SERVICE BULLETIN

M-888 April 17, 1984

1340cc GENERAL SERVICE INFORMATION

Diaphragm Clutch

NOTE

The following clutch information is an addition to Service Bulletin M-878.

DIAPHRAGM CLUTCH RETAINING NUT

The clutch retaining nut, which fastens the clutch hub to the transmission mainshaft, was "locked" with Loctite 242 (blue) on motorcycles built before February 15, 1984. After February 15, 1984 a nut with a nylon lock patch has been used.

Removing Clutch Retaining Nut

CAUTION

The clutch retaining nut has left hand threads - it must be turned clockwise to remove it. If nut is difficult to loosen, heat the nut with a propane torch to weaken the Loctite bond.

Reinstalling Clutch Retaining Nut

1. Place 1-2 drops of Loctite 242 on threads of nut or mainshaft and assemble. (Use Loctite 242 on nuts with or without nylon lock patch.)

2. Tighten clutch retaining nut to 35-50 ft-lbs torque.

DIAPHRAGM CLUTCH ADJUSTMENT

CAUTION

To avoid clutch slippage and/or clutch release bearing damage adjust the clutch in accordance with the following procedure. This adjustment must be made during Pre-delivery and Set-up.

5-Speed Models

1. Follow the adjustment procedure given in Service Bulletin M-878; but, back-out adjusting screw (item 1, Figure 4 of Service Bulletin M-878) 3/4 turn instead of 1/8 - 1/4 turn specified in Service Bulletin M-878.

2. Reattach clutch cable to release arm and adjust clutch cable so 1/16 in. gap exists between clutch hand lever and bracket as shown in Figure 1 below.

4-Speed Models

1. Remove clutch cable from the release arm.

2. Loosen locknut (item 2, Figure 4 of Service Bulletin M-878) and turn adjusting screw (item 1, Figure 4 of Service Bulletin M-878) to position the release arm 13/16 in. from the tower on transmission cover. See Figure 5 in Service Bulletin M-878.

3. The above dimension must be checked with light finger pressure on the release arm to remove free play in the push rods.

4. Reattach clutch cable to release arm and adjust clutch cable to dimension shown in Figure 1. Refer to Figure 6 in Service Bulletin M-878.

Figure 1. Adjusting Clutch Free Play

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

Carburetor Gasket (All 1340cc Engines)

A gasket (Sportster Part No. 27023-71) has been added between the carburetor and the insulator block on all 1340cc engines assembled in February, 1984 and the remainder of the 1984 model year. See Figure 2.

On earlier 1340's, if an air leak is found or suspected between the carburetor and insulator block, install the gasket.

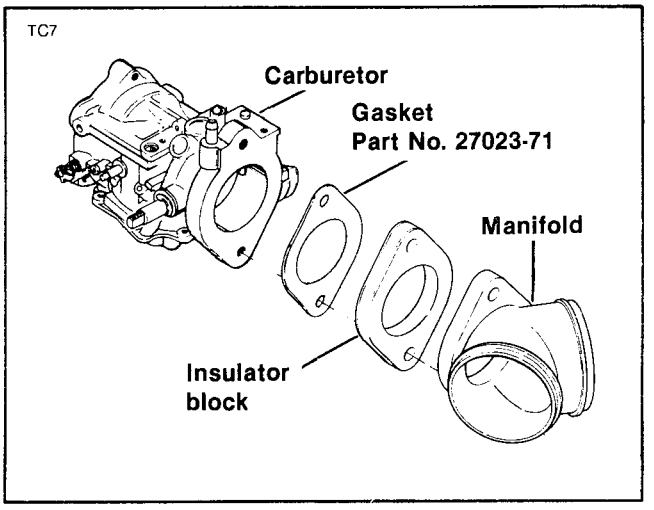

Figure 2. Gasket Location

Head Bolt Torque (All Evolution Engines)

The head bolt torque specification has been increased from 22-24 ft-lbs to 24-26 ft-lbs. Refer to Service Manual for tightening procedures.

CAUTION

Retightening head bolts is not recommended. Excessive tightening torque or tightening head bolts after an engine has been run may cause cylinder stud or head bolt breakage.

5-Speed Vehicle Alignment

In the chassis section of the 1984 FLT-FXR service manual are the latest procedures for aligning all 5-speed models. Because this more accurate, less time consuming procedure is quite different than in earlier manuals, it will be necessary to refer to the 1984 manual when aligning earlier models. After completing vehicle alignment, the front engine mount alignment should be checked following the procedure in this Service Bulletin.

ALIGNING FRONT ENGINE MOUNT ON ALL 5-SPEED MODELS

General

Aligning or centering the front engine mount is necessary because the mount functions as a damping spring. The smallest amount of preload can cause abnormal vibrations. If the mount is preloaded, the rubber will bulge, in one direction away from the outer metal plate. See Figure 3.

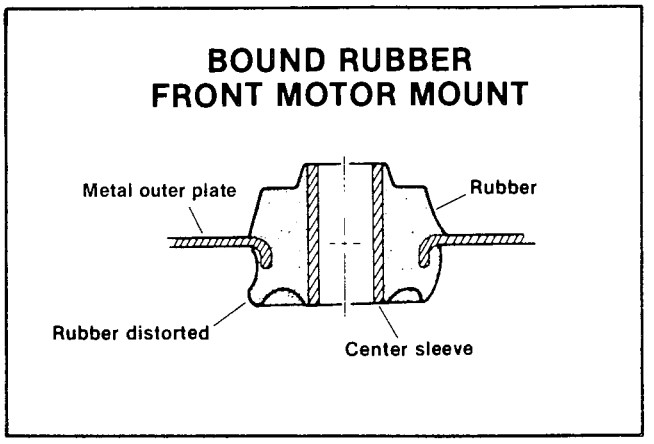

Figure 3. Misaligned Engine Mount

Aligning the Mount

After performing the "VEHICLE ALIGNMENT" procedure given in the 1984 FLT/FXR Service manual through Step 13, or if there is an abnormal vibration complaint, align the front engine mount as follows:

1. Remove the two voltage regulator bracket bolts.
2. Move the voltage regulator and bracket out of the way. Be careful not to damage wires connected to the voltage regulator.
3. With the engine weight on the mount, check that the two mount-to-frame bolts are loose. (These bolts should have been loosened in Step 9 of the VEHICLE ALIGNMENT procedure.)
4. See Figure 4. Push the mount outer plate from side to side until the rubber bulge feels even with the outer plate at the bottom side of the mount (equal bulge). Retighten the two mount bolts to 20 ft-lbs torque.

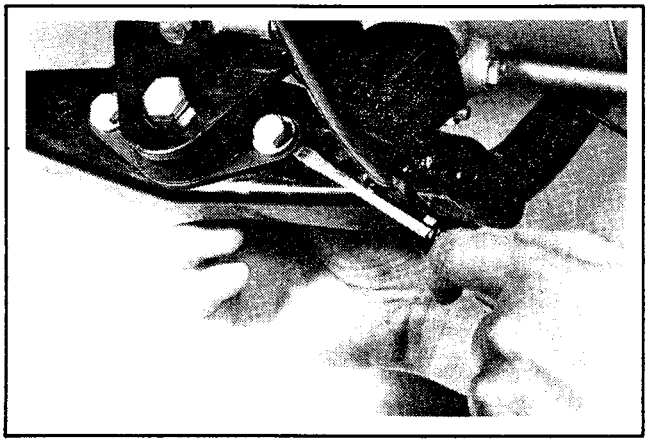

Figure 4. Aligning Mount Sideways

5. See Figure 5. Remove the long center bolt. Again leaving the engine weight on the mount, push the top of the center sleeve fore or aft to center the rubber bulge with the outer plate fore and aft at the bottom (equal bulge).

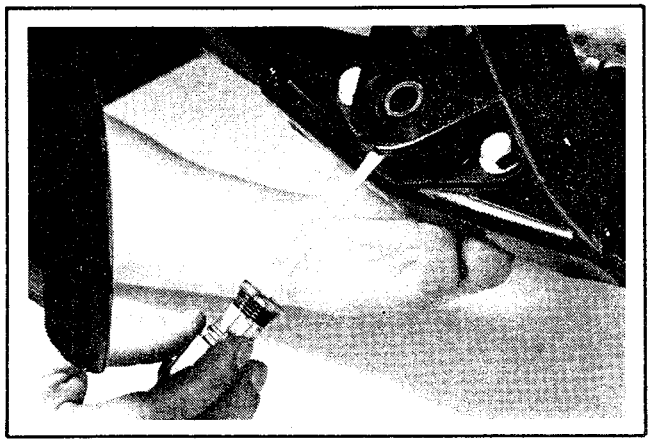

Figure 5. Aligning Mount Front-to-Rear

6. See Figure 6. With the mount now centered, the 1/2 in. hole in the mount plate may not align with the mount center sleeve. A smaller diameter thru-bolt may be necessary.

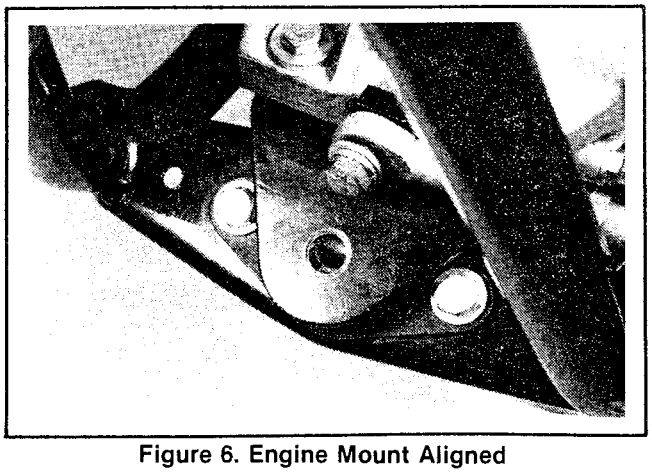

Figure 6. Engine Mount Aligned

CAUTION

Do not install a smaller 3/8 in. diameter bolt without checking to determine if the 7/16 in. bolt will fit. The following tabulation lists part numbers for both 3/8 and 7/16 in. bolts, washers and nuts and the torque requirements.

ITEM	PART NO.	TORQUE (ft-lbs)
7/16 in. bolt Washer (2 req.) Nut	3519 6516HW 7827W	55-60
3/8 in. bolt Washer (2 req.) Nut	3512 6019 7782	24-27

NOTE

Late 1984 models may already have the 3/8 in. diameter bolts; but, it may be necessary to properly align the engine mount.

7. Tighten the center thru-bolt to the applicable torque given in the previous tabulation.

8. Reinstall the voltage regulator and bracket.

Driveability Improvement (1984 FLTC and FLHTC only)

If customers complain of severe hesitation at 2500 rpm and lower rpm's or high speed surging, the following changes can be made:

NOTE

The following changes should only be made to correct existing problems. Do not modify motorcycles that are performing satisfactorily. Late 1984 FLTC and FLHTC models already have the 175 main jet and the Part No. 26555-84 V.O.E.S.

CARBURETOR JET

The high speed main jet can be changed from the standard 165 jet to a 175 jet. This change will allow for a smoother transition from the low speed circuit to the high speed circuit.

AIR CLEANER BACK PLATE

It is very important while reinstalling the air cleaner back plate to pay close attention to air cleaner spacing. This will prevent back plate deformation and ensure a proper seal to the carburetor. If leakage does occur between the carburetor and air cleaner back plate, high speed surging could occur.

VACUUM OPERATED ELECTRIC SWITCH (V.O.E.S.)

FLTC and FLHTC models are equipped with one of the V.O.E.S. listed in Table I.

TABLE I

MODEL	V.O.E.S. PART NO.	VACUUM SETTING	MARKING
1984 FLTC & FLHTC	26555-83	6.3 - 7.7 in. Mercury (Hg)	None
1984½ FLTC & FLHTC	26555-84	5.0 - 6.0 in. Hg.	Red paint dab on hose nipple

Recalibrating or replacing V.O.E.S.

If engine hesitation occurs at 2500 rpm and lower rpm, recalibrate or replace the V.O.E.S. as follows.

Recalibrating V.O.E.S.

1. Remove vacuum hose and check the hose nipple. If the hose nipple has a red paint dab, this identifies the switch as Part No. 26555-84 and recalibration is not required. (You may wish to check that V.O.E.S. is actuating at the correct vacuum.)

2. If hose nipple is unmarked, remove the V.O.E.S. and scrape out the silicone sealer at the top of the switch.

3. See Figure 7. Connect an ohmmeter to the switch leads and attach VACUUM PUMP, Part No. HD-23738 to vacuum hose nipple.

4. Reset the adjusting screw so the switch closes at 5 in. Hg.

CAUTION

Place your thumb over the adjusting screw hole to seal the opening while applying vacuum.

5. Reseal the adjusting screw hole with silicone sealant.

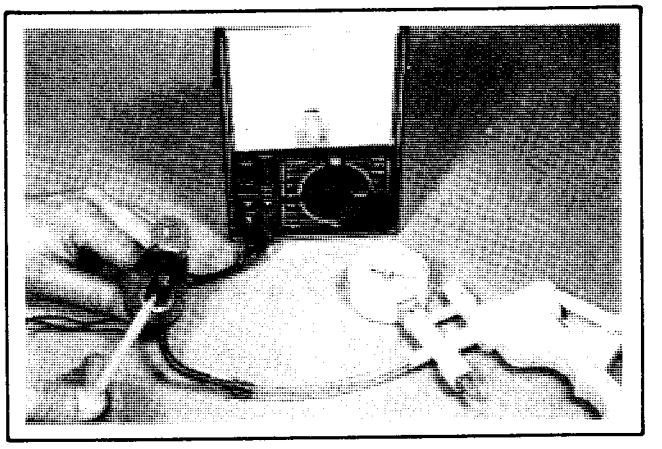

Figure 7. Recalibrating V.O.E.S.

6. Reinstall the V.O.E.S.

Replacing the V.O.E.S.

If V.O.E.S. cannot be recalibrated, has a vacuum leak or is electrically defective, replace the switch with Part No. 26555-84.