



**DirectDrive PLUS LLC**

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# **2017-2022**

# **FORD SUPERDUTY**

# **DEF TANK RELOCATE**



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# 1. SAFETY INFORMATION

## General Safety Practices:

To prevent injury to yourself and/or damage to the equipment:

- Read carefully all owner's manuals, service manuals, and/or other instructions. If you find a section to be vague or unclear, call DirectDrive PLUS at (610) 273-2071 for clarification.
- Always follow proper procedures and use proper tools and safety equipment.
- Be sure to receive proper training.
- Never work alone while under a vehicle or while repairing or maintaining equipment.
- Always use proper components in applications for which they are approved.
- Be sure to assemble components correctly.
- Never use worn-out or damaged components.
- Always block any raised or moving device that may injure a person working on or under a vehicle.
- Never operate the controls of the Power Take-Off or other driven equipment from any position that could result in getting caught in the moving machinery.

## SAFETY FIRST!



## DEF Solution

### FIRST AID FOR EXPOSURE

**SKIN** - Flush with water and wash thoroughly with soap and water. Repeat as necessary

**EYES** - Flood with clean water immediately for at least 15 minutes

**INGESTION** - Wash out mouth with water . Do not induce vomiting unless directed to do so by medical personnel.

**IN ALL CASES OF DISCOMFORT DUE TO EXPOSURE, SEEK MEDICAL ATTENTION.**

**KEEP OUT OF REACH OF CHILDREN AND PETS**



**DO NOT Turn on the ignition while in the process of relocating the DEF tank.**

Engine error codes can be set if the DEF tank wiring harness is disconnected and ignition is on.

## SAFETY FIRST!



Securely Chock the wheels



Firmly Set Parking Brakes



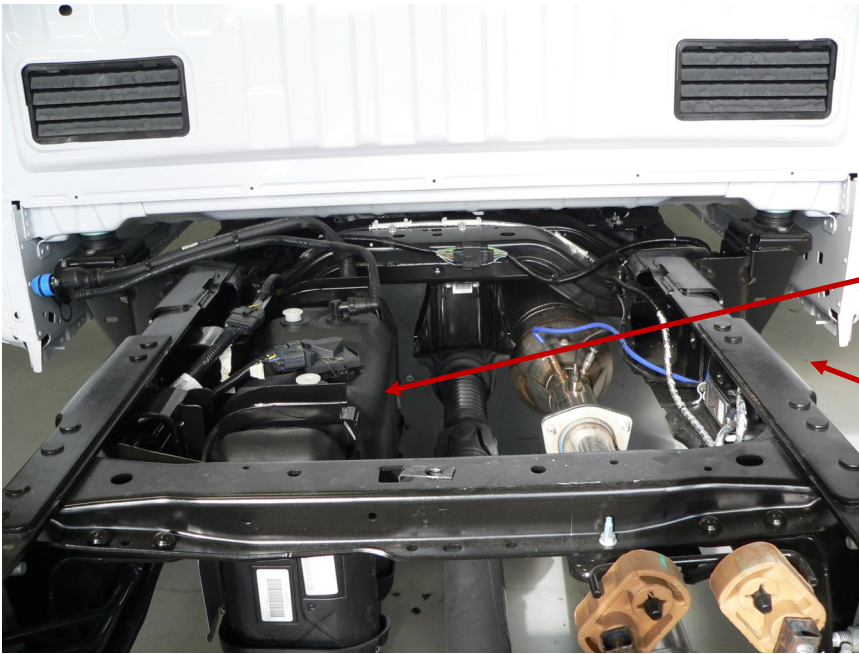
Place the Keys / Fob in a secure place.



## 2. OVERVIEW

These directions explain how to relocate the DEF tank from the left inside frame rail to the right frame rail outside.

- The first step is to remove the DEF tank from inside the left frame rail
- Remove existing DEF tank mounting brackets
- Install the new replacement brackets
- Install DEF tank in new location
- Install Wiring Harness and DEF liquid line
- Install New DEF Fill Hoses



The purpose of these instructions is to move the DEF tank from the left inside frame rail

To the right outside rail



### 3. Kit Contents

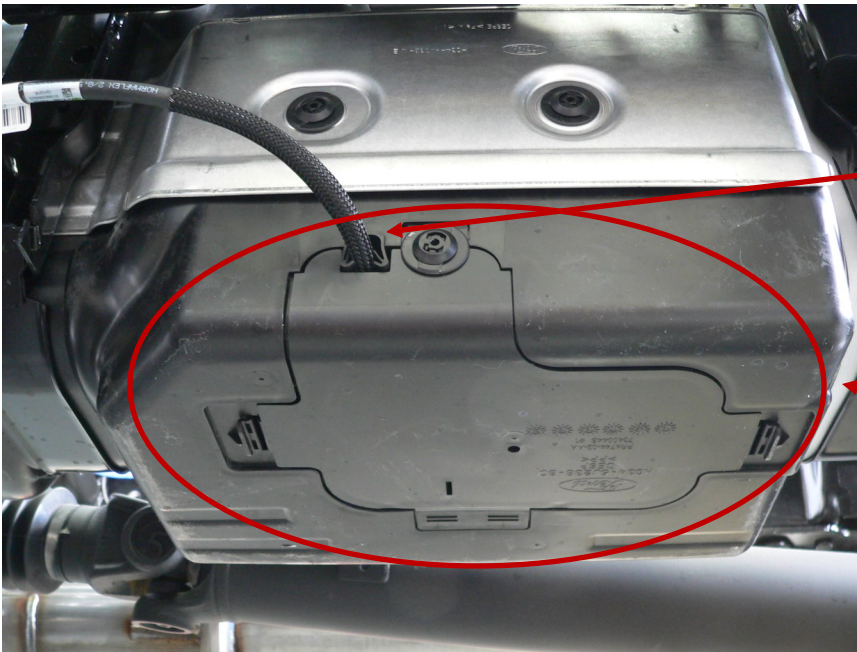


Quantity	Part #	Description
1	HC3Z-5L212-A	Bracket DEF Tank Right Front
1	HC3Z-5L212-B	Bracket DEF Tank Right Rear
5	MCM-96194A150	Serrated Flange Nut
5	MCM-94036A645	Bolt 10mm X 45mm
1	W717634-S439	Nut Clip Right Front
1	DDP-5011	Wire Harness Jumper, 10' Extension
1	DDP-5108	90* Fill Elbow
1	Cap	Cap, Temporary
X	Wire Ties	

## TOOLS NEEDED

- 13 mm Deep Socket
- 15 mm Deep socket
- 13 mm Combination Wrench
- 15 mm Combination Wrench
- Medium Size Screw Driver
- Floor Jacket
- 2" X 6" X 14" Wood Block

## 4. REMOVE DEF TANK and BRACKETS



The DEF injection line will need to be disconnected .

On the bottom side of the DEF tank is a door to access the DEF pump.



With a Screwdriver pry out the center of the rivet.

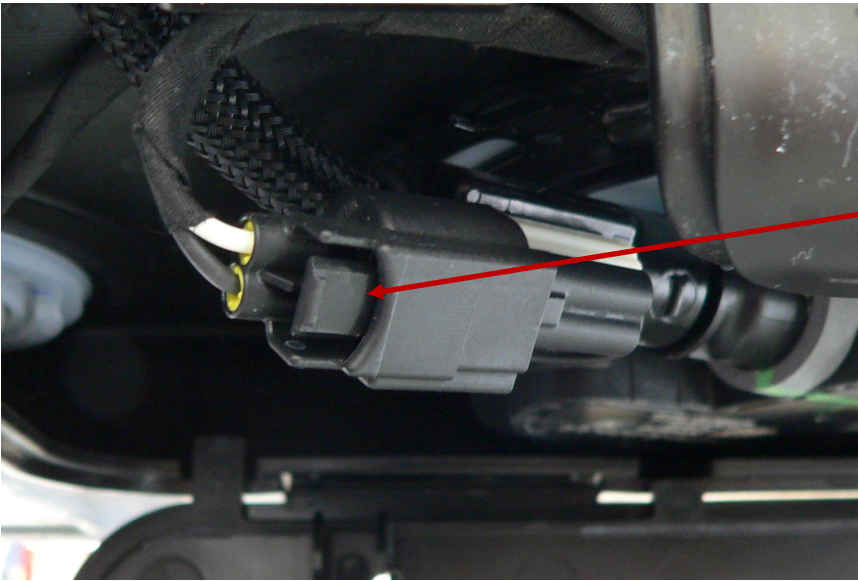


Remove the Rivet.

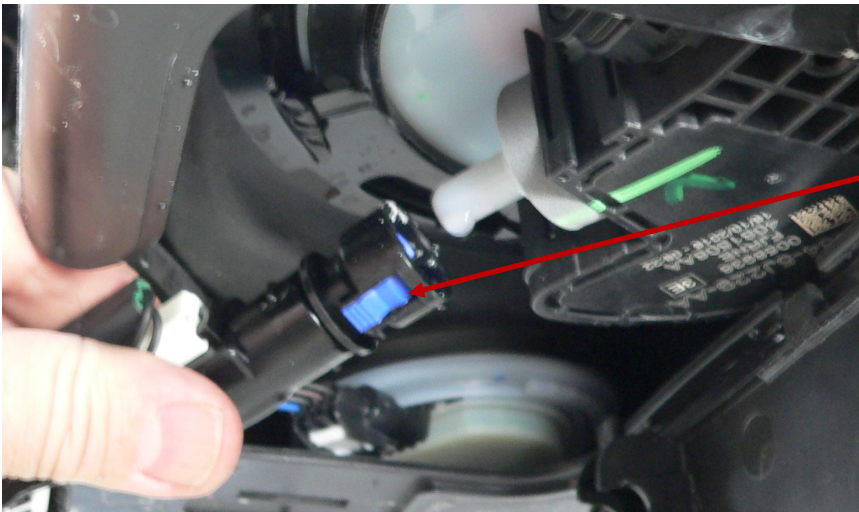


On the bottom of the tank press the tab on each side of the door and swing open.



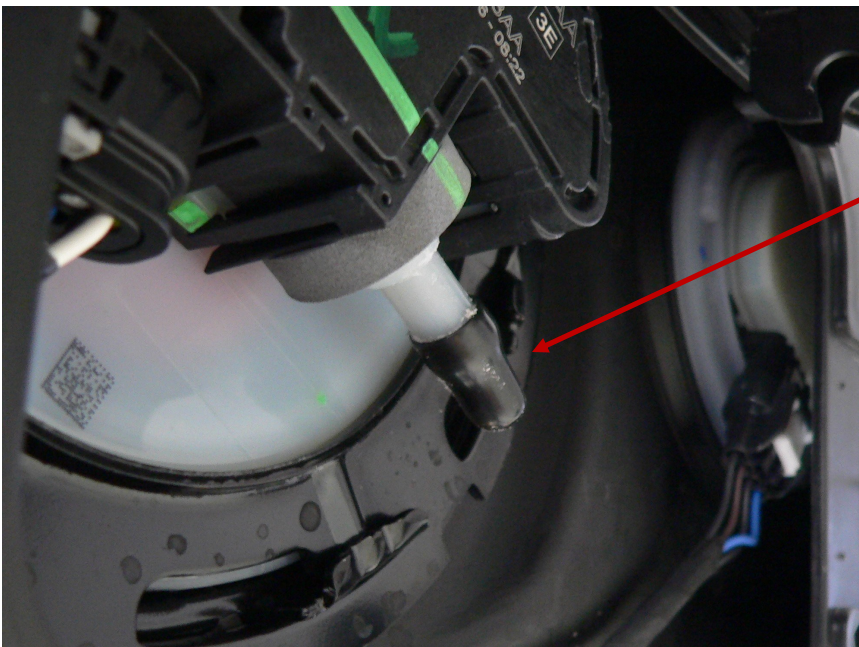


Disconnect the electrical connection for the DEF injection line heater by pressing the tab.



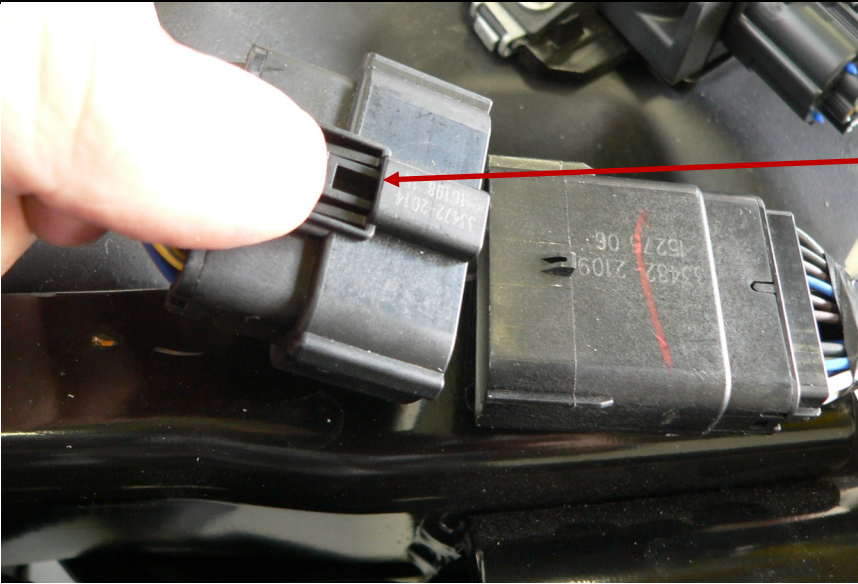
Remove Injection line by pressing the blue tab on each side of the fitting.

A small amount of DEF Fluid may leak from the fitting.



Place black cap included in kit over the DEF pump fitting.

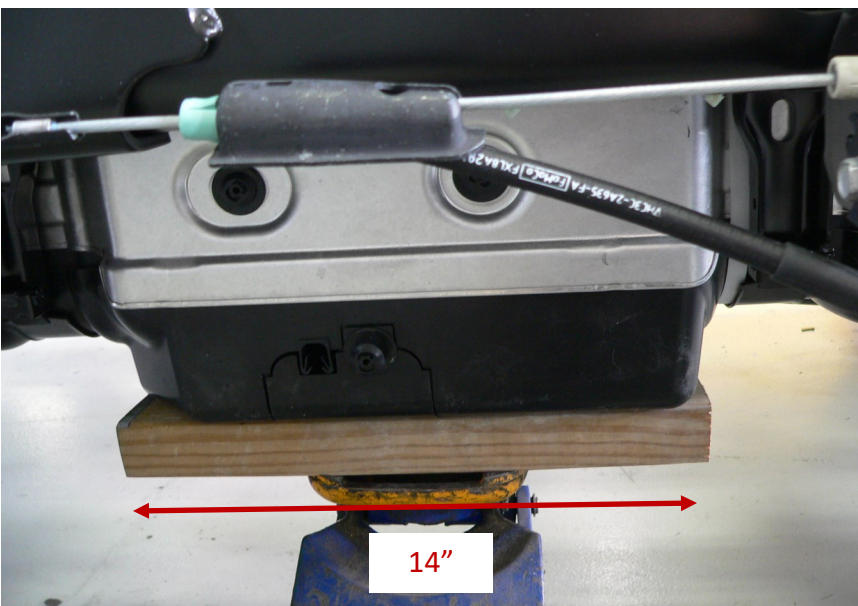




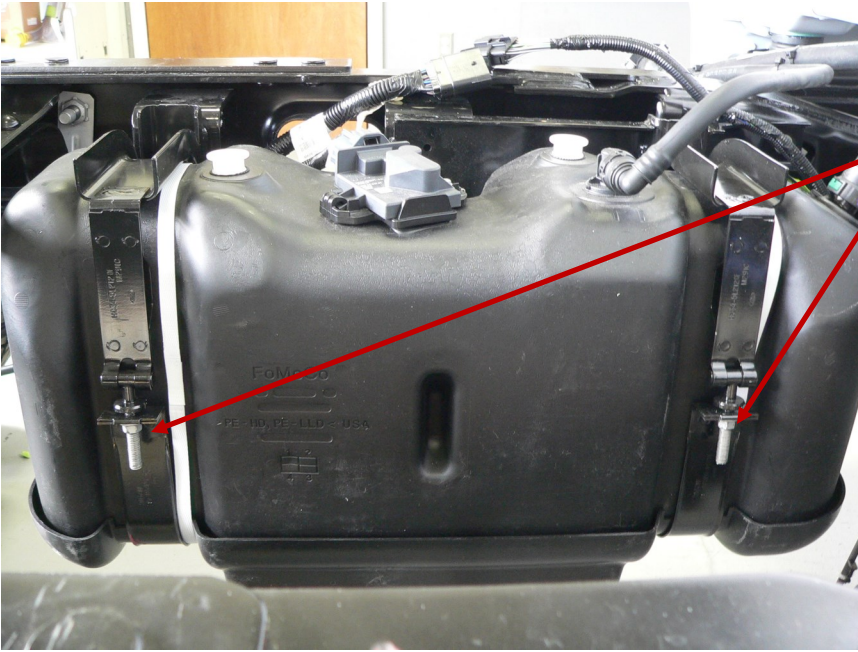
On the top side disconnect the electrical connector by pushing the tab.



Using a screwdriver, pry the connector off of the DEF mounting bracket.



Place 2 X 6 Block on a floor jack and raise to support the DEF tank.



With the DEF tank supported on the jack, remove the two nuts retaining the tank straps.

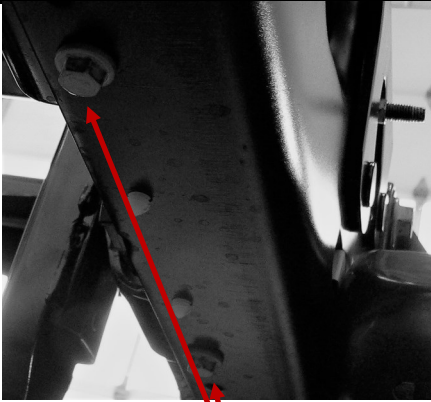


Swing both straps outboard and disengage from the mounting brackets.

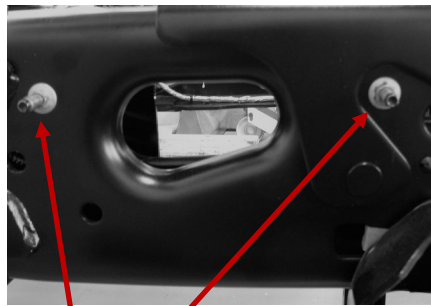
Lay both straps aside for use on the right side.

**CAREFULLY LOWER THE DEF TANK!**

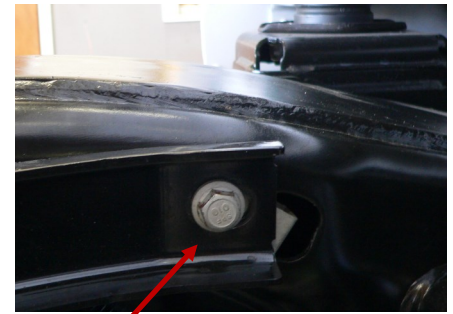




Two under the rail



Two on the outside of the rail

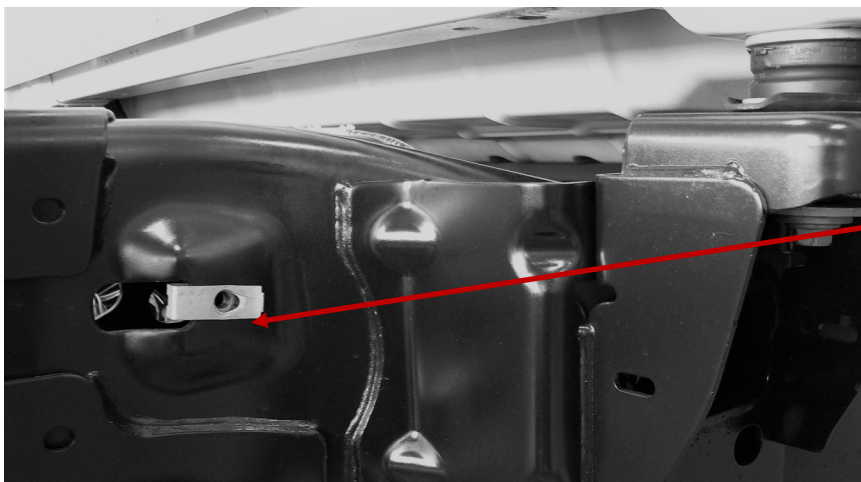


One on the inside of the rail

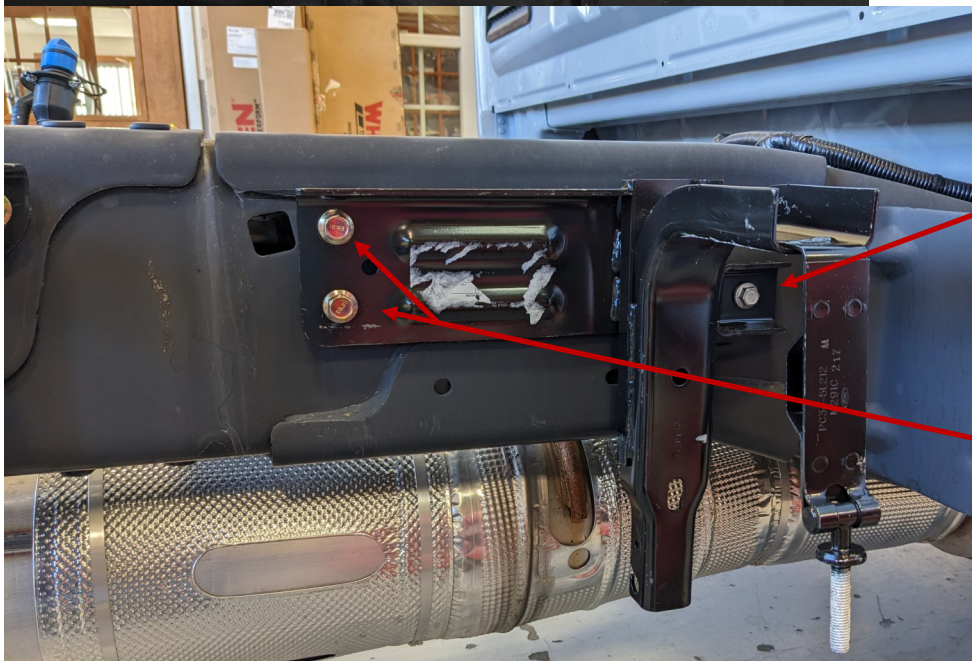
Using 13 mm socket, remove the DEF tank mounting brackets by removing the 5 fasteners.

Save all fasteners. Discard the mounting brackets.

### 5. INSTALL NEW DEF TANK BRACKETS and DEF TANK



Install the clip nut on the outside of the right rail.

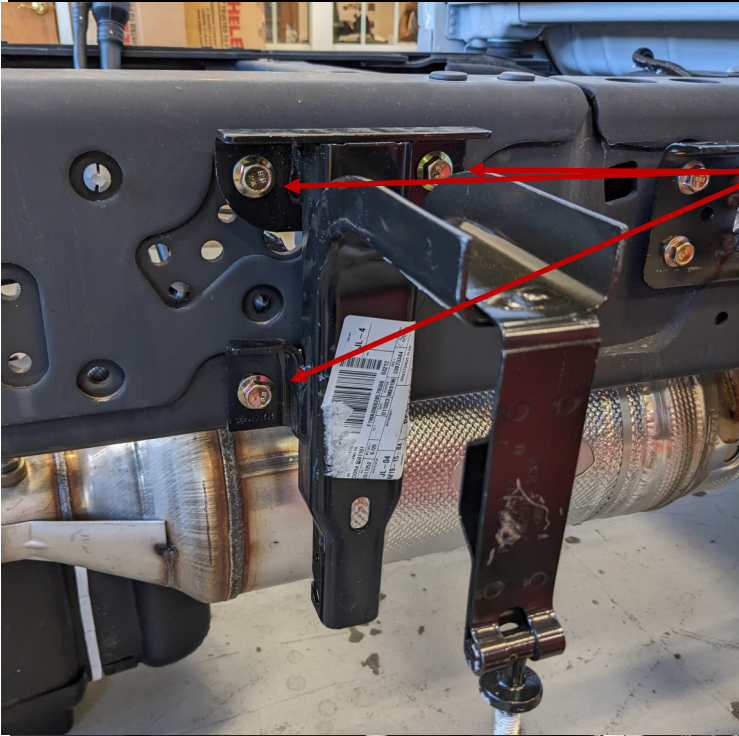


Install Ford DEF tank mounting bracket right behind the cab. (HC3Z-5L212-A).

Use 1— 35mm X 10mm bolt removed from the left side in the forward mounting hole.

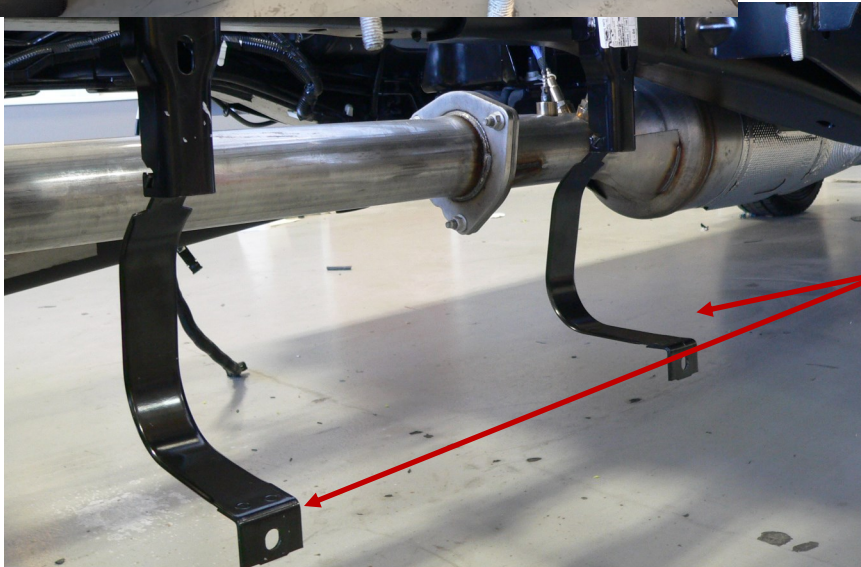
Use 2 10x45 mm bolts and nuts (included in the kit) into the rear mounting holes.

Tighten to 45 ft./lb. (61 Nm)



Install Ford Part # HC3Z-5L212-B (Included in kit) DEF tank mounting bracket using 3 M10x45 mm and 3 nuts (included in the kit).

Tighten to 45 ft./lb. (61 Nm)



Install the straps removed from the left side.



Carefully raise the DEF tank into the mounting brackets. Be careful not to catch the wire harness.

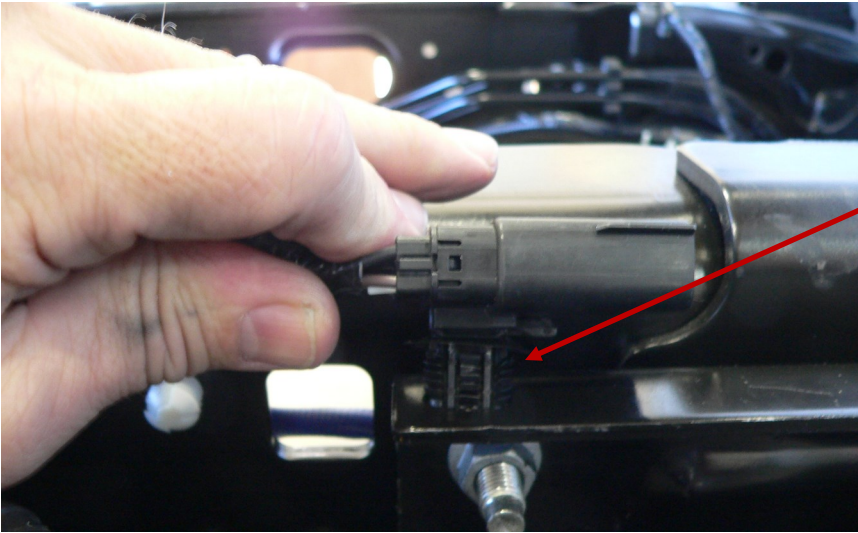
Swing the straps around the bottom of the DEF tank and start the threaded rods through the straps.

Install the two 10mm nuts removed from the left side.

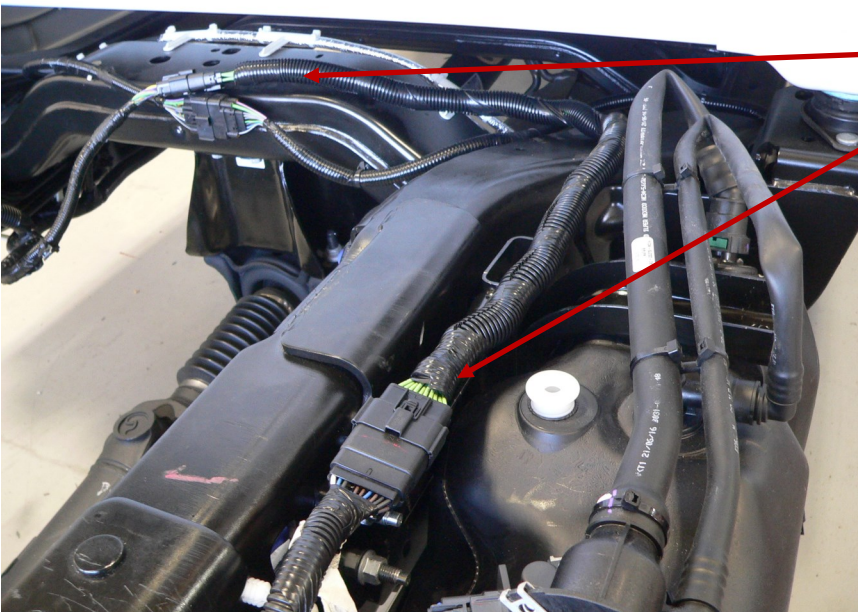
Torque to 30 ft./lb. (40Nm)



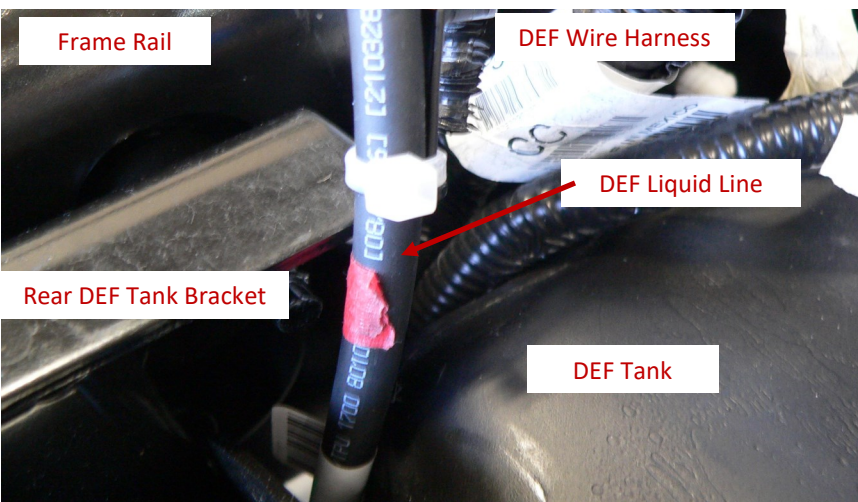
## 6. CONNECT WIRE HARNESS and DEF LIQUID LINE



Insert the DEF tank wire connector fish fin into the slotted hole on the forward tank mount.

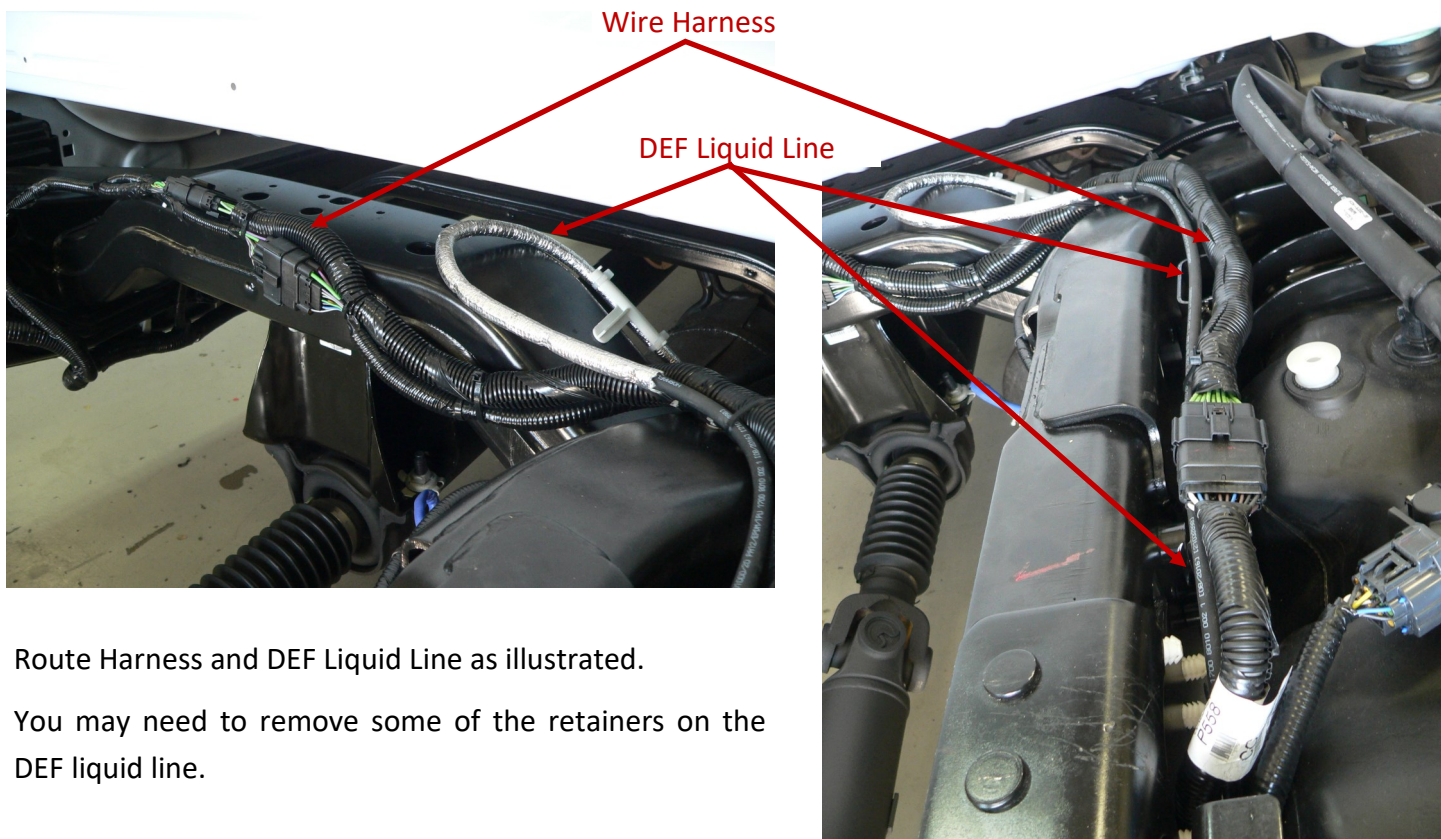


Connect the wire harness extension (Included in the kit) Connect the male connector of the extension into the chassis harness. Connect the female end of the extension into the DEF tank harness. Route the harness across the frame crossmember under the rear of the cab and secure with zip ties.



Remove enough of the DEF liquid line from its retainers to be able to loop the line.

Insert the DEF line between the tank and frame rail, behind the DEF tank wire harness.



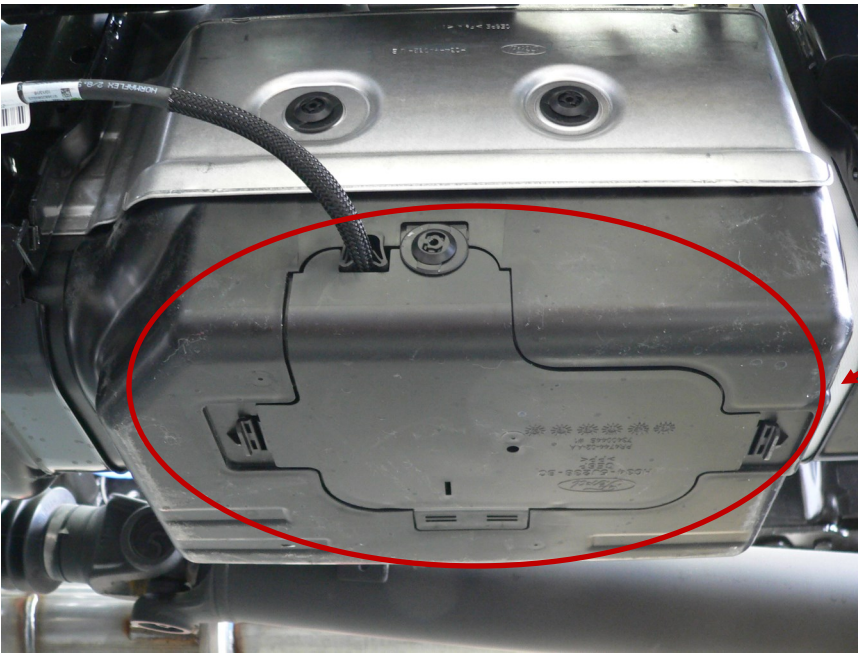
Route Harness and DEF Liquid Line as illustrated.

You may need to remove some of the retainers on the DEF liquid line.

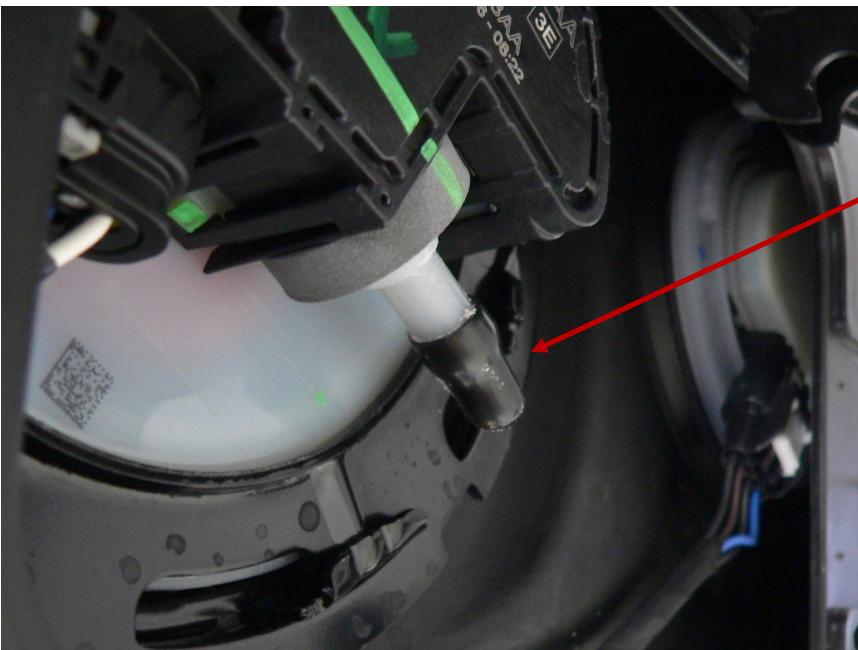
Be certain the wire harness and DEF liquid line are not chaffing on sharp edges or corners and will not interfere with body installation.

Check DEF liquid line for kinks.



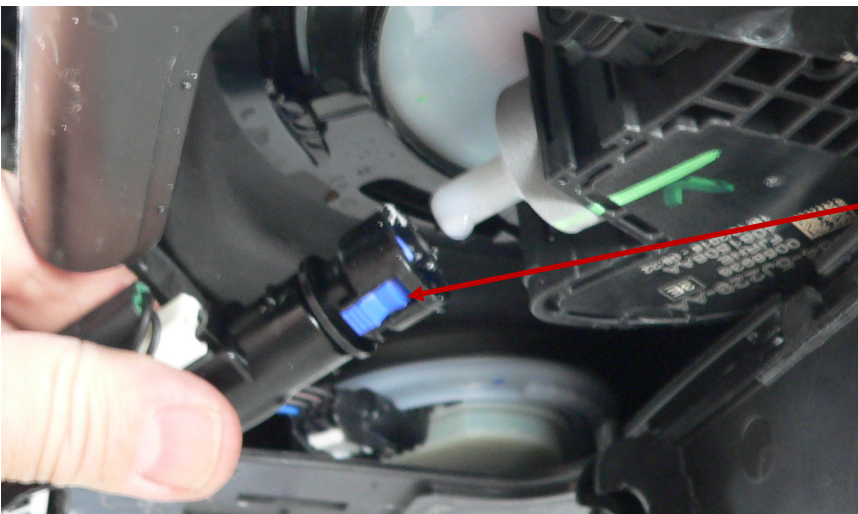


Open the DEF tank door on the underside.



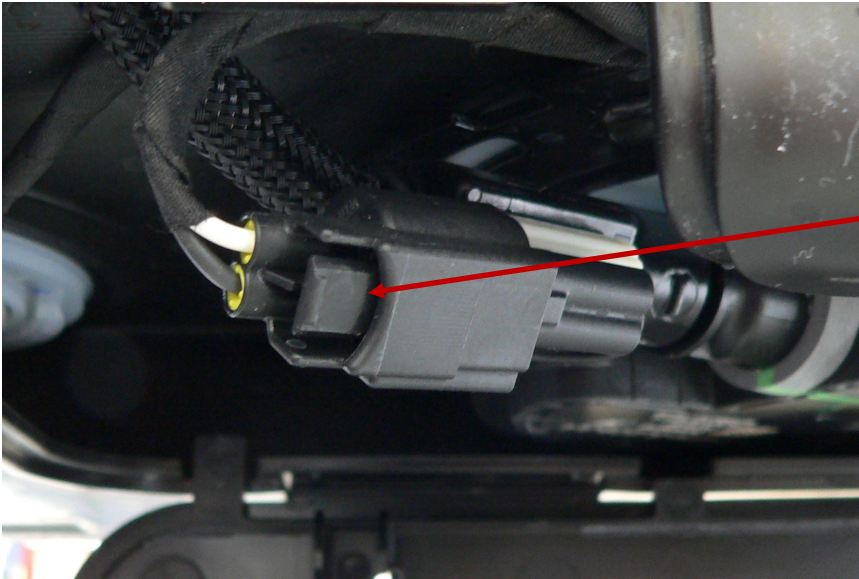
Remove the black plug previously installed.

A small amount of DEF may leak from the fitting.

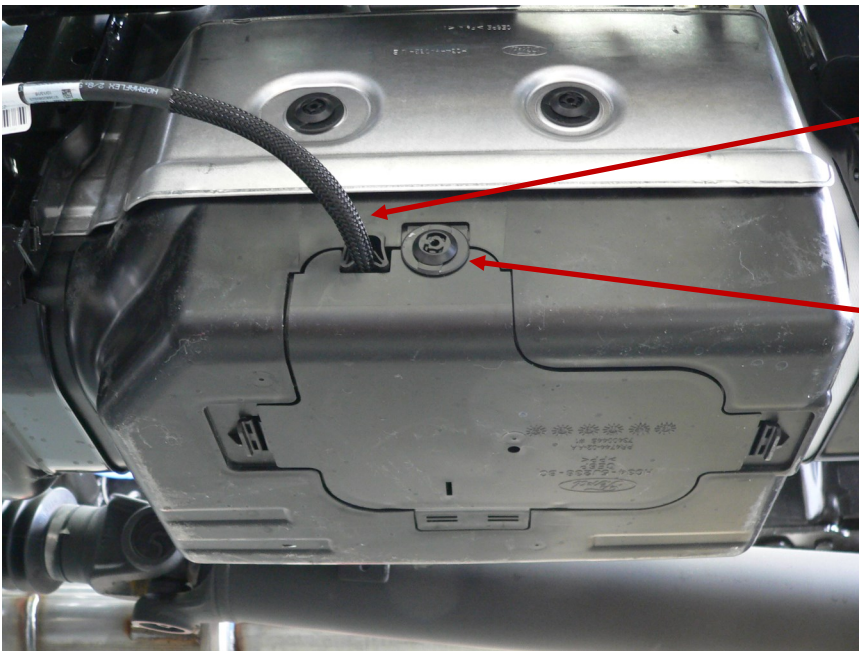


Reconnect the liquid line by pushing unto DEF pump fitting. The blue clip should snap in place. Test by pulling on the line.





Reconnect the electrical connection for the DEF injection line heater. Be sure it is properly secured.



Secure the DEF liquid line in its place and close the door.

Reinstall the rivet.



An extended Filler neck is available.

FORD Part #

HC3Z-5J232-C



## Check List

- All the fasteners are properly torqued.
- Wire harness is properly secured.
- DEF liquid line is routed properly.
- DEF Fluid Line is free of kinks.
- Wire Harness and DEF liquid line are located away from the exhaust.
- Check engine light is not illuminated with engine running.