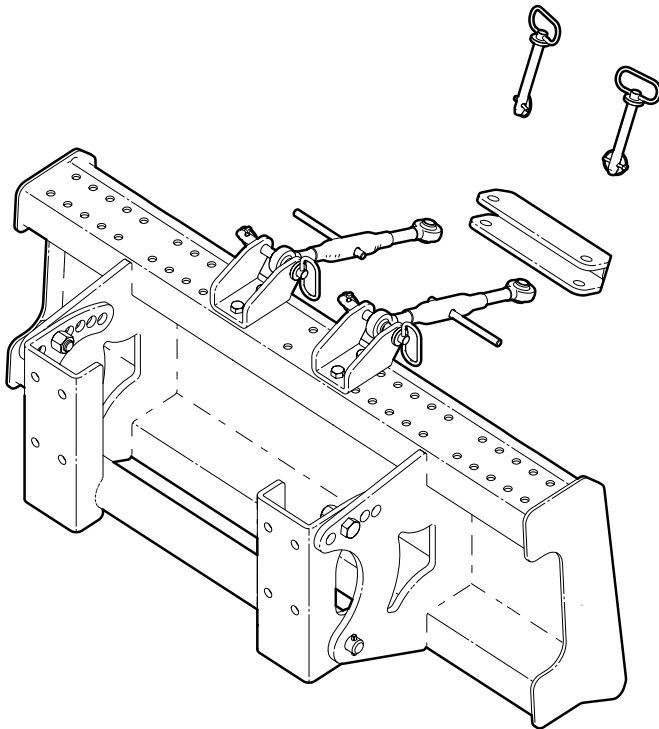


# INSTALLATION INSTRUCTIONS

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## 3039A660 Tieback Mount



# Introduction

This tieback mount is designed to work with a Wallenstein backhoe. The backhoe must have an SQ500 universal quick-attach plate installed (not included).

Wallenstein backhoes are designed to work with a wide variety of skid steers. This tieback mount provides a method to attach and detach a Wallenstein backhoe to your particular skid steer. Other skid steer makes and models may require a different tieback mount.



*The tieback mount kit includes the parts and hardware that are shown under Tieback Mount Parts on page 4. Make sure that all the parts are present and not damaged from shipping.*

Following are two reasons that a skid steer tieback mount is required:

- To avoid inadvertent movement of the skid steer controls while a person is on the backhoe.
- To reduce pressure spikes in the hydraulic lines and prevent damage to the hydraulic system.

Some of the illustrations in this instruction are general; however, important features are detailed to assist with installation.

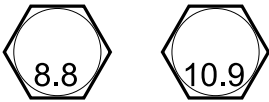
Before using, installing, or maintaining this equipment, read and understand the safety, operation, and maintenance information in the backhoe Operator's Manual.



If you have questions or require assistance, contact your local dealer, the distributor, or Wallenstein Equipment.

**IMPORTANT!** Installation may include metric or imperial fasteners. See the bolt head markings to identify the bolt type.

## Metric



## Imperial



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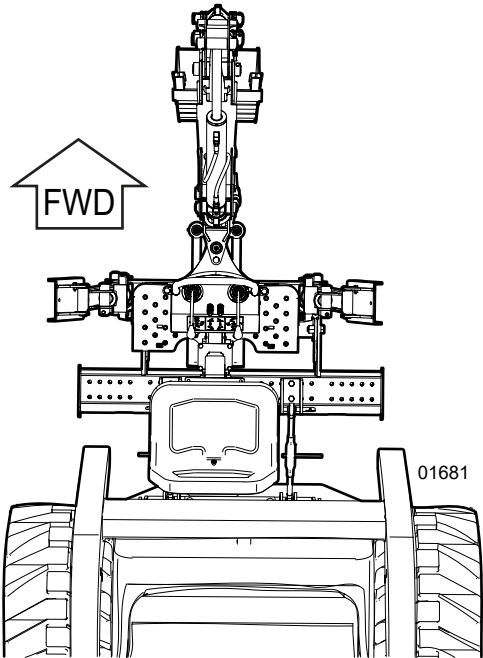
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# Orientation

**IMPORTANT!** When describing directions in this instruction, left-hand (LH) side, right-hand (RH) side, back, and front are determined when sitting in the skid steer driver's seat, facing the direction of forward (FWD) travel.



# Safety

## Safety Alert Symbol

This Safety Alert Symbol means:

**ATTENTION! BE ALERT!**

**YOUR SAFETY IS INVOLVED!**

The **Safety Alert Symbol** identifies important safety messages on the machine and in this instruction. This symbol means be alert to the possibility of personal injury or death. Follow instructions provided.



## Signal Words

The signal words **DANGER**, **WARNING** and **CAUTION** determine the seriousness level of the warning messages in this manual. The appropriate signal word for each message in this manual has been selected using the following guidelines:

### DANGER –

Indicates an imminently hazardous situation that, if not avoided, **will** result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be shielded.

### WARNING –

Indicates a potentially hazardous situation that, if not avoided, **could** result in death or serious injury, and includes hazards that are exposed when shields are removed. It may also be used to alert against unsafe practices.

### CAUTION –

Indicates a potentially hazardous situation that, if not avoided, **may** result in minor or moderate injury. It may also be used to alert against unsafe practices.

**IMPORTANT** – To avoid confusing equipment protection with personal safety messages, the signal word **IMPORTANT** indicates a situation that if not avoided, could result in damage to property or the machine.



*Provides additional information that is helpful.*

## Safety Information

### **WARNING!**

**Avoid the risk of personal injury or machine damage! Read the backhoe Operator's Manual before using this equipment. Carefully read all safety messages in the manual and follow all safety signs on the machine.**

### **WARNING!**

**Before installing this equipment:**

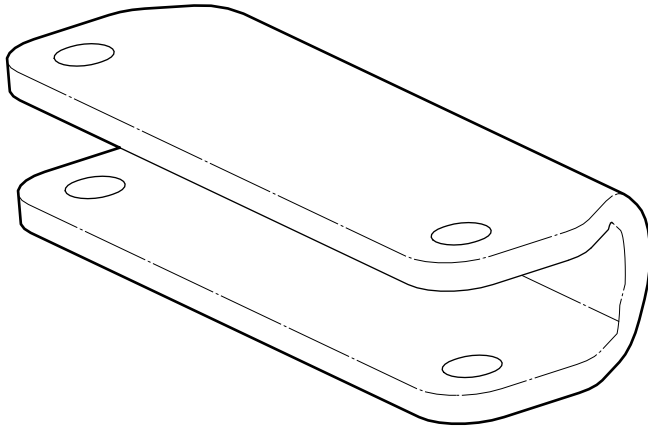
- **Position the backhoe and skid steer on dry, level ground.**
- **Make sure the area around them is clear and free of debris.**
- **Turn off the skid steer engine, apply the parking brake, and remove the key.**

## Tieback Mount

Install the tieback mount on the skid steer.

### Tieback Mount Parts

Part number 3039L663.



**Fig. 1** – Tieback mount

## Connect a Quick-Attach Plate

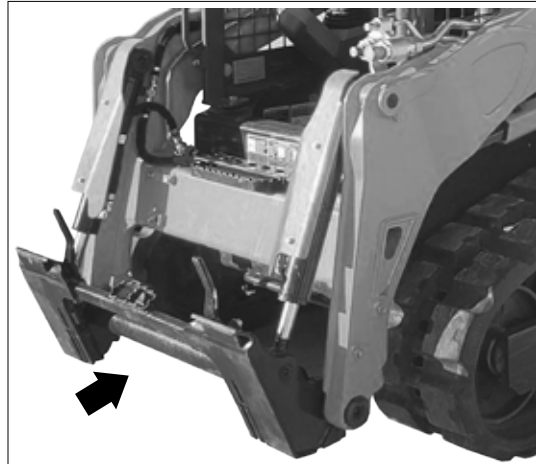
The backhoe must have an SQ500 universal quick-attach plate installed (not included). For instructions, see *SQ500 Universal Quick-Attach Plate* on page 8.

Quick-attach plate item numbers are in brackets and defined under *SQ500 Universal Quick-Attach Plate Parts* on page 8.

### Step 1

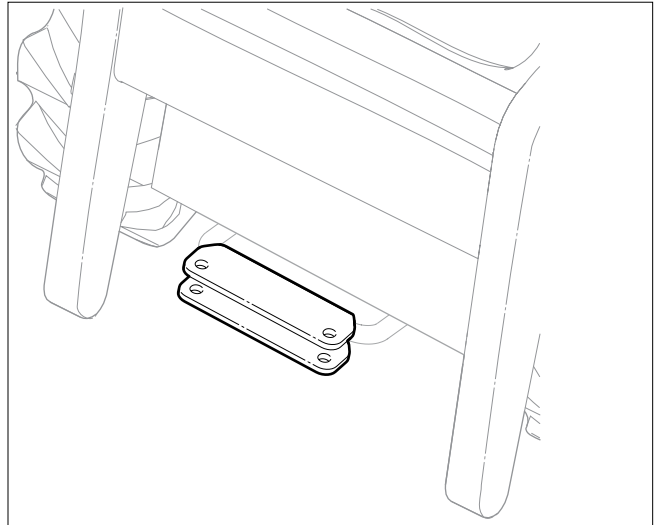
Place the skid steer in a safe condition:

- a. Stop the skid steer on a dry, level surface.
- b. Connect the quick-attach plate to the skid steer.
- c. Apply the parking brake.
- d. Turn off the engine.
- e. Remove the key.
- f. Activate the hydraulic controls to remove pressure from the hydraulic system.



### Step 2

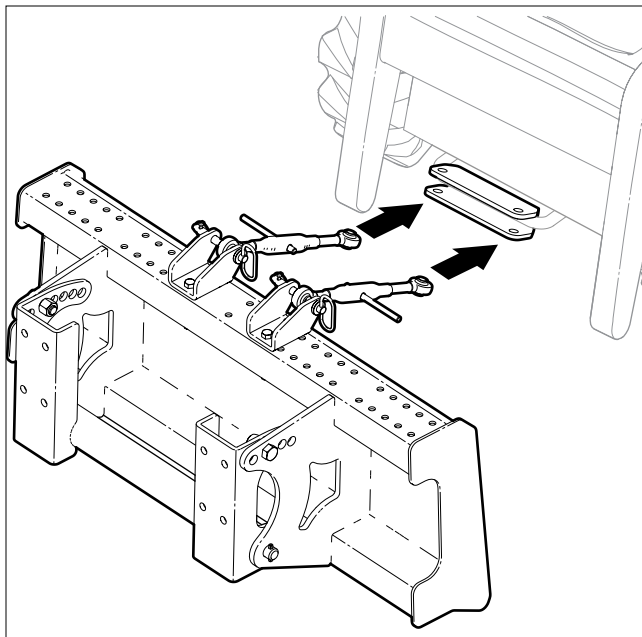
Position the tieback mount around the bar on the skid steer.



### Step 3

Align the two toplink (5) assemblies with the tieback-mount holes.

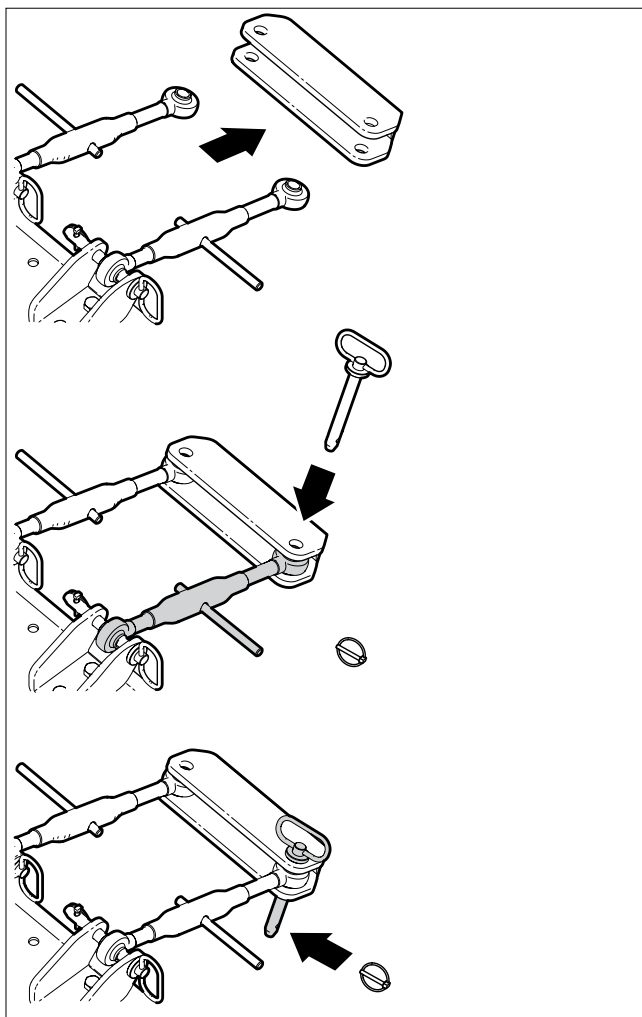
The toplink assemblies must be as perpendicular as possible to the tieback-mount holes. If required, move the toplink assembly location on the main-base weldment (9). For instructions, see *Install the Toplink Assemblies on page 10*.



### Step 4

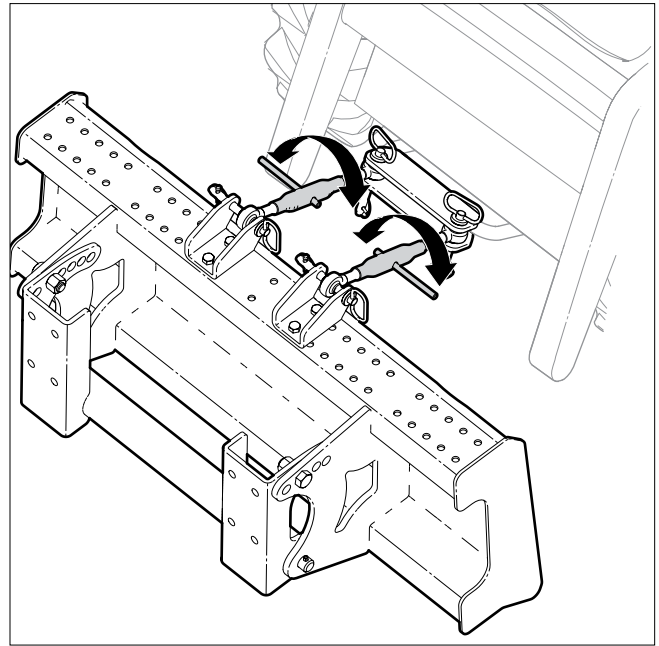
Complete the following for each toplink:

- Align the toplink (5) with the tieback-mount holes.
- Insert a hitch pin (7) through the tieback mount and toplink.
- Insert a linchpin (6) through the hitch pin.



**Step 5**

Align and secure the quick-attach plate. Turn the toplinks to tighten or loosen them, as required.



## SQ500 Universal Quick-Attach Plate



*An SQ500 universal quick-attach plate is not included with the tieback mount.*

*If you have questions or would like more information, contact your local dealer, the distributor, or Wallenstein Equipment.*

## SQ500 Universal Quick-Attach Plate Parts

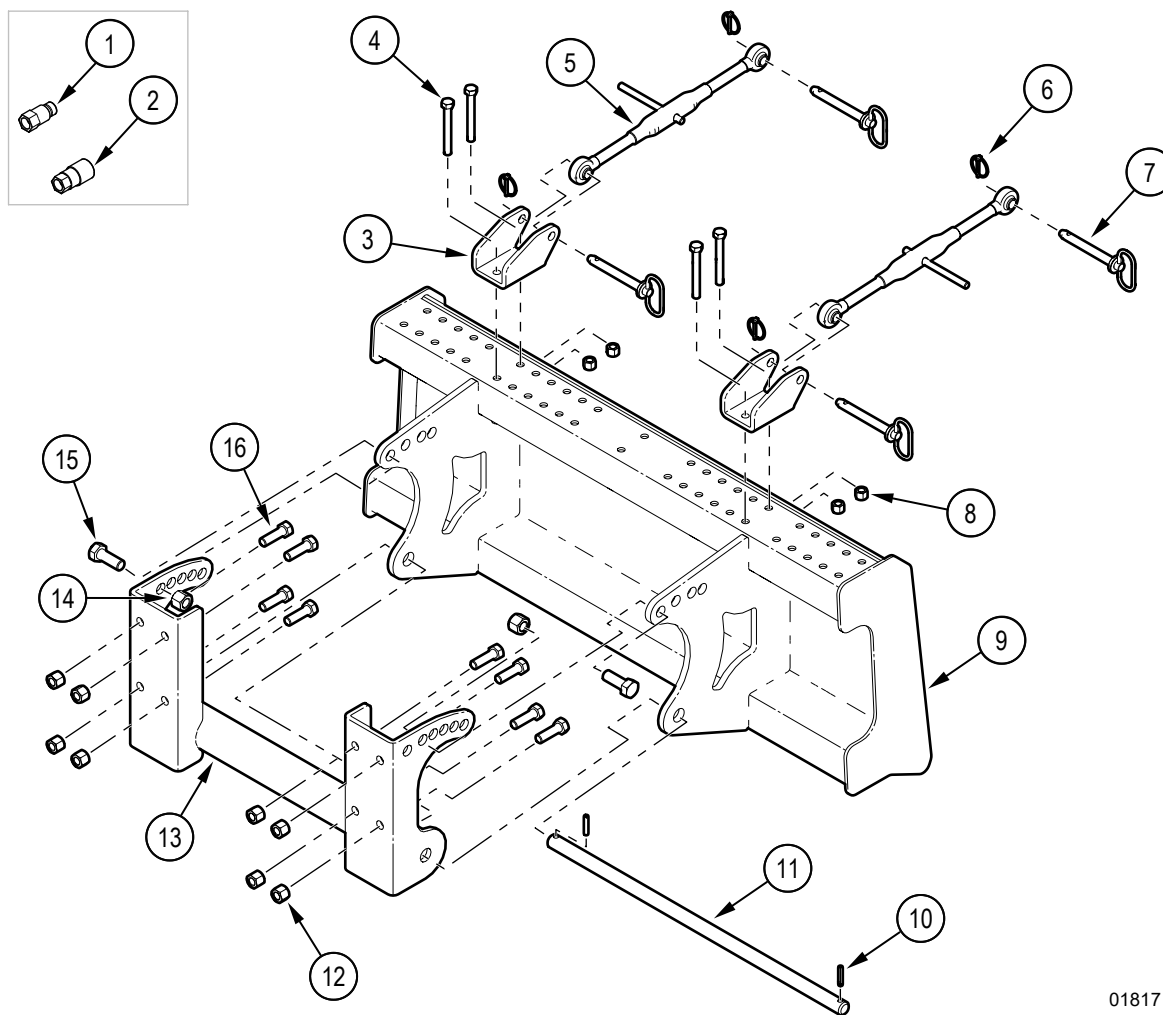


Fig. 2—SQ500 Universal Quick-Attach Plate Parts

| Item | Part Number | Description                    | Quantity | Item | Part Number | Description             | Quantity |
|------|-------------|--------------------------------|----------|------|-------------|-------------------------|----------|
| 1    | Z51919      | Flat-face, FP08 x MISO16028    | 1        | 9    | 3031W101    | Weldment, main base     | 1        |
| 2    | Z51920      | Flat-face FP08 x FISO16028     | 1        | 10   | Z14181      | Roll pin 5/16" x 1-1/2" | 2        |
| 3    | 3035L109    | Clevis, turnbuckle             | 2        | 11   | 3031M101    | Shaft, lower pivot link | 1        |
| 4    | Z71540      | Hex Bolt 1/2 NC x 4"           | 4        | 12   | Z72261      | Hex lock nut 5/8" NC    | 8        |
| 5    | Z11501      | Toplink, Cat 0 x 10-1/2" x 16" | 2        | 13   | 3031W102    | Weldment, pivot backhoe | 1        |
| 6    | Z12110      | Linchpin, 3/16"                | 4        | 14   | Z72271      | Hex lock nut 3/4" NC    | 2        |
| 7    | Z11232      | Hitch Pin, 5/8" x 4-1/4"       | 4        | 15   | Z71720      | Hex bolt, 3/4" NC x 2"  | 2        |
| 8    | Z72251      | Hex lock nut 1/2" NC           | 4        | 16   | Z71620      | Hex bolt, 5/8" NC x 2"  | 8        |



## Install a Quick-Attach Plate on a Backhoe

**IMPORTANT!** Stabilize the backhoe to prevent movement during installation.

Quick-attach plate item numbers are in brackets and defined under *SQ500 Universal Quick-Attach Plate Parts* on page 8.

For clarity, some backhoe parts are not shown in the following image.

### Tools Required

- Basic shop tools.
- One calibrated torque wrench with 1-1/16" socket.
- One 1-1/16" open-end wrench.
- One socket wrench with 1-1/16" socket.

### Step 1

Align the pivot-backhoe weldment (12) with the backhoe main frame (for information about the location of backhoe parts, see the backhoe Operator's Manual).

### Step 2

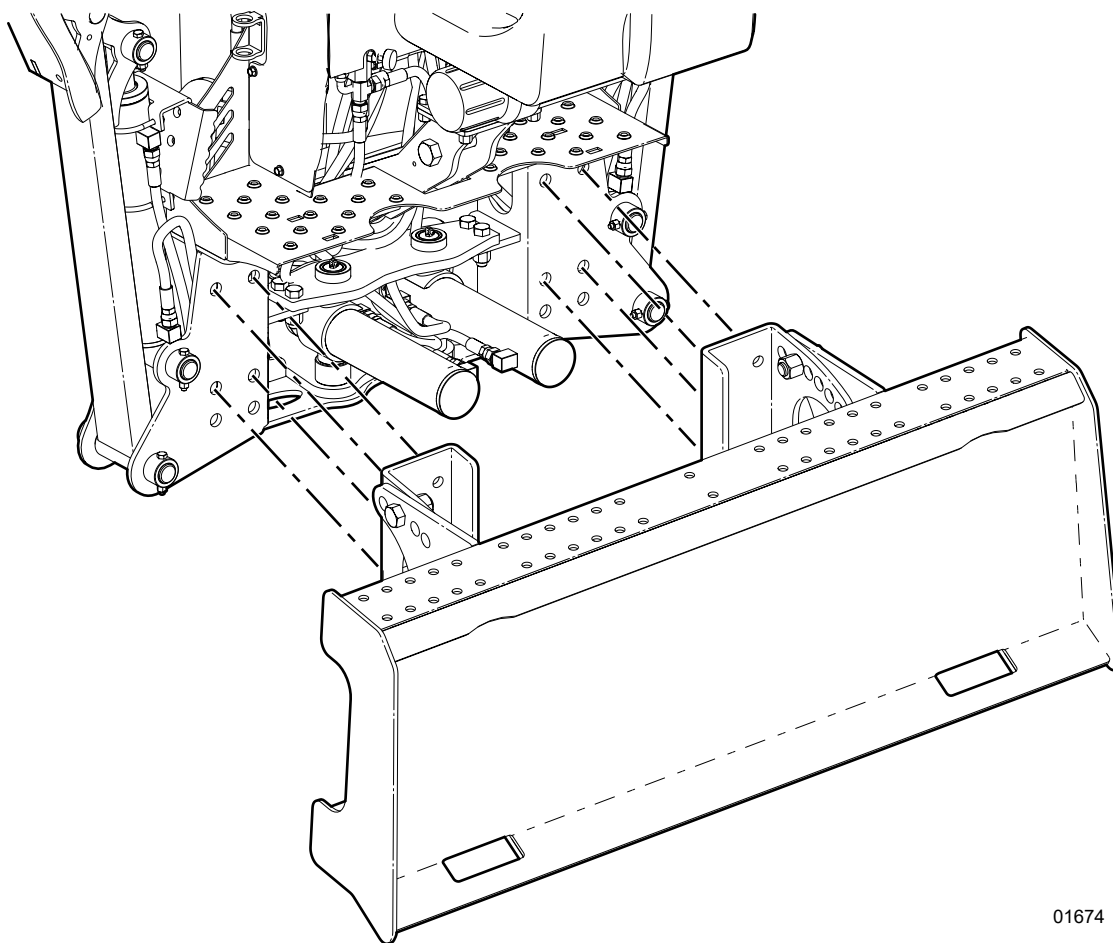
Install the eight 5/8" NC bolts (not shown) and lock nuts (not shown); four on each side.

### Step 3

Use a calibrated torque wrench to tighten the eight lock nuts to **160 lbf•ft (215 N•m)**.

### Step 4

Install the two turnbuckle clevises (3) and toplinks (5). For instructions, see *Install the Toplink Assemblies* on page 10.



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Fig. 3 – Universal Quick-Attach Plate Installation

## Install the Toplink Assemblies

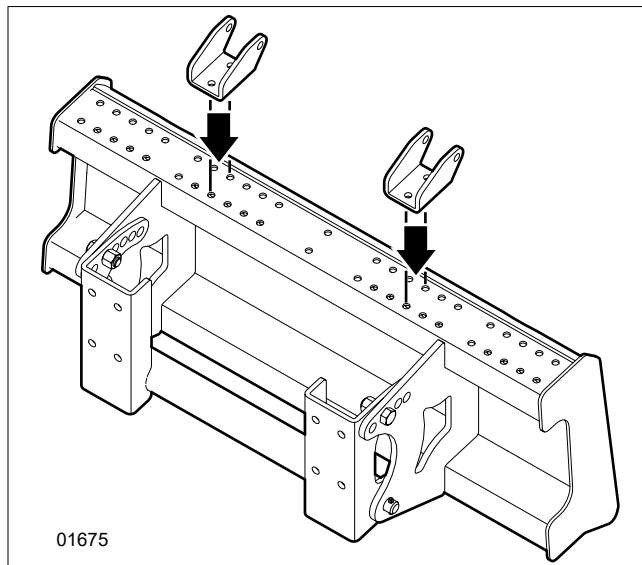
Quick-attach plate item numbers are in brackets and defined under *SQ500 Universal Quick-Attach Plate Parts* on page 8.

### Tools Required

- Basic shop tools.
- One calibrated torque wrench with 7/8" socket.
- One 7/8" open-end wrench.
- One socket wrench with 7/8" socket.

### Step 1

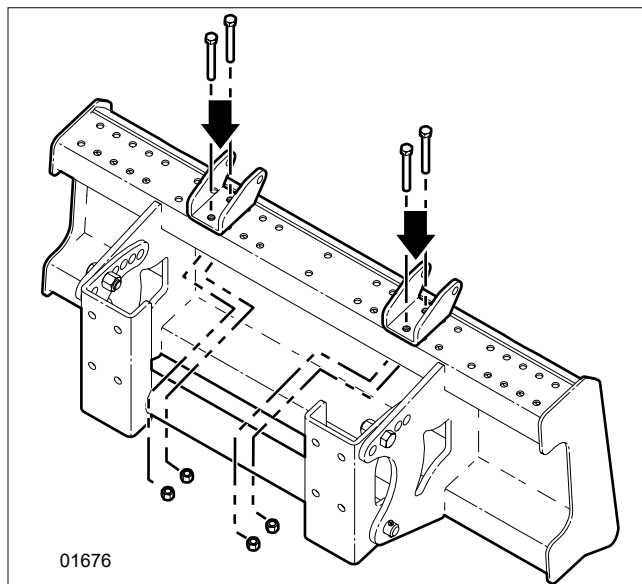
Align the two turnbuckle clevises (3) with the required holes in the main-base weldment (9).



### Step 2

Complete the following for each turnbuckle clevis (LH and RH side):

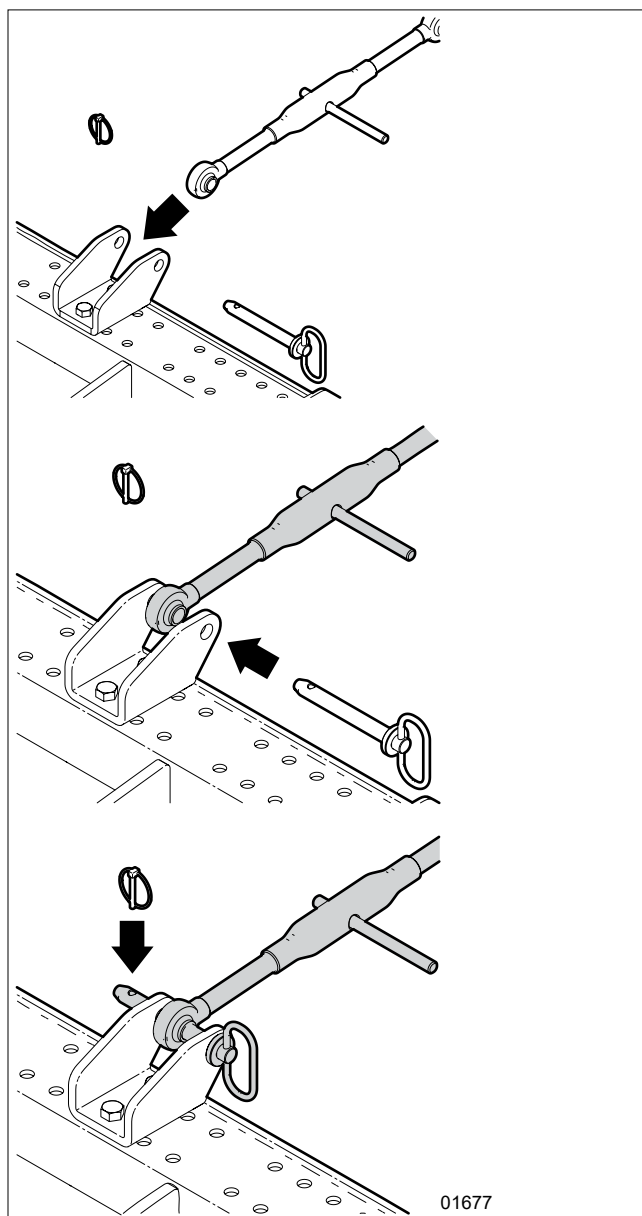
- Insert two hex bolts (4) through the turnbuckle clevis and the main-base weldment.
- Install a lock nut (8) on each hex bolt.
- Use a calibrated torque wrench to tighten the two lock nuts to **80 lbf•ft (110 N•m)**.



### Step 3

Complete the following for each turnbuckle clevis (only the LH side is shown):

- a. Align the topline (5) with a turnbuckle clevis.
- b. Insert a hitch pin (7) through the topline and turnbuckle-clevis holes.
- c. Insert a linchpin (6) through the hitch pin.



## Adjust the Quick-Attach Plate Position

Quick-attach plate item numbers are in brackets and defined under *SQ500 Universal Quick-Attach Plate Parts* on page 8.

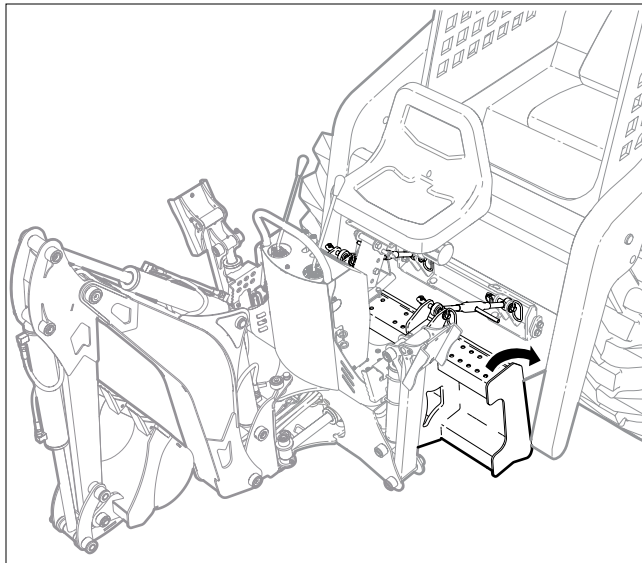
### Tools Required

- Basic shop tools.
- One calibrated torque wrench with 1-1/4" socket.
- One 1-1/4" open-end wrench.
- One socket wrench with 1-1/4" socket.

### Step 1

Prepare the equipment:

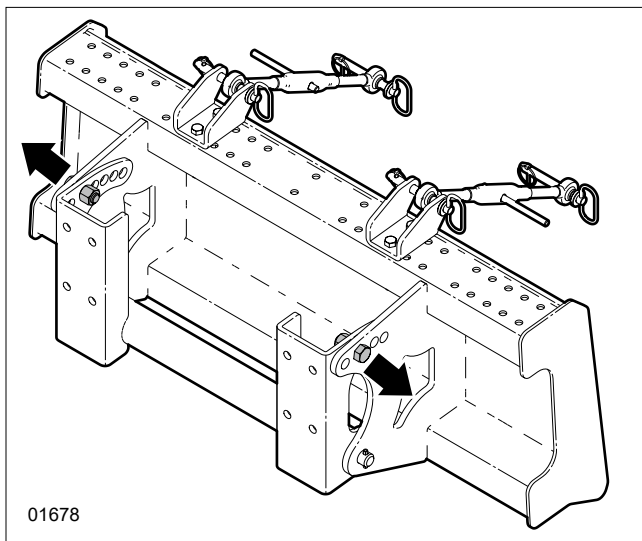
- Connect the quick-attach plate to the skid steer and make sure the toplinks (5) are tight. For instructions, see *Connect a Quick-Attach Plate* on page 5.
- Rotate the skid steer plate to the full-back position against the solid stop.
- Support the backhoe on a skid or blocks to prevent unexpected movement.
- Set the skid steer parking brake.
- Turn off the skid steer and remove the ignition key.
- Activate the hydraulic controls to remove the pressure.



*The backhoe, skid steer, and tieback mount should not be removed. However, they are not shown in the following images for clarity.*

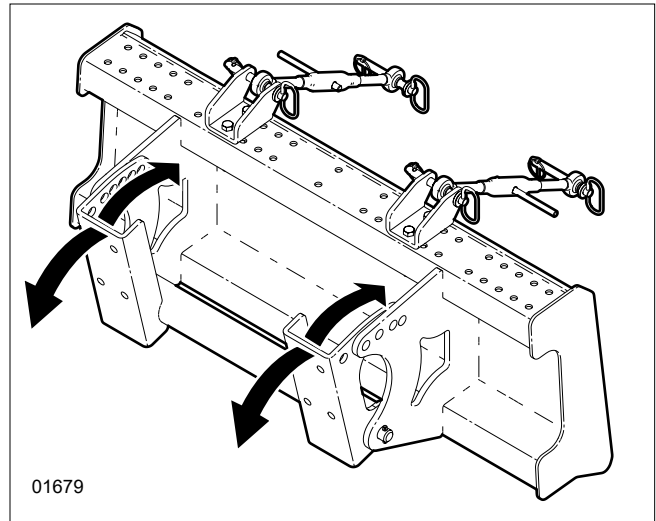
### Step 2

Remove the hex bolt (14) and lock nut (13) from each side of the pivot-backhoe weldment (12) (LH and RH side).



### Step 3

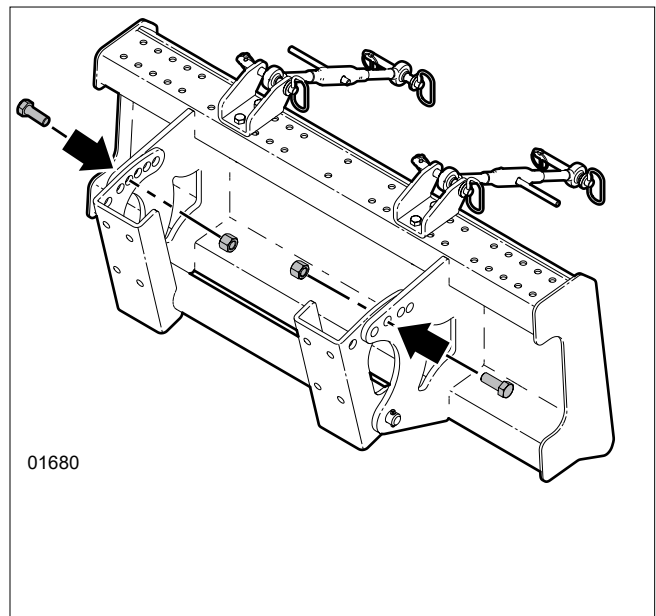
Rotate the pivot-backhoe weldment to adjust the backhoe angle. Align the holes in the required position.



### Step 4

Complete the following on each side of the pivot-backhoe weldment (LH and RH side):

- Insert a hex bolt through the main-base weldment (9) and pivot-backhoe weldment.
- Install a lock nut on the hex bolt.
- Use a calibrated torque wrench to tighten the hex bolt to **290 lbf•ft (390 N•m)**.



# Common Bolt Torque values

## Checking Bolt Torque

The tables shown give correct torque values for various bolts and capscrews. Tighten all bolts to the torque values specified in the table, unless indicated otherwise. Check tightness of bolts periodically.

**IMPORTANT!** If replacing hardware, use fasteners of the same grade.

**IMPORTANT!** Torque figures indicated in the table are for non-greased or non-oiled threads. Do not grease or oil threads unless indicated otherwise. When using a thread locker, increase torque values by 5%.



*Bolt grades are identified by the bolt head markings.*

| Imperial Bolt Torque Specifications |              |     |           |     |           |      |
|-------------------------------------|--------------|-----|-----------|-----|-----------|------|
| Bolt Diameter                       | Torque Value |     |           |     |           |      |
|                                     | SAE Gr. 2    |     | SAE Gr. 5 |     | SAE Gr. 8 |      |
|                                     | lbf•ft       | N•m | lbf•ft    | N•m | lbf•ft    | N•m  |
| 1/4"                                | 6            | 8   | 9         | 12  | 12        | 17   |
| 5/16"                               | 10           | 13  | 19        | 25  | 27        | 36   |
| 3/8"                                | 20           | 27  | 33        | 45  | 45        | 63   |
| 7/16"                               | 30           | 41  | 53        | 72  | 75        | 100  |
| 1/2"                                | 45           | 61  | 80        | 110 | 115       | 155  |
| 9/16"                               | 60           | 95  | 115       | 155 | 165       | 220  |
| 5/8"                                | 95           | 128 | 160       | 215 | 220       | 305  |
| 3/4"                                | 165          | 225 | 290       | 390 | 400       | 540  |
| 7/8"                                | 170          | 230 | 420       | 570 | 650       | 880  |
| 1"                                  | 225          | 345 | 630       | 850 | 970       | 1320 |



SAE Gr. 2



SAE Gr. 5



SAE Gr. 8

| Metric Bolt Torque Specifications |              |       |          |       |
|-----------------------------------|--------------|-------|----------|-------|
| Bolt Diameter                     | Torque Value |       |          |       |
|                                   | Gr. 8.8      |       | Gr. 10.9 |       |
|                                   | lbf•ft       | N•m   | lbf•ft   | N•m   |
| M3                                | 0.4          | 0.5   | 1.3      | 1.8   |
| M4                                | 2.2          | 3     | 3.3      | 4.5   |
| M6                                | 7            | 10    | 11       | 15    |
| M8                                | 18           | 25    | 26       | 35    |
| M10                               | 37           | 50    | 52       | 70    |
| M12                               | 66           | 90    | 92       | 125   |
| M14                               | 83           | 112   | 116      | 158   |
| M16                               | 166          | 225   | 229      | 310   |
| M20                               | 321          | 435   | 450      | 610   |
| M30                               | 1,103        | 1 495 | 1,550    | 2 100 |



8.8



10.9

[illegible]



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