SERVICE BULLETIN

M-1079 Safety Recall Code 095 January 22, 1999

ENGINE CAM SPROCKET BOLT REPLACEMENT

General

As recently advised in ML-363, Harley-Davidson has learned that the engine cam sprocket bolt on certain 1999 model motorcycles equipped with Twin Cam 88 engines could lose its clamp load and/or break. This condition may cause the engine to quit running with or without prior warning. In some instances, the engine may run erratically before quitting.

Harley-Davidson has voluntarily declared this a “defect related to motor vehicle safety” (Campaign 095) and is recalling all potentially affected vehicles to have the cam sprocket bolt and flat washer replaced. To avoid potential problems that may result from mixing different style bolts, the crank sprocket bolt and flat washer must also be replaced.

This voluntary recall applies to certain 1999 model motorcycles equipped with Twin Cam 88 engines (engines that were built from the start of 1999 model year production through September 27, 1998). The models involved are:

FLHT	FLHP	FXDWG
FLHTC	FLHPI	FXDS CONV
FLHTCI	FLHTPI	FXD
FLHTCUI	FLTR	FXDX
FLHR	FLTRI	
FLHRCI	FXDL	

To identify these motorcycles, reference the crankcase number stamped on the right side of the engine. Those vehicles with engines affected by the recall have a 99 stamped in positions 3 and 4, and have numbers from 035 through 270 stamped in positions 5 through 7.

To assist you in locating these vehicles, attached please find a list which contains:

- the names of registered owners whose vehicles were delivered to your dealership and are involved in this recall campaign.
- the vehicle identification numbers (VIN) of unregistered vehicles that were delivered to your dealership and are involved in this recall campaign.

To ensure rider safety, it is your responsibility to perform the required service on all affected vehicles even if the motorcycle was not purchased from your dealership. You will be required to perform the recall service on all affected vehicles in your dealership inventory prior to selling or leasing those vehicles.

If you are not sure that a safety recall has been completed on a particular motorcycle, contact the Harley-Davidson Recall Information Line at 1-800-448-1708 for a computer check of our recall records. Recall information is also available on TALON and HD NET.

IMPORTANT NOTE

Because only registered owners as shown on the attached list will receive notification from us, we request that you contact any owners of vehicles still listed as unregistered. Advise them of the safety recall and make arrangements for them to come in for recall service. We also require that you provide us with their names, addresses and VIN’s as soon as possible to enable us to mail them an owner’s letter, as required by the National Traffic and Motor Vehicle Safety Act (as amended).

A shipment of Safety Recall Code 095 Kits (P/N 93879) will contain approximately 80% of your total estimated kit requirements and will begin on or around February 1, 1999. All kits will be shipped no charge, transportation paid. If additional kits are needed, fill in the attached order form and send it to the attention of the Warranty Department.

NOTE

No orders for additional kits will be processed until the initial shipment is completed.

The Safety Recall Code 095 Kit (P/N 93879) contains the following items:

Qty.	Description
2	Flange Bolt (P/N 898A)
2	Flat Washer (P/N 6278A)
1	Cam Cover Gasket (P/N 25244-99)
2	Exhaust Gasket (P/N 65324-83A) *

* For use on FLT models only.

Prior to shipment of the Safety Recall Code 095 Kits, you also will receive a Loctite Pack (P/N 93889) that contains quantities of the following items for use in the recall service. Contact the Warranty Department if additional kits are needed.

Description
Loctite Primer 7649
Loctite High Strength Threadlocker 262 (Red)

Preliminary Instructions

Disassembly

1. Remove seat.

⚠WARNING

To protect against shock and accidental start-up of vehicle, disconnect negative battery cable before proceeding. Failure to act on this instruction may result in personal injury.

2. Unthread bolt from terminal nut and remove battery negative (-) cable and spacer from battery terminal.

NOTE

On DYNA models, proceed directly to step 4.

3. To access cam cover screws, partially remove exhaust system as follows:
   a. Open two worm drive clamps to remove heat shield from front header pipe.
   b. Loosen two worm drive clamps to release heat shield over front header pipe to rear header pipe connection (outboard of transmission side cover).
   c. Using an air wrench with long 1/2 inch swivel socket, remove two exhaust flange nuts to release front header pipe from studs of front cylinder head.
   d. Slide exhaust flange down header pipe to improve clearance around exhaust port.
   e. Loosen TORCA clamp between front header pipe and rear header pipe.
   f. Remove bolt (with flat washer and locknut) from transmission clamp on front header pipe.
   g. Pull front header pipe down and away until there is sufficient clearance to access all cam cover screws.
   h. Remove and discard gasket from front exhaust port.
4. Remove T20 TORX screw from threaded hole at front of crankcase to release engine sensor harness conduit and clip.
5. Remove the ten allen head socket screws to release the cam cover. Remove and discard the cam cover gasket. Exercising caution to avoid scratches, carefully draw cam cover assembly toward front of crankcase.
6. See FLANGE BOLT AND FLAT WASHER INSTALLATION below.

Flange Bolt and Flat Washer Installation

NOTE

It may be necessary to rock engine or retract primary cam chain tensioner before sprocket locking tool can be installed.

1. Position the CRANKSHAFT/CAMSHAFT SPROCKET LOCKING TOOL (HD-42314) between the crank and primary cam sprockets to prevent rotation. The handle of the tool is stamped “Crank” and “Cam” to ensure proper orientation. See Figure 1.

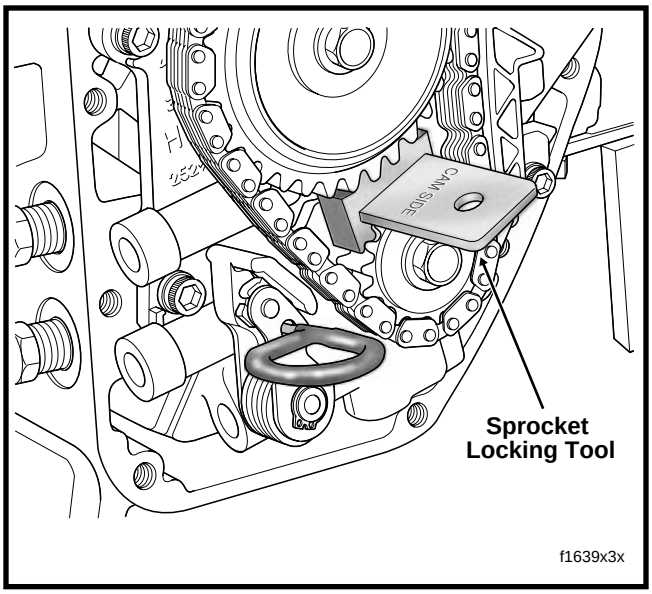

Figure 1. Lock Crank and Primary Cam Sprockets

2. Remove the flange bolts and flat washers from the crank and primary cam sprockets. Discard both the bolts and flat washers.

NOTE

See Figure 2. New crank and primary cam sprocket flange bolts are shouldered while the new flat washers have ground surfaces. The new flange bolts and flat washers are interchangeable.

3. Install **new** crank and primary cam sprocket flange bolts and flat washers as follows:

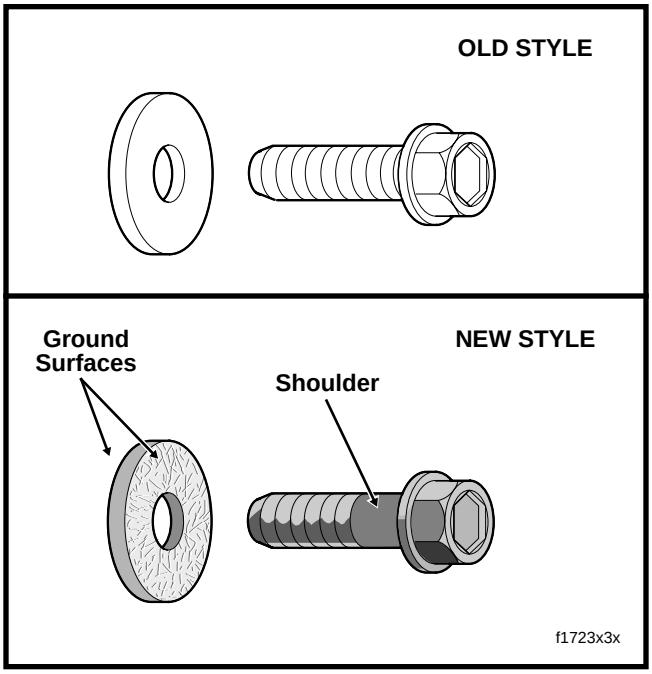

Figure 2. Flange Bolts and Flat Washers

a. Hand thread flange bolt (with flat washer) into end of camshaft. The bolt should easily thread completely into hole by hand. Remove bolt, and if necessary, run a 5/16” - 18 tap into hole to clean out any residual threadlocker.

b. Hand thread flange bolt (with flat washer) into end of crankshaft. Again, the bolt should easily thread completely into hole by hand. Remove bolt, and if necessary, run a 5/16” - 18 tap into hole to clean out any residual threadlocker.

c. Verify that all threads are free of oil and debris.

d. Apply Loctite Primer 7649 (P/N 98968-99) to threads of flange bolts.

e. Apply one drop of Loctite High Strength Threadlocker 262 (red) to threads of flange bolts.

f. Apply a thin film of clean H-D 20W50 engine oil to both sides of flat washers.

g. Install flange bolt with flat washer into end of crankshaft. Exercise caution to avoid mixing oil on washer with threadlocker on bolt.

h. Install flange bolt with flat washer into end of camshaft. Exercise caution to avoid mixing oil on washer with threadlocker on bolt.

i. Alternately tighten the crank and primary cam sprocket flange bolts to 15 ft-lbs (20.3 Nm).

j. Loosen each flange bolt one full turn.

k. Alternately tighten the crank and primary cam sprocket flange bolts to 24 ft-lbs (32.5 Nm).

l. Remove the sprocket locking tool.

4. See FINAL INSTRUCTIONS below.

Final Instructions

Assembly

1. Align holes in **new** cam cover gasket with those in the crankcase flange.

2. Install the cam cover using ten allen head socket screws. Following the pattern shown in Figure 3, alternately tighten screws to 90-120 **in-lbs** (10.2-13.6 Nm).

3. Capturing engine sensor harness conduit in cable clip, start T20 TORX screw into threaded hole at front of crankcase. Tighten screw to 20-30 **in-lbs** (2.3-3.4 Nm).

NOTE

On DYNA models, proceed directly to step 5.

4. Install exhaust system as follows:

   a. Install **new** gasket in front cylinder head exhaust port (with the tapered side out).

   b. Start two exhaust flange nuts to secure front header pipe to studs of front cylinder head.

   c. Tighten the exhaust system as follows:

   - Using a long 1/2 inch swivel socket, tighten the top nut of the front cylinder head exhaust flange to 9-18 **in-lbs** (1-2 Nm). Tighten the lower nut to 120 **in-lbs** (14 Nm). Final tighten the top nut to 120 **in-lbs** (14 Nm).
   - Tighten the transmission clamp bolt (with flat washer and locknut).
   - Tighten the TORCA clamp between front header pipe and rear header pipe to 45-60 ft-lbs (61-81 Nm).

   d. Install heat shields as follows:

   - Reposition heat shield over front header pipe to rear header pipe connection (outboard of transmission side cover).
   - Open worm drive clamps and install heat shield over front header pipe (below exhaust port).
   - Position each worm drive clamp so that screw is on the outboard side in the most accessible position and then tighten to 20-40 **in-lbs** (2.3-4.5 Nm).

⚠CAUTION

Verify that exhaust pipes and heat shields do not contact vehicle frame or any mounted components. Contact will cancel the effect of the rubber isolation mounts and transmit vibration to the rider.

5. Insert bolt through battery negative (-) cable, spacer and negative battery terminal. Thread bolt into terminal nut and tighten to 40 **in-lbs** (4.5 Nm).

6. Install seat.

⚠WARNING

Pull up on seat to verify that it is properly secured, front and rear. A loose seat may shift during vehicle operation and startle the rider, possibly causing loss of vehicle control and personal injury.

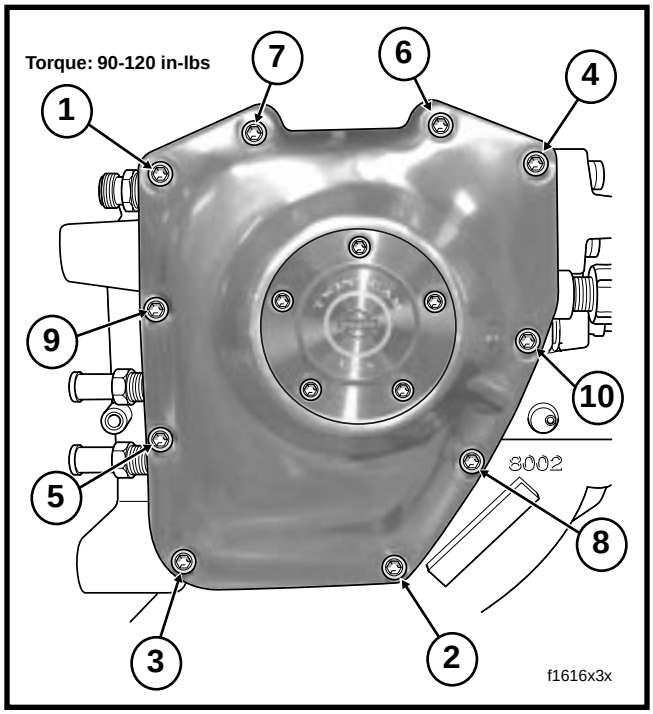

Figure 3. Cam Cover Torque Sequence

Credit Procedure

For each vehicle serviced, completely fill out a Dealer Service Card. Place a “C” in the letter box. If using the new bar coded card supplied to the customer with the notification, affix your bar coded dealer label in the appropriate box, if available. If using the old style Dealer Service Card, be sure you supply all the necessary information, including VIN, your dealer number and dealership name and address.

When Harley-Davidson receives your properly completed Dealer Service Card, you will be credited the labor shown by model in the following table. All times include 0.1 hour for dealer administration time.

MODEL	TIME
FXDL FXDWG FXDS CONV FXD FXDX	0.9 hr.
FLHT FLHTC FLHTCI FLHTCUI FLHR FLHRCI FLHP FLHPI FLHTPI FLTR FLTRI	1.2 hrs.

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO:
INITIAL HERE									

HARLEY-DAVIDSON MOTOR COMPANY
P.O. BOX 594, MILWAUKEE, WI U.S.A 53201

PARTS & ACCESSORY ORDER

M-1079

TYPE CODE	ORDER TYPE	VEHICLE IDENTIFICATION NUMBER
R	REGULAR	
P	POLICE	
D	DOWN VEHICLE	
W	WARRANTY	

DEALER ORDER	
ORDER DATE	
DEALER NO.	
ORDER TYPE	D-W
WARRANTY CLAIM NO.	

SOLD TO
NAME
ADDRESS
CITY/STATE/ZIP

SHIP TO
NAME
ADDRESS SAME
CITY/STATE/ZIP

FOR OFFICE USE ONLY	
ACCT.	174-409.5
FRT. ACCT.	174-409.5

QUANTITY	PART NUMBER	
	93879	**Code 095: ENGINE CAM SPROCKET BOLT** ***NOTE:*** All orders subject to approval. You may not receive the total quantity of kits ordered, due to parts a availability. If this happens, the remainder of the quantity ordered will go on future order status until parts become available.

WARRANTY CODE 095

PLEASE USE PART NUMBERS DO NOT USE FOR CORRESPONDENCE

F-1040

ALL ORDERS SUBJECT TO ACCEPTANCE AT MILWAUKEE, WI 53201

All goods covered by this order, including goods back-ordered, will be billed at prices current at the time of shipment. Goods are purchased for resale and delivery is made to purchaser F.O.B. factory, Milwaukee, Wisconsin or other point of origin. If accepted, this order as accepted shall be subject to availability of goods to seller for delivery to purchaser. Any delay in shipment shall not relieve purchaser of responsibility for his accepted order and seller shall not be liable for any loss or damage due to delay in shipment or failure to deliver. Any request for cancellation of this order or any part thereof must be received by seller prior to the date of shipment, and in case of reconsignment or return of goods to seller, purchaser shall pay the entire cost connected therewith, plus zero, ten or twenty-five percent of selling price, as determined by Company policy from time to time, as liquidated damages for loss of sale. Purchaser will be responsible for collection and payment of all Federal, State and local taxes that apply on the retail sales.

PLEASE USE PART NUMBERS DO NOT USE FOR CORRESPONDENCE

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