

March 2012

## Clean Fuel Source Tool Instructions

**Tool Number: 15-637-01**

**4328031R1**

NOTE: This tool supersedes ZTSE4925









### Purpose

15-637-01 Clean Fuel Source Tank is used as a clean fuel source when performing fuel system diagnostics.

### Application(s)

MaxxForce 7 Emissions Model Year 2007  
MaxxForce DT, 9 and 10 Emissions Model Year 2007  
MaxxForce 11 and 13 Emissions Model Year 2007  
MaxxForce 7 Emissions Model Year 2010  
MaxxForce DT, 9 and 10 Emissions Model Year 2010  
MaxxForce 11 and 13 Emissions Model Year 2010  
MaxxForce 15 Emissions Model Year 2010

## Tool Contents

Image	Description	Part #	Qty	Application
	Clean Fuel Source Tank	15-637-01-1	1	All MaxxForce engines
	Supply Line	15-637-01-2	1	All MaxxForce engines
	Return Line	15-637-01-3	1	All MaxxForce engines
	Supply Adapter	15-637-01-4	1	All MaxxForce engines
	Return Adapter	15-637-01-5	1	MaxxForce 11, 13, 15
	Supply Adapter	15-637-01-6	1	MaxxForce 11, 13
	Supply Adapter	15-637-01-7	1	MaxxForce 7
	Return Adapter	15-637-01-8	1	MaxxForce 7, DT, 9, 10

**Table 1**

 **WARNING**

To prevent personal injury or death, read all safety instructions in the Safety Information section of the Service and Diagnostic Manuals for the application that is being serviced.

Do not smoke near the work area and keep fuel away from flames and sparks.

Store diesel fuel properly in an approved container designed for and clearly marked DIESEL FUEL.

**CAUTION**

To prevent damage to the vehicle or engine, read all safety instructions in the Safety Information section of the Service and Diagnostic Manuals for the application that is being serviced.

To prevent damage to engine, plug component connections immediately after each fuel line is removed using clean fuel system caps.

Prime the fuel system before attempting to crank or start the engine.

**DO NOT** Store fuel in the 15-637-01-1 Clean Fuel Source Tank or adapters when the tool is **NOT** in use.

Empty the 15-637-01-1 Clean Fuel Source Tank into a suitable diesel storage container after each use.

## Instructions

Emissions Model Year 2007 Maxx Force 7

Dura Star Chassis

### Installation of the Fuel Supply/Return Lines to the Primary Fuel Filter Assembly



1. Depress the lock and pull to disconnect the fuel supply line from the primary fuel filter assembly.
2. Immediately cap openings using ZTSE4891 disposable air/fuel caps and position the fuel line out of the way.



3. Connect 15-637-01-4 Supply Adapter (fuel inlet) to the fuel supply fitting on the primary fuel filter assembly.



4. Connect 15-637-01-2 Supply Line (fuel supply) from the 15-637-01-1 Clean Fuel Source Tank to 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



5. Depress the lock and pull to disconnect the fuel return hose from the line located above the primary fuel filter assembly.
6. Immediately cap openings using ZTSE4891 disposable air/fuel caps and position the fuel line out of the way.



7. Connect 15-637-01-8 Return Adapter (fuel return) to the fuel return line located above the primary fuel filter assembly.



8. Connect 15-637-01-3 Return Line (fuel return) 15-637-01-1 Clean Fuel Source Tank to 15-637-01-8 Return Adapter (fuel return) quick coupler.



## ▲ NOTE

Prime the 15-637-01-1 Clean Fuel Source Tank by connecting the 15-637-01-2 Supply Line to the 15-637-01-3 Return Line, closing the ball valve and fully squeezing the primer bulb repeatedly until no air is seen in the supply and return lines.

9. Prime the fuel system by closing the ball valve on 15-637-01-2 Supply Line (fuel supply) and fully squeezing the primer bulb repeatedly until no air is seen in the supply line of the 15-637-01-1 Clean Fuel Source Tank.

10. After fuel system is primed, open ball valve for the 15-637-01-1 Clean Fuel Source Tank.

## Removal of the Fuel Supply/Return Lines from the Primary Fuel Filter Assembly

## ▲ NOTE

Some fuel will escape when fuel lines are disconnected. Be prepared to catch fuel spillage with a shop rag when disconnecting fuel lines.



1. Disconnect 15-637-01-3 Return Line (fuel return) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-8 Return Adapter (fuel return) quick coupler.





2. Disconnect 15-637-01-8 Return Adapter (fuel return) from the fuel return on the primary fuel filter assembly fitting.



3. Remove disposable clean air/fuel caps from openings and reconnect the fuel return line to the primary fuel filter assembly.



4. Disconnect 15-637-01-2 Supply Line (fuel supply) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



5. Disconnect 15-637-01-4 Supply Adapter (fuel inlet) from fuel supply on primary fuel filter assembly fitting.



6. Remove disposable clean air/fuel caps from openings and reconnect the fuel supply line to the primary fuel filter assembly fitting.
7. Prime fuel system using the engine-mounted hand primer pump before starting engine to ensure no damage to the fuel system occurs.



**Be sure to use all necessary connectors and adapters while using this tool to ensure no damage to the fuel system occurs.**

Emissions Model Year 2010 Maxx Force 7

Dura Star Chassis

Installation of the Fuel Supply/Return Lines to the Primary Fuel Filter Housing Assembly



1. Depress the white locking tab on fuel supply line connector and pull out to remove the line from the fuel filter housing assembly.
2. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



3. Connect 15-637-01-4 Supply Adapter (fuel inlet) to the fuel supply connector on the fuel filter housing assembly.



4. Connect 15-637-01-2 Supply Line (fuel supply) from the 15-637-01-1 Clean Fuel Source Tank to 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



5. Depress the white locking tab for the fuel return line and pull out to remove the line from the fuel filter housing assembly.
6. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



7. Connect the 15-637-01-8 Return Adapter (fuel return) to the fuel return connector on the fuel filter housing assembly.



8. Connect the 15-637-01-3 Return Line (fuel return) on the 15-637-01-1 Clean Fuel Source Tank to 15-637-01-8 Return Adapter (fuel return) quick coupler.
9. Prime the fuel system by closing the ball valve on 15-637-01-2 Supply Line (fuel supply) and squeezing the primer bulb repeatedly until no air is seen in the supply and return lines.
10. After fuel system is primed, open ball valve on 15-637-01-2 Supply Line (fuel supply) of the 15-637-01-1 Clean Fuel Source Tank.
11. Continue with fuel system diagnostics.

## Removal of the Fuel Supply/Return Lines from the Primary Fuel Filter Housing Assembly

### **NOTE**

**Some fuel will escape when fuel lines are disconnected. Be prepared to catch fuel spillage with a shop rag when disconnecting fuel lines.**



1. Disconnect 15-637-01-3 Return Line (fuel return) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-8 (fuel return) Line Adapter quick coupler.



2. Disconnect 15-637-01-8 Return Adapter (fuel return) from the fuel return on the fuel filter housing assembly.





3. Remove disposable clean air/fuel caps from openings and reconnect the return line to the fuel filter housing assembly.



4. Disconnect 15-637-01-2 Supply Line (fuel supply) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



5. Disconnect 15-637-01-4 Supply Adapter (fuel inlet) from fuel supply on the fuel filter housing assembly.



6. Remove disposable clean air/fuel caps from openings and reconnect the fuel supply line to the fuel filter housing assembly.
7. Prime fuel system using the hand primer pump before starting engine to ensure no damage to the engine occurs.

## **CAUTION**

Be sure to use all necessary connectors and adapters while using this tool to ensure no damage to the fuel system occurs.

**DO NOT** Store fuel in the 15-637-01-1 Clean Fuel Source Tank or adapters when the tool is **NOT** in use.

Emissions Model Year 2010 Maxx Force 7

### Installation of the Fuel Supply/Return Lines to the Fuel Filter Cooler Assembly

1. Remove ignition key from the vehicle.



2. Remove left side fender bolts and remove fender, and place out of the way.



3. Depress the white locking tab on fuel supply line connector and pull out to remove the line from the fuel filter housing assembly.
4. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



5. Connect 15-637-01-4 Supply Adapter (fuel inlet) to the fuel supply connector on the fuel filter housing assembly.



6. Connect 15-637-01-2 Supply Line (fuel supply) from the 15-637-01-1 Clean Fuel Source Tank to 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



7. Remove air compressor discharge line bracket bolts and position bracket out of the way.



8. Cut two wire ties for the chassis harness and air lines that are near the left side body mount and position out of the way.



9. Pull 1/2 inch disconnect fitting towards the fuel cooler using OEM tool no. 25042 ac/fuel quick disconnect tool using position D on tool. Disconnect fitting and remove line by pulling line with disconnect tool towards the rear of the vehicle. (Be sure to wear safety glasses as fuel may splash upon removal.) Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



10. Install 15-637-01-7 Return Adapter (fuel return) to fuel return connector on fuel cooler assembly.



11. Install 15-637-01-3 Return Line (fuel return) on 15-637-01-1 Clean Fuel Source Tank to 15-637-01-8 Return Adapter (fuel return) quick coupler.
12. Prime the fuel system by closing the ball valve on 15-637-01-2 Supply Line (fuel supply) and squeezing the primer bulb repeatedly until no air is seen in the supply and return lines.
13. After fuel system is primed, open ball valve on 15-637-01-2 Supply Line (fuel supply) of the 15-637-01-1 Clean Fuel Source Tank.
14. Continue with fuel system diagnostics.

## Removal of the Fuel Supply/Return Lines from the Fuel Filter Cooler Assembly

### **NOTE**

**Some fuel will escape when fuel lines are disconnected. Be prepared to catch fuel spillage with a shop rag when disconnecting fuel lines.**



1. Disconnect 15-637-01-3 Return Line (fuel return) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-8 Return Adapter (fuel return) quick coupler.



2. Disconnect 15-637-01-7 Return Adapter (fuel return) from the clean outlet on the fuel filter cooler assembly.
3. Remove disposable clean air/fuel caps from openings and reconnect the return line to the fuel filter cooler assembly.





4. Disconnect 15-637-01-2 Supply Line (fuel supply) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



5. Disconnect 15-637-01-4 Supply Adapter (fuel inlet) from fuel supply on fuel filter housing assembly.
6. Remove disposable clean air/fuel caps from openings and reconnect the fuel supply line to the fuel filter housing assembly.
7. Prime fuel system using the hand primer pump before starting engine to ensure no damage to the engine occurs.

## **CAUTION**

Be sure to use all necessary connectors and adapters while using this tool to ensure no damage to the fuel system occurs.

**DO NOT** Store fuel in the 15-637-01-1 Clean Fuel Source Tank or adapters when the tool is **NOT** in use.

Emissions Model Year 2007 Maxx Force 11 and 13

WorkStar Chassis

Installation of the Fuel Supply/Return Lines to the Fuel Primer Pump Assembly and Behind Fuel Filter Housing Assembly



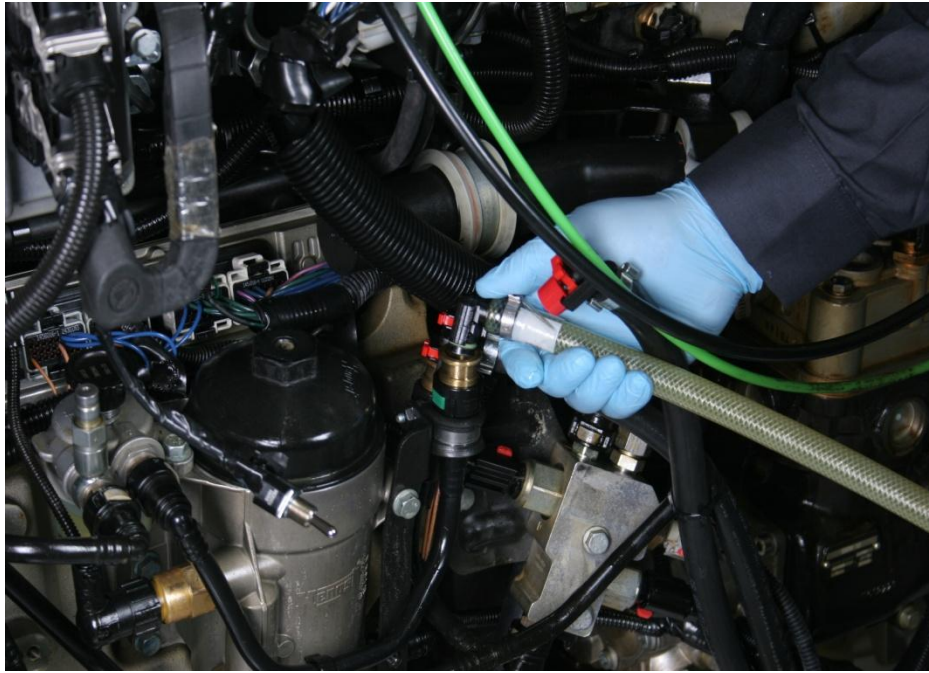
1. Remove front left side removable fender bolts and remove fender, and place out of the way.



2. Remove left side fender bolts and remove fender, and place out of the way.



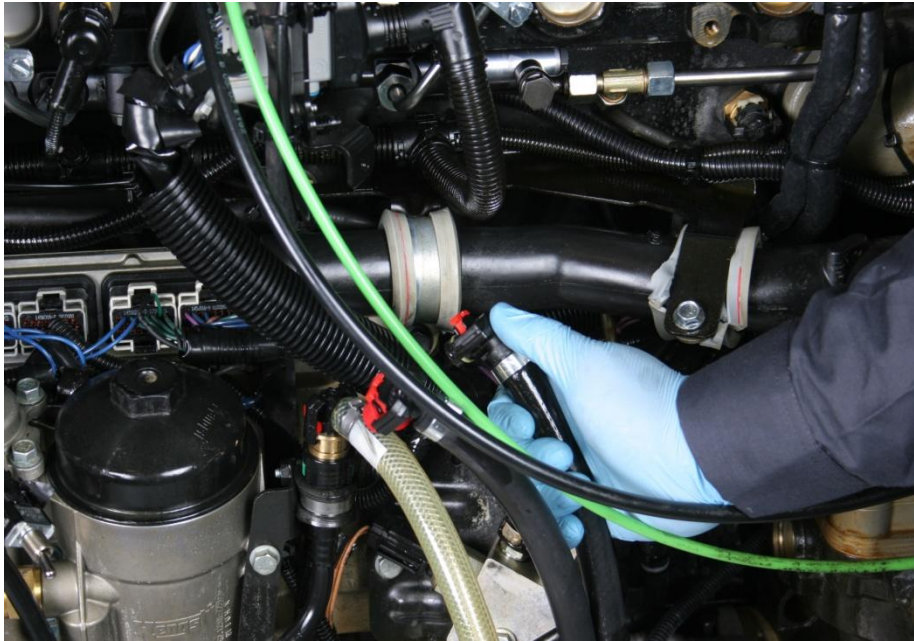
3. Depress the lock down and pull up to remove chassis pre-filter supply line off brass fitting on fuel primer pump assembly.
4. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position supply line out of the way.



5. Install 15-637-01-4 Supply Adapter (fuel inlet) to pre-filter supply line brass fitting.



6. Install Fuel Supply line 15-637-01-2 Supply Line (fuel supply) from 15-637-01-1 Clean Fuel Source Tank to 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



7. Depress the lock and pull up to disconnect the chassis fuel return line from the brass fitting behind the fuel filter housing assembly.
8. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position return line out of the way.



9. Install 15-637-01-5 Return Adapter (fuel return) to fuel return line brass fitting.



10. Install 15-637-01-3 Return Line (fuel return) on 15-637-01-1 Clean Fuel Source Tank to 15-637-01-5 Return Adapter (fuel return) quick coupler.
11. Prime the fuel system by closing the ball valve on 15-637-01-2 Supply Line (fuel supply) and squeezing the primer bulb repeatedly until no air is seen in the supply and return lines.
12. After fuel system is primed, open ball valve on 15-637-01-2 Supply Line (fuel supply) line of the 15-637-01-1 Clean Fuel Source Tank.
13. Continue with fuel system diagnostics.

## Removal of the Fuel Supply/Return Lines to the Fuel Primer Pump Assembly and Behind Fuel Filter Housing Assembly

### **NOTE**

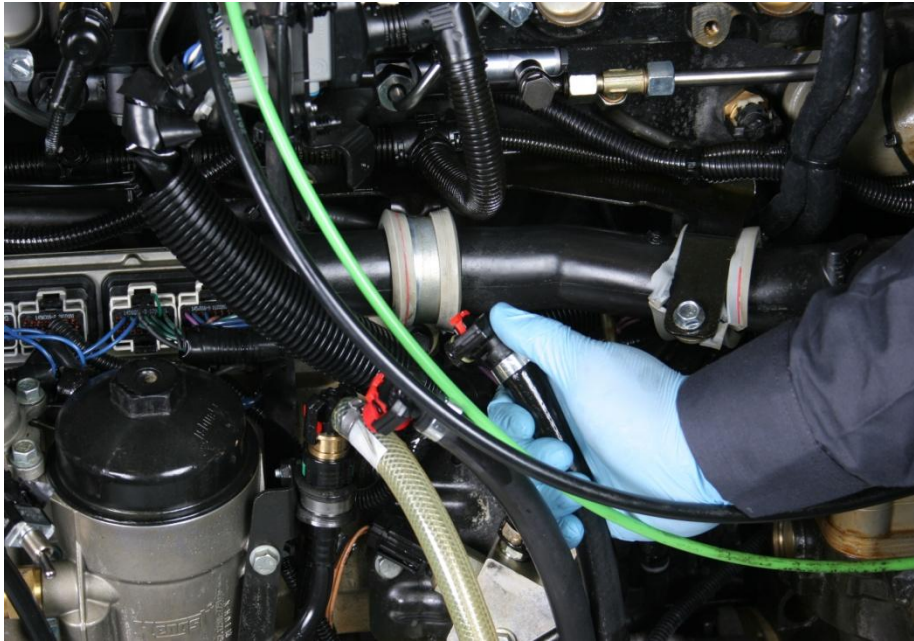
**Some fuel will escape when fuel lines are disconnected. Be prepared to catch fuel spillage with a shop rag when disconnecting fuel lines.**



1. Disconnect 15-637-01-3 Return Line (fuel return) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-5 Return Adapter (fuel return) quick coupler.



2. Disconnect 15-637-01-5 Return Adapter (fuel return) from the brass fitting (fuel return).

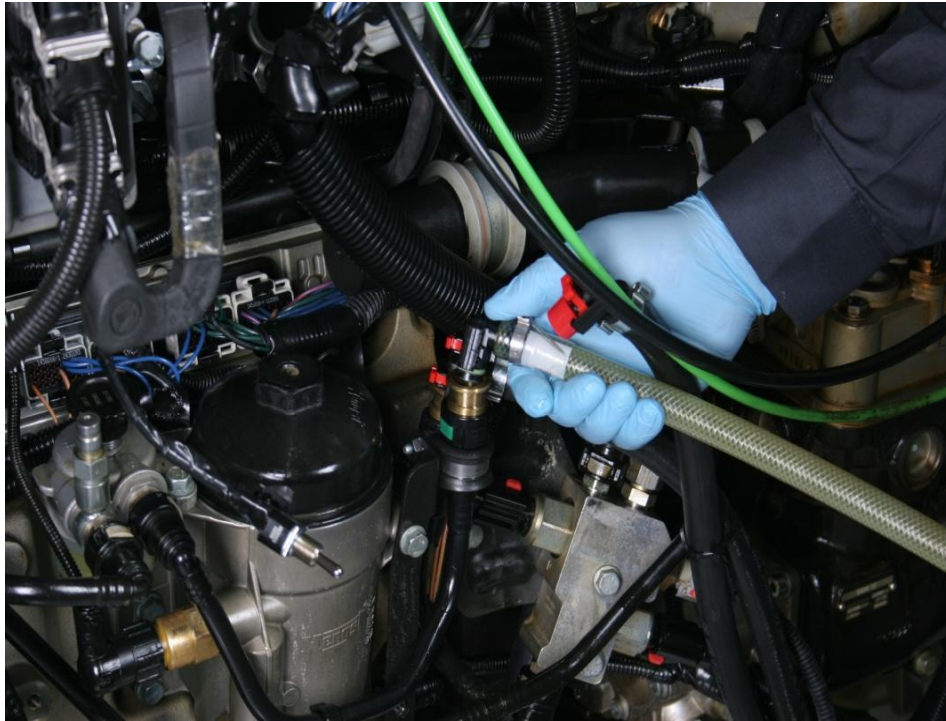


3. Remove disposable clean air/fuel caps from openings and reconnect the chassis (fuel return) line to the brass fitting.



4. Disconnect (fuel supply) line for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.





5. Disconnect 15-637-01-4 Supply Adapter (fuel inlet) from pre-filter supply line from Fuel Primer Pump Assembly.



6. Remove disposable clean air/fuel caps from openings and reconnect the pre-filter supply line to brass fitting on the fuel primer pump housing assembly.

7. Be sure to prime fuel system using the hand primer pump before starting engine to ensure no damage to the fuel system occurs.



8. Install left side fender and bolts.



9. Install left side removable fender and bolts.

**CAUTION**

**DO NOT** Store fuel in the 15-637-01-1 Clean Fuel Source Tank or Adapters when the tool is **NOT** in use.

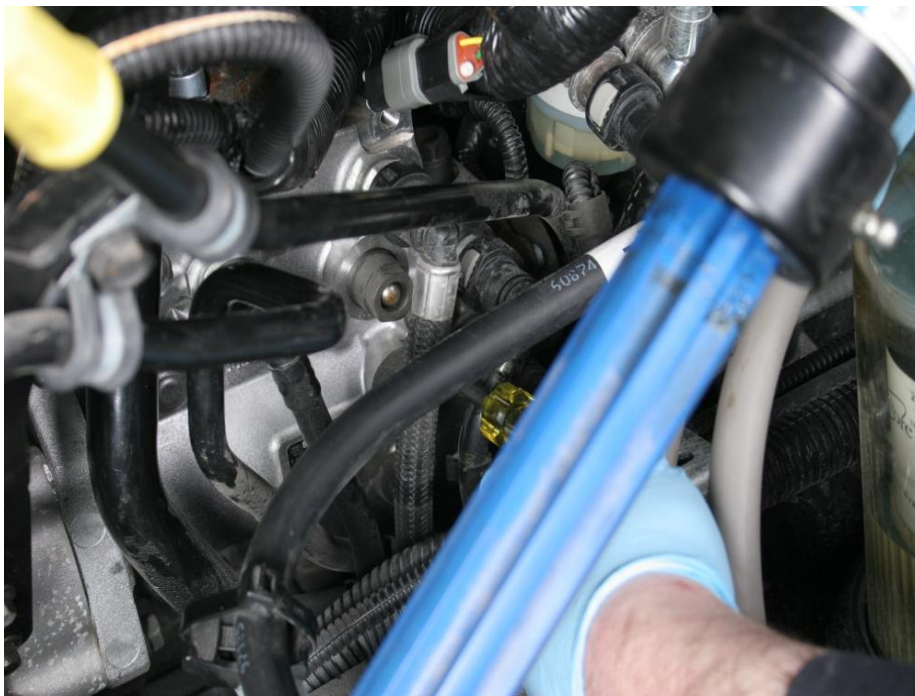
**Be sure to use all necessary connectors and adapters while using this tool to ensure no damage to the fuel system occurs.**

Emissions Model Year 2010 Maxx Force 11 and 13

ProStar Eagle Chassis

### Installation of the Fuel Supply/Return Lines to the Low Pressure Fuel Pump

1. Remove left side fender bolts and remove fender, and place out of the way.



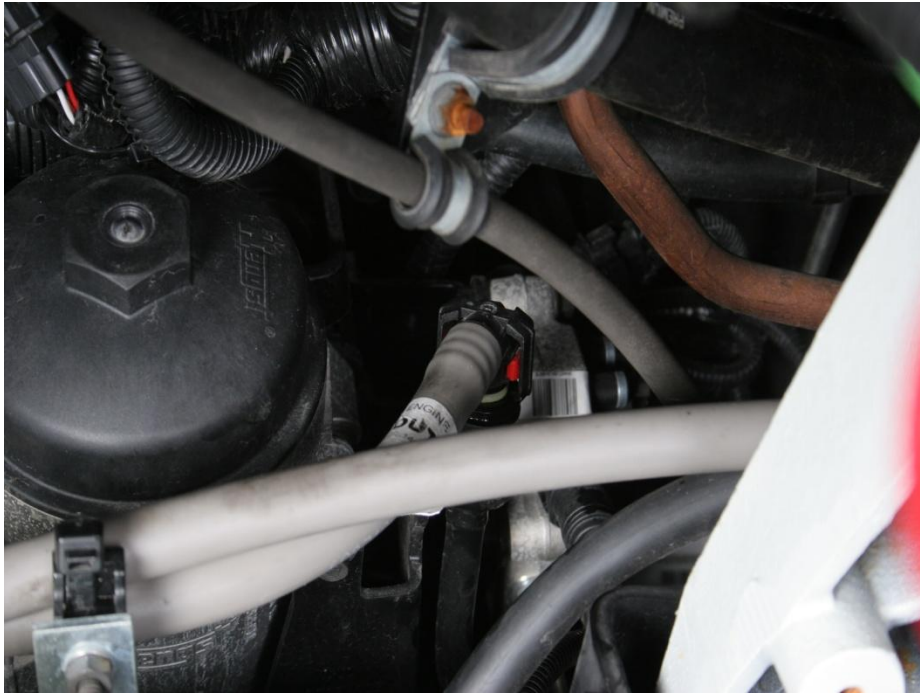
2. Depress the lock on the Low Pressure Fuel Pump Inlet connector using ZTSE4773 11.8 mm Fuel Line Disconnect Tool and pull out to remove.
3. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position line out of the way.



4. Install 15-637-01-6 Supply Adapter (fuel supply) to Low Pressure Fuel Pump Inlet banjo fitting.



5. Install 15-637-01-2 Supply Line (fuel supply) from 15-637-01-1 Clean Fuel Source Tank to 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



6. Depress the lock on the engine fuel return line and pull up to disconnect from engine fuel return connection.
7. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position line out of the way.



8. Install 15-637-01-5 Return Adapter (fuel return) to engine fuel return connection.



9. Install 15-637-01-3 Return Line (fuel return) on 15-637-01-1 Clean Fuel Source Tank to 15-637-01-5 Return Adapter (fuel return) quick coupler.



10. Prime the fuel system by closing the ball valve on 15-637-01-2 Supply Line (fuel supply) and squeezing the primer bulb repeatedly until no air is seen in the supply and return lines.
11. After priming, open ball valve on 15-637-01-2 Supply Line (fuel supply) of the 15-637-01-1 Clean Fuel Source Tank.

12. Continue with fuel system diagnostics.

## Removal of the Fuel Supply/Return Lines from the Low Pressure Fuel Pump

### ▲ **NOTE**

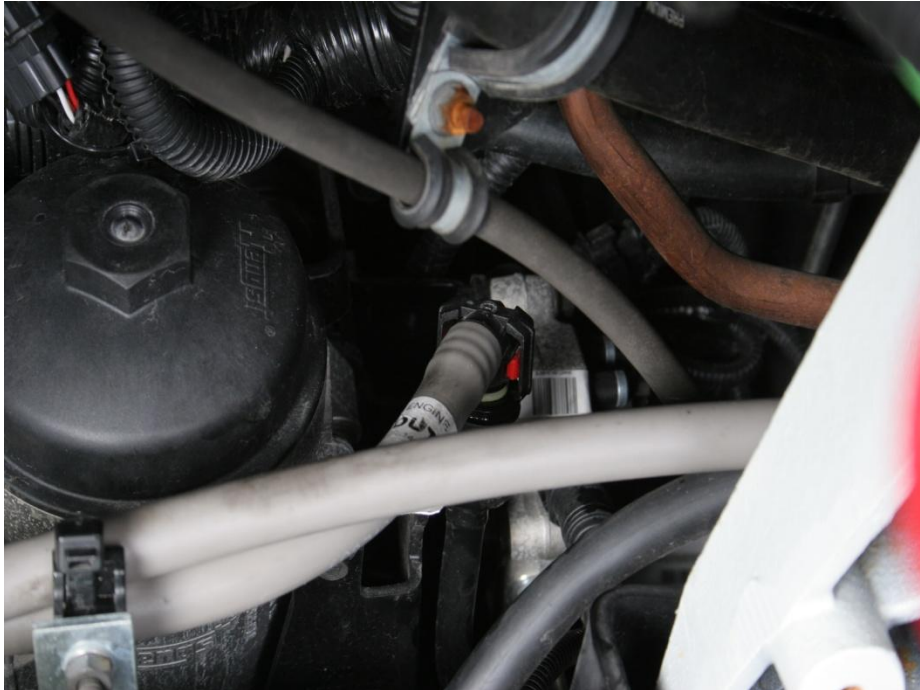
Some fuel will escape when fuel lines are disconnected. Be prepared to catch fuel spillage with a shop rag when disconnecting fuel lines.



1. Disconnect 15-637-01-3 Return Line (fuel return) for the 15-637-01-1 Clean Fuel Source Tank 15-637-01-5 Return Adapter (fuel return) Line Adapter quick coupler.



2. Disconnect 15-637-01-5 Return Adapter (fuel return) from the engine fuel return connection.



3. Remove disposable clean air/fuel caps from openings and reconnect the engine return line to the engine return connection.





4. Disconnect (fuel supply) line for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



5. Disconnect 15-637-01-6 Supply Adapter (fuel supply) from the Low Pressure Fuel Pump Banjo Fitting.



6. Remove disposable clean air/fuel caps from openings and reconnect the Low Pressure Fuel Pump Inlet Line to the banjo fitting.
7. Install fender and bolts.

## **CAUTION**

**Be sure to use all necessary connectors and adapters while using this tool to ensure no damage to the fuel system occurs.**

**DO NOT Store fuel in the 15-637-01-1 Clean Fuel Source Tank or Adapters when the tool is NOT in use.**

Emissions Model Year 2011 Maxx Force 15

ProStar Chassis

### Installation of the Fuel Supply/Return Lines to the RACOR Fuel Filter/Primer Pump Assembly

1. Remove left side fender bolts and remove fender, and place out of the way.



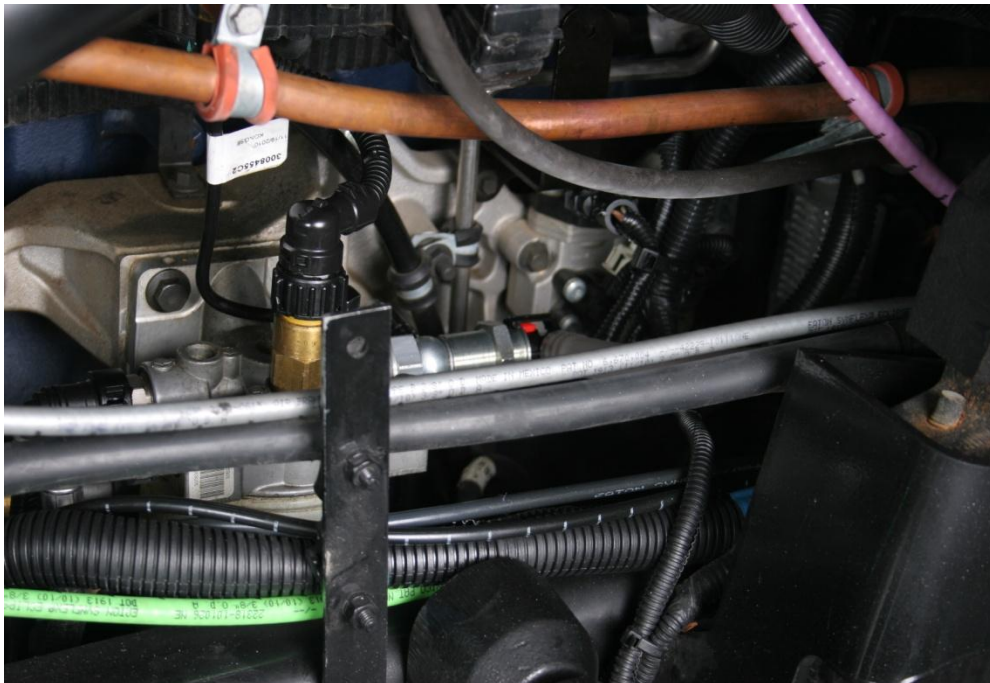
2. Depress the lock for fuel supply line and pull out to disconnect from fuel filter mount.
3. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



4. Install 15-637-01-4 Supply Adapter (fuel inlet) to fuel supply on fuel filter.



5. Install 15-637-01-2 Supply Line (fuel supply) from 15-637-01-1 Clean Fuel Source Tank to 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.



6. Disconnect fuel return line from fuel filter housing.
7. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



8. Install 15-637-01-5 Return Adapter (fuel return) to fuel return on the fuel filter housing.



9. Install 15-637-01-3 Return Line (fuel return) on 15-637-01-1 Clean Fuel Source Tank to 15-637-01-5 Return Adapter (fuel return) quick coupler.



10. Prime the fuel system by closing the ball valve on 15-637-01-2 Supply Line (fuel supply) and squeezing the primer bulb repeatedly until no air is seen in the supply and return lines.
11. After priming, open the ball valve on 15-637-01-2 Supply Line (fuel supply) line of the 15-637-01-1 Clean Fuel Source Tank.
12. Continue with fuel system diagnostics.

## Removal of the Fuel Supply/Return Lines from the RACOR Fuel Filter/Primer Pump Assembly

### **NOTE**

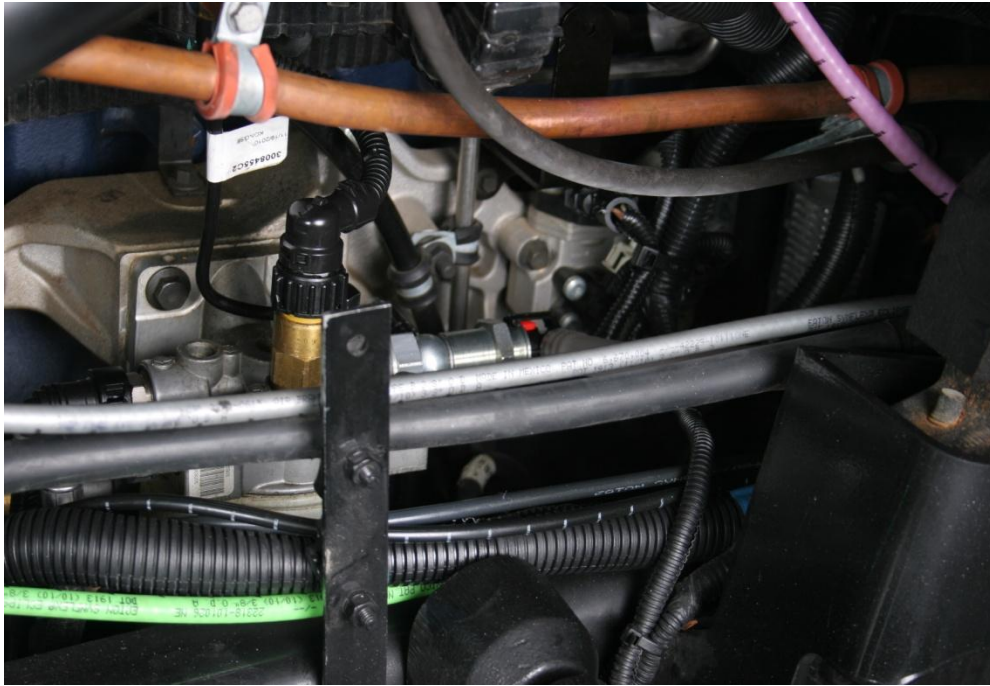
**Some fuel will escape when fuel lines are disconnected. Be prepared to catch fuel spillage with a shop rag when disconnecting fuel lines.**



1. Disconnect 15-637-01-3 Return Line (fuel return) for the 15-637-01-1 Clean Fuel Source Tank 15-637-01-5 Return Adapter (fuel return) quick coupler.



2. Disconnect 15-637-01-5 Return Adapter (fuel return) from fuel return on fuel filter.



3. Remove disposable clean air/fuel caps from openings and connect fuel return line to fuel return on fuel filter housing.



4. Disconnect (fuel supply) line for the 15-637-01-1 Clean Fuel Source Tank from 15-637-01-4 Supply Adapter (fuel inlet) quick coupler.





5. Disconnect 15-637-01-4 Supply Adapter (fuel inlet) from fuel supply on fuel filter.



6. Remove disposable clean air/fuel caps from openings and connect fuel supply line to fuel supply on fuel filter housing.

## **CAUTION**

Be sure to prime fuel system before starting engine to ensure no damage to the engine occurs.

Be sure to use all necessary connectors and adapters while using this tool to ensure no damage to the fuel system occurs.

**DO NOT** Store fuel in the 15-637-01-1 Clean Fuel Source Tank or Adapters when the tool is **NOT** in use.

### Installation of the Fuel Supply/Return Lines to the Low Pressure Fuel Pump and Engine-Mounted Fuel Filter

1. Remove left side fender bolts and remove fender, and place out of the way.



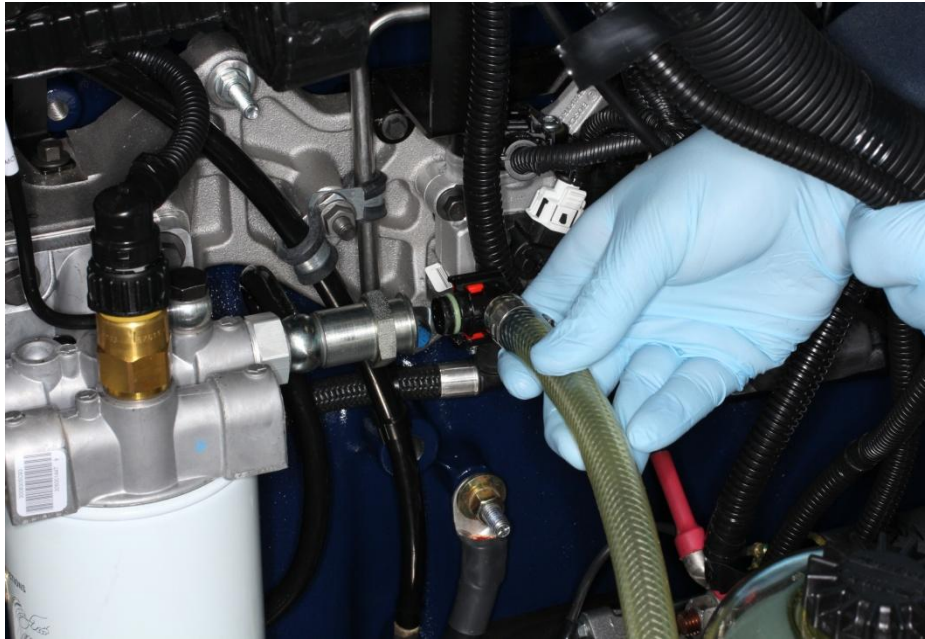
2. Depress the lock for fuel supply line and pull out to disconnect from fuel pump.
3. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



4. Install 15-637-01-6 Supply Adapter (fuel supply) to fuel supply on fuel pump.
5. Install 15-637-01-2 Supply Line from 15-637-01-1 Clean Fuel Source Tank to 15-637-01-6 Supply Adapter (fuel supply) quick coupler.



6. Disconnect fuel return line from fuel filter housing.
7. Immediately cap openings using ZTSE4891 clean disposable air/fuel caps and position out of the way.



8. Install 15-637-01-5 Return Adapter (fuel return) to fuel return on fuel filter housing.



9. Install 15-637-01-3 Return Line (fuel return) on 15-637-01-1 Clean Fuel Source Tank to 15-637-01-5 Return Adapter (fuel return) quick coupler.



10. Prime the fuel system by closing the ball valve on 15-637-01-2 Supply Line (fuel supply) and squeezing the primer bulb repeatedly until no air is seen in the supply and return lines.
11. After priming, open the ball valve on 15-637-01-2 Supply Line (fuel supply) of the 15-637-01-1 Clean Fuel Source Tank.
12. Continue with fuel system diagnostics.

## Removal of the Fuel Supply/Return Lines from the Low Pressure Fuel Pump and Engine-Mounted Fuel Filter



**Some fuel will escape when fuel lines are disconnected. Be prepared to catch fuel spillage with a shop rag when disconnecting fuel lines.**

1. Disconnect 15-637-01-3 Return Line (fuel return) for the 15-637-01-1 Clean Fuel Source Tank at 15-637-01-5 Return Adapter (fuel return) quick coupler.



2. Disconnect 15-637-01-5 Return Adapter (fuel return) from fuel return on fuel filter.



3. Remove disposable clean air/fuel caps from openings and reconnect the fuel return line to the fuel return on the fuel filter housing.
4. Disconnect 15-637-01-2 Supply Line from 15-637-01-1 Clean Fuel Source Tank at 15-637-01-6 Supply Adapter (fuel supply) quick coupler.



5. Disconnect 15-637-01-6 Supply Adapter (fuel supply) from fuel supply on fuel pump.



6. Remove disposable clean air/fuel caps from openings and reconnect the fuel supply line to the fuel supply on the fuel pump.

**CAUTION**

Be sure to prime fuel system before starting engine to ensure no damage to the engine occurs.

Be sure to use all necessary connectors and adapters while using this tool to ensure no damage to the fuel system occurs.

**DO NOT** Store fuel in the 15-637-01-1 Clean Fuel Source Tank or Adapters when the tool is **NOT** in use.

**Contact Information**

For questions, concerns or feedback related to Service Tools:

Navistar Service Tool Support Center

Submit a Service Tool iKNOW Case File or call 1-800-365-0088