

## 2005 ENGINE

### Fuel Tank & Lines - Hybrid Escape

## SPECIFICATIONS

### GENERAL SPECIFICATIONS

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Item	Specification
<b>Fuel Tank Capacity</b>	
Capacity	57 liters (15 gallons)
<b>Fuel Pressure</b>	
Key on, engine off	269 kPa (39 psi)
Engine running	269 kPa (39 psi)
Fuel pump output volume per 10 seconds	125 cc (4.32 oz.)
<b>Lubricants</b>	
SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP (in Canada Motorcraft SAE 5W-20 Super Premium Motor Oil CXO-5W20-LSP12) or equivalent	WSS-M2C930-A

### TORQUE SPECIFICATIONS

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Description	Nm	lb-ft	lb-in
Fuel filler pipe mounting screws	3	-	27
Fuel filler pipe mounting screw	10	-	89
Fuel hose clamp	4	-	35
Fuel tank strap bolt	55	41	-

## DESCRIPTION AND OPERATION

### FUEL TANK AND LINES

**WARNING:** Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited, resulting in possible personal injury.

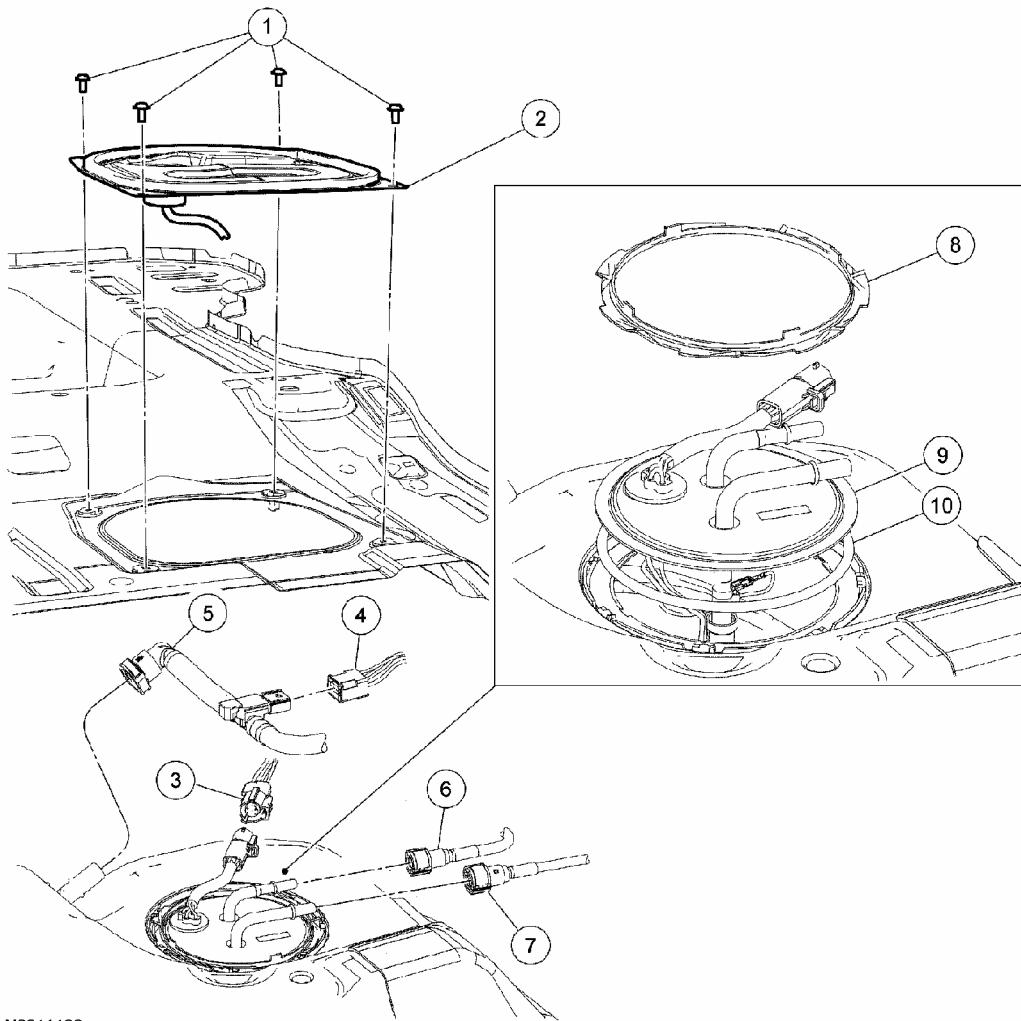
The fuel system consists of:

- a standard fuel tank.
- fuel tubes.
- a fuel filter providing filtration to protect the fuel injectors from foreign material.
- a fuel tank filler pipe assembly, which cannot be modified in any way, that also contains a restrictor plate to permit only unleaded fuel to be pumped into the tank.
- a 1/4 turn-type fuel tank filler cap.
- an inertia fuel shutoff (IFS) switch.
- a bottom mount fuel pump module (FPM) containing:
  - the electric fuel pump which provides pressurized fuel to the engine.
  - the fuel level sensor.
  - an inlet filter.
  - a check valve which maintains system pressure after the pump is shut off.
  - a pressure relief for overpressure protection in the event of restricted air flow.

The fuel pump is controlled by powertrain control module (PCM). Electrical power to the pump is provided through the inertia fuel shutoff (IFS) switch located under the right front kick panel.

## **REMOVAL AND INSTALLATION**

### **FUEL TANK AND FILLER PIPE - EXPLODED VIEW**

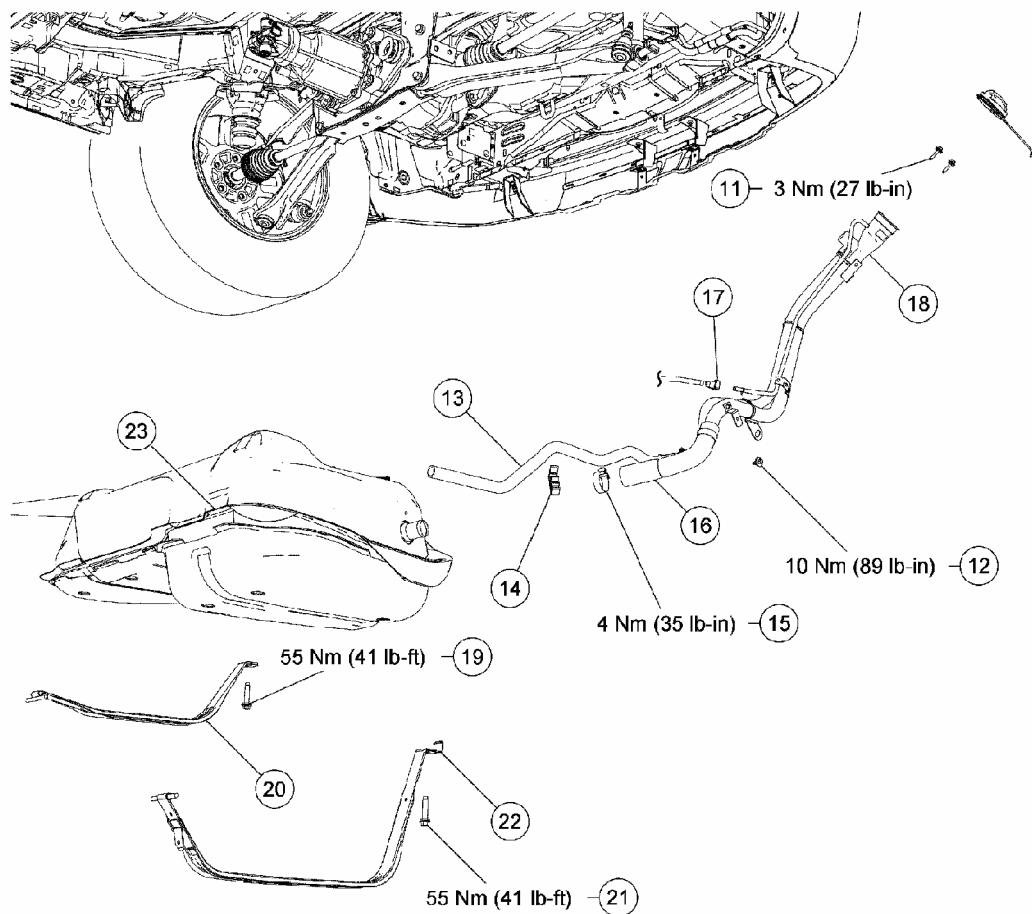


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Item	Part Number	Description
1	—	Fuel pump module access cover screws (4 required)
2	—	Fuel pump module access cover
3	14A464	Fuel pump module electrical connector

Item	Part Number	Description
4	14A464	Fuel tank pressure sensor electrical connector
5	9D668A	Fuel vapor control tube assembly valve quick connect coupling
6	9B034	Fuel vapor hose quick connect coupling
7	9289A	Fuel supply tube quick connect coupling
8	9A307	Fuel pump module lock ring
9	9H307	Fuel pump module
10	9276	Fuel pump module O-ring seal

**Fig. 1: Fuel Tank And Filler Pipe - Exploded View (1 Of 2)**  
 Courtesy of FORD MOTOR CO.



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Item	Part Number	Description
11	W701676	Fuel filler pipe mounting screw (2 required)
12	W503921	Fuel filler pipe mounting screw
13	9034	Fuel vapor dust box hose
14	9034A	Retainer clip
15	9034A	Fuel hose clamp
16	9034A	Fuel filler pipe hose
17	9D668	Fuel vapor quick connect coupling

Item	Part Number	Description
18	9034	Fuel tank filler pipe assembly
19	W707111	Fuel tank strap bolt
20	9N041	Fuel tank strap
21	W707111	Fuel tank strap bolt
22	9092	Fuel tank strap
23	9K007	Fuel tank

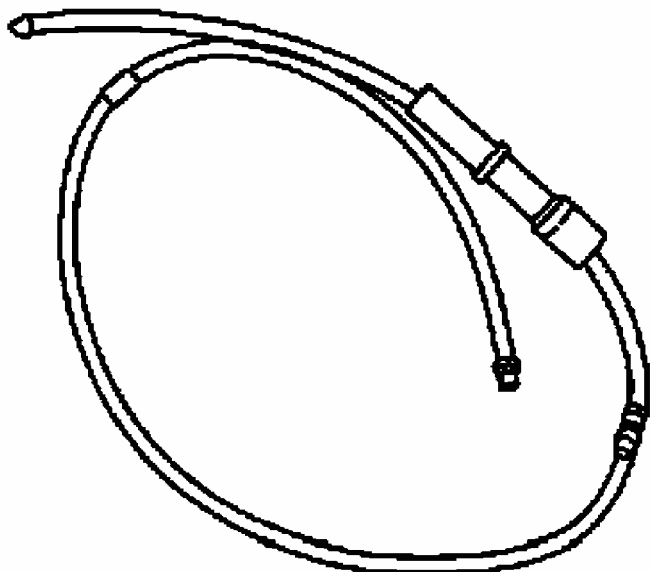
**Fig. 2: Fuel Tank And Filler Pipe And Torque Specifications - Exploded View (2 Of 2)**  
**Courtesy of FORD MOTOR CO.**

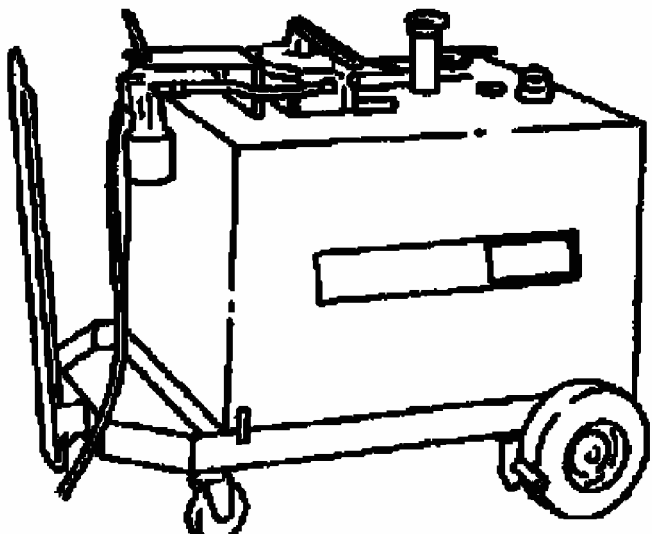
1. For additional information, refer to the procedures in this article.

## FUEL TANK

Special Tool(s)

**SPECIAL TOOL (FUEL TANK)**

 <p><b>ST2134-A</b></p>	<p>Fuel Drain Hose 310-102</p>
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	<p>Fuel Storage Tanker 164-R3202 or equivalent</p>
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**Material**

**MATERIAL SPECIFICATION (FUEL TANK)**

<b>Item</b>	<b>Specification</b>
SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP (in	WSS-

Canada Motorcraft SAE 5W-20 Super Premium Motor Oil CXO-5W20-LSP12) or equivalent	Item	MS6036
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## Removal

**WARNING:** Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel-related component. Highly flammable mixtures are always present and may be ignited, resulting in possible personal injury.

**WARNING:** The evaporative emissions system contains fuel vapor and condensed fuel vapor. Although not present in large quantities, it still presents the danger of explosion or fire. Disconnect the battery ground cable from the battery to minimize the possibility of an electrical spark occurring, and possibly causing a fire or explosion if fuel vapor or liquid fuel are present in the area. Failure to follow these instructions can result in personal injury.

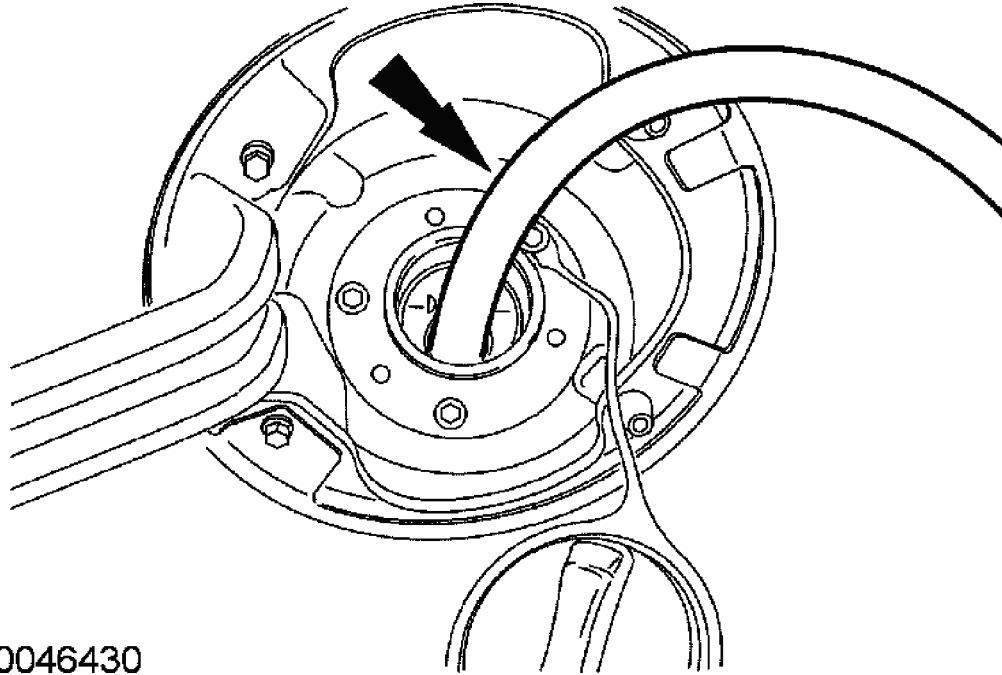
**WARNING:** Fuel in the fuel system remains under high pressure even when the engine is not running. Before repairing or disconnecting any of the fuel system components, the fuel system pressure must be relieved to prevent accidental spraying of fuel causing personal injury or a fire hazard.

**WARNING:** The fuel in the tank may be pressurized. Remove the fuel tank cap slowly. If a hissing sound is heard, wait until the condition stops before removing the fuel tank filler cap. If these precautions are not followed, fuel may spray and cause personal injury.

## All vehicles

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to **JACKING AND LIFTING**.
2. Release the fuel system pressure. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION**.
3. Disconnect the battery ground cable. For additional information, refer to **BATTERY, MOUNTING AND CABLES**.
4. Remove the fuel tank filler cap.
5. Insert a suitable fuel drain tube into the fuel tank filler pipe until it reaches the fuel tank

inlet spout.



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**Fig. 3: Inserting Suitable Fuel Drain Tube Into Fuel Tank Filler Pipe**  
Courtesy of FORD MOTOR CO.

6. Attach the fuel storage tanker to the fuel drain tube and remove any residual fuel remaining in the fuel tank filler pipe.

#### **4x4 vehicles**

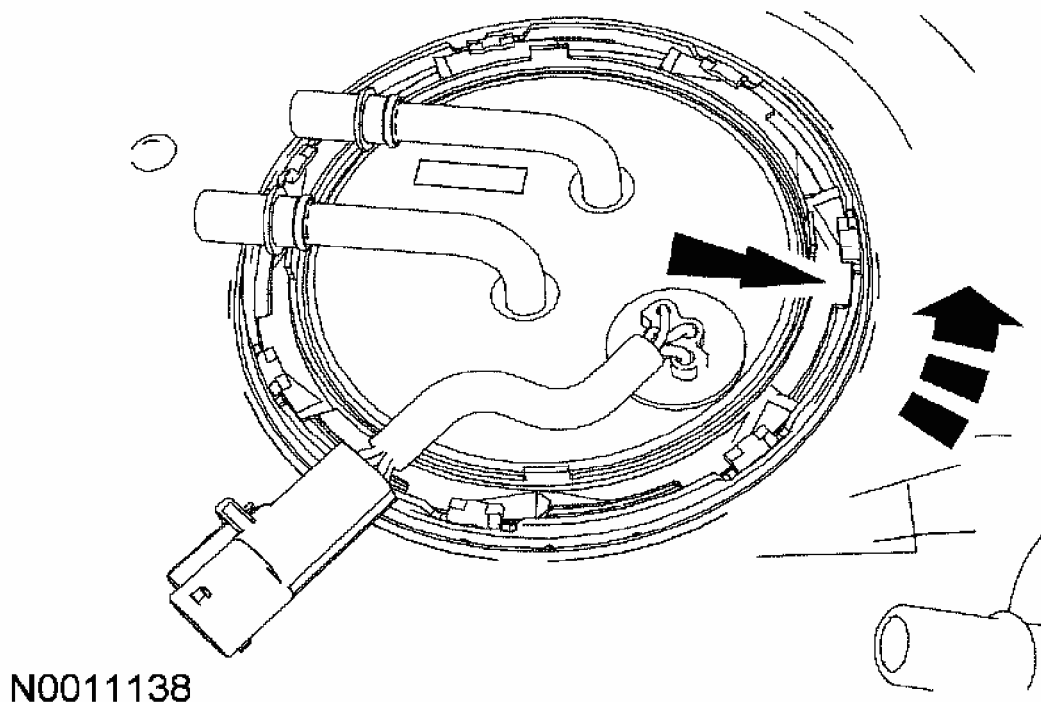
7. Support the exhaust system with a suitable stand, release the 3 rear exhaust hangers and carefully lower the exhaust system to allow enough clearance to remove the fuel tank.
8. Remove the rear driveshaft. For additional information, refer to **DRIVESHAFT** .

#### **All vehicles**

9. Lift the LH rear seat cushion and position the carpet aside.
10. Remove the 4 screws and the fuel pump module access cover.
11. Disconnect the fuel pump module electrical connector.
12. Disconnect the fuel tank pressure sensor electrical connector.
13. Disconnect the fuel supply tube and fuel vapor tube quick connect couplings from the fuel delivery module. For additional information, refer to **FUEL SYSTEM-GENERAL**

**INFORMATION .**

14. Using a suitable fuel pump lock ring remover, rotate the lock ring counterclockwise and remove.

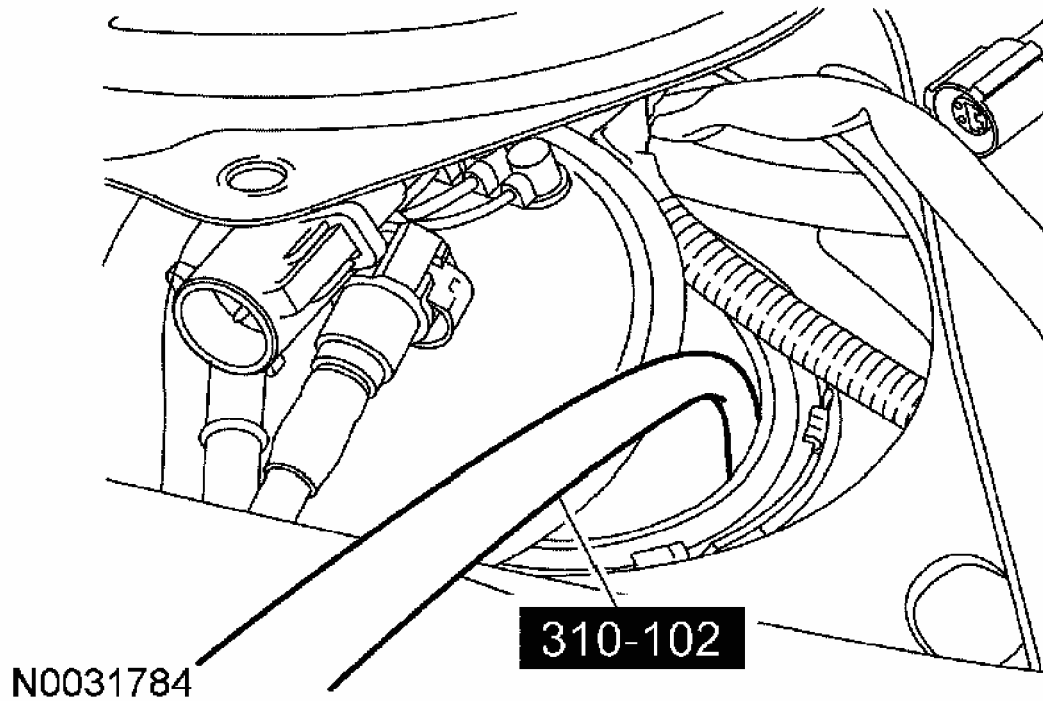


**Fig. 4: Rotating Lock Ring Counterclockwise**  
Courtesy of FORD MOTOR CO.

**CAUTION: The fuel pump module must be handled carefully to avoid damage to the float arm and filter.**

15. Prior to completely removing the fuel pump, position it aside. Using the special tool and a suitable fuel recovery system, drain the fuel tank.





**Fig. 5: Draining Fuel Tank**  
Courtesy of FORD MOTOR CO.

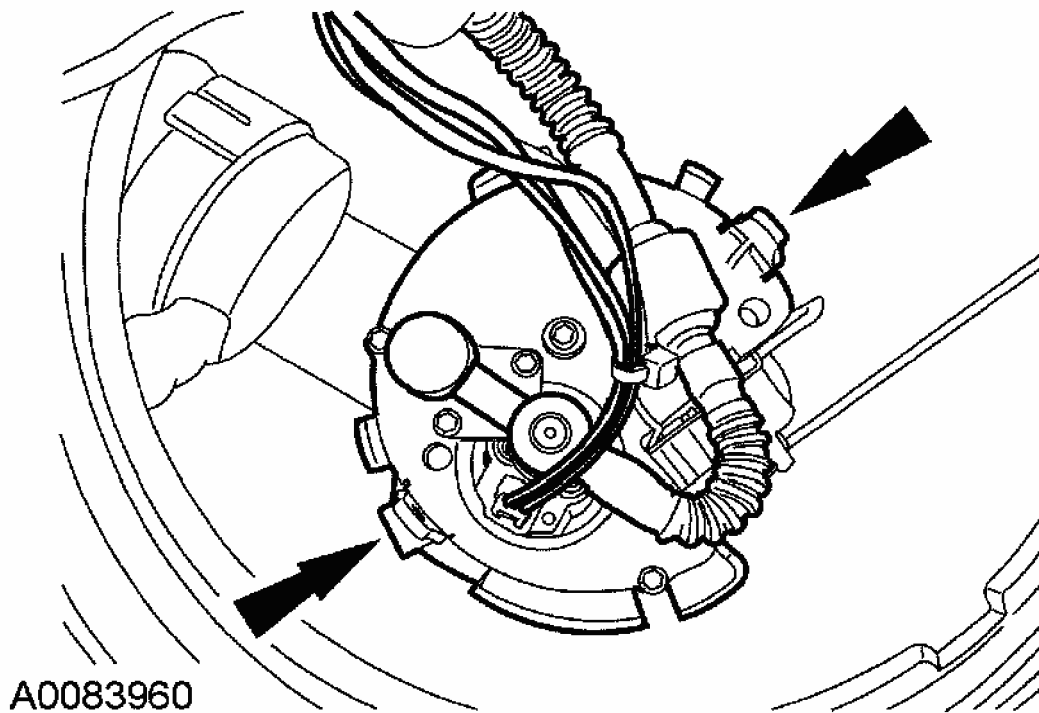
**CAUTION:** Some fuel will remain in the fuel pump module after draining the fuel tank. Carefully drain the fuel pump module into a suitable container.

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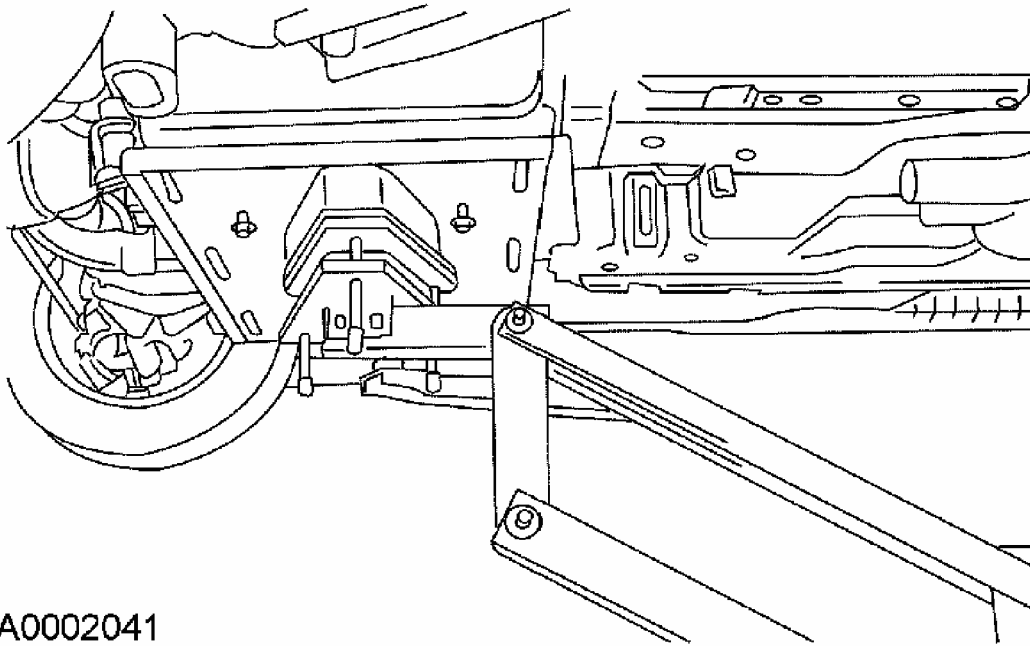


**Fig. 6: Squeezing Retainer Tabs On Pump Module Housing**  
Courtesy of FORD MOTOR CO.

16. To release the bottom-mounted fuel pump module, reach into the fuel pump module opening and squeeze the retainer tabs on the pump module housing and pull upward.

**NOTE: Be careful that no foreign material falls into tank.**

17. Remove and discard the fuel pump module O-ring seal, making sure the mounting area is clean and free of foreign material.
18. Detach the fuel vapor hose retainer clip from the fuel tank strap.
19. Reposition the clamp and disconnect the fuel filler pipe hose from the fuel tank.
20. Position a suitable lifting device under the fuel tank.



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**Fig. 7: Positioning Lifting Device Under Fuel Tank**  
Courtesy of FORD MOTOR CO.

21. Detach the wiring harness pin-type retainer from the fuel tank strap.
22. Remove the bolt and the LH fuel tank strap.
23. Remove the bolt and the RH fuel tank strap.
24. Partially lower the fuel tank enough to access and disconnect the fuel vapor control tube assembly valve quick connect coupling. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION**.
25. Remove the fuel tank.

#### Installation

#### All vehicles

**CAUTION:** Inspect the surfaces of the fuel pump module flange and fuel tank O-ring contact surfaces. Do not polish or adjust the O-ring contact area of the fuel pump flange or fuel tank. Install a new fuel pump module or fuel tank if the O-ring contact area is bent, scratched or corroded.

**CAUTION:** Make sure to install a new fuel pump module O-ring