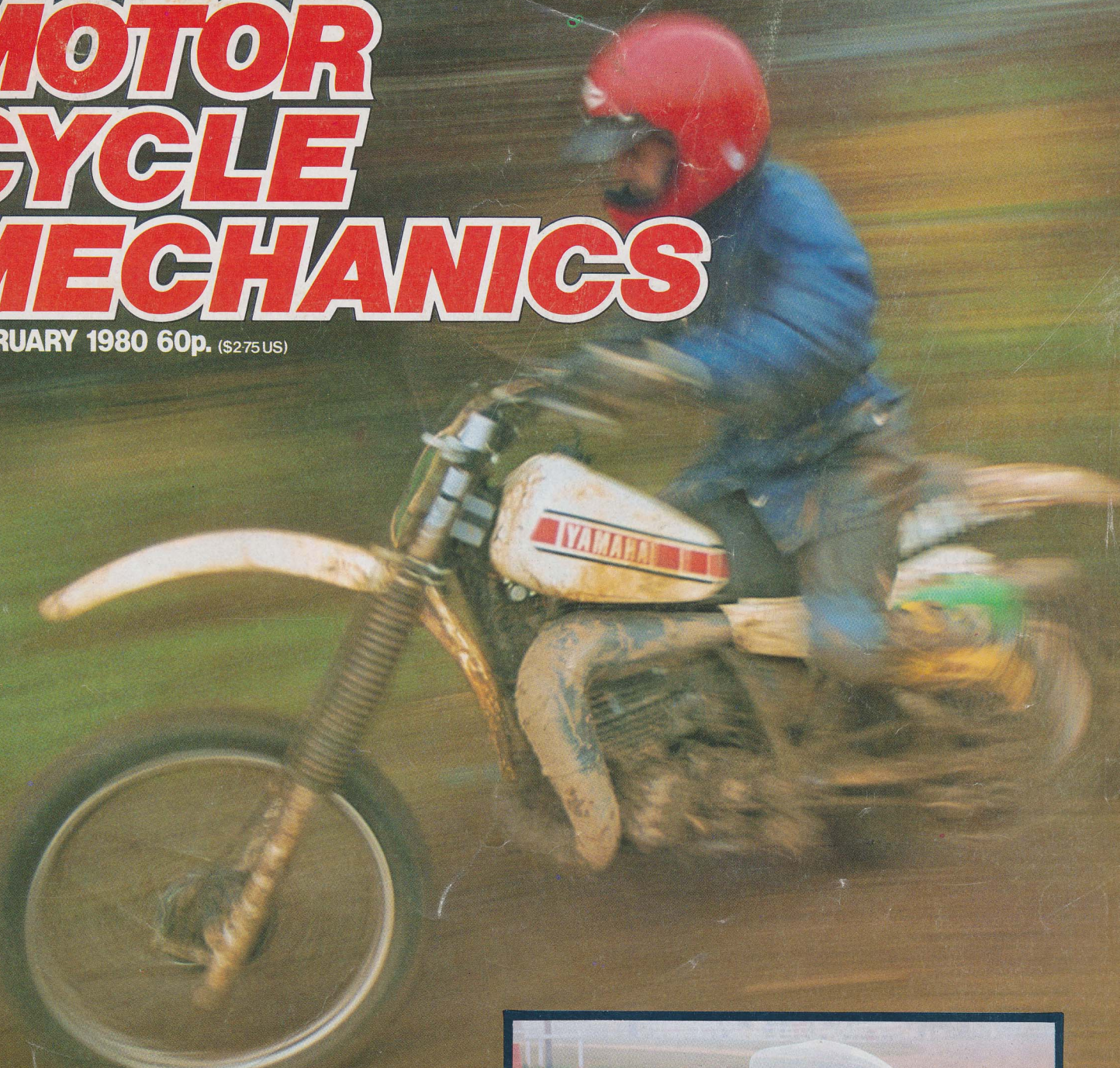


MOTOR CYCLE MECHANICS

FEBRUARY 1980 60p. (\$2.75 US)



Yamaha's wild ones

LIGHTING-
our critical survey

Kawasaki's workaday
wonders



143mph Honda 900FZ tune-up

Kawasaki's workaday wonders



The battle for the lightest end of the market must be serious for Kawasaki, smallest of the major manufacturers, to be producing four separate models. For safe performance in traffic, these 100cc machines represent the smallest practical engine size; they also offer the minimum in insurance rates and general running costs.

Fitted with similar, but not identical, 99cc two-stroke engines, the Kawasakis feature disc valve intakes and are lubricated by separate oil injection systems. The motors have the same 49.5mm bore and 51.8mm stroke, differing mainly in exhaust systems, compression ratios and detail design.

With claimed outputs ranging from 8.5 to 12bhp, these bikes are good for around 60mph, and a little more in favourable conditions. They also have reasonable low-speed acceleration which lets them keep up with the general flow of traffic. The most

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MCM
Supertest

Kawasaki's workaday wonders

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noticeable points in their favour were reliable starting, hot or cold, and their fuel economy.

In addition, the single cylinder lightweights are pretty easy to work on and should need minimal servicing.

Apart from minor engine differences, the four bikes are distinguished by totally different styling and trim. The basic roadster, KC, is very basic and much cheaper than the others. The KH is also a roadster but built to a higher specification. Both the KE and the KM have off-road, trail bike styling, the KM being a 170lb mini-bike which is small enough for a child to handle yet just big enough to carry an adult.

In free-flowing traffic the bikes begin to suffer from their lack of cubic inches. To avoid being blown into the gutter it is necessary to work the motors flat out, and overtaking long vehicles can be less than easy. By the time the bike had drawn level with the cab of an artic, the truck was often travelling as quickly as the bike. And the sudden blast of wind when pulling out of a truck's slipstream could overcome the little engine, leaving the bike without enough power to overtake.

All of the machines suffered minor discomforts from vibration and from their lack of size which makes them rather cramped. Two of them suffered electrical failures which suggested that the electrics are only just up to the job. On each machine the

generator provides power for ignition and direct lighting to the headlamp. The rest of the equipment is fed from a small battery and it was this part of the circuit which gave trouble.

It seems that heavy use of the electrics — using daytime lights or frequent use of the indicators — could cause the battery to run down. Indicators are a good monitor of battery condition and on the Kawasakis they would often flash irregularly or not be bright enough to compete with direct sunshine. The headlamps were just about up to the bikes' performance.

Low-powered, lightweight machines don't usually have handling problems and there were no complaints about the Kawasakis' roadholding, although the steering on the KE felt a bit notchy, as if the bearings were too tight. The suspension was fairly rudimentary and, on the KM and KC, gave quite a bouncy ride.

Braking caused the biggest complaints on all the machines. At speeds below 40mph the brakes were acceptable — but not up to the stopping power of most cars and bigger bikes. Above 40mph the brakes got progressively worse.

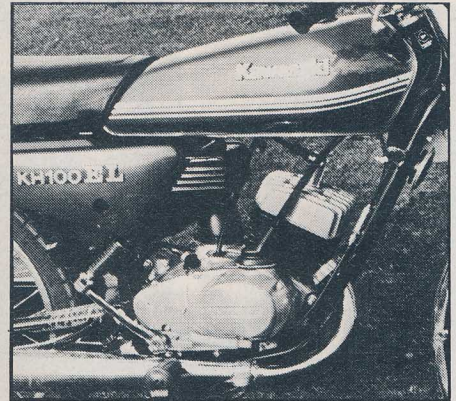
Both of the roadster models had full chain cases fitted and didn't need any chain adjustment, while the exposed chains on the trail bikes soon went slack.

In many ways the 100s represent the bare minimum, especially if you enjoy riding bikes as opposed to simply using them to get around traffic and parking problems. But, used with some care, they can give reliable and economic commuting. The "best" mpg figures were taken over long runs at a gentle 30 to 35 mph; the bikes were also ridden flat against the stop to get the "worst" figures.

Other points like comfort and passenger-

carrying were marginal; there is room on all but the KM for a passenger but it flattens the performance. Comfort vanishes steadily after more than half an hour in the saddle.

Spares and service is one last point worth considering, especially on a bike which will presumably be needed every day. Kawasaki used to have what was arguably the best back-up network, mainly because it was a smaller network selling fewer models and because Kawasaki UK insisted that their dealers did not sell other Japanese machines. So although there weren't so many Kawasaki dealers, they did tend to be specialists and had room for decent spares stocks, special tools and training for their staff. It was one reason for recommending



The KH100 has the most powerful engine and a forward-leaning riding position





The Kawasaki KM100



The Kawasaki KC100



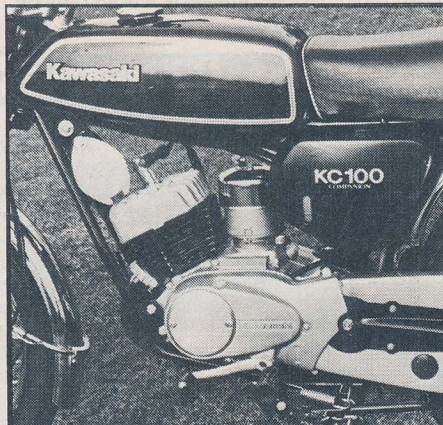
The Kawasaki KH100



The Kawasaki KE100
FEBRUARY 1980

Kawasaki machines, all other things being pretty well equal.

But in an effort to get more exposure for their bikes and to increase sales, Kawasaki UK have decided to let their lightweight machines be sold by non-specialist dealers, effectively setting up a sub-dealer network. While this means that it will be easier to get a small Kawasaki, it also means that the customer will not be getting the same, specialist attention. We've already heard complaints from readers about spares availability. It doesn't necessarily mean that Kawasaki will be any worse than the other manufacturers, just that they used to be better and now they are in danger of losing this advantage.



Kawasaki's KC100 Companion is the economy workhorse of the range

KH100 A4

£459

61 to 143mpg

65mph

tank range 134 to 315 miles

tank size 2.2 gal

claimed output 12hp at 8000rpm

8.1lb ft and 7500rpm

dry weight 201lb

What is presumably the top of the range model, although it is cheaper than the KE, the KH100 has the most powerful engine and a lot of chrome trim. It is also heavier than the other roadster model but the most noticeable difference is in the riding position.

Its low handlebars give a leaning-forward attitude which emphasises the smallness of the bike and makes for a more comfortable ride. It also seemed to have better suspension, with firmer damping although it was hard to tell whether this was entirely due to the dampers or if it was partly because the riding position allowed the rider to roll with the bumps instead of being jolted against them.

The KH gives slightly more power than the others and, more to the point, it was accurately geared. Ironically this didn't show up in the speed runs because the bikes were helped by a slight tail wind. But the KH would still pull top gear riding into the wind and would hold something close to 60mph, while the KC was struggling to reach 50mph.

A fully-enclosed chain isn't listed as standard equipment but our KH had one fitted

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Kawasaki's workaday wonders

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as an optional extra and it seemed to be a worthwhile addition. It also has shrouds over front and rear springs and, to emphasise that this is the luxury model, it is covered in chrome. It's debatable whether this is a good choice — plastics would be more durable, need less attention and probably be cheaper. And that, to us, seems more luxurious than chrome which needs polishing every week.

With slightly better fuel consumption than the others and a larger tank size, the KH could go for quite long intervals without needing a petrol station. Even when ridden flat out, a tankful could last over 130 miles so for most people refuelling would only be a once-a-week affair.



The disc-valve, two-stroke unit of the off-road styled KE100A9

Comfortable cruising was in the 50 to 60mph bracket and the bike could hold this sort of speed in nearly all conditions. With accurate gearing and a less upright riding position it didn't suffer the effects of hills and headwinds to the same extent as the others.

The headlamp seemed to have a more powerful beam than the others and was certainly good enough for the bike's full performance to be used on dark roads.

The KH is undeniably a better bike than the KC and has a much more comprehensive specification. But then it costs a lot more as well.

KC 100

£369

66 to 127mpg

67mph

tank size 1.9 gal

tank range 125 to 241 miles

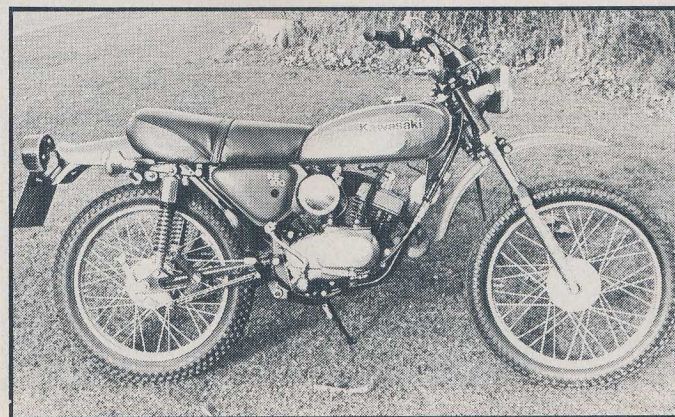
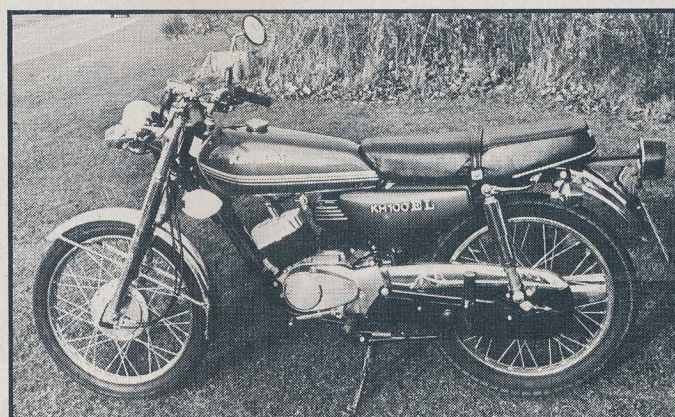
claimed output 10.5hp at 7500rpm

7.2lb ft at 7000 rpm

dry weight 181lb

The economy workhorse of the range, the KC gives a much greater impression of being built down to a price. It has less trim, is generally of a lower quality and it is lighter and less expensive than the KH.

Its non-adjustable suspension was pretty bouncy and it has high bars, giving a very upright riding position. The biggest problem for general use was that the KC gives less power than the KH and it was over-gearred. In most conditions this made the



motor very flat in top gear but during the top speed runs it was helped by a tail wind and went slightly faster than the others. Going back into the wind made the KC struggle and it was the only one which needed to use 4th gear to maintain speed.

The battery and charging system couldn't quite cope with the full load of all the electrics. After the indicators had been used several times (with all the other lights on), the battery discharged and the circuit shut down completely. The indicators, horn, tail light and brake light are all powered from the small battery and they simply stopped working. Fortunately the headlamp and ignition are independent of the battery so the machine wasn't completely stranded. The generator was charging properly and after running for a while with the lights



switched off, the battery circuit started working again.

As a very basic machine, it is only just up to the job and lacks refinements such as a locking seat — although it does come equipped with a full chain case. To offset this there is a big saving in cost; it is £90 cheaper than the KH and this alone makes it worth considering as a basic means of transport. But you'd have to be prepared to suffer the problems associated with low-grade materials and specification.

KE100 A9

£499
68 to 102mpg
65mph
tank size 1.8 gallon
tank range 122 to 184 miles
claimed output 11hp at 7,500rpm,
8lb ft at 7,000rpm
dry weight 203lb

This fairly rugged little trail bike has been around for a long time, as the A9 (the "mark" number) suggests. It also suggests that the bike has been popular enough for Kawasaki to continue updating it. While it can't be considered as a serious trail bike, it does have the power and the staying ability to venture off-road and can cope with green lane conditions easily enough.

It's for motorised rambling rather than impersonations of Dave Jeremiah but even so it injects a fun aspect into the mundane role of the commuter bike. And it still has

Left: The KM100 is small enough to be handled by a ten-year-old child

roughly the same road performance as the other 100s. It is also the most expensive of the four.

The riding position makes it feel bigger — it is actually heavier than the others as well — and this tends to make it a bit more comfortable. It also has slightly more manoeuvrability and these two factors tend to make it better for riding in heavy traffic. Its top speed and comfortable cruising speeds were identical to the KH.

It lost out on the fuel consumption tests, for no apparent reason apart from the fact that it was ridden slightly faster, roughly 35 to 40mph. Ridden flat out, it gave the same results as the others, so there didn't appear to be any fault with the machine itself.

The only complaints about the bike concerned is its braking and lighting. The brakes weren't very good but neither were the others. The lighting problem was two-fold; on wet roads the front wheel would throw up spray which went around the raised mudguard and plastered the headlamp. It only took a few miles to obscure the beam enough to affect visibility.

The other problem was a failure similar to that on the KC — all battery-powered units ceased to function.

Of all the bikes, it provides the most scope but then it costs more than the others.

KM100

£439
73 to 140mpg
59mph
tank size 1.3gal
tank range 95 to 182 miles
claimed output 8.5hp at 6,500rpm,
6.9lb ft at 5,500rpm
dry weight 170lb

The least powerful, and the lightest, the KM still pulls strongly enough to take a full size adult. It is also small enough to be handled easily by a full size child. Our resident 10-year-old was soon whizzing round happily on the KM and was mainly pleased that the gearshift was easy to use and that the KM would, if provoked, do wheelies.

The price confirms that it is a real motorcycle and not a toy; it also comes equipped with all the usual accessories. The only difference is in the KM's lack of bulk, which makes it very simple to handle but proved to be a disadvantage in traffic. The height of a normal machine gives the rider good visibility over the tops of cars but the KM is dwarfed by most vehicles and traffic jams could get quite claustrophobic.

There is no room for a passenger (no pillion rests are provided) and the cramped riding position soon got uncomfortable. This wasn't helped by the bouncy suspension and engine vibration which made the handlebars and footrests tingle. The headlamp suffered from front wheel spray in the same way as the KE.

It is nearly as functional as the more conventional 100s and, as a second vehicle it makes a useful runaround which even the kids can ride.

Left: Brian Crichton at breakneck speed on the lively KC100 commuter bike

