



INSTRUCTIONS

-J00028

REV. 3-1-95

Kit Number 24519-73H

SHOVELHEAD CRANKCASES

General

This kit is designed for use on FL, FX, FXR and FLT model motorcycles.

This kit contains the following parts:

QTY	DESCRIPTION
1	Set crankcases
1	Roller bearing
1	Needle bearing
1	Hex head screw, 5/16-24 x 5 in.
17	Washer, 5/16 in.
2	Hex head screw, 1/4-20 x 1-1/2 in.
4	Hex head screw, 1/4-20 x 2-3/4 in.
8*	Stud, 2 in.
2	Hex head screw, 5/16-18 x 3-1/2 in.
1**	Plug, vent hole
9	Nut, 5/16-24
2	Hex head screw, 5/16-24 x 5-3/8 in.
3	Stud, 5-3/4 in.

*1978 1/2 and earlier vehicles

**1980 and earlier vehicles

Crankcase Installation

NOTE

A Service Manual is available from your Harley-Davidson Dealer.

Refer to Service Manual for installation procedure.

See Figures 1 and 2. These crankcases have an oil pump vent hole to accommodate the 1981 and later oil pump. If a 1980 or earlier oil pump is being installed on these crankcases, the vent hole must be plugged. Use the vent hole plug provided with the kit. Tap the plug into the vent hole with a punch and hammer until the plug is just below the case surface.

In April 1990, Harley-Davidson changed the design of the Big Twin left side crankcase half. The crankcase half is now manufactured without the cast-in steel insert.

See Figures 3, 4. DO NOT REMOVE THE LOCK RING (12). There is no longer any need to remove the lock ring.

Make a note of this change in your Service Manuals. (Found in CRANKCASE DISASSEMBLY.)

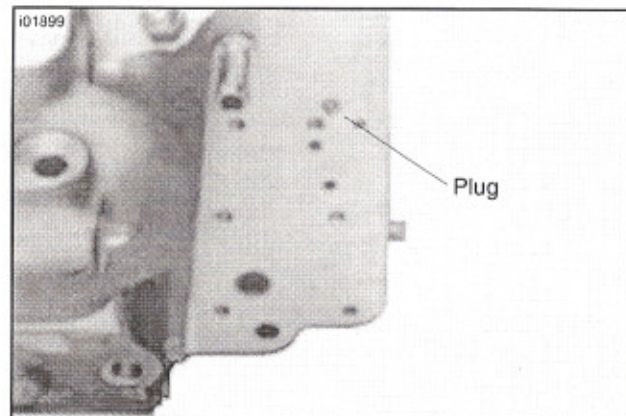


Figure 1. Plug Vent Hole

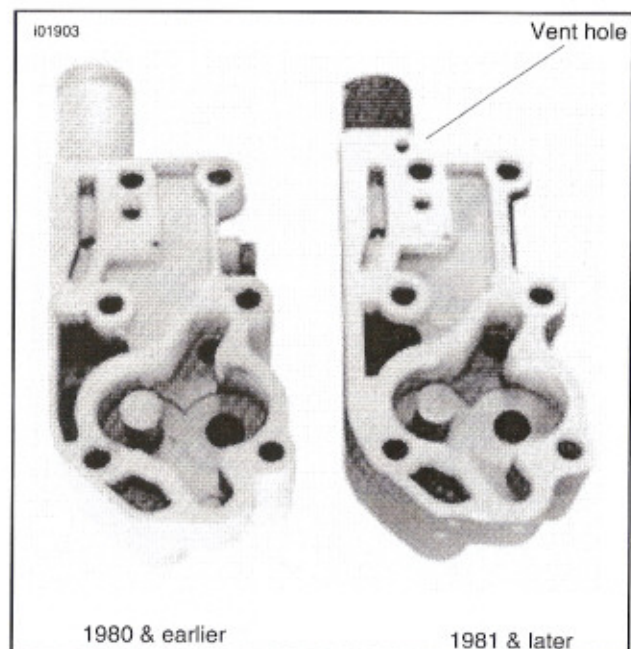


Figure 2. Oil Pump Comparison

The FLYWHEEL END PLAY and CRANKCASE DIS-ASSEMBLY procedures are the same except for the following:

When assembling the left crankcase half and flywheels, use the thickest available inner spacer (10), P.N 9134. Measure the spacer before installation. Record the measurement. Next, follow the procedure under CRANKCASE ASSEMBLY in the Service Manual.

Follow Service Manual procedure and check end play. Record the measurement. Subtract your measurement from the spacer measurement to determine the correct spacer.

Example: (Use Spacer Chart in Service Manual)

Specification from Service Manual is 0.001 - 0.005 in.
 Measured end play is 0.007 in.
 Spacer # 9134 measured 0.120 in.
 Subtract 0.007 from 0.120:

	0.120
	- 0.007
	0.113
PLUS DESIRED END PLAY.....	+ 0.003
	0.116

Use spacer # 9132. Check end play again.

See Figure 5. Replacement crankcase sets come with the oil evacuation hole for oiled primary chains (dry clutch vehicles) machined into the right side crankcase half. There is a pipe plug installed in the hole.

If you replace the crankcases on a dry clutch vehicle, you must remove the pipe plug and install the nipple from the old right side crankcase half.

If you replace the crankcases on a wet clutch vehicle, you must leave the pipe plug in place.

Follow Service Manual procedures to replace the crankcases.

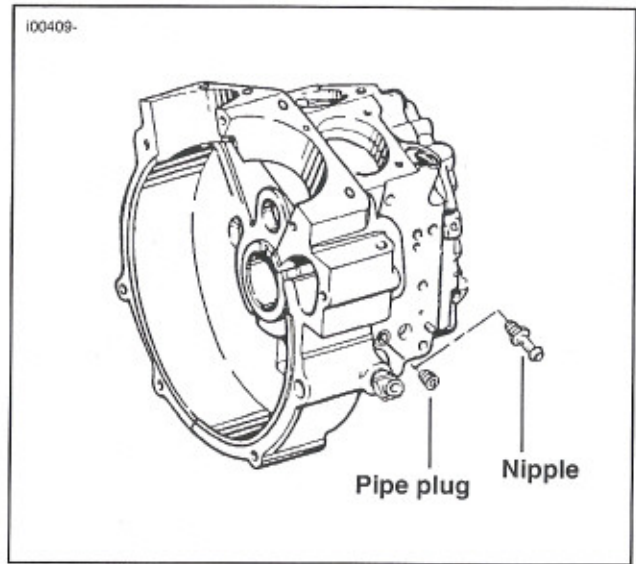


Figure 3. Crankcase Evacuation Hole

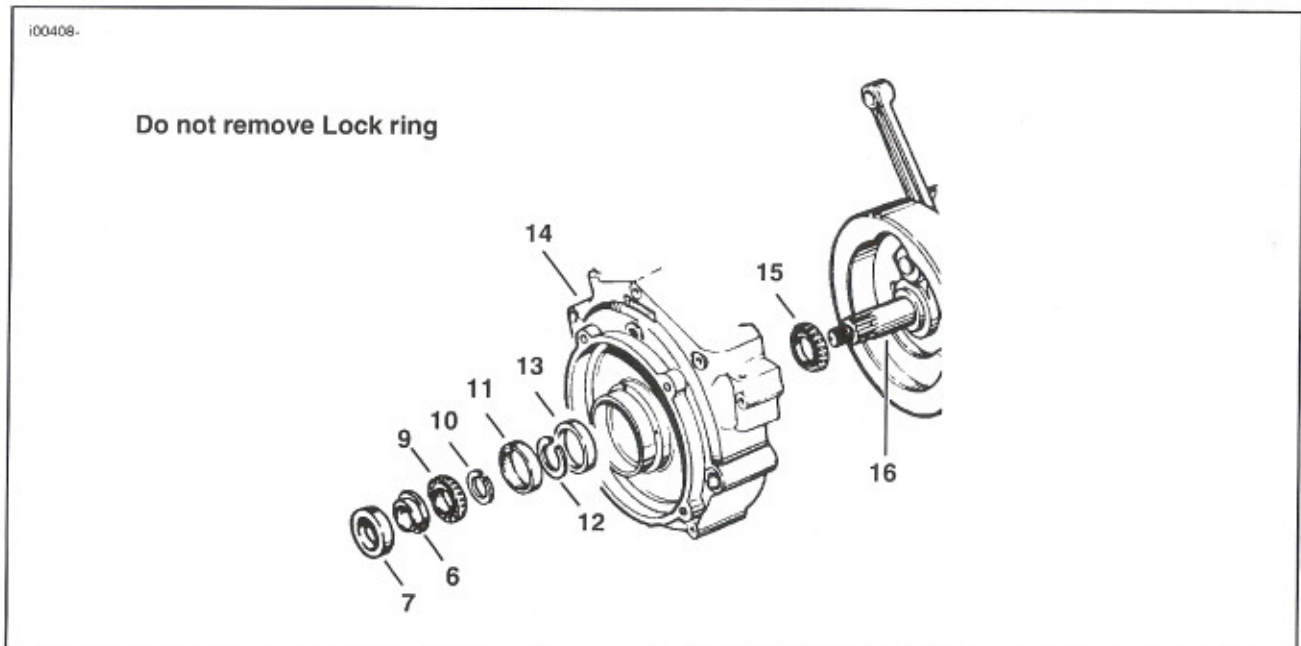


Figure 4. Lock ring