



A **NAVISTAR** COMPANY

WORKHORSE CUSTOM CHASSIS SERVICE BULLETIN

BULLETIN NO: 61101-C

October 20, 2010

BULLETIN TYPE: Safety Campaign

SUBJEC: Replacement of Fuel Tank Fill Cap, Unused Fill Inlet on 75- and 100-Gallon Gasoline Fuel Tanks (Option Codes NDF and NNB)

MODELS: Model Year 2007 through 2011 W16/18, W20/22, W24 and R26 Motor Home Chassis Equipped with 75- and 100-Gallon Dual Fill Tanks

Workhorse Custom Chassis (Workhorse) has decided that a defect which relates to motor vehicle safety exists in certain W-series and R-series motorhome chassis built from February 5, 2007, through May 24, 2010, and equipped with either the 75-gallon or 100-gallon gasoline dual fill fuel tanks.

The fuel-fill cap assemblies used to seal the unused fuel tank inlet was produced with a hose material that did not meet design specification. During normal usage the hose material may deteriorate which can result in a fuel leak. A fuel leak increases the risk of a fire which may result in property damage, personal injury, or death.

VEHICLES INVOLVED

Certain W16/18, W20/22, W24 and R26 motor home chassis built from February 5, 2007, through May 24, 2010.

Dealers must check the WOW system to determine if the vehicle is affected by this safety recall and requires the final remedy to be performed.

OWNERS NOTIFICATION

Workhorse will notify owners and body companies regarding this safety recall. Attached is a copy of the owner's letter and accompanying instructions.

DEALER RESPONSIBILITY

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle that is subject to a vehicle recall campaign must be adequately repaired within a reasonable time after the owner has tendered it for repair. A failure to adequately repair within 60 days after a tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within 60 days, the owner may be entitled to replacement with an identical or reasonable equivalent vehicle at no charge, or to a refund of the purchase price less a reasonable allowance for depreciation.

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

Dealers should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, transfer location or customer must be notified immediately from your dealer location.

Dealers must make every effort to promptly schedule an appointment with each owner to repair their vehicle as soon as possible. However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

SERVICE PROCEDURE

Safety Campaign 61101-C procedure requires the replacement of the fuel-fill cap on the unused side of the dual-fill 75-gallon and 100-gallon gasoline fuel tank. This procedure will also require evaluation of the fill side of the tank. Verify the defective hose material was not integrated into the fill side of the tank. If determined that the initial cap hose was incorporated into the fill neck it will also require replacement to finalize the repair. Submission of this repair invoice for payment will be submitted to Workhorse using labor operation T6051.

During review of the motorhome fuel tank, if equipped with a dual-fill option, allowing fill of the vehicle fuel tank from both the left or right side of the motorhome verify that the hoses used to connect the fill pipes to the fuel tank are NOT integrated with the affected unused fuel-fill cap hose as outlined in this bulletin and illustrated in 1/A1 and 1/A2. If integrated with the affected hose as outlined they will require replacement. If the

motorhome fill pipes are attached to the fuel tank with an alternative fuel hose no further action will be required.



CAUTION: TO PREVENT SERIOUS EYE INJURY, ALWAYS WEAR PROPER EYE PROTECTION WHEN YOU PERFORM VEHICLE MAINTENANCE OR SERVICE.

The service information provided in this bulletin is to serve as a guideline to assist in completion of the final remedy. Refer to the Workhorse Service Manual for further repair information including any warnings and/or cautions.

WARRANTY INFORMATION

Claim Description---- Complete Customer Safety Recall Notice 61101-C; Replace the fuel-fill cap on the unused side of the dual-fill tank; evaluation of the functional fuel-fill side of the tank to verify that hose material from the unused fuel-fill cap was NOT integrated into the fill neck; If determined that the suspect fuel-fill cap hose material was used, it will also require replacement to finalize the repair.

Claim Type Submission: Safety Campaign

Labor Operation:---**T6051**--- 0.3 – 2.6 hours Replace fuel-fill cap assembly on the unused inlet of the 75- and 100-gallon fuel tank (0.6); Replacement of the suspect hose material on the functional fuel-fill side of the fuel tank - the tank will require lowering to install the new hose material (2.0); Fill out and apply campaign completion sticker to vehicle.

PART INFORMATION

Fuel-Fill Cap Kit Part Number **(CT COACHWORKS ONLY)**

Campaign Kit- PN W8006777

(NOTE: FOR COACH MANUFACTURER CT COACHWORKS ONLY; Requires Both Unused Fuel-Fill Cap and Fuel-Fill Side / Pipe Connection Replaced)

Kit Includes:

<u>Quantity per Vehicle</u>	<u>Description</u>
2	Fuel Fill Cap Hoses
3	Hose Clamps
1	Campaign Completion Sticker

Fuel-Fill Cap Kit Part Number **(ALL OTHER COACH MANUFACTURERS)**

Campaign Kit PN W8006776

(NOTE: FOR REPLACEMENT OF THE FUEL-FILL CAP UNUSED SIDE ONLY)

<u>Quantity per Vehicle</u>	<u>Description</u>
1	Fuel Fill Cap Hose
1	Hose Clamp
1	Campaign Completion Sticker



CAUTION: GASOLINE OR GASOLINE VAPORS ARE HIGHLY FLAMMABLE. A FIRE COULD OCCUR IF AN IGNITION SOURCE IS PRESENT. FAILURE TO VERIFY THERE ARE NO FUEL LEAKS AS NOTED ABOVE AFTER COMPLETING REPAIRS TO A FUEL SYSTEM MAY RESULT IN A FIRE THAT MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH. NEVER RETURN A VEHICLE TO AN OWNER WITHOUT PERFORMING ALL NECESSARY STEPS TO VERIFY THAT THERE ARE NO FUEL LEAKS PRESENT. DUE TO THE POSSIBILITY OF A FIRE OR EXPLOSION, HAVE A DRY CHEMICAL (CLASS B) FIRE EXTINGUISHER IN THE SERVICE BAY DURING ALL PROCEDURES INVOLVING THE FUEL SYSTEM AND FUEL.

REPAIR PROCEDURE

Fuel Fill Cap Replacement

The removal and installation instructions only serve as a guide. Additional operations may be required to perform this repair. Properly lifting and supporting the vehicle, removing the fuel tank straps to lower the tank (if required), as well as, other items that may require removal to access the fuel caps may be necessary. Refer to the Workhorse Service Manual for further information, including warning and/or cautions.

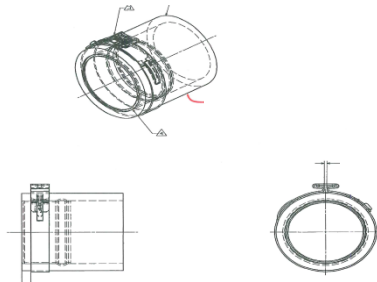


CAUTION: DO NOT WORK UNDER A VEHICLE ONLY SUPPORTED BY JACKS. JACKS CAN SLIP OR FALL OVER CAUSING SERIOUS INJURY OR DEATH.

Fuel Fill Cap Identification

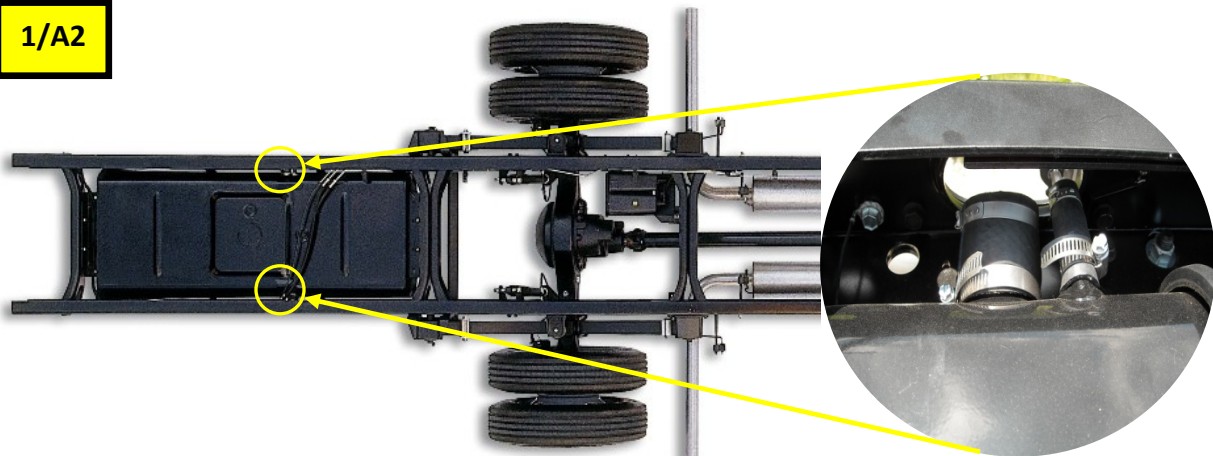
- a. The unused fuel-fill inlet is sealed with a fuel-fill cap assembly and may be on the left- or right-hand side of the fuel tank - depending on the configuration of the motorhome and final integration of the chassis. It is possible that both the left- and right-hand fill inlets of the fuel tank are used for adding fuel. Illustration 1/A1 and 1/A2 shows the location of the fuel tank fill and vent caps as delivered to the final manufacturer.

1/A1



HOSE - FUEL TANK FILLER, LENGTH 2.20 + 0.12

1/A2



Fuel Tank Draining Procedure



CAUTION: GASOLINE OR GASOLINE VAPORS ARE HIGHLY FLAMMABLE. A FIRE COULD OCCUR IF AN IGNITION SOURCE IS PRESENT. NEVER DRAIN OR STORE GASOLINE IN AN OPEN CONTAINER, DUE TO THE POSSIBILITY OF A FIRE OR EXPLOSION. DUE TO THE POSSIBILITY OF A FIRE OR EXPLOSION, HAVE A DRY CHEMICAL (CLASS B) FIRE EXTINGUISHER IN THE SERVICE BAY DURING ALL PROCEDURES INVOLVING THE FUEL SYSTEM AND FUEL.

- 1- If the fuel gauge reads full when the unit is brought into the service bay to complete this remedy procedure, the fuel level in the tank may be above the fuel-fill neck and the unused capped inlet. It will be required to lower the fuel level prior to proceeding with the repair to reduce the likelihood of a fuel spill and potential associated fire hazard.

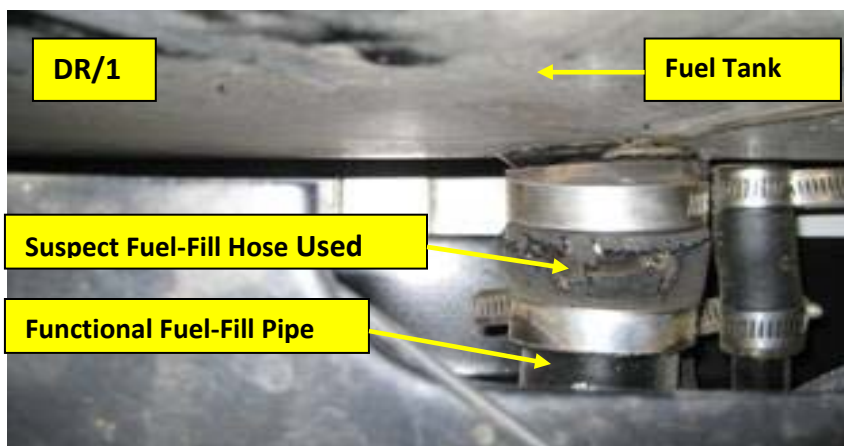


CAUTION: REFER TO BATTERY DISCONNECT CAUTION IN THE "CAUTIONS AND NOTICES" SECTION IN THE WORKHORSE SERVICE MANUAL.

- 2- Disconnect the negative battery cable.
- 3- If necessary, use a hand operated pump device in order to remove fuel through the filler neck. If the device is equipped with an electric pump, make sure to connect the static ground wire to a metal part of the fuel tank before you begin.

1.0 Fuel-Fill Cap Verification and Fuel-Fill Cap Hose Used to Integrate Functional Fill Side of Fuel Tank

- 1- Campaign 61101-C requires that all unused fuel-fill caps be replaced on the affected vehicles.
- 2- Some original equipment manufacturers (OEMs) may have incorporated the unused fuel-fill cap hose in to the functional fuel-fill side of the tank. You are required to inspect the functional fuel-fill side of the tank to verify that the suspect hose was not used to integrate the fill pipe (see photo DR/1). If the fuel-fill cap hose was NOT used on the fill side of the fuel tank, go to to step 1.1.
- 3- If the suspect fuel-fill cap hose was used as shown in photo DR/1, go to step 1.2.
- 4- Some OEMs may have installed functional fuel-fill assemblies on both the left- and right-hand side of the dual-fill fuel tank (option "NDF" for 75-gallon tanks and option "NNB" for 100-gallon tanks). If this is the case, you are required to inspect both the left- and right-side of the fuel tank and replace any suspect hose(s).
- 5- If a suspect fuel-fill cap hose(s) is identified (see photo DR/1), go to step 1.2



Fuel Fill Cap Removal and Installation / Unused Side of Fuel Tank

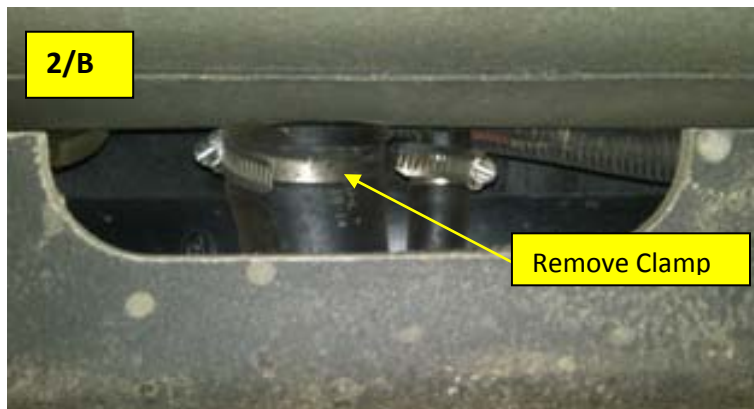


CAUTION: REFER TO BATTERY DISCONNECT CAUTION IN CAUTIONS AND NOTICES IN THE WORKHORSE SERVICE MANUAL



CAUTION: DO NOT WORK UNDER A VEHICLE ONLY SUPPORTED BY JACKS. JACKS CAN SLIP OR FALL OVER CAUSING SERIOUS INJURY OR DEATH.

- 1- If available install a memory retention power backup tool to retain radio and other device memory while the battery is disconnected.
- 2- Disconnect the negative battery cable. Refer to the battery disconnect instructions in the “Cautions and Notices” section in the Workhorse service manual.
- 3- Raise the vehicle. Do not work under the vehicle if it is only supported by shop jacks or the vehicle leveling jacks. Once the vehicle is raised, support it with appropriate weight-rated jack stands.
- 4- Determine the location of the unused fuel-fill inlet cap.
- 5- Remove the fuel-fill cap clamp at the fuel tank inlet as shown in photo 2/B.



- 6- Use a suitable pry bar to assist in working the fuel-fill cap loose from the tank inlet and remove by hand.
- 7- If the fuel cap is cracked and brittle avoid letting any debris fall in to the fuel tank inlet. Once the cap is removed use an inspection mirror to verify that the inlet is free from debris. If debris has entered into the inlet, carefully remove it - the flapper valve is the only thing preventing any debris from entering the tank. **DO NOT** use compressed air to remove any debris.
- 8- Once the inlet is clean and clear of debris, install the new fuel fill cap and clamp provided in campaign kit (PN W8006776) and a new clamp. **DO NOT** reuse the

old clamp. Verify that the fuel fill cap is fully seated around the inlet and tighten the clamp.

- 9- Reconnect the negative battery cable. If a memory retention device was **NOT** used, reset (to the extent possible) all devices that lost memory when the battery cable was disconnected. If a memory retainer was used, remove from the vehicle.

Replacement of Suspect Hose on the Functional Fuel-Fill Side of the Fuel Tank



CAUTION: REFER TO BATTERY DISCONNECT CAUTION IN CAUTIONS AND NOTICES IN THE WORKHORSE SERVICE MANUAL

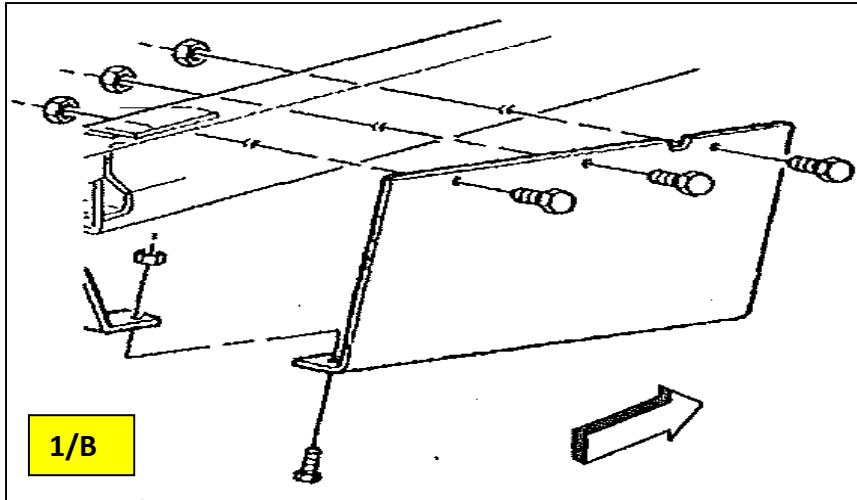


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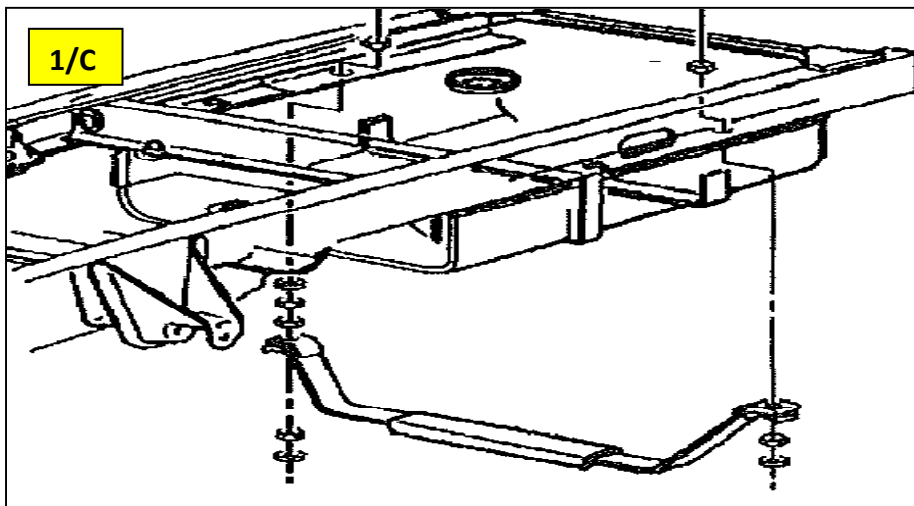
- 1- If available install a memory retention power backup to retain radio and other device memory while the battery is disconnected.
- 2- Disconnect the negative battery cable. Refer to the battery disconnect instructions in the "Cautions and Notices" section in the Workhorse service manual.
- 3- Raise the vehicle. Do not work under the vehicle if it is only supported by shop jacks or the vehicle leveling jacks. Once the vehicle is raised, support it with appropriate weight-rated jack stands.
- 4- Remove both fuel-fill hose clamps shown in photo 2/C.



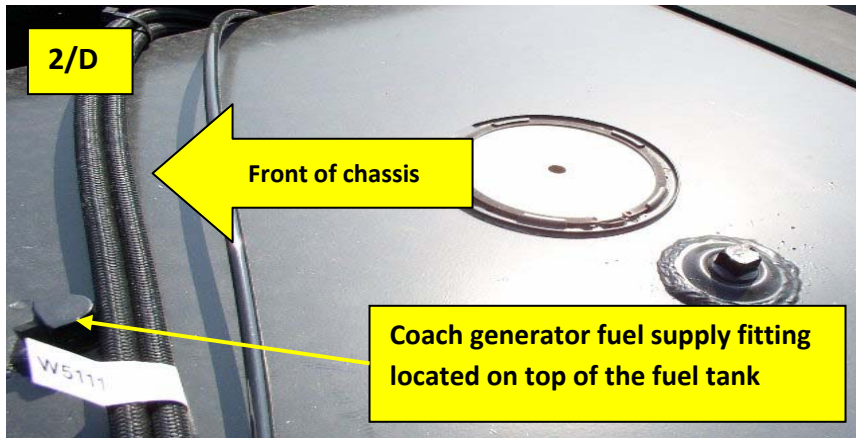
- 5- Use a suitable pry bar to assist in working the fuel-fill hose loose from the tank inlet and remove by hand.
- 6- Remove the fuel tank side shields, if equipped as show in illustration 1/B.



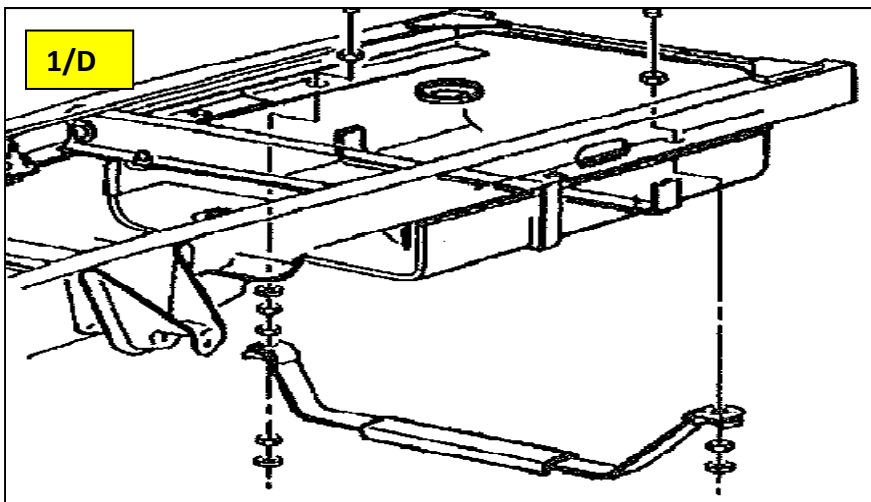
- 7- Support the fuel tank and remove the tank straps and insulator strips (if equipped) as shown in illustration 1/C.



- 8- Before lowering the fuel tank, determine the type of connection used by the OEM as a supply line from the fuel tank to the coach generator. This connection may be either a hard line or hose connection. The fuel tank supply connection is at the top of the fuel tank as shown in photo 2/D. Removal may be required to avoid damage to the generator fuel supply line. **DO NOT** kink or bend the supply line if removed. Verify the line is not pinched by the upper tank strap.



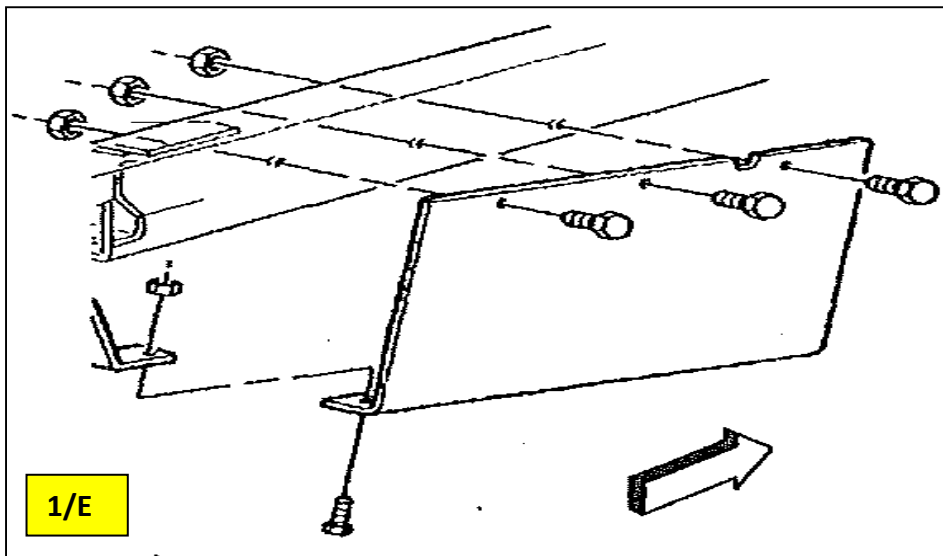
- 9- With the aid of an assistant, lower the fuel tank and move it towards the opposite frame rail to provide additional clearance.
- 10- Disconnect the vent hose (if required) and remove the fuel-fill hose.
- 11- If the fuel-fill hose is cracked and brittle avoid letting any debris fall in to the fuel tank inlet. Once the hose is removed use an inspection mirror to verify that the inlet is free from debris. If debris has entered into the inlet, carefully remove it - the flapper valve is the only thing preventing any debris from entering the tank. **DO NOT** use compressed air to remove any debris.
- 12- Once the inlet is clean and clear of debris, install the new fuel fill hose in Kit (PN W8006777) and new clamps. **DO NOT** reuse the old fuel-fill hose clamps. Verify that the fuel fill hose is fully seated around the inlet and fill pipe before tightening the clamps. If the vent hose was disconnected, replace the vent hose clamp and reconnect the vent hose. **DO NOT** reuse the old vent hose clamp.
- 13- Raise the tank fully under the vehicle and into position. Tighten the clamps on the fuel-fill and vent hoses.
- 14- Continue to support the fuel tank and install the tank straps and insulators making sure the insulators are in the correct position as shown in illustration 1/D. Install washers and T-bolt nuts finger tight.





NOTICE: TIGHTEN THE STRAP FASTENERS BY STEPS, ALTERNATING BETWEEN THE FASTENERS, UNTIL THE SPECIFIED TORQUE IS REACHED. A FAILURE TO TIGHTEN THE STRAP FASTENERS AS SPECIFIED WILL CAUSE THE BOTTOM OF THE TANK TO FLEX. THIS CAN RESULT IN THE FUEL GAUGE READING INCACURATELY AS THE FUEL LEVEL CHANGES AND OR CAUSE THE FUEL SENDER FLOAT TO DRAG ON THE INNER TANK BAFFLE INHIBITING IT TRAVEL.

- 15- Finalize the installation of the fuel tank straps and insulator strips and tighten to specification. (Tighten the strap nuts to 45Nm or 33 lb ft.)
- 16- Verify that the coach generator fuel supply line has not been kinked, bent, and or damaged during the procedure and installation.
- 17- Install the fuel tank side shield as shown in illustration 1/E.



- 18- Lower the vehicle and verify that wheel chocks are in place and the park brake is set.
- 19- Replenish any fuel removed from the fuel tank. Reinstall the functional fuel-fill cap.
- 20- Reconnect the negative battery cable. If a memory retention device was **NOT** used, reset (to the extent possible) all devices that lost memory when the battery cable was disconnected. If a memory retainer was used, remove from the vehicle.



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- 21- Check for fuel leaks using the following procedure:
- A) Turn the ignition switch to run (engine off) for 2 seconds;
 - B) Turn the ignition switch off and wait for 10 seconds;
 - C) Turn the ignition switch to run (engine off) for 2 seconds;
 - D) Turn the ignition switch off and wait for 10 seconds;
 - E) Check for fuel leaks; and then;
 - F) Start the vehicle and make a final check that there are no fuel leaks present.
- 22- If the coach generator fuel supply line was disconnected; start the generator and run for 5 minutes to verify it continues to run and the supply line has not been kinked limiting the fuel supply. While the generator is running check for fuel leaks.