

THE new *Honda CM 90* is a worthy big brother to the fantastically popular *C 100*. It certainly bears more than a passing family resemblance and could even be mistaken for the smaller machine at a distance.

The model we had for testing was finished attractively in grey and off-white with the usual HONDA flair for using plastic to advantage. The protective fender and legshields are in a flexible plastic whilst front mudguard and sheeting used as protective covering is more rigid. 17 inch Japanese tyres are fitted as standard but these can now be replaced with those of British manufacture.

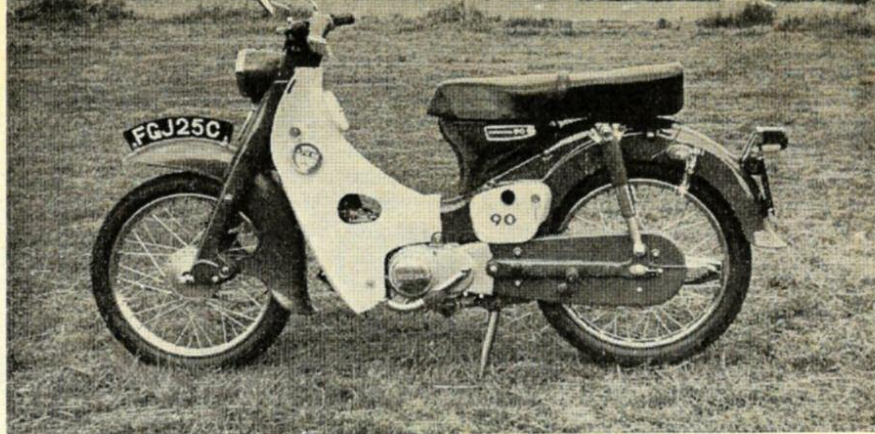
The plastic legshields are well designed to enclose all working parts and are fitted with blue reflectors to left and right, both inside and outside. These reflect a clear *white* light. Small apertures in the fender section of the legshields gives easy access to petrol tap and choke lever.

Three-speed gear rocker is fitted to the left and a folding kickstart and comfortably placed foot brake on the right. Oil filler cap incorporating a useful dipstick is located just above the kickstart. The plastic boxes located on the casing behind the main engine unit contain; on the right, battery and rectifier and on the left a really comprehensive tool roll complete with spare sparking plug. The left hand box also houses the ignition lock with external access for the key. Both boxes are held securely in place by long threaded spindles with serrated knobs making for ease of access.

The well sprung dualseat lifts back giving access to the petrol tank fitted just below and a well designed petrol cap gives positive closure with half a turn. The dualseat is held securely in position by a strong spring clip which is released with a slight tug. Direction indicators are fitted to the sides of the metal rear mudguard and bringing up the rear is the number plate and rear light/stop light fitting which is the only clumsy looking piece of equipment on the whole machine.

Power unit

Power for this new model is provided by the quite remarkable overhead valve, single cylinder, air cooled four-stroke *Honda* engine with a cylinder capacity of 86.7. Bore and stroke are 49 x 46 mm. with a compression ratio of 8.0 : 1. Transmission is three-speed with constant mesh gears and



return change. The wet, multiple plate clutch is fully automatic. Fuel tank capacity is claimed to be 1.2 Imperial gallons with engine oil capacity at 1.6 Imperial pints.

Starting

Starting the *CM 90* really is child's play. Just turn the ignition key to the first position and, provided the machine is not in gear, the neutral indicator comes on. Turn on the petrol tap and one stroke of the kickstart will have the machine purring comfortably. In cold conditions a few more kicks are required but a machine like this is a pet, not a monster, and will not kick back. This enables the kickstart to be operated with a full smooth stroke. Hasty little kicks only encourage the kickstart to fly back into its folded position and it is surprising how painful can be a hard stamp on a solid road!

First gear is engaged by a downward press of the left heel and, as with other automatic clutch machines, the throttle should only be used when you are ready to pull away. A gentle touch of throttle will set the machine rolling then, as neutral is between first and second, two jabs with the toe takes you into second and one more for top. The *CM 90* will, in fact, pull away in any gear but efficient use of the gearbox makes riding much easier. The engine demands a very speedy change up from second to top and HONDA obviously realize this as the speedo is marked "top" from the 12 m.p.h. mark.

Given fairly quick gear-changing, the *CM 90* has a very fast get-away and will reach 45 m.p.h. with ease. Anything over this speed does need a steady build-up.

Performance

We tested the new *Honda* over getting on for 1,500 miles which is a pretty good test for any machine. Over this

HONDA CM 90

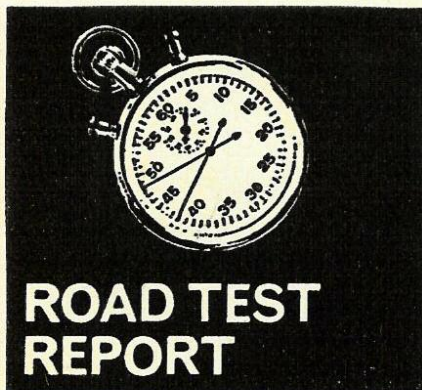
*New Japanese
machine tested
by John A. Cade*

distance we were able to put the *CM 90* well and truly through its paces in every possible condition. Good roads, bad roads, motorways and miles of major roadworks in heavy rain, thick fog and even the occasional sunshine. In every condition this scooterette behaved superbly. Top speed was 53 m.p.h. on the flat and slight gradients made precious little difference to this performance.

On really long steep hauls top speed dropped to around 40-45 m.p.h. although the machine often started building up speed as it climbed—rather like a pedal cyclist getting second wind. Opened up fully on a steep downward gradient, the *CM 90* reached just over 57 m.p.h. but at this speed the engine held the machine back and it could not give any extra push.

Riding two-up this model still gives good performance but the passenger knocks between 5 and 10 m.p.h. off the top speed. Although ideal in town conditions, the *CM 90* really comes into its own when medium distance travel is required. The extra power and general comfort makes it more

uitable than the 50's for longer distances and the satisfying turn of speed leaves those miles behind before one has a chance to become really bored. We found that average time for a regular 20 mile journey was about 40 minutes. This distance included a fair share of snarled up traffic, steep hills and traffic lights so is a pretty fair average for this sort of distance. In these conditions any higher speed could rarely have been used to ad-



vantage and the cruising speed of 45 m.p.h. was found to be ideal.

Brakes

With its motor cycle sized wheels, this *Honda* will take corners fast and in perfect safety. Despite this, I would have been a lot happier had the machine been fitted with British tyres. This is a simple matter of confidence in the product and the Japanese tyres never gave the slightest cause for complaint.

Brakes are adequate but I would personally prefer them to be a little more powerful particularly when carrying a pillion passenger. In the worst possible conditions, riding two-up downhill at high speeds, just a little extra care was needed but once you get used to this mount this is no real problem.

The riding position is really comfortable and, compared with some machines, this is like riding in an arm-chair. The dualseat is well sprung and extremely comfortable when riding solo. With a passenger, however, the seat seems to slope forward pushing both rider and passenger weight towards the handlebars. Little notice is taken of this over short distances but on a longer trip can make the rider's arms ache and so impair his efficiency.

The springing enables most dips and bumps to be negotiated in maximum

comfort but a series of bumps will give the machine a sort of yo-yo effect which can be a little disconcerting at first. We found that all the controls were easy to operate and had the usual Japanese flair for smart and practical design. The electrics are a treat with ignition, lights, indicators and stop-light all working efficiently. The horn is a little farcial and, although it works well enough, could do with a good deal of pepping up. The fact that this is so with many two-wheelers does not excuse *Honda* who pride themselves on their electrics. Only other complaint in this direction is that the flashing indicators switch is not very positive when wearing gloves. It may have been better to fit the switch to that it operated from left to right instead of up and down. As it is, there is a tendency to by-pass the "off" position and turn on the indicators on the other side.

Legshields are sleek and quite efficient but, had they protruded another couple of inches, would have given complete protection without the need to ride knock-kneed in the wet. Obviously this would have increased wind resistance a little but it would be worthwhile.

Conclusion

Riding the *CM 90* hard, petrol consumption was just over 100 m.p.g. and couple to this the fact that only half a pint of oil was used in 1,500 miles. Obviously this is an economical work-horse for daily use. During the test the machine needed no attention at all and the lack of accessibility to working parts seems to shout, loud and clear, that servicing requirements are likely to be few and far between.

Apart from the few minor complaints outlined above, we are satisfied that this is one of the finest little models on the market today. In view of this, it is hard to understand the exaggerated claims made by *HONDA* themselves. Some of their initial publicity claimed a cruising speed of 50 m.p.h. with two-up. This is nonsense, as is the claimed petrol consumption. Another point that appeared in one of their handouts was reference to a reserve tap. This would have been very useful but there is none—if there is, we would like *HONDA* to explain where to find it! When you have as fine a machine as this, exaggeration is quite irrelevant.

The *Honda CM 90* was introduced to provide direct competition with the

Italian scooter market in this country but we cannot see that it will have much import in this direction other than the 100 cc. market. However, it will be a natural step-up for all those now riding the *Honda 50's* or contemplating a purchase. It really is worth every additional penny.

SPECIFICATION:

ENGINE: OHV, single cylinder, air-cooled 4-stroke. Bore 49mm. Stroke 46mm. Capacity 86.7 c.c. Compression ratio: 8.0:1.

FRAME: Monocoque. 1.2 gallon tank. Overall length 72.3 ins. Overall width 22.5 ins. Overall height 38 ins. Ground clearance 5.9 ins.

SUSPENSION: Oil damped front springs and rear swinging arm.

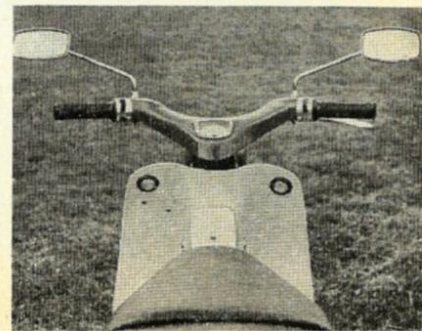
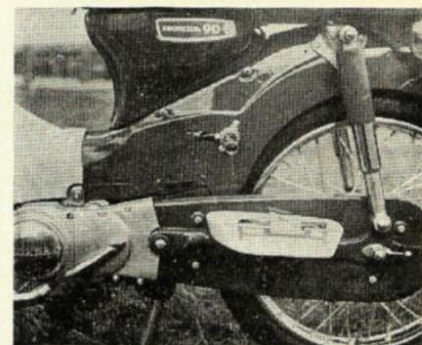
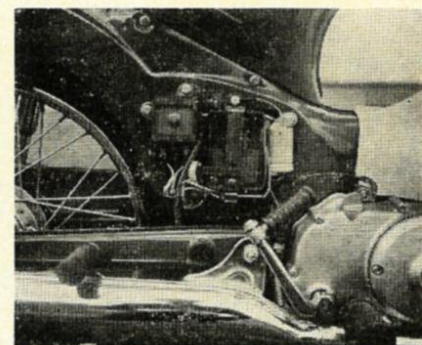
TRANSMISSION: Wet multiple plate automatic clutch. Constant mesh 3-speed gearbox, foot change.

WHEELS: Tyres, 2.50 x 17.

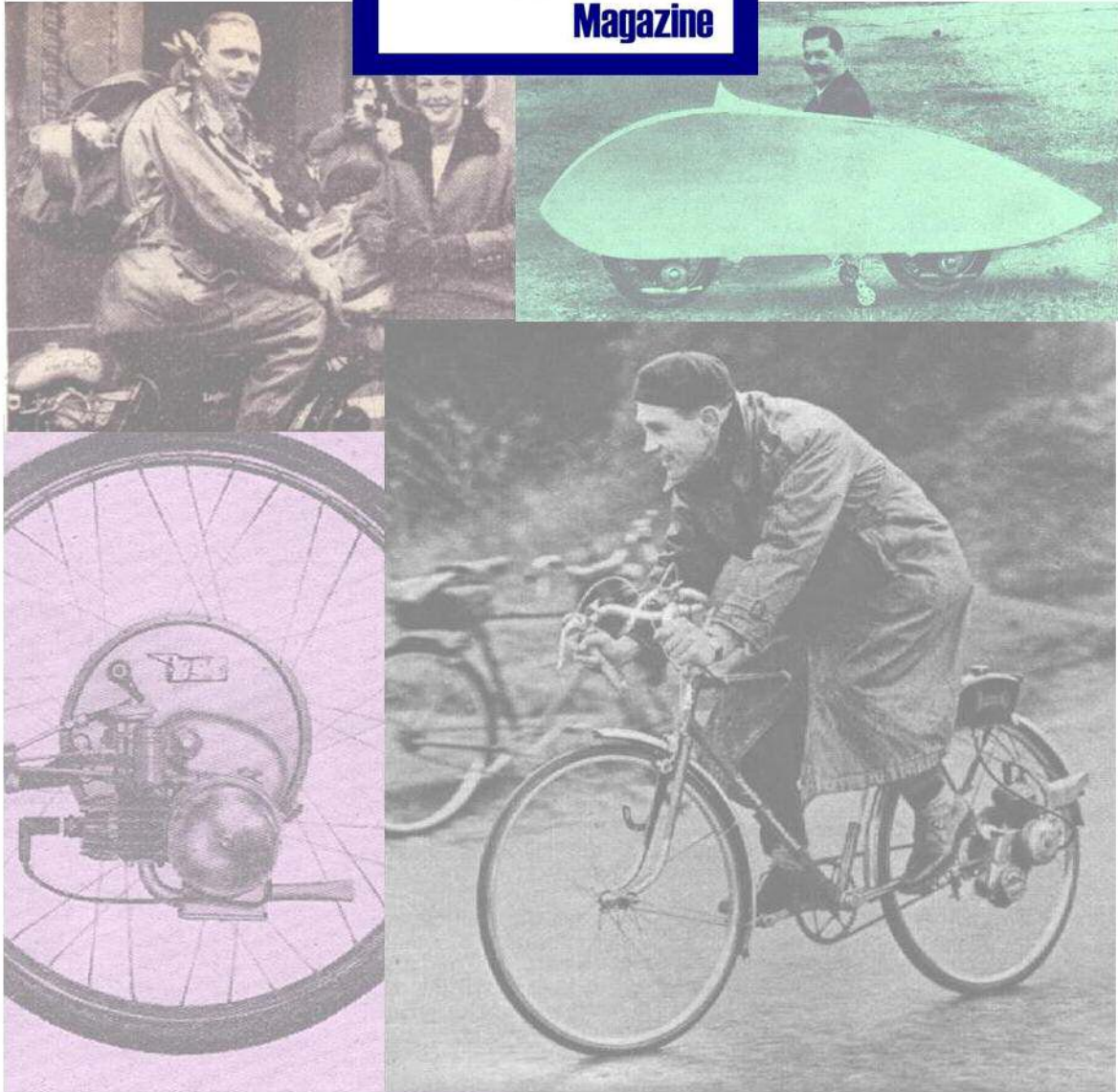
ELECTRICS: 6 volt, 6 a.h. battery. 25 watt lights. Ignition, horn, indicators.

PRICE: £124 19s. od.

CONCESSIONAIRES: European Honda Ltd., Power Road, Chiswick W.4.



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