TITAN pt. no.: 02 0000 0209

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

TITAN Fuel Tanks™

INSTALLATION INSTRUCTIONS





Extended Capacity Replacement Tanks for FORD Diesel Trucks

7020211 For **2011+** FORD truck models F250 & F350 : Crew Cab, Short Bed (6 ½ ft.) **7020311** For **2011+** F250, F350 & F450 (with pickup bed): Crew Cab, Long Bed (8 ft.)

Required Tools:

- 1 ea. Ratcheting socket driver
- 1 ea. 13 mm socket
- 1 ea. 12 inch long socket driver extension
- 1 ea. 13 mm end wrench
- 1 ea. 5/8 inch socket
- 1 ea. 9/16 end wrench
- 1 ea. Medium flat blade screw driver
- 1 ea. Large flat blade screw driver or punch
- 1 ea. Needle nose pliers
- 1 ea. Torque wrench handle for socket
- 1 ea. Mallet or small hammer
- 1 ea. Razor blade or sharp bladed knife.

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Recommended Optional Tools:

- 1 ea. Hydraulic transmission jack
- 1 ea. Vehicle hoist

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1 ea. Impact wrench

Parts List:

1ea. Extra heavy-duty cross-linked polyethylene (XLHDPE) fuel tank for one of the following Ford Motor Company diesel trucks:

Crew Cab, Short Bed 2011 "Super Series"	Tank Identification: "FORD CCSB"
Crew Cab, Long Bed 2011	Tank Identification: "FORD CCLB,
"Super Series"	02 0000 0129"

Note: Each tank has an identification on its top. Please check to be sure the tank is properly identified as the one to fit your vehicle.

1 ea. (See nos. be 1 ea. (See nos. be 1 ea. (See nos. be 3 ea. 99 0000 010	 Middle tank strap, intermediate strap (Long Bed only) Front tank strap, short strap (Short and Long Beds) Extruded Flexible Bushings (IF optional Titan Shield
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1 ea. 02 0118 0000 FORD, Front Tank Support Assembly, CC Short/Long Bed, 2011(Included complete in 22"x10"x4" box)

- 1 ea. 99 0102 0000 Roll Over Valve Vent Assembly with hose and vent cap.
- **Note:** The Ford tank straps are identified by designations cut into the very bottom of the strap and/or on one side. **These designations are:**

Crew Cab, <u>Short</u> Bed

Rear Tank Strap:	1 ea.	02 0117 0000	Long Strap
Front Tank Strap:	1 ea.	02 0117 0000	Short Strap

Crew Cab, Long Bed

Rear Tank Strap:	1 ea.	02 0121 0000	Long Strap: "3" or "R"++
Middle Tank Strap:	1 ea.	02 0121 0000	Intermediate Strap: "2" or
			"M"++
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Front Tank Strap:

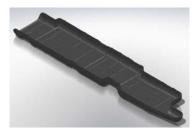
1 ea. 02 0121 0000 Short Strap: "1" or "F"++

++ The Long Bed straps will be stamped with a numeral or have a cut-out letter identifying their position. This numeral or letter will be located on the in-board, vertical leg of the strap.

Optional Parts List:



1 ea. 02 0116 0000 Titan Shield, for 2011 Crew-Cab, *Short-Bed* Tank. Molded from .250" Tough, black HMWPE. Formed to fit the bottom of the tank. If tank is ordered with the TITAN Shield, rubber mounting bushings (99 0000 0103) are not included.



1 ea. 02 0120 0000 TITAN Shield, for 2011Crew Cab, *Long-Bed* Tank. Molded from .250" tough, black HMWPE. Formed to fit the bottom of the tank. If tank is ordered with the TITAN Shield, rubber mounting bushings (99 0000 0103) are not included.

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

NOTE: TITAN 2011+ FORD Crew Cab, Short Bed and 2011+ FORD Crew Cab, Long Bed products are extremely similar when it comes to installation procedures. Most of the photos in these instructions show a Crew Cab Short Bed tank, but the procedures in the pictures are the same for both.

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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 tank using a pump or siphon.
- 3 Remove original equipment tank plastic side shield and bottom shield (if applicable) from vehicle.
- 4 Disconnect the ³/₄" vent line hose and the larger fill hose from the fill spout, leaving them attached to the tank.
- 5 Disconnect fuel gauge electrical connection, feed line and return line from the sending unit.
- 6 Support the original equipment tank.
- 7 Loosen original equipment tank straps by undoing inside bolts first.
- 8 Remove the original equipment tank with its straps from the vehicle.
- 9 Remove original equipment "bumper bracket", located to the right of the front strap, (See Fig. 1) from vehicle.
- 10 Make sure the wiring harness and differential breather hose (if applicable) are securely fastened to the vehicle frame as the new tank will need to be positioned next to the frame for its entire length.
- 11 Use a mallet and screw driver or punch to loosen the hold-down ring on the sending unit by tapping it and turning it counter-clockwise (See Fig. 2). Remove the sending unit from the original equipment tank. Do NOT reuse factory O-Ring seal. Save the factory hold-down ring for use on the new TITAN tank.
- 12 Remove fill hose and vent line hose from original equipment tank, they will be installed the same way on the new tank.



(Fig. 1) Remove original equipment strap and "bumper bracket", shown here to the right-hand side of the front strap.



(Fig. 2) Loosen hold-down ring on original equipment tank by tapping counter-clockwise, remove and lift out sending unit.

13 The new TITAN fuel tank comes with a new O-Ring to seal the sending unit. **The** O-Ring is packaged in the envelope with the warranty registration. Install the O-Ring as shown in Fig. 3.

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(Fig. 3) O-Ring gasket shown installed correctly.

(Fig. 4) Line the sending unit tab up with the "Tab Location" markings on the tank.

- 14 Carefully place the sending unit into the new TITAN tank. Make sure the "O" ring gasket is placed properly under the sending unit to seal correctly. Before installing the sending unit into the TITAN Tank, BE SURE THE INSIDE OF THE TANK IS FREE OF DIRT OR DEBRIS OF ANY KIND.
- 15 After placing the sending unit into the tank on top of the "O" ring gasket, rotate it until the sending unit tab is lined up with the "Tab Location" markings on the tank's top (See Fig. 4).
- 16 Place the factory (OEM) hold-down ring on top of the sending unit and use a hammer and punch, or screw driver to tap the ring clockwise until it is fully seated and locked (See Fig. 5).



(Fig. 5) Using a hammer and punch, or screw driver to tighten the hold-down ring clockwise.

(Fig. 6) Install fill and vent hoses from original equipment tank on TITAN tank as shown. Make sure that ³/₄" vent line is lined up with orientation mark on the tank.

- 17 Install the fill hose on the TITAN Tank King Nipple and the ³/₄" vent line hose on the ³/₄" elbow which is installed on top of the tank. Be sure all clamps are tight (See Fig. 6).
- 18The TITAN tank straps will reuse the original equipment mounting bolts. Hang
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the outboard side of the straps first. The rear strap will attach to the underside of the frame and the front strap will attach to the outside. Start the stock bolt and make sure at least $\frac{1}{2}$ of the thread is through. Leave the bolt loose. **Note:** The short bed tank comes with two straps, plus the front support bracket; the long bed tank comes with three straps, plus the front support bracket.

- 19 If the optional TITAN Shield was ordered with the tank, place it under the tank.
- 20 Place tank (and shield if included) on a transmission jack. Lift the tank high enough to reconnect the sending unit electrical connection, as well as both the return, and feed lines. Line the straps up with the strap indentations in the tank.
- 21 Once all connections are securely attached, lift the tank the rest of the way into place with the jack.
- 22 If the optional TITAN Shield is NOT to be installed, you will need to install the flexible bushings now on both straps. Place it so it is centered in the bottom of the strap with the bushing's channel side toward the strap. Press the bushings securely into place.
- 23 Attach the inboard sides of the straps. Tighten the bolt and bracket to factory specifications.
- 24 The "02 0118 0000 FORD, Front Tank Support Assembly" supports the front of the tank. It is made up of two major pieces: an upper and a lower. Hang the lower piece on the inside bottom lip of the vehicle's frame. Slide it toward the rear of the vehicle until it lines up with the closest cab mount. Loosen the bolt from the cab mount and complete installation of the upper piece as shown in Figs. 7-12. If mounting the tank without a shield, be sure to place a flexible strap bushing on the load bearing surface of the lower piece under the tank.



(Fig. 7) Hang lower piece of support assembly on lower lip of vehicle frame and slide towards the rear of vehicle until it lines up with cab mount.



(Fig. 8) Place the supplied fender washer into the center of the rubber cab mount above the upper piece of the assembly.



(Fig. 9) Mount the upper piece of the assembly to the lower piece using bolt provided.



(Fig. 10) Replace cab mount bolt with its existing washers and tighten to factory specification.



(Fig. 11) Completed front support installation on tank with TITAN Shield.



(Fig. 12) Installation of front support on tank without TITAN Shield. Note the flexible bushings on the support and the straps.



Installation Complete!

- 25 Attach the fill hose and the vent line hose to the vehicle's fill spout as they were with the original equipment tank .
- 26 Make sure ALL mounting hardware, clamps, bolts, etc. are properly installed and TIGHT. Double check it.
- 27 Lower vehicle, <u>fill tank completely with diesel fuel and</u> <u>check for leaks.</u> IMPORTANT!





TITAN 2011+ Ford Crew Cab, Long Bed tank (7020311) installed showing three straps.

Underside view of TITAN 2011+ Crew Cab Long Bed tank (7020311) with shield installed in an F450.

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

SPECIAL NOTE:

For **2011+** FORD truck models F250. F350 & F450 : Crew Cab Short Bed or Crew Cab Long Bed With FX4 Option Package

If the installation vehicle is equipped with Ford's FX4 Option Package it will most likely have a steel skid plate under the transmission and transfer case which may interfere with the new TITAN fuel tank. If so, there are two courses of action: Remove and dispose of the skid plate, OR "notch" the skid plate so as to allow the new TITAN tank to fit with it.

If you chose to notch the skid plate here are some suggestions:

A) If the skid plate interferes with the TITAN tank, loosen the skid plate, and detach the driver's side, before lifting the TITAN tank into place.

B) After the new TITAN tank is installed, hold the skid plate in place and mark it so as to show where the notch for the new tank needs to be located. The "notch" does not necessarily need to follow the contour of the front of the tank as illustrated below. It can be circular, triangular, or rectangular and the skid plate will still function fine. The notch can even be two parallel cuts made with a hack saw and the resulting flap bent up out of the way over the plate to form the "notch". One important thing is to be sure the closest point on the "notch" is at least $\frac{1}{2}$ inch (13 mm) away from the tank.

C) The skid plate may be cut with a grinding wheel, Sawzall, hack saw or other suitable tool. Be sure to smooth the edges and touch up the exposed metal with paint.

D) Reinstall the skid plate and adjust to its lowest level on the passenger side.

See photos below.



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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 approximately ½ way up the driver's side located towards the rear of the tank; adjacent to the sending unit.

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



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