



# INSTRUCTIONS 360 Y-DROP<sup>®</sup> SQUARE TUBE UPGRADE

HAGIE ALUMINUM BOOM

# INSTRUCTIONS

## 360 Y-DROP

### SQUARE TUBE UPGRADE

#### HAGIE ALUMINUM BOOM



Figure 1 Upgrade completed

#### ⊕ RECOMMENDED TOOLS

- + Ratchet wrench with 1/2" and 9/16" deep well sockets
- + 3/8" 12-point socket
- + 1/2" and 9/16" combination wrenches

#### ⊕ TORQUE VALUES

- + Refer to these torque values when tightening all fasteners

+ 5/16" stainless	U-bolt	15 ft/lbs
+ 5/16" stainless	Set screw	15 ft/lbs
+ 3/8" carbon	U-bolt	35 ft/lbs
+ 5/16" carbon	U-bolt	30 ft/lbs
+ 5/16" carbon	Stop bolt	30 ft/lbs

#### ⊕ QUESTIONS

- + Call our Product Support team at 888-512-4890

## I. REMOVE RISER TUBE ASSEMBLIES

Follow these steps to remove each riser tube assembly:

Figure 2

**Step 1** Remove pin (1).

**Step 2** Remove riser tube assembly (2).

Repeat Steps 1-2 for all riser tube assemblies.

Retain riser tube assemblies for later reinstallation.



Figure 2



Figure 3

## II. INSTALL MOUNT ASSEMBLIES ON THE OEM PRIMARY BOOM

**NOTE:** Replace one Z-bar assembly at a time. The square tube upgrade mount assemblies will be installed in the same location.

Figure 3

**Step 1** Remove U-bolt (1).

Figure 4

**Step 2** Remove pins (1) and yoke strap assembly (2). Repeat for remaining yoke strap assemblies.

**NOTE:** These yoke strap assemblies will not be used for the square tube upgrade and may be discarded.



**CAUTION:** The 360 Y-DROP boom assembly may weigh up to 150 lbs. (68 kg). Exercise caution and enlist help for this process.

**Step 3** Remove all of the 360 Y-DROP boom assemblies (3).

Repeat Steps 1-3 for the remaining boom assemblies.

**Step 4** Remove all Z-bracket-related hardware from the primary booms.



Figure 4

## II.

INSTALL MOUNT ASSEMBLIES  
ON THE OEM PRIMARY BOOM *(continued)*

Figure 5

**Step 5** With the threads pointing down, install U-bolt (1) on the top of the OEM primary boom.

**Step 6** Install bracket assembly (2) and flange lock nut (3).

Hardware Kit D

Repeat Steps 5-6 for the other OEM mount bracket kit.

**Step 7** Install extension tube (4).

**Step 8** Install boom bracket (5) onto the extension tube.

**Step 9** Install square U-bolts (6), the 5/16" extra thick washers and the 5/16" nuts.

Hardware Kit A

**Step 10** Install stop bolts (7) at both the front and the rear of the extension tube.

Hardware Kit B

Figure 6

**Step 11** Install stainless steel set screw and jam nut assembly (1) onto the bracket assemblies.

Hardware Kit D

Repeat Steps 1-11 for the remaining mount assemblies on the OEM primary boom.

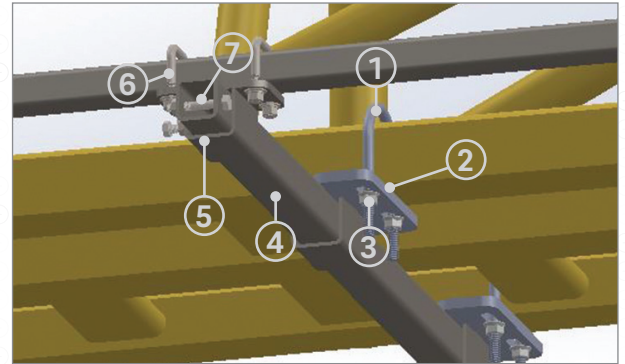


Figure 5

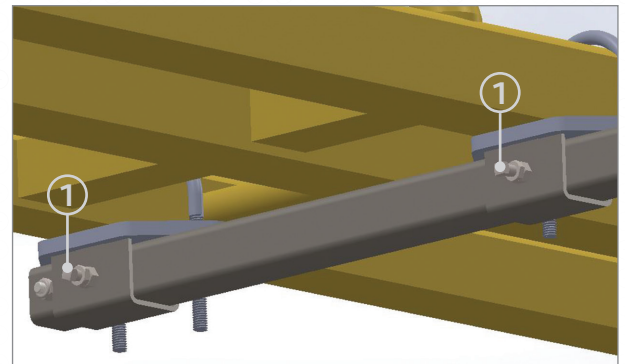


Figure 6

### III. INSTALL CENTER SECTION SQUARE TUBE UPGRADE

In preparation for this process, first remove all Z-bracket-related hardware from the center section.

Figure 7

**Step 1** Place 8" top plate (1) on top of the center section and install two 7.5" bolts (2) with 3/8" washers and carriage bolts (3). Note the carriage bolt at the rear of the boom will need to be set in place on the 14" top plate before it is installed in Step 2.

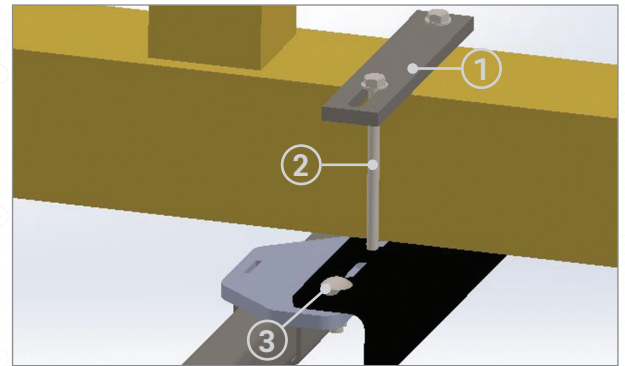


Figure 7

Figure 8

**Step 2** Place 14" top plate (1) and bracket assemblies (2) into position, then install four 3/8" flange nuts (3).

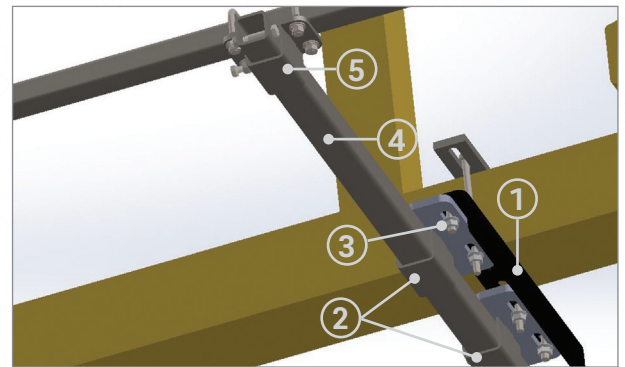


Figure 8

**Step 3** Install extension tube (4) onto bracket assembly (2).

**Step 4** Install boom bracket (5).

Figure 9

**Step 5** Install stainless steel set screw and jam nut assembly (1).

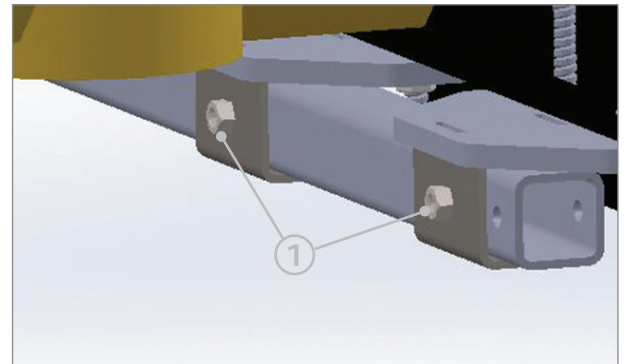


Figure 9

Figure 10

**Step 6** Install square U-bolt (1), the 5/16" extra thick washers and the 5/16" nuts.  
Hardware Kit A

**Step 7** Reinstall 360 Y-DROP boom assembly (2).

**Step 8** Install stop bolts (3) at both the front and the rear of the extension tube.  
Hardware Kit B

**Step 9** Install stainless steel set screw and jam nut assembly (4).

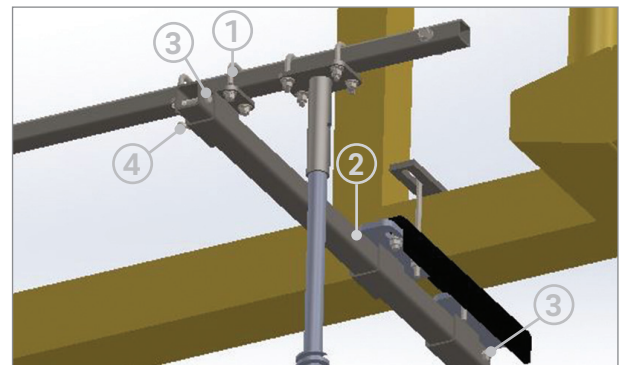


Figure 10

## IV. INSTALL YOKE ASSEMBLIES ON THE CENTER SECTION

Figures 11 and 12

**Step 1** With the U-bolt pointing down, install the yoke mount (1) and flange nuts to upper boom section.

**Step 2** With the square u-bolt threads pointing up and using the extra thick washer and Nylock nut, install yoke mount (2) to the 360 Y-DROP boom section.

**Step 3** Using pins, install the yoke straps (3) between the upper and 360 Y-DROP booms. Using the flange nuts, tighten the 1-1/4" carriage bolts.

Repeat Steps 1-3 for the other yoke on the center section.

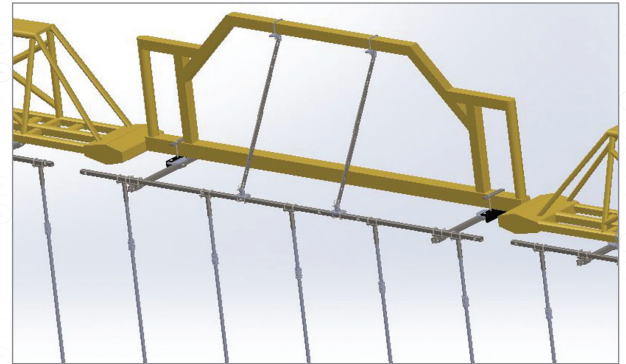


Figure 11

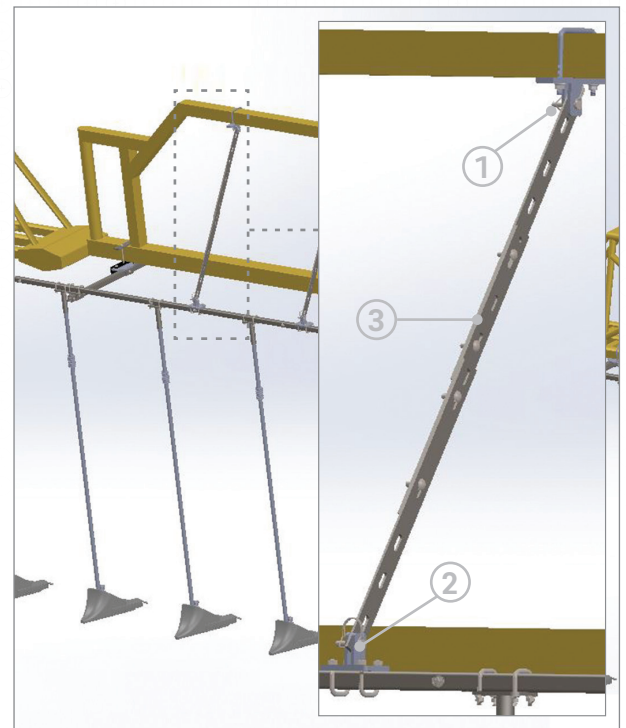


Figure 12

## V. INSTALL RISER TUBE ASSEMBLIES

For each riser tube assembly removed earlier:

Figure 13

**Step 1** Reinstall riser tube assembly (1).

**Step 2** Install pin (2).

⊕ INSTALLATION COMPLETE.



Figure 13

