MICH BILLIAM AND USED BILL

120 BHP ON TWO WHEELS **KAWASAKYS Z1300: BIKE OR BEAST?**

LATEST 500s FROM BENELLI KAWASAKI **AND LAVERDA**

NEW YAMAHA XS250 TESTED

Which Bike?

Editor John Nutting

Executive Editor Mark Williams

Assistant Editor Rick Kemp

Advertisement Manager Charlie Harris Telephone 631 1712

> Telephone Sales Jacquie Hancock Telephone 631 1682

Group Advertising Director Richard Howell Telephone 631 3187

> Production Manager Dick Pountain

> > Art Director Paul Carpenter

Art Editor Bruce Nicholson

Design Assistant James Egerton

> Typesetting Jane Hamnell

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KAWASAKI Z500 BENELLI 504SPORT LAVERDA 500MONTJUIC



HALF~LITRE HEAVEN

No longer are the middle-weight bikes the low-life alternatives to the last decade's expansion into the litre-plus arena of high-performance machinery. John Nutting tests three five-hundreds which for reasons of price, performance or appearance (or all three together) offer the discerning motorcyclist everything that could possibly be wanted in a machine. Photography by John Perkins and Ian Dobbie.

KAWASAKIZ500

It's not so long ago that Kawasaki owners were the constant butt of every joke under the sun about poor handling. But that's all changed with the introduction of the company's smallest multi-cylinder four-stroke, the Z500.

If the Z650 four was a hint that Kawasaki were really capable, given the opportunity, of offering finely-honed road bikes instead of wobbly straightline hot rods, then the Z500 is the final confirmation.

But if you think that the littlest four is just the six-fifty with all the major dimensions reduced then take a closer look. And find out the subtle details in the development of a sporting roadster for the eighties.

True, the concept of the Z500 follows the theme found in most of the topselling Japanese motorcycles of the last few years - an across-the-frame in-line fourcylinder engine mounted in a duplex-cradle chassis. In fact, on paper you'd be hard pushed to detect the major differences between the 497cc Kawasaki and the first of the smaller fours, Honda's CB500, introduced in late 1971. Both have similar power outputs, compression ratios, carburettor sizes, overall dimensions and dry weights.

But the closer look reveals the ways in which the motorcycle buyer has become more demanding in the intervening eight years. And a brisk ride down a twisty lane is even more eye-opening.

The Z500 is an extremely compact machine with a wheelbase of just under 55 inches and a dry weight of 423lb. It feels small, thanks mainly to a narrow 3.3 gallon fuel tank and tidy proportions around the side panels and

footrests that allow the rider to place both feet flat on the ground at traffic stops.

The frame itself appears conventional in that it has a diameter backbone large supporting the steering head. But it is substantially supported above the engine with massive gusset plates which effectively stiffen the front end of the structure. The front fork, a smaller version of the unit found on the shaft drive Z1000, appears also to be overly strong with leading-axle sliders with big clamps for the front-wheel spindle. At the rear, the swinging arm pivots on four needle roller bearings.

The torsional stiffness of the front fork is a real necessity when over seven inches of travel have been opted for along with a steep steering head angle of 64 degrees.

Were it otherwise, the fork would flop around uncontrollably when at full travel. As it is, it imparts a perceptably high degree of stability in the Z500 that puts it on a par with the best bikes on the road.

Some riders might argue that the suspension is harsh, and that's certainly true although it's not because of the spring rates. Kawasaki have opted for an average 50 lb/in fork spring rate with minimal preload along with ideal 90lb/in rear springs.

Given a lack of stiction in the suspension plus a lighter front rate with more preload this set-up would work very well, offering a good ride with steadiness in bends. But the ride feels stiff and is none too mitigated by the hard seat.

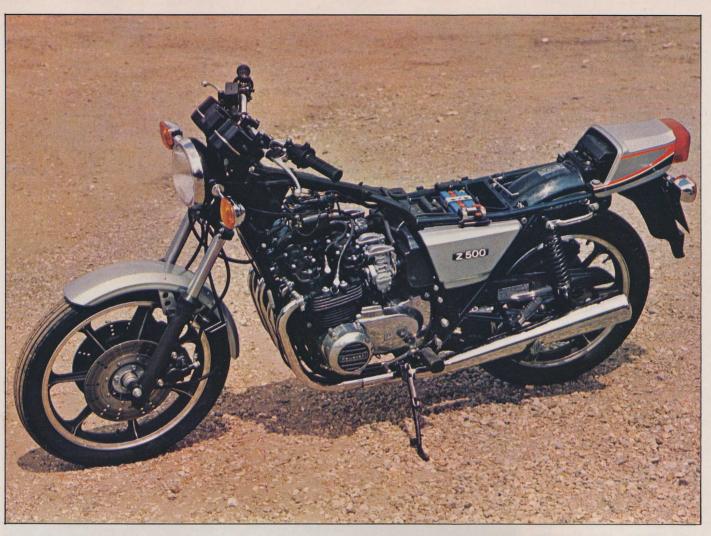
Fortunately, nothing is lost in the overall handling. The steering is excellent, being neutral and light to control whether the bike is being weaved through dense traffic or carved through tight bends. The tyres used impart confidence, being a ribbed Dunlop Gold Seal front matched with a Japanese-made TT100 at the rear, though we'd doubt if these would be much good when raced, in which role the Kawasaki most certainly will find itself.

Moreover, the Z500 feels much more stable when cranked over than the CB500 ever did. And when matched to the sintered-pad disc brakes now found on all the

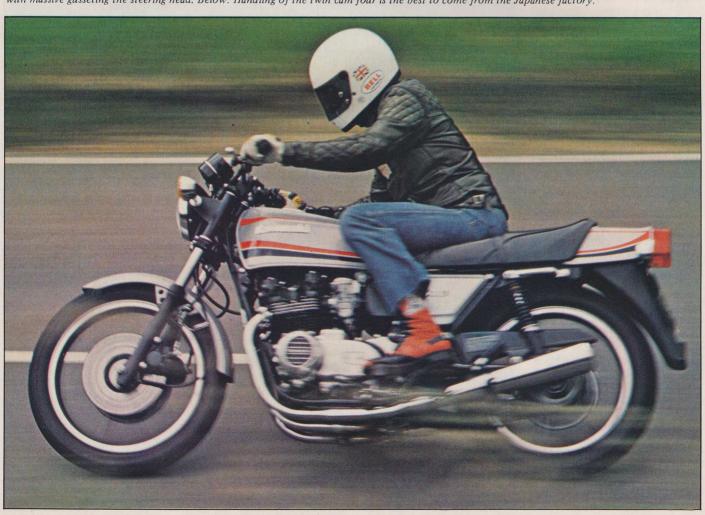








Above: Removal of the Kawasaki's fuel tank and dual seat show how well designed the frame is. Though it has a single top tube it's well braced with massive gusseting the steering head. Below: Handling of the twin cam four is the best to come from the Japanese factory.



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top Kawasakis, you have a chassis package that marks a new high for Japan.

Two thin 10.8 inch diameter discs are used at the front with floating calipers while the rear unit uses the same disc but with a double piston caliper. Only criticism is of the excessive reach to the front brake handlebar lever.

In performance, the Z500's engine matches the chassis perfectly. Peaking at a claimed 52bhp at 9,000 rpm with the red line marked at 9,500 rpm, it easily urges the bike to almost 110mph flat out and puts indicated cruising speeds of around 90mph comfortably in the grasp of the rider even when there's only small sections of open road to play with.

Much of the engine's excellent power is derived from the use of double overhead camshafts and the four free-breathing 22mm-choke Tekei carburettors. Like the Z650 and the old CB500, the four-throw crank runs in plain bearings and drive is through a Morse-type chain and gears to the wet clutch. Bore and stroke are the same as the Z250; 55 x 52.4 mm. But new is the use of another Morse-type chain with an automatic adjuster for driving the camshafts.

Some of the surprising snap throttle response and startling acceleration is derived from the six-speed gearbox and wide ratios. Gear change action is slick and noiseless and the 'box retains the useful neutral-finding dodge that stops you selecting second from bottom at a standstill.

Kawasaki appear to have selected the gear ratios with drag racing in mind for the reve drops between gears are as similar all the way through the range instead of having a large gap between bottom and second and closing up the other ratios. In normal use though the engine is so flexible, pulling cleanly and usefully from as low as 1,000 rpm in top, that the lower ratios hardly ever get used.

At the test strip though the effect is obvious. The Z500 fires like a cannon from the gate to be easily the quickest-accelerating 500cc machine on the market getting to 60 mph in 6½ seconds.

The tractability has advantages in fuel consumption too. The Z500 returned just



over 52 mpg despite being thrashed giving at worst 175 miles on a tankful.

With no kickstart lever, it's just as well the self starter was reliable. The engine fires up cleanly and is helped on cold mornings by the throttle-valve lifter incorporated into the choke mechanism. The clutch was annoying though. Like an old Triumph, it would stick after being left overnight.

Unfortunately, and to our surprise, the worst feature of the Z500 is vibration. When used as a sports bike in the twisties it's doubtful if you'd notice it, but on motorways the vibes above 5,000 rpm are enough to render the rear-view mirrors useless.

Otherwise, the Z500 is a great little bike, particularly since it's the only Jap four of its size, both in capacity and bulk.

BENELLI 504 SPORT

One thing is sure with the Benelli 504 Sport; you could never mistake its intentions. It looks a sporting machine and in every facet of its character it acts like one. Which is a blessing for Benelli.

For there's not much you could comfortably recommend in the standard version of their 500cc four. Since it is so very nearly a Honda four in the engine compartment, the machine suffers all the ubiquity of a Japanese four with the quirkiness of an Italian machine.

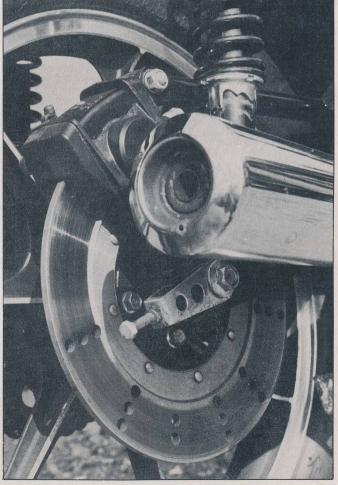
But the 504 Sport displays style and flashiness rarely, if ever, found in Jap bikes. Finish is in a metallic black paint set off by striking gold cast-alloy wheels and a small fairing first seen on the Moto Guzzi Le Mans.

And it's a small bike that begs to be ridden fast. The power band is sharp and needs to be nursed along on the five-speed gearbox. And it's not until you're cruising above an indicated 80mph that the riding position feels at all comfortable.

Otherwise the 504 Sport can be very awkward if you're not prepared to suffer the disadvantages of a super sporting motorcycle. At town speeds, the raised clip-on handlebar makes the wrists

Rider gets a view of Japanese Standard Instrumentation on the Z500. Use of the steering lock in conjunction with the ignition lock is handy but the stop lamp repeater is annoying.

Kawasaki's rear brake is state-ofthe-art with smaller disc than front units, twin piston caliper, sintered pads and torque arm in compression.



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ache and the shortness of the riding position tends to be very cramped. Furthermore, the top lip of the screen obscures most of the instrumentation. Not that it matters much; it's pretty inaccurate.

On top of that the bike feels sluggish unless you wring its neck, compared to the other two machines featured here. In fact, the Benelli is barely slower than the Kawasaki in a flat-out dash, mainly because of the wind-cheating riding position, with a top speed of around 108 mph. (We saw 115 mph once on a long downhill section of road.)

Most of the problem is in the heaviness of the throttle return springs and the inflexibility of the engine. Both of these conspire to give the rider the impression that the bike is dragging a dead weight behind it.

Once into its best area, that is, when the rev meter is hovering in the 6,000 to 9,000 region, the 504 perks up appreciably and the real meaning of Italian motorcycling rings true.

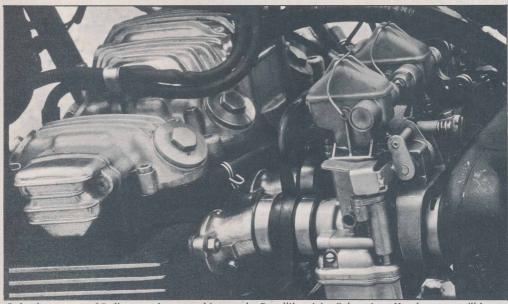
Like the Honda engine that the Benelli was copied from, the 504 Sport's motor is an overhead camshaft fourcylinder unit with the crankrunning in plain shaft bearings. Like the Kawasaki too, it has a Morse-type primary drive to a countershaft in the bottom crankcase-half with a set of drive gears to the clutch. Gearbox is a five speeder, the change being effected via a linkage, and the final drive is by a conventional Regina chain, unlike the Kawasaki's sealed roller chain.

There are few changes to the 504 to bring its power from the 47bhp of the 500LS to a sportier 49bhp at 8,900 rpm. Bore and stroke remain the same at 56 x 50.6mm, though the pistons pump the compression up to 10.2 to 1 and the camshaft has more lift and overlap. Gearing is the same as the LS giving 5,900 rpm at 70mph.

Apart from the use of alloy wheels and the interesting adoption of the Moto Guzzi linked braking system, there are few changes to the chassis either. At speed the bike feels taut and stable thanks to a shallow steering head angle and a low centre of gravity. But the suspension is mismatched and that same



Italian styling is enough to bring tears to your eyes, isn't it. Pity the Benelli 504 sport doesn't measure up to its looks.



Only the quartet of Dellorto carburettors hints at the Benelli's origin. Otherwise a Honda owner will know his way around without trouble.

Needs a set of gun sights, doesn't it? The Benelli's Veglia speedo and revmeter are as vague as ever.



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front end geometry leads to a measure of resistance when you're hauling the bike from lock to lock at speed through the twisty bits

the twisty bits.

The front fork is underdamped, leading to some choppiness over bumps, a feature that is in conflict with the rear suspension which is undeniably hard. It could well do without this as the seat is similarly rock-like.

Not that this necessarily detracts from the enjoyment of the Benelli. The four-into-two exhaust emits a jubilant growl and the hand controls are slick and easy to use,

But there are enough annoying aspects of the Benelli to make the £1,742 list price only appealing to the true devotee. The connected braking system, in which the right-hand Brembo disc brake and the rear disc are operated by the foot pedal, isn't as powerful as we'd like. With so much braking area on tap and pleasant experiences of the system on bigger Guzzis we'd be inclined to think there was something wrong on the Benelli's.

Also there was much too much engine vibration getting through to the rider's feet. And neither was the bike very economical with only 46.3

mpg overall.

Detailing is poor. The switchgear could have been much easier to use and the energy expended in designing the ignition cut-out switch operated by the prop stand (a real necessity since you can't see the stand from the seat) could have been directed in this area.

Let's say the Benelli is a bike for the Boulevard nights.

LAVERDA MONTJUIC

How do you transform an ordinary motorcycle into a popular classic? Perhaps you refine it over a number of years to make it appeal to the widest possible number of potential buyers.

If your name is Laverda you do the complete opposite. You convert your road bike into a successful production racer and offer replicas for sale.

The proof? The Laverda Montjuic has been outselling the standard 500cc Alpino by three to one. And this is despite the race-replica being the most expensive 500 on

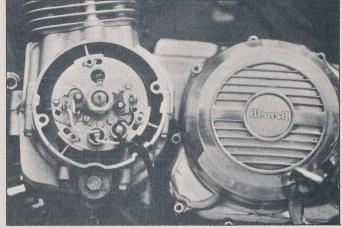
the market at a shocking £2.095.

But such is the appeal of a super-sporting machine with a proven record in competition. And Laverda were always aware of it since the lamented demise of the SFC, the production racer based on the factory's now obsolete 750cc SF twin.

Trouble was Laverda couldn't offer a production racer legally in most countries because invariably, the extra performance came at the expense of a prohibitively loud exhaust. In Italy they got round this by offering 500cc racing twins specifically for a novice racing series.

The British Laverda importers have always adopted a more cavalier approach. And no sooner did they prove the reliability of the basic eightvalve double overhead camshaft Alpino unit by pulling off an impressive onetwo in the 500cc class in the 1978 Barcelona 24-hour race at Montjuic Park than they realised that they were onto a winner in the home market.

Furthermore they also realised that if they could offer a high performance 500cc machine in road trim, it would qualify for the tight production racing regulations currently enforced in UK



No surprises in the Benelli's electrics – ignition is by good 'ol contact breakers and coils.

meetings and beat the Yamahas previously dominating the class. They were right and the Montjuic sales have boomed.

Competition record apart though it's not difficult once you've ridden a Montjuic, to realise why the bike's so appealing. It's got the purposefulness of a BSA Gold Star and the style of the old SFC, which incidentally it can outperform comfortably.

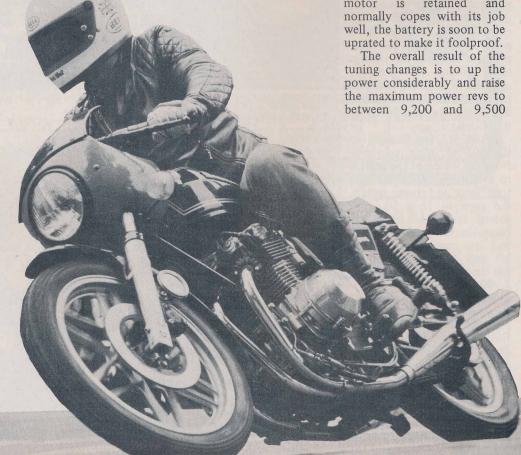
Yet apart from the obvious differences with the glass-fibre handlebar fairing and seat (both of which are added to the bike after it arrives in Britain from the factory as a naked, tuned Alpino), there are few changes.

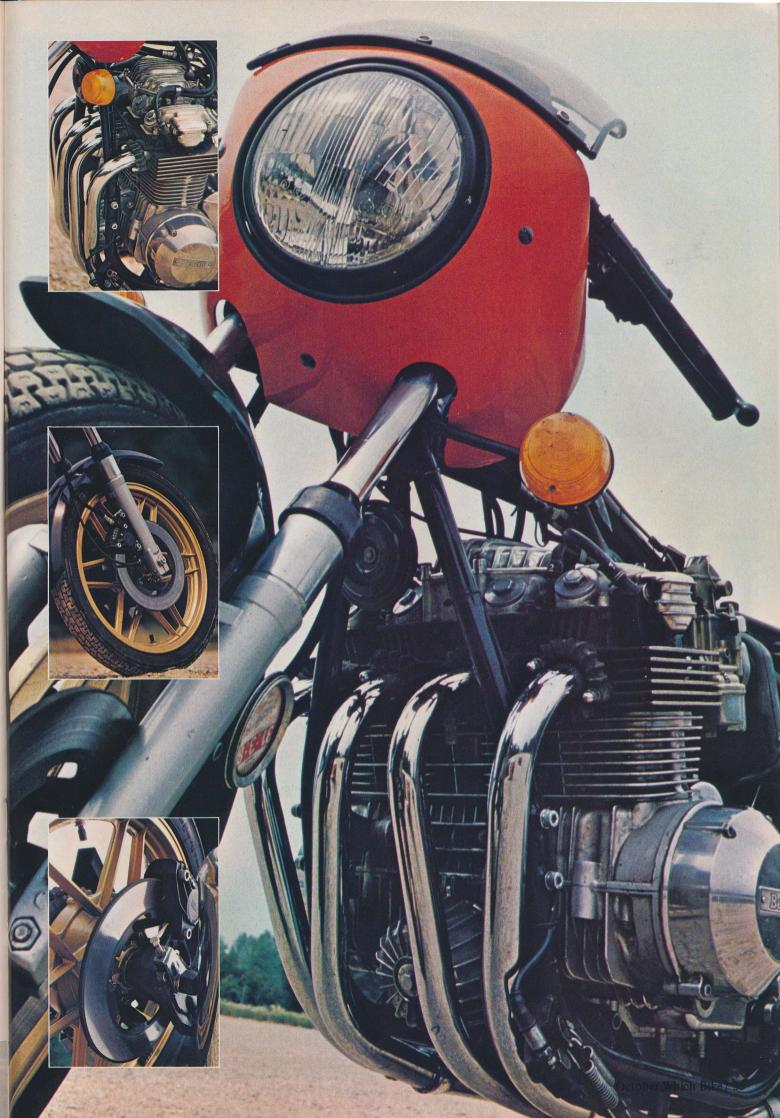
The frame is stock and

retains the same Marzocchi suspension front and rear. The basic engine and six-speed transmission are unaltered too. However, the pistons give a compression ratio of 10.2 to 1 and the camshafts have revised timing with the effect that the compression pressure is upped to 150 psi from 115 psi.

To cope with this the 32 mm choke downdraft Dellorto carburettors are recalibrated and the air cleaner is dispensed with while a megaphone-type extractor exhaust system to suit the cams also gives extra cornering clearance.

The extra cranking pressure has had its effect and though the electric starter motor is retained and normally copes with its job

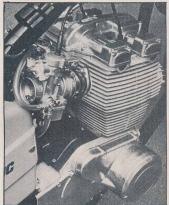








Montjuic's peachy little footrests are mounted on neat alloy castings that bolt into the frame; lever positions are adjustable on splines.



rpm. Importer Roger Slater has yet to put one of the engines on a dynomometer and will no doubt say that the engines make enough power to win the races they're after for publicity, but we'd confidently predict that it must be in the 55bhp

region at the back wheel. Few would argue with that since owners have been complaining that they are running over the factory-stipulated rev limit of 9,500 rpm in sprocket - which gives 116 mph. Given the use of a 40tooth sprocket the 125 mph that Slater claims for his bikes should easily be in reach. After all, with a 38 tooth sprocket in the Island

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the Highlander and the 9,600 rpm that Peter Davies saw on the rev counter compares with the computed figures. What's more the bike went to 10,300 rpm on the drop to Brandish. That's 139 mph. . .

In day-to-day use such heady performance figures are neither here nor there. And anyway there's little chance of proving them since Slater invariably uses the demo Montjuic as a spare for racing.

So we tried a bike belonging to John Owen, one of Hexagon of Highgate's happy customers. A far too brief ride was enough to confirm that the Montjuic is indeed bound for a place in the motorcycling history books.

Laverdas have always been favoured for their good handling but the Montjuic

clocked at 129 mph through raises the standard to new heights. It feels low and small, not surprising since the racing-style seat measures barely 30 inches from the ground. The handlebar is the same adjustable unit found on the Jota and along with the beautifully engineered and equally adjustable rear-set footrest controls, the riding position is perfect for fast and relaxed riding.

But the bike is loud. In town you have to take real care to keep the noise down if you've any sort of conscience. Though we weren't able to test the decibel level it must break the limit quite easily.

Fortunately the engine doesn't baulk at poodling around town should you be in a sensitive state of mind. The engine is very flexible,

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2,000 rpm.

It's very smooth too. Like the Alpino, the Montjuic's power unit has 180-degree throws and is strongly supported in four ball bearings. And to tame any vibration that might exist, a small counterbalancer geared to the crankshaft in the primary drive case offsets the rocking couple inherent with this sort of engine. Result is that the motor spins happily through the gears up to well over the 8,000 rev counter red line with no more fuss than a slight rattling of your eardrums.

Complementing the performance the handling and suspension are tight and taut as you might expect of a machine that has been trimmed down to about 350 lb dry without changing the spring rates. And for the same reason the three Brembo disc brakes have no trouble in hauling up the lightweight bike from speed.

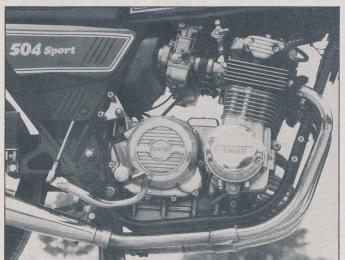
Neither is the machine finicky. John Owen Reckons he has been getting 55 mpg in the 2,000 enjoyable miles he's run the machine.

If you can live with such single-minded exotica, the Montjuic is an obviously rewarding machine to own.



Model:	KAWASAKI Z500	BENELLI 504 Sport	LAVERDA 500 Montjuic
Price inc VAT:	£1,359	£1,742	£2,095
Engine:	Double-overhead camshaft	Single-overhead camshaft	Double-overhead camshaft
	four	four	eight-valve parallel twin
Capacity:	497cc (55 x 52.4mm)	498cc (56 x 50.6mm)	497cc (72 x 61mm)
Comp ratio:	9.5 to 1	10.2 to 1	10.2 to 1
Lubrication:	Wet sump	Wet sump	Wet sump
Ignition:	Coils and contact breakers	Coils and contact breakers	Bosch transistorised
Carburetion:	Four 22mm Tekeis; paper	Four 22mm Dellortos; paper	magneto Two 32mm Dellortos
Max Power:	element filter	element filter	ma at 0 200 0 500 mm
Max torque:	52bhp at 9,000rpm 32.5lb-ft at 7,500rpm	49bhp at 8,900rpm	na at 9,200-9,500 rpm
Primary drive:	Morse-type chain and gears	Morse-type chain and gears	Spur gears
Clutch:	Wet multiplate	Wet multiplate	Wet multiplate
Gearbox:	Six speed	Five speed	Six speed
Final drive:	530 sealed roller chain	530 Regina roller chain	530 Regina roller chain
Mph/1 ,000rpm:	11.75 in top	11.79 in top	12.25 in top
Electrics:	12v 12ah battery	12v 14ah battery	12v 15ah battery
	3-ph alternator	3-ph alternator	Alternator
	45/40w headlamp	45/40w headlamp	60/55w qh headlamp
Fuel capacity:	3.3 gallons	3 gallons	3½ gallons
Frame:	Duplex cradle	Duplex cradle	Single loop, duplex
			subframe
Suspension:	Leading-axle telescopic	Guzzi telescopic fork (f)	Marzocchi telescopic fork
	fork (f) Pivoted fork	Pivoted fork with 5-pos	(f) Pivoted fork with
	with 5-pos spring preload	spring preload adj.	Marzocchi dampers and
	adj.		5-pos spring preload adj.
Brakes:	Two 10.8 in discs (f)	Two 10.25 in Brembo	Two Brembo 10.25 in
	Single 10.8 in disc (r)	discs (f) one 10.25 in rear.	discs (f). One 10.25 in
		Front left and rear con-	disc (r)
		nected to foot pedal	
Tyres:	Dunlop Gold Seal	Metzeler	Pirelli Mandrake
	325H19 F7 (f)	300S18 (f)	100/90S18 (f) and (r)
	Dunlop K81 410H18 (r)	350S18 (r)	
2312000000			
DIMENSIONS			
Wheelbase:	54.9 in	56 in	55 in
Seat height:	31.9 in	31.1 in	29 in
Grnd clearance:	6.3 in	6.3 in	na
Handlebar width:	27¼ in	24.3 in	25 in
Rake/trail:	64 deg/3.9 in	61½ deg/na	na
Dry weight:	423 lb	418 lb	360 lb
EQUIPMENT	Trafficators, mirrors, 140 mph speedo, 12000 rpm rev	Trafficators, fairing, 140 mph speedo, 10000 rev	Fairing, adjustable handle- bar, rev meter, speedo,
	meter, steering lock, helmet	meter, headlamp flasher,	rear-set footrests, electric
	lock, seat lock, vacuum	steering lock, seat lock,	starter, headlamp flasher
	fuel tap, toolkit, electric	prop stand ignition cut-out	steering lock, toolkit.
	starter, trip meter, lock-	tool-kit, electric starter,	steering rock, toolkit.
	fuel cap.	trip meter.	
PERFORMANCE			
Top speed:	106-110 mph	105-108 mph	115-125 mph (est)
Speeds in gears Top			116 mph
calculated at 5th:	94 mph	105 mph	108 mph
max power 4th:		90 mph	86 mph
revs 3rd:		74 mph	76 mph
	50 mph	55 mph	58 mph
1st:	35 mph	38 mph	39 mph
St. ¼-mile time:	14.4 secs	15.4 secs	na
0-to-60 mph time:	6.5 secs	7.6 secs	na
Actual speed at	56.2	50 4 1	
ind. 60 mph:	56.3 mph	58.4 mph	na
Overall fuel	52.5 mpg	46.3 mpg	approx 55 mpg
consumption:			
Max range:	175 miles	140 miles	165 miles approx
Importers/	Kawasaki Motor UK Ltd,	Agrati Sales Ltd,	Slater Brothers Ltd,
Manufacturer:	Deal Avenue,	St Marks Street,	Collington,
	Sough Trading Estate	Nottingham	Nr Bromyard

Nottingham.





Nr Bromyard,

Herefordshire.

Sough Trading Estate,