

# THE WRENCH

AMERICAN HONDA MOTOR CO., INC. • MOTORCYCLE • TECH SERVICE

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*We hope you were pleased with the introduction and release of the 1979 lineup of motorcycles, but happier yet to see the return of your newsletter, "THE WRENCH." With the appearance of new designs and modifications, we will be trying to supply you with the latest happenings in the "shop wrench's" world.*

*In the past many of you have contributed suggestions and technical tips which we hope you will continue to send to us so that we may share them with others. You may use the attached "WRENCH" worksheets for material you may wish to submit.*



PAUL SLAVIK

## INTRODUCING . . . .

Many of you may not recognize me, but I've talked with most of you on the phone. My name is Paul Slavik and I'm the in-house Tech Advisor.

I've been involved with motorcycles since 1958, have an A.S. degree in Motorcycle Repair from L.A. Trade Tech, and prior to joining American Honda in 1976, I managed a local motorcycle dealership.

One of my main functions at Honda is to help you solve service related problems, and if I don't have the answer readily available, I'll do my best to dig up the info for you.

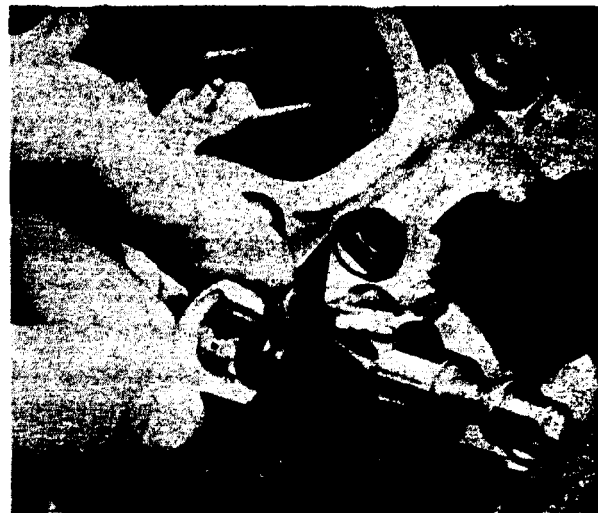
*("Paul's Pearls," authored by Paul Slavik will become a regular feature of "THE WRENCH" and replaces the "Soza Sez" column.)*

## "PAUL'S PEARLS"

### CBX CAM CAPS

A little word of caution that may save you many of those hard earned bucks. Always remember to remove the tachometer driven gear from the cam bearing cap when the cylinder head cover is removed. If the driven gear is not removed from the bearing cap and the camshaft is rotated, the gear will immediately cock sideways and break the bearing cap. As you may have guessed, the cap is not sold separately and a cylinder head assembly is not cheap.

*("Paul's Pearls" continues on page 2)*



BROKEN CAM CAP

## "Paul's Pearls" (cont.)

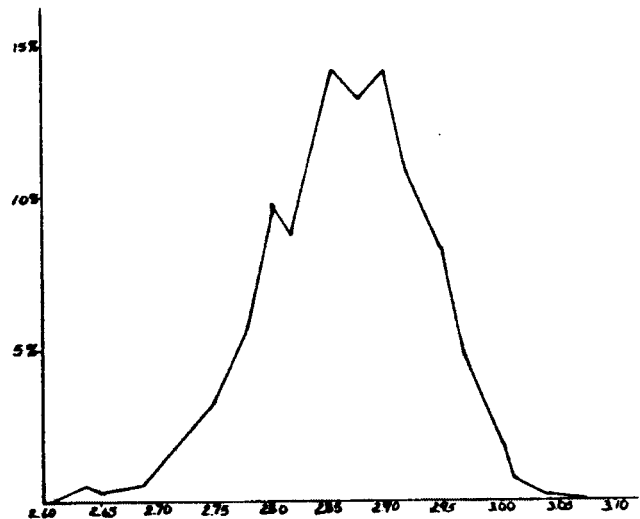
### CX500 WATER PUMP

When replacing the mechanical seal behind the water pump impeller, the seal appears to be too large for the hole in the rear cover. The seal is designed to compress during installation and will fit with the proper seal driver and some patience. Apply a thin coat of a silicone sealant to the outer periphery of the mechanical seal and drive the seal in squarely, using the GL1000 bearing driver, H/C 41317, (P/N 07945-3710200).

### NC50 OIL PUMP

I've been getting a lot of questions about NC50 oil pump replacement so here's the straight scoop . . .

The original NC50 oil pump was a plunger type using a replaceable drive gear with a 3:12 ratio. The original pump has now been superseded to a rotary type (P/N 15100-147-315) which will work with the original drive mechanism. If a problem should occur with the oil pump drive, a new gear set (P/N 15160-147-305) with a 4:16 ratio should be installed. In case oil leakage from the pump seal should occur, there is a seal set (P/N 91210-147-305) that uses a washer to back up the seal. The NC50 '78 has a rotary pump utilizing a 5:19 ratio with a drive gear that is fixed to the crankshaft. NC50 '77 and '78 oil pump parts are not interchangeable.



## CBX & '79 - 750 Valve Shim Sizes

The valve shims and valve lifter holder tools are the same for the CBX and the '79 - 750. Many techs have asked what shim sizes should be stocked for replacements. The above graph indicates the size of valve shims used in CBX and '79 - 750 assembly at the factory. As you can see, shims at 2.60mm to 3.10mm cover roughly 99% of the new engines during assembly. As these engines get miles on them, valve clearances increase until everything gets seated in. As valve clearances increase, thicker shims will be needed. It is recommended to stock shims from 2.60mm to 3.30mm. These should cover most applications.

### CBX CAMSHAFT INSTALLATION

During camshaft installation it is possible to install the left inlet and exhaust camshafts 180° off. The engine will run with the left cams 180° out, but the cam chain will break within roughly 25 miles. The cam chain will also be very noisy. Refer to the CBX Shop Manual, page 6-22, revised November 1978. The last paragraph of this page should read, "turn the crankshaft 360° until the 'T' mark is realigned with the front crankcase mating surface." If you do not have the November 1978 revision page, you can order it from American Honda's Motorcycle Service Publications department. A quick way to tell if the cams are timed properly to each other is when the # 6 cylinder cam lobes are facing the spark plug, # 1 cylinder cam lobes should be facing away from the spark plug.

#### IMPORTANT NOTE!

"Field Fix" information that is given in *THE WRENCH* does not automatically qualify for warranty coverage. If a machine is out of the warranty period or if you have questions about warranty coverage, contact the Warranty Section of American Honda Customer Service Department. The toll free S.W.A.T. line numbers are:

California Dealers: 800/262-1308  
Outside California: 800/421-1281

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