

FUEL TANK AND FUEL PUMP

SERVICE TOOLS

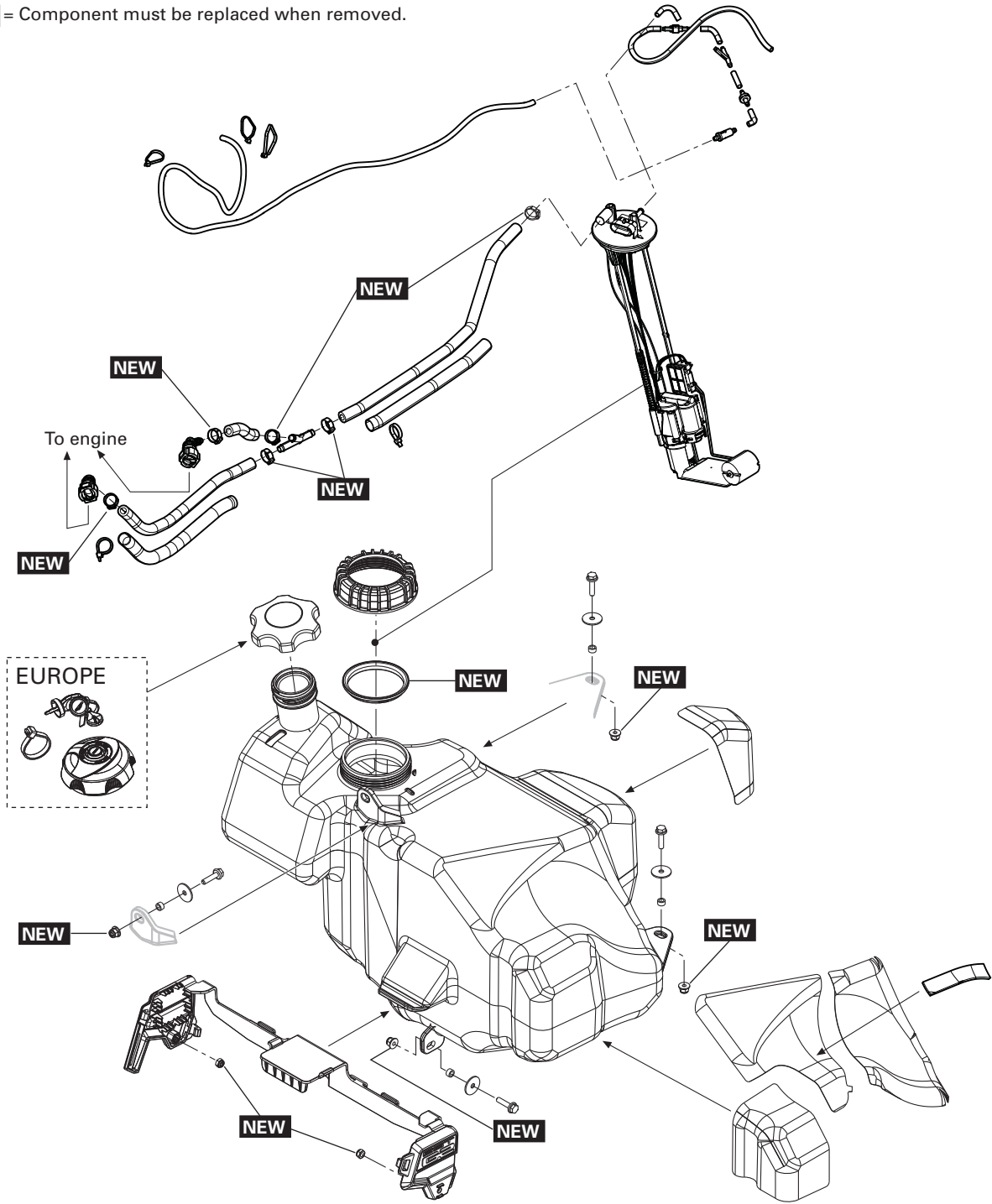
Description	Part Number	Page
FLUKE 115 MULTIMETER	529 035 868	11
FUEL HOSE ADAPTER.....	529 036 023	5
FUEL PUMP NUT TOOL	529 035 899	13
OETIKER PLIERS.....	295 000 070	8
PRESSURE GAUGE.....	529 035 709	5
SMALL HOSE PINCHER	295 000 076	18
VACUUM/PRESSURE PUMP	529 021 800	4, 18

SERVICE TOOLS – OTHER SUPPLIER

Description	Part Number	Page
FLUKE RIGID BACK PROBE	TP88	11

Subsection 02 (FUEL TANK AND FUEL PUMP)

NEW = Component must be replaced when removed.



vmr2015-043-100_a

GENERAL

⚠ WARNING

Fuel is flammable and explosive under certain conditions. Ensure work area is well ventilated. Do not smoke or allow open flames or sparks in the vicinity.

⚠ WARNING

Always disconnect battery prior disconnecting a fuel system pressure hose.

⚠ WARNING

Always proceed with care and use appropriate safety equipment when working on pressurized fuel system. Wear safety glasses.

⚠ WARNING

Do not allow fuel to spill on hot engine parts and/or on electrical connectors.

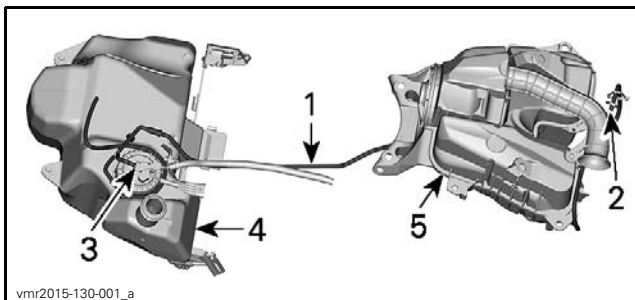
When the repair is completed, ensure that all hoses are connected and secured. Perform the *FUEL PRESSURE TEST* and the *FUEL TANK LEAK TEST* as explained in this subsection.

Fuel lines remain under pressure at all times. Proceed with care when removing/installing high pressure test equipment.

SYSTEM DESCRIPTION

Fuel Tank Vent System

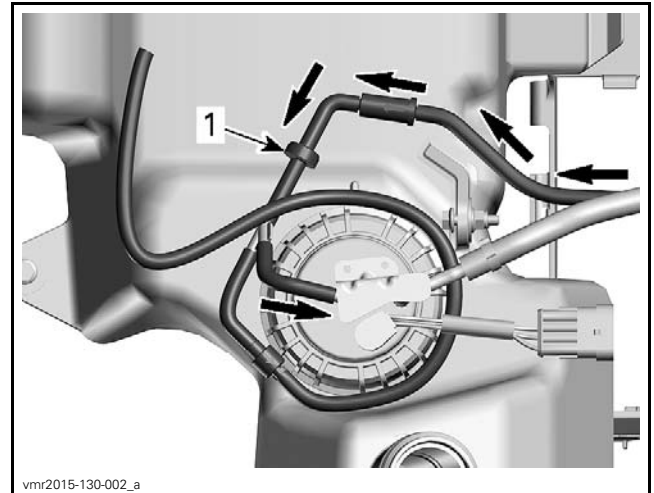
The fuel tank is equipped with a vent system that provides over pressure relief and negative pressure relief of the fuel tank.



TYPICAL - FUEL TANK VENT SYSTEM

1. Vent hose
2. Vent system hose inlet
3. Vent system connected to fuel pump
4. Fuel tank
5. Engine air intake system

Air can enter the fuel tank at all times through the vent system INLET check valve. This prevents negative pressure within the fuel tank which could cause fuel starvation.

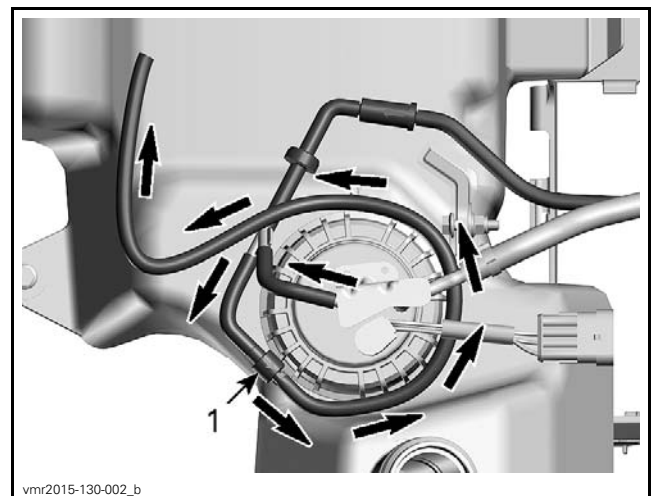


AMBIENT AIR PRESSURE IN

1. Vent inlet check valve

The vent inlet check valve also prevents fuel from flowing out through the inlet of the vent system.

If the pressure in the fuel tank builds up and exceeds 2.5 kPa - 7.6 kPa (.36 PSI - 1.1 PSI), the pressure relief valve opens and lets the excess pressure evacuate through the vent system OUT-LET hose.



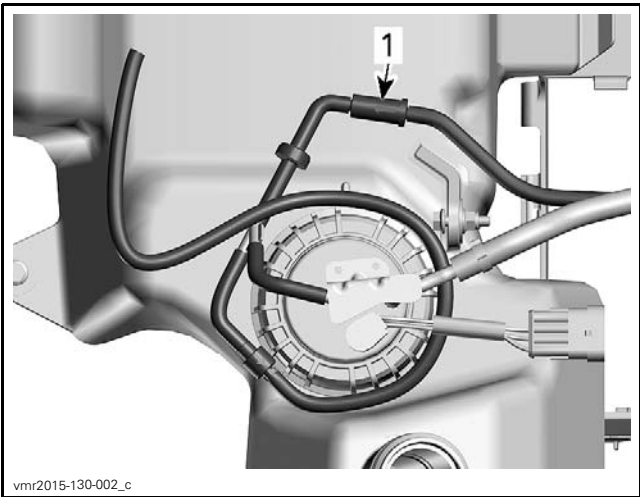
OVER PRESSURE RELIEF

1. Outlet pressure relief valve

Fuel Tank Vent Breather Filter

The vent system is equipped with an in-line breather filter that prevents entry of particles such as dust or small insects. It is located next to the fuel pump, on the inlet hose, before the air inlet check valve.

To access the fuel tank vent breather filter, remove the rear body module.



1. Fuel tank vent breather filter

Fuel Pump Module

The fuel pump module is inserted in the fuel tank. It provides fuel delivery for the EFI system and encompasses the following components:

- Electric fuel pump
- Fuel pump pre-filter
- Fuel pump filter (850 and 1000R engines)
- Fuel pressure regulator
- Fuel level sender.

Fuel Filters

The system comprises two levels of filtration:

- A replaceable pre-filter element attached to the bottom of the fuel pump.
- On **850 and 1000R models**, a non-replaceable fine filter element that is integral to the fuel pump module.

Fuel Pump Pressure Regulator

The fuel pressure regulator is integral to the fuel pump module. The pressure regulator maintains proper fuel pressure for the EFI system.

INSPECTION

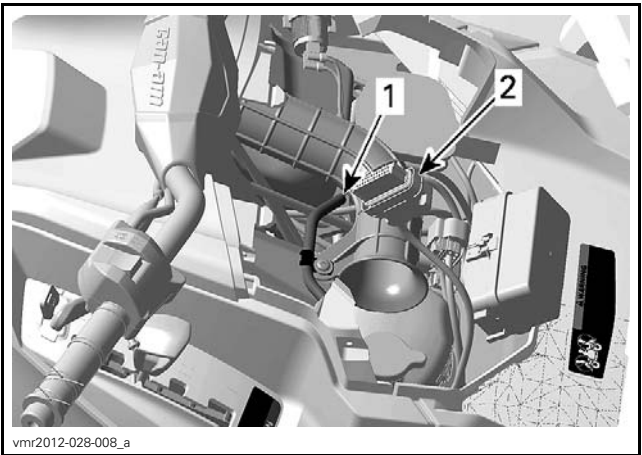
FUEL TANK LEAK TEST

 **WARNING**

Always carry out a fuel tank leak test whenever the fuel tank shows signs of wear or damage which may cause a leak, or when the fuel pump has been removed or replaced, or if you suspect a leak. If the fuel tank is damaged, the fuel tank should be replaced even if no leak is present. Do not attempt to repair the fuel tank.

1. Refill fuel tank and ensure fuel tank cap is in good condition and properly installed.
2. Remove the gauge support for access to the fuel vent inlet hose.
3. Pressurize the fuel tank through the vent hose.

REQUIRED TOOL	
VACUUM/PRESSURE PUMP (P/N 529 021 800)	



1. Fuel tank vent inlet hose
2. Gauge connector

PRESSURE	TIME WITHOUT PRESSURE DROP
14 kPa (2 PSI)	3 minutes

If pressure drops, locate fuel leak(s) and repair or replace leaking component(s).

To locate a leak, check for a fuel smell or leaking fuel.

To ease locating leak(s), spray soapy water on all hose connections and components; bubbles will indicate the leak location(s).

NOTE: For access to the fuel tank vent system, refer to *FUEL PUMP ACCESS* in this subsection.

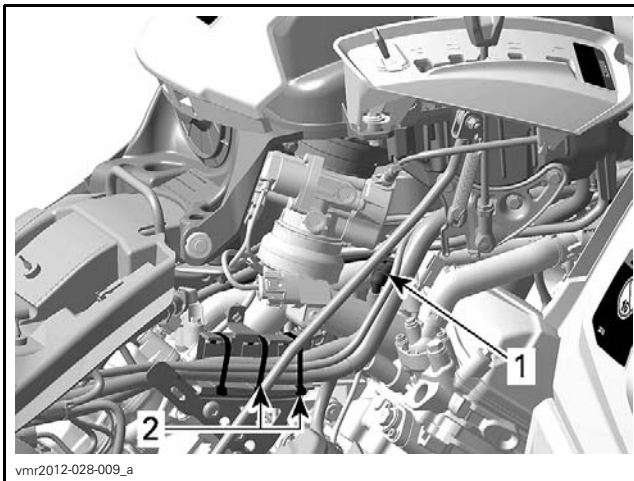
FUEL SYSTEM PRESSURE TEST

The pressure test will show the available pressure in the system. It validates the pressure regulator and the fuel pump, and allows for checking the fuel system for leaks (high pressure side).

NOTE: Refer to the *FUEL SYSTEM DIAGNOSTIC FLOW CHART* in this subsection to help diagnose a fuel system related problem.

1. Ensure the fuel level in the tank is sufficient.
2. Ensure the battery voltage is over 12 volts.
3. Remove seat.
4. Remove RH side body panel, refer to *BODY* subsection.
5. Disconnect the fuel pressure hose from the fuel injector fuel rail. Refer to *DISCONNECTING A FUEL PRESSURE HOSE* in *FUEL HOSE AND OETIKER CLAMPS*.
6. Remove the 2 most forward locking ties securing the fuel hose to the upper cable support.

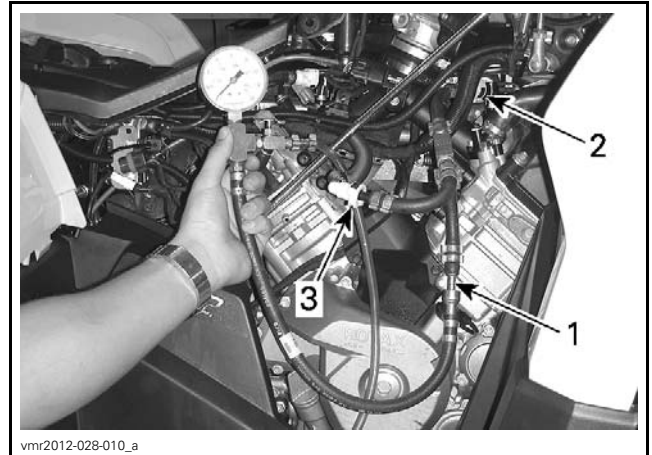
NOTE: This is required to provide more hose length for proper connection to test equipment.



TYPICAL
1. Forward injector rail fitting
2. Locking ties

7. Install the fuel pressure gauge and fuel hose adapter between the disconnected injector hose and fuel rail (in-line installation).

REQUIRED TOOLS	
PRESSURE GAUGE (P/N 529 035 709)	
FUEL HOSE ADAPTER (P/N 529 036 023)	



TYPICAL - PRESSURE GAUGE SETUP
1. Pressure gauge to fuel hose adapter
2. Fuel hose adapter to fuel rail
3. Fuel hose adapter to fuel pump pressure hose

8. Reinstall the fuel pump relay (R4) in the forward fuse box.
9. Turn ignition key ON and observe fuel pressure.

FUEL PRESSURE (Valid at 12v $\pm$ 0.1v)	350 kPa $\pm$ 10 kPa (51 PSI $\pm$ 1 PSI)
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10. Start engine and observe fuel pressure.
11. Stop engine.
12. Remove test equipment and reconnect fuel hose to injector fuel rail by proceeding in the same manner as for its installation.

Test Conclusion

The fuel pressure should be within specification in static or dynamic tests.

Rapid Pressure Drop

If there is a rapid pressure drop after the engine is stopped, check for leakage at:

- A fuel hose
- A fuel rail.

NOTE: The fuel pump check valve integral to the fuel pump module may also be at fault.

If no leak is detected, replace fuel pump.

Subsection 02 (FUEL TANK AND FUEL PUMP)

Slow Pressure Drop

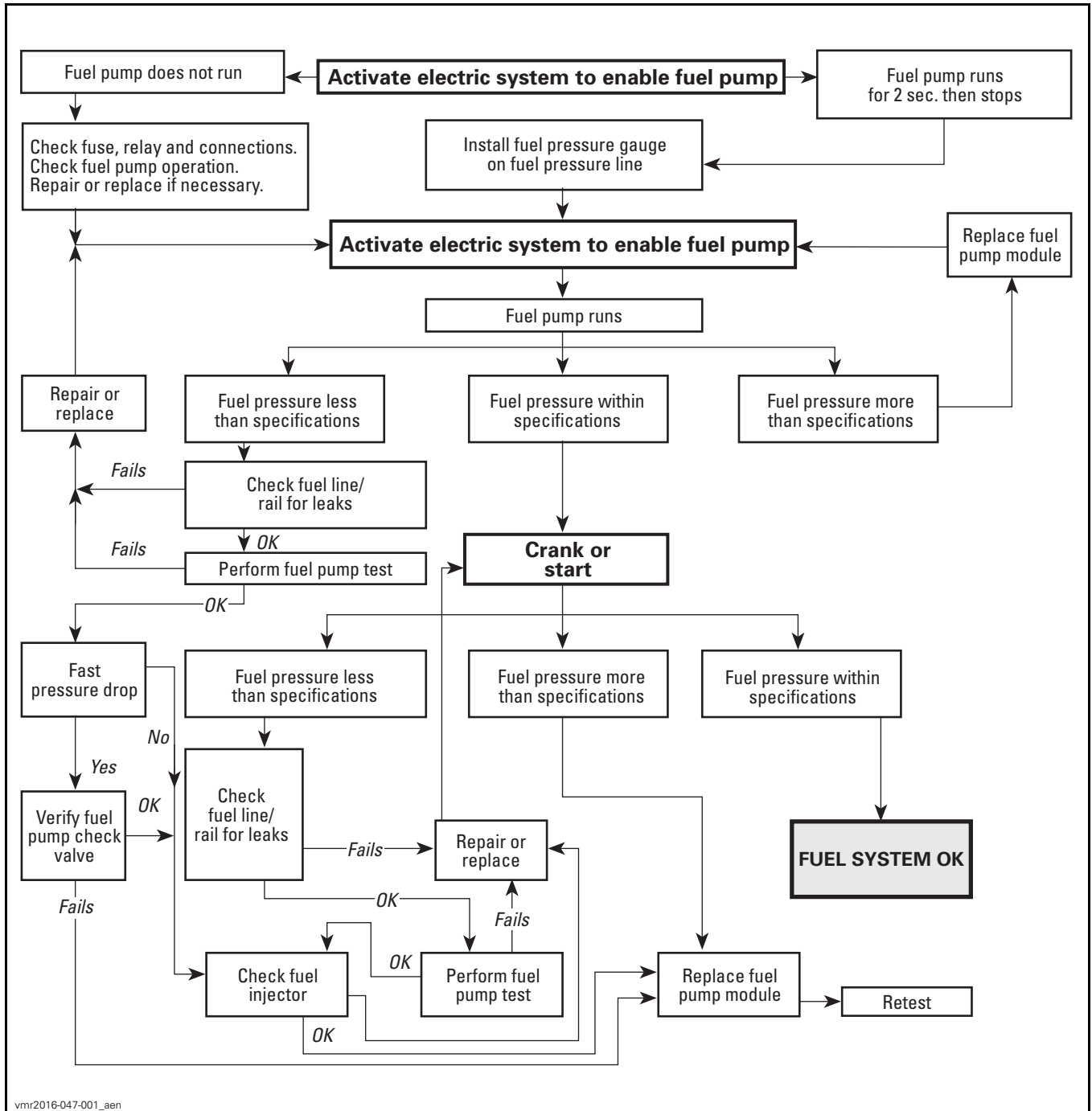
If there is a slow pressure drop after the engine is stopped, check for a fuel injector leak. Refer to *ELECTRONIC FUEL INJECTION (EFI)* subsection.

NOTE: The fuel pressure regulator or fuel pump check valve integral to the fuel pump module may also be at fault.

If no leak is detected, replace fuel pump.

TROUBLESHOOTING

FUEL SYSTEM DIAGNOSTIC FLOW CHART



PROCEDURES

FUEL HOSE AND OETIKER CLAMPS

Disconnecting a Fuel Pressure Hose

- 1. Remove the fuel pump relay (R4) in the front fuse box.
- 2. Release fuel pressure by running engine until it runs out of fuel.
- 3. Carefully disconnect the fuel hose fitting from the injector fuel rail by pressing on the release tab of the quick disconnect fitting.

Fuel Hose Replacement

When replacing fuel hoses, be sure to use hoses and clamps as available from BRP parts department. This will ensure continued proper and safe operation.

**WARNING**

Use of fuel lines other than those recommended by BRP may compromise fuel system integrity.

**WARNING**

Whenever removing a hose in the fuel system, always use new Oetiker clamps at assembly. Then validate fuel system tightness by performing a fuel pressure test.

Oetiker Clamp Replacement

REQUIRED TOOL	
OETIKER PLIERS (P/N 295 000 070)	

FUEL TANK

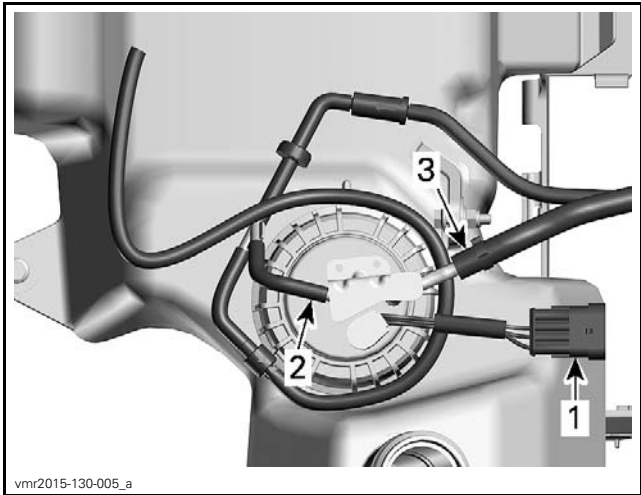
Fuel Tank Draining

Remove fuel tank cap and siphon gas into an approved fuel container.

Fuel Tank Removal

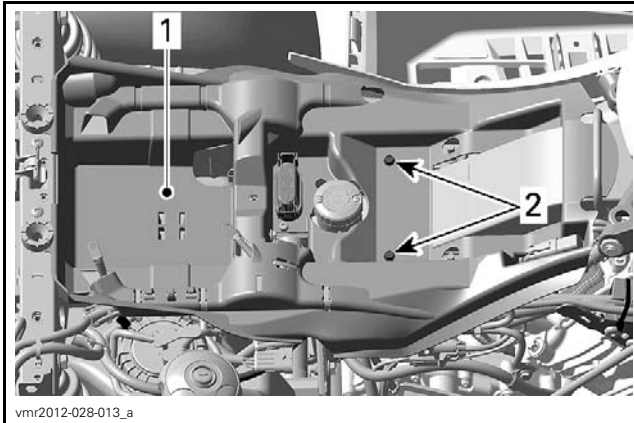
- 1. Drain fuel tank. Refer to *FUEL TANK DRAINING* in this subsection.
- 2. Disconnect the fuel pressure hose from the fuel injector fuel rail. Refer to *DISCONNECTING A FUEL PRESSURE HOSE* in *FUEL HOSE AND OETIKER CLAMPS*.

- 3. Disconnect and remove the battery, refer to *CHARGING SYSTEM* subsection.
- 4. Remove the rear body module, refer to *BODY* subsection.
- 5. Refer to *EXHAUST SYSTEM* and remove the following:
 - Muffler assembly
 - Muffler/exhaust pipe heat shield.
- 6. Remove rear bumper. Refer to *FRAME* subsection.
- 7. Disconnect the following from the fuel pump module:
 - Fuel pump electric connector
 - Fuel system vent hose
 - Fuel pump pressure hose.



- 1. Fuel pump connector
- 2. Vent hose
- 3. High pressure fuel hose

- 8. Disconnect the RED (+) battery cable from the starter solenoid.
- 9. Remove the 2 screws that secure the front of the battery support.



1. Battery support
2. Support retaining screws

NOTE: It is not necessary to remove the wiring harness or other components from the battery support.

10. Flip the battery support over towards the RH side of the vehicle for access to the rear frame extension.

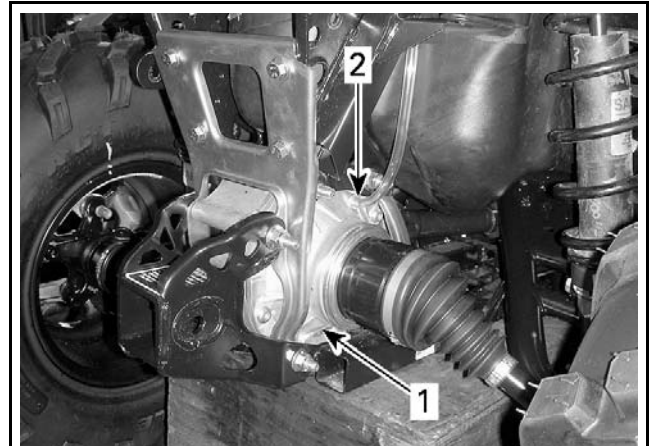


- TYPICAL**
1. Battery support
 2. Rear frame extension

11. Remove the upper mounting bolt from both rear shock absorbers.
12. Block the front wheels with wheel chocks.
13. Lift back end of vehicle and properly support under the lower rear portion of the frame, near the final drive.

⚠ CAUTION Before working on vehicle, ensure the vehicle is securely supported.

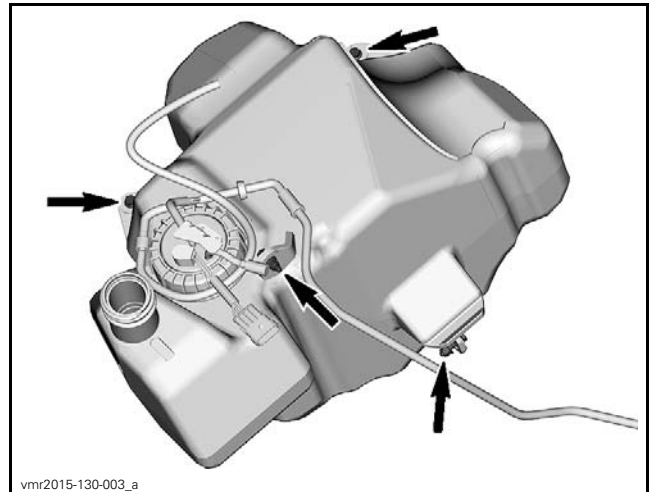
14. Remove vent tube from final drive.



1. Final drive unit
2. Vent tube to remove

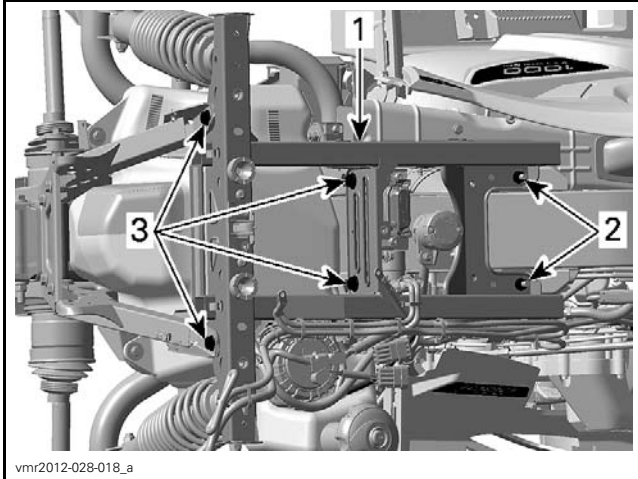
15. Remove fuel tank retaining screws (4).

NOTE: Note position of washers and bushings on each screw.



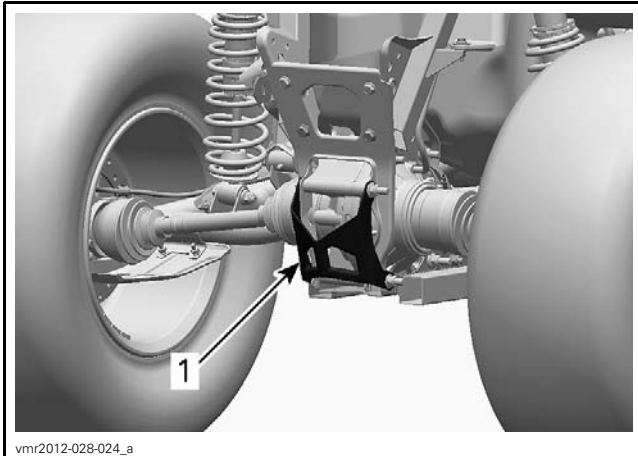
16. Loosen the front 2 nuts and remove the 4 bolts retaining the frame extension.

Subsection 02 (FUEL TANK AND FUEL PUMP)



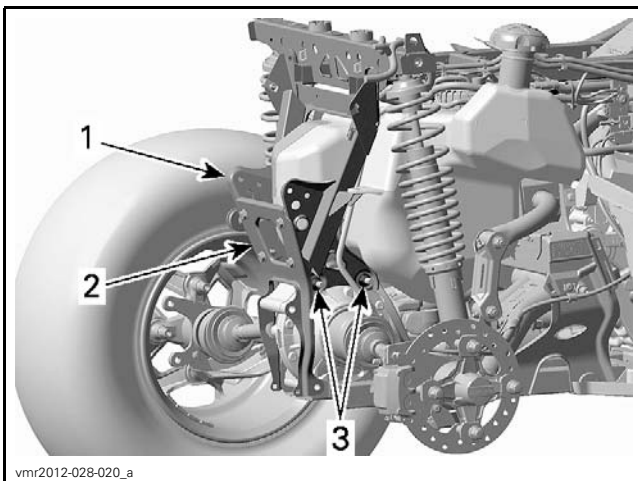
1. Rear frame extension
2. Loosen these 2 nuts
3. Remove these 4 bolts

17. Remove nuts and screws securing final drive protector and rear frame support to rear final drive.



1. Final drive protector

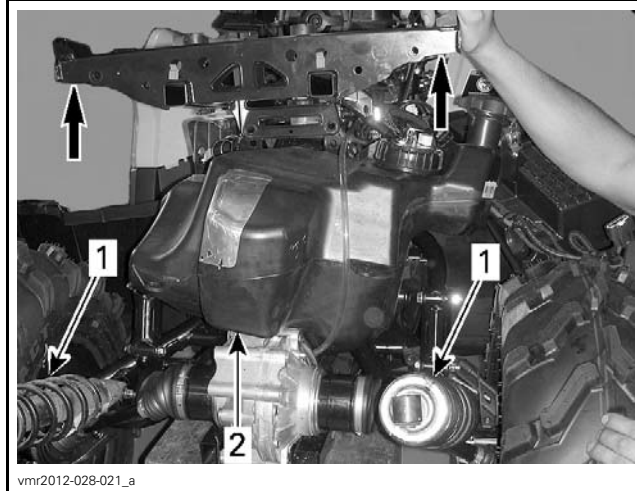
18. Remove rear frame supports as an assembly.



1. Upper frame support (welded)
2. Lower frame support
3. Bolts to remove

19. Lift up on frame extension and pull fuel tank out of vehicle.

NOTE: When lifting up on the frame extension, the shock absorbers will fall backwards.



1. Rear shock absorbers
2. Fuel tank

Fuel Tank Inspection

Inspect fuel tank for any damages or cracks which may result in fuel leaks.

Inspect fuel tank and fuel tank protector on frame for damages.

Inspect protector for damages.

If cracks, gouges or other damages which may lead to a fuel leak, or damages to attachment points that could prevent the tank from being secure are found, replace fuel tank.

Fuel Tank Installation

Installation is the reverse of the removal procedure. However, pay attention to the following.

Install a bushing on each fuel tank mounting screw. The bushing inserts within the fuel tank screw hole cavity.

Be sure to install the washers between the fuel tank and the fastener as noted at removal.

Install **all** fuel tank fasteners loosely.

NOTICE The fuel tank fasteners must not be tightened to specified torque until complete assembly in vehicle.

Install all frame component fasteners loosely, then apply torque as specified in the *FRAME* subsection.

Apply specified torque to fuel tank retaining screws.

TIGHTENING TORQUE	
Fuel tank retaining screws	6.5 N•m ± 0.5 N•m (58 lbf•in ± 4 lbf•in)

Be sure to properly connect and route:

- Fuel tank vent tube
- Fuel pump pressure hose
- Electrical connectors.

Refuel tank and ensure there are no leaks by performing a *FUEL TANK LEAK TEST* and a *FUEL PUMP PRESSURE TEST* as described in this subsection.

FUEL PUMP

Fuel Pump Pressure Test

Refer to *INSPECTION* in this subsection.

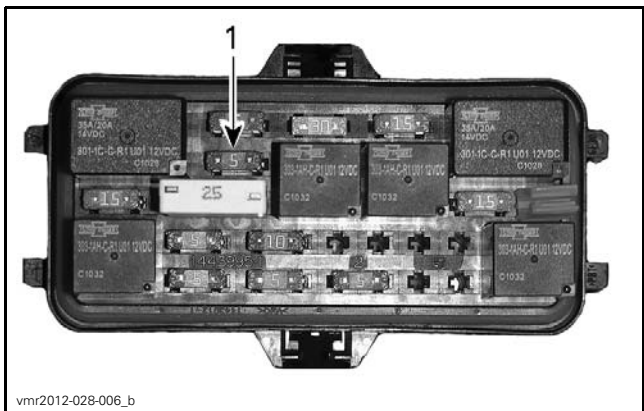
Fuel Pump Quick Test

1. Turn ignition key to ON.
2. Listen for fuel pump operation.

NOTE: Fuel pump should come ON for a few seconds, then stop.

If fuel pump does not come ON, carry out the following:

- Check fuel pump relay fuse (F15) and fuel pump relay (R4).
- Check in B.U.D.S. for applicable fault codes. Refer to *COMMUNICATION TOOLS AND b.u.d.s.* subsection.
- Carry out a fuel pump input voltage test.

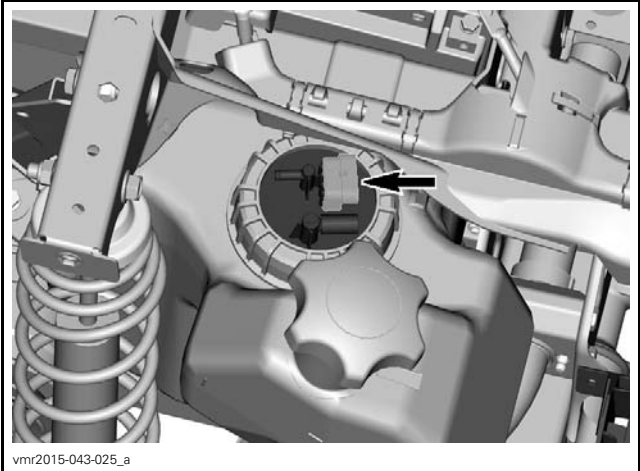


1. Fuel pump relay fuse

Fuel Pump Connector Access

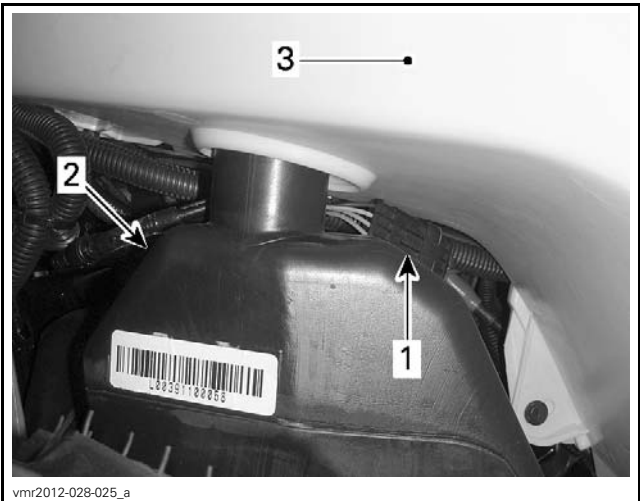
570 Engine

Remove rear fender. Refer to *BODY* subsection.



850 and 1000R Engines

The fuel pump connector can be accessed from under the RH rear fender, just above the forward end of the fuel tank.



1. Fuel pump connector
2. Fuel tank
3. Underside of RH rear fender

Fuel Pump Input Voltage Test

1. Disconnect the fuel pump connector.
2. Turn ignition key ON.
3. Read voltage as follows.

NOTE: The fuel pump voltage will be read only when the fuel pump is activated.

REQUIRED TOOLS	
FLUKE 115 MULTIMETER (P/N 529 035 868)	
FLUKE RIGID BACK PROBE (P/N TP88)	

Subsection 02 (FUEL TANK AND FUEL PUMP)

FUEL PUMP INPUT VOLTAGE TEST		
TEST PROBES		VOLTAGE READING
Fuel pump connector Pin 3	Fuel pump connector Pin 4	Battery voltage

If battery voltage is read, carry out a fuel pump resistance test.

If battery voltage is not read, test fuel pump power input as follows.

FUEL PUMP POWER WIRE TEST		
TEST PROBES		VOLTAGE READING
Fuel pump connector Pin 3	Battery ground	Battery voltage

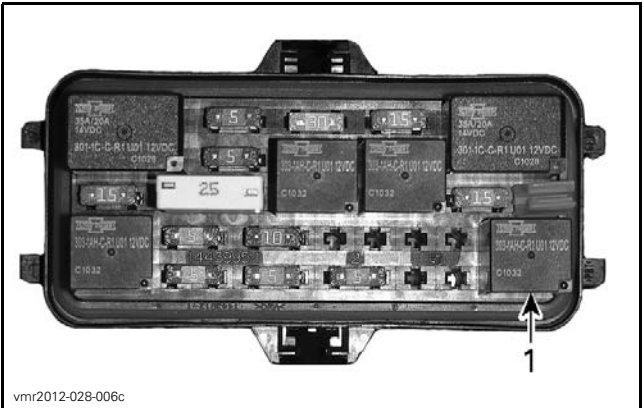
If battery voltage is now read, check fuel pump ground circuit between fuel pump connector FP-4 and battery ground.

If battery voltage is still not read, check the following:

- Fuse (F15)
- Fuel pump relay (R4)
- Fuel pump relay input voltage (control and power circuits)
- Fuel pump relay control circuit continuity to ECM-J1
- Wiring and connectors.

Fuel Pump Resistance Test

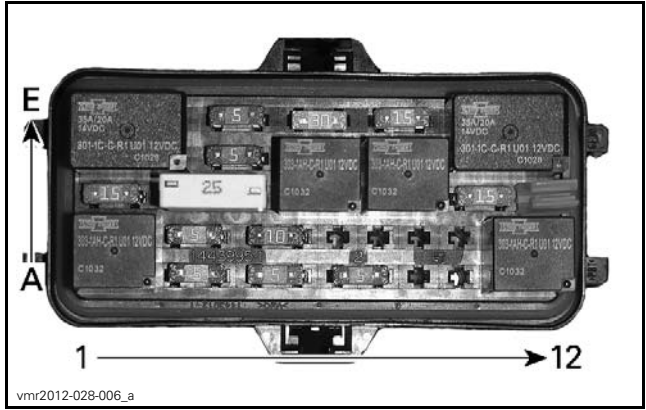
1. Ensure fuel pump connector is properly connected.
2. Remove fuel pump relay (R4).



1. Fuel pump relay

3. Measure fuel pump resistance as follows.

FUEL PUMP RESISTANCE TEST (AT FUSE BOX)		
TEST PROBES		RESISTANCE Ω @ 20°C (68°F)
Fuse box contact A11	Battery ground	Approximately 2 Ω



FUSE BOX COORDINATES

If resistance test failed, disconnect fuel pump connector and measure resistance at fuel pump connector.

FUEL PUMP RESISTANCE TEST (AT FUEL PUMP CONNECTOR)	
Pins 3 and 4	Approximately 2 Ω

If test failed at pump connector, replace fuel pump.

If test succeeded at pump connector, check wiring and connectors from:

- Fuse box to fuel pump
- Fuel pump to battery ground.

Repair or replace as necessary.

Fuel Pump Access

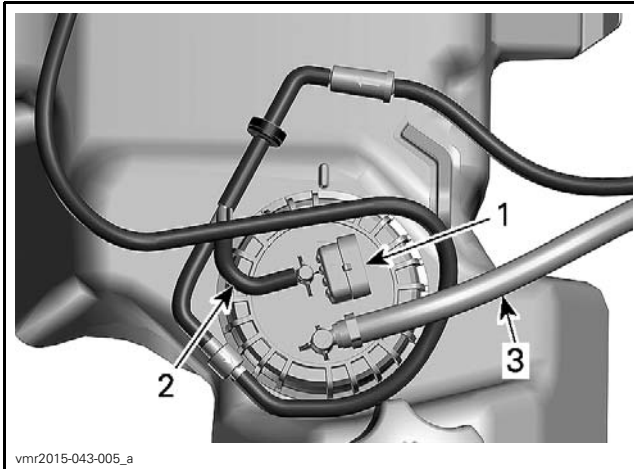
Remove rear fender, refer to *BODY* subsection.

Fuel System Pressure Release

Refer to *DISCONNECTING A FUEL PRESSURE HOSE* in this subsection.

Fuel Pump Removal

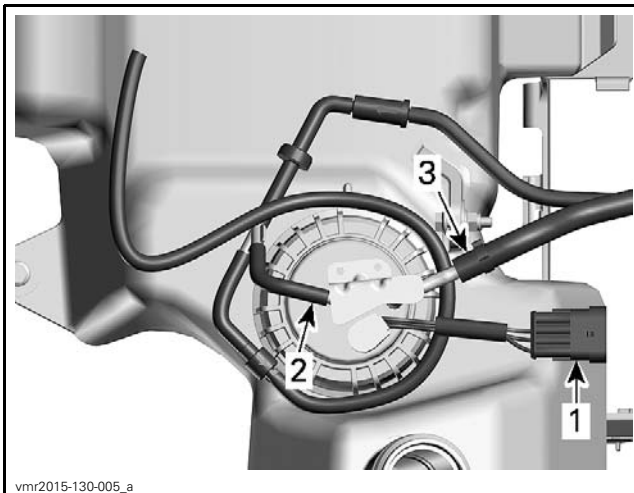
1. Release the pressure of the fuel system.
2. Disconnect the following from the fuel pump:
 - Fuel pump electric connector
 - Fuel system vent hose
 - Fuel pump pressure hose.



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570 ENGINE

1. Fuel pump connector
2. Vent hose
3. High pressure fuel hose



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850 AND 1000R ENGINES

1. Fuel pump connector
2. Vent hose
3. High pressure fuel hose

3. Remove fuel pump retaining nut.

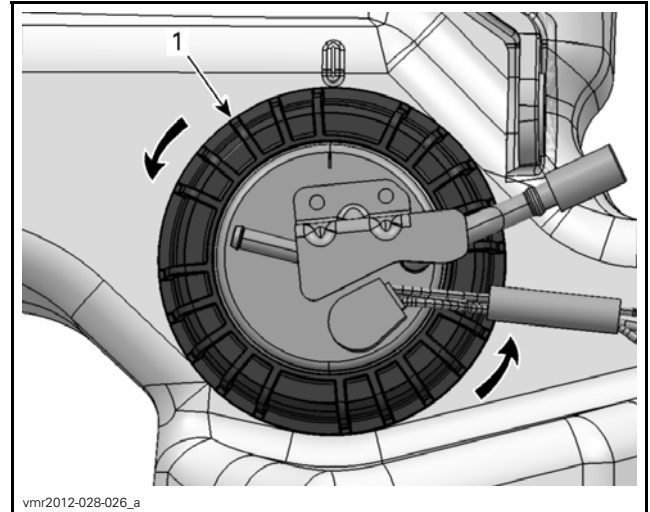
⚠ WARNING

Fuel vapors are flammable and explosive under certain conditions. Use only non-sparking tools.

⚠ CAUTION Replace fuel pump gasket whenever fuel pump retaining nut is loosened.

REQUIRED TOOL

FUEL PUMP NUT TOOL
(P/N 529 035 899)



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TYPICAL - FUEL PUMP REMOVAL

1. Fuel pump retaining nut

4. Carefully pull out and rotate fuel pump as required.

NOTICE Pay attention not to damage fuel sender and fuel pump prefilter.

5. Discard gasket ring.

6. Wipe off any fuel spillage.

Fuel Pump Installation

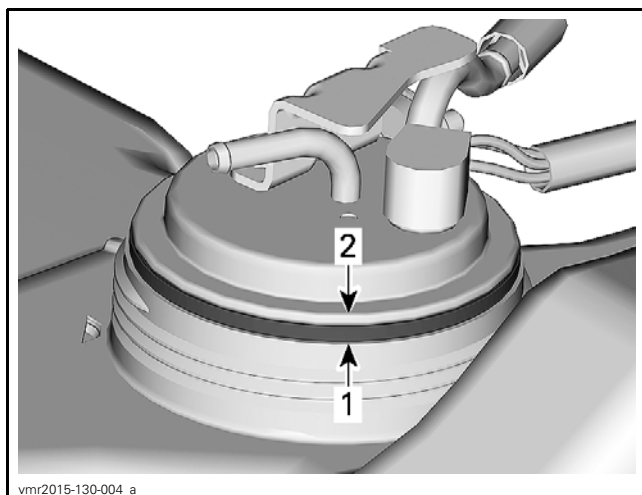
The installation is the reverse of the removal procedure. However, pay attention to the following. Rotate fuel pump during insertion as per removal procedure.

⚠ CAUTION Pay attention not to damage fuel sender and fuel pump pre-filter.

1. Install a **NEW** gasket ring.

2. Place gasket so that it is properly located between fuel pump and fuel pump mounting neck on fuel tank.

Subsection 02 (FUEL TANK AND FUEL PUMP)



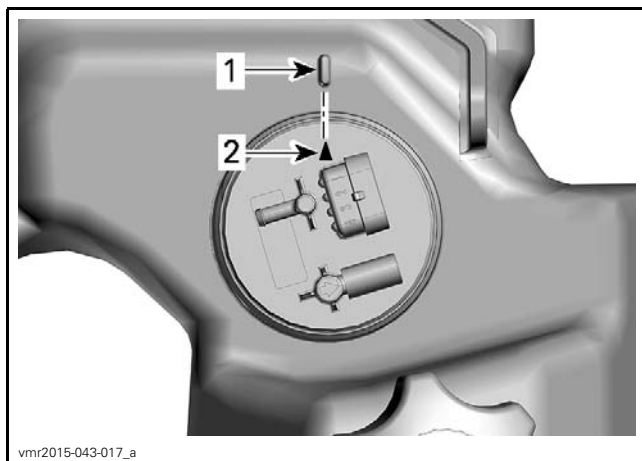
TYPICAL

1. Gasket ring here
2. Fuel pump flange

⚠ WARNING

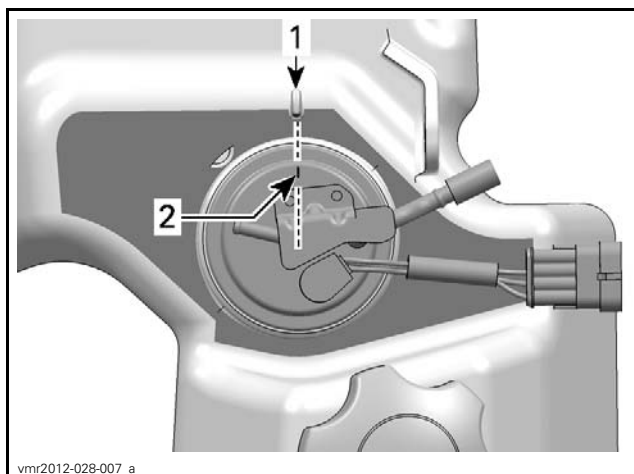
Ensure gasket ring makes good contact all around fuel pump and fuel pump mounting neck on fuel tank.

3. Ensure proper fuel pump orientation as in following illustration.



570 ENGINE

1. Fuel tank pump index
2. Fuel pump index



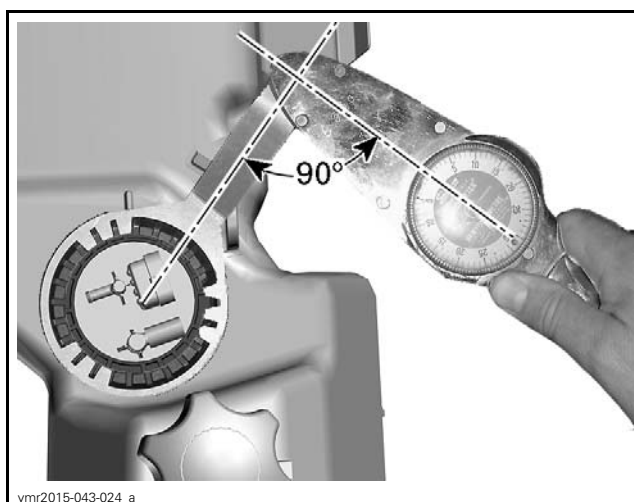
850 AND 1000R ENGINES

1. Fuel tank pump index
2. Fuel pump index

4. Insert fuel pump retaining nut over the fuel pressure hose and electrical wiring connector.
5. While firmly holding pump against tank, engage fuel pump retaining nut on fuel tank flange.

NOTE: If necessary, move the pump in order to ensure the flange is sitting completely flat on the tank.

6. Tighten fuel pump retaining nut to specification.
 - 6.1 Ensure pump locking ring is fully engaged.
 - 6.2 To apply the proper torque to the fuel pump retaining nut, install the fuel pump nut tool on a torque wrench with it's handle perpendicular (90°) to the torque wrench.
 - 6.3 Ensure pump is properly aligned with index marks after nut it tightened to specification.



TORQUE WRENCH PERPENDICULAR TO TOOL HANDLE

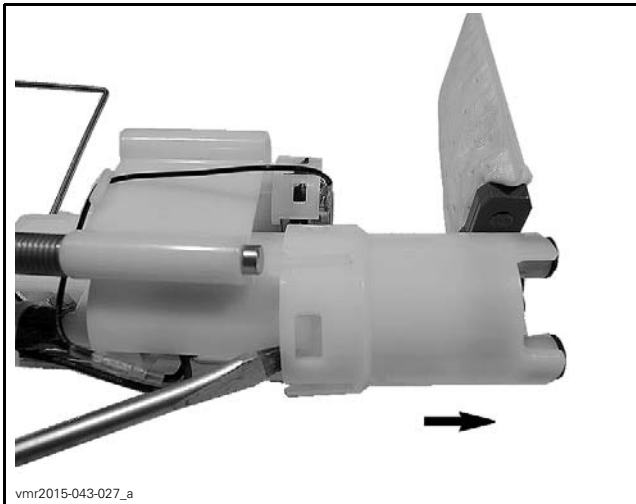
TIGHTENING TORQUE	
Fuel pump retaining nut	29 N•m ± 1 N•m (21 lbf•ft ± 1 lbf•ft)

7. Install fuel pressure hose on fuel pump using a **NEW** Oetiker clamp.
8. Install fuel vent tube on fuel pump.
9. Install electrical connector on fuel pump.
10. Install fuel pump relay (R4).
11. Refuel tank and ensure there are no leaks by performing a *FUEL TANK LEAK TEST* and a *FUEL PUMP PRESSURE TEST* as described in this subsection.
12. Check fuel level sender operation.

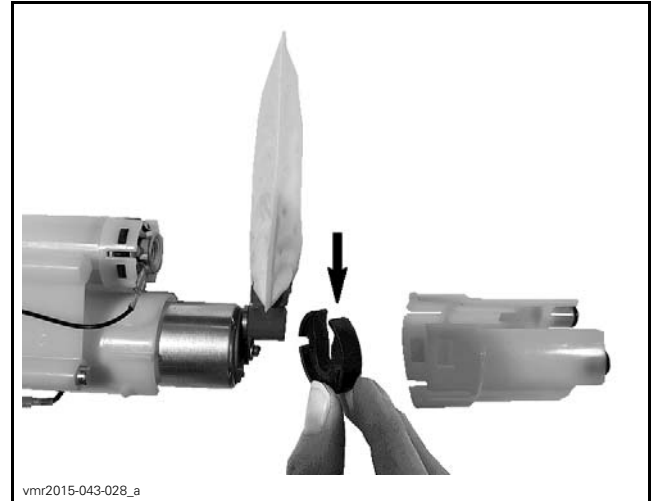
FUEL PUMP PRE-FILTER (STRAINER)

Fuel Pump Pre-filter Replacement (570 Engine)

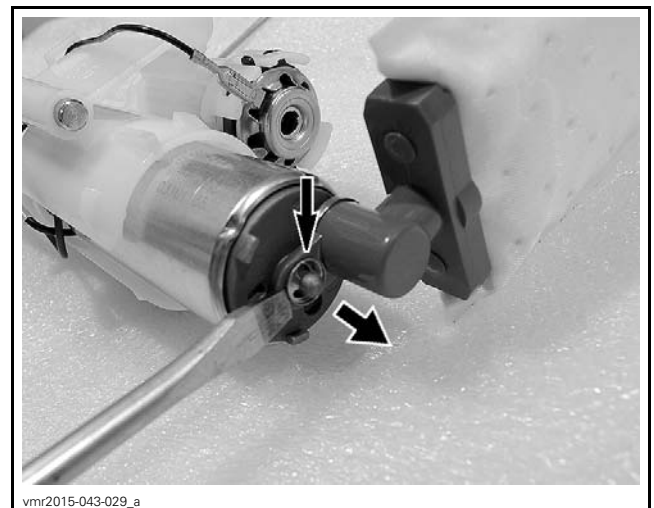
1. Remove *FUEL PUMP*, see *FUEL PUMP REMOVAL* in this subsection.
2. Unlock 3 tabs on strainer plastic ring.



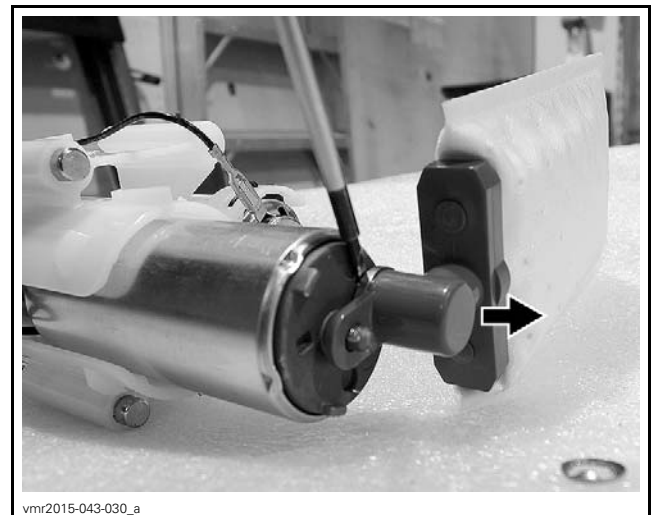
3. Remove rubber pad.



4. Remove push nut securing strainer to fuel pump. Be careful not to break the assembly locator pin.

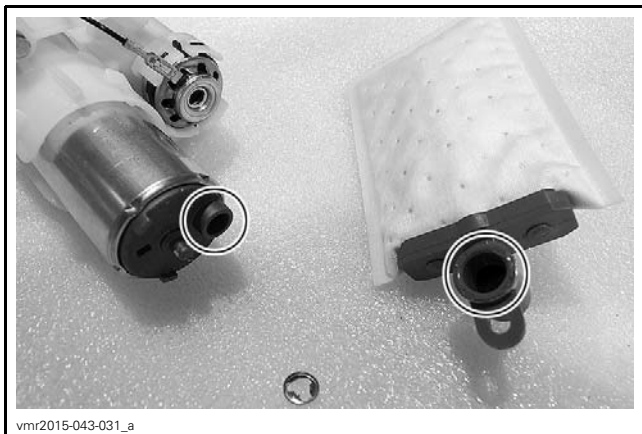


5. Pull strainer off fuel pump.



Subsection 02 (FUEL TANK AND FUEL PUMP)

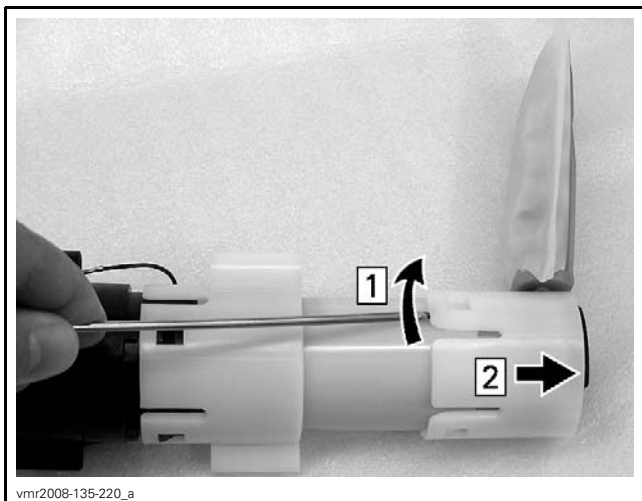
6. Lubricate assembly area of new strainer and fuel pump with O-ring lubricant or clean oil



7. Insert the new strainer on fuel pump making sure to press it in tightly against the fuel pump surface.
8. Using a small socket, press in a **NEW** push nut to secure strainer.
9. Reinstall remaining removed parts.

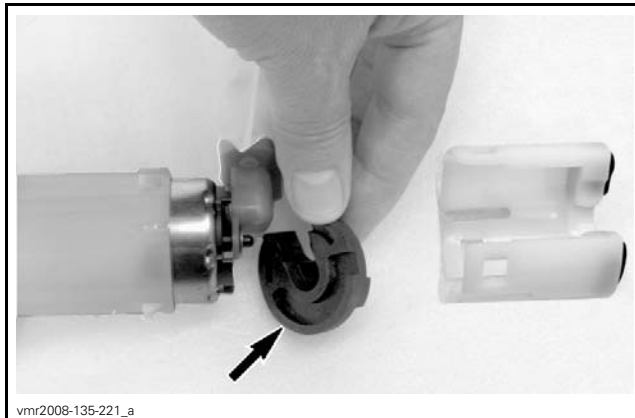
Fuel Pump Pre-filter Replacement (850 and 1000R Engines)

1. Remove *FUEL PUMP*, see *FUEL PUMP REMOVAL* in this subsection.
2. Unlock 3 tabs on strainer plastic ring.



Step 1: Lift these tabs to unlock ring
Step 2: Pull ring off pump inlet

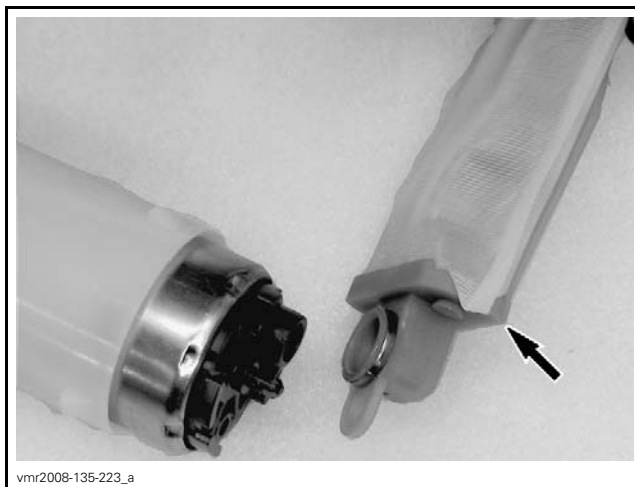
3. Remove rubber pad.



4. Remove push nut securing strainer to fuel pump. Be careful not to break the plastic pin.



5. Pull strainer off fuel pump.



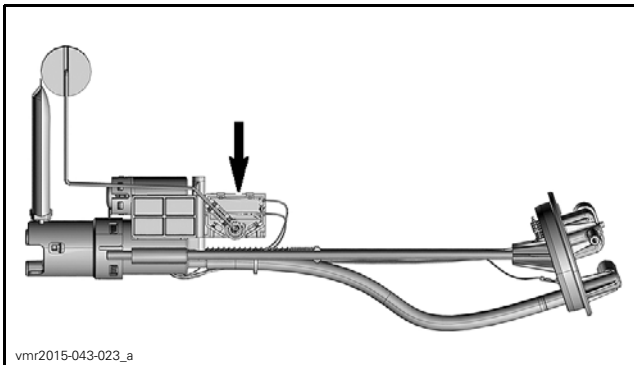
NOTE: A non-serviceable filter is located within the fuel pump module. If it is clogged, replace fuel pump.

6. Insert the new strainer on fuel pump making sure to press it in tightly against the fuel pump surface.

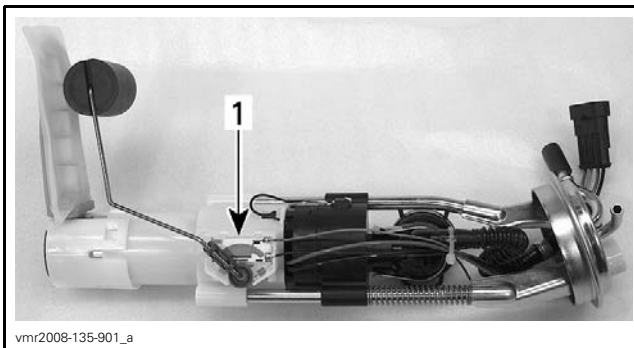
7. Press in a **NEW** push nut to secure strainer.
8. Reinstall remaining removed parts.

FUEL LEVEL SENDER

The fuel level sender is a float actuated variable resistance type that is part of the fuel pump.



570 ENGINE



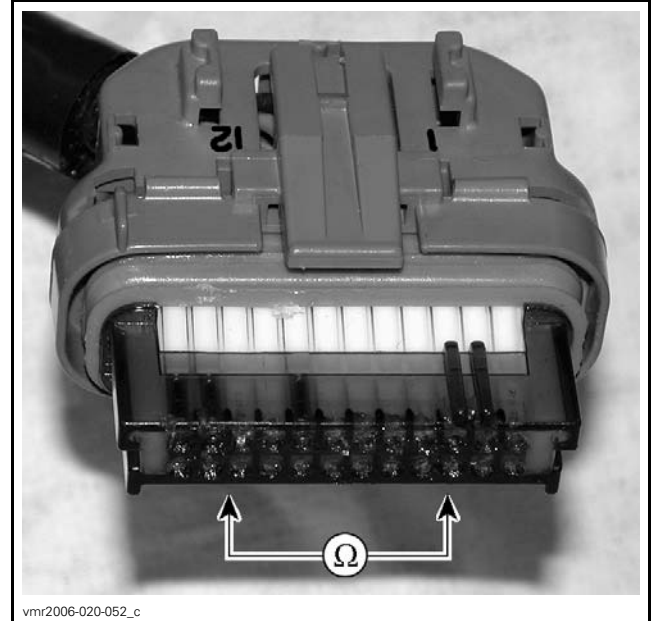
850 AND 1000R ENGINES

1. Fuel level sender

Fuel Level Sender Resistance Test (Fuel Pump Module Installed)

1. Disconnect multifunction gauge, refer to the *LIGHTS/GAUGE/ACCESSORIES* subsection.
2. Measure the resistance of the fuel level sender as follows.

FUEL LEVEL SENDER RESISTANCE TEST		
FUEL LEVEL	GAUGE CONNECTOR	RESISTANCE Ω @ 20°C (68°F)
Full	Pins 4 and 21	5 $\Omega \pm 1$
Empty		100 $\Omega \pm 5$



If readings are out of specification, refer to *FUEL LEVEL SENDER RESISTANCE TEST (AT FUEL PUMP CONNECTOR)*.

If readings are as specified, refer to *FUEL LEVEL SENDER INPUT VOLTAGE TEST*.

Fuel Level Sender Resistance Test (at Fuel Pump Connector)

FUEL LEVEL SENDER RESISTANCE TEST		
FUEL LEVEL	FUEL PUMP CONNECTOR	RESISTANCE Ω @ 20°C (68°F)
Full	Pins 1 and 2	5 $\Omega \pm 1$
Empty		100 $\Omega \pm 5$

If resistance test at fuel pump connector is failed, replace fuel pump module.

Fuel Level Sender Input Voltage Test

1. Set ignition switch to ON.
2. Disconnect fuel pump connector, refer to *FUEL PUMP CONNECTOR ACCESS* in this subsection.
3. Measure for input voltage as follows.

FUEL LEVEL SENDER INPUT VOLTAGE TEST		
FUEL PUMP CONNECTOR	BATTERY	VOLTAGE
Pin 2	Negative terminal	5V

Subsection 02 (FUEL TANK AND FUEL PUMP)

TEST RESULT	SERVICE ACTION
5V is not read	Test wiring continuity between fuel level sender and multifunction gauge
Wiring continuity is good	Replace multifunction gauge
Wiring continuity is not obtained	Repair or replace wiring

Fuel Level Sender Replacement

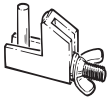
Replace fuel pump. Refer to *FUEL PUMP* in this subsection.

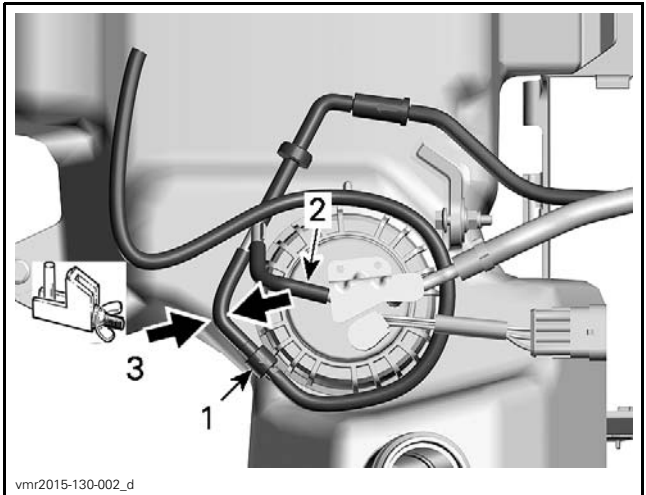
FUEL TANK VENT VALVES

Fuel Tank Vent Valve Test

Inlet Check Valve Test

1. Remove rear body module, refer to *BODY* subsection.
2. Remove multifunction gauge for access to the vent system inlet hose, refer to the *LIGHTS/GAUGE/ACCESSORIES* subsection.
3. Install a small hose pincher between the vent pressure relief valve and the fuel pump vent inlet.

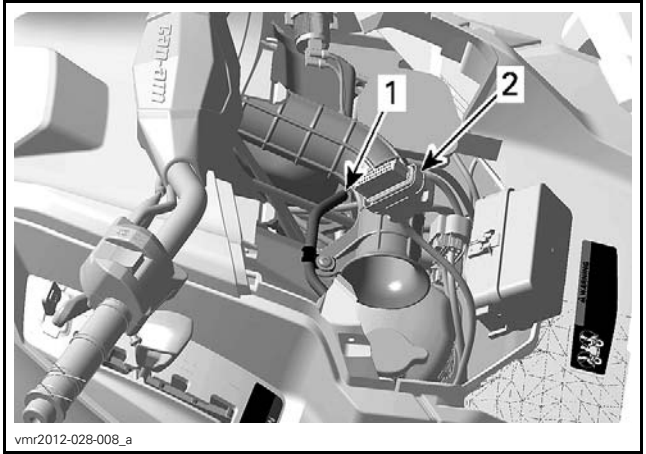
REQUIRED TOOL	
SMALL HOSE PINCHER (P/N 295 000 076)	



1. Pressure relief valve
2. Fuel pump vent inlet
3. Install small hose pincher here

4. Connect the vacuum/pressure pump to the fuel tank vent hose inlet.

REQUIRED TOOL	
VACUUM/PRESSURE PUMP (P/N 529 021 800)	



1. Fuel tank vent hose inlet
2. Gauge connector

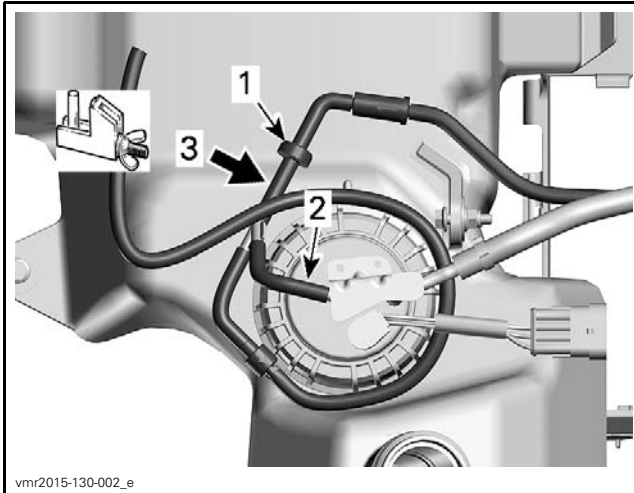
5. Remove fuel tank cap.
6. Set vacuum/pressure pump to **PRESSURE** and activate pump. The gauge on the pump **should not change in reading**.
7. Set vacuum/pressure pump to **VACUUM** and activate pump. The **gauge should increase in reading**.

If the test failed, carry out the following:

- Ensure breather filter is properly installed, refer to *PERIODIC MAINTENANCE PROCEDURES*.
- Ensure inlet check valve is properly installed, refer to *FUEL TANK VENT VALVE INSTALLATION* in this subsection.
- Test inlet check valve separately. If good, replace the breather filter, refer to *PERIODIC MAINTENANCE PROCEDURES*.

Pressure Relief Valve Test

1. Install the small hose pincher between the inlet check valve and the fuel pump vent inlet fitting.



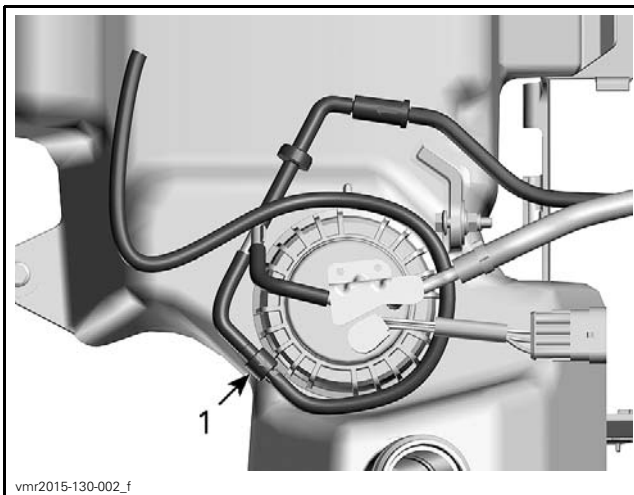
1. Inlet check valve
2. Fuel pump vent inlet fitting
3. Install small hose pincher here

2. Set vacuum/pressure pump to **PRESSURE** and activate pump. The **gauge should increase in reading**.

3. Set vacuum/pressure pump to **VACUUM** and activate pump. The gauge on the pump **should not change in reading**.

If the test failed, carry out the following:

- Ensure pressure relief valve is properly installed, refer to *PRESSURE RELIEF VALVE INSTALLATION* in this subsection.
- Replace pressure relief valve if it fails the test.

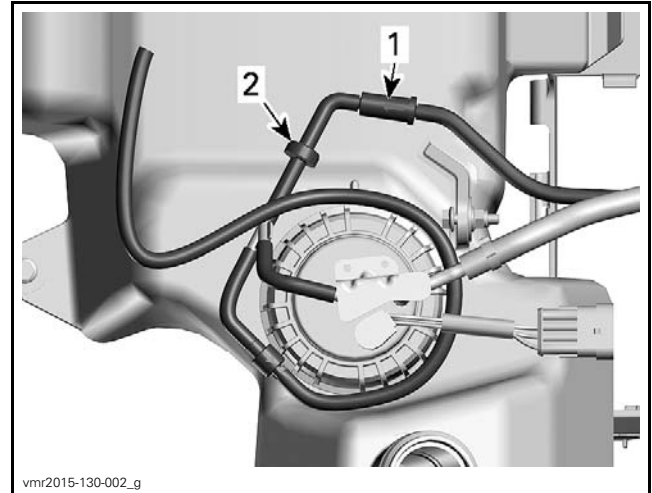


1. Pressure relief valve flow direction arrow

Fuel Tank Vent Valve Installation

Inlet Check Valve Installation

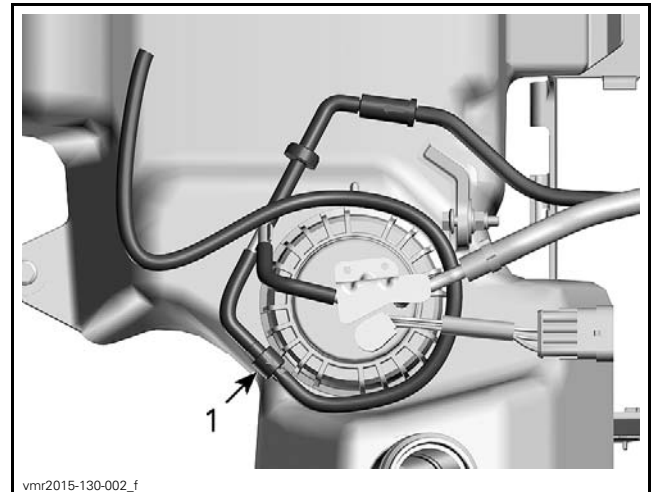
Ensure white portion of inlet check valve is towards the vent breather filter.



1. Vent breather filter
2. White portion of inlet check valve

Pressure Relief Valve Installation

Ensure pressure relief valve flow arrow is pointing away from fuel pump vent fitting.



1. Pressure relief valve flow direction arrow