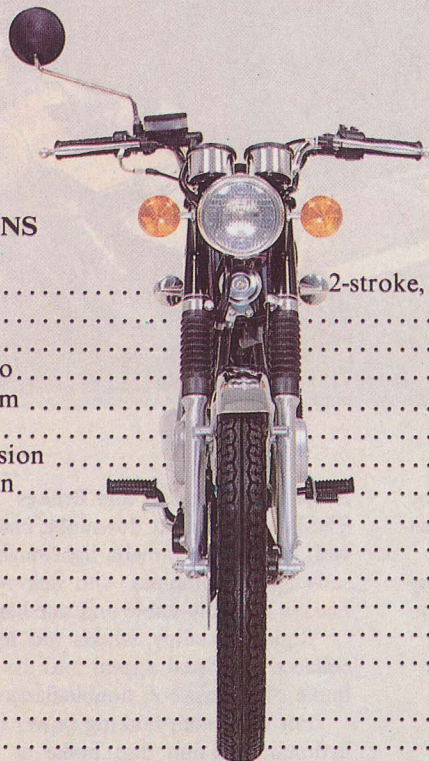
### SPECIFICATIONS ENGINE

Type.....	2-stroke, Torque Induction, Single
Displacement.....	49 cm <sup>3</sup>
Bore & Stroke.....	40.0×39.7 mm
Compression ratio.....	6.8:1
Lubrication system.....	Autolube
Starting system.....	Primary Kick starter
Primary transmission.....	Gear
Final transmission.....	Chain
Gearbox.....	5-speed
Carburettor.....	VM16SH
Clutch.....	Multi-plate, wet
Battery.....	6 V, 4 AH
Charging system.....	Flywheel magneto
Ignition type.....	Magneto, CB/Coil

### DIMENSIONS

Overall length.....	1,870 mm
Overall width.....	735 mm
Overall height.....	975 mm
Wheelbase.....	1,200 mm
Seat height.....	760 mm
Weight (net).....	79 kg
Fuel tank capacity.....	8.0 lit.
Oil tank capacity.....	1.0 lit.
Tire front.....	2.50-18-4PR
rear.....	2.75-18-6PR
Brakes front.....	Hyd. disc. ø203 mm
rear.....	Drum

\* Specifications subject to change without notice.



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