

ROAD TEST

YAMAHA RD350

by

John Robinson

■ The 350 Yamaha is, one way or another, the machine which started the current interest in the 350 to 400 range. Obviously it isn't entirely unconnected with Yamaha's road racing success but their air-cooled racers were developed straight from the street bike anyway. And the fact that Yamaha are keeping on the ball with their newly announced range of machines — including a 400 four-stroke — doesn't detract at all from this well-established lightweight.

I use the term lightweight after some thought — middleweight might be technically more accurate but lightweight is a much better description of the way it feels and behaves. Yamaha's own brochure lists it as weighing 1 kg more than the RD250 and this, the bore size and an extra 9 bhp seem to be the only differences between the two.

It feels small enough to be a 250 but the combination of size, a claimed 39 bhp and six fairly close gears make it a very lively machine. The gears probably give it that extra edge, you lose something like 1000 rpm on the first two shifts but after that the motor is only dropping five or six hundred between gears through the next four ratios. It is very easy to keep the motor at whatever speed you choose.

For performance this means eight to nine thousand and with the bulk of the power starting at six, you can afford to be sluggish



“Lively lightweight middleweight”

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with the gearshift. Dropping down the rev scale there is a sort of no-man's land around 5000 where the motor stutters and, you suspect, the power would disappear forever. But at lower revs the reed valve takes over and lets the motor breathe without choking, at a reduced level of power and minus the crackle from the exhaust.

The RD350 then becomes a woolly, silent town runabout. But slowly giving it more gas until the needle totters back up to the magic five and a bit brings in the full force of Yamaha's port timing, with no gassing up, just an arm-stretching surge which spins the motor up to the red line. The way the power switches on feels like that interim between a bike running on to

reserve and you hitting the fuel tap without shutting off the throttle. It says something for the plugs that they should stand up to these two extremes without fouling or burning up.

The sudden step in power caused the only difficult part of the ride. Pulling away from a standstill you normally take some throttle and feed in the clutch, keeping the tachometer just ahead of the speedometer until the bike's under way. Normal techniques like this get the motor to about 5000 — more throttle and less clutch just made amateurish screams from the motor. More clutch either bogs the motor or gets you into a wheelie, both ways it works fine if you intended it but you could never guarantee which way it would

decide to go.

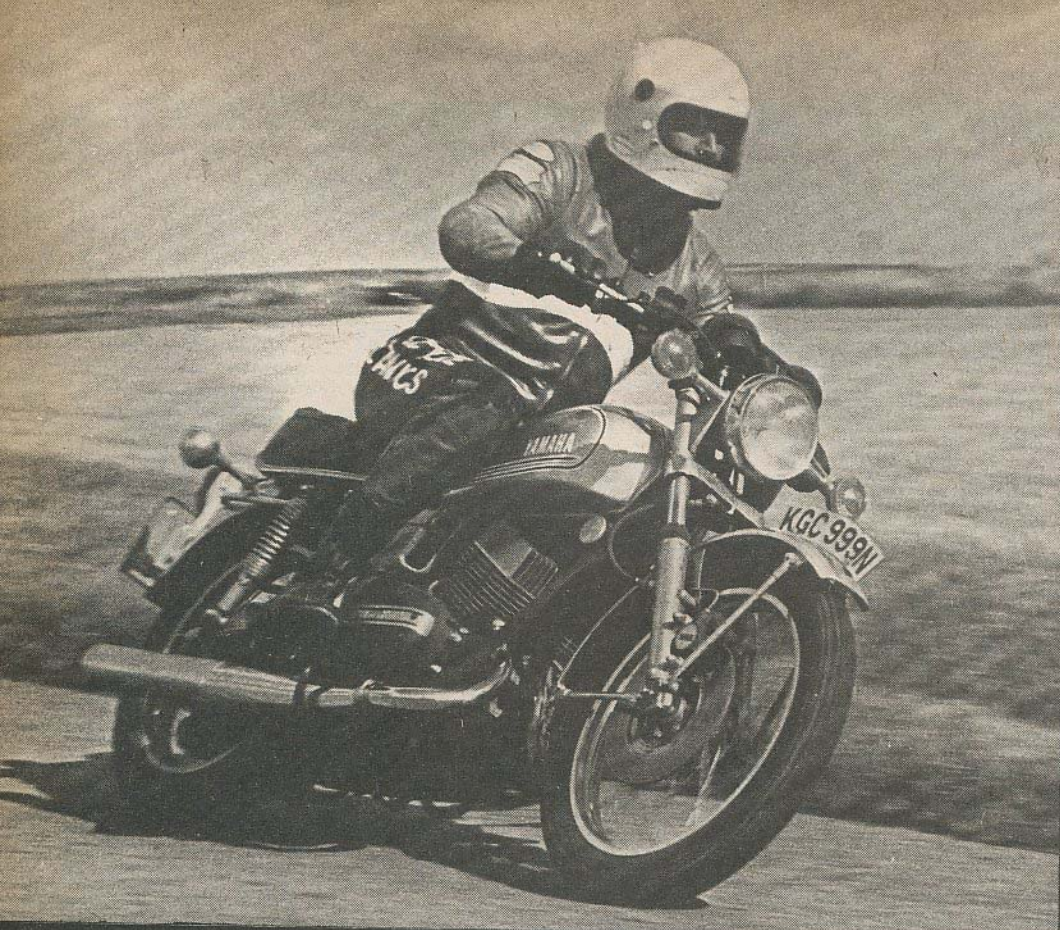
I compromised. If people were watching I eased it away at a steady three thousand. If they weren't I fed it through on an equally steady six thousand. Which meant the Yam had lit up and hit nine before toe could be brought to lever, catching second right where all the power was and making the front go light again.

The steering was light but always felt stable, with no twitching even when the front wheel got pushed off the ground. This often seemed to happen, usually when coming out of a turn with all the power on when a small bump would be enough to nudge the wheel up. It obviously wasn't sheer power lifting the front wheel nor did it pro-

duce any great wheelies, but rather the combination of stiff suspension, light weight and the close ratio gears channeling the available power to maximum concentration.

In view of this — and the steering can't get much lighter than having the front tyre off the road — the actual roadholding was very good. Despite coming away from a corner with a slight leap the RD kept on line and hardly ever twitched the handlebars. In fact the manners of the Yamaha were very confidence-making.

As the bike was pushed harder the suspension would let the wheels chop up and down, the back one under braking and the front one as the power came on making the Yam feel like it had reached the ragged edge.



But it wasn't disconcerting — the opposite was more the case because it at least gave plenty of warning way before the tyres were about to break loose.

It also refused to be unsettled by bumps, which gave it a reasonably comfortable ride. But most of all it was great fun to hurl it through winding corners. The brakes were superb, some of the most efficient I've ever tried, the cornering was good and safe with what seemed like plenty of advance warning filtering through to the rider, the gears went through fast and cleanly and there were enough of them to get full response from the motor. From a high speed in top you could brake down hard for a corner, changing down quickly and rhythmically for just as long as the brakes were on. It was more or less like tapping your foot to a tune, the spacing being as long as it took to blip the throttle. This natural rhythm between the brakes and the gear ratios always seemed to leave the Yamaha in the right gear to come through the corner close to peak revs.

I had the doubtful pleasure of riding the RD350 through about



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ninety miles of rain which, bearing in mind the bike's lively nature, did not look like being the high-light of my month. But with all the verve of a full-blooded coward, I discovered it could be gently predictable and even the disc brake worked well enough. Well, put it this way, the brake's diminished power was more than enough for my diminished momentum. Eventually I nursed the Yamaha (or should it be the other way round?) along quite happily, under the circumstances.

On the subject of brakes, when we ran our performance tests we got stopping distances consistently around the 27 foot mark from a true 30mph, with a couple substantially less although we discounted these because there was some doubt that the brakes came on close enough to the mark. One time, when the bike got rather sideways and stopped with both wheels locked, the distance was 22 feet and there certainly wasn't an error of 5 feet in the braking point. So our recorded figure is, if anything, a conservative evaluation.

The two-stroke twin always fired up quickly and cleanly and was running without choke by the time it reached the garden gate. With its dual nature, or dual powerbands, it could be run quietly through traffic, needing only a couple of jabs on the gearshift to turn on maximum acceleration. Running it below 4000 rpm gave the engine a gutless feel and it got less responsive the longer it was run at these speeds. It didn't gas up on me, but I didn't run it for too long without a burst of higher revs coming in somewhere along the line.

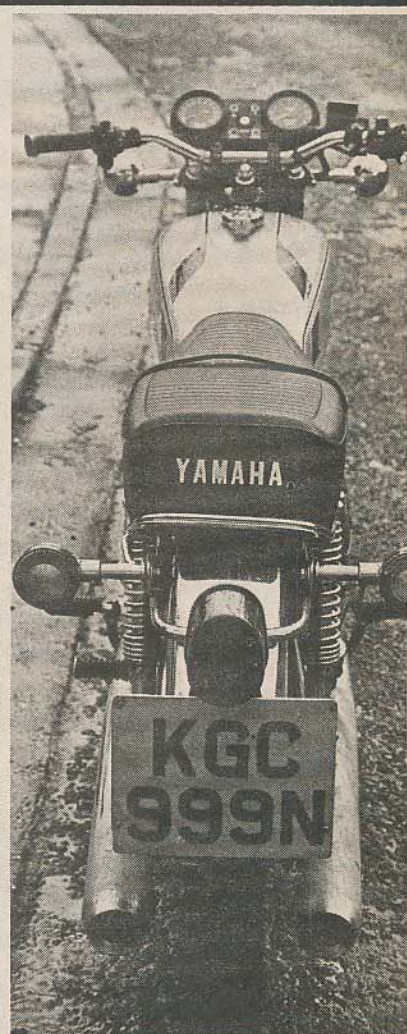
It is orthodox in layout with a reasonable riding position and controls that are easy to get to. It feels small but comfortable although I wouldn't fancy a long run two-up or with a lot of luggage. Through the test we were getting impressive speedo readings which I didn't altogether believe — the Yam would, apparently get up to 90 mph readily and hold 80 to 90 pretty easily. Running into a strong wind didn't slow it too much and it was happy to stay in top gear, which I imagined would be more



The Yamaha's neat, slim and functional appearance is shown off clearly in these pictures. It is one of the lightest of the Japanese middleweights.

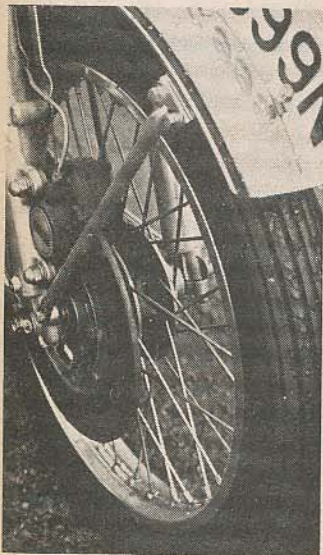
The reed valve motor gives the RD350 lively enough performance but at below 5000 rpm it takes on a much more docile character.

Small, comfortable and light to handle, the Yamaha's only let-down was its high fuel consumption.



of an overdrive. But when we checked the speedo it was within 6 per cent all the way through the range, giving the Yam a top speed of about 97 mph with the rider upright and wearing a normal riding suit. In leathers, with a following wind it managed 105 mph, while into the wind it would just about reach the 100 mark. It would also get into the 90s in a quarter of a mile and you don't expect a lot more than that from a 750.

The RD350 is one of the nicest and easiest machines to ride, giving you almost big-bike performance with safe, predictable handling. I could find very little to fault the machine, with the big exception of fuel con-



The powerful hydraulic disc brake is more than a match for the RD350's performance.

sumption. We averaged a mere 34 mpg and sank to a glorious 28 mpg when the thing was used to its maximum. Combine that with the tank size and you have a machine that's running on to reserve every 80 miles and about six pints left in the tank. Oil consumption, which we didn't measure too accurately, seemed to vary from 110 to 150 miles per pint.

Apart from the excessive fuel consumption the 350 very neatly fills the gap between small and large machines and seems ideal for someone who needs to do that bit more than ride to work mileage. Its small size and light handling make it easy through traffic and there's enough performance not to get left behind on motorways. For long distance touring it would suffice at a pinch but loses out to bigger bikes in carrying capacity, needs more effort from the rider and doesn't have any bonus in fuel consumption.

SPECIFICATION

PERFORMANCE

Maximum speed	105 mph
braking from 30 mph	27 feet
fuel consumption	
hard riding	28 mpg
average	34 mpg
standing start- $\frac{1}{4}$ mile:	14.1 sec at 93 mph
minimum speeds in gears:	
1st	5 mph
2nd	7 mph
3rd	9 mph
4th	13 mph
5th	15 mph
6th	17 mph
mph/1000 rpm in top gear	12.2
speedo error: indicated 75 mph at true 70 mph	

ENGINE

type	two-stroke twin
displacement	347 ccm
bore x stroke	64 x 54 mm
compression ratio	6.2:1
claimed output	39 bhp SAE at 7500
	3.8 kg-m at 7000
lubrication	Yamaha Autolube
carburettors	two Mikuni 28mm
ignition	cb and coil

TRANSMISSION

clutch	multiplate, coil spring
primary drive	gear, 2.86 reduction
final drive	chain, 2.31 reduction
gear ratios	2.571; 1.777; 1.318; 1.083; 0.961; 0.888

CHASSIS

front tyre	3.00 x 18
rear	3.50 x 18
front suspension	telescopic fork
rear suspension	swing arm with adjustable dampers.
front brake	hydraulic disc
rear brake	sis drum
wheelbase	52 inch
overall length	80.5 inch
overall width	31 inch
seat height	31 inch
test weight	351 lb
dry weight	322 lb
castor	62.5 deg
trail	4.2 inch
tank capacity	3.5 gallon inc 6 pint reserve
oil capacity	3.5 pints

PARTS PRICES inc VAT

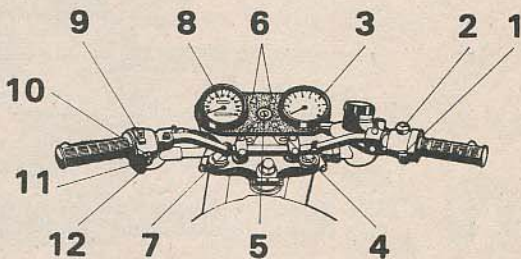
front mudguard	£ 16.60
handlebar	5.34
speedo cable	1.63
cb points	3.24 each
set of pistons and rings	20.58
list price	580.00

warranty: 6 months or 4000 miles, inc. parts and labour.

concessionaire: Mitsui Machinery Sales Ltd., Oakcroft Road, Chessington, Surrey.

TEST CONDITIONS

Overcast, dry. Ambient 50 deg F. 15 mph tail wind



1. Light switch; 2. Ignition kill switch; 3. Tachometer; 4. Main beam warning; 5. Ignition switch; 6. Indicator warning; 7. Stop lamp warning; 8. Speedometer; 9. Dip-switch; 10. Indicator switch; 11. Horn; 12. Flasher.

HOW IT COMPARES

model	Price inc VAT	max speed	average mpg	ss $\frac{1}{4}$ mile	dry weight lb
Yamaha RD350	580	105	34	14.1	322
Honda CB360	589	92	50	15.5	364
Suzuki GT380	609	102	45	14.4	373
Honda CB400	669	103	49	15.2	397
Kawasaki S3	589	100	37	13.5	353

