

TESTING
THE
YAMAHA
SC 500
SCRAMBLER

www.legends-yamaha-enduros.com

This powerful motorcycle is not for the novice.

■ The new Yamaha SC500 is a well-built machine with a number of good features, but it takes a while before you can think of anything but its incredibly powerful engine. Although a bit less massive on the outside than you might expect a 500cc single to be, the engine leaves little doubt about its interior dimensions the first time you turn up the wick. It feels strong, even at lower speeds, but the real dynamite doesn't come in until the higher revs, and then you begin to wonder if there is any limit to it. The bike is unbelievably fast.

For all its impressive performance, however, one of its most striking features comes before the engine is actually running. It is almost taken for granted that any large-displacement single will be a bear to start. They are generally unpredictable and hard to kick, but the Yamaha is different. Thanks in large part to an automatic compression release built into the kick-starting mechanism, the SC500 requires little more effort to bring to life than the average 250.

The system consists of a small release valve that is located just above

the exhaust port on the front of the cylinder, and an activating cable that works on a cam mechanism at the kick-starter shaft. The whole operation is automatic. The first few inches of travel at the lever releases the partial compression release valve, and for all the world you would never know you were starting a single-cylinder 500.

Once started, the engine exhibits an unusual lack of vibration for a single of this size. This is the result of another new feature, called the "Omni-phase Balancer." This is a system of counterweights that smooths out the

YAMAHA SC 500



The frame design and quality are quite good. The steering geometry is well matched for the type riding the engine demands. An excellent big bone trail racer.

power delivery and minimizes vibration to make this one of the smoothest big singles you'll ever ride.

When a machine has the kind of power the SC500 has, it had better handle, and it does. The frame design and quality seems quite good, and the steering geometry is well matched to the type of riding the engine demands. The suspension at both ends is good. The front forks are pretty much the same units that have become standard on the Yamaha motocross line, and perform admirably.

The rear shocks are a new item this year, and offer several interesting features. The most obvious of these is an external fluid reservoir, which is part of what Yamaha calls the "Thermal Flow System." The idea is to be able to circulate a greater volume of fluid in order to maintain a more even fluid temperature and more consistent action under severe conditions. Another new feature of these rear shock units is adjustable damping qualities. Replaceable inserts, which can be removed from the outside without disassembling or even removing the shock from the motorcycle, allow separate adjustments for both compression and rebound characteristics.

Performance is the keynote of the new Yamaha Scrambler, and it delivers in spades. There is good throttle response, aided by the reed induction system, which is currently fitted to all of the two-stroke machines in the Yamaha line. Secondly, there is probably more power on tap than the majority of riders are really able to take full advantage of. These two features make this bike a pleasure to ride. The four-speed transmission has a short, smooth throw between gears, and worked without fault throughout the entire test.

Without basically good handling and suspension qualities, the 500 would really be a handful, but it is controllable under nearly all riding conditions once you start to get the feel of the machine and get used to the power.

We'll bet that they're going to sell a flock of these 500s that never find their way onto a race track. It is an impressive, good-looking machine. It starts rather easily and seems to be reliable and basically easy to live with. It was a fun bike to ride, which is something that you can't always say about a 500cc single. Thumper trail riders now have yet another big one to consider, and who knows?—it may even do well as a motocrosser.



The exhaust system is tucked neatly down through the engine, keeping it away from your leg. The four-speed transmission has a short, smooth throw between gears.

Although not quite as massive as you would expect a 500cc single to be, the engine leaves little doubt about its interior dimensions when you fire it up.



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The suspension at both ends is good. The front forks are pretty much the same units that have become standard on the Yamaha line, and they perform very well.

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BASIC SPECIFICATIONS

Price . . . N.A.

Engine

Type . . . Two-stroke, reed valve, single cylinder
 Bore . . . 95mm
 Stroke . . . 70mm
 Cubic centimeters displacement . . . 496cc
 Carburetor size & type . . . 34mm Mikuni
 Ignition system type . . . C.D.I.
 Lighting system type . . . none
 Air filter size & type . . . wetted foam

Gearbox

Overall ratio, first . . . 17.002:1
 Overall ratio, second . . . 11.630:1
 Overall ratio, third . . . 8.501:1
 Overall ratio, fourth . . . 6.860:1
 Shift pattern . . . Down for first, neutral, three-up
 Can be kick-started in any gear? . . . Yes

Dimensions

Wheelbase . . . 56 inches
 Weight . . . 236 pounds
 Front tire size & tread . . . 3.00 x 21 knobby
 Rear tire size & tread . . . 4.60 x 18 knobby
 Length . . . 83 inches
 Handlebar width . . . 35 inches
 Ground clearance . . . 9.5 inches
 Fuel capacity . . . 2.4 gallons
 Engine oil capacity . . . 6/10 quart

Details

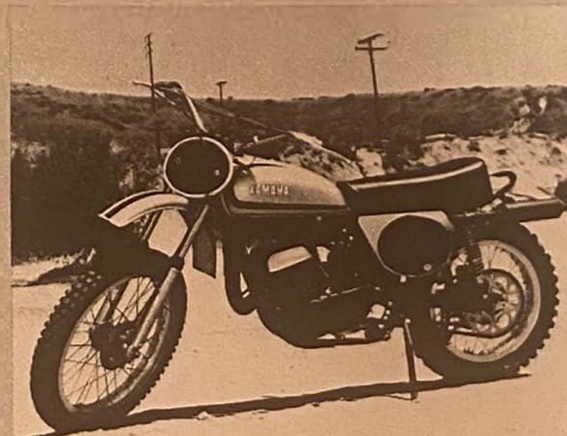
Folding footpegs . . . Yes
 Self-cleaning footpegs? . . . Yes
 Tire-to-rim clamps? . . . Yes
 Alloy rims front & rear? . . . Yes
 Handlebar-mounted kill button? . . . Yes
 Speedometer? . . . No
 Odometer? . . . No
 Odometer read in tenths? . . . No
 Odometer resettable backwards? . . . No
 Tachometer? . . . No
 Muffler? . . . Expansion chamber silencer
 U.S. Forest Service-approved spark arrestor? . . . No
 Head & tail lights? . . . No
 Brake light control-actuated switches? . . . No
 Horn? . . . No
 Fuel tank material? . . . Steel
 Front fender material? . . . Plastic
 Rear fender material? . . . Plastic
 Full-floating rear brake? . . . Yes

Performance Specifications

Weight with 165-lb. rider and full tank . . . 425 pounds
 Rated horsepower at rpm . . . 44 at 6500
 Pounds (with rider) per horsepower . . . 9.67
 Pounds (with rider) per cubic centimeter . . . 0.878
 Number of speeds in transmission . . . 4

Handling Specifications

Weight distribution, % front/% rear . . . 45/55
 Center of gravity (approximate)
 Crankshaft center to ground . . . 14 inches
 Crankshaft center to rear axle . . . 28 inches
 Footpeg to rear axle . . . 21 inches
 Footpeg to ground . . . 12 inches
 Front suspension
 Steering head angle (rake) . . . 30 degrees
 Trail (axle setback from steering axis) . . . 4.93 inches
 Fork travel, compression . . . 6 inches
 Fork travel, rebound . . . 1/2 inch
 Rear suspension
 Swing arm length, pivot to axle . . . 17 inches
 Swing arm pivot to ground . . . 14.75 inches
 Swing arm pivot to crankshaft . . . 11.5 inches
 Rear chain run (countershaft sprocket to rear axle) . . . 22.5 inches
 Shock travel, compression . . . 3 1/2 inches
 Shock travel, rebound . . . 1/2 inch
 Height of seat from ground . . . 33.5 inches
 Length of seat . . . 21.5 inches



PERFORMANCE & HANDLING OPINION (rated 1 to 10 on a scale of 10)

Power (within displacement class) . . . 9
 Ability to maintain rear wheel traction . . . 8
 Vibration . . . 9
 Ease of starting . . . 10
 Ignition waterproofing . . . 9
 Air intake & carburetor waterproofing . . . 9
 Oil leakage . . . 8
 Fuel leakage . . . 9
 Front fork dampening . . . 9
 Tendency of front tire to skid in turns . . . 9
 Ease of lifting front wheel with handlebars . . . 10
 Steering response to effort at handlebars . . . 9
 Rear wheel tendency to lock up or hop when braking . . . 10
 Rear shock absorber dampening . . . 9
 Stability in deep sand or mud . . . 9
 Seat padding and comfort . . . 9
 Convenience and operation of controls . . . 9