

The All New 750cc Four

by Dave Hetzler

I'm one of the old timers that can remember when the English motorcycles reigned supreme. If you were a member of the "in" group you rode one of the 40 inchers from across the pond. I also remember when in the late '50's the bikes from the land of the rising sun started to hit our shores the word went out, "How can anyone buy that Jap junk". Most motorcycle dealers didn't want the "stuff" in their store. They told their customers not to buy the oriental junk because it would fall apart in less than 5000 miles. We all know now just how wrong they were. On the whole it could be said the Japanese motorcycle industry is by far the most advanced cycle industry in the world. Their automation is comparable to that of Detroit and their product is every bit as good as that coming from the mid-west city.

The industry's culmination, to this point, has to be the recently introduced Honda 750cc four cylinder. Without a doubt this is the most advanced street machine ever offered to the motorcycle riding public. Five speed transmission, four cylinders mounted transversely in the frame, overhead cam, you name it, the Four has it. Whether it's the best bike ever built remains to be seen, but it wouldn't surprise us if it turns out to be.

Of course the most interesting part of the bike is the engine, four cylinders, inline and mounted transversely across the frame. For the first time in Honda's history they've gotten away from the ball and roller crank. The four has babbit bearings on both the mains and rods. The reasons for this are twofold. They wanted to use a pressure system of oiling and plain bearings lend themselves to this type of system better than rollers. The other reason for the babbits is the heat factor. Many people don't realize that oil, besides lubricating, helps to carry some of the heat from the engine surfaces and to do this the oil flow must be optimal. The oil is carried in a separate reservoir and is not, as it's reported elsewhere, the first time Honda has used this system, the early CE-71's 250's also used a separate oil tank.

The cam drive for the overhead cam is taken from between the number two and three cylinder. In typical Honda fashion the drive is an endless chain (no master link).

Because of the fact that the transmission shares the engine oil and all shafts run on rollers, it has to be lubricated on the scavenge side of the system. The cylinders are actually split into two halves, two right hand cylinders and two left hand. Between the two is the cam drive chain. The two cylinders in each half have a space between them for cooling and the Four needs all the cooling it can get. During our test we had an opportunity to pack double up some fairly steep hills and while the machine didn't even know it was pulling two, the heat radiated from the engine was enough to make the driver place his feet on the very outside edge of the footpegs.

The frame is a conventional double downtube unit that is extra hefty; the Four's engine is no lightweight at 176 pounds. During our test it didn't flex and being as strong as it is, breakage should be no problem at all.

One of the more interesting features on this machine that's loaded with new and exciting things is the disc front brake. Before I go any farther I want to say that most motorcycle manufacturers should have done this many years ago. Almost every 40 inches built today is capable of speeds faster than what its brakes can handle. With the rear brake it's not much of a problem but the front brake does 85 per cent of the work under hard braking and it's a bit disconcerting to feel the brake fade as you're using it. The Honda's unit is hydraulically operated with the master cylinder mounted on the right handlebar. The brake lever itself takes quite a bit of pressure to operate and that's a good thing. A hydraulic brake has a great deal more mechanical advantage over the more conventional mechanical unit and so it would be much easier to lock up. Locking the front wheel of a machine that weighs 480 pounds dry is an experience not to be forgotten so it's best it never happens. On our test machine the brake did squeal when the brake was applied lightly but this sound went away when the brake was used hard. We'll put up with the noise just as long as the brake works, and in this case it works - well.

With any machine eye appeal means a great deal and the Four scores here in spades. One night before the bike had been released to the public we took it down to Van Nuys Blvd., where it's happening in California, and the reception was not to be believed. Guys driving their 427 whatever, their 'Vettes, or whatever, pulled over to the side and yelled out they wanted to look at the machine. Those who wanted to race took one look at the four exhaust pipes sticking from the rear of the bike and had second thoughts. Other bike riders pulled along side and slobbered until you were embarrassed. Suffice it to say the Four is an eye catcher wherever it goes.

The only tricky thing about the Four would be the syncing of the four carbs. They're the standard round slide unit used on most of Honda's machines but getting them to work in unison could be a time consuming job.

Getting the carbs to sync is about the only tricky thing on the bike. It starts easily with either the electric or kick starter, it has turn indicators that are visible from a long distance away, the riding position is comfortable, gas mileage is good and with a five gallon tank the cruising range is over 250 miles. In short, the Honda Four is the ultimate road bike for anyone who wants that sort of thing. I can't think of anyone who wouldn't.



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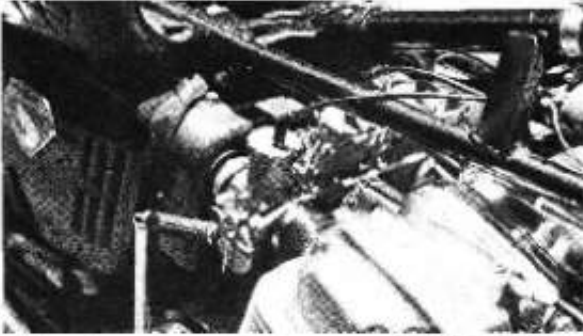
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All four carbs are rubber mounted but as smooth as this engine runs it seems to be unnecessary.

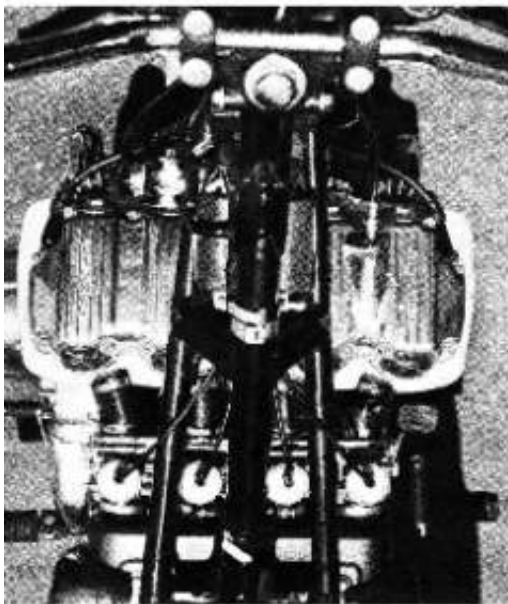
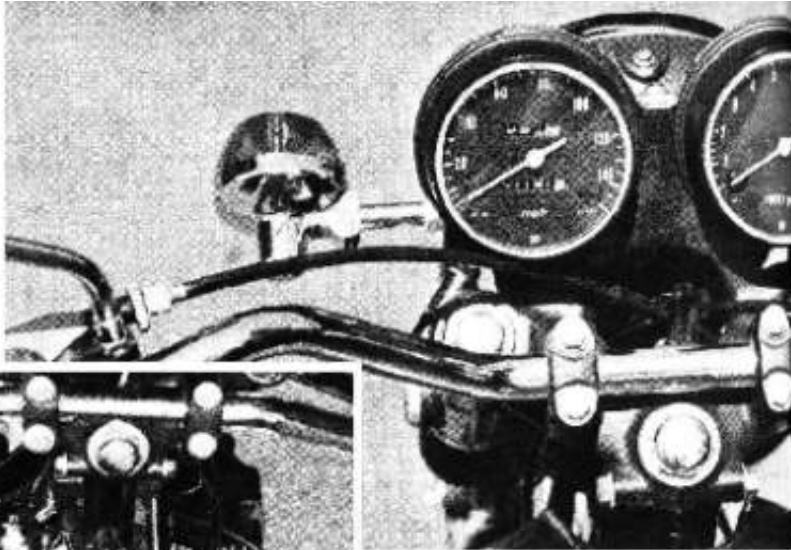
At the widest point of the engine the Four is not as wide as some 2000cc two-stroke twins we've seen.



This hydraulic disc brake works well. It requires a great deal of lever pressure which is good because the brake can be locked up easily.



To our knowledge Honda is the first company to include an oil pressure warning light. More manufacturers should do this.



As complicated as the Four is all adjustments can be made easily and quickly. Don't get the carbs out of sync though.



Under the seat is the battery and tool kit carrying case, plus all the connectors for the rear wiring.

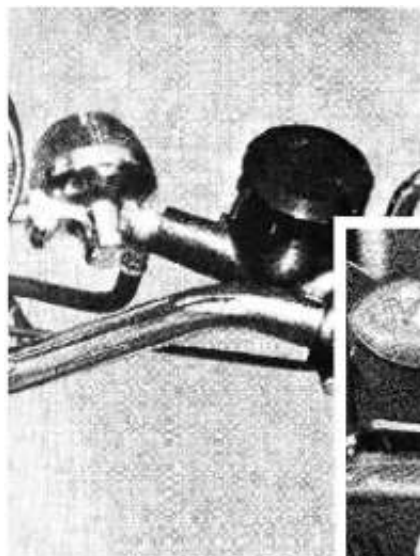
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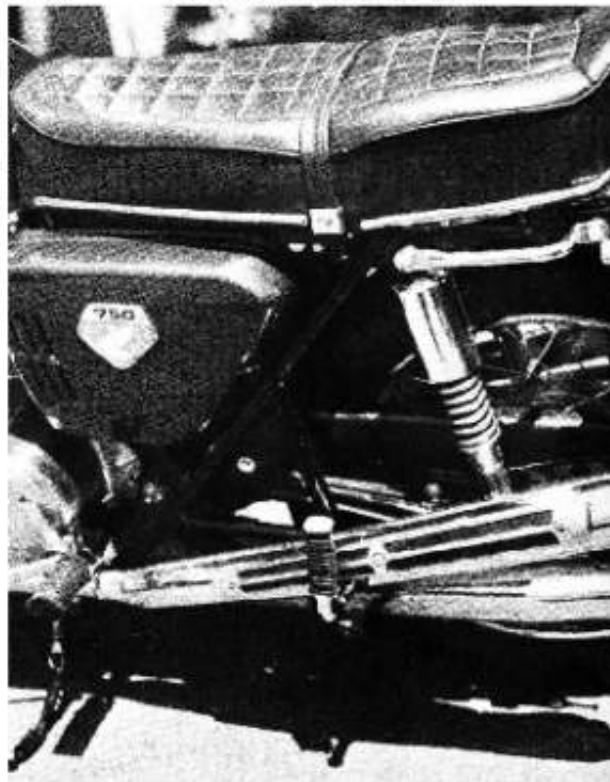
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The instrumentation includes a speedo and tach plus a neutral, turn indicator, high beam and oil pressure light. The unit on the right handlebar is the reservoir for the hydraulic front disc brake.

The passenger footpegs are bolted to the exhaust pipes. Hopefully this will hold up under hard riding.



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