

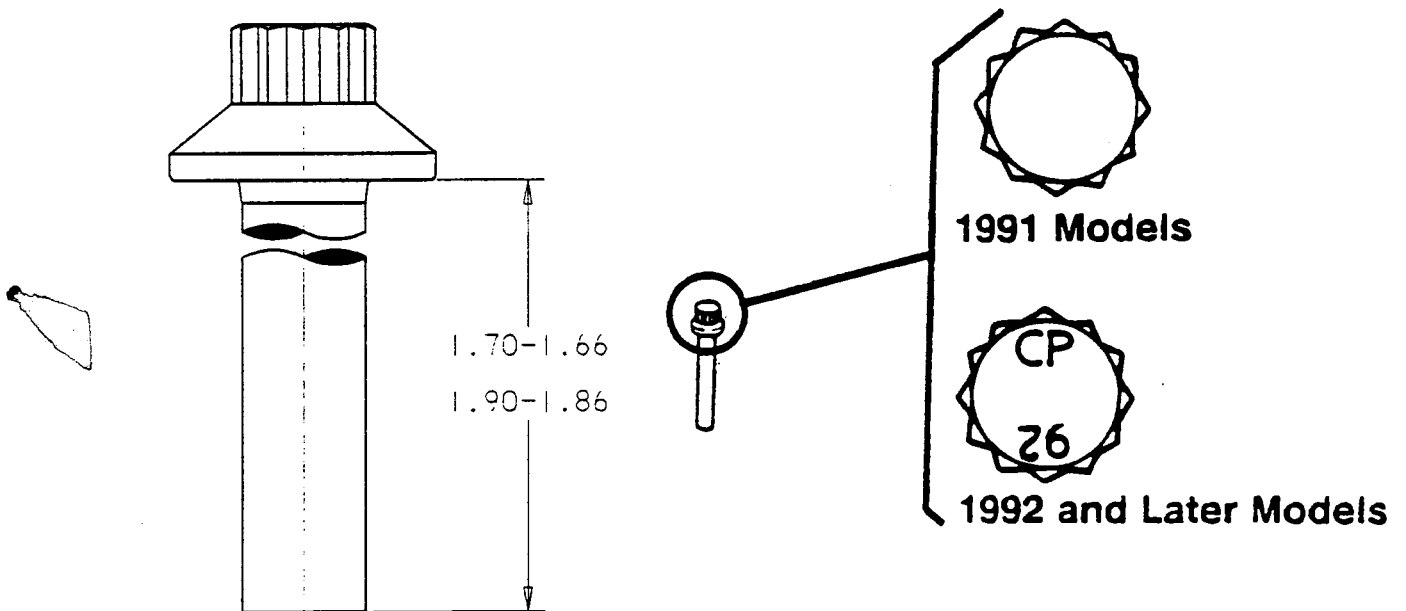
TECHNICAL TIPS #27  
OCTOBER 1991

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\* SPORTSTER MODELS \*

1992 CYLINDER HEADS & HEAD BOLTS

On 1992 cylinder heads, the head bolt counterbore, on the spark plug side, was reduced in depth. This change was made for ease of manufacturing. To maintain sufficient thread engagement, the head bolt length was increased. The new head bolts are identified with the number "92" on the bolt head. (1991-92 XL Service Manual-page 3-14) These new head bolts cannot be used on any vehicles other than 1992 Sportsters.

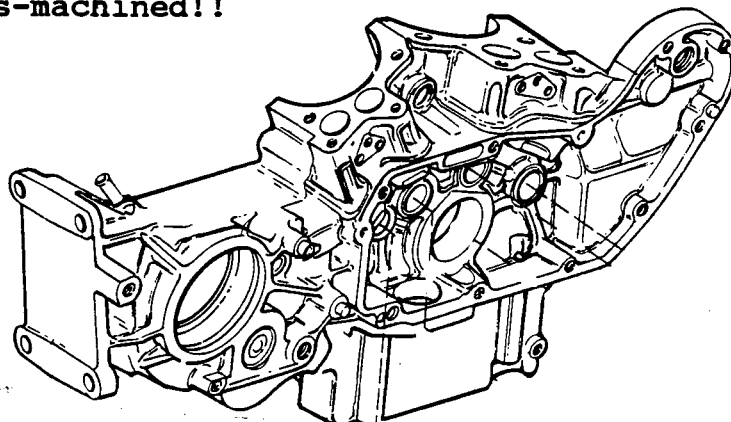


A small quantity of early 1992 Sportsters were built using the longer head bolts that DO NOT have the "92" identification on them. The only way to tell these from 1986-1991 bolts is by measuring the length. ( see illustration). Remember, this affects only early 1992 XL's.

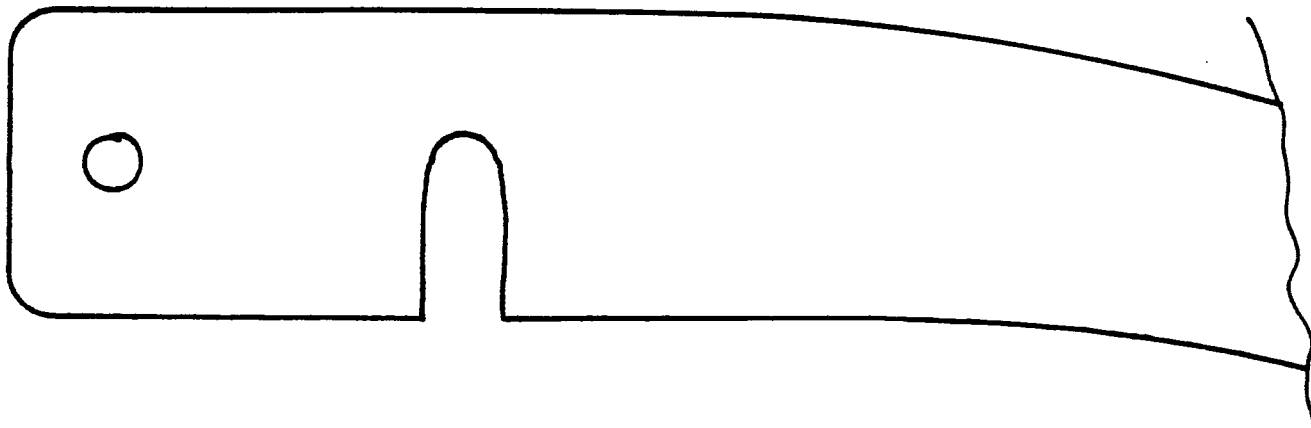
The new cylinder heads are sold as a kit, with the bolts, to retrofit to 1991 vehicles.

## 1992 SPORTSTER PRODUCT CHANGES

The oiling system by-pass has been eliminated from 1992 Sportster crankcases. This change was made to "borrow" oil for the cam gear oiler in the gearcase compartment. All 1991 replacement crankcases will also have these two features. The crankcases are not mis-machined!!



LET'S PLAY THE SLOTS!! , not VEGAS - FENDER STRUTS!!!  
Fender struts were added in 1990 to provide rigidity to the rear fender.  
In late September, the struts were slotted to make servicing and accessory installation easier.



A new headlight is being used in 1992 XL production. Part number 67698-81B. This assembly will extend bulb life and retrofit to earlier motorcycles. If this bulb is retrofit to a earlier motorcycle, it may be necessary to bend the tabs on the flasher ( round or square ) to prevent contact with the headlamp assembly.

\* 1340 MODELS \*

BELT REPAIR KITS

About a year ago, a very small number of Big Twin emergency rear belt kits were shipped with the incorrect size fasteners included. The fasteners in question were too small in diameter and slid through the holes in the belt teeth instead of threading in as they should. Since some emergency belt kit owners might not open their kits until the need arose, you might suggest they check any older kit they have for this condition. Call the Service Department if you encounter such a kit.

LITERATURE CORRECTION

The 1992 Owner's Manual and the 1991-1992 Softail Service Manual have an incorrect 1340 primary chain deflection specification listed. The setting "cold" should read 5/8-7/8", not 5/16-7/8" as listed. Please make this correction in your manuals and alert your '92 Big Twin customers.

BATTERY INSTALLATION TIPS

When installing the battery on Softail models, a little lubrication can go a long way. The battery is a very snug fit in it's rubber tray. Attempting to install the battery "dry" will result in folding the outer lips of the tray under the battery, making connection of the positive battery cable difficult. Apply some Armor-all or a soap and water solution to the base of the tray before sliding the battery into place.

\* ALL MODELS \*

FIBERGLASS ADHESIVES

These are the adhesives that are used at our Tomahawk facility for use on our fiberglass components. These are recommended for field repairs.

|                              |   |
|------------------------------|---|
| FXRT Vent Filters<br>-----   | 3M 847 Rubber Gasket Adhesive   |
| FXRT Radio Speakers<br>----- | Red Devil White Caulk   |
| Tour Pak Covers<br>-----     | Permabond 105 Adhesive<br>-- Permabond International<br>480 S. Dean St.<br>Englewood, NJ 07631<br><br>Saf-T-Lok: Cyanoacrylate<br>Accelerator<br>-- Saf-T-Lok Chemical Corp.<br>Downers Grove, IL 60515 |
| Saddle bag Covers<br>-----   | Permabond 105 Adhesive<br>and<br>Saf-T-Lok  |

ACCESSORY CATALOG CLARIFICATION

PAGE 60

The Ultra style CB/intercom, part number 77129-88, will also work on all 1991 models.

SERVICING TIP

Jack Harper, Service Manager, at Vans Harley-Davidson has a service tip to ease removal of ignition module and sensor plugs. He suggests heating the rubber plugs in hot water. This makes it easy to remove and install the terminal pins.

MISPACKAGED PARTS

Ignition timer rivets, part number 8699, are special rivets that will not drop pieces into the rotor/ sensor area. Parts with a date code of June 1991 are incorrectly packaged and are not the proper parts. They should be returned with a warranty claim.

PARTS CATALOG CORRECTION

1991 1340cc Parts Catalog page 153. Index number 21, the correct part number for servo motor is 77106-89.

TECHNICAL LITERATURE

Using all your technical literature will assist you in resolving problems, improve your efficiency, and increase your technical knowledge and proficiency.

Wiring Diagrams p.n. 99948-91  
and  
Electrical Troubleshooting  
Feature:

- \*\* larger diagrams
- \*\* testing procedures
- \*\* troubleshooting techniques

Use your technical literature and PHD tapes to help you in resolving problems!

TECHNICAL ASSISTANCE

When calling Milwaukee for technical information make sure that you have all the necessary information ready. This will minimize the length of your phone call.

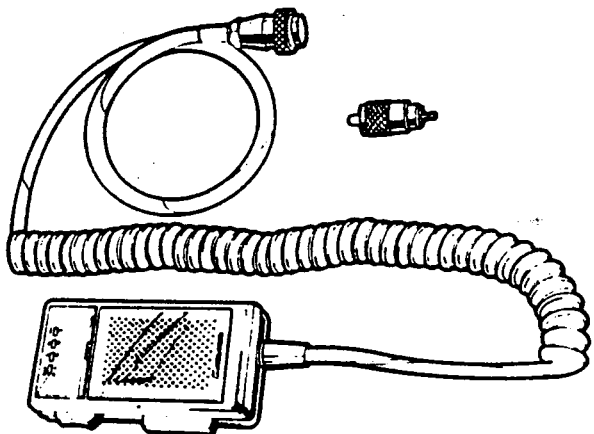
|                       |                |   |
|-----------------------|----------------|---|
| P&A                   | Ext. 4882      | REMEMBER: When you call the Service Department with a warranty question, always have the following information ready: |
| Sales                 | Ext. 4858      |   |
| Warranty              | Ext. 4857      |   |
| Technical Service     | Ext. 4887      |   |
| Customer Service      | Ext. 4056      |   |
| Factory Training Info | Ext. 4305      |   |
| Recall Info           | 1-800-448-1708 | • VIN   |
|                       |                | • Warranty  |
|                       |                | • Claim Number  |
|                       |                | • Mileage   |
|                       |                | • Customer's Name   |
|                       |                | • Date of Purchase  |



# KENT-MOORE

# TOOL-TALK

## CB POD/ TRANSCIEVER TEST TOOLS



The 1992 Essential Tool Package included two new tools for quick and accurate diagnosis of CB pod and transceiver failures. Instructions for using these tools are included in the 1991-92 FL Service Manual. Separate instructions were not included with the tools. Our technical staff and

writers utilize a logical, systematic approach to problem solving and diagnosis of field problems. Tool usage is an important part of the diagnostic procedure and could not be separated from the complete troubleshooting guide.

CHART H-2

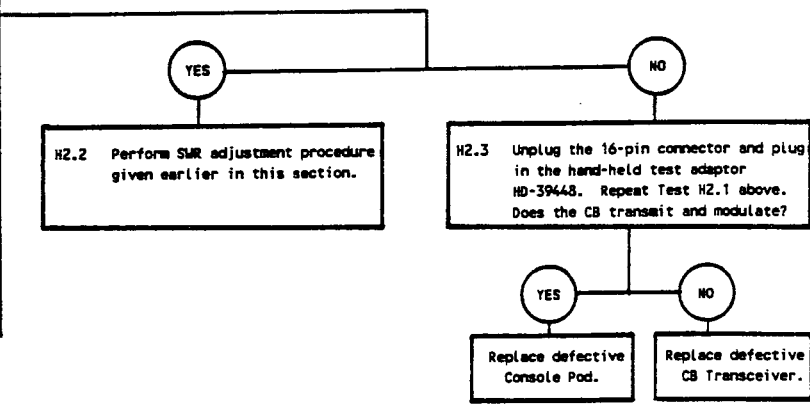
CB will not transmit

Perform troubleshooting given in Charts F-5 and F-7 before proceeding with H2.1. This will insure that the CB is receiving the command to transmit.

H2.1 Disconnect antenna connector from CB and replace it with a dummy load, that is, the lamp included with tool HD-39448.

The lamp acts as a load that allows CB to be operated and provides a means of checking relative power output and modulation.

To use the load, screw the dummy load onto the antenna jack of the CB. Depress the PTT switch. If the CB is transmitting a carrier wave, the lamp should glow. Speaking into the microphone should cause the lamp to flicker. It should get brighter and dimmer depending on how loud your voice is. A change in lamp brilliance means the CB is modulating. Does the CB transmit and modulate?



The chart shown above is a portion of the troubleshooting procedures illustrating the tool's use. Examine your new Service literature carefully. Troubleshooting familiarity and proper tool usage will increase your efficiency.

## IMPROVED TELEPHONE SYSTEM

A new telephone system has been implemented in the Technical Service Department to better serve our dealer network.

Our old system was unable to handle the periodic peak call volumes without lengthy delays. During these peak periods, it was impractical for your technicians to continue to hold.

Our new system eliminates phone delays thereby reducing dealership overhead costs. And in addition, the caller will not be asked to wait some undetermined amount time for assistance. Here is how it works.

During a peak period, if all available tech lines are busy, you will be asked to hold the line, but only for about 45 seconds. If a technician does not become available in that time span, the caller will be given the following menu of options to complete the call.

- Option 1:** If you wish, you may continue to hold for a technician. By selecting this option, you will return to the distribution group with top priority (to the head of any waiting line, not the rear). If, after another 45 seconds a tech line is still unavailable, you will again be offered the menu of options. If you choose, you may continue to select this option until a tech becomes available.
- Option 2:** Leave a voice mail message asking one of our technicians to return the call to specific individual and dealer number. The call will be returned as soon as possible. When selecting this option, you will need to know either the technician extension number or name. That information is available in Tech Tips #25 and in the Harley-Davidson directory. If a call concerns a specific vehicle, you should leave the VIN, mileage, date of purchase and owner's name.
- Option 3:** This option will transfer the call to the Warranty Department.
- Option 4:** This option will transfer the call to the Parts and Accessories Department.
- Option 5:** This option is designed to assist those who are not familiar with this new system, or those who do not know the extension number or the name of the technician best suited to lend assistance.
- Option 6:** By selecting this option, you are declaring an "emergency". Be prepared to state the nature of your emergency. Please do not abuse this option since it will mean someone else will be put on hold while your emergency is handled.

We believe this new system will improve our service to your dealership. Leaving a message when all lines are busy will generate a prompt return call. This reduce your time on hold and improve production of your service department while reducing overhead.