

# SERVICE BULLETIN



M-1063A

Safety Recall Code 088

November 1, 1996

## VACUUM OPERATED FUEL VALVES

### GENERAL

As recently advised in the October 15, 1996 Mailgram (ML-342), Harley-Davidson has become aware that the effects of reformulated gasoline, along with certain usage of the vacuum operated fuel valve (Part Nos. 61338-94, 61338-94A and 62169-95) could affect the supply of gas to the carburetor. This condition required two factors: the use of reformulated fuels containing MTBE, and starting the motorcycle with the fuel valve handle in the OFF position. This could affect the operation of the diaphragm in the fuel valve. The fuel flow could become unpredictable in certain situations thus causing the engine to shut down.

As a precautionary measure, Harley-Davidson has elected to initiate a voluntary recall campaign in the interest of motor vehicle safety and customer satisfaction. This voluntary recall applies to:

1994 FL Touring Models

1995, 1996, 1997 XL, FX, FX/FL Softail, and FL Models (equipped with vacuum operated fuel valves) manufactured through September 30, 1996)

Attached is a list of all the motorcycles delivered to your dealership that are involved in this campaign.

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

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.

### IMPORTANT NOTE

*Because only registered owners will receive notification from us, we request that you contact any owners of motorcycles 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).*

The service required by this recall involves replacing the original fuel valve diaphragm assembly with the diaphragm assembly contained in the Recall Code 088 Kit (Part No. 93797). See Pages 2 and 3 of this bulletin for detailed instructions.

A partial shipment of Recall Code 088 Kits will begin on or around November 7, 1996. All kits will be shipped no charge, transportation paid. If additional kits are needed, please fill out the attached order form and send it to the attention of the Warranty Department.

The Recall Kit contains:

Qty	Description
1	Diaphragm assembly
1	Fuel hose clamp

### CREDIT PROCEDURES

#### Vehicle Repair

For each motorcycle repaired, 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 label is available), otherwise simply write your dealer number in the appropriate box. If using the old style Dealer Service Card, be sure you supply all 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 for 0.2 hours of labor for performing the procedures outlined in this bulletin, which includes 0.1 hour for dealer administration time.

#### Dealer Stock Parts

Remove all affected vacuum operated fuel valves, Part Nos. 61338-94, 61338-94A, and 62169-95, from your stock. To receive credit, complete a regular Warranty Claim Form referencing Service Bulletin M-1063 in the "Description of Repair" section. Fill in the rest of the claim as follows:

CLAIM TYPE	DFS
QTY.	-
EVENT 1, PROBLEM PART NO.	61338-94
EVENT 2, PROBLEM PART NO.	61338-94A
EVENT 3, PROBLEM PART NO.	62169-95
PART DESCRIPTION	Fuel Valve
CUSTOMER CONCERN	9205
CONDITION CODE	9109

#### NOTE

*"Quantity" and "Problem Part" will vary depending upon what you have in stock. If you happen to have both fuel valves in stock, list two separate events on the claim form, as demonstrated above.*

## GENERAL

Use the repair procedure below to replace the fuel valve's diaphragm. **Read the entire procedure before attempting repair.**

### WARNING

To avoid personal injury, perform the following repair procedure on a cold engine only. Do not smoke or allow open flames anywhere in the area when working on fuel system components. Gasoline is extremely flammable and highly explosive under certain conditions.

## REPAIR PROCEDURE

### NOTE

There may be some minor fuel leakage during this procedure. Place a shop rag under the valve as shown in Figure 1 to catch any fuel.

See Figure 2 for Illustration of valve components.

### 1340 Models

1. Turn fuel valve lever to the OFF position and remove vacuum hose from valve nipple.
2. Disconnect fuel hose from outlet fitting on valve body.
3. Loosen fuel valve hex fitting just enough (approximately 1/8 turn) to allow valve body to be rotated.
4. Turn valve body to the right until back of valve is accessible, then tighten hex fitting to prevent fuel from leaking.
5. Remove the four black screws with captured lockwashers that hold the diaphragm cover in place.
6. Remove the diaphragm cover and coil spring. Note the orientation of the original diaphragm as it sits in the diaphragm frame. The replacement diaphragm will fit in the frame the same way.
7. See Figure 2. Remove diaphragm frame from valve body, then remove the diaphragm assembly from the frame by pressing the small diaphragm end through the frame.
8. See Figure 3. Install the new diaphragm assembly by carefully inserting the small diaphragm end of the assembly through the hole in the diaphragm frame. With diaphragm assembly in place, make sure both large and small diaphragms seat in diaphragm frame grooves.
9. Place diaphragm frame into valve body, small diaphragm end first. Make sure the atmospheric port points towards the bottom of the valve.
10. Place coil spring between frame and diaphragm cover, then secure cover to valve body with the four black screws with captured lockwashers. The vacuum nipple points towards the top of the valve on 1340 models and towards the bottom of the valve on Sportster models. Tighten screws to 18.5 in-lbs (2 Nm).

11. Loosen hex nut and rotate valve body back into position. Hold valve body and tighten hex nut to 15-20 ft-lbs (20-27 Nm).
12. Reattach fuel hose to outlet fitting on valve, using the new fuel hose clamp contained in Recall Kit, and reattach vacuum hose to valve nipple.

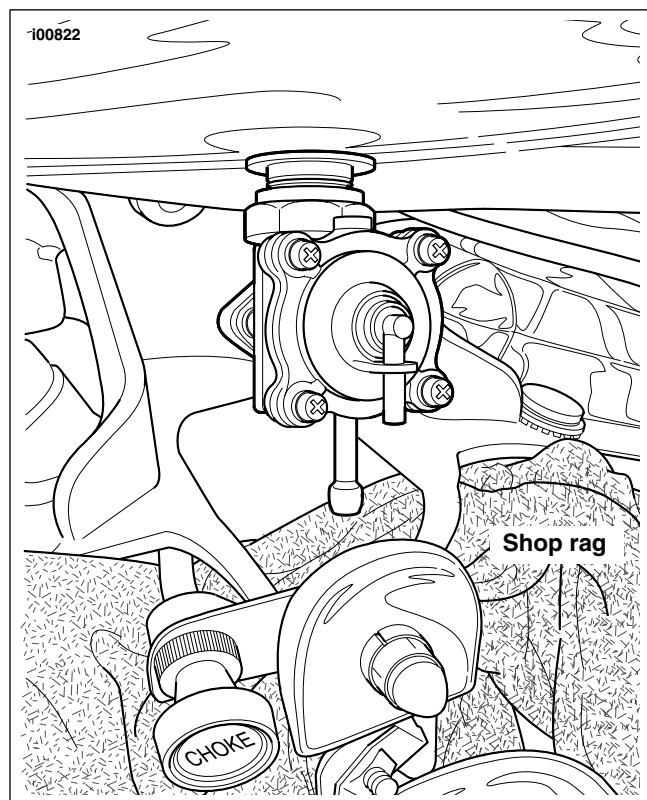
### Sportster Models

1. Turn fuel valve lever to the OFF position and disconnect fuel hose from outlet fitting on valve body.
2. Loosen fuel valve hex fitting just enough (approximately 1/8 turn) to allow valve body to be rotated.
3. Rotate fuel valve 1/4 turn to make vacuum hose accessible. Remove vacuum hose from vacuum port on valve body.

### NOTE

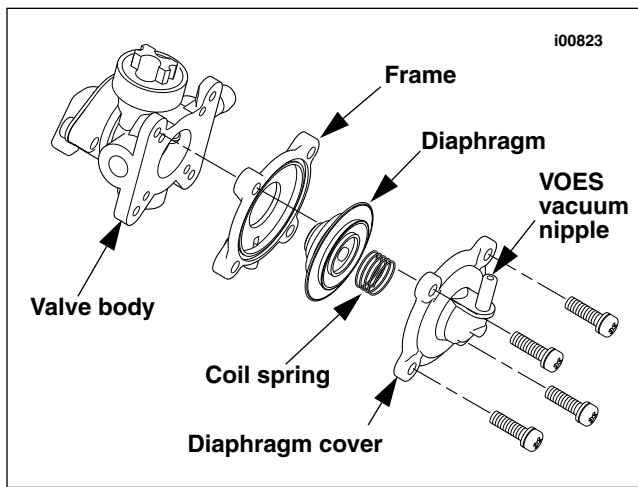
Depending on Sportster model, the fuel valve may need to be rotated to either the right or left to access the back of the valve.

4. Turn fuel valve lever to the RES position and rotate valve body until back of valve is accessible, then tighten fuel valve nut to prevent fuel from leaking.



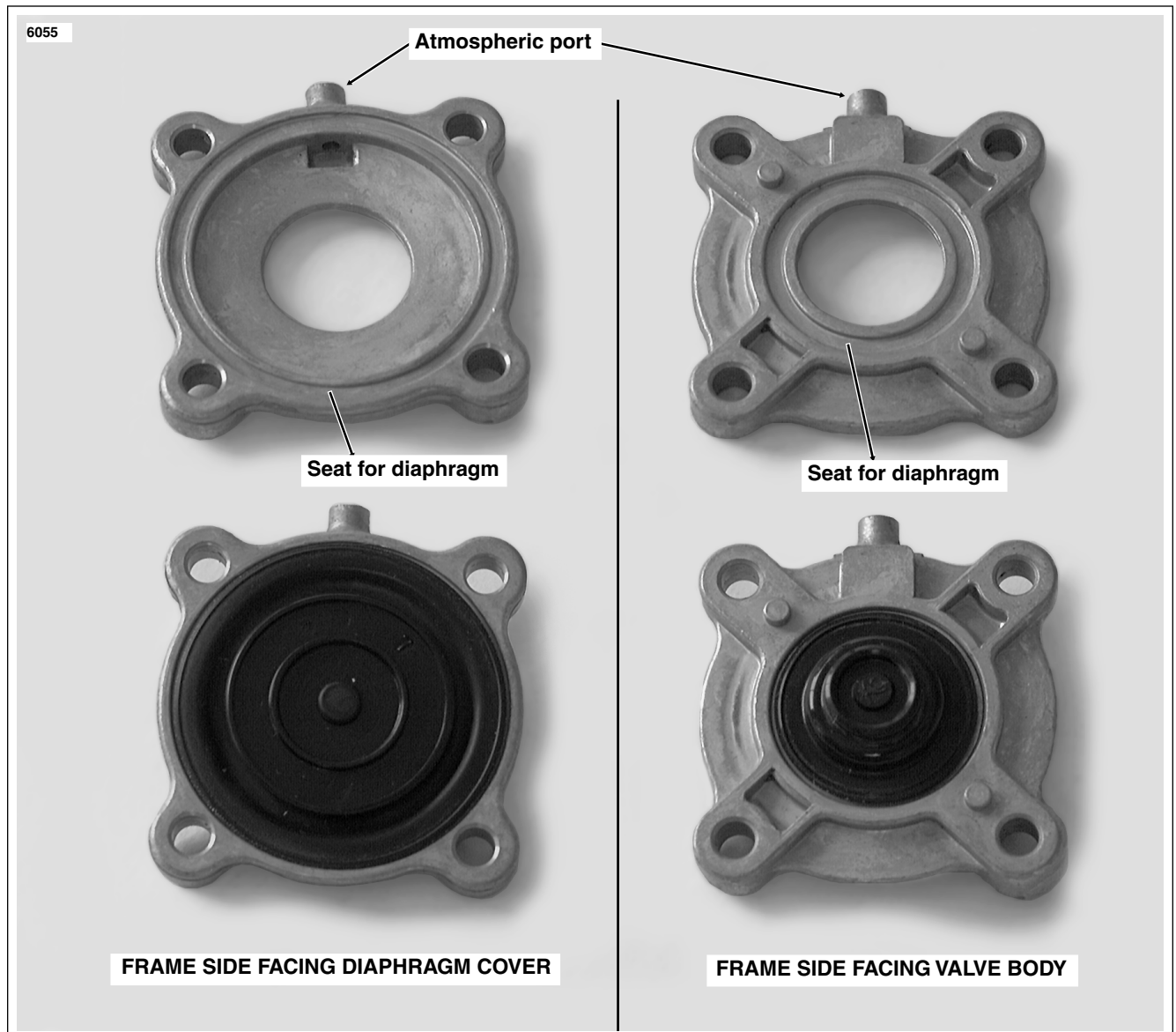
**Figure 1. Valve Body Rotated to Allow Access to Diaphragm Cover Screws (1200 Sportster valve shown)**

5. Reach behind valve and turn fuel valve lever to the OFF position.
6. Perform steps 5-10 under *1340 Models*.



**Figure 2. Fuel Valve Components**

7. Loosen hex nut, turn fuel valve lever to the RES position, and rotate valve body back into position. Turn fuel valve lever to the OFF position. Hold valve body and tighten hex nut to 15-20 ft-lbs (20-27 Nm).
8. Reattach fuel hose to outlet fitting on valve, using the new fuel hose clamp contained in Recall Kit, and reattach vacuum hose to valve nipple.



**Figure 3. Valve Diaphragm Placed in Frame**

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									

1996 Harley-Davidson® Motor Company

# SERVICE BULLETIN

M-1063B

Safety Recall Code 088

July 24, 1997



## ADDENDUM TO FUEL VALVE SERVICE BULLETIN M-1063A (SAFETY RECALL CODE 088)

### General

Service Bulletin M1063A dated November 1, 1996 contains general information along with the service procedure pertaining to Safety Recall Code 088 Vacuum Operated Fuel Valves. To aid in assembly we have included six alignment pins and have developed additional steps to be used in the service procedure. The additional steps are listed in this bulletin and six alignment pins are attached.

There is no need to do this procedure on motorcycles which have already had the 088 recall successfully performed.

### Diaphragm Replacement

Complete Steps 1-7 as outlined in Service Bulletin M-1063A and then continue with additional steps listed below.

#### NOTE

*Diaphragm will install easily if small diaphragm is pinched in half when inserted into frame.*

8. Install the **new** diaphragm into the frame. Make sure that the diaphragm edges are seated in the grooves in the frame.
9. Install two alignment pins, provided in the service kit, into the top left and bottom right holes of the fuel valve body and tighten a few turns by hand.
10. Slide the diaphragm frame over the alignment pins and up to the valve body, small end of the diaphragm first. Make sure the atmospheric port points downward.

#### NOTE

*Do not attempt to assemble diaphragm frame with spring and cover without inserting onto pins. Install frame on pins first, then position spring and cover.*

11. While holding diaphragm frame firmly against valve body, place coil spring and cover over the alignment pins and slide them into position. Do not disturb the position of the diaphragm, it must remain seated in the groove.
12. Install two cover screws in the two open holes in cover. Tighten screws to 18.5 in-lbs (2.1 Nm).
13. Remove alignment pins and install remaining two cover screws to cover. Tighten screws to 18.5 in-lbs (2.1 Nm).
14. Perform a vacuum test on the valve.

### Vacuum Test

Vacuum test the valve using the procedure below:

1. Connect PLASTIC MITY-VAC® HAND PUMP, Part No. HD 23738, vacuum line and suitable vacuum fitting to the vacuum port of the petcock.
2. Run a section of clear fuel line from the fitting on the petcock to a gas can.
3. Pull 25 in. Hg vacuum and release. Check for fuel flow while applying vacuum and check that fuel stops flowing shortly after vacuum is released.
4. Repeat Step 3 five times, each time checking for fuel flow at vacuum and no fuel flow shortly after vacuum is released. On fifth application of vacuum, pause with vacuum applied, and check for slow leaks. Release vacuum.
5. If no leaks were present, go to Step 6. If leaks were present, repeat replacement procedure.
6. Disconnect hand held vacuum pump and fuel line.
7. Loosen fuel valve hex fitting 1/8 turn and rotate valve to the left. Tighten hex fitting.
8. Position **new** hose clamp on fuel hose and install fuel hose to outlet fitting on valve body.
9. Install vacuum hose to valve nipple.

### CREDIT PROCEDURES

#### Vehicle Repair

For each motorcycle repaired, 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 label is available), otherwise simply write your dealer number in the appropriate box. If using the old style Dealer Service Card, be sure you supply all necessary information, including VIN, your dealer number, and dealership name and address.

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									

1997 Harley-Davidson® Motor Company

Beginning on August 4, 1997, when Harley-Davidson receives your properly completed Dealer Service Card, you will be credited for 0.4 hours of labor for performing the procedures outlined in this bulletin, which includes 0.1 hour for dealer administration time.



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DEALER ORDER
ORDER DATE
DEALER NO.
ORDER TYPE
<b>D-W</b>
WARRANTY CLAIM NO.

FOR OFFICE USE ONLY
ACCT. <b>174-408.8</b>
FRT. ACCT. <b>174-408.8</b>

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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 is deemed to subject to availability of goods to delivery to purchaser. Any delay in shipment shall not relieve purchaser of responsibility for his acceptance and payment of the order. If the order is not accepted by the purchaser, the order shall be cancelled. 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 reshipment or return of goods to seller, purchaser shall pay the entire cost connected therewith, plus two (2%) or twenty-five (25%) percent of selling price, as determined by Company policy from time to time. Purchaser will be responsible for collection and payment of all Federal, State and Local taxes that apply on the sale of the goods.

**PLEASE USE PART NUMBERS**  
**DO NOT USE FOR**  
**CORRESPONDENCE**

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