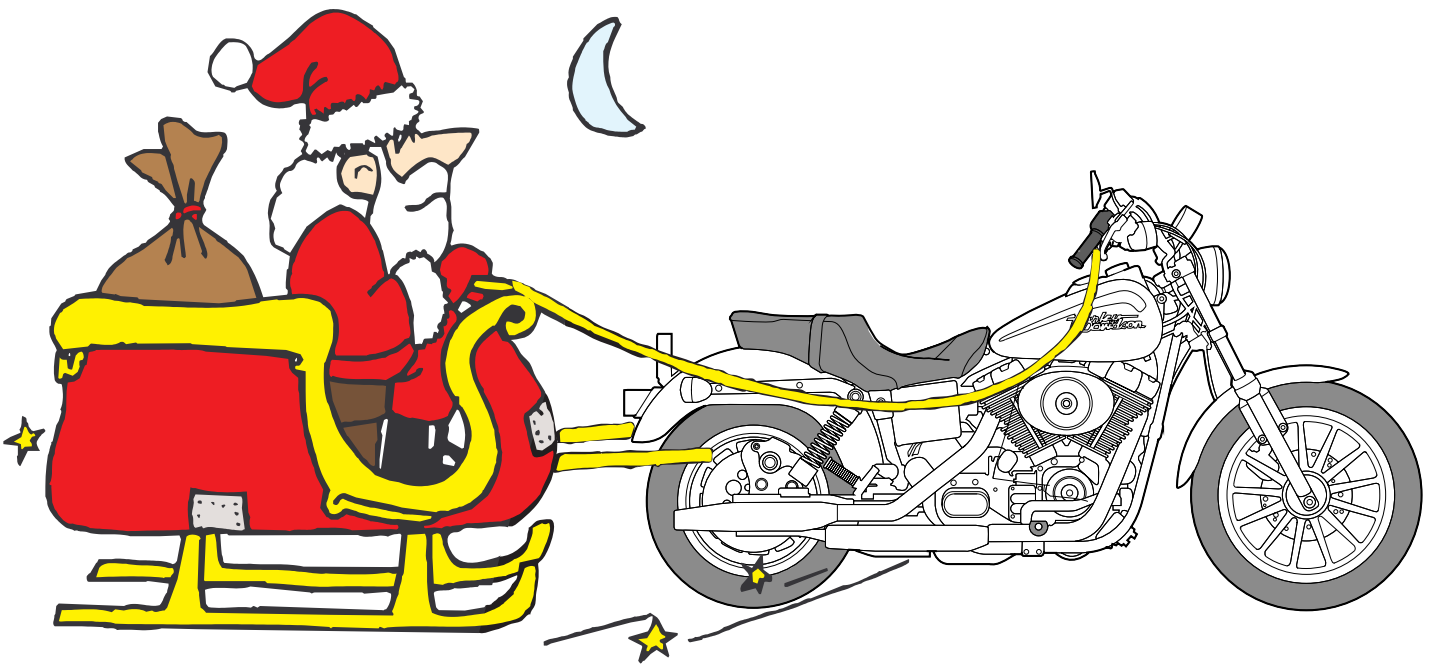


TECHNICAL

TIPS

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2000 Model Year Front Axle and Fork

The following procedure is included in all 2000 model year Service Manuals. It is reprinted here to bring your attention to this very important change for all vehicles equipped with **dual disc brake systems**. This same information can be found in the "New Parts and Service for 2000" book handed out at the Dealer Show

Installation of Front Wheel in 41 mm Forks

1. Place wheel into position between forks with the valve stem on the right side of the vehicle
2. Coat the axle with LOCTITE ANTI-SIEZE LUBRICANT
3. Supporting wheel, insert threaded end of axle through right fork leg. Push axle through fork, short external spacer and wheel hub until it begins to emerge from the left side
4. Push axle through long external spacer and left fork leg until axle shoulder contacts external spacer on right fork side
5. Install flat washer, lockwasher and nut over threaded end of axle
6. Insert screwdriver or steel rod through hole in axle on right side of vehicle. While holding axle stationary, tighten axle nut to 50-55 ft-lbs (68-75 Nm)
7. Insert 7/16 inch drill bit into hole in axle
8. Pull fork leg so that it just contacts drill bit, and then tighten slider cap nuts on right side of vehicle to 5-11 ft-lbs (7-15 Nm)
9. Remove drill bit from axle hole

Installation of Front Wheel in 39 mm Forks

1. Apply a light coat of LOCTITE ANTI-SIEZE LUBRICANT to axle and the entire surface of the bearing race I.D. on the right side only
2. Place wheel into front fork and install axle. Verify that axle spacers on right and left side are properly installed
3. Install the washer, lockwasher, and pinch bolt nuts. Tighten axle nut to 50-55 ft-lbs (68-75 Nm). Hold axle stationary while tightening
4. Insert 7/16 inch drill bit as far as it will go into hole in axle
5. Position fork leg against edge of drill bit. Contact point must have edge of drill bit touching the edge of fork leg
6. Tighten the axle pinch bolt nuts to 25-30 ft-lbs (34-41 Nm)
7. Withdraw drill bit

FLT Engine Oil Change

We ask you to refresh your memory by reading the engine oil change procedures. You can find this in the 1999 FLT Service Manual, pages 1-39 and 1-40. If the engine oil level is too high, it can submerge the vent line and restrict oil flow. This can cause low oil pressure and the warning lamp to illuminate

TC-88 Cam Support Plate

At the end of the 99 model year, there was a change made to the TC-88 cam support plate. You will now notice that the camshaft support bearings slide easily into the plate instead of the previous press fit. This is normal. Do not replace a support plate for this condition. If you have questions about a possible improper fit, feel free to call the Powertrain group at 4887

2000 Model Brake Bleeders

2000 model brake bleeder screws can retain fluid on the threads and in the bleeder bore which can seep out giving the impression there is a brake fluid leak. This residual fluid is only a cosmetic issue and we advise cleaning the area around the bleeders during the pre-delivery service or any time a brake caliper service is performed

FL Gauge Lighting

Model year 2000 FL's will come with amber backlighting on the 2" gauges to match the 4" speedometer and tachometer. Replacement gauges ordered through P&A will soon begin coming with the amber backlighting also. When using these new 2" gauges on older vehicles requiring white backlighting, simply remove the amber boot from the bulb

FL Front Fender

You will now find a 0.040" aluminum spacer, part number 45279-00, between each Touring model front fender mounting boss and the fork slider. These four spacers prevent paint deformation when fender bolts are torqued. This went into effect at the beginning of the 2000 model year production

2000 MY FL Cast Wheel

We had reports of the new cast FL wheel having very slow leaks. This occurred during the first 45 days of production and, in most cases, was noticed by a vehicle arriving at the dealership with a low or flat tire in the crate. If you have a customer with an early build FL complaining that

he has a very slow leak in a tire, check the tire thoroughly. If no problem is found with the tire, place the inflated wheel assembly in a tub of water to help locate the small leak. Do not forget to look inside of the wheel spokes next to the rim for these hard to find leaks. If a leak is found in the cast wheel, replace it. Once again, this occurred on vehicles produced through the first of September 1999. Our wheel supplier has since been able to completely seal the wheels against porosity

2000 MY Brake Disc

We recently discovered a couple of customers had installed brake disc locks on their 2000 model year motorcycles. Forgetting the disc lock was in place, they subsequently attempted to move the vehicles, or their dealer attempted to move the vehicles. This resulted in bent brake discs

It is important for you to know that the new fixed calipers do not tolerate bent brake discs. Be aware that there is a potential to bend these new brake discs if they are bumped or clamped when the vehicle is placed on your lift for service. If your lift does not have a tire stop to prevent the brake disc from contacting the tire clamp, you should install one. Do not pry against or impact the brake disc when changing tires

XL Voltage Regulators

Our 22 amp and 32 amp voltage regulators are now being painted with a tougher, longer lasting powder coat paint. Immediately after this change we saw a sudden increase in XL regulator warranty. Voltage regulators claimed under warranty are called back and tested as part of our ongoing effort to improve product quality and customer satisfaction. After testing of these warranty returns, reports stated there is no problem found on any of the new powder coated regulators replaced on XL vehicles. As a result of this discovery, a dedicated ground wire will soon be added to XL vehicles produced in Kansas City

This issue sends a strong message for technicians. Remember to use the charging system diagnostic procedures in our service manuals, which includes checking for a proper ground. Refer to Service Bulletin #1088 for specifics

We want to avoid any of the discomfort involved when regulators with no problem found are billed back to your dealership

Engine Oil Change

Have you ever had difficulty trying to determine the proper oil level on a big twin vehicle after an oil change or during a pre-ride check? Perhaps the following procedure will provide a more accurate and consistent way to do this

On all 93 and later FLT's and Dyna's, and 2000 model Softails, install 3 quarts of oil if performing an oil change. With the vehicle on the side stand, start and run engine until completely warmed to operating temperature. Check oil level and fill to HOT oil level. This will help to reduce the chance of installing too much oil and submerging the oil tank vent line. You could also experience loss of oil pressure and a low oil pressure warning light when the oil level is too high in the tank. When you explain this procedure to your customers, they will have the confidence of performing this maintenance check or operation correctly on their own

When checking oil level on XL's during the PDI checks, if you find a low oil level, start and run engine until completely warmed to operating temperature. Check oil level and add oil only if level is at or below low level line on the dipstick. Oil can bleed past the oil pump into the engine during shipment causing the appearance of lack of oil. If oil is added prior to start-up and the bike has not been used lately, it is likely that you could experience an overfilled oil tank very shortly after start-up

Speedometer Sensors

Our current production speedometers have been very reliable. Testing the few warranty returns shows most are functioning fine. We have found that normal debris from the transmission gears can cling to the end of the sensor and cause erratic readings or no readings at all from the speedometer. We suggest checking for debris on the sensor before beginning diagnostics on the speedometer

New Vehicle PDI

We suggest you deliver new motorcycles with the primary chain and drive belt adjustments set by the factory. Readjusting chains and belts is not necessary during pre-delivery set-up unless installing accessories that require adjustments

Some dealers have reported chains and belts to be tighter than the service specification. New vehicles are shipped with "new vehicle settings " which were developed to eliminate a " too loose " condition prior to the first recommended service. Break-in of the chains, belts, and sprockets occurs quickly during riding and this allows the rider to reach the first service without adjustment. Service manual specifications should always be used at the first service and beyond

1999 TC 88 Cam Support Assembly

When installing a replacement cam support plate in a 1999 engine, read the instructions that comes with the kit before work begins. Affected parts are: 24598-99A(carbureted engine version), 24606-99A(EFI version), 25267-99A(support plate alone). There is a clean-out plug in the top of the old support plate that needs to be transferred to the new plate. In the new support

plate, there is also an oil hole provided for use on TC 88B to lubricate the balancer system. With the replacement kit is a plug to install in this hole for use on most 1999 engines. If either of these plugs is not installed, a lack of proper oil pressure could occur when engine is started

FLT Fender Tip Lamp Wiring

Near the end of the October vehicle build there was a running change made to the routing of FLT front fender lamp wiring. The wire harness is now run around the top perimeter of the fender mounting bracket. The fender bracket creates a natural trough for the wire to set in. Adhesive clips are installed to maintain location of the wires if they loosen. The clips are below the level of the fender bracket. This change helps create more tire to fender clearance

Tech Tips Online

We are excited to announce that Tech Tips was placed on H-D net in August 1999. This service is intended to give the service technician the latest information help as soon as possible to reduce down time waiting for a return call from Technical Service. This service based web page can be found by entering H-D net and clicking on the service icon. When the service page comes up, locate and click on "browse online documents". A menu will appear, listed by date entered and title, of all Tech Tips entered since the last printed version. This information will continue to collect in this format until there is enough to allow a numbered Tech Tips issue to be printed and placed under Tech Tips Archive. At that time, the page will be cleared of old information and start collecting new articles. All printed copies of Tech Tips can then be reviewed online by using the Tech Tips Archive listing

Calling Tech Service Requires Essential Information

Since the recent change to the routing of dealer calls coming into Technical Service, many calls into our messaging system are lacking vital information necessary to give the best help. Missing information includes dealer number, technician name, VIN, and/or content of problem. Sometimes in order to reduce the amount of time required to answer the call for help, research needs to take place. This cannot happen if you leave vague information. Sometimes calls lacking critical content may not receive the proper priority or may get directed to the wrong teams. We realize your time is valuable and want to respect that, but our time is also valuable and limited. Many calls for help, that do contain all necessary information, are being delayed because some of you do not provide the essential information

Please help reduce everyone's frustration and provide as much information as possible when calling Technical Service. All calls placed to Technical Service should use the following number — (414) 343-XXXXXXXXXX

Tech Tips From The Field

We continue to encourage service technicians to submit Tech Tip ideas to Technical Service to share with all other technicians. If, after review, your idea is chosen for publication, you will receive an all new designed shirt as recognition for the idea. We look forward to your ideas

Holiday Shutdown

Harley-Davidson Motor Company will shut down for the holidays on Thursday December 23 at 4:30 pm and will begin business on January 3, 2000. We wish you all a safe and happy holiday season