TITAN pt. no.: 02 0000 0205

**Important:** Please read these instructions <u>carefully and completely</u> before starting the installation.

## TITAN Fuel Tanks™

## INSTALLATION INSTRUCTIONS





## Extended Capacity Replacement Tank for FORD, Super Duty Diesel Pickup Trucks

**7020217** For **2017+** FORD truck models F250 & F350: Crew Cab, Short Bed (6 1/2 ft.) PATENTS PENDING

No drilling or cutting is required for this installation.

Required Tools:

- 1 ea. Ratcheting socket driver
- 2 ea. 10 mm, 13 mm sockets
- 1 ea. 12 inch long socket driver extension
- 2 ea. 8 mm, 15 mm end wrenches
- 1 ea. Small flat blade screw driver
- 1 ea. Large flat blade screwdriver
- 1 ea. T-27 Torx bit
- 1 ea. Rubber Mallet
- 1 ea. Hook Pick

Recommended Optional Tools:

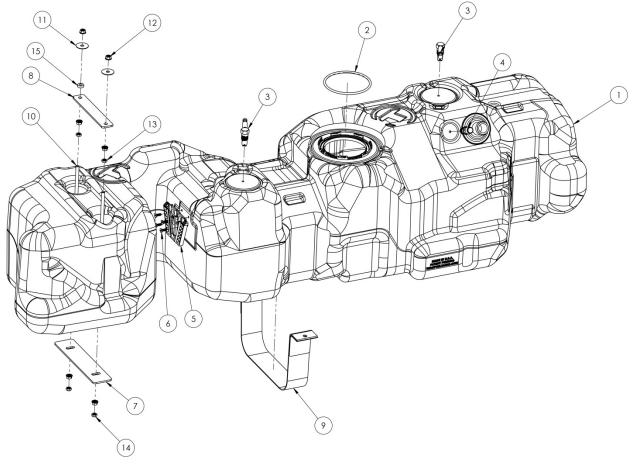
- 1 ea. Hydraulic transmission jack
- 1 ea. Impact wrench
- 1 ea. Vehicle Lift
- 1 ea. TITAN Fuel Caddy<sup>™</sup> to transfer fuel.

## **Generation 6**

Tank Body Identification:



**Note:** The tank body has the above identification on its bottom. Please check to be sure the tank is properly identified as the one to fit your vehicle.



2

2017 Ford Crew Cab Short Bed Titan Fuel Tank - 7020217			
		TITAN Part	
Item	Description	Number	Quantity
1	2017 Ford CCSB Tank Body	02 0000 0193	1
2	0-Ring	02 0000 0197	1
3	Roll Over Valve	99 0000 0137	2
4	1/2 NPT X 3/4" Hose Barb Adapter	99 0000 0625	1
5	Water Separator Mount	02 0000 0195	1
6	1/4"-20 X 3/4" Hex Drive Flat Head Screw, 18-8 SS	02 0000 0198	4
7	Front Support Plate	02 0000 0194	1
8	Cross Member Plate	02 0000 0196	1
9	Mid Strap	02 0142 0000	1
10	3/8"-16 X 16" Threaded Rod, Zinc-Plated Steel	02 0000 0199	2
11	3/8" Oversized Flat Washer, Zinc-Plated Steel	99 0000 0588	2
12	3/8"-16 Serrated Flange Locknut, Zinc-Plated Steel	02 0000 0200	6
13	3/8"-16 Thin Hex Nut, Zinc-Plated Steel	02 0000 0201	2
14	3/8"-16 Thin Nylon Locknut, Yellow Zinc-Plated Steel	02 0000 0163	2
15	3/8" Spacer, Zinc-Plated Steel	02 0000 0203	1

## 7020217 PARTS LIST

**IMPORTANT NOTICE:** Before installation, be sure to thoroughly inspect inside of the tank for ANY foreign debris!

NOTE: Take a moment and write the new TITAN<sup>™</sup> Tank serial number in the back of this instruction booklet now. The serial number is found on the bottom of tank.

**NOTE:** The original equipment tank's rear strap will be reused on the new TITAN Tank.

# I. Remove Original Equipment Tank

## Step Description

- 1 Using best, safe practices, place the vehicle on a hoist that leaves the entire underside of the frame unobstructed.
- 2 Drain all the fuel from the original equipment (OEM) tank using a TITAN Fuel Caddy<sup>™</sup>, or a pump, or siphon.
- 3 Support the OEM tank.
- 4 Using a hook pick, loosen and remove the rubber seal that fits around the fuel fill spout and DEF fill tube (See Fig. 1).

#### Step Description

- 5 Remove the bolts fastening the fuel fill spout (See Fig. 2).
- 6 Pull the fill spout assembly back toward the vehicle's frame and turn it so you have access to the hose clamps (See Fig. 3).
- 7 Disconnect the fill hose and vent line from the vehicle's fill spout.
- 8 There is a water separator attached to the front of the tank. It will have to be disconnected from fuel and electrical: First, disconnect the electrical connection on the bottom of the separator (See Fig. 4) by depressing the clip on the plug and remove.
- 9 Next, disconnect the fuel line at the top of the separator (See Fig. 5) by squeezing the two legs of the tab together and then pushing the entire tab towards the rear of the vehicle. Note: This coupling operates differently from all others involved in the install.
- 10 Disconnect the fuel line coupler located on the frame in front of the water separator (See Fig. 6). See also Fig. 7, "Method for Disconnecting Fuel Line Couplings".
- 11 Loosen and remove OEM tank straps by undoing the bolts on straps at inboard and outboard of the tank and lower tank a few inches. Hold the factory "J-nuts" with an end wrench to prevent them from breaking. Retain the rear strap as it will be reused with the new TITAN tank.
- 12 Disconnect fuel gauge electrical connection from sending unit on top of the tank.
- 13 Remove the OEM tank from the vehicle.



(Fig. 1) Loosen and remove rubber seal.



(Fig. 2) Remove the bolts holding he fill spout.





(Fig. 3) Move fill spout assembly toward vehicle frame to gain access to the hose clamps.

(Fig. 4) Disconnect electrical connection on the bottom of the water separator.



(Fig. 5) Fuel line connector at top of the separator.



(Fig. 6) Fuel line coupler located on the frame in front of the water separator.



(Fig. 7): **Method for Disconnecting Fuel Line Couplings:** The majority of the couplings involved in this installation are of the quick connect type shown in left photo above. To disconnect, a) Slide the tab that has teeth on its edge outwards as shown in the center photo. b) Next, press the rounded button, as shown in the right photo, and pull the coupling apart. The coupling shown in Fig. 5 functions differently, see Step no. 9 for it.

# **II.** Prepare Vehicle and Replacement Tank

### Step Description

- 14 Remove the guard located on the top of the OEM hold-down ring.
- 15 Disconnect all of the fuel lines from the sending unit.
- 16 On the front of the OEM fuel tank, use a T-27 Torx bit and driver to loosen and remove the screw, located on the bottom of the water separator, which holds it to the mounting bracket. With the screw removed, using a rubber mallet, carefully tap the water separator up and out of its mounting bracket on the tank (See Fig. 8). <u>Be very careful not to strike any of the fittings</u> on the bottom of the water separator.
- 17 Loosen the OEM hold-down ring on the sending unit by turning it counterclockwise (See Fig. 9).Remove the sending unit from the OEM tank.
- 18 The new TITAN tank comes with an O-ring to seal for the sending unit. Make sure the new O-ring gasket is placed into the gland (groove) at the sending unit opening.
- 19 Place the sending unit into the TITAN tank (See Fig.10). Be sure to turn the sending unit so that the tab lines up with the "tab location" marks on the tank (See Fig. 11).
- 20 Place the hold down ring from the OEM tank onto the sending unit and tighten it clockwise as far as it will go (See Fig 12). Be sure the studs that hold the OEM guard are lined up in the same position as they were on the OEM tank.
- 21 Move the fill hose and vent hose from the OEM tank to the new tank, install and tighten securely.
- 22 Install the water separator on the TITAN tank by sliding it into the mounting bracket and tightening down the hold-down screw on the bottom.
- 23 Install the fuel lines on the sending unit and water separator as they were on the OEM tank. Install the guard on the top of the hold-down ring being careful not to over-tighten the studs. The tank should appear as in Fig. 14.
- 24 The Front Support Assembly is included as a kit with the tank. Assemble and install it on the vehicle's cross member as shown in Fig.13 leaving the bottom "Front Support Plate" off for now. See an exploded view, showing all of the parts, in Fig. 15. Be sure all of the nuts holding the support to the vehicle's cross member are tightened to 15 lb.-ft. of torque.

**NOTE:** Be sure that the threaded rod of the Front Support Assembly does not protrude above the vehicle's cross member so far as to make contact with the vehicle's aluminum body.



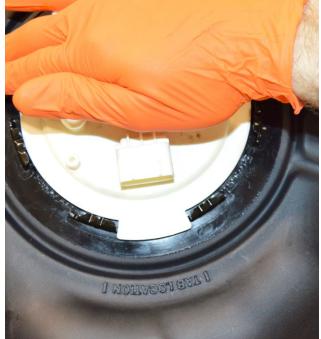
(Fig 8) Using a rubber mallet, <u>carefully</u> tap the water separator up and out of its mounting bracket on the OEM tank.



(Fig. 9) Loosen hold-down ring by turning it counterclockwise as shown.



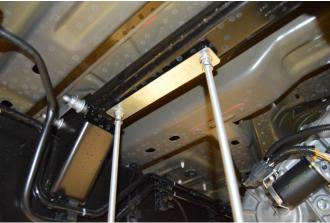
(Fig. 10) Place sending unit into the TITAN tank.



(Fig. 11) Line the tab on the sending unit up with the "tab location" mark on the TITAN tank.



(Fig. 12) Reuse the OEM hold-down ring to mount the sending unit in the TITAN tank. Tighten by turning it clockwise as far as it will go.



(Fig. 13) Partially assembled Front Support Assembly installed on the vehicle's cross member.



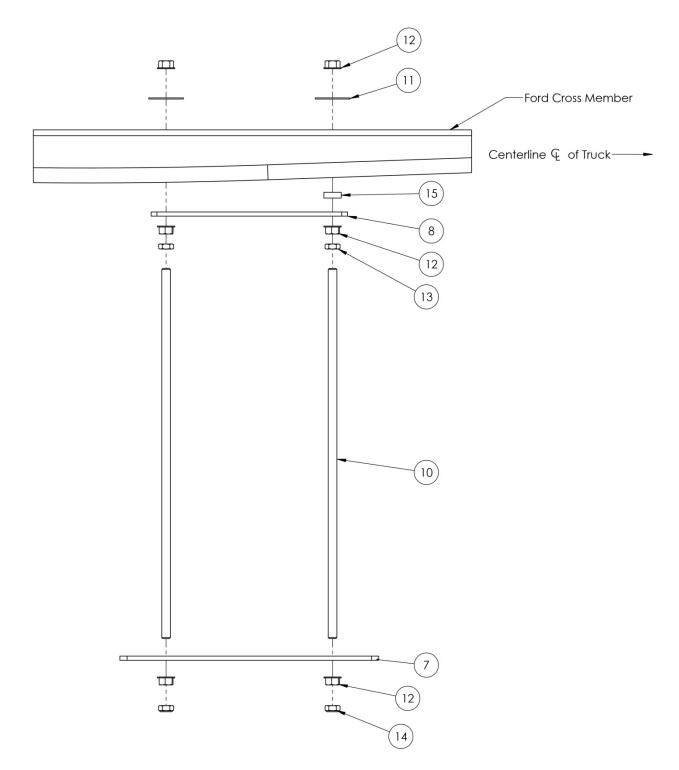
(Fig. 14) TITAN 7020217 tank shown with sending unit, water separator, fuel lines, sending unit guard, and fill and vent hoses installed; ready for installation into the vehicle.

# **III. Install Replacement Tank in Vehicle**

### Step Description

- 25 Support the TITAN tank and lift it nearly into place leaving enough space to be able to reach up and plug the fuel gauge electrical connection onto the sending unit. Guide the threaded rods of the Front Support Assembly into the front mounting holes on the tank body as you lift it.
- 26 After plugging in the electrical connection on the sending unit, lift the tank all the way into place. Reuse the rear strap from the OEM tank as the rear strap on the TITAN tank. A new strap is included with the TITAN tank for the other strap position. Install both straps finger tight.
- 27 On the bottom of the Front Support Assembly, install the Front Support Plate with the Flange Nuts and Lock Nuts holding it in place (See Fig 16). Torque to 15 lb.-ft. The Front Support Assembly should appear as it does in Fig. 17.
- 28 Now tighten the two straps to the vehicle manufacturer's specifications.
- 29 Reconnect the electrical connection on the bottom of the water separator.
- 30 Reconnect the fuel line connections on top of the water separator and on the frame.
- 31 Reconnect the fill hose and vent line to the vehicle's fill spout.
- 32 Move the fuel fill spout back into place and replace and tighten the bolts holding it.
- 33 Replace the rubber seal that fits around the fuel fill spout and DEF fill tube.
- 34 Make sure ALL mounting hardware, clamps, bolts, etc. are properly installed and TIGHT. Double check it.

# 35 IMPORTANT! Lower vehicle, <u>fill tank completely with</u> <u>diesel fuel and check for leaks.</u>



(Fig. 15) Exploded view of Front Support Assembly showing all the parts. Tighten all nuts to 15 lb.-ft. View is from the rear of the vehicle looking forward.





(Fig. 16) Tighten Front Support Assembly to 15 lb.-ft. (Fig. 17) Front Support Assembly properly installed.



Installation Complete!

# Go to TITAN's website to view video installation instructions and tips.

\* All capacities are approximate

Be sure to return the completed warranty registration for your new Titan fuel tank; or you can register on-line at <u>www.titanfueltanks.com</u>

You will find your tank's serial number located on the bottom of the tank.

Write your tank's Serial Number here:\_\_\_\_\_

A tank must be registered within sixty (60) days of receipt for the warranty to be valid.

Warranty is void if product is improperly installed. For questions or customer service call (800) 728-4982



TITAN Fuel Tanks P.O. Box 2225 Idaho Falls, ID 83403 USA Telephone (208) 522-1325, FAX (208) 529-2162 <u>www.titanfueltanks.com</u> TITAN Fuel Tanks are PROUDLY MADE IN THE USA

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