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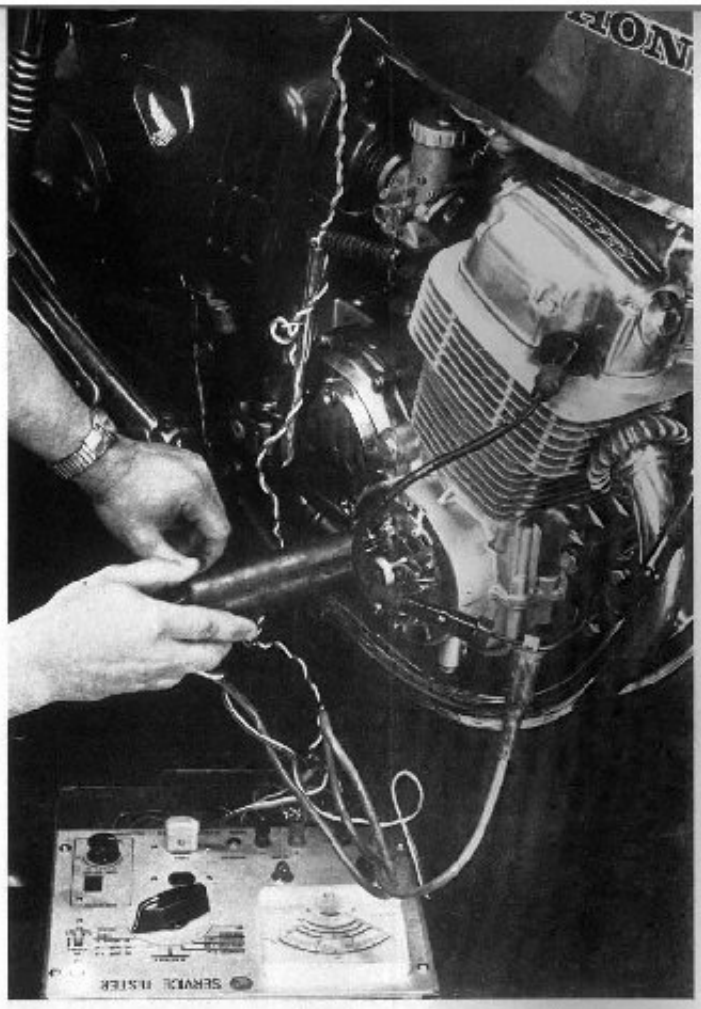
A guide to Tuning the CB750 by Bob Braverman

THE ONLY WAY IS THE RIGHT WAY

A quarter of a turn makes an awfully big difference

by Bob Braverman



As it comes out of the box, the Honda-4 is a delightful motorcycle, but once properly tuned up and adjusted correctly, it can be a joy forever.

The difference between average servicing and really good servicing is like night and day. We found this out very recently after one of the staff members purchased one of these jewels, and the Honda Motor Company offered to show us just how to go about tuning up our little beauty, thereby extracting as much performance and enjoyment as possible. The rather interesting thing about it, is that you don't need a lot of specialized equipment to get the job done. There are only a few phases of the operation where it would be necessary to bring the motorcycle to your local dealer. This is in the area of ignition timing.

Since everybody doesn't have a strobe light or an ohm meter, we found it far cheaper and more convenient to bring the motorcycle to our local Honda Service representative for this phase of the work.

By following the simple step-by-step instructions all you Honda 750 owners are in for a delightful surprise. I would venture to guess that maybe one out of ten is really tuned properly. I have ridden a number of these machines now, and the only one I've run across that really runs great is the one we tested, after being tuned up by Honda Motor Company, here in L. A.

The use of the vacuum gauge is an absolute necessity, since without this instrument, it's impossible to tell just when the carburetors are set correctly. We used four vacuum gauges, but you can use one. It takes longer to do it this way, but if you're careful, the end results will still be the same. If you have no tools whatsoever in your possession, and you intend to keep your 750 for a long time, it would be worthwhile spending the $60 to $75 to purchase the vacuum gauges plus a few screwdrivers and wrenches. Also, let's not forget that feeler gauge.

There is nothing tricky or unusual about tuning up the 750, but if there is one word needed to sum up the whole operation, it must be "care." It takes a good deal of care when setting up ignition and carburetion, not to mention the valve train in order to let the 750 engine perform as it was designed to do.

Also we found that, once properly tuned, it stayed tuned far longer than any of the other ones we had tested.

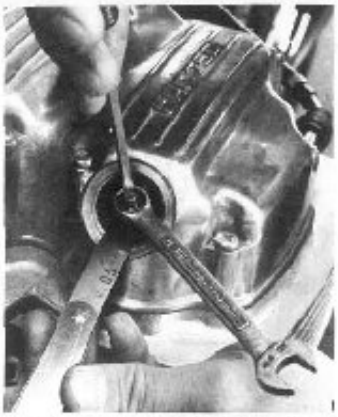
In going through the tune-up procedure, we found nothing tricky or complicated. All of the procedures are rather straightforward. In order to insure trouble-free performance, it is important that you follow the procedure outlined here. Don't, under any circumstances, skip any of the steps, since this will result in less than satisfactory performance. I also hope this procedure will be adopted by some of the agencies now selling the 750's. In some of the service departments we have visited, they do not do it this way and we have had it proven to us quite conclusively that unless the four-cylinder machine is tuned up in this manner, the owner is going to come out on the short end of the stick.

You Honda Four owners will be just as surprised as I was when you see what a difference it makes when the job is done right in the first place.

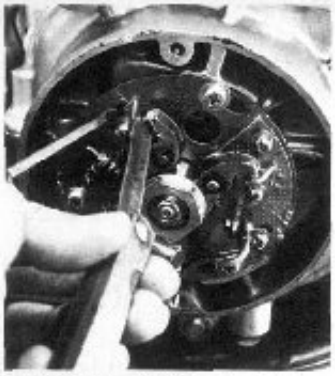
AND HERE HOW

1. Using a 17 mm wrench, remove all of the valve adjusting caps.

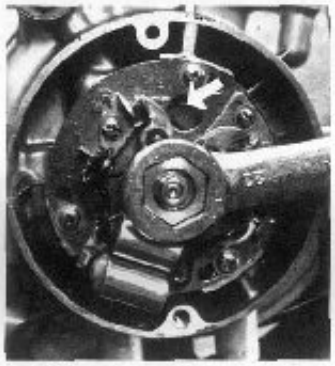
2. Using a 10 mm wrench and a small screwdriver, set all of the exhaust valves at .003. Once this has been accomplished —



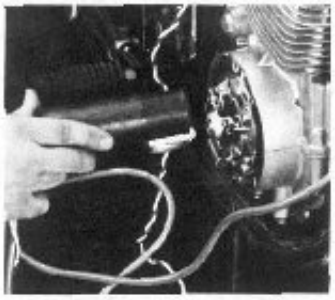
3. Using the same screwdriver and 10 mm wrench, set the intakes at .002. Before adjusting any valves, be sure that it has returned to its seat.



4. Both sets of points should be adjusted between .012 and .016. This is fairly critical, so work carefully and be sure the setting is within the indicated tolerance.

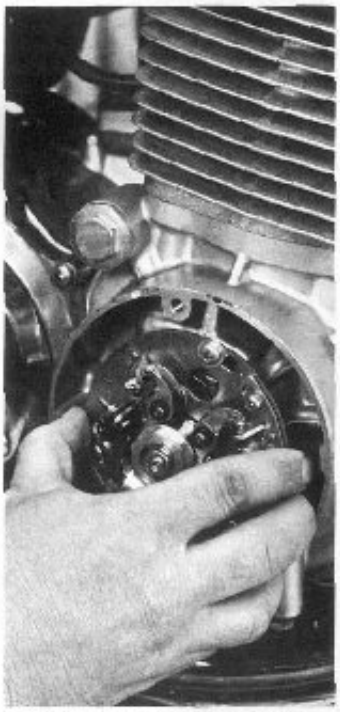


5. When the engine is timed properly, number one and number 4 cylinders will be running correctly when the "F" mark shows in the window just at the points break. There is an additional mark ("F") on the rotor for cylinders two and three.

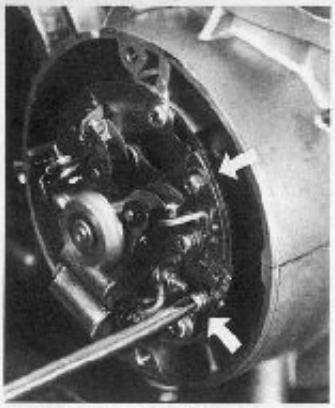


6. Check of the ignition system with the use of a Strobe light is the only accurate way of determining whether or not the engine is correctly timed. This can be done by your local shop.

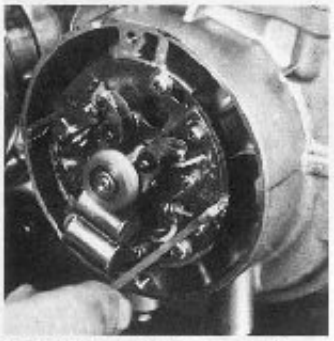
7. By loosening these three screws (arrow) the entire base plate can be turned, thereby enabling the tuner to time cylinders one and four at full advance.



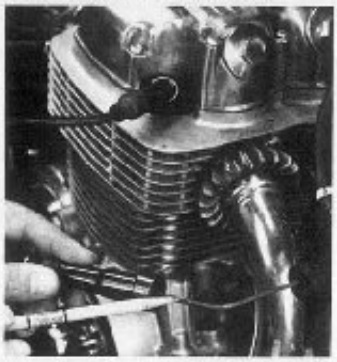
8. Once the screws have been loosened, grasp the plate in this manner and turn it in both directions until the "F" mark shows in the proper position.



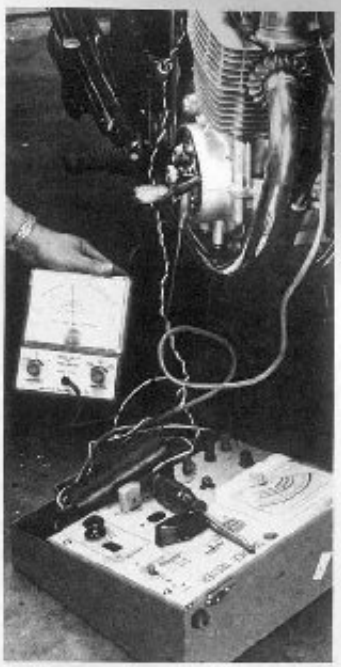
9. For setting the advance on cylinders two and three, merely loosen these two screws and repeat the same performance only instead of rotating the whole base . . .



10. With the aid of your small screwdriver, rotate the forward set of points so the "F" mark again shows in the window.



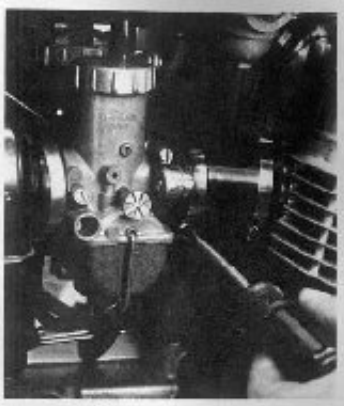
11. A short extension for the high tension lead is a desirable item for cylinders two and three, since the plugs are hard to get at with the wire clipped from the Strobe light.



12. One very important phase of the tune-up procedure here is setting the dwell at 98° being sure that the setting is as close as possible. A degree or two one way or the other makes quite a difference in the overall performance. Most dealers can do this for you.

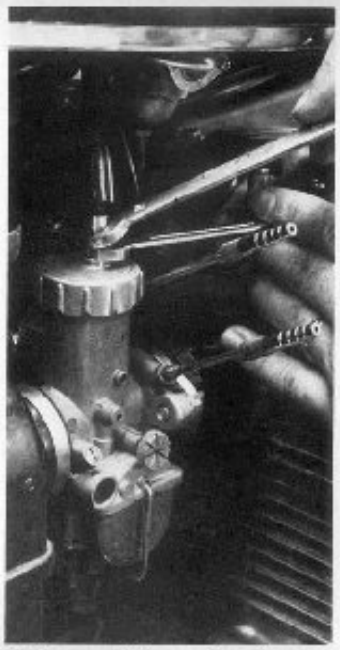
13. All plug settings should be between .024-.028. If the plugs look a little bit seedy, replace them at this point.

14. Another thing you may want your dealer to do is to set the float level for you. Set all four floats at 26 mm. You can get this handy gauge for float setting from Honda.

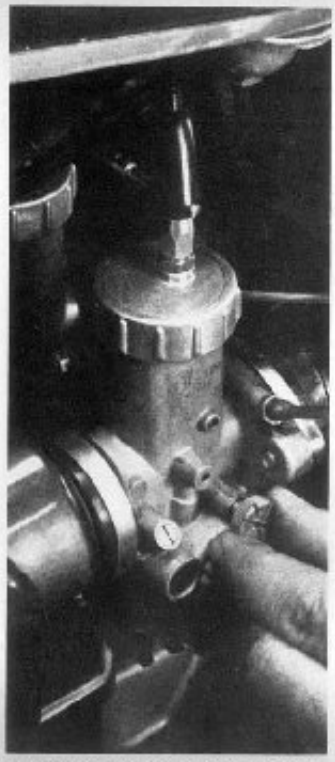


15. One item often overlooked is checking to be sure the ring clamps holding the rubber induction sleeves to the carburetor and cylinder head are tight enough. Be sure these are all tightened up, thereby eliminating any possible air leaks.

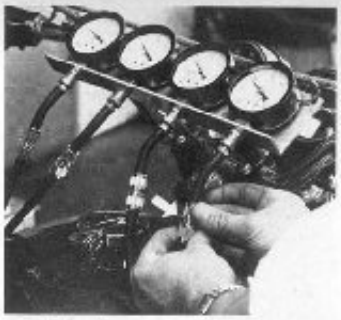
16. Remove the threaded plug in each carburetor and insert a C100 (Honda) main jet with a short tube soldered to it.



17. Loosen all four cable adjusters at the top of the carbureters and run the adjustments all the way down until there is plenty of slack in the cable housing.

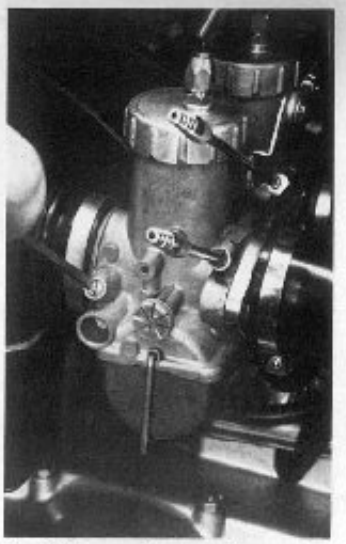


19. Now start the engine and set all four idle screws until the engine runs at 1,000 rpm with the tubes running up to the vacuum gauges.



21. Adjust each gauge so it reads between 8 and 9 lbs. psi. Take all the flutter out with the bleeder valve with no more than 1 lb. of needle bounce. These gauges sell for about $10 each.

22. Up at the throttle set this adjustment so that the engines runs at approximately 2500 rpm and then —



18. With a small screwdriver, very carefully turn all four low speed circuit adjusting screws all the way in until they bottom. Don't tighten them down, but stop when the screw reaches the bottom. Then back out each screw one turn.

20. Chances are, under normal circumstances, this is about what you'll be seeing. The readings will vary from one gauge to another.

23. Go back and set each cable adjuster at each carburetor until there is zero slack in it. Then go back to the throttle adjuster and set the idle down between 850 and 950 rpm. Now remove the metal tubes and replace the plugs in each carburetor.