

2005 Ford Focus ZX5 S

2005 ENGINE Fuel Tank & Lines - Focus

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Fuel Tank & Lines - Focus

SPECIFICATIONS

TORQUE SPECIFICATIONS

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Description	Nm	lb-ft	lb-in
Fuel tank strap bolts	25	18	-
Exhaust pipe flange nuts	48	35	-
Fuel filler pipe bolts	9	-	80
Fuel tank vent pipe	4	-	35

DESCRIPTION AND OPERATION

FUEL TANK AND LINES

Fuel Tank

The fuel tanks are of steel construction and are retained to the vehicle by means of 2 steel support straps. The fuel tank support straps are hooked into the underside of the vehicle chassis towards the rear of the fuel tank and bolted to the vehicle towards the front of the fuel tank.

Tank ventilation is achieved by a rollover valve and one fill limit vent valve, mounted internal to the tank.

Fuel Filter

The fuel filter is of conventional construction consisting of a paper element sealed within a steel canister. The fuel filter is located within a bracket at the leading edge of the fuel tank.

Fuel Tank Filler Pipe

The fuel tank filler pipe is of steel construction with rubber connections to the fuel tank, and is retained to the vehicle by means of one upper bolt and one lower bolt. The fuel tank filler pipe is fitted with a screw-type filler cap, which seals the system.

Fuel Pump

The fuel pump is a turbine-type pump which is located inside the fuel tank. The fuel pump features an integral fuel tank sender unit and is fixed to the fuel tank by means of a locking ring.

Inertia Fuel Shutoff Switch

The inertia fuel shutoff switch cuts off the electrical supply to the fuel pump in the event of an accident and is located in the front RH footwell behind the cowl side trim panel.

DIAGNOSIS AND TESTING

FUEL TANK AND LINES

See [INTRODUCTION - GASOLINE](#) article. .

REMOVAL AND INSTALLATION

FUEL TANK

Material

MATERIALS

Item	Specification
SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP or equivalent	WSS-M2C930-A

Removal and Installation

WARNING: Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel-related components. Highly flammable vapors are always present and can ignite. Failure to follow these instructions can result in personal injury.

WARNING: This procedure involves fuel handling. Be prepared for fuel spillage at all times and always observe fuel handling precautions. Failure to follow these instructions can result in personal injury.

CAUTION: If the liquid or vapor tube is damaged (torn, holes or delaminated) the affected tube assembly must be installed new. Do not use aftermarket sleeving. Do not re-adhere loose sleeving material.

CAUTION: When reusing liquid or vapor tube connectors, make sure to use compressed air to remove any foreign material from the connector retaining clip area before separating from the tube. Apply clean engine oil to the end of the tube before

inserting the tube into the connector.

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. Drain the fuel tank. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION** .
4. Disconnect the fuel pump module electrical connector.

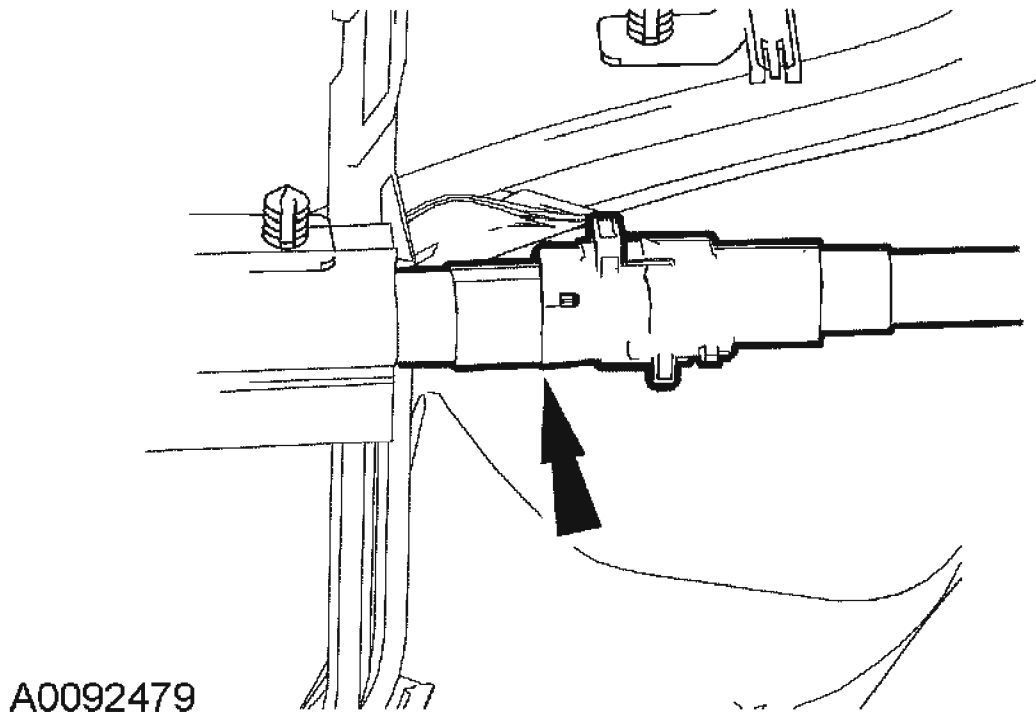


Fig. 1: Disconnecting Fuel Pump Module Electrical Connector
Courtesy of FORD MOTOR CO.

5. Remove the heat shield retainer nut.

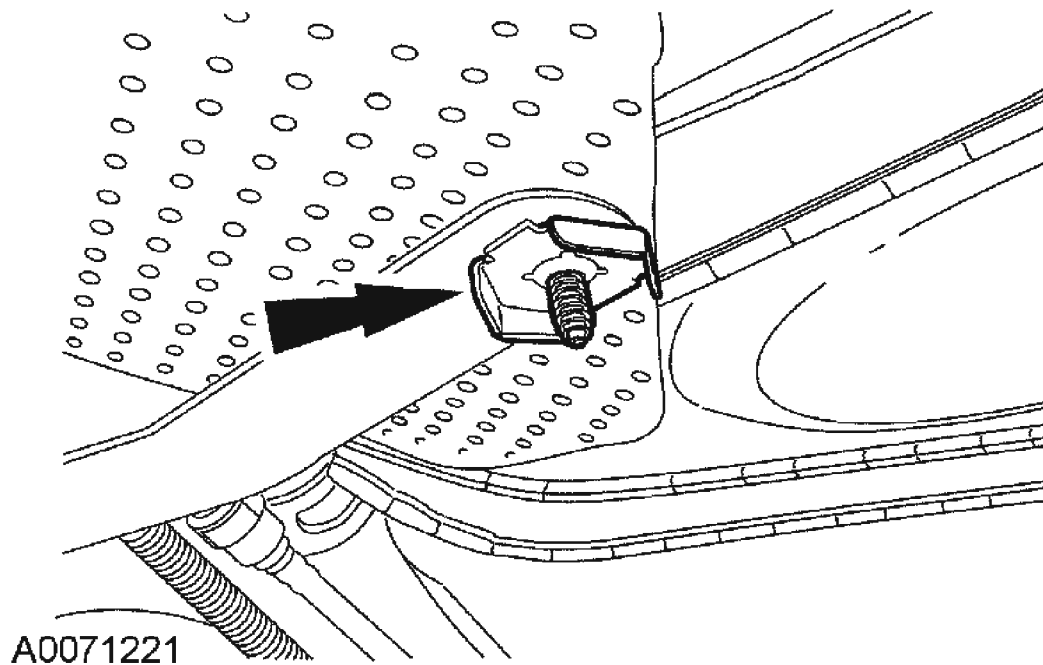
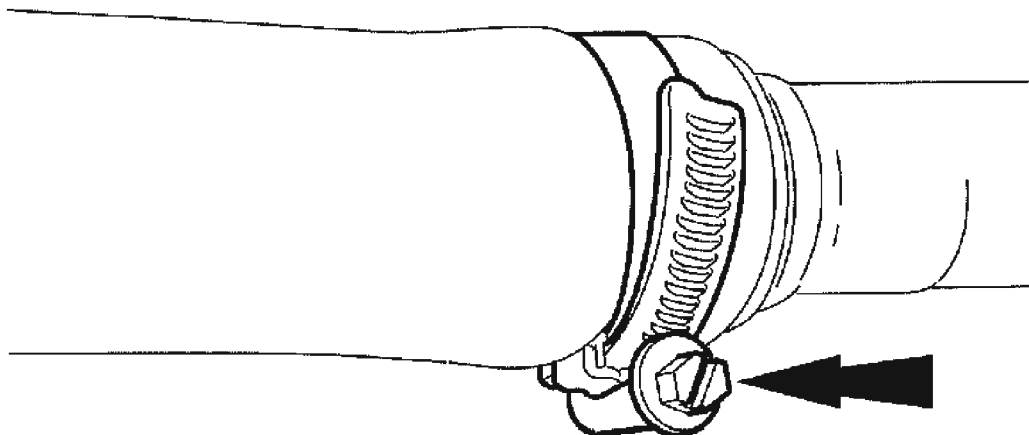


Fig. 2: Removing Heat Shield Retainer Nut
Courtesy of FORD MOTOR CO.

CAUTION: The orientation marks on the fuel fill and vent hoses must be aligned with the orientation marks on the fuel tank during installation. If the installation of a new hose clamp is necessary, a new stainless steel clamp is required.



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Fig. 3: Disconnecting Filler Pipe
Courtesy of FORD MOTOR CO.

6. Loosen the clamp and disconnect the filler pipe.
7. Press the quick connect coupling release tab and disconnect the vent tube. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION** .

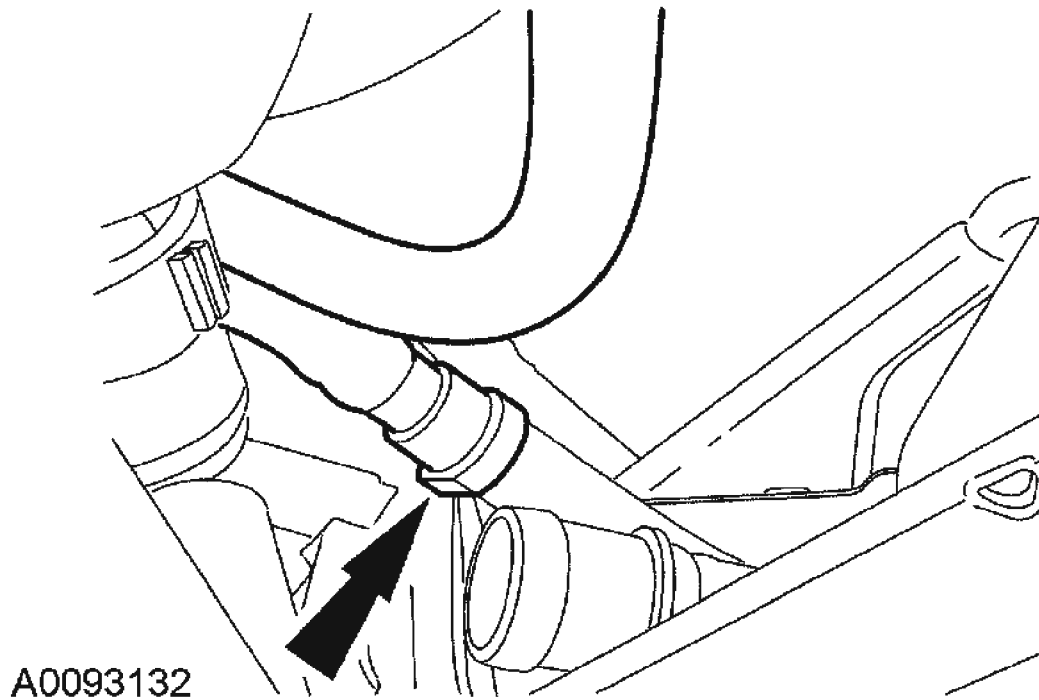


Fig. 4: Disconnecting Vent Tube
Courtesy of FORD MOTOR CO.

8. Press the quick connect coupling release tab and disconnect the fuel feed tube. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION** .

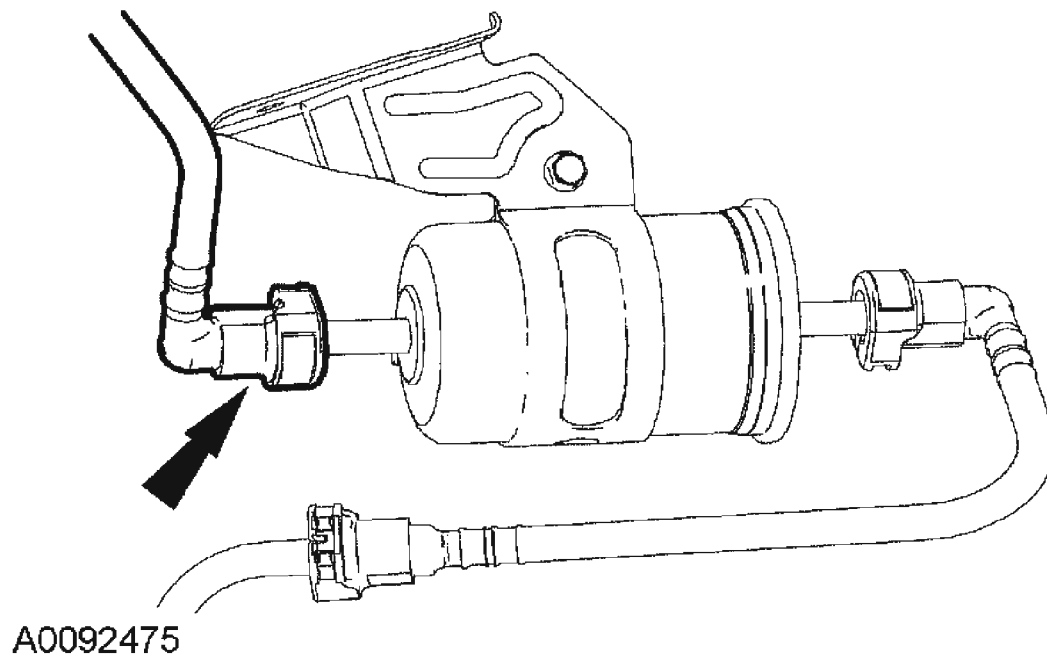
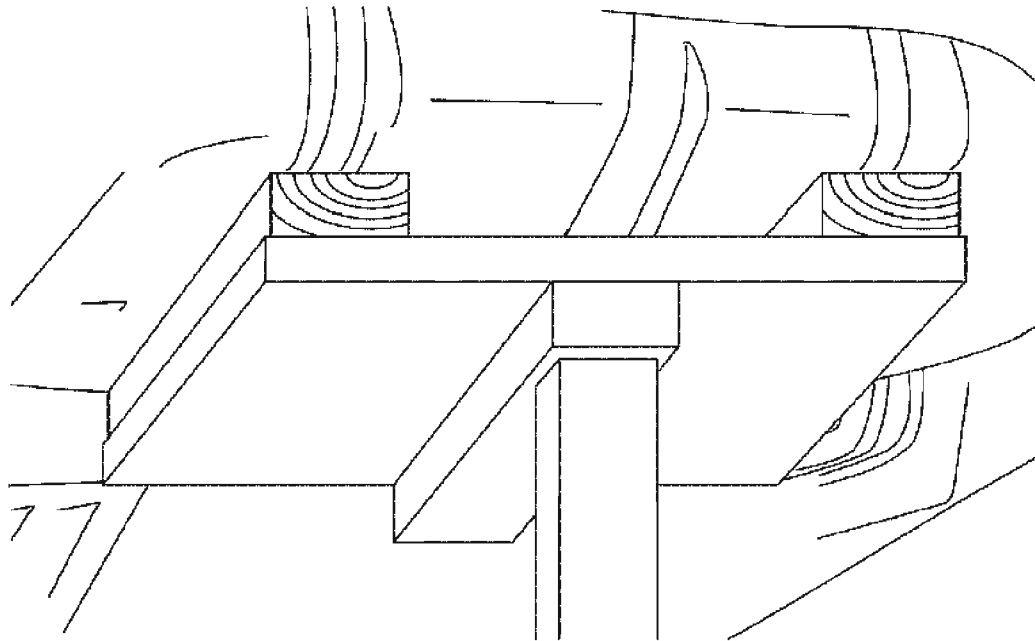


Fig. 5: Disconnecting Fuel Feed Tube
Courtesy of FORD MOTOR CO.

CAUTION: When supporting the fuel tank, use a suitable packing material to prevent damage to the underside of the fuel tank.



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Fig. 6: Supporting Fuel Tank Using High-Lift Jack
Courtesy of FORD MOTOR CO.

9. Support the fuel tank using a suitable high-lift jack.

CAUTION: Make sure not to bend or deform the fuel tank straps during the removal of the tank.

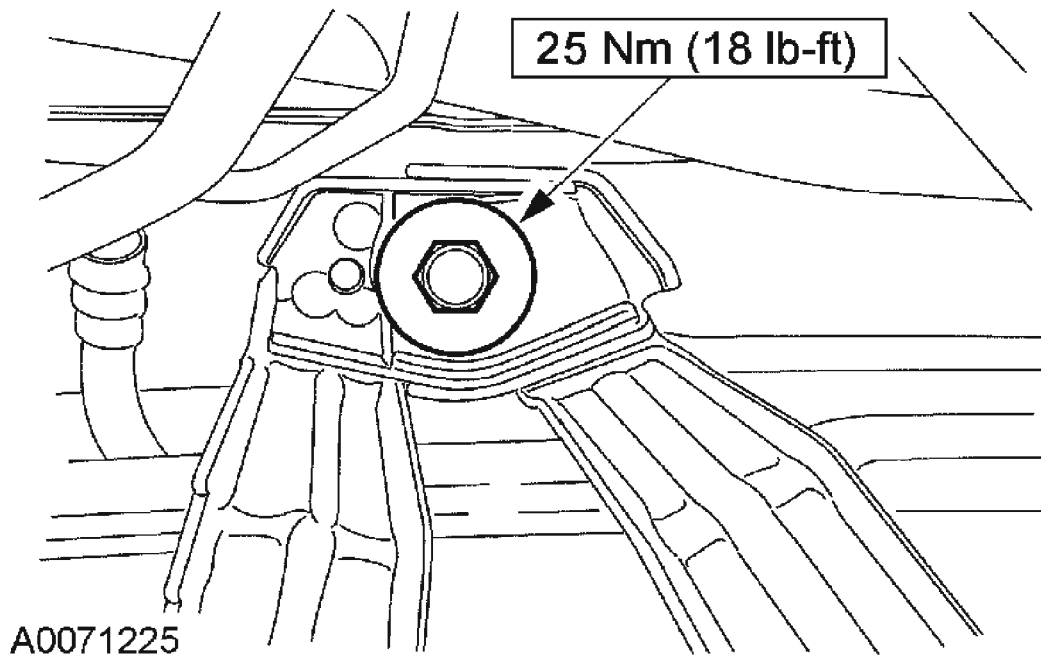


Fig. 7: Removing Fuel Tank Straps Bolt
Courtesy of FORD MOTOR CO.

10. Remove the bolt and position aside the fuel tank straps.
 - Remove the fuel tank.
11. To install, reverse the removal procedure.
12. Carry out an evaporative emission system leak test. For additional information, refer to **EVAPORATIVE EMISSIONS**.

FUEL PUMP MODULE

Material

MATERIALS

Item	Specification
SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP or equivalent	WSS-M2C930-A

Removal and Installation

WARNING: Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel-related components. Highly flammable vapors are always present and can ignite. Failure to follow these instructions can

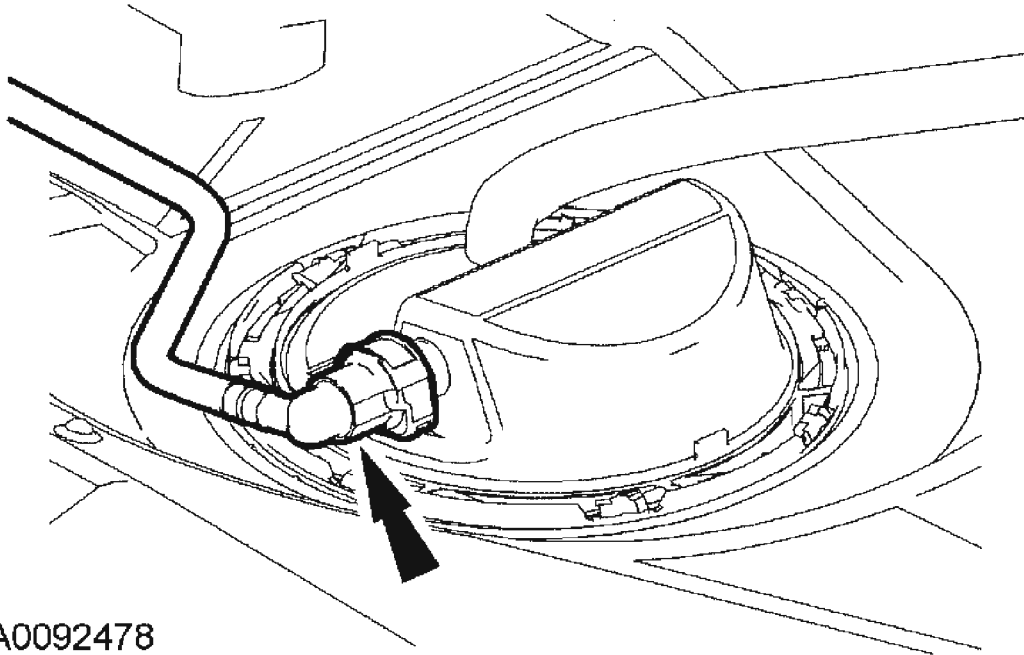
result in personal injury.

WARNING: This procedure involves fuel handling. Be prepared for fuel spillage at all times and always observe fuel handling precautions. Failure to follow these instructions can result in personal injury.

CAUTION: If the liquid or vapor tube is damaged (torn, holes or delaminated) the affected tube assembly must be installed new. Do not use aftermarket sleeving. Do not re-adhere loose sleeving material.

CAUTION: When reusing liquid or vapor tube connectors, make sure to use compressed air to remove any foreign material from the connector retaining clip area before separating from the tube. Apply clean engine oil to the end of the tube before inserting the tube into the connector.

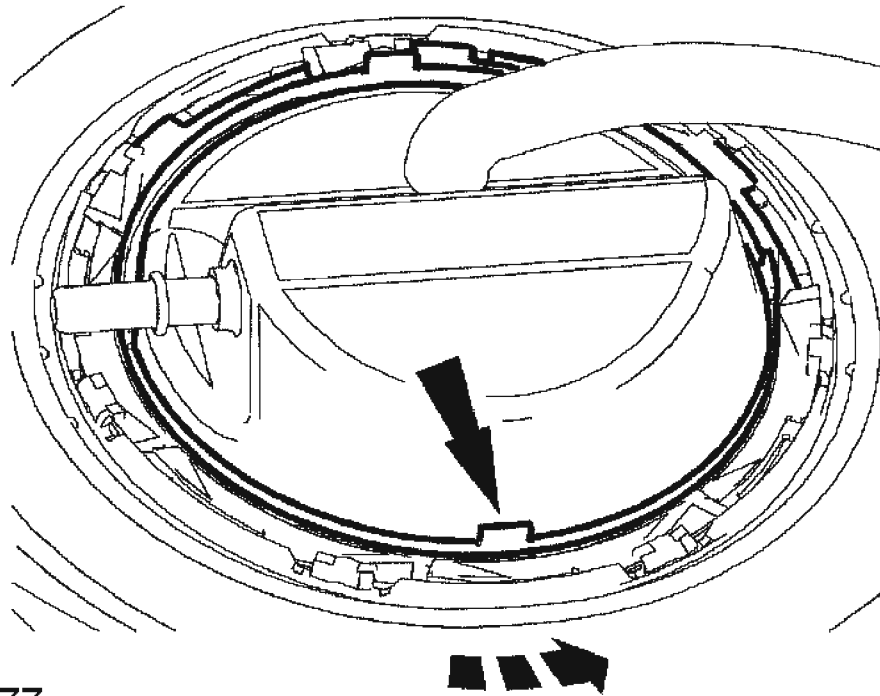
1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to **JACKING AND LIFTING** .
2. Release the fuel system pressure. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION** .
3. Remove the fuel tank. For additional information, refer to **FUEL TANK**.
4. Press the quick connect coupling release tab and disconnect the fuel tube. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION** .



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Fig. 8: Disconnecting Fuel Tube
Courtesy of FORD MOTOR CO.

NOTE: Make sure that the float, arm or flange are not damaged while removing the fuel pump module.



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Fig. 9: Removing Fuel Pump Module
Courtesy of FORD MOTOR CO.

5. Using a suitable fuel pump lock ring remover, rotate the lock ring counterclockwise and remove the fuel pump module.
 - Discard the locking ring and seal.

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 the fuel tank. Install a new fuel pump module or the 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 and lock ring.

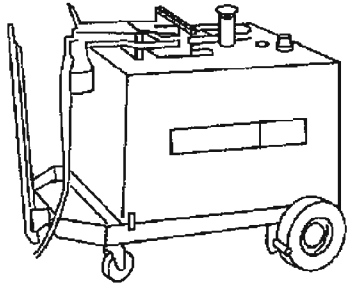
NOTE: Lubricate the fuel tube quick connect coupling with clean engine oil. Align the fuel tube and the quick connect coupling and press together until an audible click is heard and then pull on the fittings to make sure they are fully engaged.

6. To install, reverse the removal procedure.

FUEL TANK FILLER PIPE

Special Tool(s)

SPECIAL TOOLS



ST1134A

Fuel Storage Tanker 164-R3202 or equivalent

Removal

WARNING: Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel related components. Highly flammable vapors are always present and can ignite. Failure to follow these instructions can result in personal injury.

CAUTION: The rubber hose portion of the filler pipe is not serviced separately. Install a new filler pipe assembly as needed.

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to **JACKING AND LIFTING**.
2. Remove the fuel filler cap.
3. Insert a suitable fuel drain tube into the fuel tank filler pipe until it reaches the fuel tank inlet spout.
4. Attach the fuel storage tanker to the fuel drain tube and remove any residual fuel in the fuel tank filler pipe.
5. Remove the right-hand rear wheel.
6. Remove the right-hand rear splash shield.

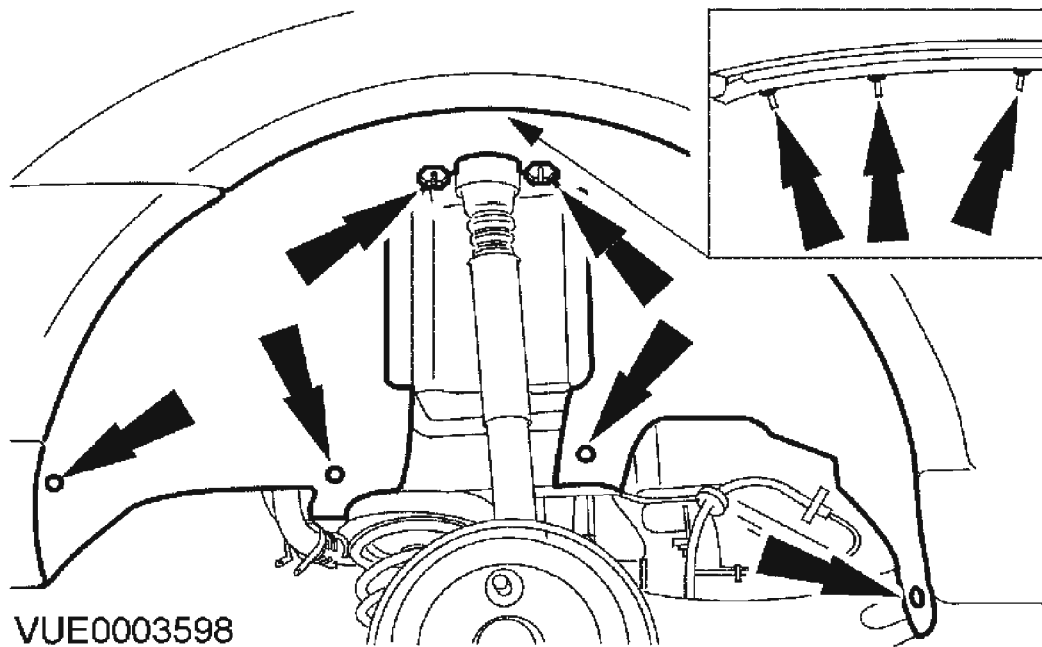


Fig. 10: Removing Right-Hand Rear Splash Shield
Courtesy of FORD MOTOR CO.

CAUTION: When removing the fuel tank vent and filler pipe, do not use any sharp edge tools to lever off the pipes. Failure to follow this instruction can result in damage to the filler pipes.

NOTE: Make a note of the position of the retaining clamp and clip to make sure that it is positioned in exactly the same position when installed.

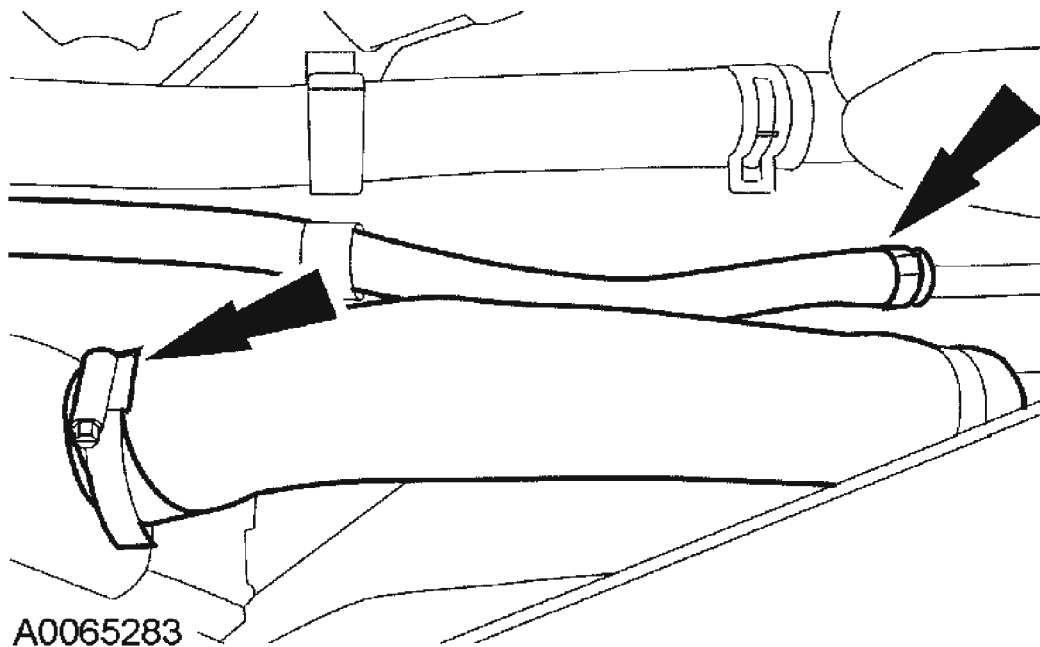


Fig. 11: Disconnecting Fuel Tank Vent Tubes And Filler Pipe
Courtesy of FORD MOTOR CO.

7. Disconnect the fuel tank vent tubes and filler pipe.

CAUTION: Care must be taken to avoid damaging the canister vent solenoid.

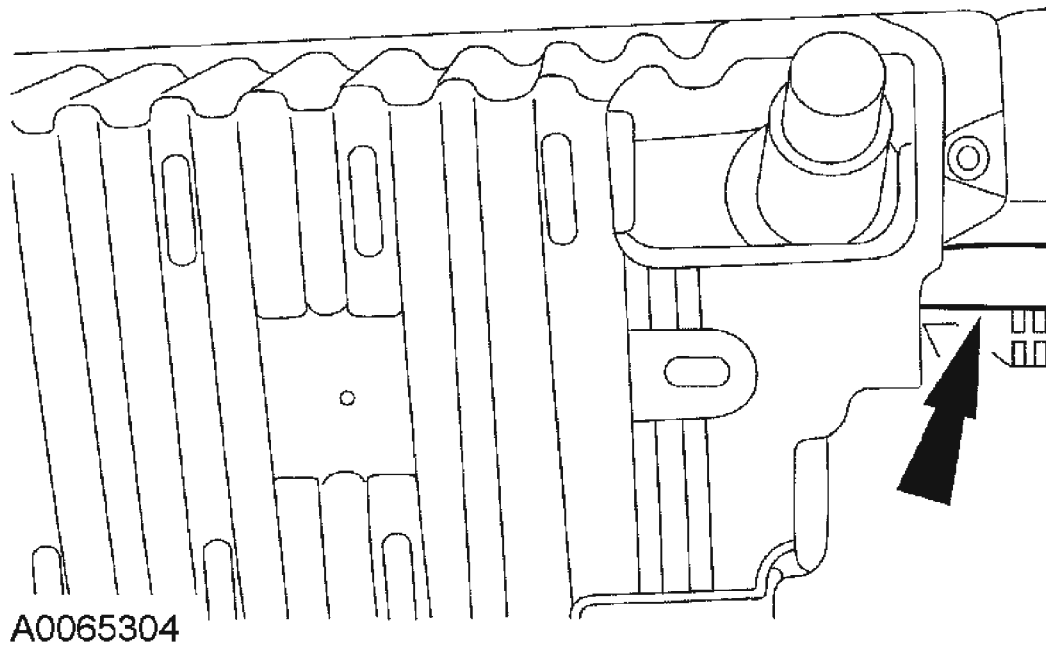


Fig. 12: Disconnecting Canister Vent Solenoid Tube
Courtesy of FORD MOTOR CO.

8. Disconnect the canister vent solenoid tube.
9. Remove the fuel filler pipe.
 1. Remove the tie straps.
 2. Remove the two bolts.
 3. Remove the fuel filler pipe.

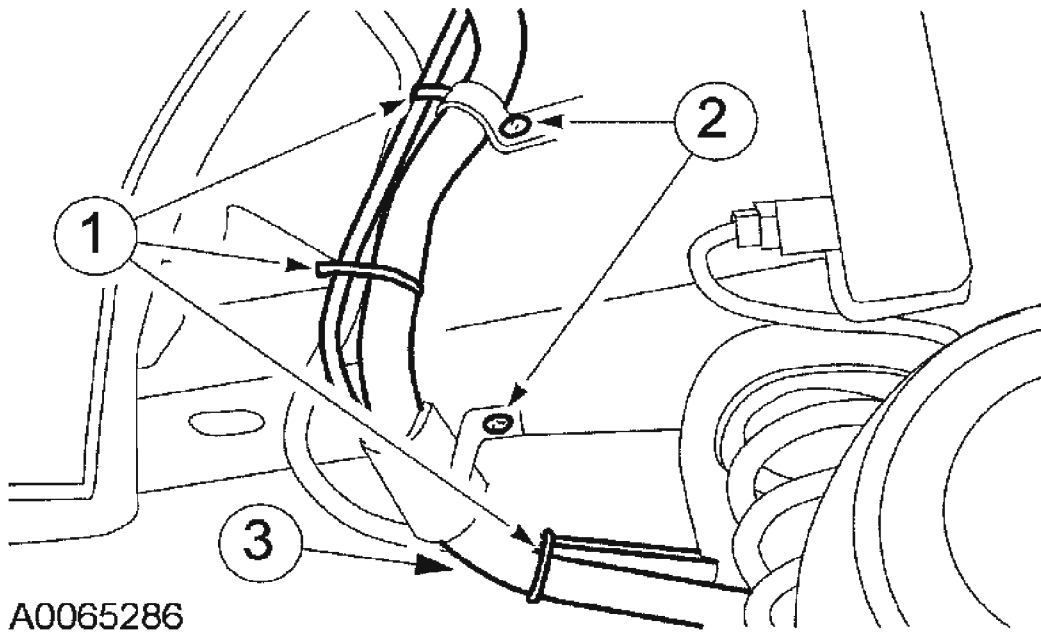


Fig. 13: Removing Fuel Filler Pipe
Courtesy of FORD MOTOR CO.

Installation

CAUTION: The orientation mark on the fill hose must be aligned with the orientation mark on the fuel tank filler inlet during installation. If the installation of a new hose clamp is necessary, a new stainless steel clamp is required.

NOTE: The fuel filler pipe and vent tube retaining clamp and clips must be installed in the same position as removed.

1. To install, reverse the removal procedure.

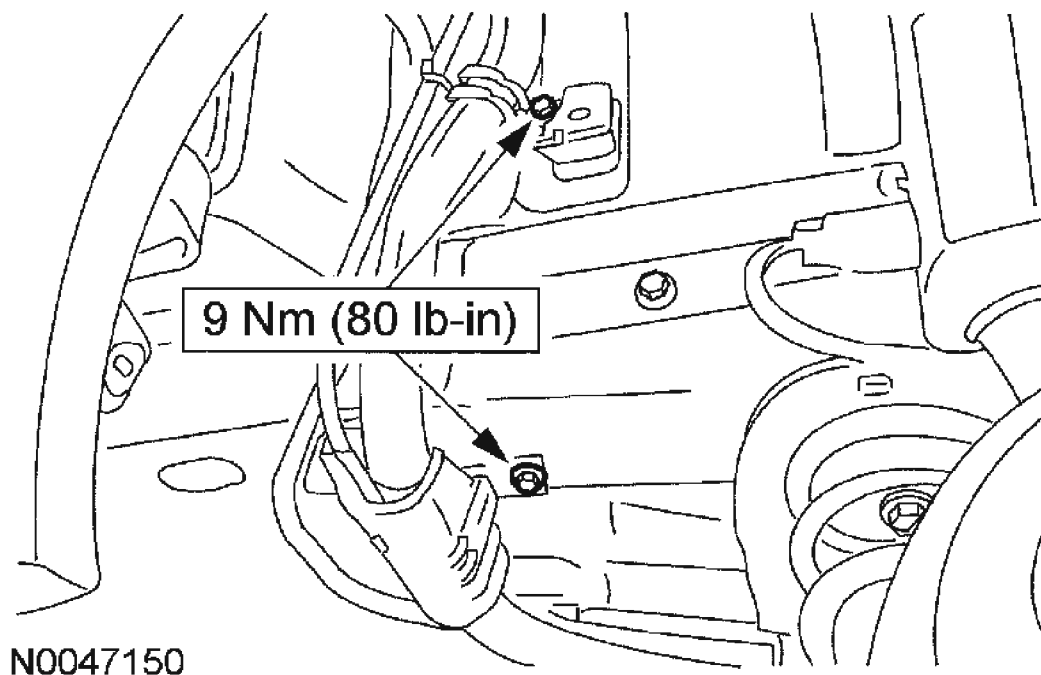


Fig. 14: Locating Fuel Filler Pipe Bolts
Courtesy of FORD MOTOR CO.

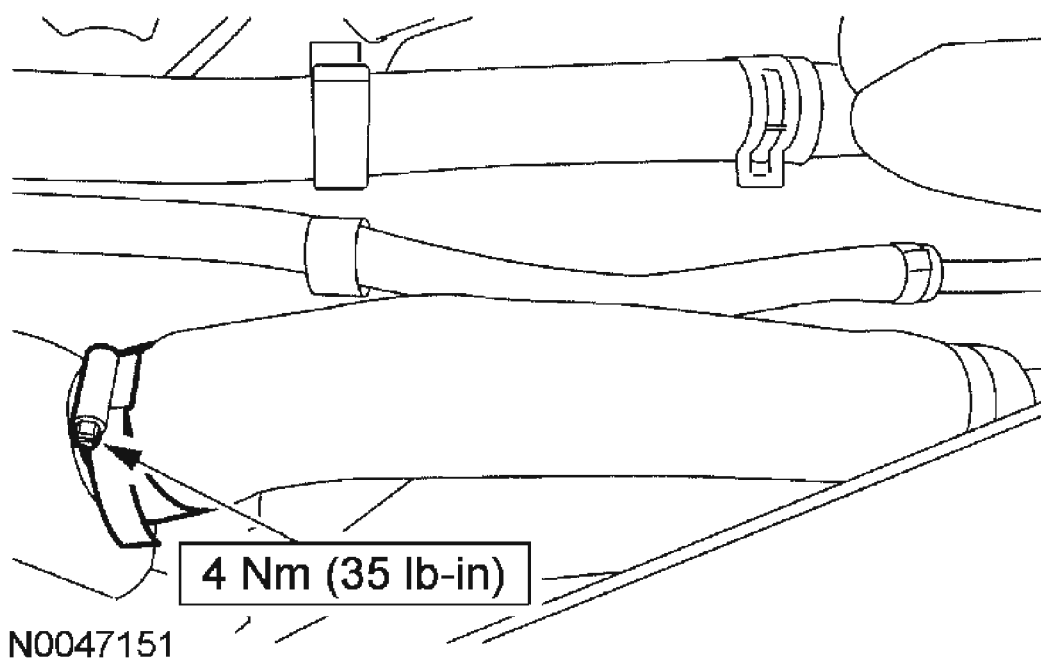


Fig. 15: Locating Clamp

Courtesy of FORD MOTOR CO.

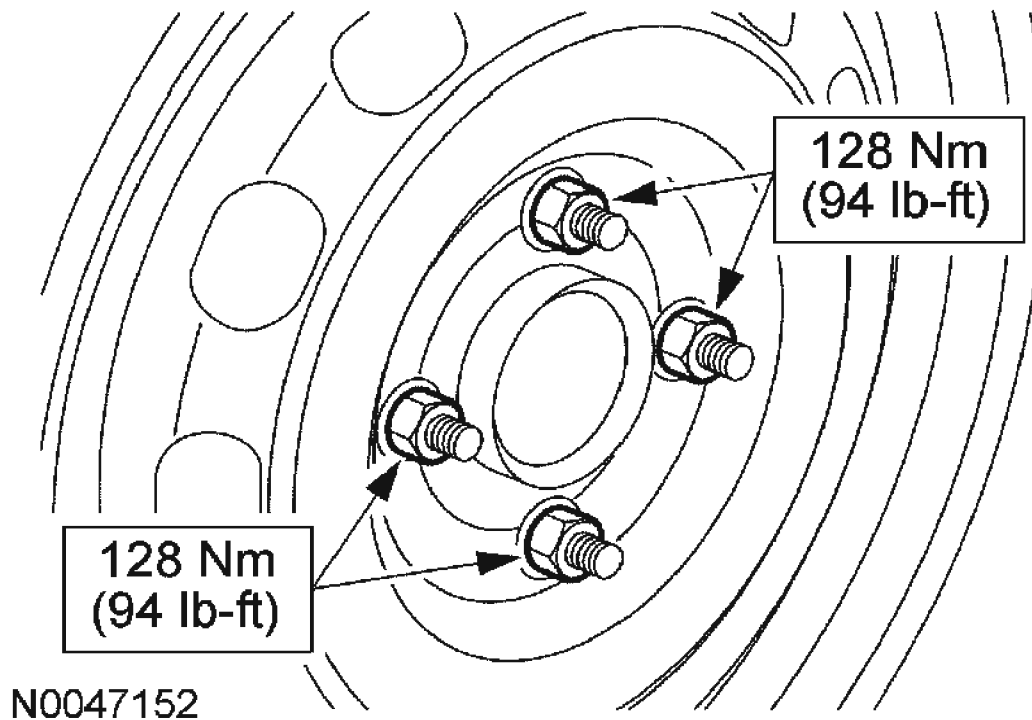


Fig. 16: Locating Wheel Retaining Bolts
Courtesy of FORD MOTOR CO.

2. Carry out an evaporative emission system leak test. For additional information, refer to **EVAPORATIVE EMISSION SYSTEM LEAK TEST**.

FUEL FILTER

Material

MATERIALS

Item	Specification
SAE 5W-20 Premium Synthetic Blend Motor Oil XO-5W20-QSP or equivalent	WSS-M2C930-A

Removal and Installation

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CAUTION: When reusing liquid or vapor tube connectors, make sure to use compressed air to remove any foreign material from the connector retaining clip area before separating from the tube. Apply clean engine oil to the end of the tube before inserting the tube into the connector.

NOTE: 2.0L engines shown, 2.3L similar.

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. Press the quick release tabs and remove the fuel filter inlet and outlet tubes. For additional information, refer to **FUEL SYSTEM-GENERAL INFORMATION**.

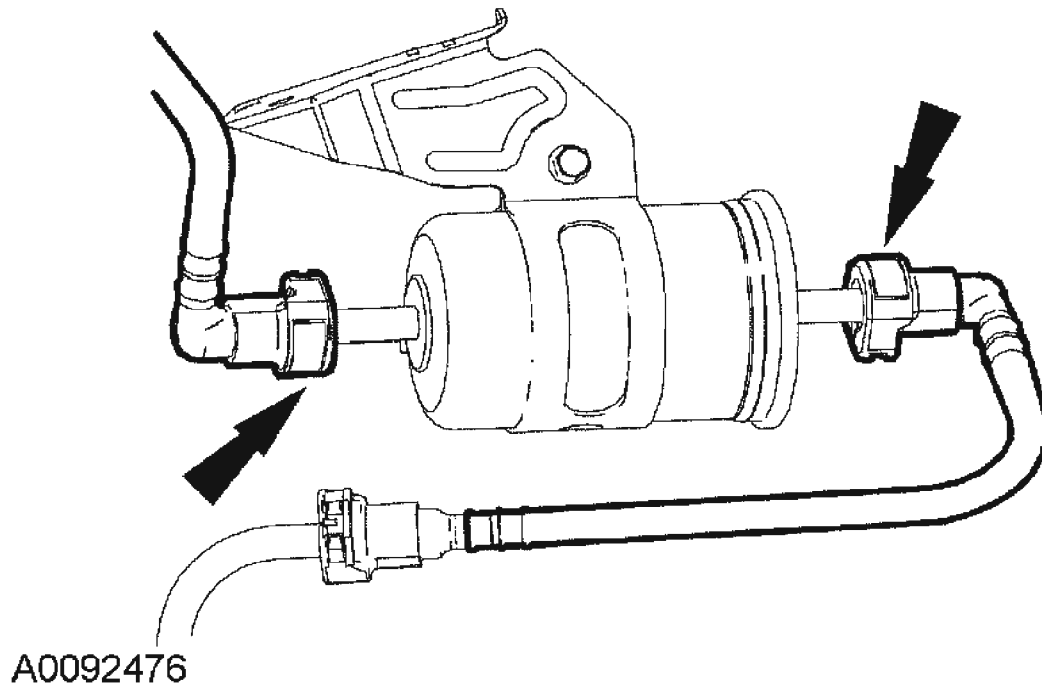
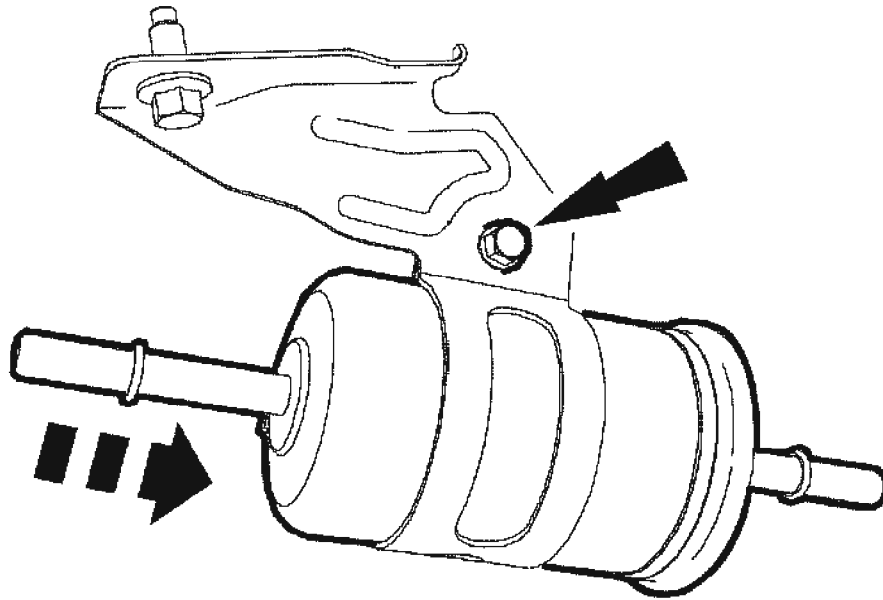


Fig. 17: Removing Fuel Filter Inlet And Outlet Tubes
Courtesy of FORD MOTOR CO.

4. Loosen the retaining bolt and remove the filter from the bracket.



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Fig. 18: Removing Filter From Bracket
Courtesy of FORD MOTOR CO.

NOTE: Lubricate the fuel tube fittings with clean engine oil. Align the fuel tube fittings and press together until a click is heard and then pull on the fittings to make sure they are fully engaged.

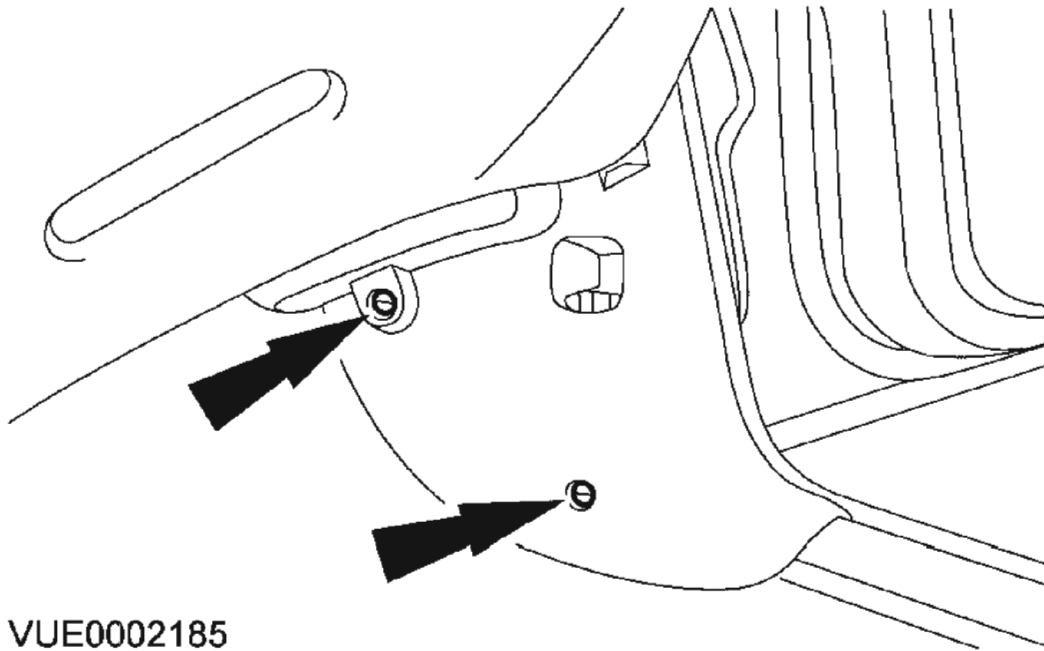
NOTE: Observe the direction of the flow arrow.

5. To install, reverse the removal procedure.

INERTIA FUEL SHUTOFF (IFS) SWITCH

Removal and Installation

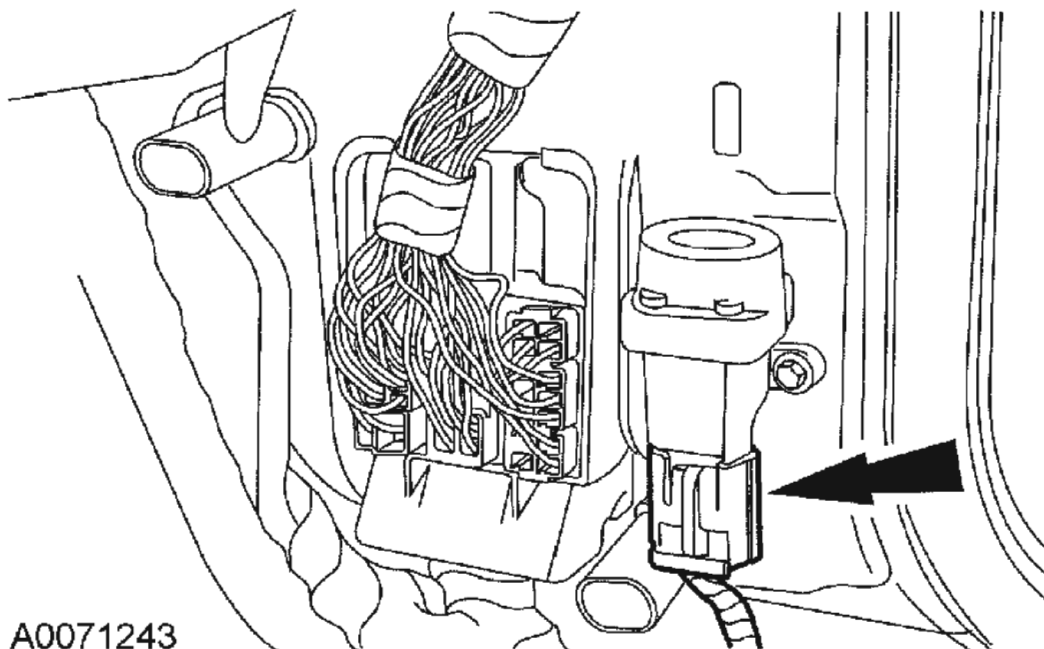
1. Remove the right-hand cowl side trim panel.



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Fig. 19: Removing Right-Hand Cowl Side Trim Panel
Courtesy of FORD MOTOR CO.

2. Disconnect the electrical connector.



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Fig. 20: Disconnecting Electrical Connector
Courtesy of FORD MOTOR CO.

3. Remove the bolts and the inertia fuel shutoff switch.

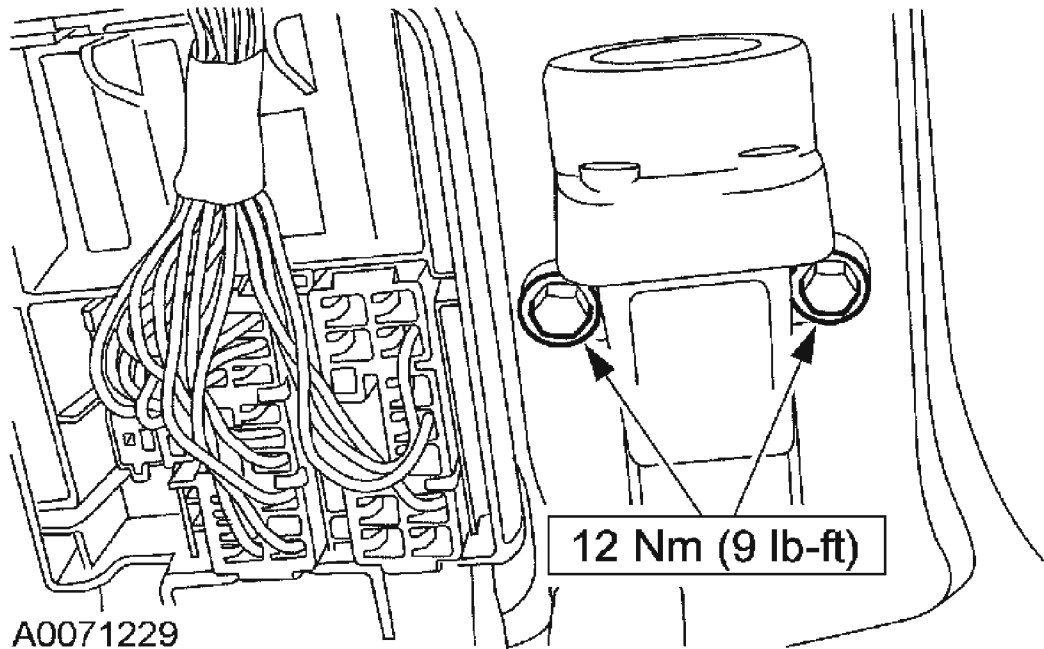


Fig. 21: Removing Bolts And Inertia Fuel Shutoff Switch
Courtesy of FORD MOTOR CO.

NOTE: Make sure the inertia fuel shutoff switch is in the reset position.

4. To install, reverse the removal procedure.