

SERVICE BULLETIN

M-965

MAY 31, 1988



XLH C.V. CARBURETOR

General

There are some owners of 1988 Sportsters who have reported some difficulty adjusting to the operation of the enrichener control on **c.v.** carburetors.

A more detailed operating procedure has been put together to help riders who are experiencing difficulty. The procedure takes into account the direct relationship between air temperatures and warm up times.

CV Carburetor Starting and Warm-up Procedure

NOTE

These instructions are guidelines for cool and warm engine starting procedures. As you become familiar with the carburetor's operation, you may make modifications to suit your riding style and operating conditions.

Cool Engine

BE SURE THROTTLE IS CLOSED. See Figure 1. Pull enrichener knob fully out. Turn the ignition switch on and press starter switch to operate the electric starter.

CAUTION

You must pay close attention to a C. V. carburetor equipped vehicle's warm up time. Both excessive use and insufficient use of the enrichener may cause poor performance, erratic idle, poor fuel economy and spark plug fouling.

Outside Temperature Less than 50°

The vehicle should be allowed to warm up for only 15-30 seconds before being driven. Initial warm-up periods longer than 30 seconds are not recommended.

1. See Figure 1. If the outside temperature is less than 50° F., ride for 5 minutes or 4 miles with enrichener knob fully out.
2. See Figure 2. Push the enrichener knob in 1/2 way. Ride another 2 minutes or 2 miles.

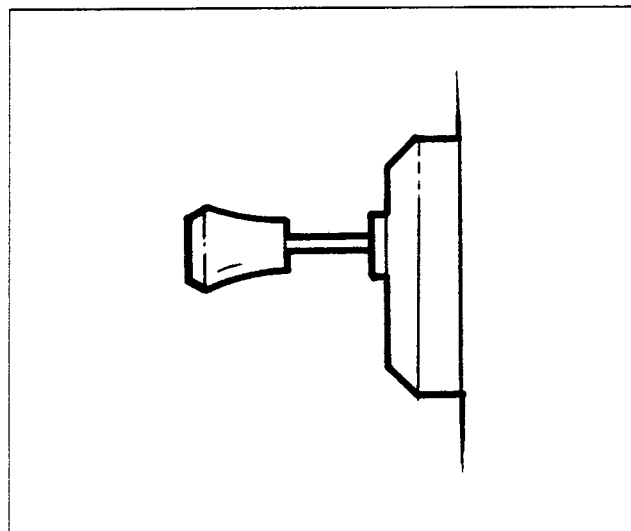


Figure 1. Enrichener Knob fully out

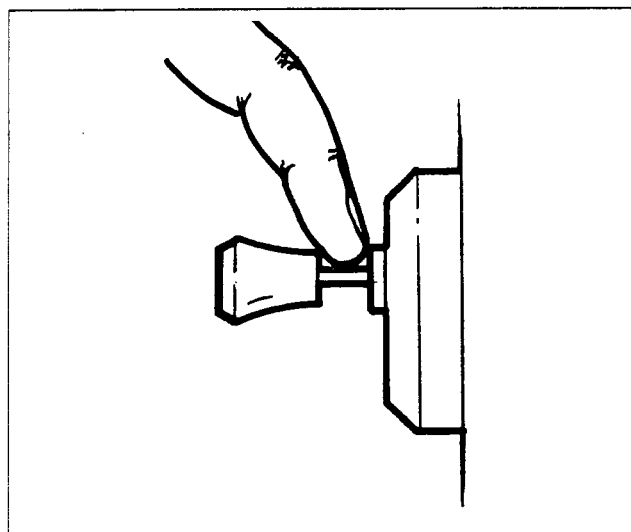


Figure 2. Enrichener Knob 1/2 Way Out

| 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 | | | | | | | | | |

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3. See Figure 3. Then push enrichener knob fully in.

Outside Temperature Greater than 50° F.

The vehicle should be allowed to warm up for only 15-30 seconds before being driven. Initial warm-up periods longer than 30 seconds are not recommended.

1. See Figure 1. If the outside temperature is greater than 50° F., ride for 3 minutes or 2 miles with enrichener knob fully out.
2. See Figure 2. Push the enrichener knob in 1/2 way. Ride another 2 minutes or 2 miles.
3. See Figure 3. Then push enrichener knob fully in.

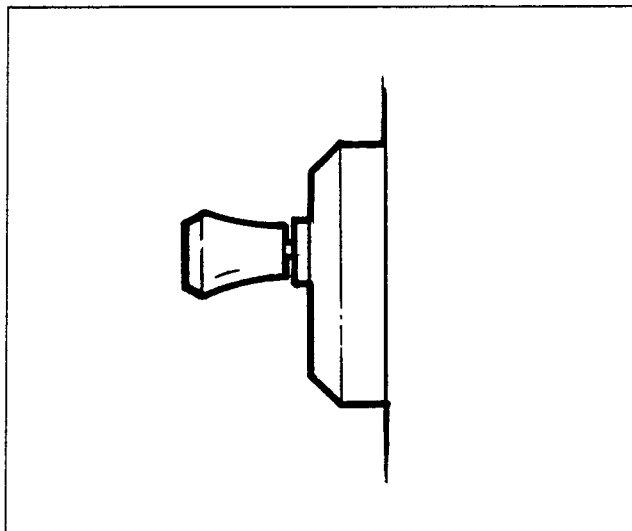


Figure 3. Enrichener Knob fully In

Warm or Hot Engine

Open throttle 1/8-1/4. Turn on ignition switch and operate electric starter. See Figure 3. DO NOT USE ENRICHENER.

Carburetor Modification

If, after following the above instructions there are people who are still experiencing unsatisfactory operation, the following modification may be performed. This modification consists of enlarging the enrichener mixture passage and installing a jet reducer in the starter fuel jet.

In order to take care of your immediate needs to perform this modification, we have included with this bulletin (1) 5mm drill bit and (5) jet reducers. These parts have been shipped no charge, freight prepaid.

Additional jet reducers will become available June 24 and can be ordered through Parts and Accessories by ordering Part No. 27285-88.

Each order for this part will be shipped in package quantities of (10) ten, and you will be billed for each order. The procedure for installing the kit follows.

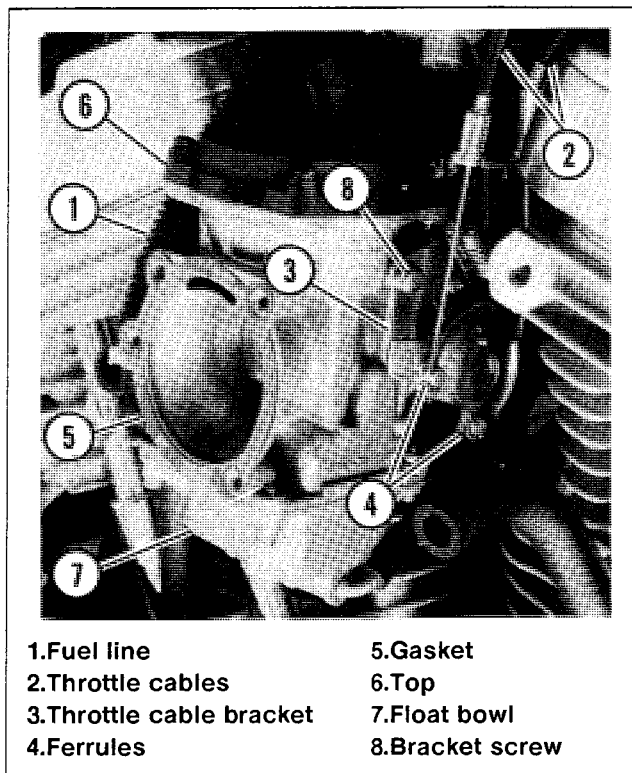


Figure 4. Carburetor Mounting

Removal of Carburetor

WARNING

Gasoline is extremely flammable and highly explosive under certain conditions. Do not smoke or allow open flame or sparks anywhere in the area when refueling or servicing the fuel system.

Follow the removal procedure in the 1986-1988 XLH Service Manual with the following exceptions:

- Free enrichener control handle at mounting bracket by loosening nut at back of mounting bracket and sliding enrichener control out of slot. Leave enrichener cable attached to carburetor.
- It is not necessary to remove the fuel tank. Hose clamp at intake manifold can be loosened with 1/4 in. drive socket wrench, 3 in. extension and 5/16 in. socket.

- See Figure 4. Disconnect throttle cable bracket (3) by removing top and bracket screws. Bracket screw (8) will have to be removed with ratchet type power screwdriver or pliers as this is torqued very tight. After bracket is loose disconnect throttle cable ferrules. Leave bracket hang on cables.

Enrichener Passage Modification

1. Remove vacuum piston chamber top and vacuum piston as instructed in the 1986-1988 XLH Service Manual.

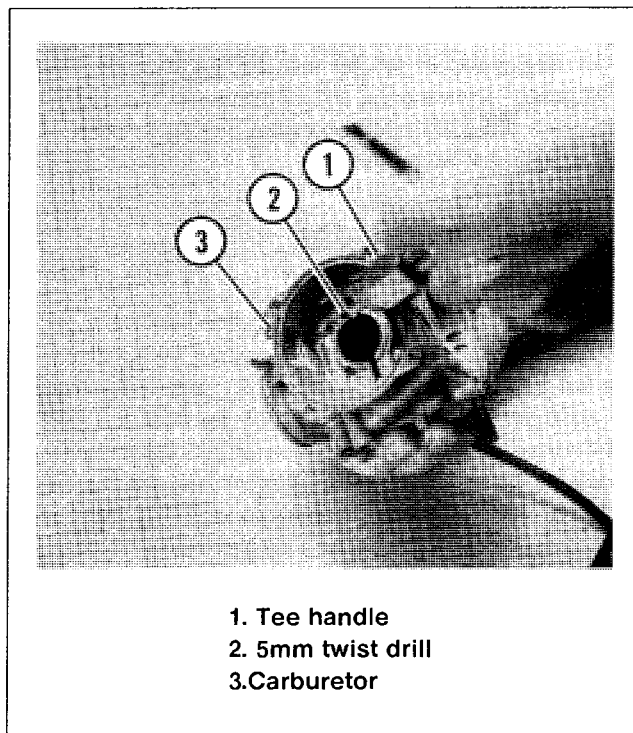


Figure 5. Enlarging Starter Passage

2. Remove enrichener cable guide, spring and starter valve.

IMPORTANT

Do not use an electric drill or any other size drill bit other than the 5mm bit furnished in the kit. The passage must be precise and to the 5mm diameter specified

3. See Figure 5. Clamp 5mm drill bit (2) into tap handle (1). Support carburetor at angle with manifold end of carburetor downward to prevent any metal particles from getting into carburetor.
4. Carefully start drill bit into starter passage. Turn bit into passage until bit extends into the venturi. Withdraw bit while continuing to turn the bit clockwise.

5. Rinse any chips from carburetor venturi and enrichener passage with PJ1 Super Cleaner or carburetor cleaner. Blow with compressed air.
6. Insert starter valve into enrichener passage. Move valve in and out to be sure it is not hanging up on a rough edge or burr. If a burr is present very carefully smooth out with a fine file.
7. Reinstall enrichener components.
8. Install vacuum piston and vacuum piston chamber top as instructed in the 1986-1988 XLH Service Manual.

CAUTION

Care must be taken to be sure the diaphragm is seated properly in the groove in carburetor body and spring is not kinked or bound. Check after installation by working piston up and down with finger.

Starter Jet Modification

1. Mount carburetor in vise with float bowl upward.
2. Remove float bowl following procedure in 1986-1988 XLH Service Manual.

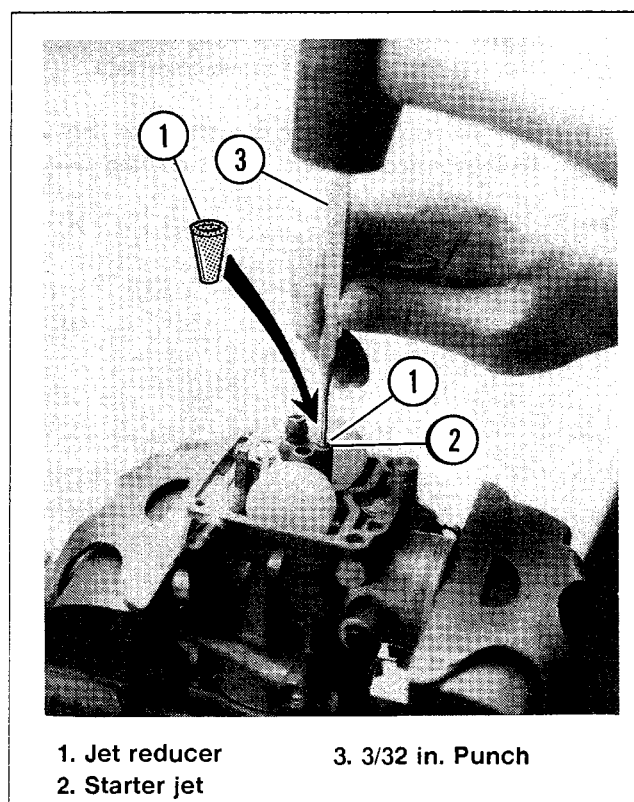


Figure 6. Installing Jet reducer

3. See Figure 6. Place jet reducer (1), tapered end down, into center hole in starter jet (2).

CAUTION

Do not use punch smaller in diameter than 3/32 in. A punch smaller in diameter than the diameter of the jet reducer will enable the jet reducer to be driven below the surface of the starter jet. Do not drive the jet reducer with such force that the jet itself is driven into the carburetor body. If the jet is driven into the carburetor body the carburetor will be unusable.

4. Using a 3/32 in. punch and a light weight hammer, 24 ozs. or less, lightly tap the jet reducer down flush with the top surface of the starter jet
5. Install float bowl following procedure in 1986-1988 XLH Service Manual.

Carburetor Installation

Install carburetor following procedure in 1986-1988 XLH Service Manual with following exceptions:

- See Figure 4. Connect throttle cable ferrules to carburetor. Place throttle cable bracket (3) in position with idle screw resting on top of throttle cam stop. Install bracket screw (8) and washer first, then top screw to prevent bending bracket or throttle cam. Route the enrichener control cable over top of the manifold to the other side.
- Connect V.O.E.S. hose to carburetor and insert carburetor into manifold. With carburetor vertical

torque hose clamp.

- Connect fuel line (1) and new clamp
- Position enrichener control in slot in bracket and torque nut.
- Install new carburetor gasket (5).
- Install air cleaner components.

OWNER'S STARTING PROCEDURE

For your convenience the new starting procedure has been duplicated in full on the last page of this bulletin. Please tear off this page and duplicate as many copies as you think you may need and give a copy to each of your 1988 Sportster customers.

CREDIT PROCEDURE

Upon completion of each modification submit a properly completed Warranty Claim Form using Labor Code 3507 for 0.5 hrs. The labor code includes administrative time. In addition to labor, you will also be credited for any carburetor gaskets and hose clamps used from your stock. In the event you order additional quantities, you will also be credited for any additional reducers upon receipt of a properly completed warranty claim form.

C. V. CARBURETOR STARTING AND OPERATION INSTRUCTIONS

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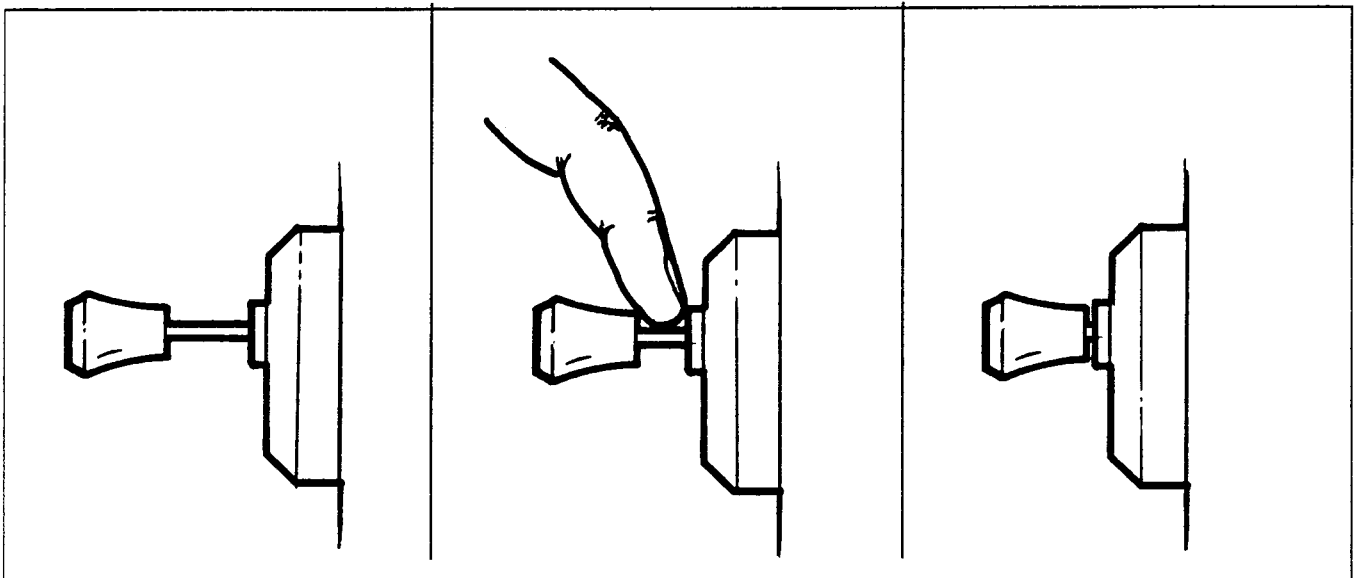


Figure 1. Enrichener Fully out Figure 2. Enrichener Knob 1/2 way Out Figure 3. Enrichener Knob fully in