June 15, 1978

HIGH ALTITUDE CARBURETOR KITS/1978 1/2 AND 1979 MODELS

Carburetor modification kits are being made available for installation in 1200cc, 1340cc and 1000cc models to provide leaner fuel mixtures when operating at elevations over 4000 feet above sea level.

Normally, leaner fuel/air mixtures are required for proper engine operation as the elevation above sea level increases.

The following high altitude kits should be installed where there is evidence of over-richness causing loss of smooth combustion, "stumbling" when accelerating, or other driveability complaints at high altitudes. These kits are on order from the carburetor manufacturer and will be available to you about July 1.

Part No. 27094-78 for $1978\frac{1}{2}$ FLH-1200

Part No. 27095-78 for $1978\frac{1}{2}$ FX, FXE, FXS-1200

Part No. 27096-79 for 1979 XLH (XL), XLCH, XLCR-1000

Part No. 27093-78 for 1978 FLH-80 (1340cc)

An instruction sheet with complete information on kit parts and installing procedure is included with this bulletin.

Please note that the instruction sheet cautions that any motorcycle modified for high altitude operation must be converted back to standard if operated at altitudes below 4000 feet. Over-lean operation may cause engine damage.

HARLEY-DAVIDSON MOTOR CO., INC.

ROUTING SERVICE PARTS

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PART NUMBER

SEE TABLE BELOW

INSTRUCTIONS

AMF HARLEY-DAVIDSON

GENUINE PARTS
AND ACCESSORIES

HIGH ALTITUDE CARBURETOR KIT $1978\frac{1}{2}$ & LATER 1200/1340cc AND 1979 & LATER 1000cc MODELS

Above carburetor modification kits are designed to correct possible motorcycle operating problems caused by incorrect carburetion at higher altitudes. Leaner fuel/air mixtures are required as the elevation above sea level increases. The decreased jet sizes and fuel accelerator pump modifications covered in these instructions should be applied where there is evidence of over-richness causing loss of smooth combustion, "stumbling" upon acceleration or other driveability complaints at high altitudes.

The kits consist of the necessary parts for converting carburetors for motorcycle operation at altitudes over 4000 feet above sea level.

KIT PART NO.	MODEL	ITEM
27094-78	FLH-1200	No. 160 Main Jet No. 72 Low Speed Jet Label for Frame Front Down Tube
27095–78	FX/FXE/FXS-1200	Accelerator Pump Stop Screw Label for Frame Front Down Tube
27096–79	XLH/XLCH/XLCR-1000	No. 160 Main Jet Accelerator Pump Stop Screw Label for Frame Front Down Tube
27093-78	FLH-80 (1340cc)	No. 155 Main Jet Label for Frame Front Down Tube

In addition to installing the above parts on the carburetor, the FLH-1200 models will require changing the accelerator pump spring preload position.

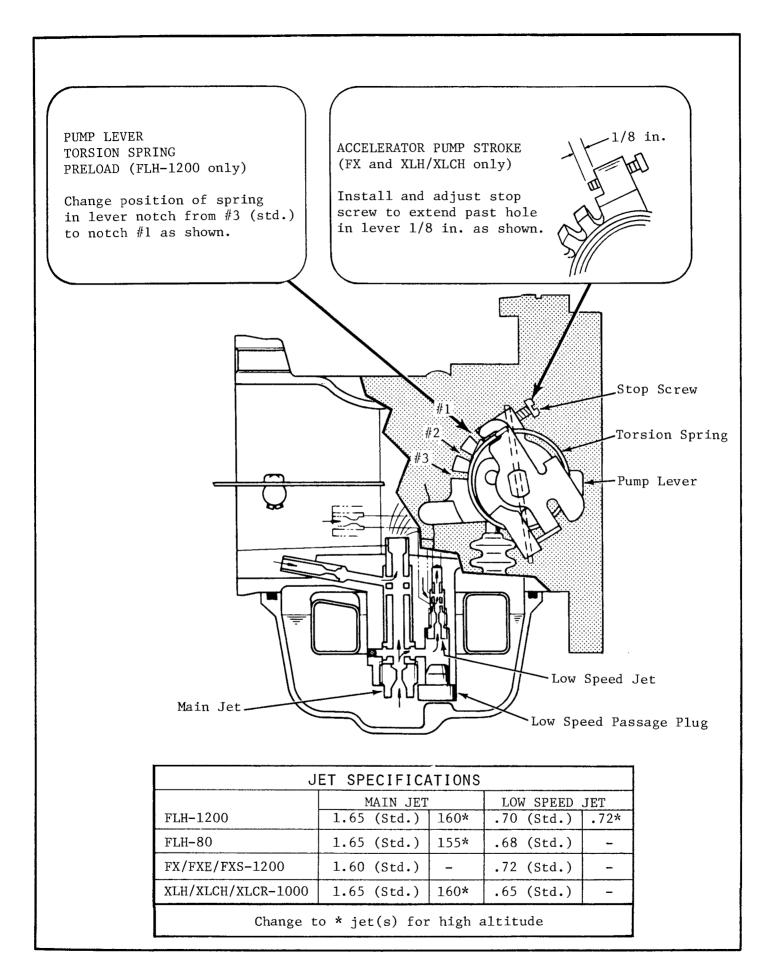
CAUTION! If motorcycles modified for high altitude are to be operated at altitudes below 4000 feet, they must be converted back to standard to prevent possible engine damage due to over-lean fuel mixture.

INSTRUCTIONS:

Shut off fuel supply to carburetor. Before disassembly, note arrangement of parts for later reassembly.

Remove 3 socket head screws and washers from air cleaner cover and remove cover, baffle plate and filter element. Remove 3 screws securing backing plate to carburetor flange and 2 nuts securing backing plate to cylinder brackets to free backing plate. Disconnect crankcase vent hose from fitting on rear of backing plate.

FLH, XLH, XLCH and XLCR models require jet changes as specified in above table. Jet changes can be made with carburetor assembled to engine. Remove float chamber to make jet changes by removing 3 short screws and 1 long screw from bottom of carburetor. See illustration for location of main jet and low speed jet with cover plug. When removing chamber, note position of accelerator pump rod for correct reassembly. Unscrew old jets and install correct jets in applicable carburetor as shown in table.



HIGH ALTITUDE CARBURETOR KIT

Inspect condition of 0-ring, part No. 27889-78, and replace if damaged. Carefully reinstall float chamber to prevent disturbing float setting and make sure 0-ring is correctly installed in groove of flange for proper sealing. Tighten screws to 10 in-lbs torque.

FX, FXE, FXS, XLH, XLCH and XLCR models require installation of accelerator pump stop screw, part number 27306-76, to reduce the pump stroke. A right angle Phillips tip screwdriver facilitates installation of the screw with carburetor assembled to the engine. A right angle screwdriver can be obtained locally or made by heating a screwdriver tip to red hot using a torch, clamping the hot screwdriver tip into a vise about 3/4 in. and bending to a 90° angle. Turn the self-tapping screw into the blank hole of the accelerator pump lever as shown in the illustration. Threaded tip of screw should extend out of the lever hole 1/8 in. as shown.

On the FLH-1200 model only, change preload position of the pump lever torsion spring from notch #3 (standard) to notch #1.

Reinstall air cleaner backing plate to cylinder brackets making sure backing plate is flat against carburetor flange gasket. If necessary, loosen cylinder brackets and adjust to obtain correct alignment. With backing plate correctly aligned, reconnect crankcase vent hose to fitting on rear of backing plate and tighten 2 bracket bolts to 12-15 ft-1bs torque.

Install 3 screws to secure backing plate to carburetor flange. Install filter element, baffle plate and air cleaner cover using 3 socket head screws and washers and tighten to 75-80 in-1bs torque.

After reassembly, check to make sure all gaskets, seals and connections are air tight.

Apply caution label to frame front down tube.

Test ride to check performance. Check slow and fast idle speeds per Owner's Manual procedure.

Replacement parts are available under the following part numbers:

27036-76 Accelerator Pump Stop Screw 27097-78 Label 27098-78 No. 155 Main Jet 27888-78 No. 160 Main Jet