



# Mud Pump Speed Control Kit

## DD4045 Directional Drill

Model No. 136-1599

### Installation Instructions

#### ⚠ WARNING

#### CALIFORNIA Proposition 65 Warning

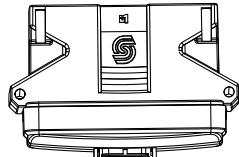
This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

## Preparing the Machine

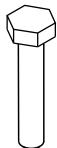
1. Move the machine to a level surface.
2. Shut off the engine and remove the key.
3. Set the battery-disconnect switch to the OFF position.

## Installing the Kit

### Loose Parts



1x



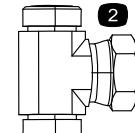
2x



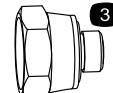
2x (washer)  
2x (nut)



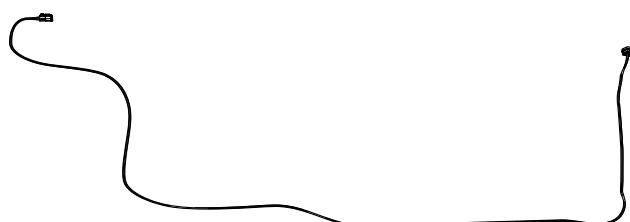
1x



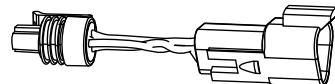
1x



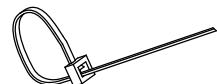
1x



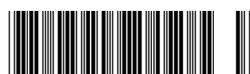
1x



1x

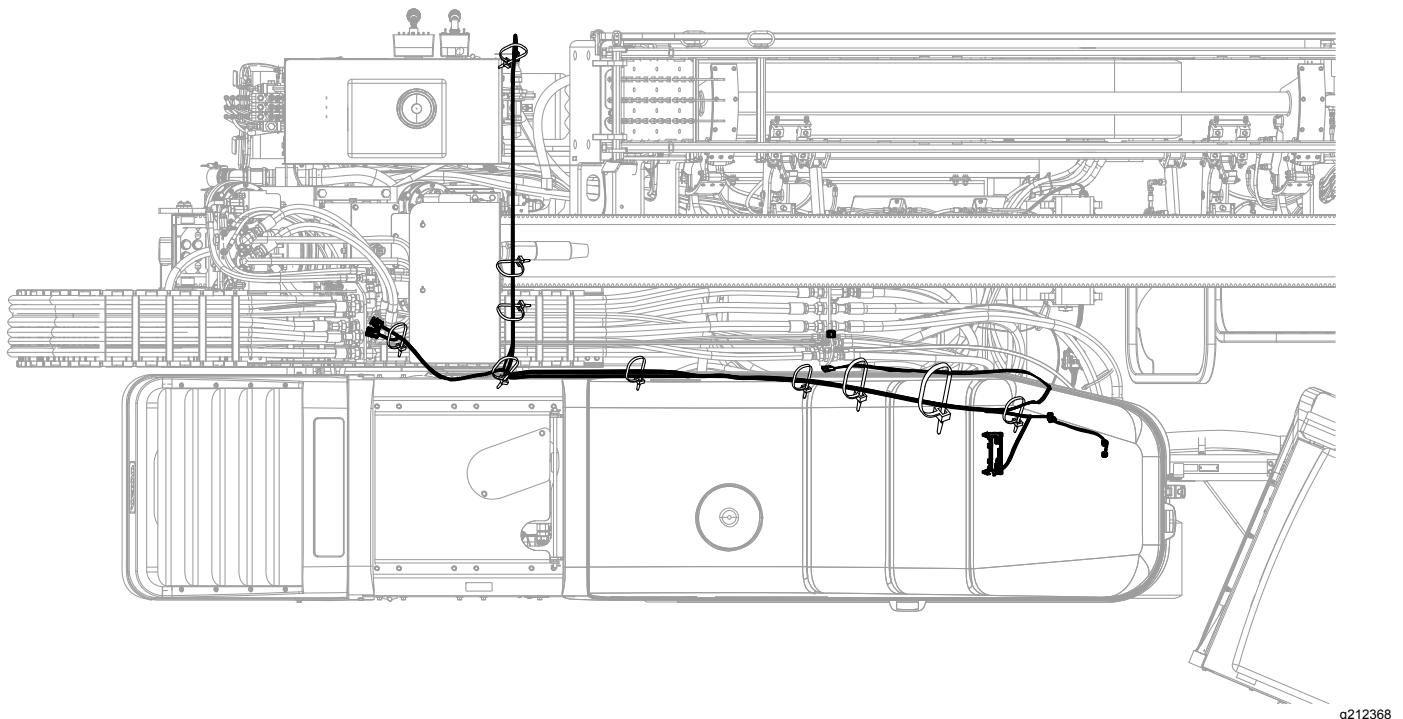


10x

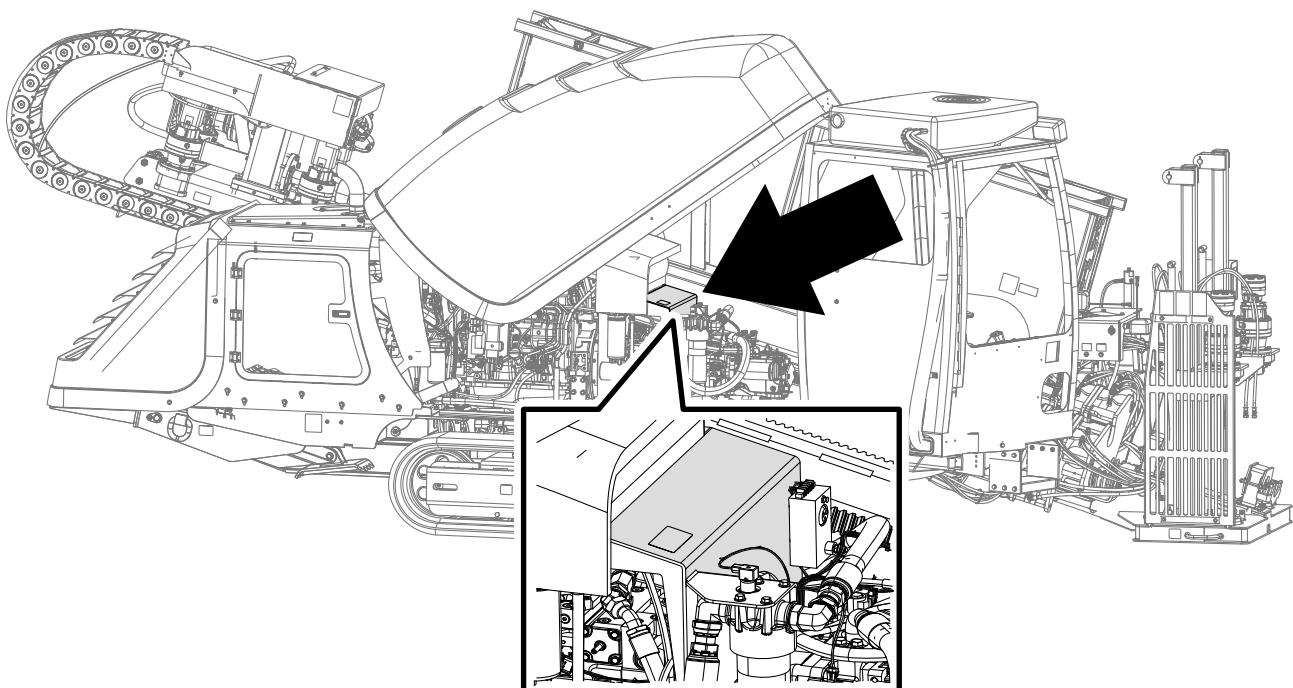


# Installing the Microprocessor

**Important:** Do not route the wire harness near moving parts where it will be pinched or cut.

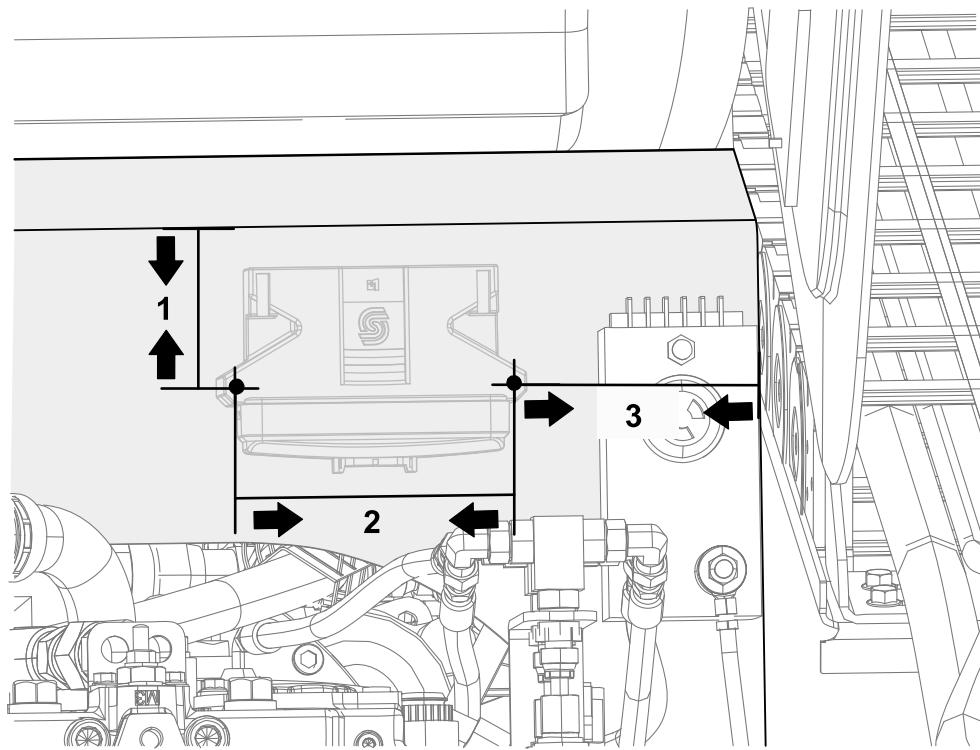


**Figure 1**  
Overview of the Wire Harness



**Figure 2**  
Location of Microprocessor Installation

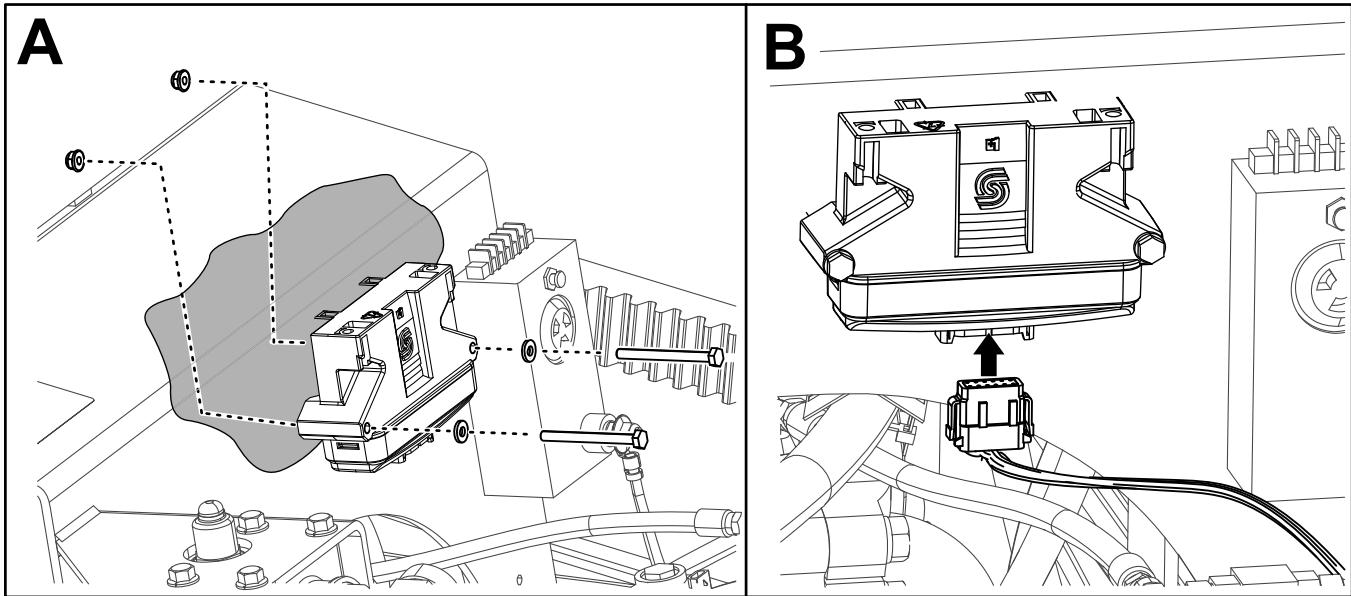
1. Drill 2 holes into the panel ([Figure 2](#)) using the measurements from [Figure 3](#).



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**Figure 3**

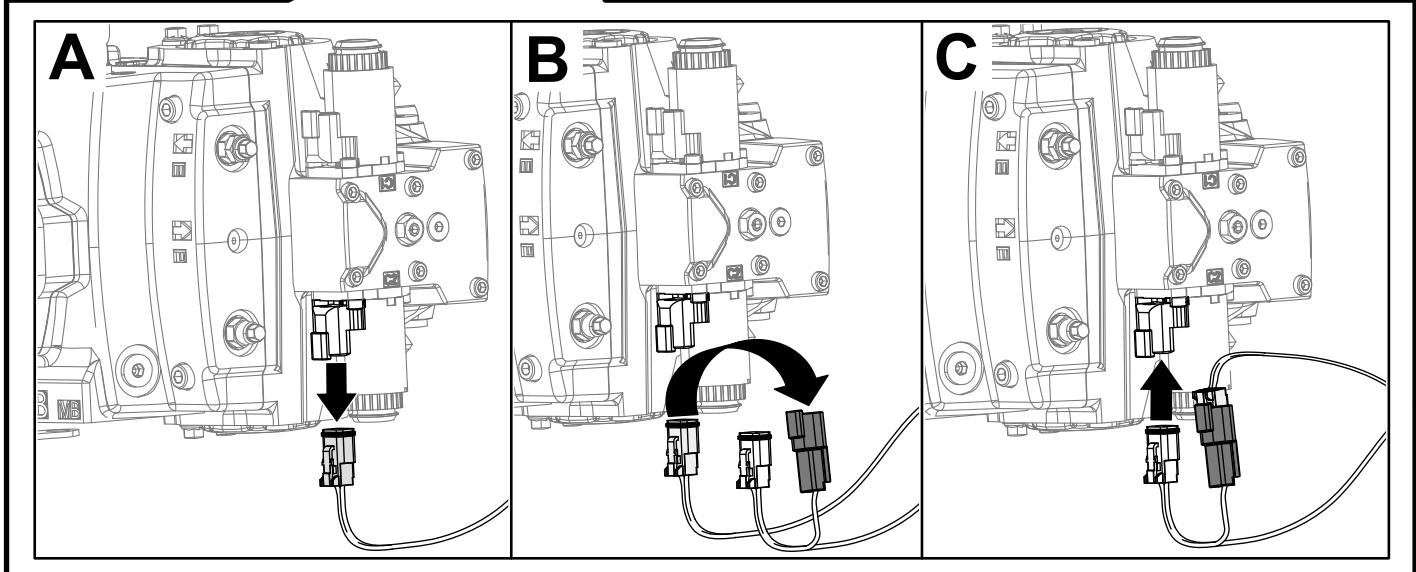
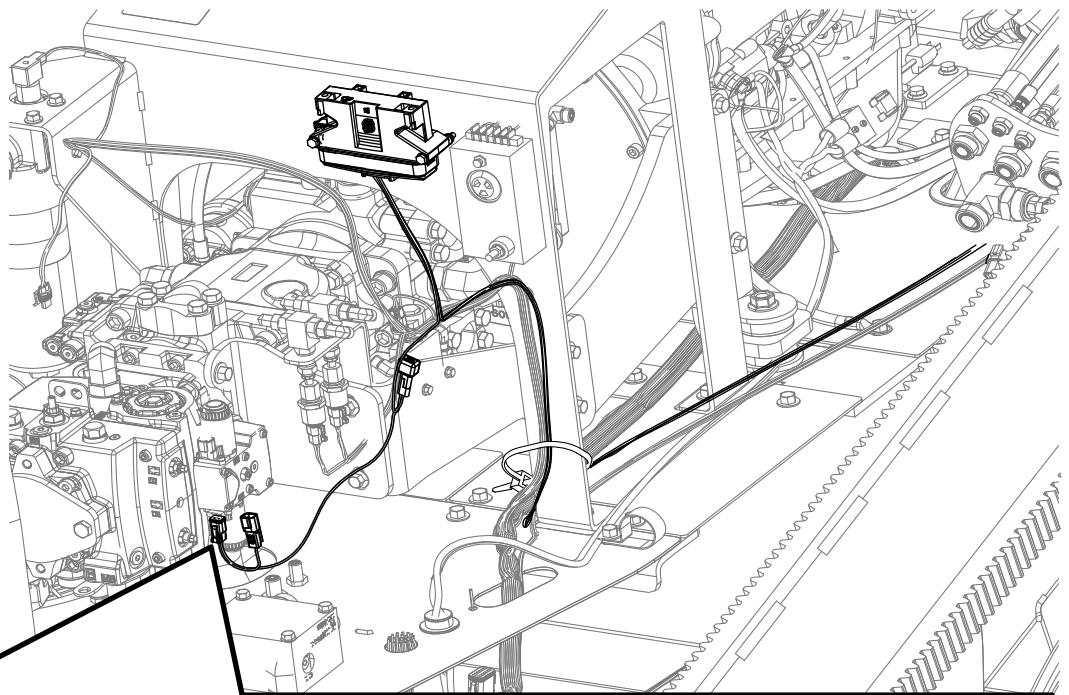
1. 3-1/2 inches from the top edge to the center of the hole.
2. 5-11/16 inches from the center of 1 hole to the center of the other hole.
3. 5-1/8 inches from the edge of the panel to the center of the hole.
2. Secure the microprocessor to the panel ([Figure 2](#)) using 2 bolts (1/4 x 2 3/4 inches), 2 washers, and 2 nuts (1/4 inch) as shown in Box A of [Figure 4](#).
3. Plug the wire harness into the microprocessor as shown in Box B of [Figure 4](#).



**Figure 4**

## Connecting the Wire Harness to the Hydrostat Pump

1. Route the wire harness down to the hydrostat pump.
2. Remove the current wire harness from the hydrostat pump (Box A of [Figure 5](#)).
3. Plug the current wire harness into the new wire harness (Box B of [Figure 5](#)).
4. Install the new wire harness connector in the hydrostat pump (Box C of [Figure 5](#)).



**Figure 5**

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## Disconnecting the Transducer

Route the wire harness along the frame with the current wire harnesses (Figure 6 and Figure 7).

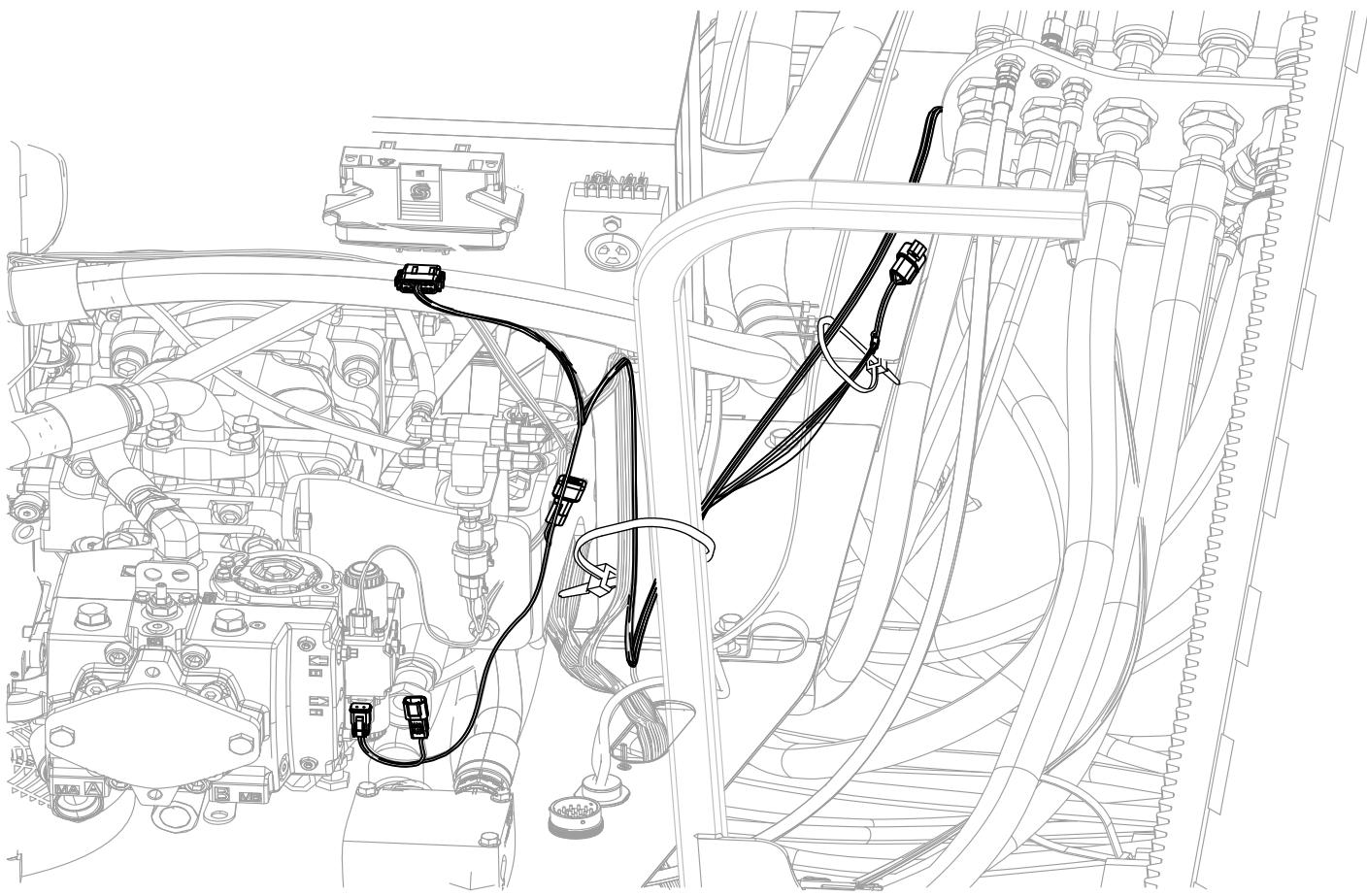


Figure 6

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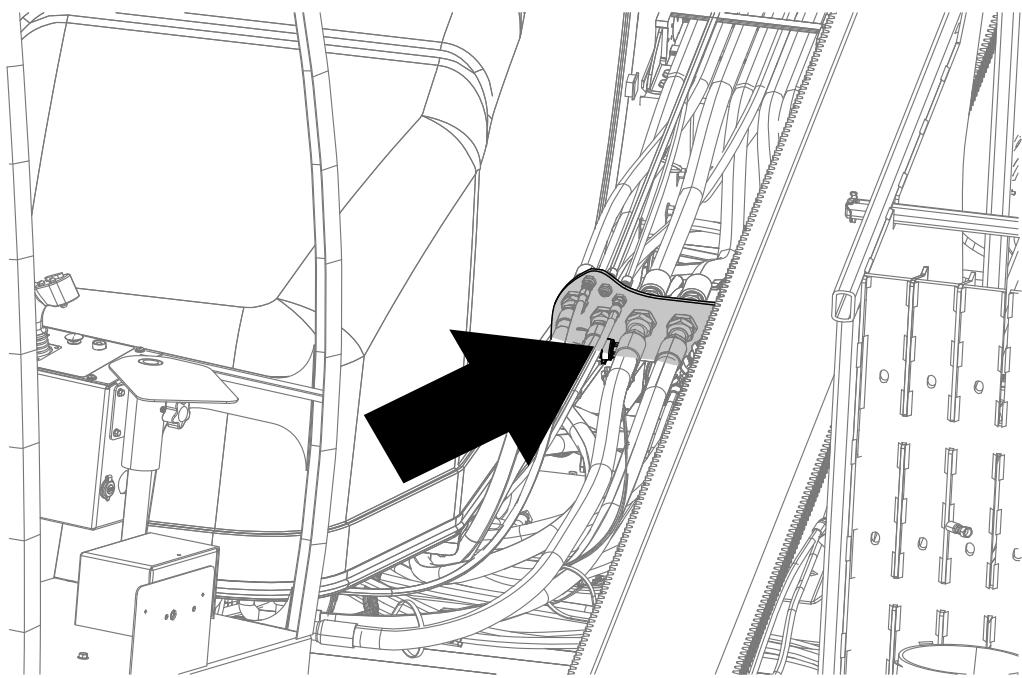


Figure 7

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1. Locate the transducer below the bulkhead, just above the fuel-tank sending unit (Figure 7).
2. Disconnect the wire harness from the transducer fitting (Box A of Figure 8).
3. Remove the transducer assembly and fitting currently installed (Box A of Figure 8).
4. Install the cap onto the port (Box B of Figure 8).
5. Move the current harnesses over to the frame and connect it to the new wire harness (Box C of Figure 8).
6. Secure the wire harness using cable ties.

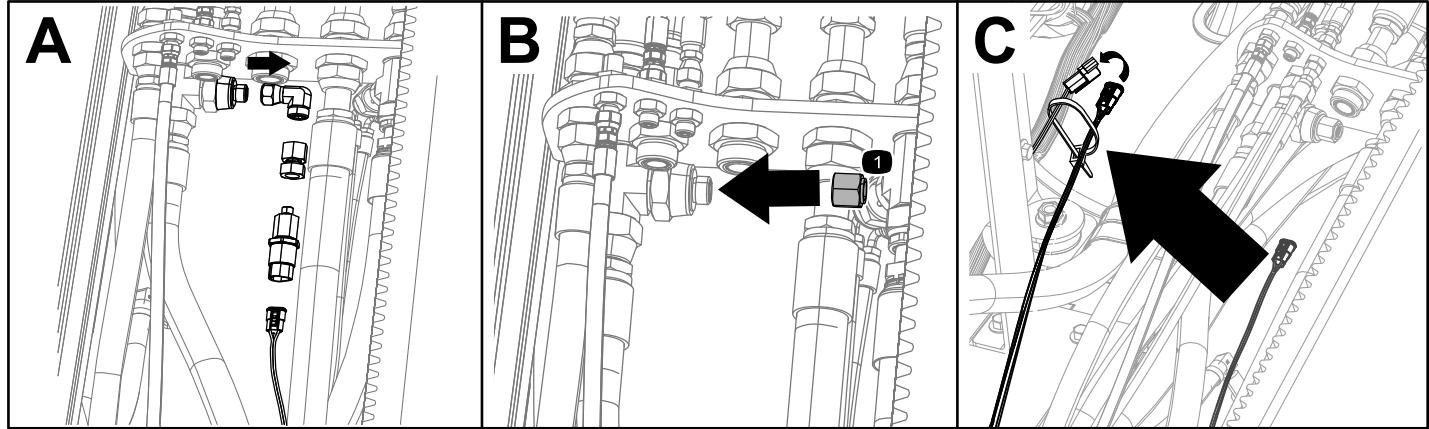


Figure 8

## Installing the Transducer

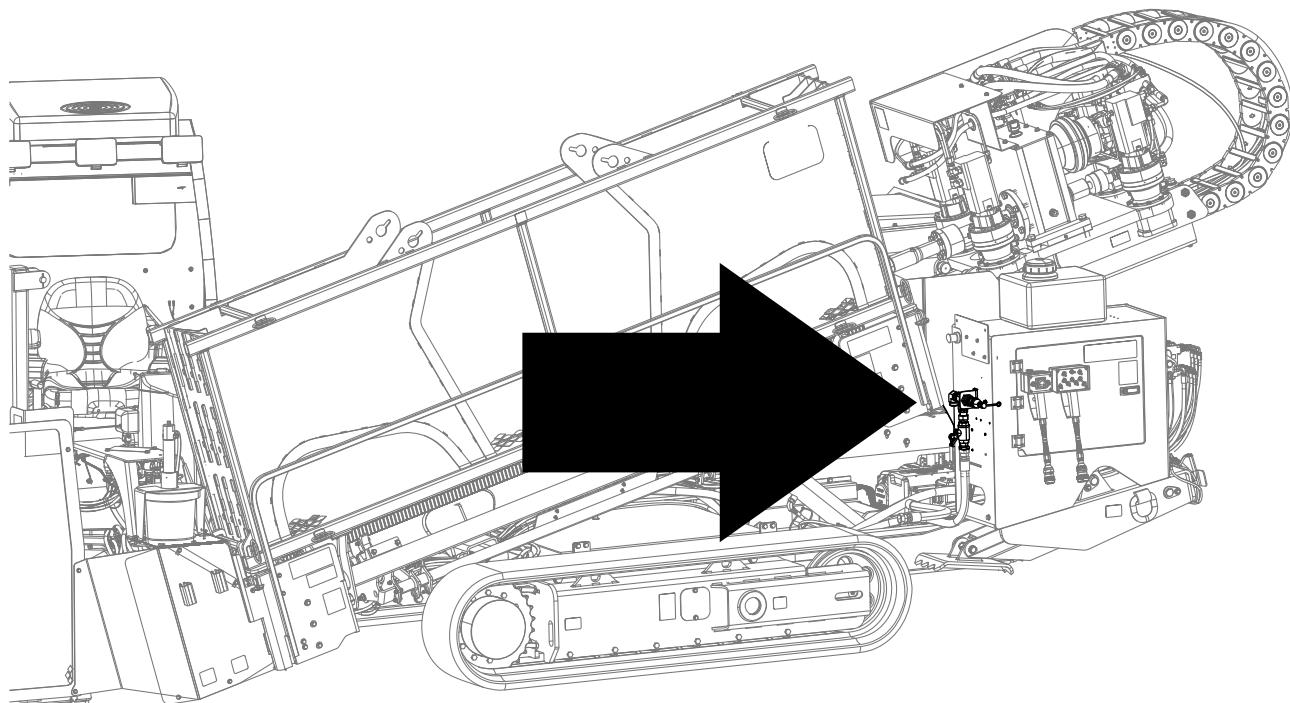
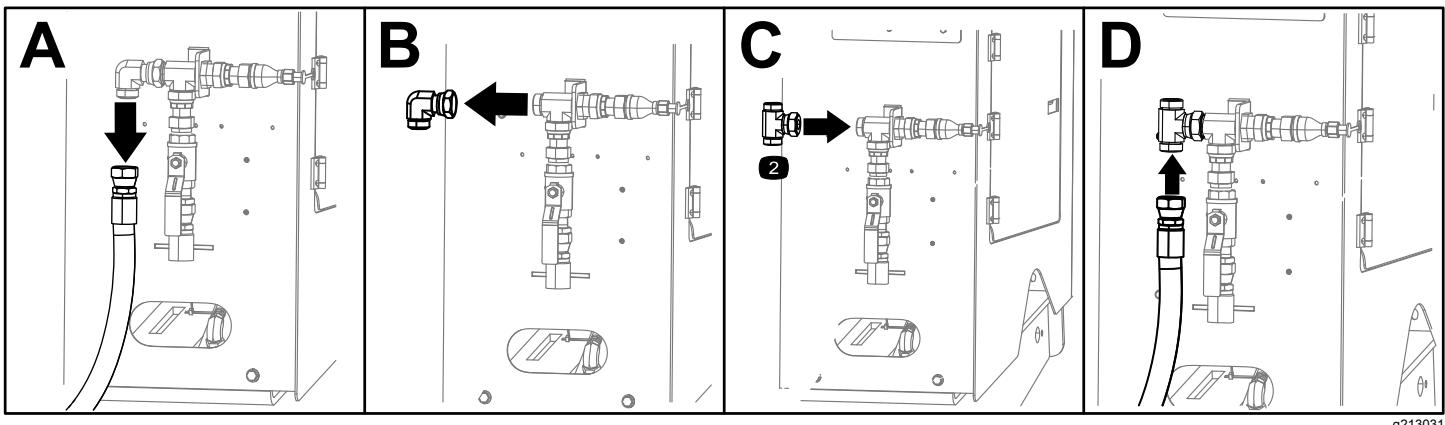


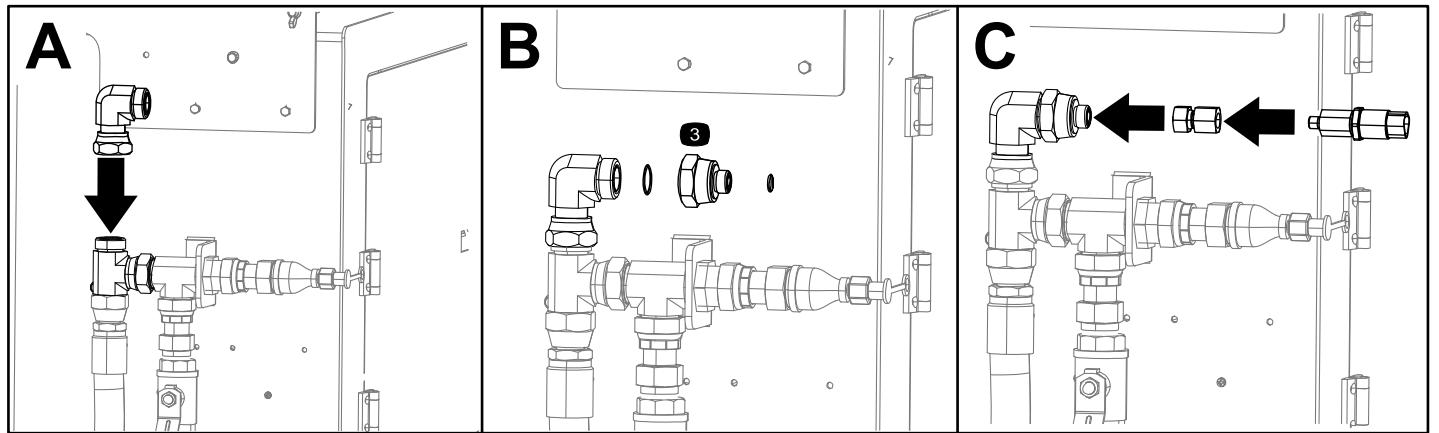
Figure 9  
Install transducer

1. Remove the hose from the fitting on the rear control weldment (Box A of [Figure 10](#)).



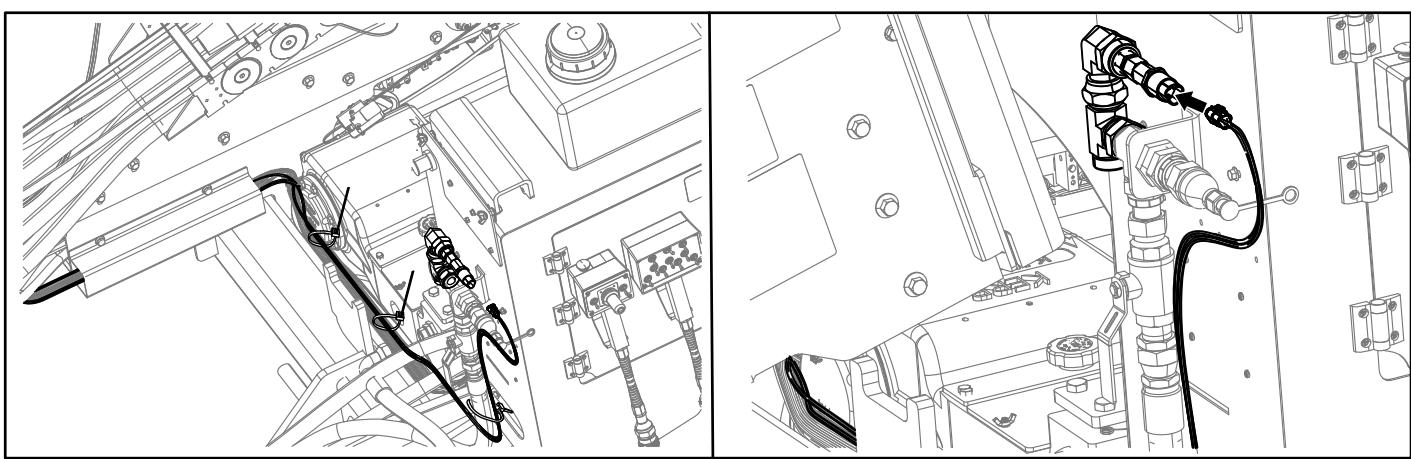
**Figure 10**

2. Remove the fitting from the rear control weldment (Box B of [Figure 10](#)).
3. Install the tee fitting on the rear control weldment (Box C of [Figure 10](#)).
4. Install the hose onto the tee fitting (Box D of [Figure 10](#)).
5. Install the fitting removed in 2, shown in Box B of [Figure 10](#) (Box A of [Figure 11](#)).



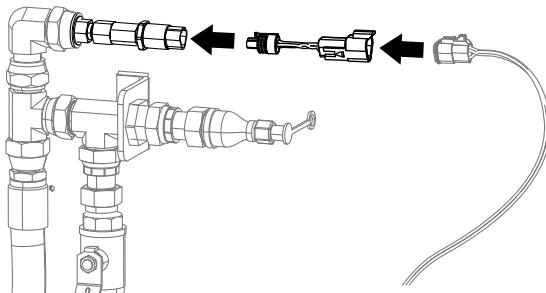
**Figure 11**

6. Install the reducer and O-rings (Box B of [Figure 11](#)).
7. Install the transducer assembly removed in 3 of [Disconnecting the Transducer \(page 5\)](#) (Box C of [Figure 11](#)).
8. Route the harness along the current harnesses over to the transducer ([Figure 12](#)).



**Figure 12**

9. If the harness does not fit into the transducer, connect the harness and transducer using the adapter (Figure 13).

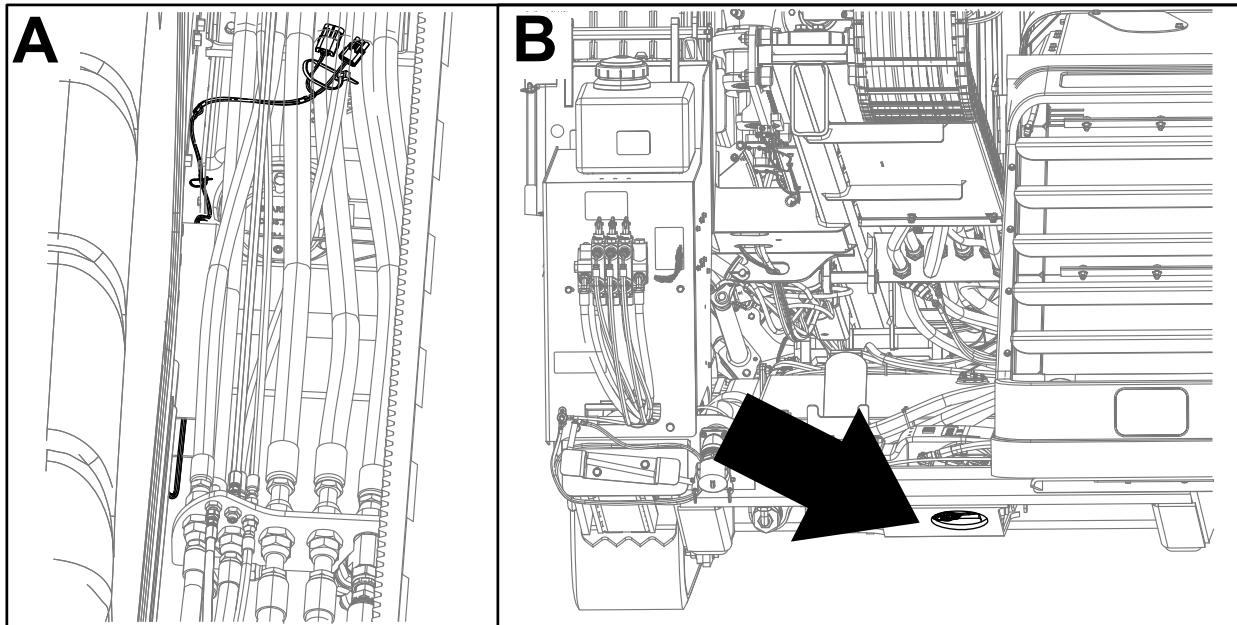


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Figure 13

## Connect the Wire Harness to the Mud Pump Sensor

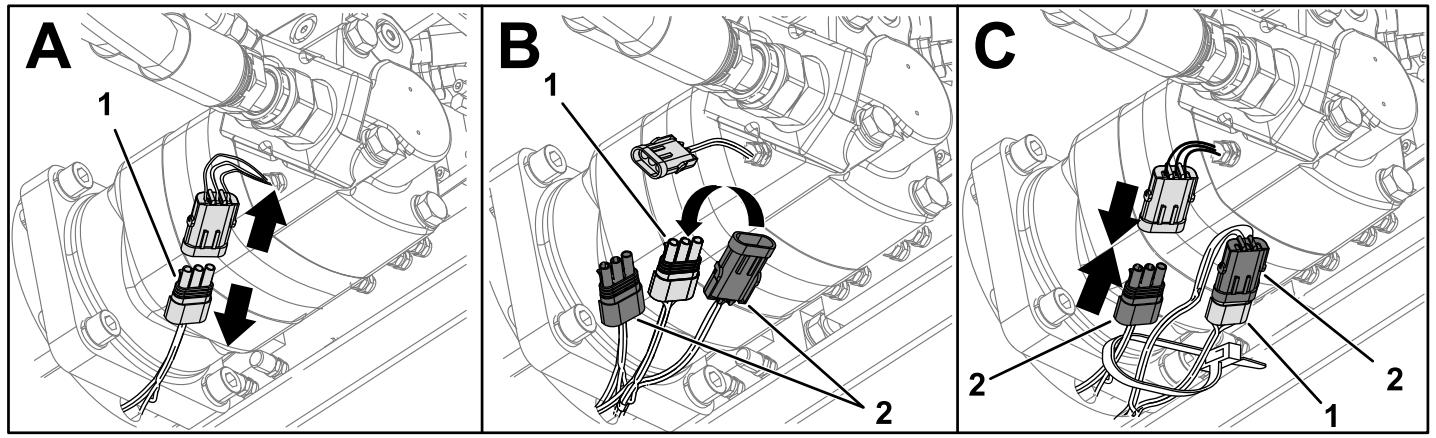
Route the harness to the mud pump sensor (Boxes A and B of Figure 14) at the rear of the machine.



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Figure 14

1. Disconnect the current harness (Box A of Figure 15).
2. Connect the current harness to the new harness (Box B of Figure 15).
3. Connect the new harness to the mud pump sensor (Box C of Figure 15).



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Figure 15

1. Current harness

2. New harness