



For all practical purposes, Yamaha was the manufacturer that started the "Special," or lowrider, look on motorcycles

from across the pond. Basically what they did was to take existing models and add pull-back handlebars, king and queen seats, different fenders and a few other items normally found on chopper-styled Harleys, and

*voilà!*—a Special! Sales were good, the dealers were happy, and so were the riders who bought them.

However, with the introduction of the 650cc four-cylinder Special, the XJ650G, or Maxim I, the engineering concept was changed somewhat. This machine was meant as a Special from the day it hit the drawing boards; and with one exception, which we'll explain later, this is the best Special Yamaha has ever produced.

Undoubtedly, the very first thing a rider notices about the Maxim, after he's ridden it, is that the engine doesn't perform like a 650. That engine makes the XJ into a virtual rocket ship. It runs so hard that you're sure Yamaha made a mistake and slipped a 750 engine, and a healthy one at that, between the 650's frame rails. We managed to get this little fury down the quarter in 12.79 with a speed of 105.2 mph. That is quick for a machine that displaces only 40 cu-

# SOMETHING SPECIAL

YAMAHA'S ALL-NEW  
FOUR-CYLINDER 650

By Dave Hetzler



PHOTOGRAPH: GRAY BASKERVILLE

# SOMETHING SPECIAL

bic inches.

The engine itself, a 650 four, is something new for Yamaha. In the past, their 650 motor has been a twin, and that engine is still available. As good as it was, it never approached the new engine's oomph. With this engine Yamaha started with a clean slate, and consequently this motor is not much larger, in dimensions, than the earlier twin. The width, however, is most noticeable. To cut it down, Yamaha moved the AC generator from the end of the crank to right behind the left-side cylinders. It's driven by a chain running off the crank. This narrowed the cases so much that it's hard to see the engine from the rider's seat; it's hidden beneath the 3.4-gallon gas tank.

In the handling department, the Maxim is much better than the previous Specials. This is due primarily to the fact that the bike was designed as a boulevard profiler instead of a more sporty (in terms of handling twisty back roads) machine.

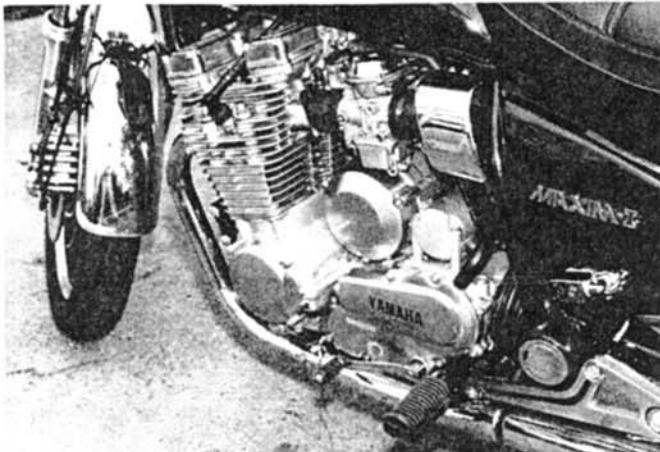
Aiding the handling perhaps even more than the basic design work is the fact that the shaft drive doesn't ride up as much under power as the previous Specials. Until the XJ, only Suzuki had cured the riding-up problem with a shaft-drive motorcycle; now the new Yamaha seems to have a good handle on it. It's not yet quite as good as the Suzuki shaftys, but it's so much better than it was (with older models) that, comparatively speaking, the problem has been ironed out.

Another item that aids the handling is the light weight. Dry, the XJ comes on the scales at only 460 pounds, which makes it one of the lightest machines in its class; and so far as we can tell, the lightest of all the multis of its displacement. Instead of pogoing around in a corner when pressed a little, the Maxim I tracks around quite smoothly. Only when pressed to the limits, which are fairly high because of the decent ground clearance, does the back end move around and get the rider's attention. Put it on a twisty road with an XS1100 and it would give the big sled a heck of a race—at least until the speeds reached 90 mph or more. The little bike runs and handles like a champ.

You'll remember that we mentioned



There's no mistaking the "chopper" styling with the pull-back handlebars, megaphone-styled mufflers, and the stepped king and queen saddle.



To help keep the width of the engine down, the Yamaha engineers placed the alternator behind the cylinders and drive it via a chain.



A chain and lock are provided with each machine to help keep it safe. The ignition also features a lock that keeps the forks cocked to one side. The chain stows away in the lower section of the frame when not in use.

The swoopy design on the "mag"-styled wheels is something new for Yamaha. It makes the Maxim look like it's moving even when it's standing still. The front disc brake is outstanding and returns a great deal of feel to the rider.

A 16-inch wheel, at the rear, sits on a "mag"-styled rim. Somewhat surprising is the fact that the rear brake is a drum instead of a disc.

There was one item that didn't thrill at all—the saddle. Padding for the driver/rider is so poor that a serious case of numbness sets in after as little as a half-hour of riding. This came as a surprise, because Yamaha's saddles are usually quite comfortable. The cure is simple: Add more padding. The basic design of the seat base is good, if you like the king and queen type of saddle. Another 1-1/2 inches of compressed foam would do wonders on a long ride.

Every time we test a Yamaha, and get around to the stopping section, we state that the Yamaha disc brakes are the standard of the industry. The Maxim does nothing to disprove this. Single discs on both wheels pull the 650 down from its maximum speed, which is near 120 mph, rapidly and without fade. The Yamaha brakes are, indeed, the standard of the industry (there, we did it again!).

In fact, this little Special can perhaps be considered the standard of the mid-displacement machines. It's extremely fast, handles well, and has outstanding electrics, good brakes, trick-styled mag-type wheels and an comfortable seat. Once the padding is straightened out, the XJ650G will be a flawless boulevard cruiser. As it is now, it's pretty close. **HR**

#### HOT ROD MAGAZINE'S BIKE TEST SPECIFICATIONS 1980 Yamaha XJ650G

##### PRICE:

Suggested Retail ..... \$2799

##### ENGINE:

Type ..... Four-cylinder, DOHC, four-stroke  
Displacement ..... 653cc  
Bore/Stroke ..... 63x52.4mm  
Compression Ratio ..... 9.5:1  
Maximum Horsepower ..... N.A.  
Maximum Torque ..... 38.3 ft.-lbs. @ 7500  
Carburetion ..... (4) Hitachi HSC32  
Ignition ..... Transistorized controlled  
Lubrication ..... Wet sump  
Battery ..... 12V/12 amp

##### DRIVECHAIN:

Primary Drive ..... Helical gear  
Clutch ..... Wet, multi-plate  
Secondary Drive ..... Shaft, 2.91:1

##### CHASSIS:

Forks ..... Kayaba, 5.79-in. travel  
Front Tire ..... 3.25H19  
Rear Tire ..... 130/90 16 67H  
Rear Shocks ..... Kayaba, 3.82-in. travel  
Seat Height ..... 29.5 in.  
Overall Length ..... 84.5 in.  
Overall Width ..... 34.6 in.  
Overall Height ..... 46.8 in.  
Ground Clearance ..... 5.9 in.  
Fuel Capacity ..... 3.4 gal.  
Wet Weight ..... 456 lbs.

##### PERFORMANCE:

Quarter-Mile ..... 12.79 @ 105.2 mph  
Average Fuel Consumption ..... 45 mpg

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