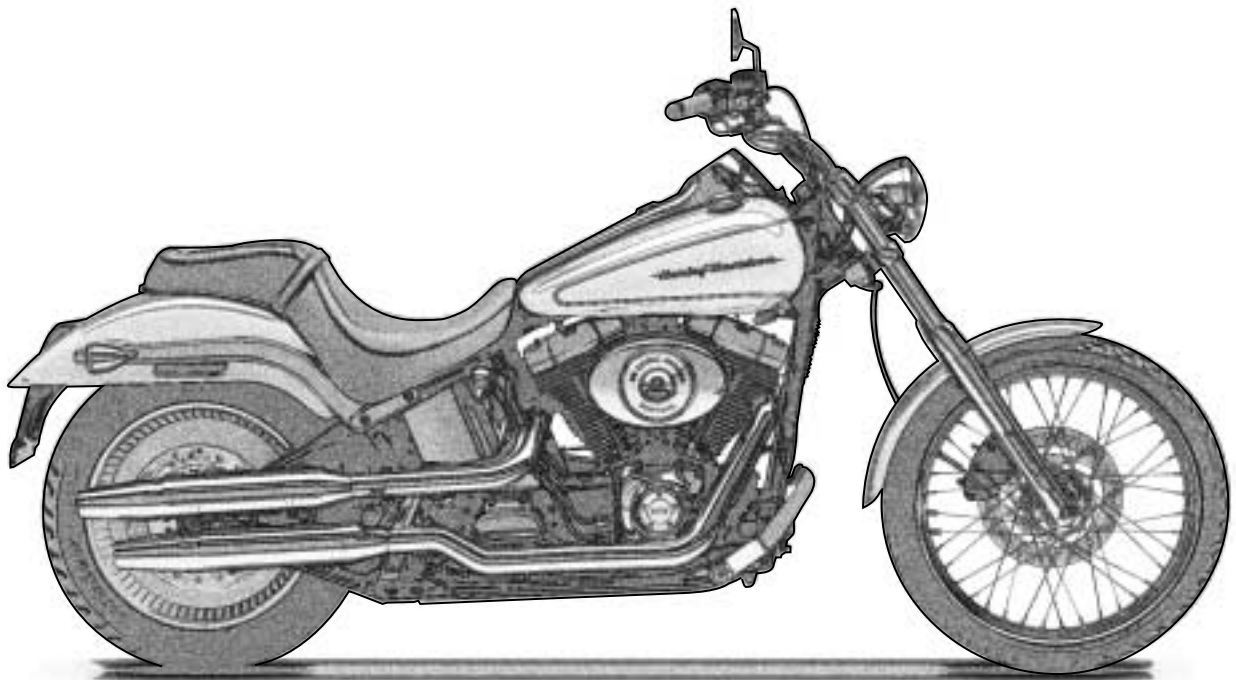


TECHNICAL

TIPS

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TECH TIPS #52

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AGM Batteries

Our new AGM batteries used on model year 2000 vehicles have an "A" suffix in the part number (ex: 65989-97A). We believe our use of these batteries have taken H-D to the next level of quality, reliability, and performance. In the unlikely event a problem would arise, we want to ensure that it is identified and corrected quickly. We have been requesting the 97A batteries to be returned for diagnosis and testing when replaced under warranty.

Unfortunately many Yuasa and old style lead-acid batteries are being returned as 97A part numbers. Lead-acid batteries are not to be shipped without special handling and packaging. Acid damage resulting from shipping lead-acid batteries could result in liability issues for your dealership. Please ensure your dealership does not claim Yuasa or old style lead-acid batteries as new batteries on 2000 vehicles.

Please note:

Any battery removed from a motorcycle and claimed under warranty must have a VIN entered on the claim. It is not to be claimed as defective stock.

Windshields

We receive a large number of windshields returned under warranty claiming scratches as the reason for replacement. After these windshields are inspected, most are found to be free of scratches. These marks on the windshield, that appear to be scratches, are caused by the heat forming process and can be cleaned from the surface. Try using a mild soap with warm water or Windex glass cleaner along with a soft cloth. If this does not work for you, try using the Novus cleaning products sold through the P&A catalog. One is a mild polishing compound that works very well to remove the marks. The other is a plastic cleaner to remove residue and eliminate static. These Novus products are approved by G.E. for use on the lexan. Scratches do occur from time to time but can only be claimed under warranty at PDI. There is no control over the occurrence of scratches after a vehicle is placed into use and shall not be considered a defect. If the windshield is a replacement, inspect it thoroughly before selling it to your customer as cosmetic concerns are only allowed up to the point of sale.

TC-88 Cam Support Plate Repair

If you have a vehicle that has experienced a cam bearing failure on a TC-88 or TC-88B, damage could have occurred to the cam sensor. Inspect the leading edge of the slot in the cam sensor for any marks indicating contact with the cam drive gear. If contact has occurred, it may be necessary to replace the sensor. Another indication of this condition could be a code 42 appearing directly after the cam support repair is completed.

When performing repairs involving replacement of the cam support plate, #25533-99A, on 99 TC-88, it is necessary to install a self-tapping screw in the hole used for TC-88B balancer lubrication on 2000 Softail models. It has been determined the torque setting for this screw can

cause the hole to become stripped during installation. The instruction sheet indicates the torque to be 10-12 ft/lbs. It is now recommended to change the torque setting to 35-55 in/lbs. The instruction sheet will be changed to reflect this new setting. In the mean time, anytime this support plate is used on a 99 TC-88, disregard the torque setting listed and use the corrected value.

Brake Systems- All Models

Small amounts of brake fluid have been observed on some 2000 model year brake calipers causing a few dealers to mistakenly conclude that the system was leaking. Fluid is most often seen at the bleeder valve, around the mounting bolts and pad support pins, or at the seam where the inner and outer caliper housings mate.

This is often residual brake fluid from the bleeder screw bore. Normal caliper flexing can also allow assembly fluid to seep from the caliper seam and from around the mounting bolts. This is most often a temporary condition associated with initial exercise of the caliper on new vehicles and should be considered normal. Residual fluid will be removed during normal washings.

If brake fluid re-appears, diagnose the cause. If fluid re-appears at the caliper seam or mounting bolts, it may indicate the crossover seals are leaking. Disassemble and repair the caliper using the procedures in the appropriate 2000 Model Service Manual.

Throttle Cable Routing on Big Twin 2000 Models

It is possible for the throttle cables to rest against the front rocker cover. Over a period of time, engine heat can have an adverse effect on the smoothness of the throttle action. If you observe this during PDI and/or normal service intervals, carefully insert a long screwdriver between the throttle cables and the front rocker cover. Push the throttle cables toward the rear to ensure that clearance exists.

2000 FXSTS Models Throttle Cable Routing

The clip used to retain the throttle cables to the rigid fork leg is not used on 2000 FXSTS models. The cables are now routed over the handlebars and along the leg and then back into the tunnel area under the fuel tank. The routing shown in the set-up manual, and described in the service manual, is incorrect. Insert a copy of this into your set-up manual and 2000 model year service manual.

This was a model year change missed as far as the service literature is concerned. The change was made to help ensure smooth cable operation when the front end is turned from stop to stop. It should also ease the process of adjusting the cables since they will remain smooth in their operation.

Electronic Speedometers

Recently there have been several electronic speedometers returned under warranty for the appearance of scratches on the lens. During inspection of these units it was determined the coating on the lens is actually scratched. The entire lens is dipped to apply the anti-fog coating.

In order to eliminate scratches, simply remove the entire outside coating using an Exacto razor blade knife or similarly shaped razor blade. Care should be taken to prevent damaging the painted mounting ring. Removal of this anti-fog coating will not harm the functionality of the speedometer. The outside coating serves no purpose to reduce fogging (which occurs to the inside of the lens). It is no longer advised to replace or warranty this expensive instrument for this condition.

2000 Model Year Softail Oil Tank Scratches

With the introduction of the 2000 model year Softails there was a noticeable increase in the amount of oil tanks returned under warranty to the factory because of "scratches". Our investigations have shown that the vast majority of these claims are the direct result of seat installation procedures by dealership service personnel. It appears that after securing one side of the seat, the second side sometimes needs to be forced in order to start the remaining fastener in the frame. When screwdrivers are used, they have a tendency to slip out of the slotted fastener on the side of the seat resulting in the tool contacting/scratching the oil tank. (This situation has been confirmed in conversations with dealership service technicians.) Oil tanks exhibiting these types of scratches will no longer be accepted as warranty returns.

It has also been noted that oil tanks are being scratched when screwdrivers or other tools are used to pry the protective plastic off the front of the tank. These scratches, in addition to those described above, will no longer be covered by warranty.

NOTE: When installing seats on new Softails, thread one side fastener by hand (just enough to hold threads), then start the opposite side (rear fastener should not be installed at this time). Once both sides are caught and secured, tighten the rear fastener. The seat will start to "take a set" and conform to its secured location on the frame.

The slot in the fasteners is intended to make the seat removable without tools. A dime will fit the slot and permit seat removal if the fasteners were not too tight to begin with.

New Replacement Intake Seal

Here's a tip for installation of the new intake seal, part number 26995-86C.

1. Using the air cleaner backing plate to hold the carburetor or induction module in place prior to applying torque to the screws will insure the location of the seal.
2. With the lower torque specification outlined in service bulletin # M-1091, we recommend the use of Loctite 242 threadlocker to insure the screws maintain proper torque.
3. We suggest the use of mild soap and water or an intake leak detector from a tool supply company like Snap-On.

CAUTION:

Operating the engine without the carburetor or induction module properly supported could cause damage to the intake seals. Using any brake system cleaner or contact cleaner to check for intake leaks could cause damage to the seals.

Water in ECM's

There has been an increase in the number of calls to Technical Service regarding ECM with water contamination. The occurrence of water entering the ECM should be thoroughly diagnosed in order to prevent a repeated occurrence. This condition can be caused by technicians that install incorrectly, or damage, the ECM connector boot during diagnostic efforts.

When you find an ECM with water in the case, stand the ECM on the connector end and allow it to dry overnight. When the unit is dry, check for the development of corrosion around terminals and clean, if necessary. After cleaning and inspection, put back into service. If the ECM will not allow the vehicle to operate correctly, replace it. Remember to install the protective rubber boot correctly over ECM connector when service is completed.

MY 2000 FLT Service Manual Correction

Please mark this change in your MY 2000 FLT service manual on page 9-74 - Trouble Code 42:

The first diagnostic box should read "Disconnect connector [14]. With Ignition on, connect voltmeter across terminals 1(+) and 3(-) of connector 14B. Is voltage $5 \pm 0.25\text{vdc}$?"

FL Models Heel-Toe Style Shift Levers

You should notice a change to the vehicles coming with heel-toe style shift levers. These new levers, PN# 33895-82A, are straight levers and can be used as either heel or toe shift. This new lever also uses a new bolt with secured washer, PN# 780.

CB Upgrade on FLTRSEI

A few dealers have expressed customer desires to upgrade their new Screamin' Eagle Roadglide sound system to include the cb/intercom ultra features.

The Screamin' Eagle Roadglide does not have the same wire harnesses that are used on the standard Roadglides and Ultra's. It would be in your best interest to dissuade the customer from insisting this be performed as it will be very costly and time consuming. There are no parts lists for this operation.