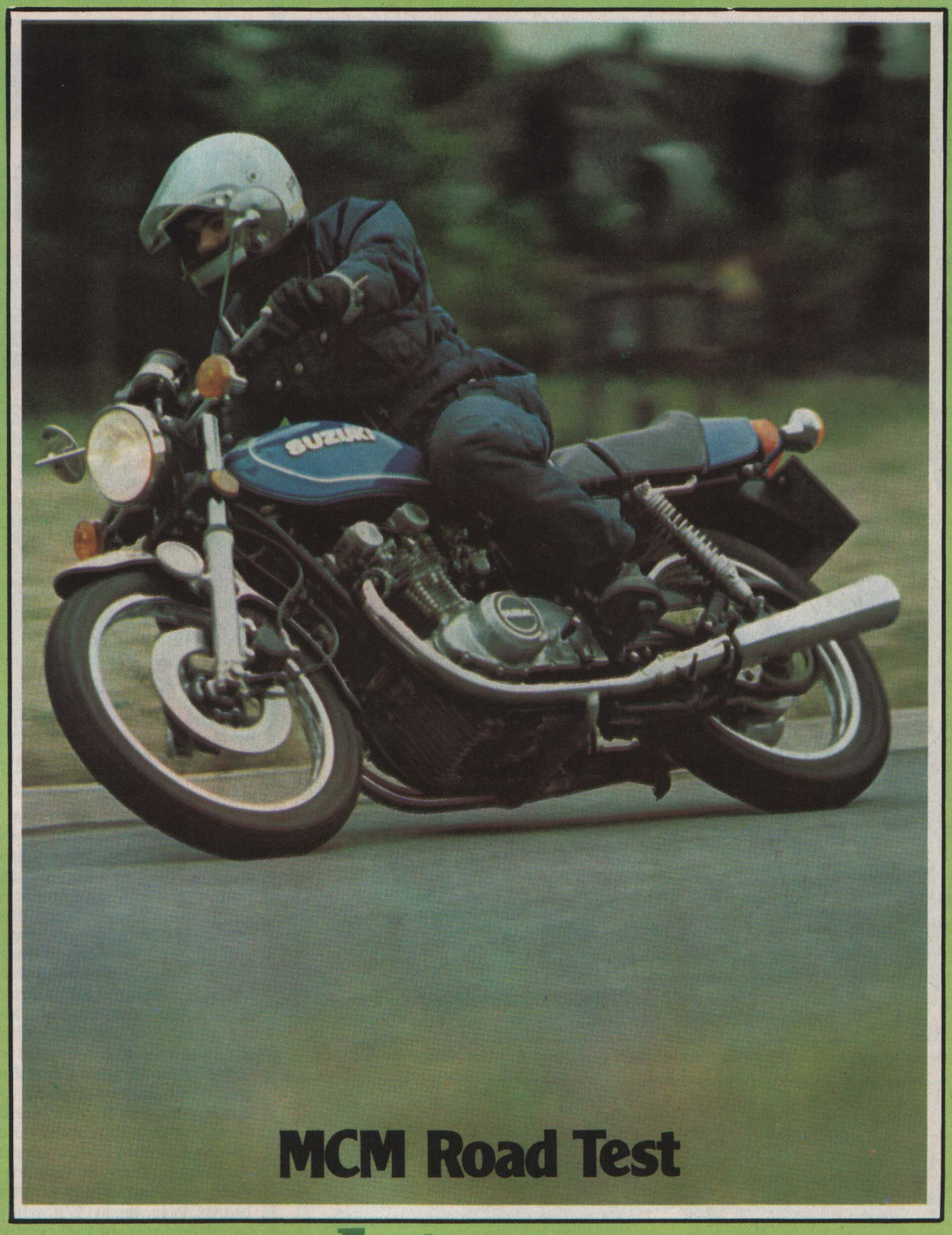


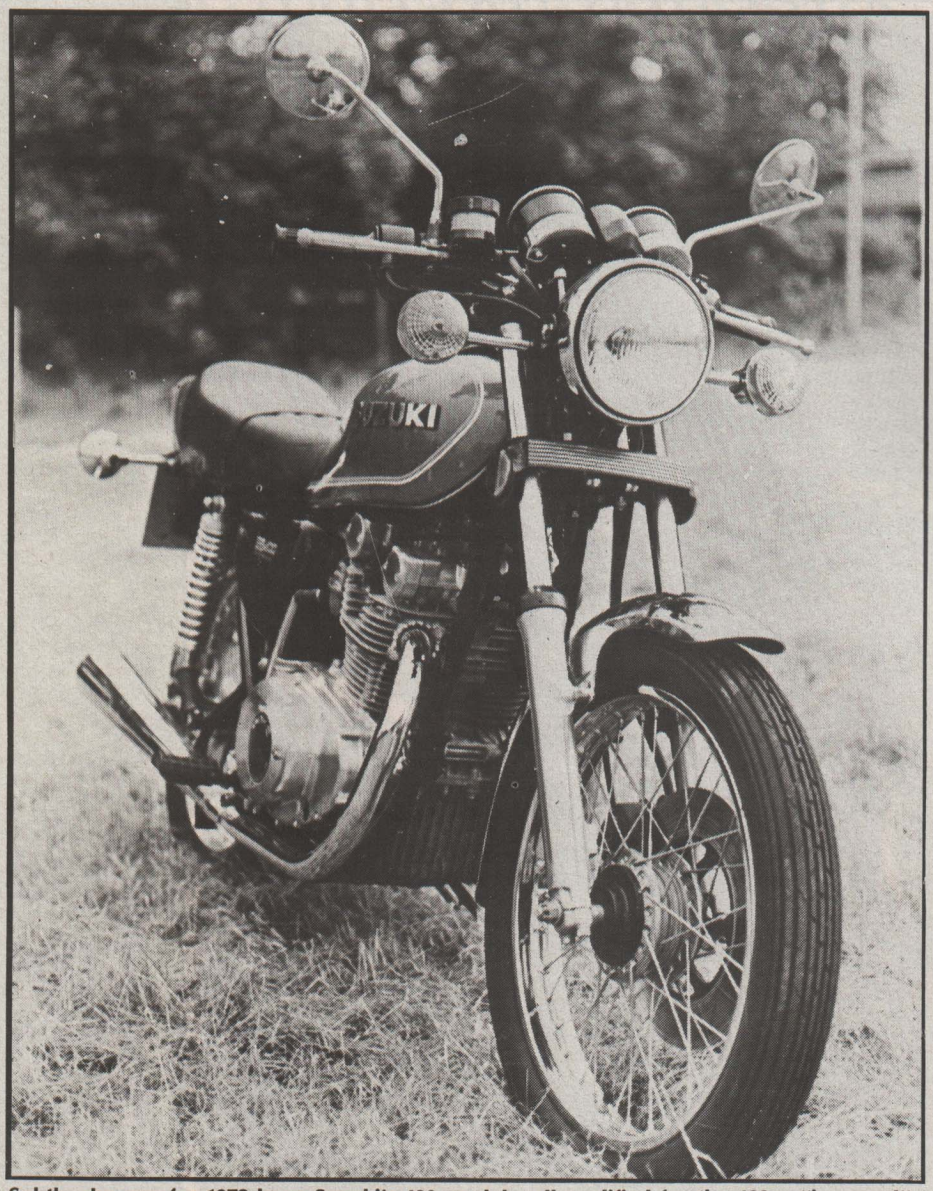
MCM Road Test

Suzuki GS400C

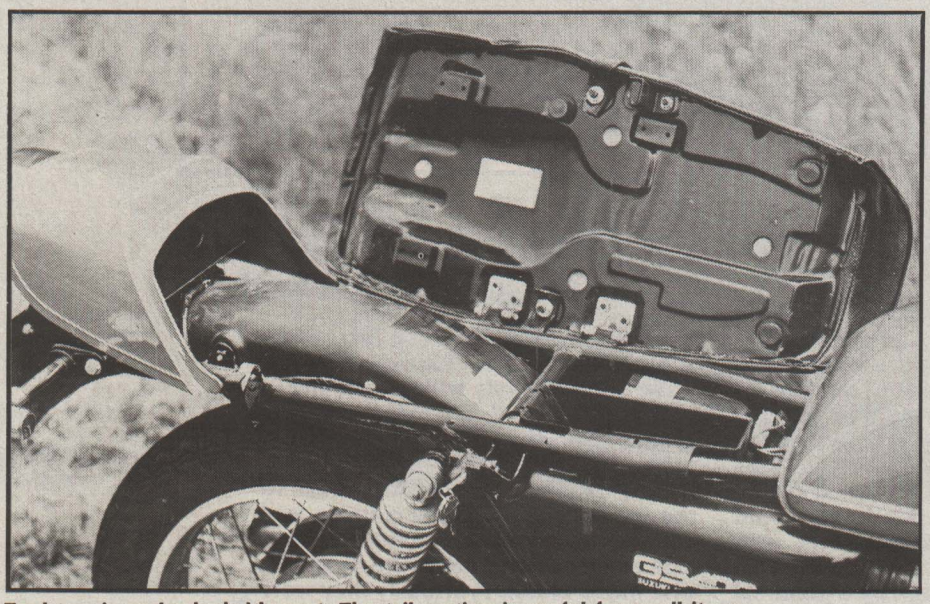
One of four Japanese four-stroke vertical twins in the tightly contested 400cc class, Suzuki's new GS400C emerges as the most frugal by quite a margin. Average consumption worked out at 63mpg bettering its nearest MCM tested 400cc rival, the Kawasaki Z400B, by 8mpg. No doubt this figure could have reached the 70mpg mark with more delicate use of the throttle. This factor must score it high on a potential buyer's shortlist for a bike with a pass mark in performance, comfort, looks and economy. The Suzuki meets all those requirements with distinction.

In appearance it differs little from its predecessor, the GS400. The first easily recognisable differences are striping on the tank and seat, a black finish to the speedometer and rev counter, and a black crosspiece on the forks to carry side reflectors and cover the hydraulic disc brake union. Previously they were chrome.

Suzuki GS400C



Subtle changes for 1978 keep Suzuki's 400 model well qualified for the 400cc "in-crowd"



Tool tray is under lockable seat. The tail section is useful for small items.

Visible changes to the powerplant amount to a balance pipe for the exhaust system which now has each exhaust pipe and silencer as one unit. The balance tube undoes to allow each system to be separated. According to a technical bulletin from Suzuki these changes are to increase power. Owners of the earlier GS400 can bolt this new system straight on to their machines.

Suzuki's goal was to get more low and mid range power. As well as the new exhaust system valve timing has been altered with different cam profiles to obtain the extra power. Again good news for present GS400 owners. They can bring their model up to C specification by fitting the new camshaft which is readily identifiable by an "I" mark or yellow paint on the cam chain sprocket flange.

Cam height for both inlet and exhaust valves has been slightly increased: by 0.35mm exhaust and 0.22mm inlet. The opening duration for all valves has been cut by eight degrees. This results in what is in effect a "softer" cam because of reduced valve overlap which gives the better mid range power.

To complement the above, different main jets have been used in the two 34mm Mikuni constant velocity carburetters. They are smaller, 0.110mm instead of 0.1125.

Alterations to cycle parts not mentioned so far are slimmer front disc brake and a minor modification to the swinging arm spacers. The new disc is 6mm in thickness, the previous unit was 6.7mm. The front wheel hub is now just under 2mm wider and other minor modifications are to the securing bolts and elimination of the cushion between the disc web and wheel hub.

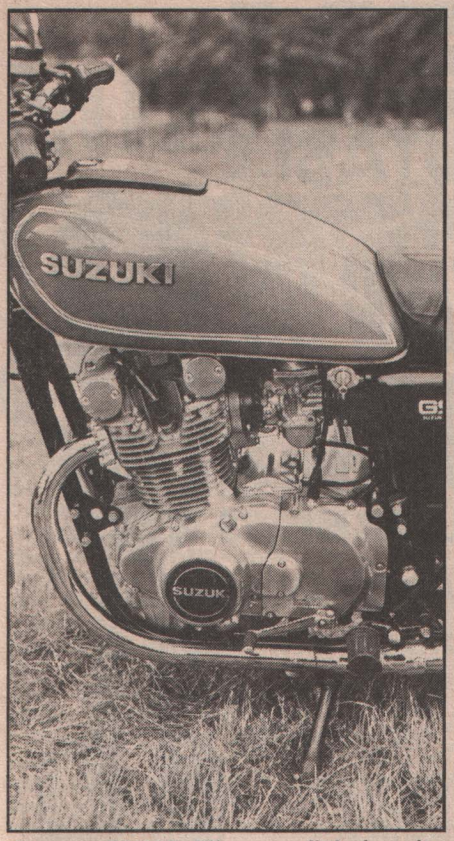
We can only guess that the reduction in disc width is to cut down on costs at the factory, though it could be argued that the thinner disc will heat up quicker and therefore work more efficiently from cold.

All these changes are of a minor nature. Yet comparing figures with the GS400 tested by MCM in April 1977, when it was heavily criticised for poor fuel consumption, shows that the new bike emerges with useful gains in all departments.

Summarising the figures (with the early model's figure's in brackets) gives a clear picture: bhp 32.7 at 8,500rpm (30 at 8,200); maximum torque at crankshaft 20.7 ft-lb at 7,730rpm (19.5 at 7,200); top speed 101mph (96), standing quarter mile 15.49s with terminal speed of 86.43mph (15.8 at 84), average mpg 63 (51).

Studying both bhp curves reveals that the new bike has extra power right through its rev range and more torque with a prominent gain in torque between 4,400 and 5,200rpm. Suzuki obviously expected more top end power too, because they now claim 36.5bhp at 9,000rpm compared with 36bhp at 8,500 for the previous model.

While trying for top speed the Suzuki



The new GS400C differs very little from its predecessor. Striping on the tank is the quickest reference to the new model.

consistently went through the trap at 99mph. Removing the wing mirrors gave the extra 2mph. But even with the mirrors left on top speed was still 3mph up on the previous model.

The standing quarters were done at Santa Pod during an open practice Sunday when anyone with a licence can see how fast his bike can turn a standing quarter. Of the three runs for which I queued up the best time was as mentioned with a worst of 15.9s at a terminal speed of 83mph.

There is no doubt the times could be improved. I found myself trying to go as soon as the lights went green rather than concentrating solely on elapsed time. As a result the starts were fair rather than good.

Only once in the three runs did I select a false neutral from the smooth six speed gearbox. The difficulty was knowing exactly when to change up because the power is delivered so smoothly and uniformly. If I had studied the bhp graph I would have changed at the 9,000rpm redline shown on the rev counter. This represents a true rpm reading of 8,640 just after peak power has been reached.

Sixth gear pulls remarkably well. I was expecting it to be purely an overdrive and was pleasantly surprised to find it could cope with motorway hills and was quite happy at 30mph town limits. Obviously being able to stay in sixth most of the time aided the fuel consumption figure.

Perhaps the most surprising fact of all is the bike's smoothness. The 180 degree crank is counter balanced and the system works beautifully. I had never ridden the first model and was expecting quite a lot of vibration. More than that, the engine revs

Performance & specification

ENGINE

Four-stroke double overhead cam air cooled 180 degree vertical twin with balance weights. Carburetters: two 34mm Mikuni BS34SS constant velocity. Ignition by 12 volt 10Ah battery and coil with twin contact breakers, battery charged by three phase AC generator. Wet sump lubrication.

displacement	398cc
bore x stroke	65 x 60mm
compression ratio	9:1
claimed output	36.5bhp at 9,000rpm
claimed torque	23.9 ft-lb at 7,500rpm

TRANSMISSION

Primary drive by gear via wet multiplate clutch to six speed gearbox, final drive by chain.

primary reduction	2.714:1
final reduction	2.813:1

gear ratios overall: 18.78, 13.56, 10.53, 4.59, 7.33 and 6.49

CHASSIS

Single hydraulic front disc brake, drum rear brake. Five preload adjustments on rear oil damped shock absorbers.

front tyre	3.00 x 18 Bridgestone
rear tyre	3.50 x 18 Bridgestone
castor	62 deg
trail	3.7in
overall length	82.1in
overall width	32.9in
dry weight (claimed)	379lbs
fuel tank	3.0 gal
oil	3.71 pint

PARTS PRICES inc VAT

	£
handlebar	5.72
front mudguard	12.53
speedo cable	1.84
exhaust system complete	51.17
one piston	5.72
one ring set	4.32
list price	850.00
delivery charge	15.00

warranty: 6 months or 10,000 miles. importer: Heron Suzuki GB Ltd, 87 Beddington Lane, Croydon, Surrey, CR0 4TD.

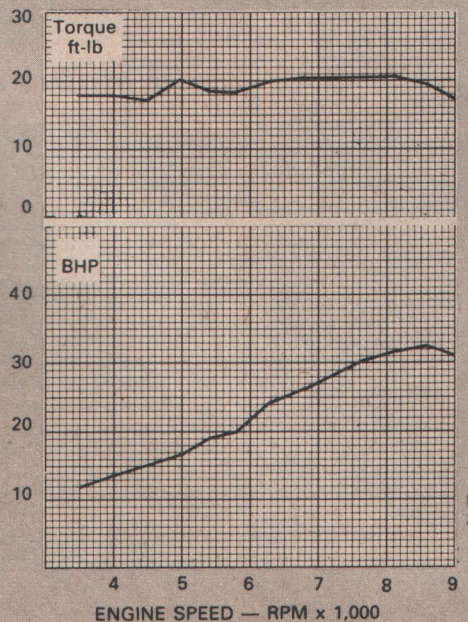
MAX SPEED	Speeds in gears at 9,000rpm:					
100.5mph	First 37mph	Second 48mph	Third 60mph	Fourth 75mph	Fifth 87mph	Sixth 100.5mph

SS ¼-MILE	FUEL CONSUMPTION:			OIL USED	BRAKES FROM 30mph
15.49secs	Best 67mpg	Worst 55.5mpg	Average 63mpg.	nil	27ft

HOW IT COMPARES

Model	Price £	Max. speed	Av. mpg	ss ¼	bhp *
Suzuki GS400C	850	101	63	15.5	33
Kawasaki Z400B	829	101	55	15.0	30
Yamaha XS400	883	106	51	14.6	33
Yamaha RD400	815	99	43	14.8	34
Honda CB400T	838	102	53	15.0	36

*** At the back wheel, measured on a Heenan Froude DPX3 chassis dynamometer.**



Maximum torque at crankshaft 20.7ft-lb at 7,730rpm

All tests run on a Heenan Froude DPX3 chassis dynamometer operated by Lincs Engine Development, School Lane, Baston, Lincs.

Maximum power at rear wheel 32.7bhp at 8,500rpm

Suzuki GS400C

freely and has an easy-going lope about it accompanied by a deep cavernous exhaust note.

Attractively styled in a straightforward fashion the Suzuki feels almost as light as a 250 and is very easy to handle in traffic. The only limiting cornering factor is that the footrests are not spring loaded. When they touch down it is time to stop leaning.

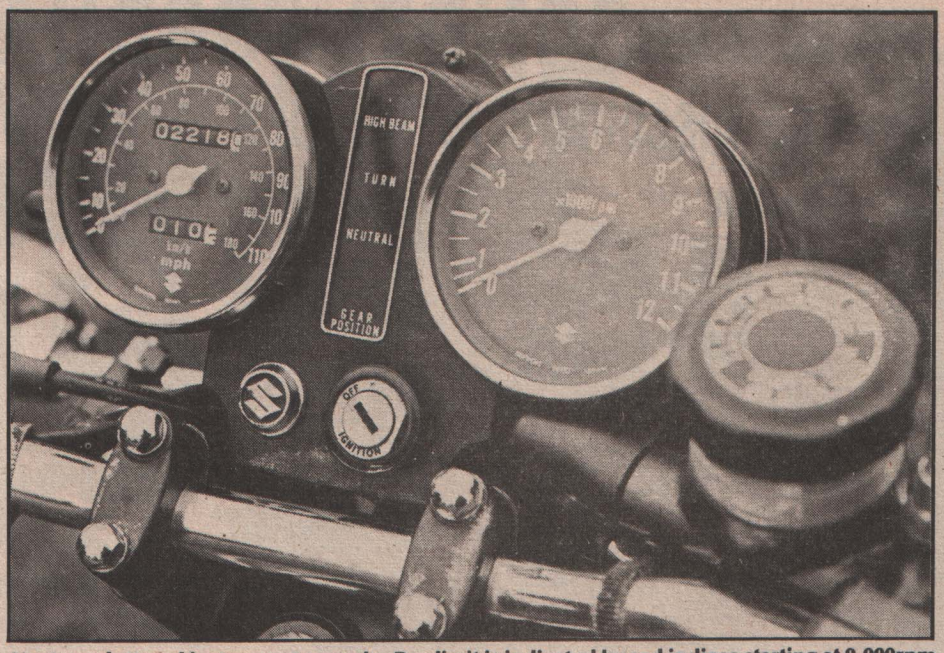
The suspension is soft and gives a comfortable ride at touring speeds. Lively use does not produce wallowing but the bike tends to dive up and down on the suspension. The best illustration of this was when trying for top speed at the test track. The forks started to go up and down in a pogo-like rhythm, not enough to lift the front wheel off the ground, but enough to use almost the whole of the suspension travel.

This phenomonen never occurred while road riding, only with the speedometer needle hard against the 110mph stop. The speedo at this point was 10mph optimistic. When showing 30mph true speed was 26.5, when showing 50 true speed was 43.5, and at 70 indicated true speed was 60.5.

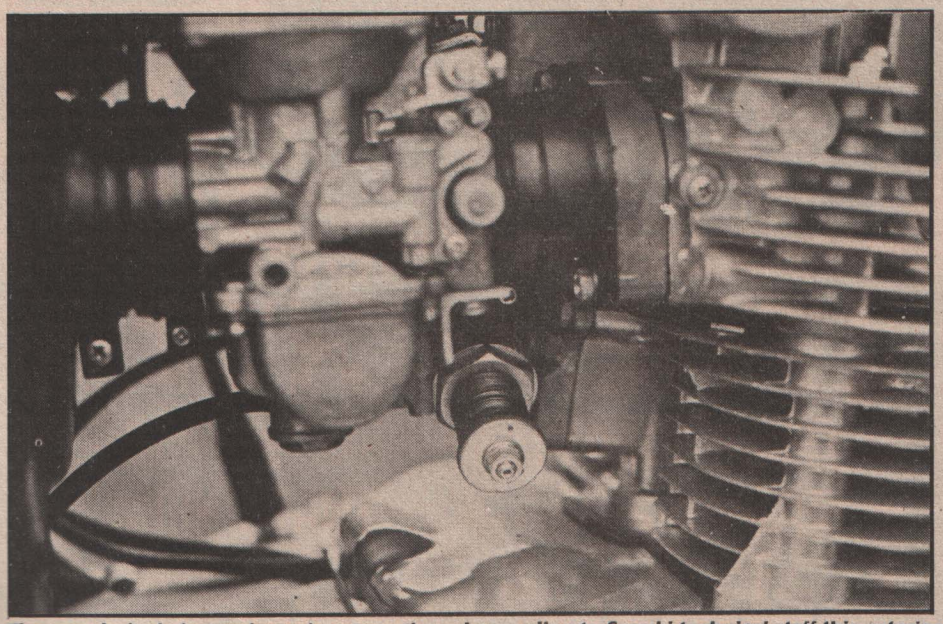
The almost flat handlebars gave a semi-sporting riding position which suited brisk touring speeds and the overall feel of the bike inspired confidence to the extent that it was fun to lock the back wheel and let it slide out while doing brake tests.

The brakes are what has become the almost classic set-up of front disc and rear drum. The front disc on this model was prone to slight squealing, but this was only a minor irritation.

Bidding for sales in a tighly knit group of 400cc competitors the electric start Suzuki stands out as the winner in the fuel consumption stakes, otherwise this pleasant and viceless model mixes it with the rest. Probably brand loyalty or its styling will be the next salient point for a potential owner.



Neat, uncluttered instrument console. Rev limit is indicated by red indices starting at 9,000rpm.



The camshaft chain tensioner is automatic and according to Suzuki technical staff this exterior arrangement acts only as a visual check.

Below: Trying for a standing quarter time at a Santa Pod Raceway open practice day.