

TECHNICAL

TIPS

September 1995
TT#43



TECH TIPS #43

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**** ALL MODELS ****

GENUINE AND PARTS ACCESSORY INFORMATION INQUIRIES

When calling Tech Service on parts related questions it is important to have the part number and the package the part came in to provide the packing date. The packing date serves as the lot number and will help in determining when the parts came in, if they are still in stock, and if we have had an issue with this part in the past.

OIL FILTER FITMENT

All OEM oil filters are interchangeable between models (however we recommend that you use the appropriate filter for the model). But there are some things to be aware of if filters are swapped between models.

1. Although Dyna models can use the short filter in place of the long filter the oiling system capacity would be reduced. This will not affect the lubrication of the engine directly but it will affect oil temperature.
2. Long filters cannot be used on EFI bikes because of contact with the Crankshaft Position Sensor.
3. Eagle Iron oil filters are 1/4" longer than the stock filter. On some models you may run into a fitment problem.

Remember, when you are changing the oil filter always check the oil filter adapter to ensure that it is tight. Should you find a loose adapter remove it and clean it up. Then coat the threads with Loctite 242 and install to a height of 0.450-0.520". (See Tech Tips #42)

SPEEDOMETER REPLACEMENTS

There has been a decrease in the reports of erratic needle operation since a design change went into production last winter. Evaluation of warranty returns on late 1995 speedometers indicates two concerns still exist.

First is NO TROUBLE FOUND. You can help with this one by verifying a problem actually exists, then specifying the condition on the warranty tag attached to the speedometer. The speedometer Tester, HD-41354, will be a big help in diagnosis.

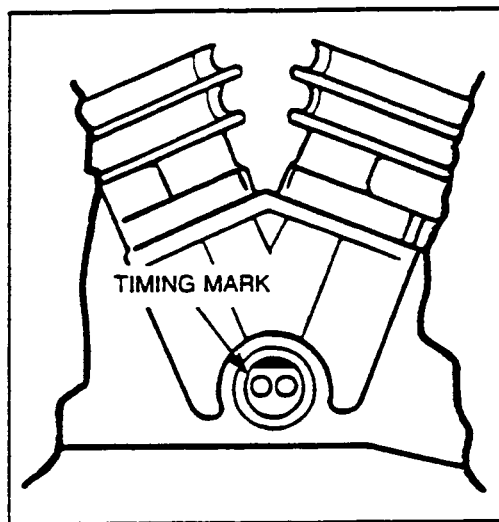
The second is SCRAMBLED ODOMETER. We have found that electromagnetic interference, or EMI, is the major cause of this problem. EMI is most frequently caused by an arcing of the high voltage secondary ignition circuit.

Spark plug wires not firmly connected at the coil and plug ends are an example of this voltage arc. Both stock and accessory braided spark plug wires must be plugged securely into the coil. The boot should be slid back far enough to be certain the terminal is plugged into the coil. Then install the boot over the coil tower.

Checking for spark at the plug by removing the wire will also cause an EMI situation. So if you find it necessary to make this check, first unplug the speedometer at the connector closest to the speedometer.

IGNITION TIMING- 1996 MODELS

All 1996 motorcycles should have the ignition timing checked with the vehicle AT IDLE (950-1050 rpm) not at 1650-1950 rpm as with earlier models. The timing mark that should be visible will be a "lazy 8" or a pair of side-by-side drilled dots.



Incorrect ignition timing could result in a loss of performance or even severe engine damage. Ignition timing procedures are outlined in the 1996 Predelivery & Setup Manual and the 1995-1996 Service Manuals.

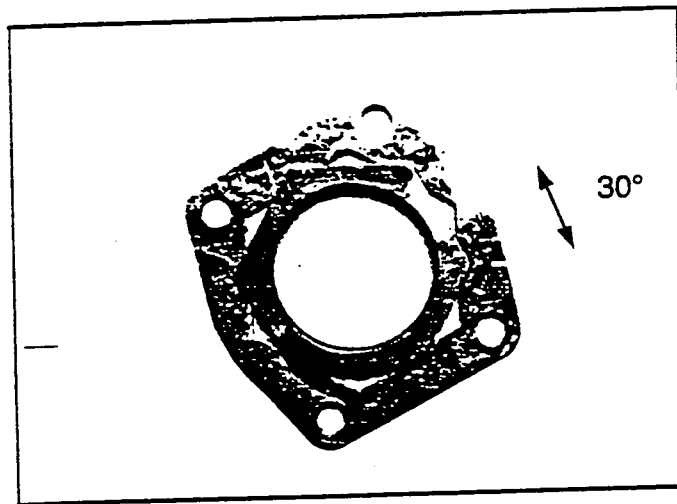
BRAKE RELAYS

Warranty data has indicated an increase in brake relay activity on 1995 and earlier models. Always make sure that the lever assembly is tight against the switch housing during pre-delivery and service intervals. An excessive gap can cause the brake circuit to activate repeatedly causing relay replacements.

**** ALL MODELS ****

SPROCKET NUT TIGHTENING

The "torque turn" method of retaining the sprocket nut calls for 30-40 degrees of nut rotation. Service Technician Roger Buser, of Stockton, CA suggests an easy method of marking the parts for assembly. First, the initial torque of 50 ft.-lbs. is applied. Roger then selects any of the sprocket nut's six points then scribes a line on the sprocket face. The sprocket nut wrench, HD-94600-37B is placed on the nut and another mark scribed at the same place. After installing the locking plate, the next empty "point" in the locking plate measures a convenient 30 degrees! Scribing a second line at this point provides the reference mark to rotate the tool to when tightening. Remember to remove the lock plate, then tighten. Thanks Roger. Happy Trails!



**** 1340cc MODELS ****

SIDECAR WHEEL CHANGE

The spacer, part number 87713-83, used on sidecars now has a larger I.D. to make it easier for you to put the wheel on the axle. Apply a small amount of grease to the axle, as you position the spacer, to seal out moisture.

WIRE ROUTINGS

It is possible for the voltage regulator output wire and the ignition sensor wires to contact the transmission cover screws and transmission case if the wires are not routed properly. Powertrain movement can cause the insulation to be rubbed through resulting in intermittent ignition, charging problems or generating of a fault code on EFI vehicles.

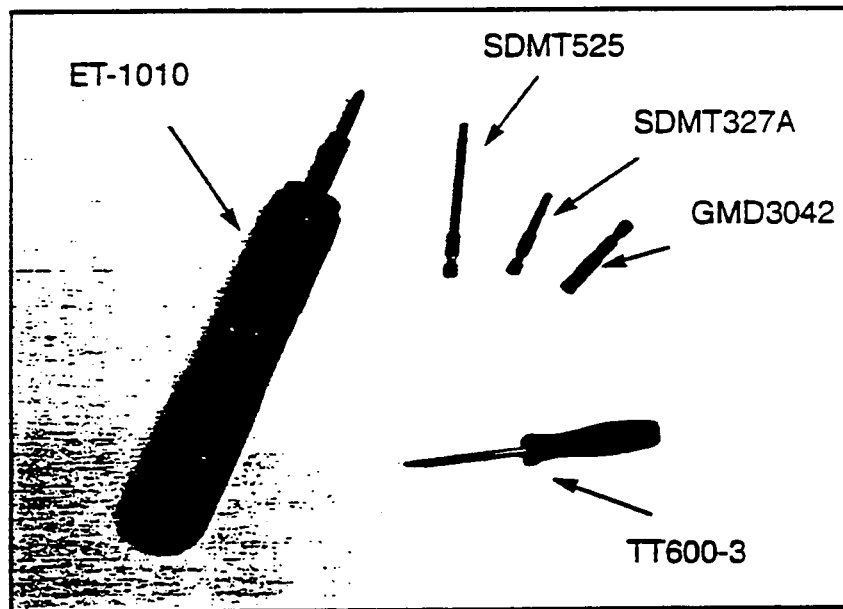
(continued)

We are stressing the importance of wire routing, in this confined area, with our assembly line personnel. However, we urge you to double check for possible wire to powertrain contact during setup. Reposition wires as necessary.

**** SNAP-ON TOOLS ****

The following Snap-on tools can make life much easier when servicing windshields, fairings, and hand control assemblies on 1996 vehicles.

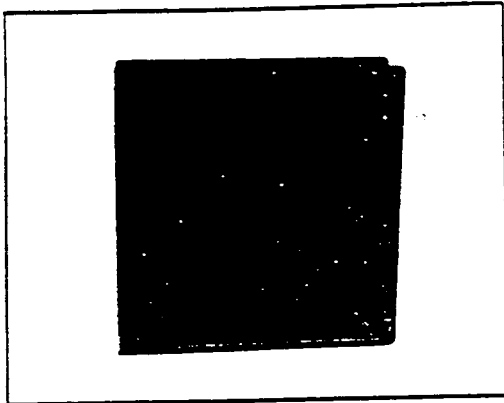
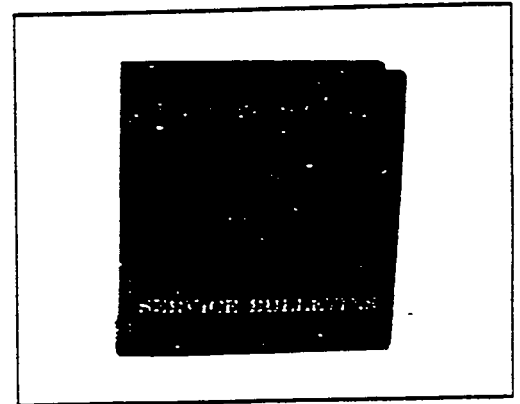
1. Cordless screwdriver, part number ET-1010 with 6 different torque settings (includes charging cradle). You might want to check out Black & Decker's similar model which is a lower cost equivalent.
2. T25 - 3.5" Torx bit, part number SDMT525. Needed for FLHT fairing removal, handlebar controls, and other fairing related service work
3. T27 - 2" Torx bit, part number SDMT327A. Used for windshield removal and handlebar controls.
4. 1/4" adapter, part number GMD 3042. Adapts the cordless screwdriver for the use of 1/4" sockets.
5. Terminal tool, part number TT600-3. Used for the removal of the new Multi-lock electrical terminals.



STORAGE BINDERS

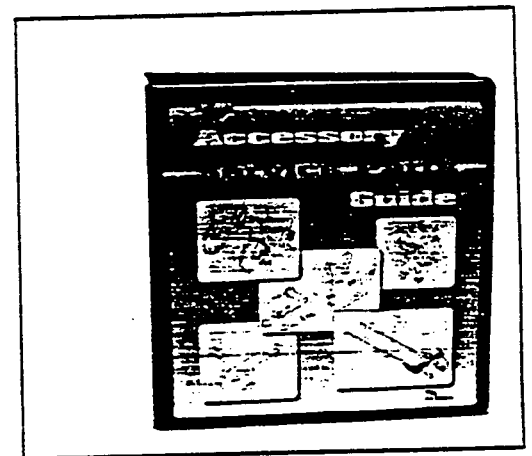
Convenient storage binders are now available from the Service Department. These will organize your Tech Tips, Service Bulletins, and Accessory Service Parts for easy reference. Order now!

SERVICE BULLETINS
99944-95



TECHNICAL TIPS
99945-95

ACCESSORY SERVICE
PARTS GUIDE
99946-95



TECH TIPS MICROFICHE

Tech Tips microfiche has been updated to include Tech Tips # 31-42. Each dealer was sent two copies. If your earlier microfiche (T.T. # 1-30) is lost or misplaced contact Technical Communications by FAX to request additional copies. Our FAX number is (414) 935-4312.

**** MISCELLANEOUS ****

SERVICE TIP

Ever find that it's kinda hard to get a regular grease gun on a FLHT steering neck fitting? Technician **Robert Joy**, at H-D of Frederick, MD has a solution. Bob uses a special right angle Snap-on fitting, THX418.

SAN DIEGO DEALER SHOW WINNER

WINNER OF THE KENT-MOORE TOOL SURVEY DRAWING

Congratulations to:
Elaine Bruns
H-D Cycle Center of Waterloo, IA

H-D Cycle Center received a Wilton #746 bench vise and a Fluke 87 multi-meter.

Thanks to all who took the time to complete the surveys and provide their valuable input.