

SERVICE MANUAL

DI80C **Stage IIIB** **Crawler Dozer**

PIN NDDCI8000 and above; PIN NEDCI8000 and above; PIN NFDCI8000 and above

Part number 47907878

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Replaces part number 47645621





SERVICE MANUAL

D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NDDC18000 -] , D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NEDC18000 -] , D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NFDC18000 -] , D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NDDC18000 -] , D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NEDC18000 -] , D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NFDC18000 -] , D180C Long Track (LT), Bulldozer (BD) Blade [NDDC18000 -] , D180C Long Track (LT), Bulldozer (BD) Blade [NEDC18000 -] , D180C Long Track (LT), Bulldozer (BD) Blade [NFDC18000 -] , D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NDDC18000 -] , D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NEDC18000 -] , D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NFDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NDDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NEDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NFDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NDDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NEDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NFDC18000 -]

Link Product / Engine

Product	Market Product	Engine
D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NDDC18000 -]	Europe	F4HFE613J*A007
D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NEDC18000 -]	Europe	F4HFE613J*A007
D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NFDC18000 -]	Europe	F4HFE613J*A007
D180C Long Track (LT), Bulldozer (BD) Blade [NDDC18000 -]	Europe	F4HFE613J*A007
D180C Long Track (LT), Bulldozer (BD) Blade [NEDC18000 -]	Europe	F4HFE613J*A007
D180C Long Track (LT), Bulldozer (BD) Blade [NFDC18000 -]	Europe	F4HFE613J*A007
D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NDDC18000 -]	Europe	F4HFE613J*A007
D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NEDC18000 -]	Europe	F4HFE613J*A007
D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NFDC18000 -]	Europe	F4HFE613J*A007
D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NDDC18000 -]	Europe	F4HFE613J*A007
D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NEDC18000 -]	Europe	F4HFE613J*A007
D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NFDC18000 -]	Europe	F4HFE613J*A007
D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NDDC18000 -]	Europe	F4HFE613J*A007
D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NEDC18000 -]	Europe	F4HFE613J*A007
D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NFDC18000 -]	Europe	F4HFE613J*A007
D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NDDC18000 -]	Europe	F4HFE613J*A007

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Product	Market Product	Engine
D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NEDC18000 -]	Europe	F4HFE613J*A007
D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NFDC18000 -]	Europe	F4HFE613J*A007

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INTRODUCTION

Foreword - Important notice regarding equipment servicing

D180C

WE

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given, and using, whenever possible, the special tools.

Anyone who performs repair and maintenance operations without complying with the procedures provided herein shall be responsible for any subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional, or local dealers, reject any responsibility for damages caused by parts and/or components not approved by the manufacturer, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer. In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages caused by parts and/or components not approved by the manufacturer.

The manufacturer reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication but are subject to change without notice.

In case of questions, refer to your NEW HOLLAND CONSTRUCTION Sales and Service Networks.

Safety rules

D180C

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Personal safety





This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.



SERVICE MANUAL

Engine

D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NDDC18000 -] , D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NEDC18000 -] , D180C Extra Long Track (XLT), Bulldozer (BD) Blade [NFDC18000 -] , D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NDDC18000 -] , D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NEDC18000 -] , D180C Extra Long Track (XLT), Power Angle Tilt (PAT) Blade [NFDC18000 -] , D180C Long Track (LT), Bulldozer (BD) Blade [NDDC18000 -] , D180C Long Track (LT), Bulldozer (BD) Blade [NEDC18000 -] , D180C Long Track (LT), Bulldozer (BD) Blade [NFDC18000 -] , D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NDDC18000 -] , D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NEDC18000 -] , D180C Long Track (LT), Power Angle Tilt (PAT) Blade [NFDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NDDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NEDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Bulldozer (BD) Blade [NFDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NDDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NEDC18000 -] , D180C Wide Track (WT) / Low Ground Pressure (LGP), Power Angle Tilt (PAT) Blade [NFDC18000 -]

Engine - Remove

D180C

WE

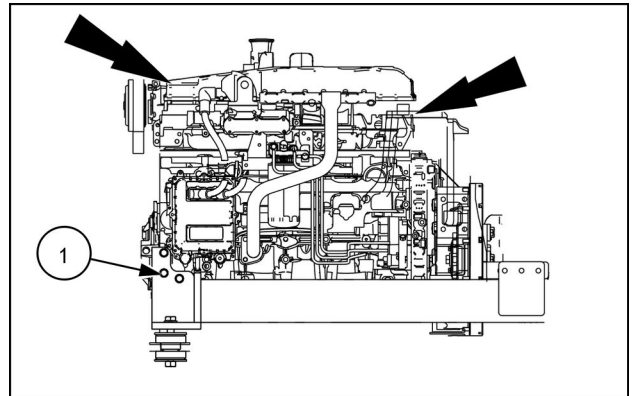
Prior operation:

Frame - Remove (39.100)

NOTICE: The engine weighs approximately **631 kg (1391 lb)**. Use appropriate lifting equipment to prevent personal injury or property damage.

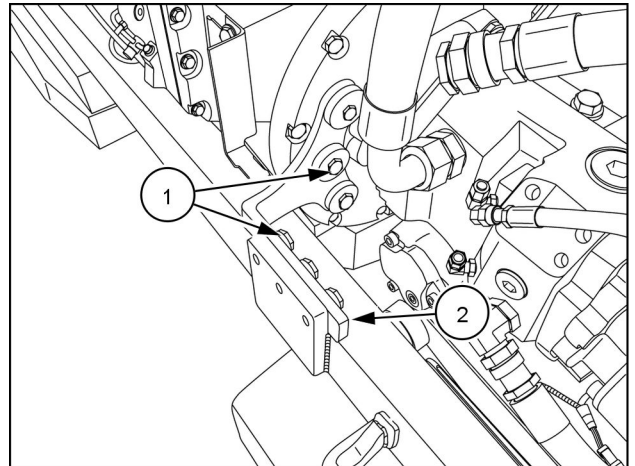
NOTICE: The engine must be balanced as shown, or personal injury or property damage will occur.

1. Attach an appropriate lifting device to the engine lift points.
2. Support the front of the hydraulic pump stack with an appropriate lifting device or stand.
3. Remove the bolts and washers **(1)** from the right front engine-to-frame cradle mount and the left front engine-to-frame cradle mount.



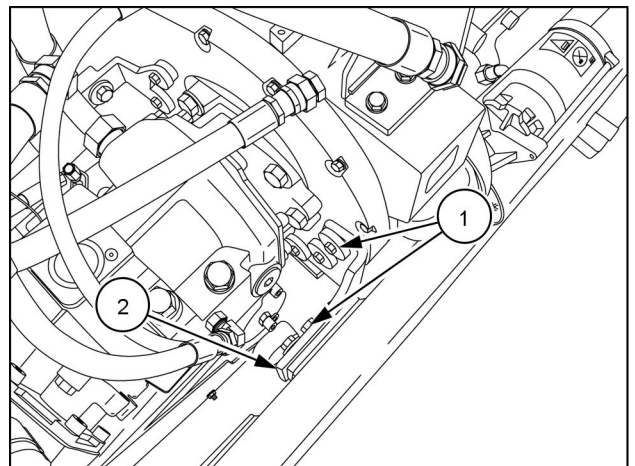
RAIL14DOZ0447AA 1

4. Remove the mounting bolts and washers **(1)** from the left side engine-to-frame cradle mounting bracket **(2)**. Remove the mounting bracket.



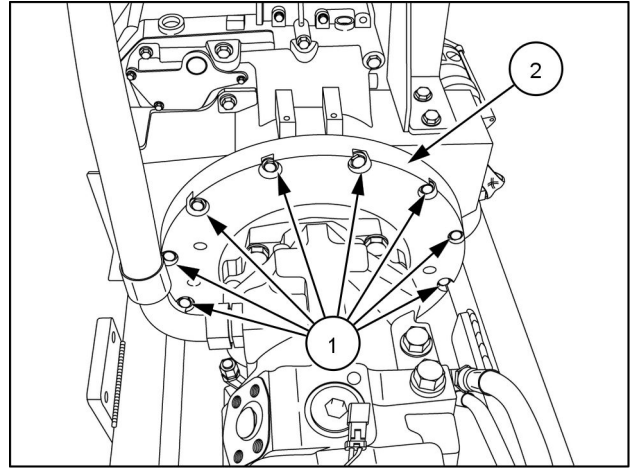
RAIL14DOZ0209AA 2

5. Remove the mounting bolts and washers **(1)** from the right side engine-to-frame cradle mounting bracket **(2)**. Remove the bracket.



RAIL14DOZ0202AA 3

6. Remove the mounting bolts and washers **(1)** from the engine-to-pump stack adapter plate **(2)**.
7. Slowly move the engine forward to separate it from the hydrostatic drive pump stack, and remove the engine from the frame cradle.



RAIL14DOZ0203AA 4

8. Remove the tandem pump flexible coupling assembly from the flywheel.

Next operation:

Engine - Install (10.001)

Engine - Install

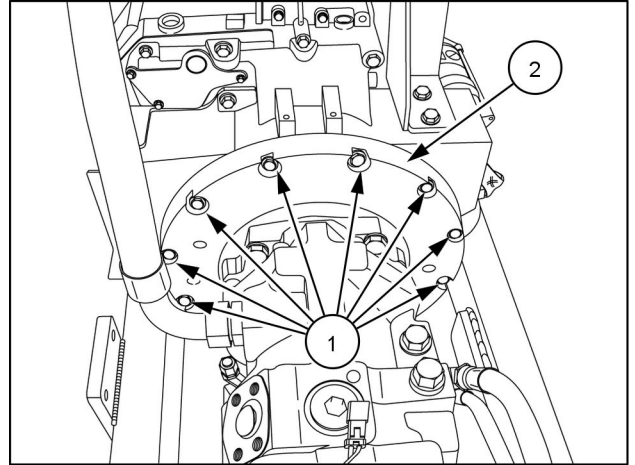
D180C

WE

Prior operation:

Engine - Remove (10.001)

1. Attach the tandem pump flexible coupling assembly to the flywheel. Torque the bolts to **41 - 50 N·m (30 - 37 lb ft)**
2. Slowly lower the engine into the frame cradle and connect the engine to the hydrostatic drive pump stack.
3. Install the mounting bolts and washers (**1**) into the engine-to-pump stack adapter plate (**2**). Torque the bolts to **46 - 62 N·m (34 - 46 lb ft)**.

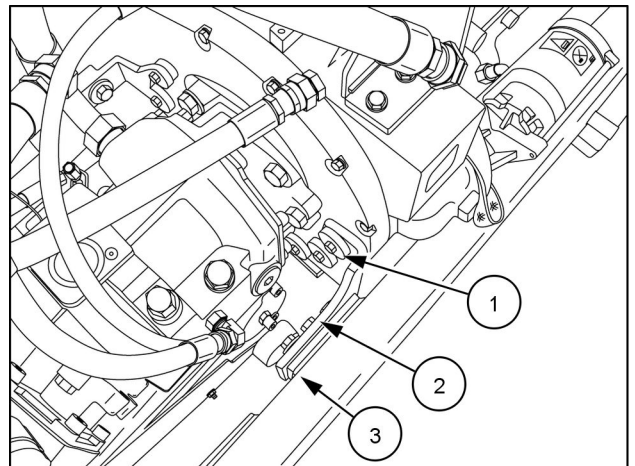


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4. Use a level and verify that the engine mounting frame cradle is sitting on a level surface.

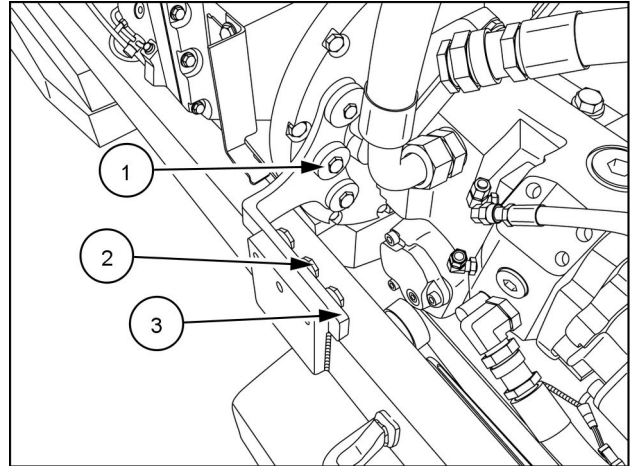
NOTE: Before applying the torque to the mid engine-to-frame cradle mount bracket bolts and the front engine-to-mount frame cradle bolts to their final specification, make sure that the frame cradle is level.

5. Install the right side engine-to-frame cradle mounting bracket. Apply **LOCTITE® 242®** to the engine-to-frame cradle mounting bracket bolts. Torque the three bolts (**1**) **91 - 123 N·m (67 - 91 lb ft)** to the adapter plate, and the three bolts (**2**) **225 - 305 N·m (166 - 225 lb ft)** to the right side engine-to-frame cradle mounting bracket (**3**).



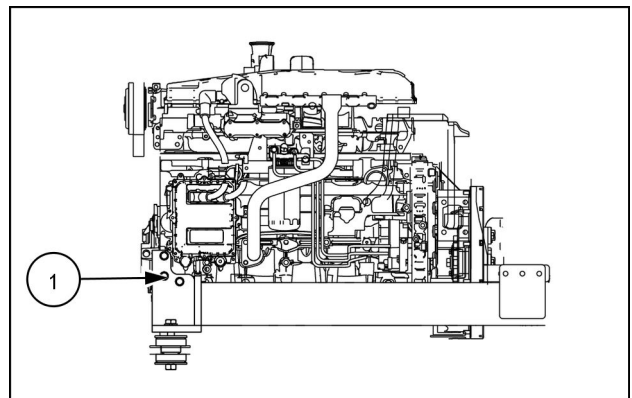
RAIL14DOZ0202AA 2

6. Install the left side engine-to-frame cradle mounting bracket. Apply **LOCTITE® 242®** to the engine-to-frame cradle mounting bracket bolts. Torque the three bolts **(1) 91 - 123 N·m (67 - 91 lb ft)** to the adapter plate, and the three bolts **(2) 225 - 305 N·m (166 - 225 lb ft)** to the left side engine-to-frame cradle mounting bracket **(3)**.



RAIL14DOZ0209AA 3

7. Install the bolts and washers **(1)** into the right front engine-to-frame cradle mount and the left front engine-to-frame cradle mount. Torque the bolts to **107 - 123 N·m (79 - 91 lb ft)**.



RAIL14DOZ0447AA 4

8. Remove the support from the hydraulic pump stack. Remove the lifting device from the engine.

Next operation:
Frame - Install (39.100)

Fuel tank - Drain fluid - Fuel tank sediment

D180C

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⚠ WARNING

Hot liquid under pressure!

Fuel in the high pressure fuel line is still under pressure immediately after you shut down the engine. Before performing any maintenance or inspection, wait for 2 minutes after engine shutdown to allow the pressure to drop.

Failure to comply could result in death or serious injury.

W0249A

⚠ WARNING

Chemical hazard!

When handling fuel, lubricants, and other service chemicals, follow the manufacturer's instructions. Wear Personal Protective Equipment (PPE) as instructed. Do not smoke or use open flame. Collect fluids in proper containers. Obey all local and environmental regulations when disposing of chemicals.

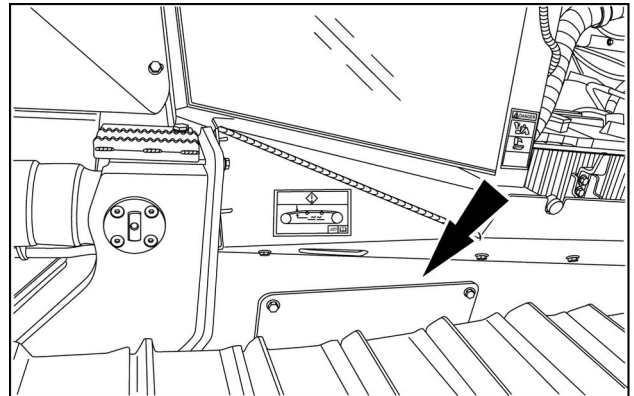
Failure to comply could result in death or serious injury.

W0371A

Prior operation:

Keep all unauthorized personnel clear of the area. Park the machine on level ground, in neutral with the parking brake applied, and the attachment lowered to the ground. Make sure that all residual pressure is relieved from circuits before beginning maintenance.

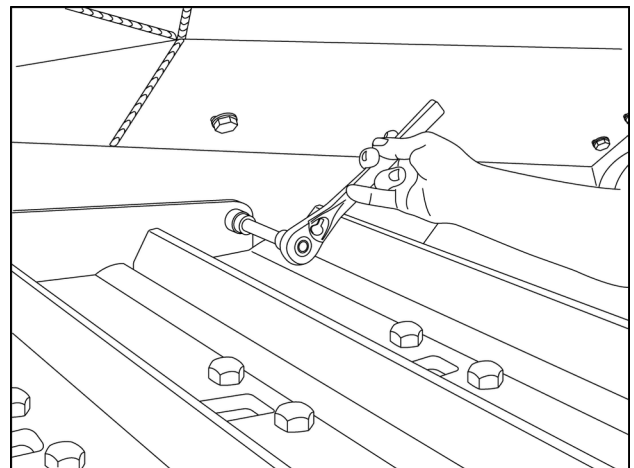
1. On machines with the environmental drain option, a fuel tank drain hose is supplied and located behind a bolt-on panel on the left side of the machine. Have a suitable container ready to collect the condensation and fuel. Dispose of the waste following local regulations.



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NOTE: On machines that are not equipped with the environmental drain option, connect a drain hose to the fuel tank drain valve. The drain valve is accessible through the right rear access panel or by removing the cab floor access panel and tilting back the operator's seat.

2. Remove the bolts and remove the panel.



RAIL12DOZ0410AA 2



Suggest:

If the above button click is invalid.

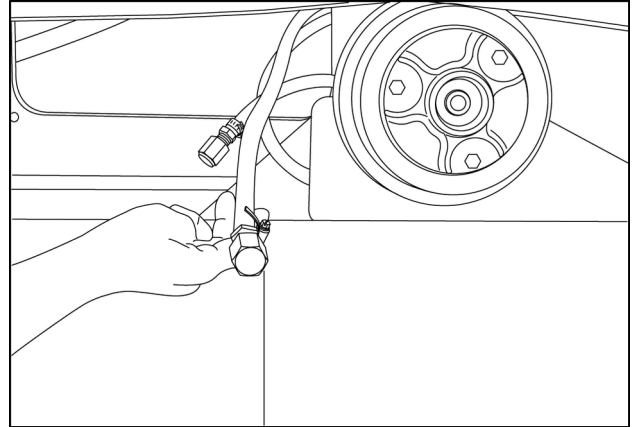
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3. Pull the fuel tank drain hose forward, and remove the fitting.
4. Open the fuel shut off valve located on the fuel tank, and drain the water and sediment into a suitable container.



RAIL12DOZ0412AA 3

NOTE: The fuel tank shut off valve is accessible through the right rear access panel or by removing the cab floor access panel and tilting back the seat.

5. Turn the shut off valve to the closed position after only clean fuel is discharged. Replace the fitting on the hose.
6. Replace the hoses within the panel and wire tie, if necessary.
7. Check for leaks.
8. Replace the bolts and the cover panel.

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