NOCTURNAL ANIMAL

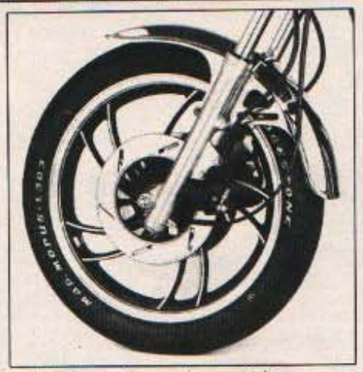
The Maxim 750 drops microchips in favor of simplicity.

The 1982 Yamaha Maxim 750 was hailed in some quarters as a turning point in motorcycle design. The Maxim's adjustable footpegs and cast handlebars seemed to usher in an era where it would be possible to tailor-fit a riding position to a rider's taste, and the electronic dash panel underscored what seemed to be motorcycling's entrance to a new age of technology.

At least these were the thoughts of the industry before consumers reacted with indifference, or at least with more concern for their pocketbooks than for Yamaha's fine ideas about what a motorcycle should be. And so after last year taking one step

MAXIM 750

Maxim's steady cornering habits extend out from Main St. to winding roads, as long as the pavement stays smooth.



Double front discs need no anti-dive for quick, controlled braking.

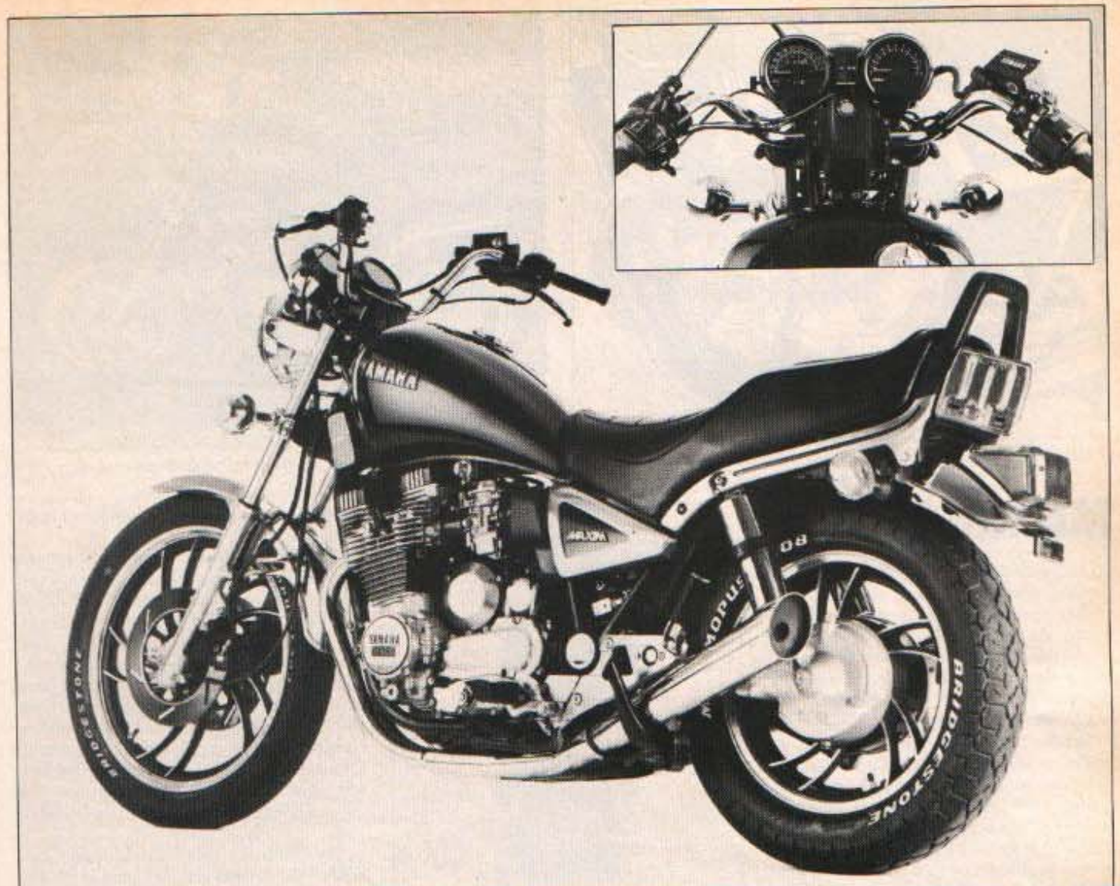
Rear shocks have four-way adjustable damping, but are not air-pressurized.

forward, this year Yamaha takes one step back. The 1983 Maxim has been stripped of its adjustable handlebars, electronic instruments, front fork damping adjustment and the link tube for one-point fork air-pressure adjustment. The rectangular headlight and spot beam have been replaced with a conventional round light. By removing what the marketplace has deemed spurious features, Yamaha has turned the Maxim into a price fighter. In more prosperous times, perhaps, the Maxim's innovations might have found acceptance, but this year the price reduction by $350 to $3,849 is the '83 model's brightest feature.

For the most part the simplification of the Maxim hasn't hurt its function. The round headlight and tubular handlebar give a cleaner, more classical look to the front end, besides functioning perfectly well. Last year's bars were rubber-mounted, but the tubular bar remains almost vibration free with the standard mounting. The bar is high and wide, and handsome if you like custom styling, but presents the usual problems with wind on the highway. In town or on secondary highways the riding position is comfortable for low-speed cruising for a few hours.

The seat is soft and well padded, but the shape restricts movement fore and aft and the relationship between pegs, bar and seat places weight on the base of the spine. This problem is the case without exception on cruiser bikes, of course, and in fact the Maxim has a better riding position than its styling would suggest. The adjustable footpegs of last year's bike are maintained, and they're a feature we hope to see on other bikes. The pegs can slide forward or back about 5 cm, and threaded rods adjust foot controls to suit. We would have preferred even more rearward adjustment, but as they stand, the pegs can be set back enough to support some of the rider's weight. Yamaha's new Venture V4 has the adjustable pegs too; it's good to see them re-introduced, 30 to 50 years after they were common on British bikes.

The Maxim will face some tough competition this year from Honda's new Shadow V-twin and 750 cc Nighthawk. As current custom styling goes, the Maxim looks bland and mildly chopped. Its strong point is the engine, a powerplant proved to be reliable during our long-term test of the 750 Seca (Cycle Canada, October 1982). The Seca and Maxim share the same engine and transmission, and our experience and conversations with mechanics lead us to believe it's one of the soundest on the market.



During our frosty late-autumn test of the Maxim the engine started instantly in the mornings and could be ridden away almost immediately on partial choke. The choke lever on the left bar has a wide range of movement but little fine control over choke position. Its location also leads to some confusion with the horn if adjustment is made while riding.

When Yamaha first introduced the 750 engine of the Seca and Maxim, it made great claims about having the quickest 750 on the market. The engine no longer wins any prizes for quarter mile times, but can be regarded as a model of smoothness and tractability. Although the Honda CBX550 also tested this month would run away from the Maxim, the Yamaha has a solid bottom-end and midrange despite a normal four-cylinder bias toward the top end. Exploring back roads and small towns requires little downshifting because of the willingness of the engine to pull from about 2,000 rpm without any hesitation. The engine is rubber-mounted and transmits little vibration save for a tingle at higher rpm. At 100 km/h the engine spins at a rapid 4,613 rpm, but the buzzing at that speed is almost unnoticeable and will present no problem for extended rides — although the riding position will.

On a cold and slippery day at the drag strip the Maxim turned a best time of 12.83 seconds at 170 km/h — respectable and sound performance that will humiliate any Trans-Am on the street-cruising circuit, while also serving as reliable, flexible transportation. But such is the development in engines during the '80s — yesterday's fireball is today's middle-of-the-road performer.

The clutch has a moderate pull and stood up well to the drag strip session, and is more than strong enough for the street. The transmission is slightly stiff and notchy, but if shifted with care allows consistent changes. A sloppy lever movement can lead to a missed shift or a false neutral, but a rider soon adapts to the gearbox's idiosyncrasies.

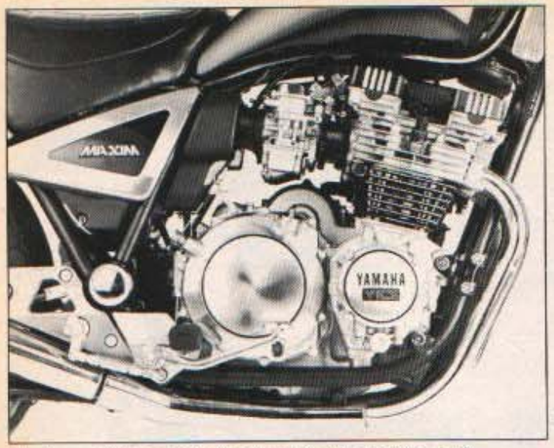
The worst characteristic of the drivetrain is the excessive lash, especially in the first two gears. Driveshaft jacking is present but can be fairly well controlled by bumping up the preload and damping of the rear shocks, and it too is less pronounced above second gear.

The double cradle, tubular steel frame is similar to the Seca's but with a degree more rake and 10 mm more trail, up to 29 degrees of rake and 124 mm of trail. Straight-line stability is good and we found little fault with the Maxim's handling on smooth pavement and sweepers, where it steers with little effort and corners predictably. Ground clearance is an eventual limitation, but the Maxim is perfect for riders who want to scrape metal without having to lean over too far.

Conventional instrumentation is suited to the Maxim's muted custom styling.

Our experience with the Seca 750 during a long-term test suggests that the bike's handling is sensitive to tire wear, but during the course of our test the Bridgestone Mag Mopus 3.25H19 front and fat 130/90-16 rear tires gripped the road well, considering the often cold and wet fall conditions of our test. Maxim or Seca owners should look to the condition of their tires, however, if they notice a deterioration in handling.

At brisk speeds on rougher pavement or when just dealing with the potholes of city roads the Maxim's suspension shows some weakness at the rear end. The shocks have four-way adjustable damping and five-position preload, but are not



Misaligned side cover was the Maxim's only annoying fault.

Ground clearance is ample for urban riding and general use.

MAXIM 750

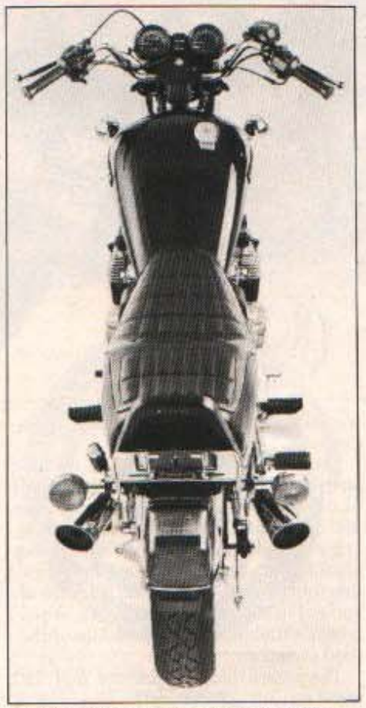
air adjustable, despite the deceptive-looking chrome and black plastic covers, which merely shroud a standard coil spring. At a slow urban pace over smooth roads the ride is luxuriously soft at the lower damping settings, but a railway crossing or ridge in the pavement will send a wallop through the seat.

The rear end feels heavy and uncontrolled over rougher surfaces. Setting the damping at the fourth notch improves control considerably, but the pounding a rider receives is objectionable after a day exploring secondary roads, especially given the riding position which transmits shocks directly up the spine. For its intended purpose as an urban cruiser, the Maxim's low-speed luxury is appropriate. But the ride doesn't measure up to the latest generation of Pro-Links or Full Floaters.

The front fork is air-adjustable, but it shows the only harmful effect of Yamaha's cost-cutting, as the fork no longer has the convenience of a single filler point nor does it have the four-position adjustable damping of last year's model. The filler points on top of each fork leg are positioned under the handlebar instead of at the side. Despite the cost-cutting at the front, the fork performs well. It's free of stiction and the absence of the Seca's anti-dive passes unnoticed, especially since the faults at the rear are more pronounced.

Unfortunately an air-pressure gauge isn't included in the bare-bones tool kit held under the removable seat. Yamaha lists it as an option.

The simple rear drum brake at the rear works adequately if used sparingly, and mercifully doesn't overburden the already heavy rear end the way a disc might. Light lever pressure provides strong braking force from the dual-front discs, and fork dive can be controlled well enough without the weight and complexity of anti-dive.



Adjustable pegs provide superior riding position for a custom-styled bike.

Little maintenance should be necessary on the Maxim since there's no chain to adjust and the 750 motor is a proven, reliable performer. The air filter is easily accessible by removing the seat, and the battery, behind the right side panel, should be simple to service. Detaching a single screw from the side panel, and pulling two pins out of their grommets exposes the battery, but putting the side cover back in place sorely frustrated two test riders because of the misaligned screw hole. Eventually the screw was stripped, after a half hour of cursing.

That small screw was the only serious flaw in the Maxim's finish. After a test through gravel roads, mud, rain and cold the bike spray-washed bright and clean. The brushed aluminum strips on the side covers have a vulgar look, one that's reinforced by the strip running along the base of the seat. The padded aluminum grab rail is integrated into the design, and is comfortable as a passenger handhold. Other than these flashy touches, the dark red paint and conservative styling are generally unremarkable on Main Street in 1983.

The bulbous teardrop-shaped tank holds 17 litres and gives a range of 284 km with fuel consumption of 6.17 L/100 km (46 mpg). A hinged gas cap makes for one less thing to handle during gas stops, but the small fuel petcock is difficult to put on reserve when you're riding with a pair of heavy gloves or mitts.

A self-cancelling turn-signal switch shuts off once activated after the bike has travelled for 10 seconds or 150 metres, whichever comes first. In most cases the rider cancels the signal before the automatic function takes over. Sophisticated though it is, the switch isn't flexible enough to match the variety of conditions faced in traffic. The switch can be sticky and awkward to use at first, but becomes less noticeable with more time on the bike. The timer stops working below 15 km/h so it shouldn't shut off when the bike is stationary, for example at an intersection, but on a number of occasions our Maxim shut off the signal while a rider was still waiting to turn left in the middle of an intersection.

Thanks to the absence of vibration, the mirrors stay clear and sharp, but the stalks are too short and place the mirrors in closer than ideal, so that about one-quarter of the image area reflects the rider's shoulders.

Yamaha's return to a round, quartz-bulb headlight should mollify a large group of riders who think a rectangular light has no business on a bike. The Maxim's round light works admirably, and the beam's horizontal and vertical direction adjusts easily with two screws. Vertical adjustment is easier and more secure than most.

At lower rpm the exhaust noise is moderate, and the gear noise of the shaft is most noticeable. Once the revs climb past 6,000 the exhaust noise, resonant but muted, can be unpleasant although not excessively loud. But during relaxed urban cruising the Maxim can navigate the streets with quiet efficiency.

Perhaps for many riders the Maxim will be too quiet, both in sound and personality. No longer will a Maxim turn heads on the street — it's become a subdued, almost invisible part of the urban landscape. A dressed-up Midnight version of the Maxim in black and gold now holds the front line of Yamaha's street cruisers, relegating the Maxim to the position of a standard, competent street bike.

Image-conscious riders may overlook the Maxim in a search for the latest fashion in boulevard bikes, but practical motorcyclists might find the machine a reliable workhorse for not only the weekend but everyday slogging. Some riders are reluctant to buy a bike in its first model year — not without reason — and the Maxim offers a sound mechanical package, with which we haven't yet found a serious flaw. The engine's power characteristics are docile enough to put any rider at ease, yet when the throttle is rolled on there's an impressive surge of 750-style torque and power, more than enough for most riders.

The 1983 Maxim is a middle-of-the-road motorcycle. No unpleasant surprises lurk in the design, and it's bound to please most purchasers with its workmanlike charm and quiet competence. The Maxim may not turn the heads of pedestrians on the sidewalk, but after several weeks of living with the bike it's hard not to look back on it with admiration. □

PHOTOGRAPHY BY SCOTT EWEN AND BILL PETRO

SPECIFICATIONS
Yamaha XJ750K Maxim

MODEL	1983 Yamaha XJ750K Maxim
TEST DISTANCE	1,436 km
PRICE	$3,849

ENGINE

TYPE	Four-cylinder four-stroke with chain-driven DOHC, two valves per cylinder
DISPLACEMENT	748 cc
BORE AND STROKE	65 x 56.4 mm
COMPRESSION RATIO	9.2:1
HORSEPOWER	76 at 9,000 rpm (claimed)
TORQUE	6.3 kg-m at 7,500 rpm (claimed)
CARBURETION	Four Hitachi HSC32
STARTER	Electric only
OIL CAPACITY	3.5 litres, wet sump

ELECTRICAL

IGNITION TYPE	Transistorized breakerless
GENERATOR OUTPUT	270 watts at 5,000 rpm
BATTERY CAPACITY	12 volts, 14 amp-hours
HEADLIGHT	60/55 watts

TRANSMISSION

TYPE	Five-speed, constant-mesh, wet clutch
PRIMARY DRIVE	Gear, 1.672:1
INTERNAL RATIOS	(1) 2.187, (2) 1.5, (3) 1.153, (4) 0.933, (5) 0.812
FINAL DRIVE	Shaft, 3.983:1

CALCULATED DATA

WEIGHT/POWER RATIO	2.86 kg/hp
SPECIFIC OUTPUT	102 hp/L
PISTON SPEED AT REDLINE	17.8 m/sec at 9,500 rpm
RPM AT 100 KM/H	4,613 rpm
SPEEDS IN GEARS AT REDLINE	(1) 76, (2) 111, (3) 145, (4) 179, (5) 205 km/h

FUEL

CAPACITY	17 litres including 3.5 L reserve
CONSUMPTION	6.17 L/100 km (46 mpg)
RANGE	284 km

PERFORMANCE

QUARTER MILE	12.83 seconds at 170 km/h

CHASSIS

WHEELBASE	1,445 mm
RAKE/TRAIL	29 degrees/124 mm
SUSPENSION	Telescopic front fork with air assist, 36 mm fork tubes and 150 mm travel; rear swingarm with dual spring/dampers, five-way adjustable preload and four-way damping adjustment with 96 mm travel
BRAKES	Double front discs 298 mm diameter, rear drum
TIRES	Bridgestone tubeless, 3.25H19 front, 130/90-16 67H rear
DRY WEIGHT	218 kg
LOAD CAPACITY	225 kg
HANDLEBAR WIDTH	750 mm
SEAT HEIGHT	685 mm (with 63 kg (140 lb) rider)

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