



# Boom Kit for Multi-Pro<sup>®</sup> 1200/1250/5600 Turf Sprayers and Workman<sup>®</sup> Vehicle Spray Systems

Model No. 41027—Serial No. 240000001 and Up

## Installation Instructions

# Installation

**Note:** Determine the left and right sides of the machine from the normal operating position.

**Note:** The figures used to illustrate these installation instructions are of the 5600 model sprayer. The appearance of your sprayer may vary; however, the installation procedures remain the same.

**Note:** Depending on your model, you may have extra parts.

**Note:** If you are installing this kit on a Workman spray system, ensure that you install the boom holders shipped with the spray system before installing this kit.

Description	Qty.	Use
Center boom frame	1	Installing the center boom
Frame mounting bracket	2	
Bolt, 1/2 x 3 inch	2	
Bolt, 1/2 x 1-1/4 inch	2	
Flange nut, 1/2 inch	4	
Spacer, short	2	
Spacer, long	2	
Boom mounting bracket	2	
U-bolt	2	
Flange nut, 5/16 inch	4	
Bolt, 3/8 x 1 inch	2	
Washer, 1 inch	2	
Flange nut, 3/8 inch	2	
Boom clamp	2	
Hose clamp	1	
Boom extension	2	Installing extension booms
Bolt, 1/4 x 1-3/4 inch	8	
Washer, 5/8 inch	8	
Flange nut, 1/4 inch	8	
Bolt, 5/16 x 1-1/2 inch	2	
Flange nut, 5/16 inch	2	
Hose clamp	2	

# Installing the Center Boom

1. Position the machine on a level surface, stop the engine, engage parking brake, and remove the key.



## Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition switch before you do any maintenance.

2. Install the center boom frame to the sprayer using the frame mounting brackets, 2 bolts (1/2 x 3 inches), 2 bolts (1/2 x 1-1/4 inch), 2 spacers, and 4 flange nuts (1/2 inch) as shown in Figure 1.
3. Torque the fasteners to 105 ft-lb (142 N·m).
4. Tighten the 4 boom frame bolts (1/2 x 1-1/4 inches) and 4 flange nuts (1/2 inch).

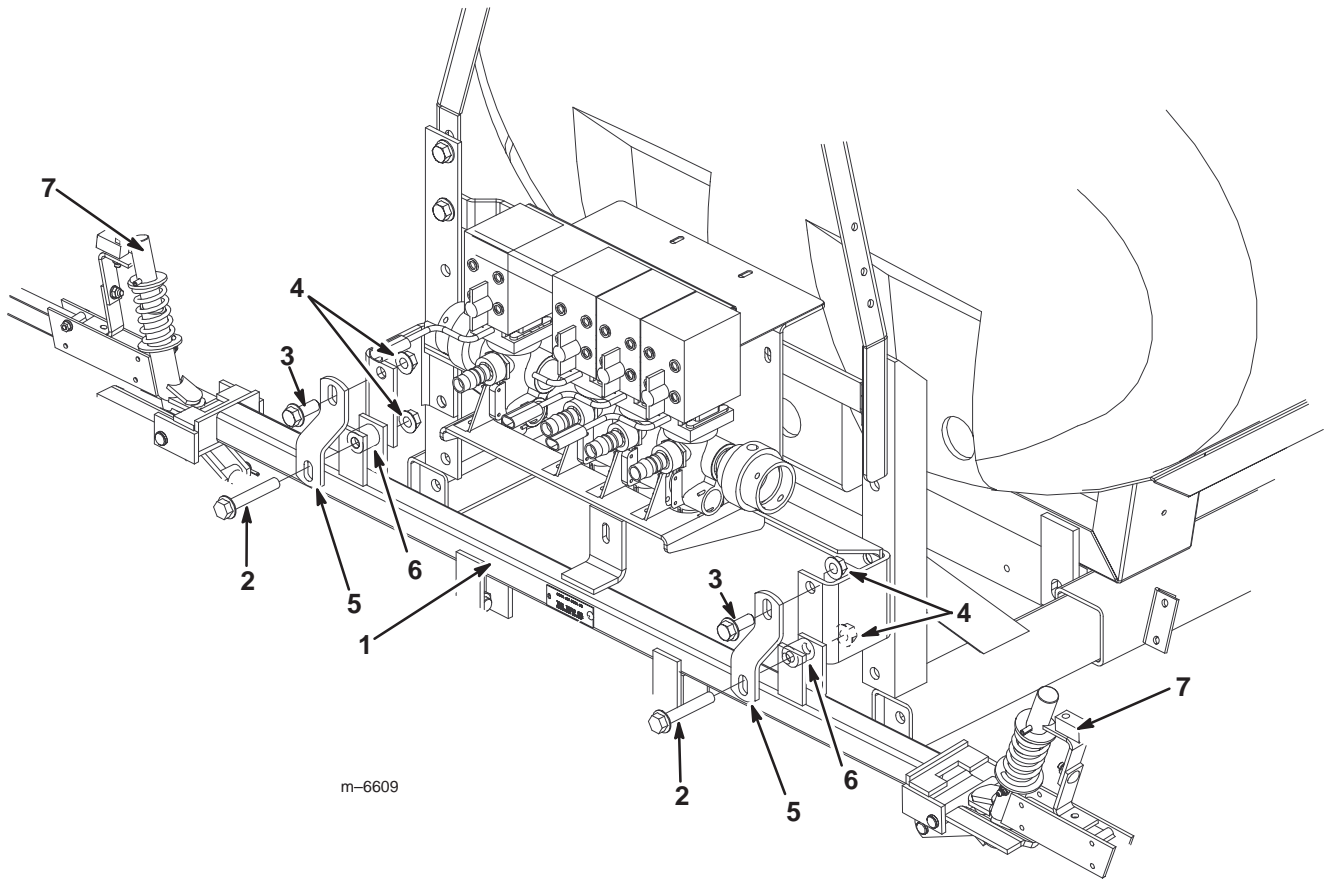
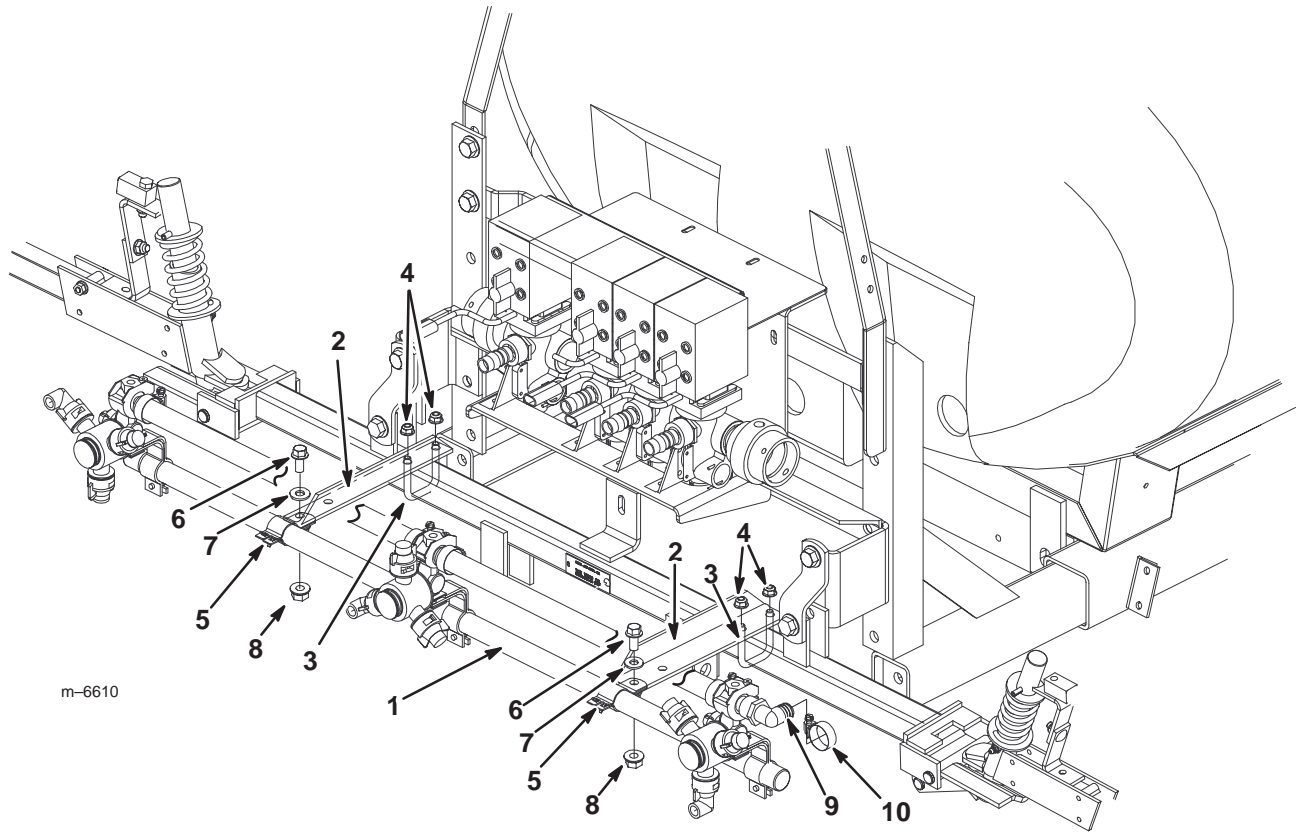


Figure 1

- |                       |                           |                           |                   |
|-----------------------|---------------------------|---------------------------|-------------------|
| 1. Center boom frame  | 3. Bolt, 1/2 x 1-1/4 inch | 5. Frame mounting bracket | 7. Pivot assembly |
| 2. Bolt, 1/2 x 3 inch | 4. Flange nut, 1/2 inch   | 6. Spacer                 |                   |

5. Install the 2 boom mounting brackets onto the center boom frame (Fig. 2) using 2 U-bolts and 4 flange nuts (5/16 inch).

6. Loosely attach the center boom to the boom mounting brackets (Fig. 2) using 2 boom clamps, 2 bolts (3/8 x 1 inch), 2 washers (1 inch), and 2 flange nuts (3/8 inch).



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**Figure 2**

- |                          |                          |                         |                |
|--------------------------|--------------------------|-------------------------|----------------|
| 1. Center boom           | 4. Flange nut, 5/16 inch | 7. Washer, 1 inch       | 9. Hose barb   |
| 2. Boom mounting bracket | 5. Boom clamp            | 8. Flange nut, 3/8 inch | 10. Hose clamp |
| 3. U-bolt                | 6. Bolt, 3/8 x 1 inch    |                         |                |

7. Center the center boom pipe from side to side and tighten the boom clamps.

9. Use liquid soap to coat the barb of the center boom's right nozzle turret.

8. Ensure that the center boom piping and nozzles are approximately 20 inches from the ground.

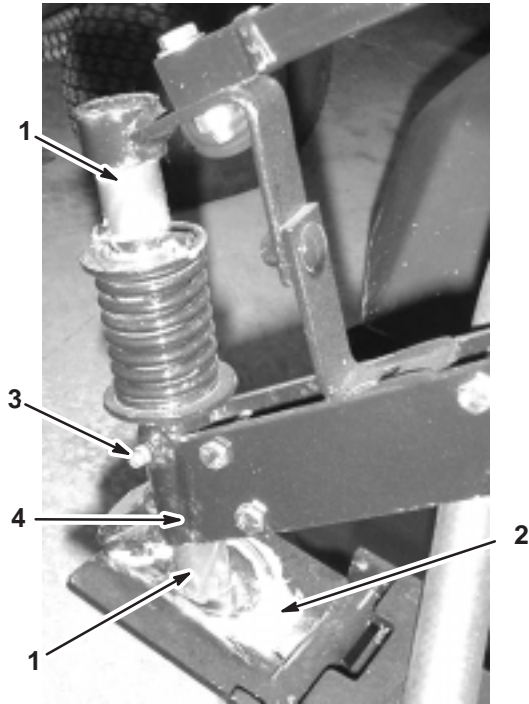
10. Connect the center boom supply hose to the soaped barb and fasten it with a hose clamp.

## Greasing the Pivot Arms

The boom pivot arms are not greased at the time of factory assembly and must be greased before use.

Grease Type: No. 2 General Purpose Lithium Base Grease.

1. Manually place grease on the support shaft and within the ball seat of the hinge plate as shown in Figure 1.
2. Pump grease into the fitting located below the spring until grease can be seen coming out of the bottom of the pivot assembly (Fig. 1).
3. Repeat the procedure for opposite pivot arm.



**Figure 3**

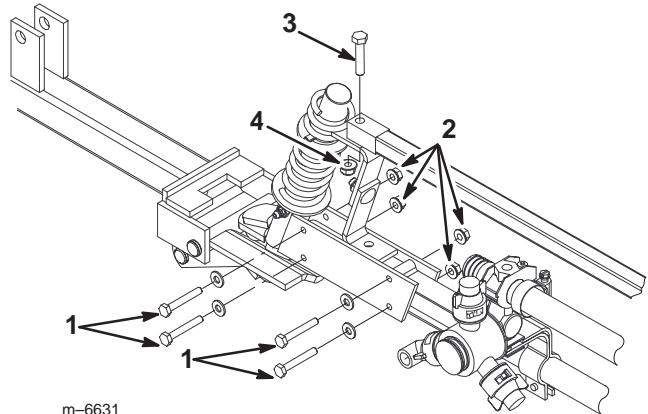
Left pivot arm shown

- |                             |                   |
|-----------------------------|-------------------|
| 1. Support shaft            | 3. Grease fitting |
| 2. Ball seat of hinge plate | 4. Pivot assembly |

## Installing Extension Booms

**Note:** If you are installing the foam marker kit, install it at this time as directed in the *Installation Instructions* included with the kit.

1. Install an extension boom into the center boom frame's pivot assembly (Fig. 4) using 4 bolts (1/4 x 1-3/4 inch), 4 washers (5/8 inch), 4 flange nuts (1/4 inch).



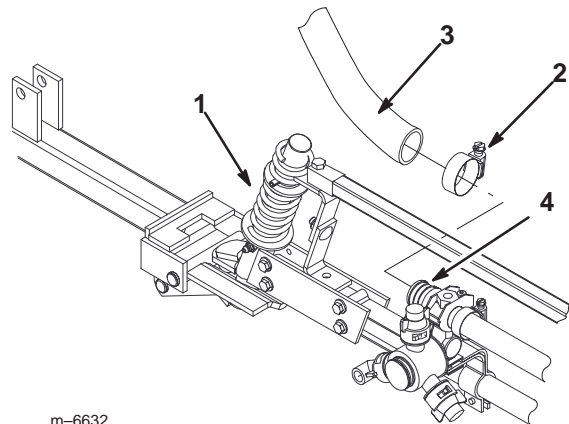
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**Figure 4**

Right Pivot Assembly and Boom Extension

- |   |                            |
|---|----------------------------|
| 1. Bolt, 1/4 x 1-3/4 inch, and washer, 5/8 inch | 3. Bolt, 5/16 x 1-1/2 inch |
| 2. Flange nut, 1/4 inch                         | 4. Flange nut, 5/16 inch   |

2. Install a flange bolt (5/16 x 1-1/2 inch) and flange nut (5/16 inch) in the boom extension support (Fig. 4).
3. Use liquid soap to coat the hose barb of the extension boom's nozzle turret closest to the pivot assembly (Fig. 5).
4. Connect an extension boom supply hose to the soaped barb and fasten it with a hose clamp (Fig. 5).



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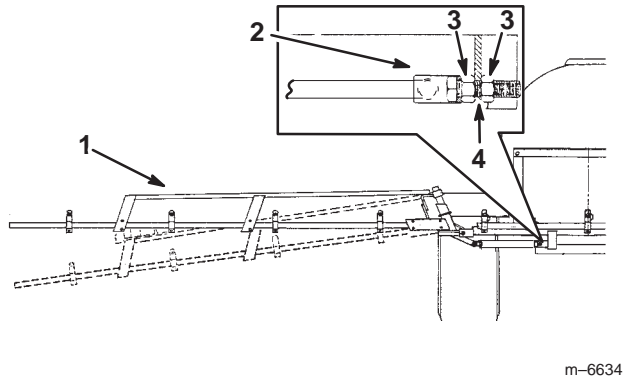
**Figure 5**

- |                   |                     |
|-------------------|---------------------|
| 1. Pivot assembly | 3. Boom supply hose |
| 2. Hose clamp     | 4. Hose barb        |

5. Repeat steps 1-4 for other boom extension.
6. Double check that the extension boom piping and nozzles are approximately 20 inches from the ground.

## Adjusting Extension Booms

The extension boom can be adjusted to a level position using the jam nuts on the adjustable clevis assembly (Fig. 6).



**Figure 6**

### Left Boom Extension

- |                        |                |
|------------------------|----------------|
| 1. Left boom extension | 3. Jam nut     |
| 2. Clevis assembly     | 4. Frame plate |

**Note:** Do not use the following adjustment procedure for sprayers with electric boom lifts.

1. Loosen the jam nuts to allow adjustment of the boom extension.
2. Adjust the boom extension to the desired, level position; approximately 20 inches above the ground.
3. Tighten the jam nuts against the main frame plate.
4. Repeat steps 1-3 for other boom extension.

The extension boom nozzles must be spaced 20 inches apart. Verify this spacing and adjust the nozzles if necessary.

## Installing Nozzles

The nozzles you use to apply your chemicals vary depending on the rate of application that you need; therefore, nozzles are not supplied with the kit. To obtain the correct nozzles for your needs, contact your Authorized Toro Distributor and be prepared to give them the following information:

- The recommended application rate in US gallons per acre, US gallons per 1000 sq ft, or liters per hectare.
- The target speed of the vehicle in miles per hour or kilometers per hour.
- The nozzle spacing (typically 20 inches or 50 cm).

To install a nozzle, complete the following:

1. Thread the nozzle into the nozzle receptacle.
2. Slide the nozzle receptacle over the nozzle fitting on a turret.
3. Turn the nozzle clockwise to lock the cams on the receptacle in place.
4. Verify the fan portion of the nozzle faces down.

See the *Installation Instructions* accompanying the nozzles for more information.

## Adjusting the Boom Bypass Valves

Before using the sprayer for the first time, you must adjust the boom bypass valves so that the pressure and application rate remains the same for all booms when you turn one or more booms off. Refer to your *Sprayer Operator's Manual* for a procedure specific to your sprayer model.

# Maintenance

## Greasing the Sprayer

Lubricate the boom extension bearings after every 100 hours or once a year, whichever occurs first. Refer to Greasing the Pivot Arms, page 4, for more information.

## Stowing the Boom Extensions

Use the boom restraints to lock the boom extensions in the X position when you are not spraying.

**Note:** If you have the Workman spray system, the left boom holder holds the left boom and the right boom holder holds the right boom.

1. Pivot the left boom extension into the upright position.

**Important** Do not force the boom extension past the restraint hook when stowing or you may damage the extension and nozzles.

2. Push up on the right restraint knob to compress the spring and extend the hook.
3. With the spring compressed, rotate the hook to catch the boom extension frame.
4. Release the knob allowing the hook to catch the boom extension frame and secure it to the boom holder.
5. Repeat steps 1-4 with the right boom extension and left boom holder.



