MERCURY MerCruiser

Service Bulletin

Bulletin No. 2012-05
OEM No. 2012-04

Circulate to: ☑ Sales Manager ☐ Accounting ☑ Service Manager ☑ Technician ☑ Parts Manager

Official Recall Notification U.S. Federal Boat Safety Act – Fuel Line Balance Hose For All 8.2 Models

Models Affected

Models Covered	Serial Number Or Year
All 8.2 ECT and Non ECT Models	1A350340–2A030176

Scope

Worldwide

Situation

Mercury MerCruiser has observed a fuel leak at the balance hose connection to the fuel rail during long term test and evaluation processes. Although no customer failures have been reported we need to take immediate action by replacing the balance hose and attaching hardware.

Correction

Replacement Parts Warning

⚠ WARNING

Avoid fire or explosion hazard. Electrical, ignition, and fuel system components on Mercury Marine products comply with federal and international standards to minimize risk of fire or explosion. Do not use replacement electrical or fuel system components that do not comply with these standards. When servicing the electrical and fuel systems, properly install and tighten all components.

Replacement Procedure

Service Precautions

IMPORTANT: The following information must be adhered to when working with the fuel system:

- **Always keep a dry chemical fire extinguisher at the work area.**
- **Do not replace a fuel pipe with a fuel hose.**
- **Observe all warnings and cautions.**

⚠ WARNING

Fuel is flammable and explosive. Ensure that the key switch is off and the lanyard is positioned so that the engine cannot start. Do not smoke or allow sources of spark or open flame in the area while servicing. Keep the work area well ventilated and avoid prolonged exposure to vapors. Always check for leaks before attempting to start the engine, and wipe up any spilled fuel immediately.

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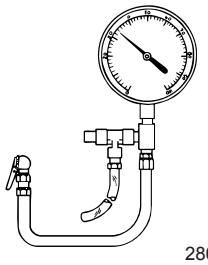
⚠ CAUTION

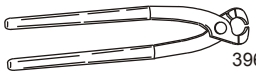
Failure to release pressure from the fuel system will result in fuel spraying out, which can cause a fire or explosion. Allow the engine to cool completely and release all fuel pressure before servicing any part of the fuel system. Always protect eyes and skin from pressurized fuel and vapors.

NOTICE

Without sufficient cooling water, the engine, the water pump, and other components will overheat and suffer damage. Provide a sufficient supply of water to the water inlets during operation.

Special Tools

Fuel Pressure Gauge Kit	91-881833A03
 2807	Test the fuel pump pressure; can be used to relieve fuel pressure.

Clamp Tool	803146T
 39648	Used to clamp high pressure (Oetiker ®) hose clamps. Part of Clamp Tool Kit (91-803146A04).

NOTE: *Refer to Service Manual #44 for additional repair information.*

Plenum Removal



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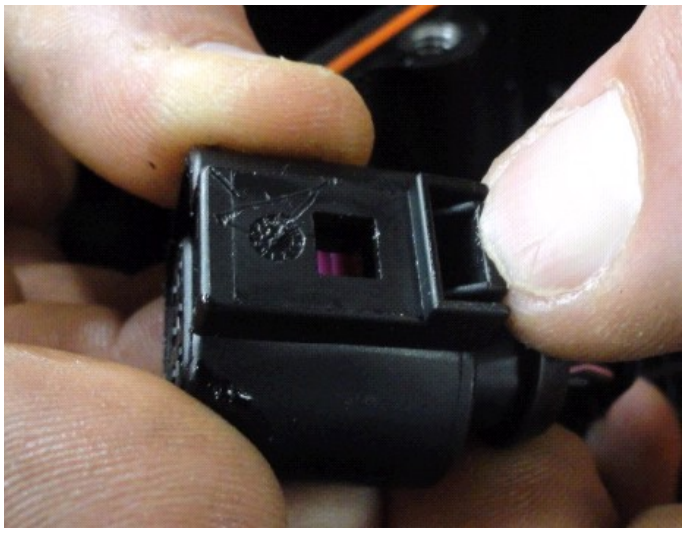
DTS throttle body

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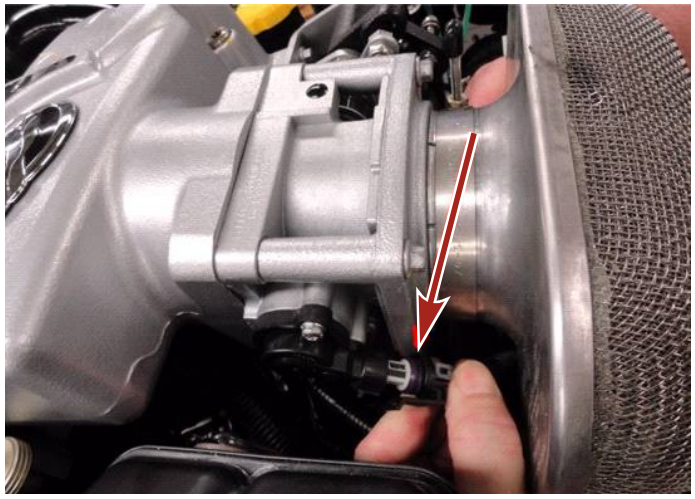
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1. Remove the electrical connector by pushing in on the connector while depressing the lever (clip) with your thumb. Then pull out the connector.



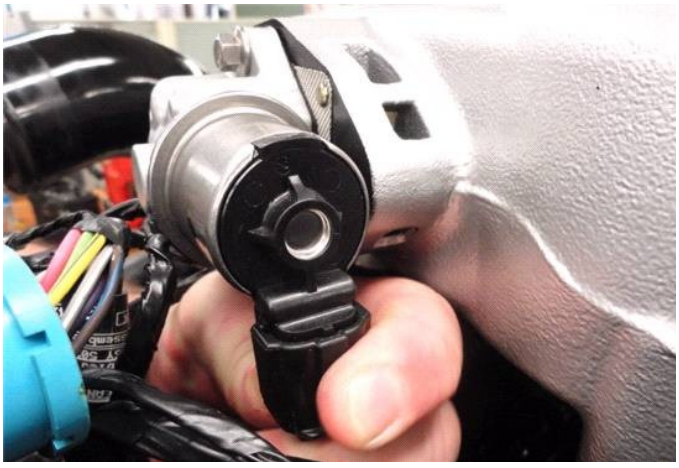
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Mechanical throttle body

2. Remove TPS connector.



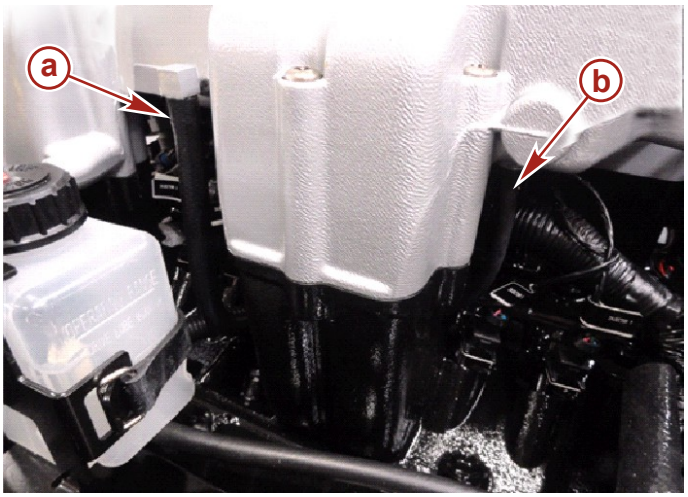
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3. Remove the idle air control (IAC) connector in back of plenum. Push connector in before depressing clip, then pull connector off.



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a - PCV hose
b - Vacuum reference hose

4. Remove PCV hose from port side plenum bib. Remove vacuum reference hose from port side plenum bib.



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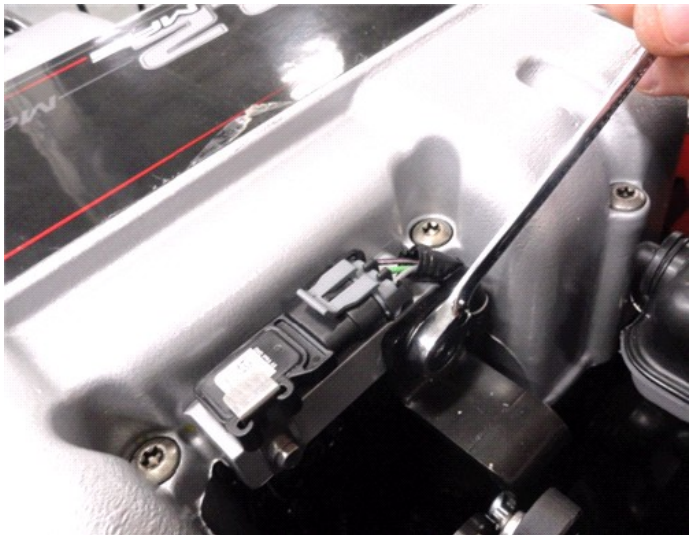
NOTE: *If 3/16" bib comes off with hose, reinstall with Loctite 680 Retaining Compound.*

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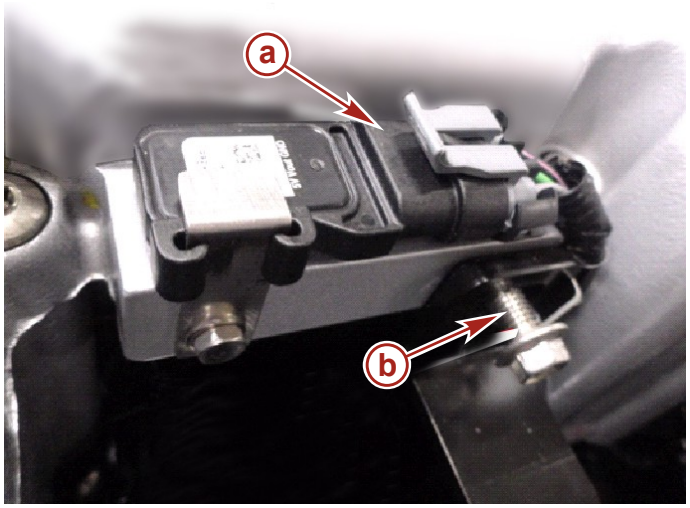
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Tube Ref No.	Description	Where Used	Part No.
33	Loctite 680 Retaining Compound	3/16" bib	92-809833



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5. Remove M8 screw from plenum bracket on middle of starboard side.



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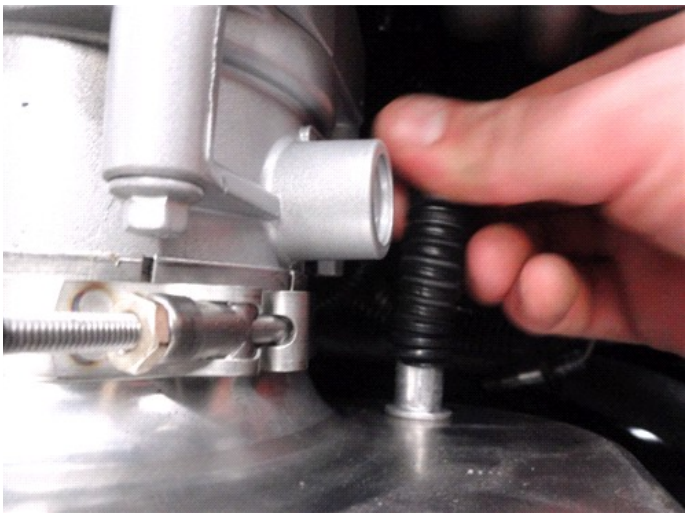
a - Manifold absolute pressure (MAP) sensor connector
b - 8 mm screw, 10 mm wrench size

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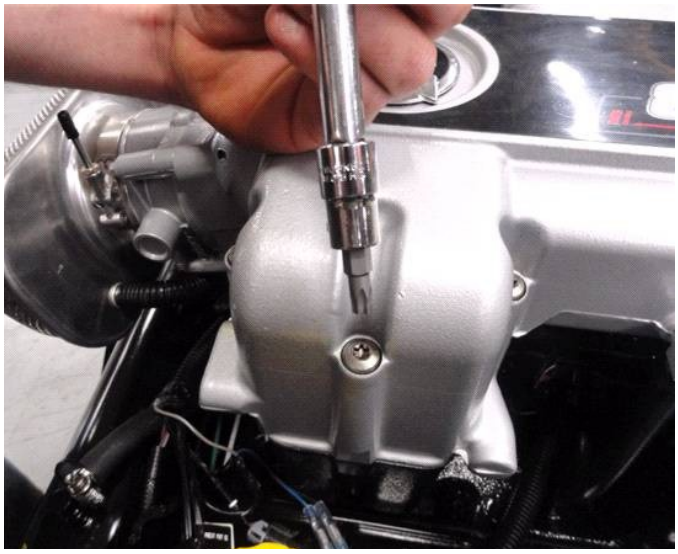
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6. Remove MAP sensor connector.



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7. Remove vent tube from the port side of the flame arrestor.



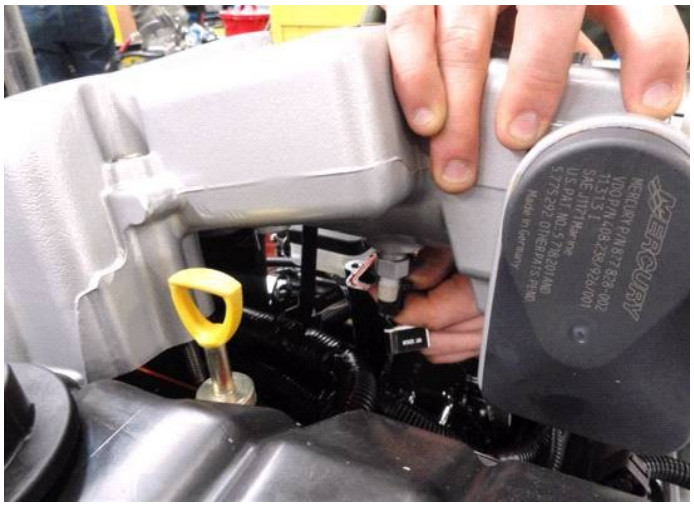
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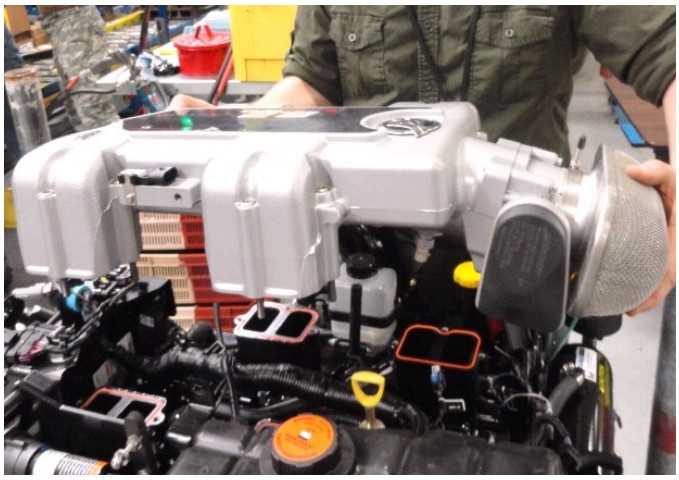
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8. Remove all 12 plenum screws with T-40 Torx bit.



50929

9. Lift the plenum up and disconnect the intake air temperature (IAT) sensor connector from underneath the plenum. Now plenum can be removed.



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10. Cover intake ports immediately to avoid any debris in the engine.

IMPORTANT: Debris or foreign material entering intake ports could damage the engine.

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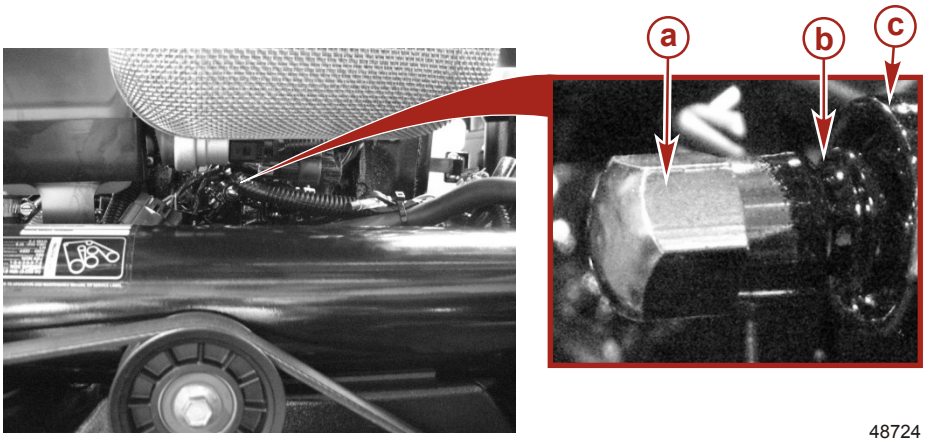
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Balance Hose Removal

⚠ CAUTION

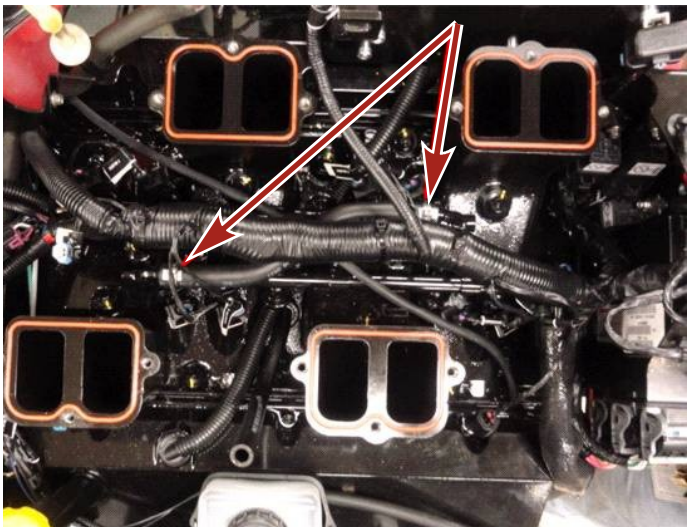
Failure to release pressure from the fuel system will result in fuel spraying out, which can cause a fire or explosion. Allow the engine to cool completely and release all fuel pressure before servicing any part of the fuel system. Always protect eyes and skin from pressurized fuel and vapors.



a - Cap
b - Schrader valve
c - Fuel rail

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1. Install the fuel pressure gauge at the Schrader valve located on the front of the fuel rail and relieve pressure in the fuel rail by draining the fuel into a container which can be poured back into the tank or disposed of properly.



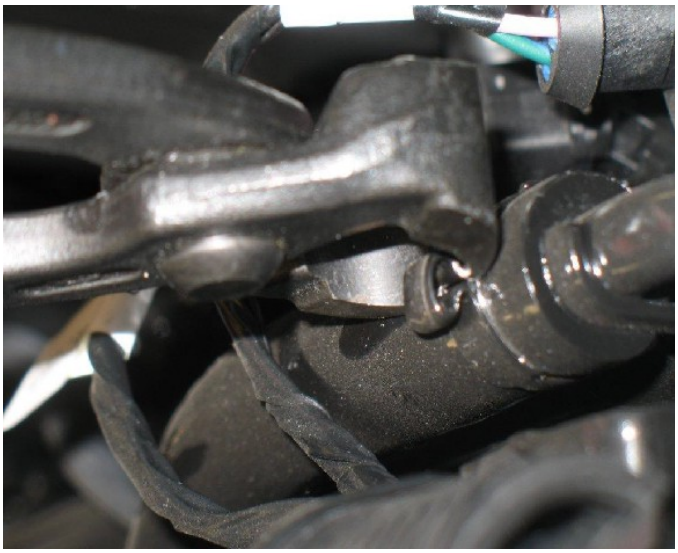
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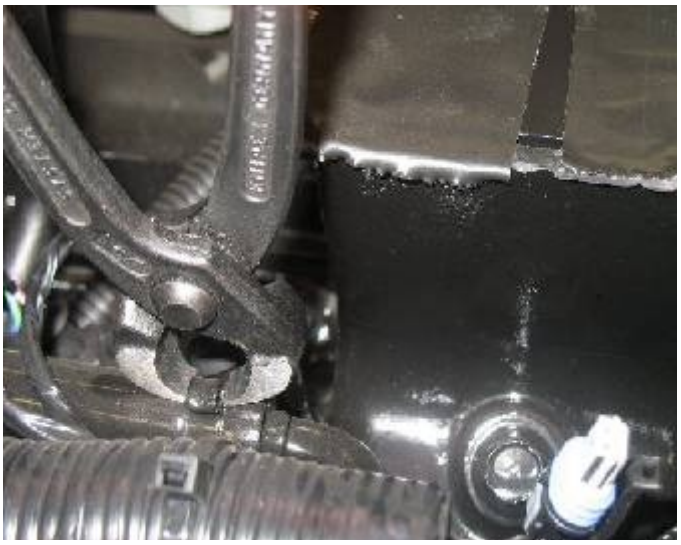
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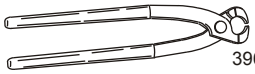
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2. Using the Oetiker clamp tool remove the two pinch clamps from both ends of the crossover fuel lines. Grip half of the crimp and cut.





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Clamp Tool	803146T
 39648	Used to clamp high pressure (Oetiker ®) hose clamps. Part of Clamp Tool Kit (91-803146A04).

3. Pull off the clamp.



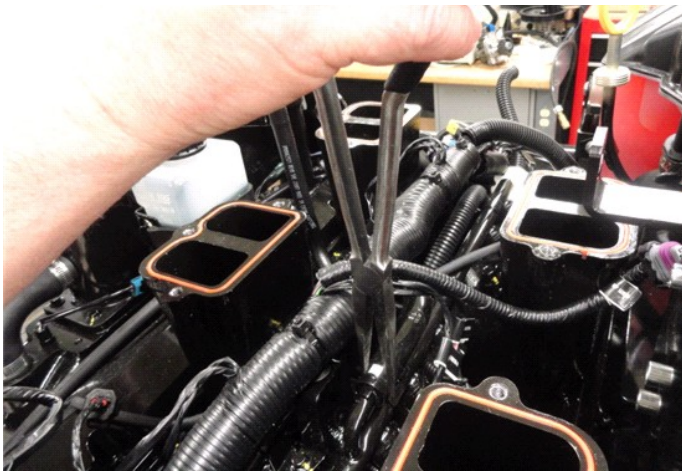
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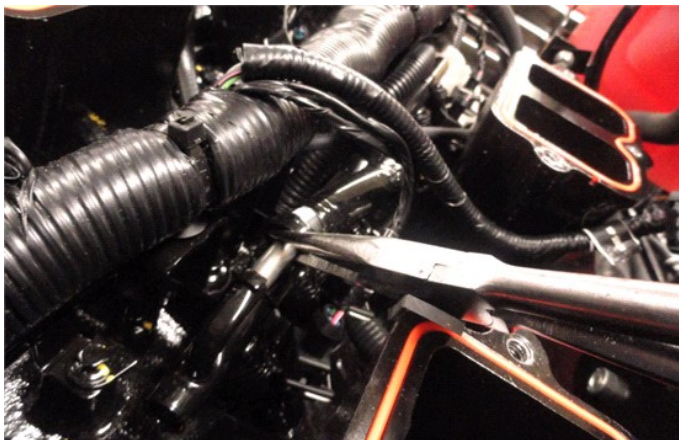
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4. After removal of the crimp clamps on both ends of the hose, use a long needle-nose pliers and first grab the hose and rotate to break loose the seal.



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5. Place the pliers behind the white stripe on the balance hose and barb area of the rail. Squeeze the pliers while working hose back and forth pulling in removal direction.



50937

IMPORTANT: Do not damage the rail hose bib by contacting with the pliers. Remove the balance hose and discard.

Balance Hose Installation

1. Thread the new Oetiker clamps, lubricate the fuel rail hose bibs with water, and install the new balance hose, pushing onto the stop point of the fuel rails.



50938

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IMPORTANT: Ensure that the inner core of the hose goes over the edge of the fuel rail bib.

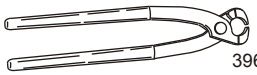


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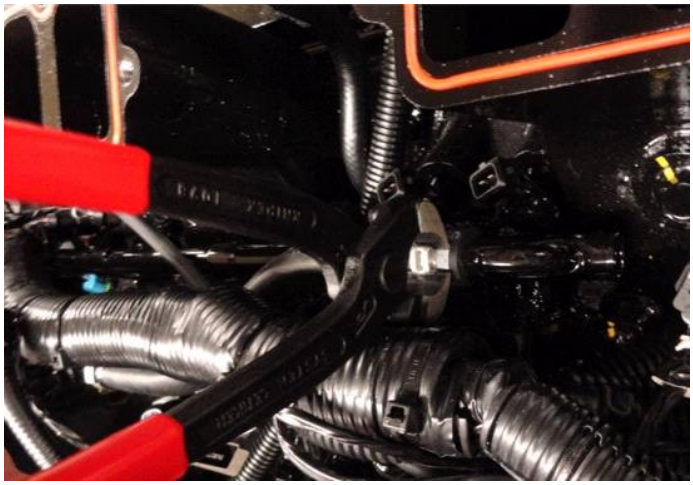
2. Align the clamp in the white band.



50940

Clamp Tool	803146T
 39648	Used to clamp high pressure (Oetiker ®) hose clamps. Part of Clamp Tool Kit (91-803146A04).

3. Install pinch clamps within the printed white band on the hose. Using the Oetiker clamp tool ensure the clamp is pinched together.

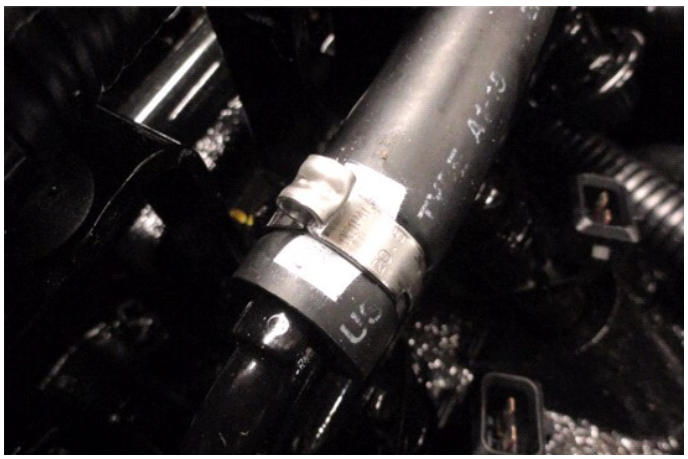


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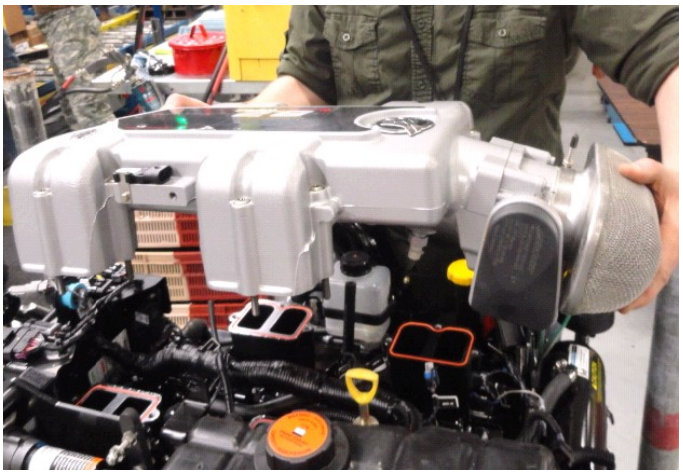
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NOTE: *A slight springback will occur where a small gap will be present.*

4. Pressurize the fuel system to 262 kPa (38 psi) minimum by cycling the key switch on and off to pressurize the fuel system. Check for leaks at the balance hose connections to the fuel rails.
5. If leaks are detected, repeat the fuel balance hose replacement procedure with a new hose and clamps.

Plenum Installation

1. Connect electrical connections and reference hose, refer to previous removal steps.

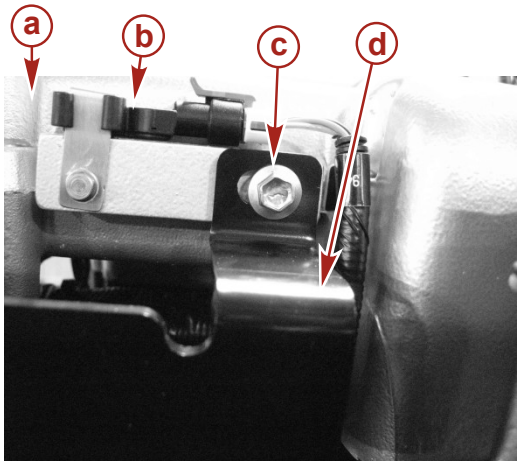

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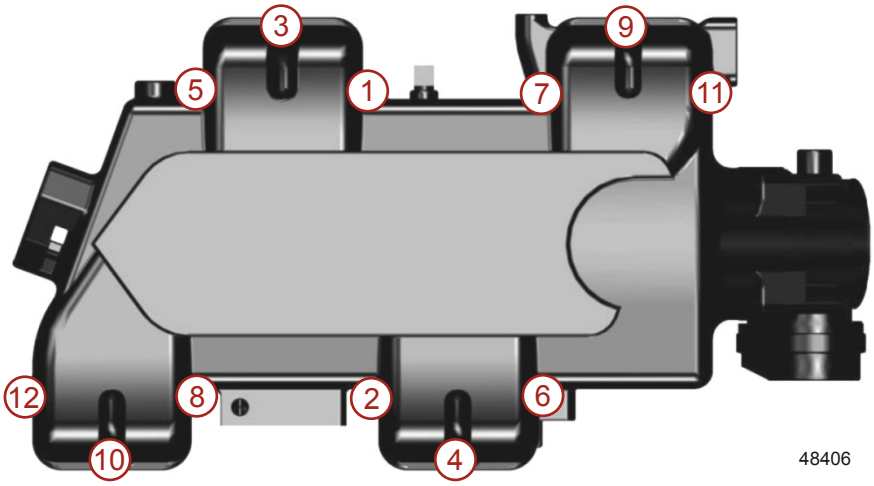
2. Install plenum and follow the torque sequence.



48813

a - Plenum
b - MAP
c - Screw
d - Bracket

Description	Nm	lb-in.	lb-ft
Bracket to plenum screw	19	168	—



48406

Intake plenum torque sequence

Description	Nm	lb-in.	lb-ft
Intake plenum screw	24	—	18

3. Connect G3.
4. Record engine hours.
5. Clear faults from powering up engine with sensors disconnected.

Parts Required

Qty.	Description	Part Number
1	Hose kit - fuel	8M0071603

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Owner Notification

A letter will be sent to every registered owner of a 8.2 engine package within the affected serial number range. The letter will advise the owner to take the boat to any Mercury MerCruiser authorized dealer for replacement of the balance hose.

Dealers: Some affected power packages have been updated before shipment. Visit MercNET or contact the MerCruiser customer service or your regional service center to determine whether repairs have already been completed on a given package. You should also contact affected customers to make them aware of this recall and to schedule an appointment for the repair. Complete the correction on any affected engines within your inventory. A copy of the customer letter is attached.

Boatbuilders: Complete the correction on any affected engines within your inventory (uninstalled or already installed).

Warranty Procedure

United States and Canada: Mercury Marine will credit a dealer for the cost of the hose kit and the labor. Submit the appropriate warranty claim through your normal warranty-processing channel:

- Flat rate code: SB10 and SB05
- Labor: 1.5 hour
- Part code: 713
- Failure code: 40

Outside the United States and Canada: Follow the instructions issued by your local office or distributor.

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NOTICE OF RECALL UNDER THE U.S. FEDERAL BOAT SAFETY ACT

Dear Mercury Marine Customer:

Thank you for your purchase of a new boat powered by a Mercury MerCruiser 8.2 Emission Control or Non Emission Control engine package. We appreciate your business and hope you are enjoying your new boat. We are contacting you, because we have observed a fuel leak at the balance hose connection to the fuel rail during long term test and evaluation processes. Although no customer failures have been reported we need to take immediate action by replacing the balance hose and attaching hardware. The hose replacement will be performed at Mercury's expense.

SITUATION

We have determined that Mercury MerCruiser 8.2 Emission Control or Non Emission Control engines (which according to our records, is the engine that powers your boat) may experience a fuel leak. Although this has only been seen on one of our test engines, we believe it is prudent to address the potential issue by replacing the balance hose and hardware to help ensure that you have nothing but a positive boating experience in the future. Work with your dealer to have these upgrades performed, but you should make repair arrangements as soon as possible.

WHAT YOU SHOULD DO

Contact your authorized Mercury MerCruiser dealer and make arrangements for having this fuel balance hose replaced. The dealer will refer to Mercury MerCruiser Service Bulletin 2012-05 for instructions. You must deliver your boat to the dealer and present this letter to the dealer. If you are having difficulty obtaining repairs, please contact our Customer Contact Center at 920 929 5040 for assistance or use the dealer locator feature at www.mercurymarine.com.

If you have sold the engine or boat please contact our Registration department at 920 929 5054 or e-mail us at registration_support@mercmarine.com to provide information on the new owner. Please refer to Mercury MerCruiser Service Bulletin 2012-05 with your information.

WHAT WE WILL DO

We will reimburse the dealer for performing the upgrades in accordance with the instructions outlined in the service bulletin. There will be no cost to you to have this work performed.

We apologize for any inconvenience this recall may cause you; however, we have taken this action to ensure that your boating experience will be enjoyable and trouble-free.

Sincerely,

Mercury MerCruiser Service Department

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