YAMAHA R5 350

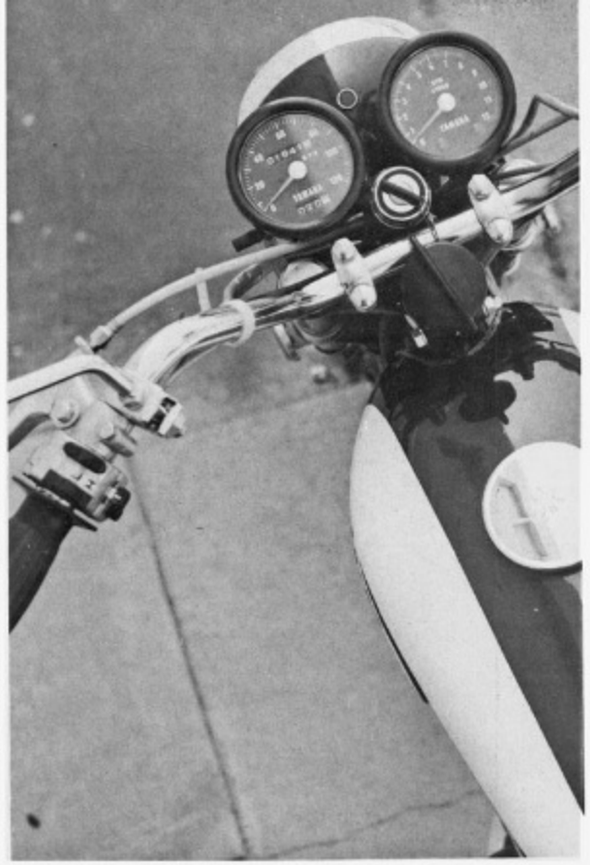
No Pseudo This Or Pseudo That, Yamaha's Updated Middleweight Does Its Proper Job At Modest Price.

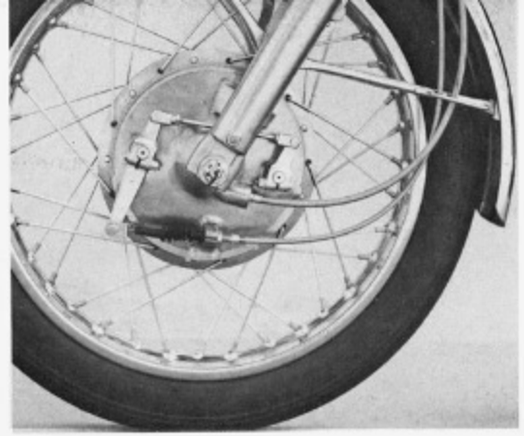
YAMAHA HAS BROKEN away from the pseudo-scrambler school of styling for its street bikes, judging by the new R5 350.

No more high crossbar handlebars and bulky upswept exhaust systems. The R5 is sleek and most definitely a roadster, engineered for the rider who likes to straighten out a winding mountain road or cruise effortlessly down a freeway. Yamaha hardly needs to fool the rider this way. If you want a scrambler with lights on, Yamaha has several in its line that really do the job.

The same effort that went into creation of the popular Enduro models has evidently been applied to the updating of the 350 roadster. It not only looks the part, but feels more comfortable and trustworthy in its natural habitat than its predecessors. The company has obviously benefited from its road racing experience with the successful 250-cc and 350-cc Class C road racers.

Overall appearance gives the machine a compact look over previous models. The impression is not unfounded; The new R5 is shorter, lower, slimmer and lighter than its forebearers. For one thing, the crankcase area is narrow, eliminating the spread eagle feeling associated with straddling the older Twins. The exhaust system is now one piece, eliminating the unsightly





joint between the head pipe and muffler. Also, with the narrower engine the pipes can be tucked in, allowing better ground clearance when banked over. The gasoline tank has been restyled along the lines of the classic early Triumph 500 Trophy. The lines flow well, blending into the new oil tank and side cover. This treatment is similar to the R5's big brother, the XS650. Finish of the paint, chrome fenders and other components is first rate, equal to anything on the market.

The aluminum cylinders, heads, and outer cases have a dull black finish. This serves to dissipate heat, and enhances the appearance of the engine. The outer edges of the fins and the raised ridges on the cases have been polished, giving the machine a classic mechanical look about it.

Finish on the alloy wheel hubs and lower fork legs is polished, and the fork shafts are chromed without covers. Slim-line road racing style front forks contribute to the appeal of the machine.

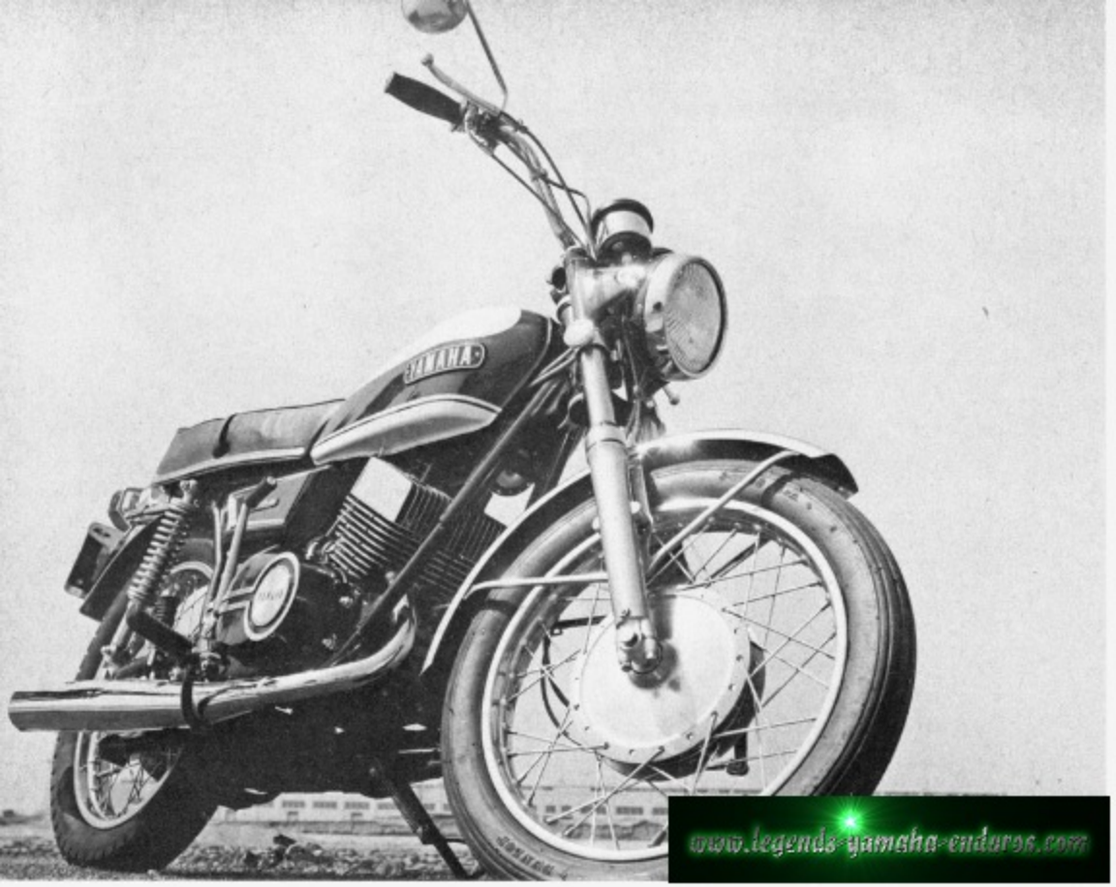
The individual tachometer and speedometer are rubber mounted, and have easy-to-read dials. Needle bounce and blur are non-existent, and a trip mileage indicator with reset knob is an added feature of the speedo. The ignition/lighting switch is mounted in an easy to reach spot just in front of the friction steering damper knob. Location of all controls is well thought out, with simplicity being the keynote.

This new 350 is basically similar to the first YR1, introduced in 1967 but with a multitude of improvements. The engine is an alternate firing vertical Twin, with 180 degree crankshaft configuration. Like all such designs, Yamaha's is inherently smooth running and free of vibration.

Internal refinements for the R5 include a bore/stroke change from a slightly oversquare 2.40 in. by 2.35 in., to an even more oversquare 2.51 in. by 2.12 in. This alteration results in a decrease of 1 cc in displacement, down from 348 to 347 cc. The apparent reasoning behind this is to present more surface area for wider ports, and reduce piston speed by shortening stroke.

Port openings are piston controlled, with the added 5th (or boost) port directing the fuel charge to the combustion area for better mid-range torque and cooling. Loads throughout the engine/transmission unit are carried by ball or needle bearings. Primary drive is by helical cut gears, sharing a common oil supply with the five speed transmission. The clutch is mounted on the transmission main shaft, and is encased in an aluminum housing.

The frame is mild steel tubing of duplex cradle design.



Additional tubes and gussets have been added to reinforce the steering head and swinging-arm stress areas. This capable frame design is the direct result of knowledge gained from racing, with the benefits passed on to the consumer. Rigidity is one of the R5's virtues, as we soon found out.

Throwing a leg over the 350, we set out to see if she performed as well as she looked. Winding roads, downtown traffic, or 70 mph freeway grind, nothing seemed to make much difference to this stout two-stroke. Power is on tap from well down in the rev range to around 8000 rpm, where it begins to taper off. Mid range torque is noticeably better than with previous models, as the R5 pulls like a 500 when you twist the grip in fifth.

The R5 may be described as a quick handling machine. As it has most of its weight down low, there is little top hamper to inhibit the rider from pitching the machine aggressively through his favorite set of bends. Damping seems quite up to par, and the tires that come with the R5 deliver good tracking precision and traction. Without the braking qualities of a four-stroke engine, stoppers assume a slightly greater importance on a two-stroke. The R5's are smooth, progressive, grab-free and show only a slight tendency to fade under repeated use. Stopping distance from 60 mph (corrected) is exemplary.

We would like to see the wheelbase extended slightly to slow down the quick handling and put more weight on the front wheel. Shortness, coupled with the strong power range, had us leaning forward to keep the front end down during hard acceleration.

Day to day operation is another highlight of the R5's performance. Starting is a simple one-kick operation. Warm up time is less than a minute. Throttle response is quick and smooth thanks to minor jetting changes in the Mikuni carburetors. Shifting is effortless, and the ratios are well spaced to match the power band. All of the functions required to operate the machine are kept simple, eliminating quirks that distract from the pleasure of owning and riding a motorcycle.

During our test we did notice a bothersome noise that was present from the first ride: a rattling sound located inside the clutch/primary drive cover. It was most evident with the engine running and in neutral. As soon as the clutch lever was pulled in to disengage the clutch, the noise stopped. Upon checking with the Yamaha service department we were informed that this was probably caused by loose shock absorber springs located in the back of the clutch housing. When under tension they are rattle free, but given a little play, they emit a slight grumbling sound. Upon learning that no harm could come to the internals, we reluctantly put up with the noise and continued our test.

The R5 offers substance, as well as appearance. Within limits, it will do things most of the more expensive superbikes will do, at lesser cost but equal fun value.

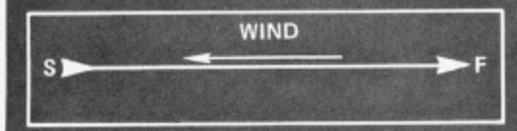
YAMAHA R5 350

SPECIFICATIONS

List price	$739 p.o.e.
Suspension, front	telescopic fork
Suspension, rear	swinging arm
Tire, front	3.00-18
Tire, rear	3.50-18
Brake, front, diameter x width, in.	7.2 x 1.18
Brake, rear, diameter x width, in.	7.2 x 1.18
Total brake swept area, sq. in.	52.8
Brake loading, lb./sq. in.	9.2
Engine, type	two-stroke Twin
Bore x stroke, in., mm	2.51 x 2.12, 64 x 54
Piston displacement, cu. in., cc	21.1, 347
Compression ratio	7.5
Carburetion	(2) Mikuni VMSC 28-mm
Ignition	battery and coil
Claimed bhp @ rpm	36 @ 7000
Oil system	oil injection
Oil capacity, pt.	4.2
Fuel capacity, U.S. gal.	3.2
Recommended fuel	premium
Starting system	kick, folding crank
Lighting system	12V, AC generator
Air filtration	paper element
Clutch	multi-disc, wet
Primary drive	gear
Final drive	3/8-in. x 5/8-in. chain
Gear ratios, overall: 1	
5th	6.16
4th	7.38
3rd	9.12
2nd	12.15
1st	19.57
Wheelbase, in.	52.8
Seat height, in.	31.1
Seat width, in.	9.9
Handlebar width, in.	29.1
Footpeg height, in.	9.2
Ground clearance, in.	7.1
Curb weight (w/half-tank fuel), lb.	326
Weight bias, front/rear, percent	42/58
Test weight (fuel and rider), lb.	486

TEST CONDITIONS

Air temperature, degrees F	72
Humidity, percent	65
Barometric pressure, in. Hg.	29.80
Altitude above mean sea level, ft.	350
Wind velocity, mph	10-12
Strip alignment, relative wind:	



PERFORMANCE

Top speed (actual @ 7960 rpm), mph	95.31
Computed top speed in gears (@ 8000 rpm), mph:	
5th	96
4th	80
3rd	65
2nd	55
1st	31
Mph/1000 rpm, top gear	11.98
Engine revolutions/mile, top gear	4996
Piston speed (@ 8000 rpm), ft./min.	2826
Fuel consumption, mpg	34
Speedometer error:	
50 mph indicated, actually	47.63
60 mph indicated, actually	57.85
70 mph indicated, actually	67.12
Braking distance:	
from 30 mph, ft.	36
from 60 mph, ft.	121
Acceleration, zero to:	
30 mph, sec.	2.5
40 mph, sec.	3.8
50 mph, sec.	4.9
60 mph, sec.	6.4
70 mph, sec.	9.0
80 mph, sec.	14.9
90 mph, sec.	24.4
Standing one-eighth mile, sec.	8.87
terminal speed, mph	69.60
Standing one-quarter mile, sec.	15.49
terminal speed, mph	81.08