

Honda v Jawa - moped test

Mopeds do not vary much at all. With a maximum speed limit in Britain of 30 mph and a 50 cc engine, a designer's options are strictly limited. One of the most popular is the Honda Express; it was also one of the first of the new generation of small-wheeled, pedal-less mopeds. On the other hand, the Jawa Nippy - one-time Freewheeler - is one of the old school with big wheels, pedals and all.



Ed Baxter

To test these mopeds along the lines of the usual Profile is not really valid: there are too few points of comparison between them and the larger bikes. Instead, probably the most sensible approach is to examine each from the practical ride-to-work biker's point of view. To make the test more rigorous, we have to establish a set of criteria against which such a person would judge these machines.

In order to set up these criteria, it is a good idea to have a look at the kind of conditions in which the bikes will be used. The most obvious and most likely journey is going to be the short trip, either about town or over country roads. Whatever the situation, the average journey length is unlikely to be longer than a few kilometres. On such trips it is also likely that something will need to be carried, such as shopping, a briefcase or a satchel. So it must have adequate luggage capacity.

At the risk of offending small bike riders (engine capacity, not physical height), it is also very likely that the last he or she wants to do is continually fiddle with nasty oily greasy bits of

A very practical and modern looking machine, the Honda Express does well around the town through the traffic

engine. Therefore the machine has to be reliable and easy to keep on the road; this applies just as much to those regular maintenance chores as it does to something as frequent as replenishing the oil and petrol.

Paramount to every rider, but more especially important to the moped rider is the overall safety of the machine. It is more likely that the moped rider has had a good deal less riding experience than the average Ducati rider, so good brakes, lights and so on are even more important than usual, along with the general controllability and the handling of the machine.

Finally, in view of the fact that one of the prime reasons these little machines are seen on the roads in such numbers is their economy, such bikes should give low petrol consumption figures to justify their existence.

The changes that have occurred to both models since they were launched in the late 1970s are comparatively minor.

The Express has been given a tiny pep-up - a slight compression ratio increase, its fuel capacity has increased, ignition has gone electric, the seat is better padded and the front shopping basket has been raised above the new, lowered headlamp.

The Jawa Freewheeler won too few friends, so when it underwent a facelift its name was changed in an attempt to forget its past. Its main claim to fame is a new cylinder barrel with revised porting that gives the engine sufficient power for improved acceleration and a top speed of a fraction over 30 mph.

Unlike the Express, the change in the Jawa is mainly cosmetic, with a new paint finish, chromium-plated mudguards, a new and more powerful headlight, and the addition of a stop light activated by either brake.

On the road

In the easy starting stakes the Honda stood supreme. All that was required was about three gentle pumps on the wind-up kickstarter. With that done, and the petrol and the choke (mounted on the handlebars) on, the left hand brake lever was pulled in releasing the spring which turned the engine over and almost invariably the bike started up on the first attempt. Sophistication (for a moped) extended to an ignition switch to turn on the Honda's relatively comprehensive electrical system.

Here the Honda differs markedly from the Jawa in that it has a battery, an alternator with rectifier and coil ignition. With this system, one of the main bugbears of mopeds is eliminated: the curse of direct lighting. But more of that later.

The Jawa was very nearly as simple to start, but sometimes required a bit more effort. As with the Honda, the bike was left on its centrestand and either a swift kick with the pedals got it going, or if it was feeling stropky, a few seconds spent pedalling (at some considerable effort) up the road had it coughing into life.

There is no ignition switch on the Jawa and effectively all that prevents it from being stolen is a steering lock on the steering head. Both the bikes, however, are so light and portable that the potential owner would be well advised to keep them chained to a solid object when they are not in use.

As both machines have such small engines, they both warmed up equally fast and gave peak power quite promptly. The power available from



The front end of the Honda boasts an ignition key, large size controls and a useful rear view mirror



A useful addition to the Honda is the shopping basket held just forward of the bars over the extremely efficient horn

the bikes' engines is on tap simply through a tweak of the right wrist. Activating the throttle causes the engine to speed up so that the centrifugal clutch blades start to fly out, and the bikes gradually move off. The word gradually cannot be too highly emphasized. To be fair, neither of the bikes are designed to be fast, but the lack of acceleration from this type of machine can not only be frustrating but also compromise the rider's safety.

Almost any regular rider of this type of machine will be able to recount stories of hazardous rides resulting from the lack of ability to move off promptly. But this lack of acceleration, which is a general criticism of all mopeds, is a sad fact of moped life.

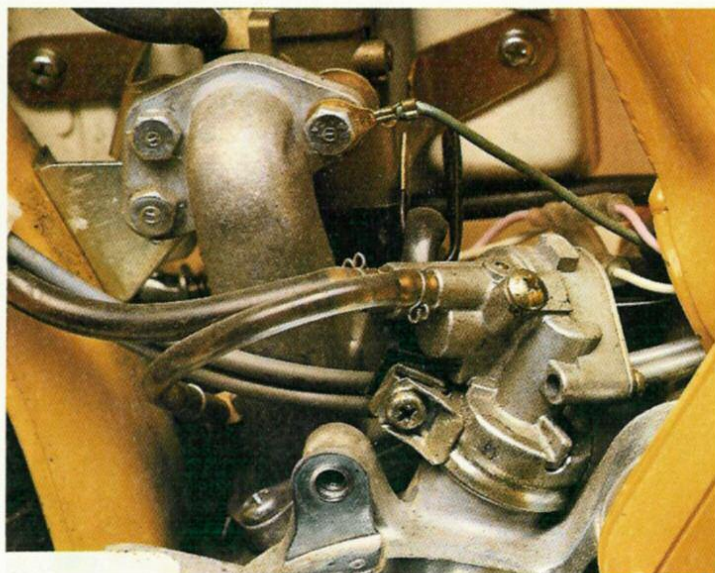
On the quickest-off-the-line test, the Honda won, moving noticeably faster than the Jawa. But with energetic pedal

assistance for the initial move on the Jawa, it had the edge on the Honda. Sometimes, members of the test team found themselves giving the Honda a bit of help by either launching the bike with a double-legged shove or a bit of careful scooting with one leg until the machine gained enough velocity to allow the engine to give better acceleration. After the first few yards, both machines had enough revs up to force the automatic clutch fully home allowing the engine to give all its drive direct, without wasting any power. At this point both the bikes had an almost reasonable degree of poke though the opinion of the test team was that the Honda tramped all over the Jawa at the intermediate acceleration phase, around 25 km/h (15mph).

Towards their top speeds, both the bikes very quickly and plainly ran out

of steam. This was more evident with the Honda as it seemed that it had potentially more power to give compared with the Jawa. In the UK there is a restriction on the top speed of mopeds and it seemed clear that the Honda is artificially tuned down to comply with this. The Jawa however just seems to wheeze gradually up to its top speed and did not give the impression that tuning would make it go any faster. Top speed comparisons revealed that there was little to choose between the bikes though the Honda just had the edge at almost exactly 48 km/h (30mph) while the Jawa never came near to breaking the UK urban speed limit.

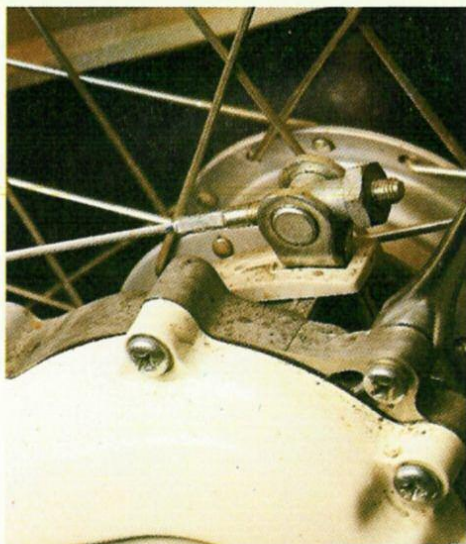
At full speed, engine noise on both bikes was minimal and though the Honda had a more pleasant note it was perhaps a shade louder than the Jawa.



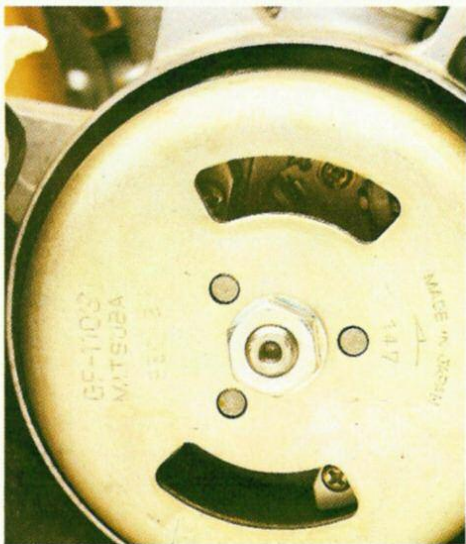
The carburettor and the oil pump of the Honda are neatly hidden under an easily removable panel near the seat



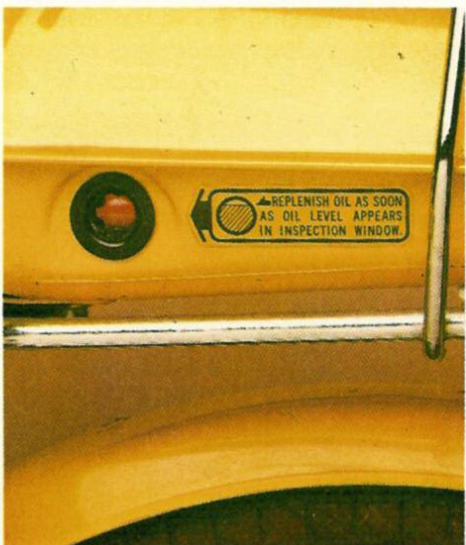
The Honda's fuel tank is neat looking but not very large. The black plug at the rear is for 2-stroke oil



Brake adjustment on the rear of the bike is very simple, being performed by the nut on the brake rod



Just accessible through the upper slot are the Honda's points. The owner's manual does not cover adjustment



As the instructions say, the oil must be topped up when the level appears in the window on the tank's side

Other noises from the machines were quite different. For a start, the Honda's final drive is fully enclosed making it almost inaudible whereas the Jawa, which has two exposed chains flapping around, one of them rather crudely tensioned by an adjustable pulley wheel, made quite a din. Other noises, including those from the horns, also differed widely. The horn on the Honda produced a very respectable blast, startling drivers and pedestrians more used to the kind of sick bee buzz given off by the Jawa's hooter. The battery on the Honda obviously allows the designer more power to play with and therefore the horn can be made reasonably loud.

The brakes on both machines were of a high standard, with the back brakes giving exceptional stopping power. The Honda again scores here because both the front and rear brakes have a stop light switch which gives warning to following motorists that the bike is slowing down. The Jawa, however, has no stop light at all.

With full brake application it was possible to lock up the rear wheels on both bikes, but unless a rider shows complete disregard, the tyres should never lose their grip on the road. The effect of the different types of rubber compound was never noticed. Generally though, the Jawa was thought to handle better than the Honda. The main reason for this was that it had bigger wheels which gave it more ap-

parent stability than the Honda. Also, the head angle on the Honda appeared to be rather shallow. In fact the Honda could get a bit unstable at the top of its speed range while paradoxically feeling better at very low manoeuvring speeds. Sometimes, on taking one hand off the bars to make a signal, the induced wobble felt unnerving, though without actually making the bike feel uncontrollable.

If either bike were leaned over to any great extent, nothing untoward happened – unless, on the Jawa, the rider had forgotten to raise the foot pedal out of the way of the tarmac, in which case it would dig in, throwing the bike off line. No such problems occurred with the Honda where the fixed footrests were secure and had a 'proper bike' feel.

Also on a par with bigger bikes were the Honda's lights. The headlight gave out a reliable penetrating beam that did not fade into a gloomy flicker when the machine was slowed to a tickover. This is the advantage of having a comprehensive electrical system on a machine of this type. The Jawa, with its direct lighting, had lights which would fade away to virtually nothing when the bike was stationary. This is not a good arrangement, especially when the bike is in the middle of the road waiting to turn into a side road.

The utilitarian Jawa Freewheeler is finished in blue, with typical moped styling. It performed acceptably

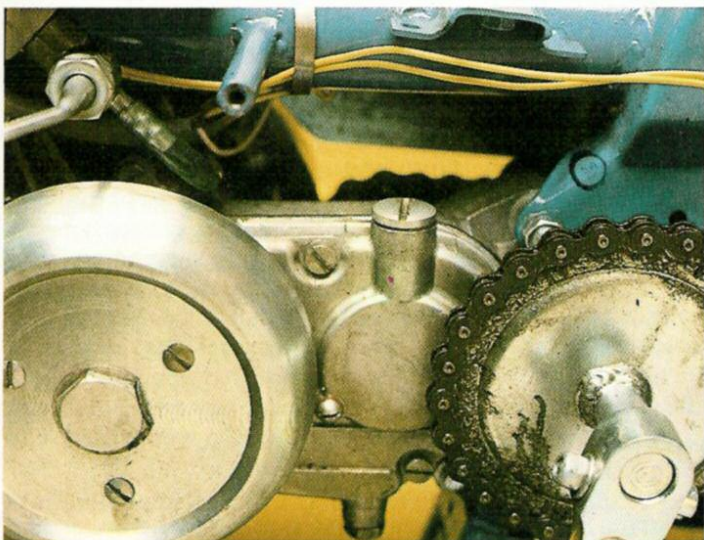




The Jawa's speedo is set in the headlamp shell. Round the tank filler is the felt pad of dubious value



Despite its small size, the front brake was efficient and managed to stop the bike and rider with reasonable effect



The little plug on the Jawa is for the transmission oil. The wiring harness on the bike looks like an afterthought

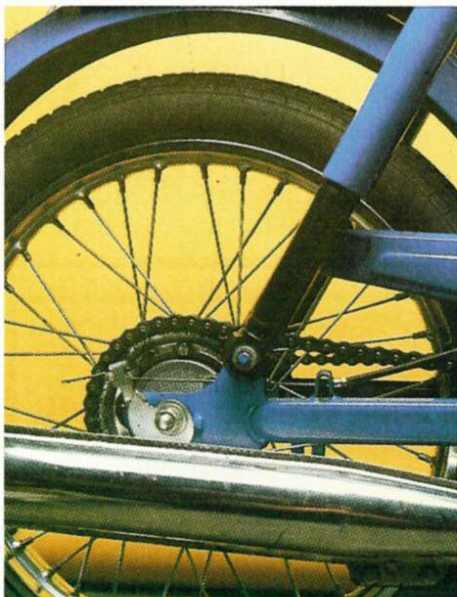


At the rear of the Freewheeler is the carrying rack, which lacked convenient purchase points for attaching luggage elastics

The Honda, however, is rather an exception in the moped field but in the light of modern technology there is no reason why other manufacturers cannot follow this lead.

In fact, all round, the Honda has much more useful and usable equipment than the Jawa. The controls, for instance, were large and easy to use and almost as good as those found on some larger machines. The switchgear too, protected in sturdy alloy castings, was up to the usual high standard of Honda.

Also the Express has separate fuel and oil tanks, as it has an oil injection system, neatly contained in one unit. The Jawa, which is a petrol mix bike, requires the rider to mix up the correct oil to petrol ratio in the tank. This means that the rider has always to carry a bottle of 2-stroke oil when the bike needs filling unless they are lucky enough to find a petrol station that has a 2-stroke dispenser. On the Honda all



Silencing on the Jawa was taken care of by a chromed muffler which was a little quieter than the Honda's

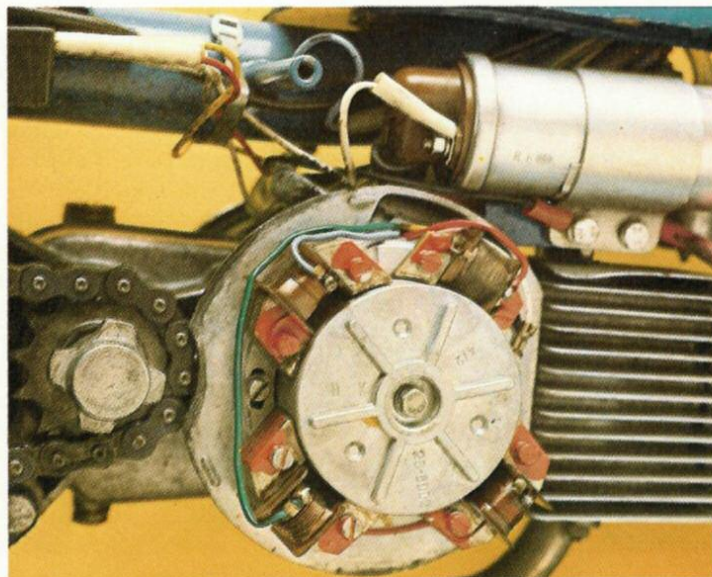


The rear chains of the Jawa needed very frequent attention, but fortunately the adjustment is easy



Ed Baxter

The steering lock was flimsily made and if care was not taken could easily fall out when not in use



Under a quickly removable panel is the generator and the pick up for the ignition system of the Jawa spark system

you have to do is to fill up the oil tank when the level window shows clear, and keep the petrol tank topped up. The fuel tank, unfortunately, is rather small and the reserve tiny so a close eye has to be kept on the level. The overall range of the Honda is not much above 80 km (50 miles). The Jawa has a reasonable sized tank for a moped and the range is considerably higher at about 150 km (94 miles). But then again, it is such a fiddle to top up that this does not compensate for the Honda's lack

of capacity.

The Express we tested scored over the Jawa on carrying equipment, as it had a handy and reasonably sized shopping basket on the front and a small grid on the back above the fuel tank. The Jawa only had a rack over the rear wheel, poorly provided with clipping points, behind the rather uncomfortable and insecure saddle. The saddle on the Honda was reasonably well padded but on one occasion, after being left all night in the rain absorbed

some water and made the subsequent ride rather uncomfortable.

Perhaps where the bikes differed most was in the overall standard of finish and in the quality of the manufacture. The manufacturers of the Jawa have set out to make the cheapest machine on the market. In succeeding, however, they have produced a bike that does not look as if it will either last very long or give very reliable service. In their case it seems to be simply a case of 'you get what you pay for'. No doubt, there are some people who will have to buy the machine because it is all they can afford. The extra you would have to pay for the Honda is not all that much and you get so much for the money.

Towards the end of the test, the clutch broke on the Jawa and during the test, we found it necessary to adjust the

Service data

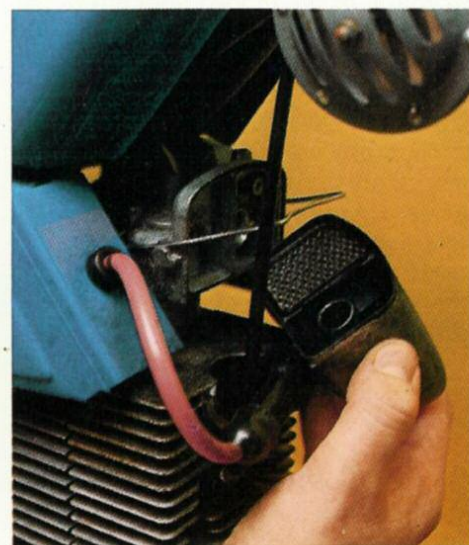
	Jawa Freewheeler	Honda Express
Plug type:	NGK B4H	NGK BPR4HS
Plug gap:	0.6 mm (0.024in.)	0.6-0.7 mm (0.024-0.28in.)
Contact gap:	Not applicable	0.3-0.4 mm (0.012-0.016in.)
Timing:	1 mm BTDC	18° BTDC
Engine oil:	2-stroke oil	Honda 2-stroke oil
Transmission-oil:	SAE 80W	SAE 10W/40
Tyre pressures:		
Front:	2.0 kg/cm ² (28psi)	1.5 kg/cm ² (21 psi)
Rear:	2.5 kg/cm ² (35psi)	2.0 kg/cm ² (28 psi)

Performance

	Jawa Freewheeler	Honda Express
Top speed:	45 km/h (28mph)	48 km/h (30mph)
Maximum power:	2.0 bhp	2.2 bhp

Fuel consumption

	Jawa Freewheeler	Honda Express
Average:	39.3 km/l (111mpg)	42.8 km/l (121mpg)



The Jawa's air filter is held on by a spring clip. It is located below the puny horn above the spark plug cap

chains at very regular, almost daily intervals.

For some peculiar reason, on the Jawa there is a patch of thick felt surrounding the petrol cap. It is there, presumably, to absorb any spilt petrol. The fact that there is, or could be, a piece of petrol soaked felt exposed on the machine can only be considered odd if not dangerous.

Otherwise, the bike shows general signs of having been skimped over, unlike the Honda. If there is a reputation to be lost in the moped market then Jawa could well do it with the Freewheeler, unlike Honda who have a good name for small bikes as well as large ones and who, by and large, keep it up with the Express.

In the workshop

The test teams were beginning to despair of finding something good about the Jawa. But it seems that the bike, when working properly, should be easier to maintain than the Honda. It has a good tool kit and all regular tasks should be simple to perform, especially as it has transistorized ignition.

Also, the Jawa chain is very simple to adjust – though this is just as well, considering the frequency with which we had to perform this chore.

Both bikes have front and rear suspension; the Honda, however, has only a single strut at the rear making it very easy, once the exhaust has been removed, to take off the rear wheel. The fully enclosed drive of the Honda reminded the team of the type employed on some scooters. The bike has in fact got a proper swinging arm – that is, a single rear arm instead of a fork.

Summary

Two different design and manufacturing philosophies clash at this point: while the Jawa Freewheeler/Nippy is much less satisfactory to ride and appears to require a deal more owner attention, it is very robustly constructed; and compared with it, the Honda Express looks delicate and very well finished although tough enough to carry the heaviest adult without protest. But it is without any idiosyncrasies and can be used day in, day out – like a bicycle, in fact.

It could well be that it would pay an Express owner to handle his moped with slightly greater care than a Nippy owner would.

On the other hand, the Nippy owner should expect to invest more time in maintenance in mechanical and anti-corrosion activities.

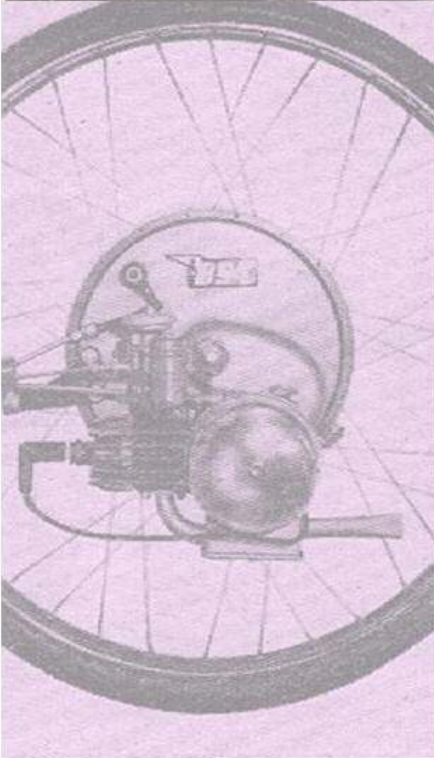
Technical data

Engine	Jawa Freewheeler	Honda Express
Type:	Air cooled 2-stroke	Air cooled 2-stroke
Bore:	39 mm	40 mm
Stroke:	41 mm	39.6 mm
Capacity:	49 cc	49 cc
Lubrication:	Petrol	Oil injection
Compression ratio:	7.5:1	7.3:1
Transmission		
Type:	Single speed automatic	Single speed automatic
Clutch:	Centrifugal	Centrifugal
Final drive:	Chains with split link	Enclosed chain
Frame		
Type:	Tubes and tank	Large diameter tube
Front suspension:	Sprung forks	Sprung forks
Rear suspension:	Swinging fork with shocks	Single swinging arm
Overall length:	1,750 mm (70in.)	1,550 mm (61.0in.)
Overall width:	673 mm (26.5in.)	600 mm (23.6in.)
Wheelbase:	1,114 mm (45.3in.)	1057 mm (41.5in.)
Dry weight:	42 kg (92.6 lb)	45 kg (99 lb)
Front brake:	SLS drum	SLS drum
Rear brake:	SLS drum	SLS drum
Front tyre size:	2.25-16	2.25-14
Rear tyre size:	2.25-16	2.25-14
Electrical		
Ignition:	Transistorized	Points battery and coil
Generator:	Tranzimo	AC generator and rectifier
Battery:	–	6 volt 2 AH
Headlight:	Direct lighting	18/18 watt
Capacities		
Fuel tank:	3.0 litres (0.7 Imp. gal)	4.5 litres (1 gal)
Oil tank:	–	0.8 litres (1.4 Imp. pt)
Transmission:	0.28 litres (0.5 Imp.pt)	0.75 litres (1.32 Imp. pt)

Handling characteristics

Jawa Freewheeler	(Marks out of ten)
In slow town traffic	8 Good enough about town
Manoeuvrability in traffic	8 Narrow enough for all needs
Braking in the dry	8 Good drums
Braking in the wet	8 Just as good
High-speed cornering	– not applicable
Rough road cornering	6 Bounced about a bit
High-speed motorway	– not applicable
Country cruising	– not applicable
Two-up touring	– not applicable
Honda Express	(Marks out of ten)
In slow town traffic	9 Very willing
Manoeuvrability in traffic	10 Small, slim and light
Braking in the dry	9 Excellent and secure
Braking in the wet	9 As good as in the dry
High-speed cornering	– not applicable
Rough road cornering	7 Suspension coped well
High-speed motorway	– not applicable
Country cruising	– not applicable
Two-up touring	– not applicable

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