



# Operator's Manual

## Hydra Borer Maxi Sneaker 370 Vibratory Plow

**Model**

**25532E**

**25532T**



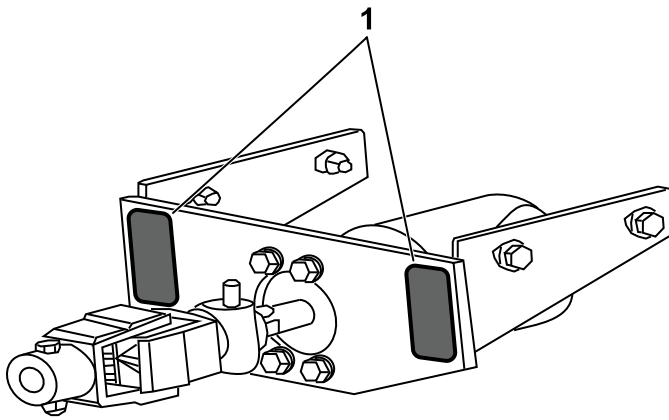


# Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.

## Safety Decal Location



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① Decal147-5746

### Decal Part: 147-5746



decal147-5746

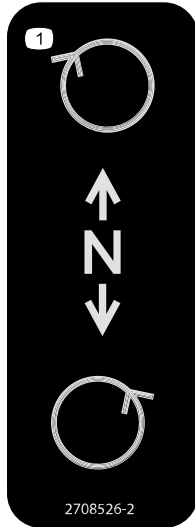
① Rotating shaft hazard; keep away from moving parts.

## Decal Part: 147-5747



decal147-5747

## Decal Part: 147-5748



decal147-5748

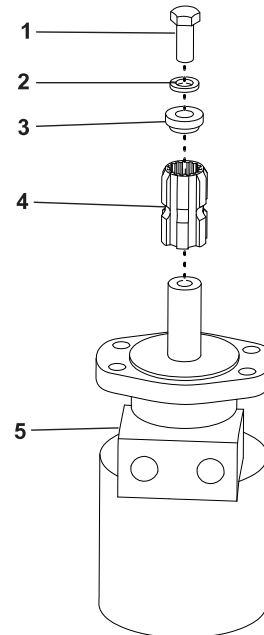
① Push the lever forward to rotate the drill clockwise; Pull the lever rearward to rotate the drill counterclockwise.

# 1 Assembling the Hydra Borer Motor and Installing the Motor Bracket

## Parts Required

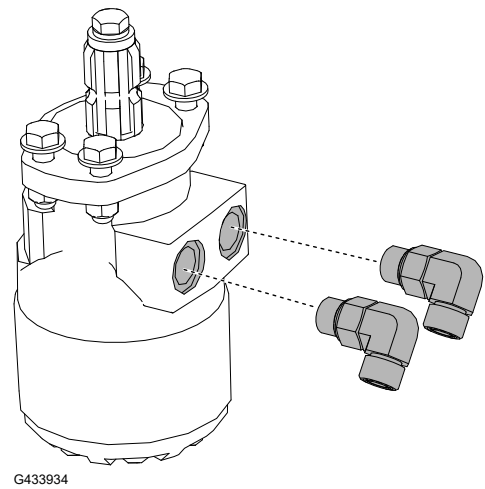
1	Motor
1	Adapter
1	Retainer adapter
1	Lock washer
1	Bolt (1/2 x 1-1/4 inches)
2	90-degree elbow connector
1	Motor bracket
4	Bolt (1/2 x 1-3/4 inches)
4	Flat washer (1/2 inch)
4	Locknut (1/2 inch)

- Grease the shaft of the motor (5) and place the adapter (4) onto the motor
- Install the retainer adapter (3) on the motor.
- Place the lock washer (2) on the bolt (1/2 x 1-1/4 inches) (1) and apply thread-locking adhesive to the bolt.
- Secure the bolt to the adapters and torque to **160 to 165 N·m (118 to 122 ft-lb)**.



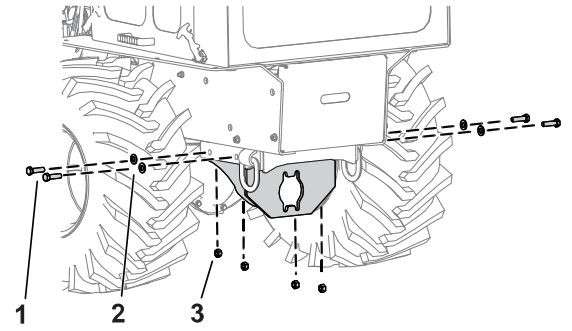
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5. Install 90-degree elbow connectors into the ports on the motor



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6. Secure the motor bracket to the machine using 4 bolts (1/2 x 1-3/4 inch) ①, 4 flat washers (1/2 inch) ②, and 4 locknuts (1/2 inch) ③.



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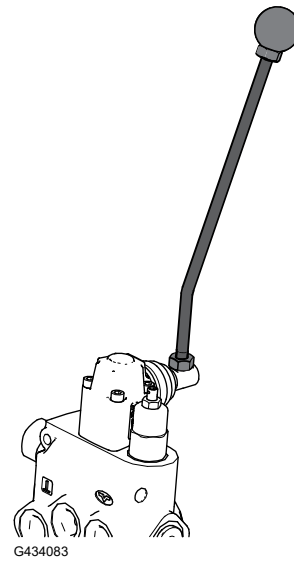
## 2

# Installing the Hydraulic Valve

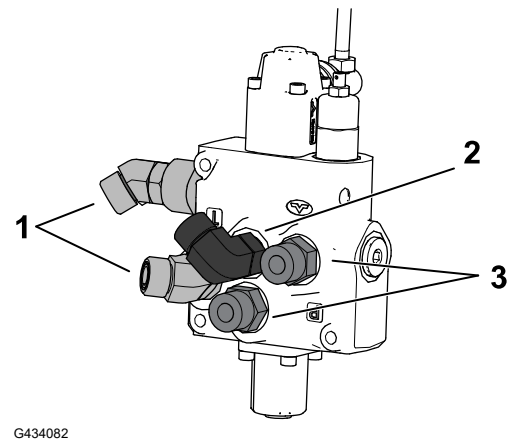
### Parts Required

1	Valve
1	Knob
2	Nuts (M10)
1	Lever
1	Valve bracket
3	Bolt (M8)
3	Nut (M8)
1	90-degree connector
2	45-degree connector
2	Straight connector

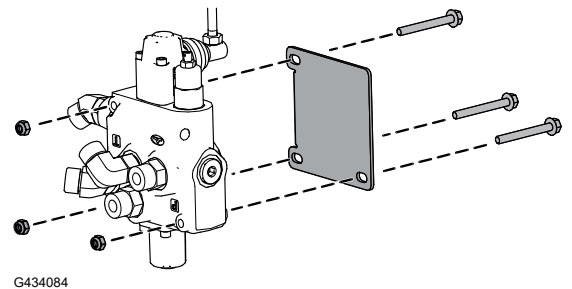
1. Install the handle lever to the hydraulic valve using 2 nuts (M10) and the knob.



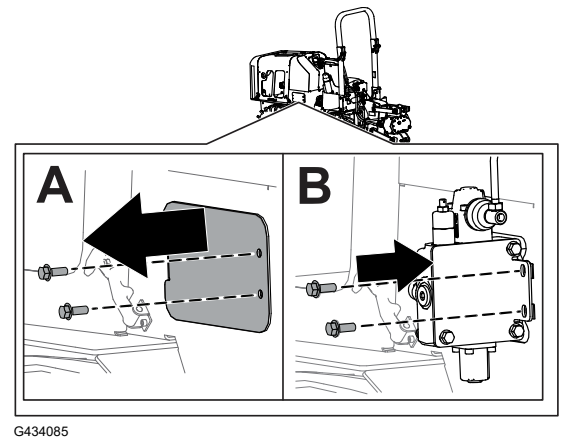
2. Install the 90-degree connector (2), 2 45-degree connector (1), and 2 straight connector to the valve (3).



3. Install the valve assembly to the bracket using 3 bolts (M8) and 3 nuts (M8).



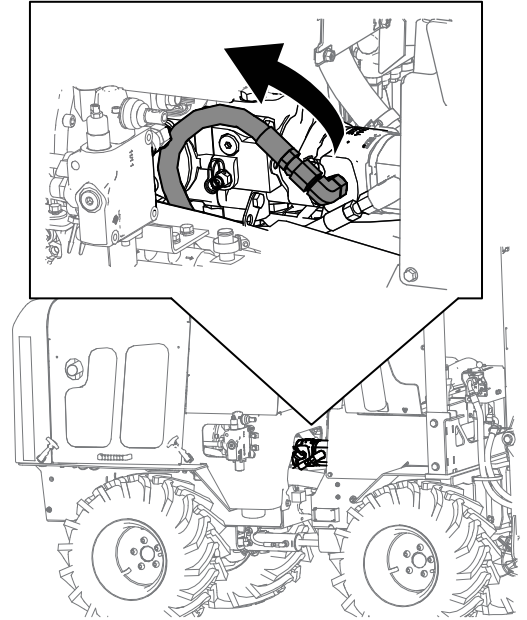
4. Remove the panel on the left side of the machine. Secure the valve assembly to the machine using the bolts, but do not fully tighten them.



# 3 Installing the Hoses

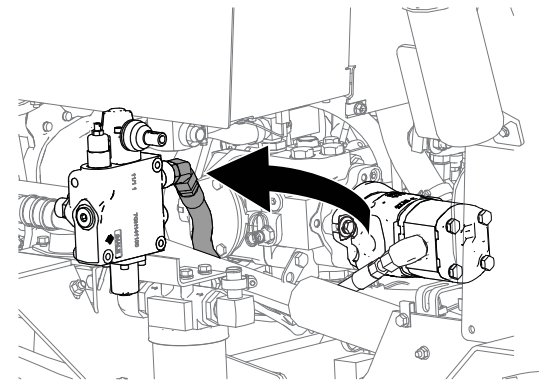
## Relocating the Tandem Pump Hose

1. Disconnect the hose from the 90-degree connector on the tandem pump.



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2. Connect the hose to the 45-degree connector on the hydra borer valve.



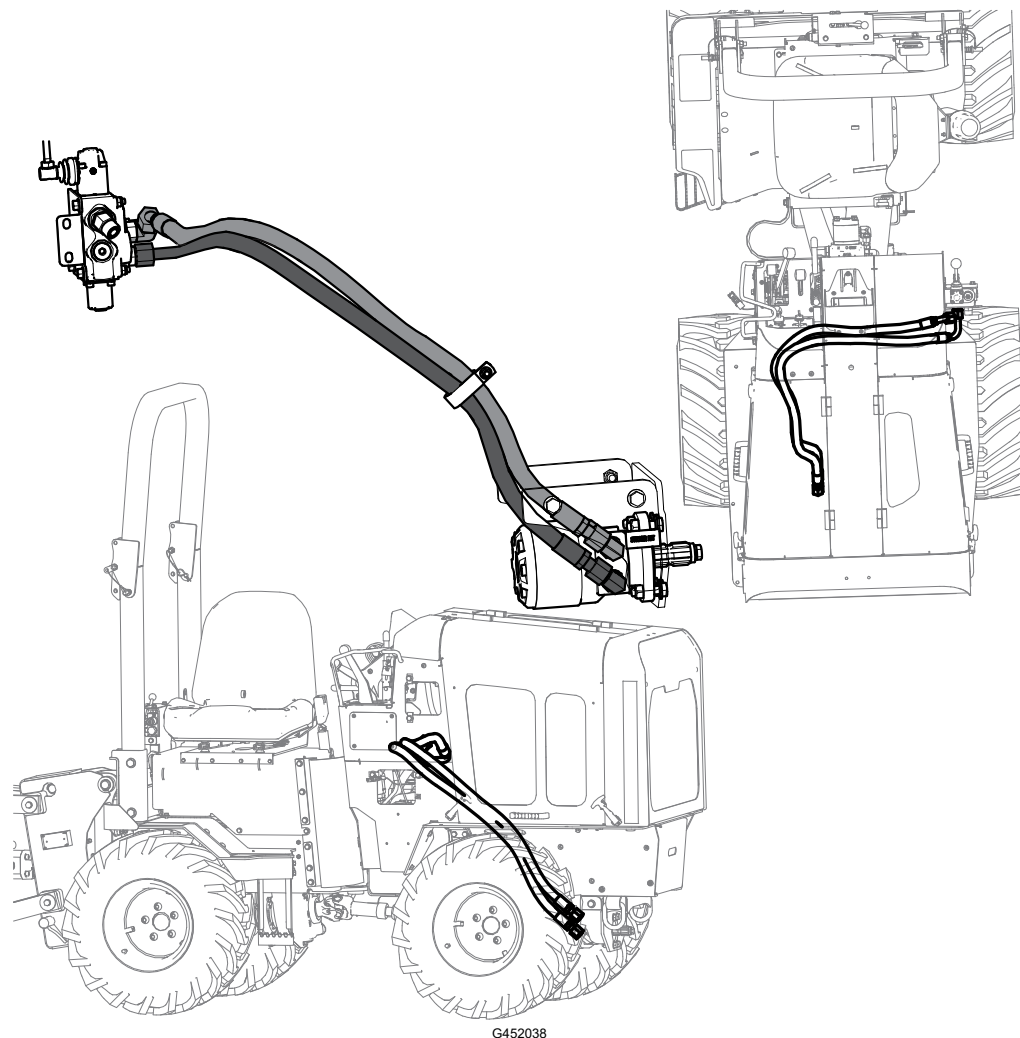
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# Installing the Motor and Plow Hoses

## Parts Required

1	54-inch hydraulic hose
1	53-inch hydraulic hose
1	Motor bracket
4	Bolt (1/2 x 1-3/4 inch)
4	Flat washer (1/2 inch)
4	Locknuts (1/2 inch)
1	P-Clamp
1	Bolt (5/16 x 1 inch)
1	Nut (5/16 inch)

**Figure 1 Routing Overview**



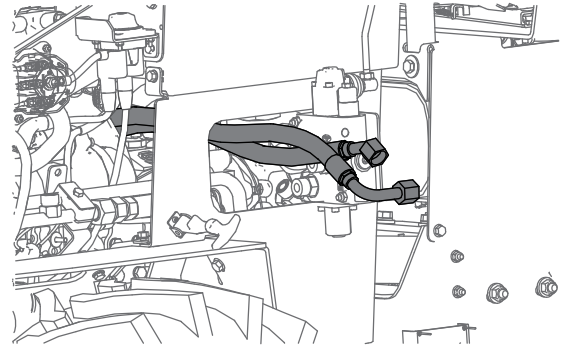


# Installing the Motor and Plow Hoses (continued)

**Note:** This is a 2-person installation procedure. Have 1 person on the right side of the machine and another person on the left side of the machine.

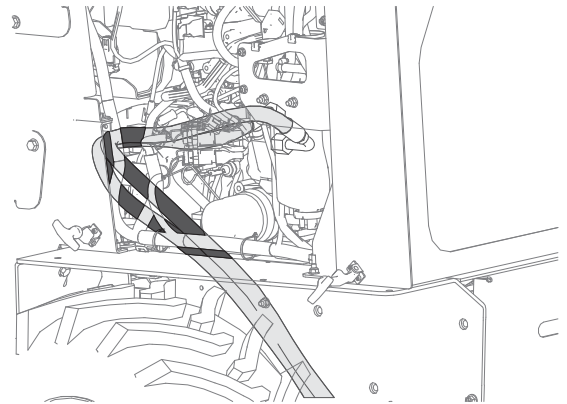
1. Remove the side doors from the machine.
2. Mark both ends of the hydraulic hoses to ensure that the proper connections are made.
3. Route the 53-inch and 54-inch hoses through the right side of the machine.

**Note:** Do not connect the hoses to the valve at this time.



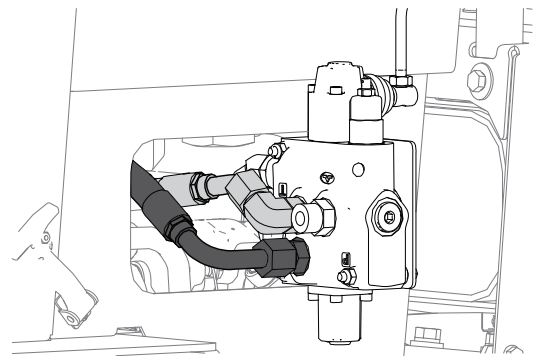
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4. Pull the hoses through the machine to continue routing on the left side of the machine.



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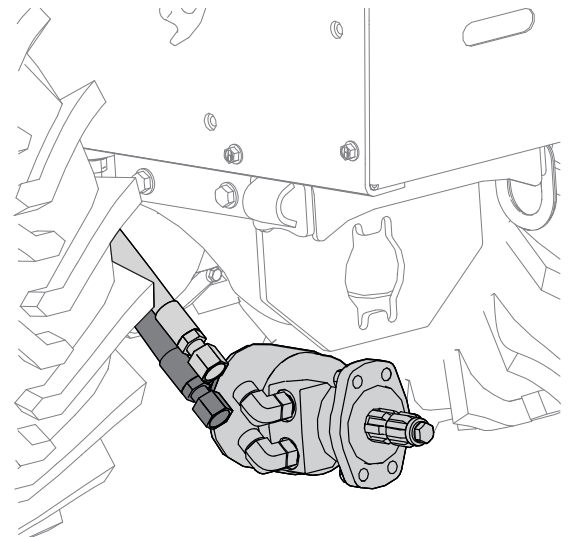
5. Connect the 54-inch hose to the lower straight connector on the valve.
6. Connect the 53-inch hose to the 90-degree connector on the valve.



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# Installing the Motor and Plow Hoses (continued)

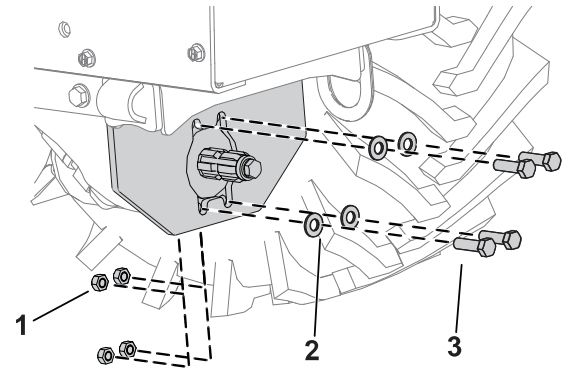
7. Connect the 53-inch hose to the top connector on the motor.
8. Connect the 54-inch hose to the lower connector on the motor.



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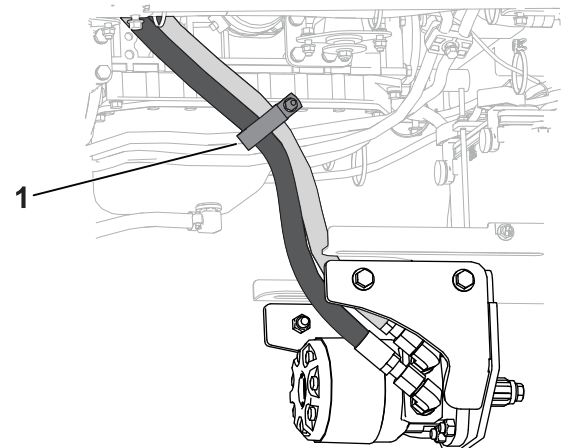
9. Secure the motor to the motor bracket using 4 bolts (1/2 x 1-3/4 inches) (3), 4 flat washers (1/2 inch) (2), and 4 locknuts (1/2 inch) (1).

**Note:** The motor is heavy. Use a lifting assist mechanism or another person to assist with this step.



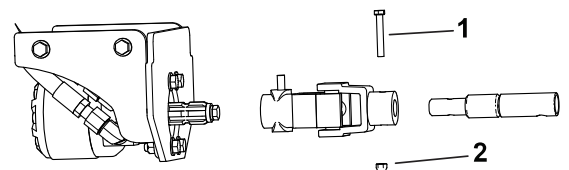
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10. Secure the hoses using a P-clamp (1), bolt (5/16 x 1 inch), and nut (5/16 inch).
11. Torque the bolts to 91 to 113 N·m (67 to 83 ft·lb).



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12. Install the U-joint assembly and adapter to the motor assembly using a bolt (3/8 x 2-1/2 inch) (1) and a nut (3/8 inch) (2).



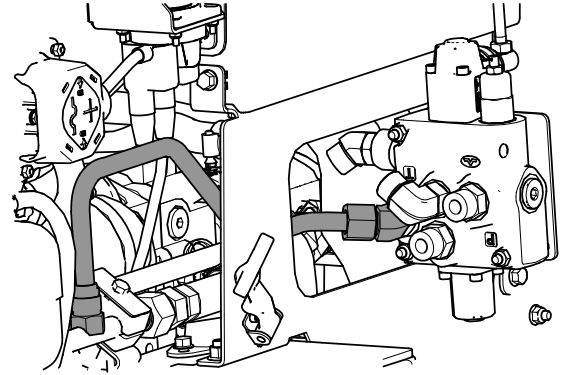
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# Installing the Hoses without a Trencher

## Parts Required

1	Medium hardline
1	18-inch hose
1	90-degree union connector

1. Install the medium hardline to the 45-degree connector on the hydraulic valve.

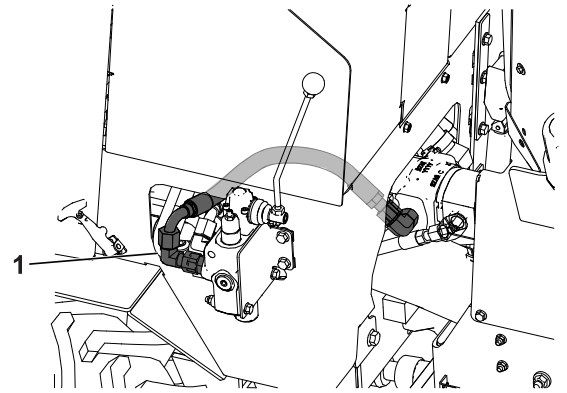


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2. Connect the 90-degree union connector ① to the 18-inch hose.
3. Connect the 18-inch hose from the tandem pump to the straight connector on the hydraulic valve.



4. Fully tighten the hydraulic valve assembly mounting hardware; torque the nuts to **23 to 29 N·m (17 to 21 ft-lb)**.



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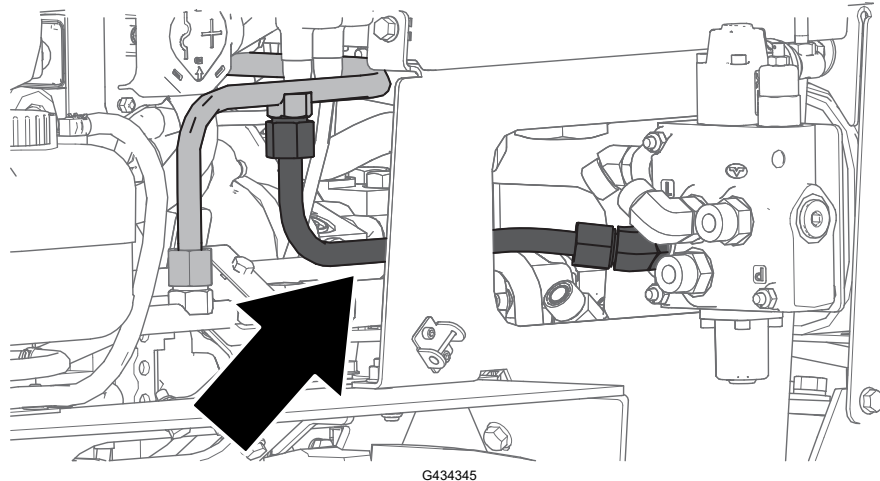
# Installing the Hoses with a Trencher

## Parts Required

1	Short hardline
1	Long hardline

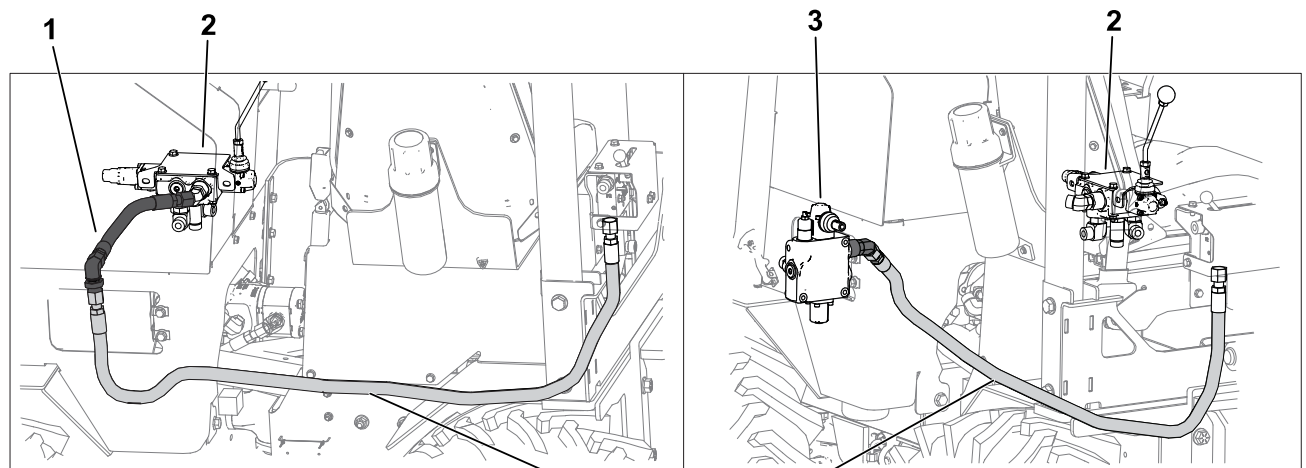
1. Connect the short hardline to the long hardline and the 45-degree connector on the hydra borer valve.

**Note:** Ensure that the O-ring is in the hardline connector before making the connection.



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2. Remove and discard the 90-degree bukhead connector and short hose (1) connector coming from the trencher valve (2).

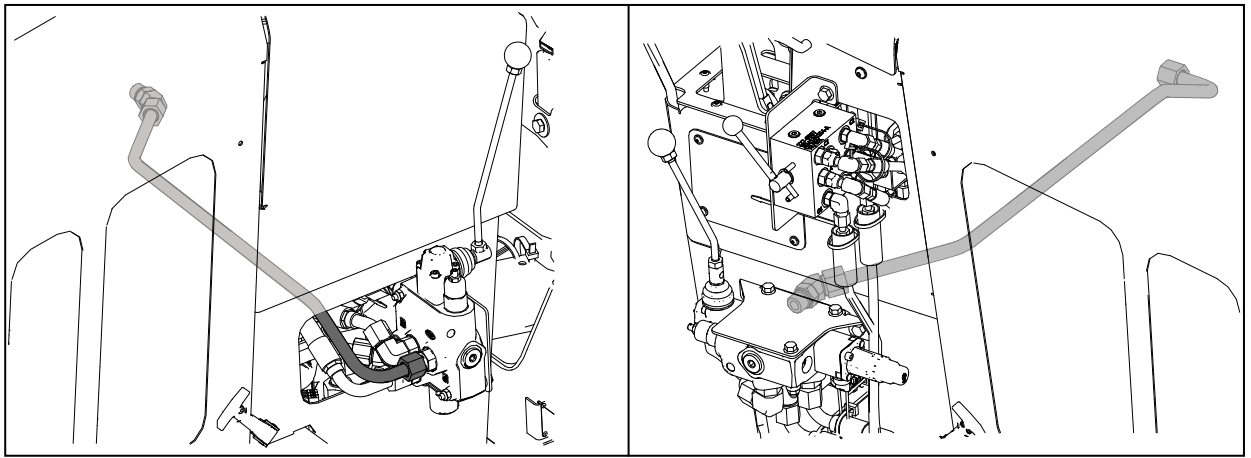


4

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3. Connect the long hose (4) coming from the plow valve to the 45-degree connector on the side of the hydra borer valve (3).
4. Connect the long hardline, from this kit, from the straight connector on the hydra borer valve to the 45-degree connector on the trencher control valve.

## Installing the Hoses with a Trencher (continued)

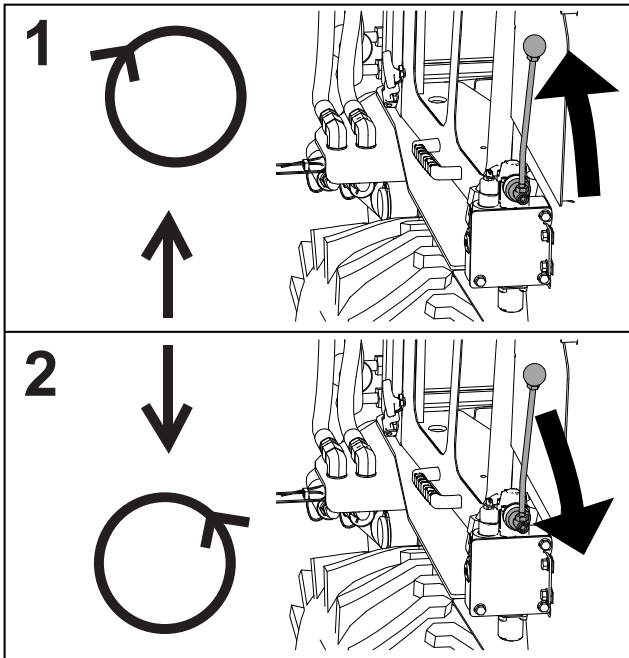


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5. Fully tighten the hydraulic valve assembly mounting hardware; torque the nuts to **23 to 29 N·m (17 to 21 ft-lb)**.

### Hydra Borer Handle



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- ① Push the handle to rotate the drill clockwise.
- ② Pull the handle to rotate the drill counterclockwise.

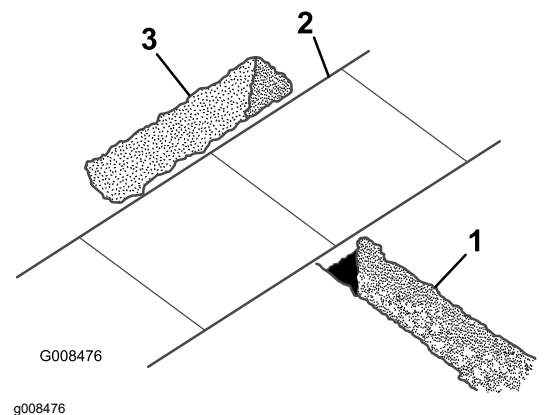
### Digging the Trenches

1. Mark planned bore path and all located utility lines with flags or paint.
2. Dig both trenches at least 10 cm (4 inches) wide and 45.72 cm (18 inches) deep.
3. Dig the approach trench ① at least 216.36 cm (7 ft) long.

**Note:** The approach trench should be perpendicular to the sidewalk ② or driveway.

4. Dig the target trench ③ to be 91.44 cm (3 ft) to 182.88 cm (6 ft) long.

**Note:** The target trench should be centered across from the approach trench.



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# Boring the Hole



## DANGER



Contact with the rotating shaft will cause death or serious injury. Stay at least 2 m (6 ft).

To help avoid injury

- Keep everyone at least 3 m (10 ft) away from the drill string and machine unless the rod guide tool is used.
- Never force the drilling process. The drilling bit will drift off course and the rod sections may bow or break. Proceed slowly and carefully.
- Never drill with a bent rod section.



## WARNING



Underground utilities contact can cause death or serious injury. Locate and verify underground utilities before digging or drilling.

To help avoid injury: Only operate the drilling attachment if the bore path is more than 3 m (10 ft) from any underground hazard.

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## IMPORTANT

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**Boring is a 2 person operation. Do not attempt to perform this operation by yourself.**

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1. With the person guiding the boring bit positioned to the right of the trench, start the machine, set it to low throttle, and push the hydra-borer-control lever forward to start the forward rotation of the drill bit.
2. Slowly move the machine forward, while the person with the rod guide tool guides the boring bit into the soil.
3. Once the entire drill bit is in the soil, return all controls to neutral.
4. Turn off the machine and wait for all moving parts to stop.
5. Carefully monitor the drill string to ensure the rod is not bowing or whipping in the trench.
6. Remove the rod guide tool.
7. Start the machine and push the control lever forward to start the boring bit.
8. Slowly move the machine forward as the boring bit digs into the soil.

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## IMPORTANT

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



**Do not drive too fast, forcing the bit into the soil. Allow the bit to progress at its own rate. Do not push or pull the bit through the soil when the drive head is not turning.**

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9. When about 15 cm (6 inches) of rod are left showing in the entrance trench or when the boring bit completely enters and bores into the far side of the exit trench, stop the machine, return the control lever into neutral, and stop the engine.
10. If the boring bit has not yet entered the target trench, complete the following:
  - A. Detach the rod from the drive head.
  - B. Start the engine and back up to the end of the approach trench.
  - C. Stop engine and wait for all moving parts to stop.
  - D. Connect another rod and repeat steps 7 through 10.

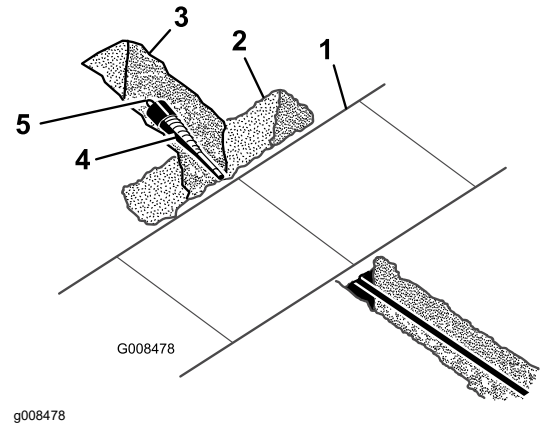
## Backreaming the Hole

Sometimes it is necessary to drill a pilot hole first, then enlarge the hole to accommodate larger product. As a general rule, the final hole should be 1.5 times larger than the diameter of the product being installed. The number of passes needed depends on the soil conditions.

1. With a shovel, carefully dig  around the boring bit, in the target trench , clearing it of soil until it can be removed.
2. Turn off the machine.
3. Remove the boring bit and attach the backreamer .
4. Attach the product being installed to the swivel  on the end of the backreamer.

**Note:** Pull product through the bore after drilling or at final pass of backreaming.

5. Start the machine and push the control lever forward to start the reamer.
6. Slowly move the machine rearward as the reamer digs into the soil.




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### IMPORTANT

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**Do not drive too fast, forcing the backreamer into the soil. Allow the reamer to progress at its own rate. Do not push or pull the backreamer through the soil when the drive head is not turning.**

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7. When the rod coupling is about 15 cm (6 inches) into the approach trench or when the backreamer completely enters the approach trench with about 15 cm (6 inches) of the cable or piping, stop the machine, pull the control lever into neutral, and turn off the machine.

**Note:** Do not have more than 9 m (30 ft) of exposed rod outside the bore. Remove the rods as necessary.