



## Heavy-Duty Front Arm Return

# OWNER'S MANUAL

2- Inch Roll Tubes

PHONE: 1.866.748.7435 | FAX: 1.605.665.0501

2309 SHURLOCK STREET | YANKTON, SD 57078-0713

**SHURCO.com**



## SAFETY INSTRUCTIONS

At Shurco, your safety is our top priority. Please read and thoroughly understand all instructions before operating all equipment. Failure to READ AND FOLLOW INSTRUCTIONS may result in system failure, property damage, or personal injury. Pay close attention to warnings, cautions, and operating instructions. The hazard symbol alerts users of potentially hazardous conditions, and is followed by Caution, Warning, or Danger messages to indicate risk:

- **Danger**: (Red) Indicates an imminently hazardous situation that, if not avoided, WILL result in death or serious injury.
- **Warning**: (Orange) Indicates a potentially hazardous situation that, if not avoided, COULD result in death or serious injury.
- **Caution**: (Yellow) Indicates a potentially hazardous situation that, if not avoided, MAY result in minor or moderate injury or damage to the system.
- **Notice**: (Blue) Indicates operational notes or other essential information without addressing safety.

Regularly inspect equipment to ensure proper performance. Always repair or replace worn or damaged parts immediately to maintain safety. Safety decals are placed at critical locations on the equipment. Keep these decals clean and legible at all times. Replace any decal that is worn, damaged, painted over or otherwise unreadable. Replacement decals can be obtained by your local Shurco dealer.

- Always wear safety glasses during installation and operation.
- Stay clear of moving parts.
- No other use of Shurco equipment is authorized, except as designed.

## SHUR-CO, LLC TERMS OF SERVICE

ORDER  
TERMS AND CONDITIONS



WARRANTY



PATENTS



## SERVICE AND DISTRIBUTION CENTERS

SHURCO.com

LOCATIONS



## MESSAGE TO OWNERS

Thank you for choosing Shurco for your tarping system needs. We appreciate your confidence in our products. Please note that while this manual provides comprehensive installation and operation instructions, your trailer may require minor adjustments to these guidelines.

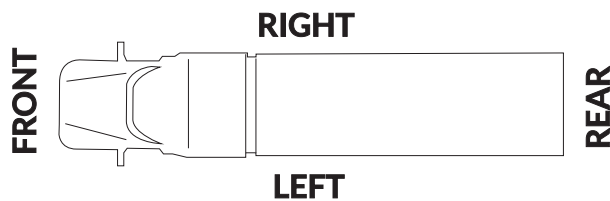
Visit [Shurco.com](http://Shurco.com) to access the most current version of these instructions and other important product information.

**QUESTIONS?**  
CALL OUR HELP LINE:  
**1-866-748-7435**  
MONDAY-FRIDAY  
8 AM-5 PM CENTRAL TIME

## MAINTENANCE

- Brush springs with steel brush weekly to remove dirt and spray with penetrating oil.
- Tighten loose bolts.
- Make sure arms are not hitting ends of box. Replace damaged/bent arms.
- Replace worn or broken springs.
- Replace/repair worn or damaged tarp.

## VEHICLE ORIENTATION



## REQUIRED TOOLS

1. Welder
2. Hammer
3. Center Punch or Transfer Punch
4. #3 Phillips Insert Bit
5. Air or Electric Impact Wrench (9/16" deep socket)
6. 7/16" Deep Socket
7. 3/8" Combination Wrench
8. 9/16" Combination Wrench
9. 1/2" Combination Wrench
10. 1/8" Hex Wrench Long T-Handle
11. 3/16" Hex Wrench Long T-Handle (recommended)
12. 7/32" Drill Bit
13. 5/16" Drill Bit (for 3/8" self-tapping screws)
14. 11/32" Drill Bit
15. 13/32" Drill Bit
16. 3/8" Drill
17. Standard/Flathead Screwdriver
18. #2 Phillips Screwdriver
19. Utility Knife
20. Ratchet
21. Hack Saw (metal cutter)
22. Pliers
23. Snap-Ring Pliers
24. Wire Cutters
25. Grinder
26. Tape Measure

## Table of Contents

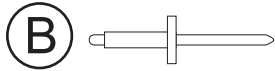
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*PLEASE READ THE COMPLETE MANUAL BEFORE  
PROCEEDING WITH INSTALLATION OR USE OF THE TARPING SYSTEM.*

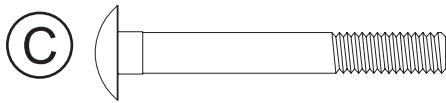
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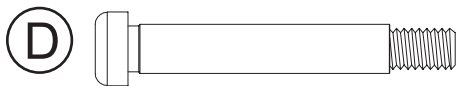
1704743 Self-Drilling Screw - #10 x x 1/2"



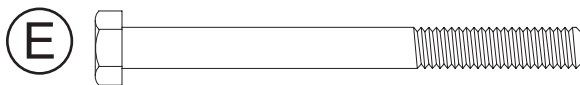
1706103 Blind Rivet - 3/16"



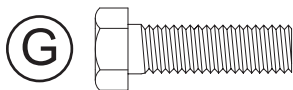
1701455 Carriage Bolt - 5/16" x 2 1/2"



1704943 Shoulder Bolt - 3/8" x 2 - 5/16" x 1/2" Thd.



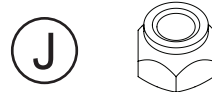
1201022 Cap Screw - 5/16" x 3 1/2"



1702891 Cap Screw - 3/8" x 1 1/4"



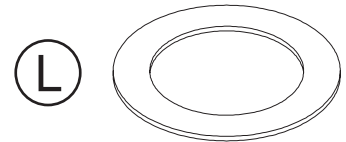
1704931 Flanged Nylon Lock Nut - 5/16"



1700419 Nylon Lock Nut - 5/16"



1700407 Hex Nut - 3/8"



1702890 Flat Washer - 1 1/4"



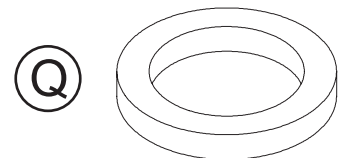
1700428 Flat Washer - 5/16"



1700434 Lock Washer - 3/8"



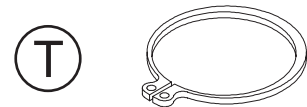
1700429 Flat Washer - 3/8"



1118318 Spacer Washer - 1/4" x 1.81"



1120291 Pivot Bracket Washer



1702888 Retaining Ring

Inspect all parts in your Heavy-Duty Front Arm Return kit upon arrival.

Item	Part #	Description
1.	1116920	Pivot Pin - 4 Spring
2.	1128070	Pivot Vertical Mt. Bracket - 3.75 Standoff - 6"
3.	1121992	Pivot Bracket - Sloped - 6"
G.	1702891	Cap Screw - 3/8" x 1 1/4"
K.	1700407	Hex Nut - 3/8"
N.	1700434	Lock Washer - 3/8"
P.	1700429	Flat Washer - 3/8"
R.	1120291	Pivot Bracket Washer

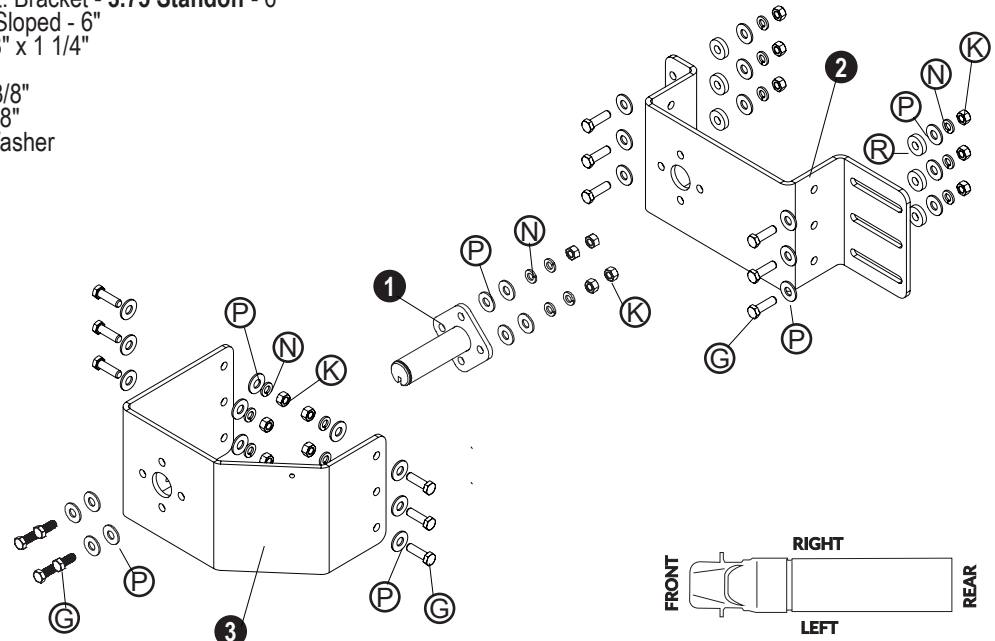


IMAGE 103

Pivot Bracket Installation

**NOTICE:** Read pages 6-7 before drilling holes.

**STEP 1: DETERMINE PIVOT BRACKET**

Identify the appropriate bracket for your installation. Determine if obstructions (e.g. ladders) affect bracket placement. Verify if the 3.75-inch **standoff bracket (2)** provides enough clearance. If not, mount a **pivot bracket (3)** onto the standoff bracket.

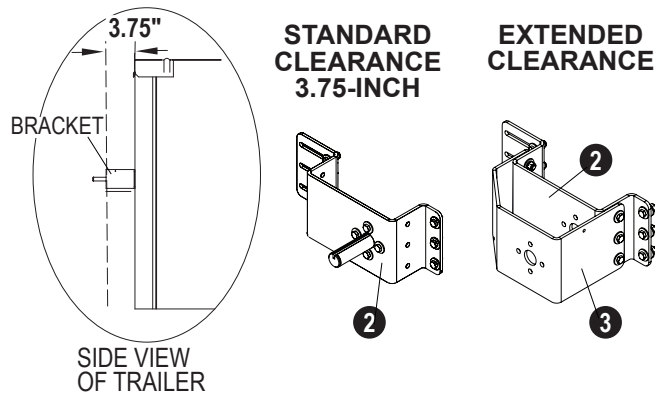


IMAGE 105

**STEP 2: STANDARD CLEARANCE BRACKET**

- a) If installing only a standard pivot bracket, fasten **pivot pin (1)** to **standoff bracket (2)** using **screw (G)** and **flat washer (P)**. Secure assembly with **flat washer (P)**, **lock washer (N)**, and **nut (K)**.
- b) Ensure the keyway in the **pivot pin (1)** faces downward.

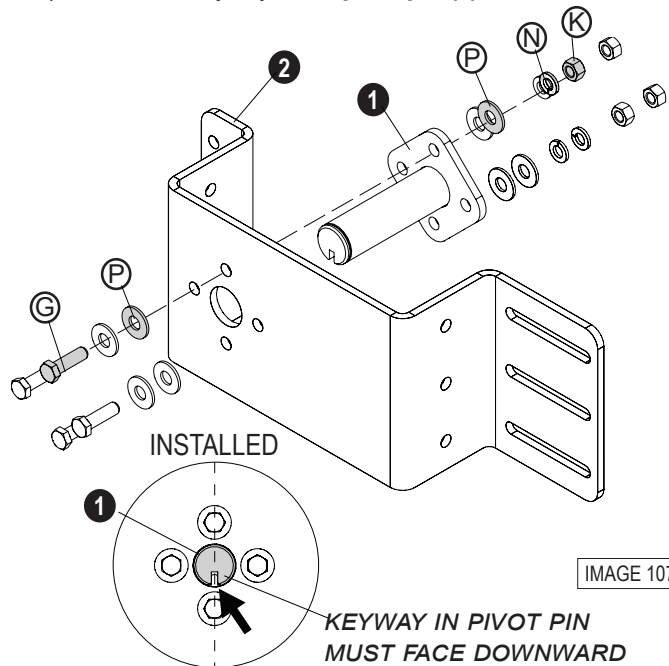


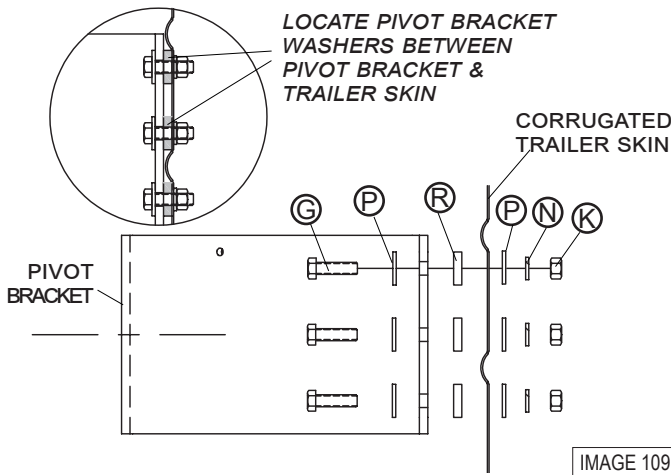
IMAGE 107

**NOTICE: TRAILERS WITH CORRUGATION**

Use pivot bracket washers (R) only when corrugation on trailer skin prevents bracket from contacting trailer skin.

**STEP 3: CORRUGATED TRAILER SKIN**

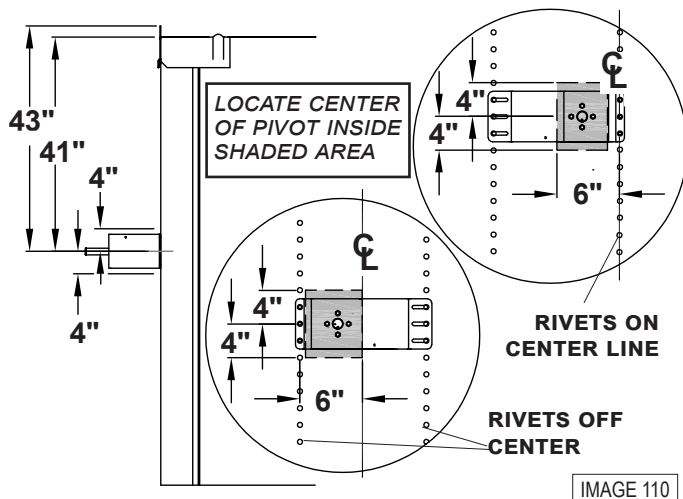
- a) If installing pivot bracket onto corrugated trailer skin, use the bracket as guide to mark hole locations.
- b) Mark and drill 13/32-inch holes in trailer and fasten with screws (G), flat washers (P), pivot bracket washers (R), (trailer skin), flat washers (P) lock washers (N), and nuts (K).



**NOTICE:** In flat cap applications, use heaped load as cap height. Maximum cap height is 10" above top rail.

**STEP 4: IDENTIFY BRACKET LOCATION**

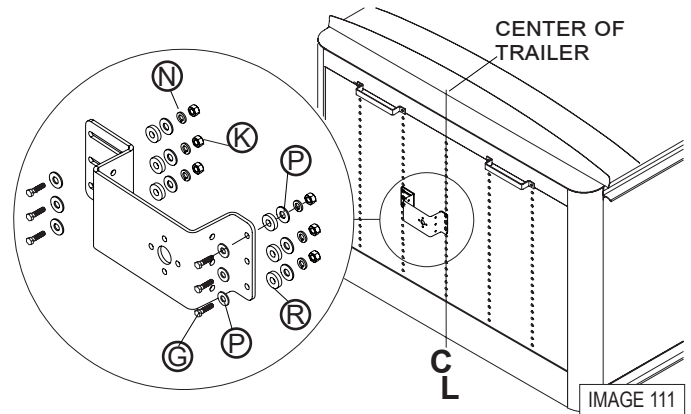
Locate pivot mount bracket on front right side of trailer so center of pivot lies within shaded area shown below. Measure 41" down from top of cap or 43" from top of windshield.



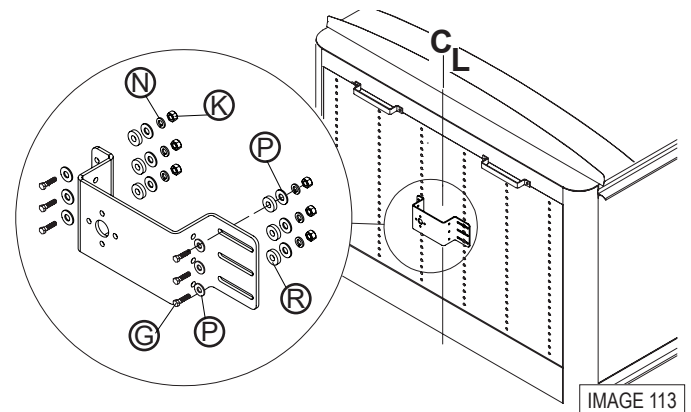
**STEP 4: FASTEN BRACKET(S) TO TRAILER**

Place pivot mount brackets on trailer as shown below. Using brackets as guide, mark mounting hole locations.

**RIVETS/CORRUGATION ON CENTER**

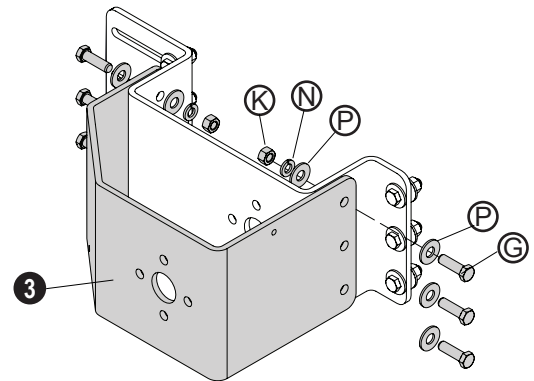


**RIVETS/CORRUGATION OFF CENTER**



**STEP 5: FASTEN PIVOT BRACKET**

When using the extended clearance pivot bracket (3), align it with the pivot mount bracket (2). Fasten with screws (G) and washers (P), lock washers (N) and nuts (K) as shown below.



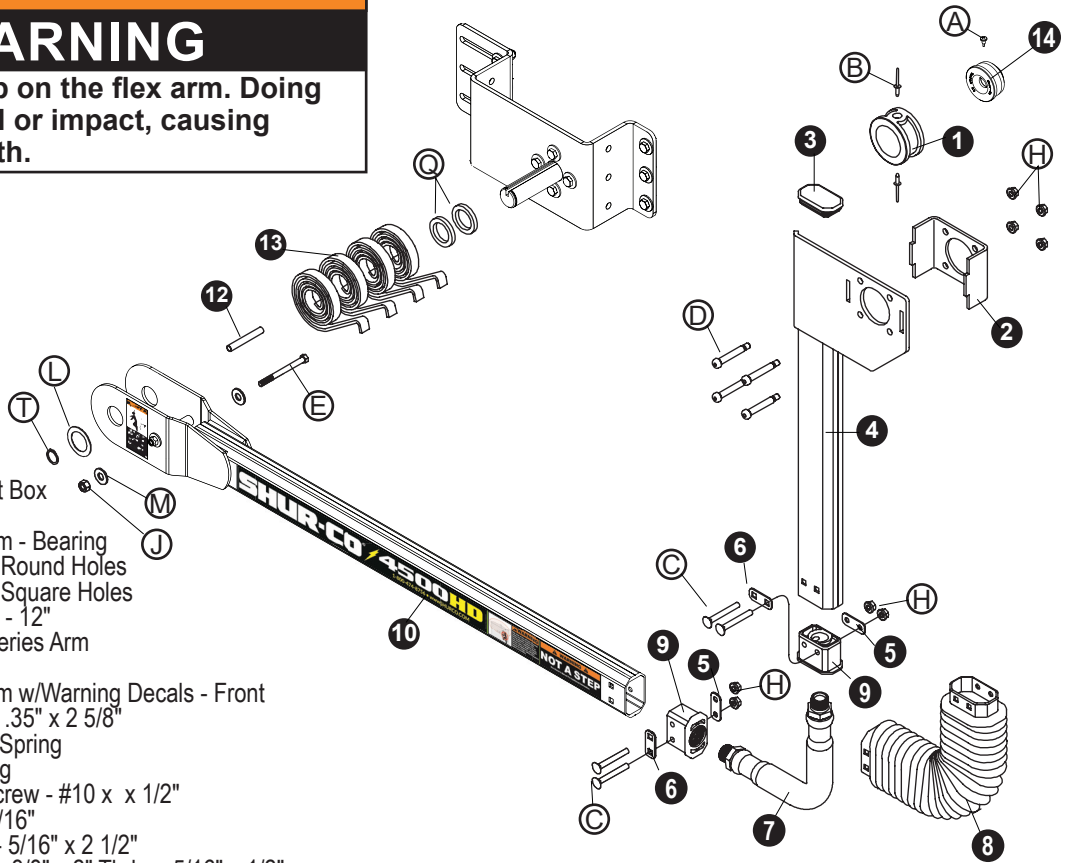
**STEP 6: FASTEN PIVOT PIN**

See Step 2 for pivot pin installation steps.

**⚠ WARNING**

Do not stand or climb on the flex arm. Doing so may result in a fall or impact, causing serious injury or death.

Item	Part #	Description
1.	1704942	Bearing Ring
2.	1121430	Bearing Mount Box
3.	1704892	Cap Plug
4.	1121281	Upper Flex Arm - Bearing
5.	1121413	Bellow Plate - Round Holes
6.	1121414	Bellow Plate - Square Holes
7.	1706825	Flex Arm Joint - 12"
8.	1704775	Bellow - HD Series Arm
9.	1704891	End Fitting
10.	1121617	Lower Flex Arm w/Warning Decals - Front
12.	1117033	Spacer Tube - .35" x 2 5/8"
13.	1111027	Spiral Torsion Spring
14.	1100138	Nylon End Plug
A.	1704743	Self-Drilling Screw - #10 x 1/2"
B.	1706103	Blind Rivet - 3/16"
C.	1701455	Carriage Bolt - 5/16" x 2 1/2"
D.	1704943	Shoulder Bolt - 3/8" x 2" Thd. x 5/16" x 1/2"
E.	1201022	Cap Screw - 5/16" x 3 1/2"
H.	1704931	Flanged Nylon Lock Nut - 5/16"
J.	1700419	Nylon Lock Nut - 5/16"
L.	1702890	Flat Washer - 1 1/4"
M.	1700428	Flat Washer - 5/16"
Q.	1118318	Spacer Washer - 1/4" x 1.28"
T.	1702888	Retaining Ring - 1 1/4"



**⚠ CAUTION**  
Do not leave the tarping system unattended until the flex arm is securely fastened to the roll tube extension.

IMAGE 120

**STEP 1:** Install cap plug (3) into the upper flex arm (4).

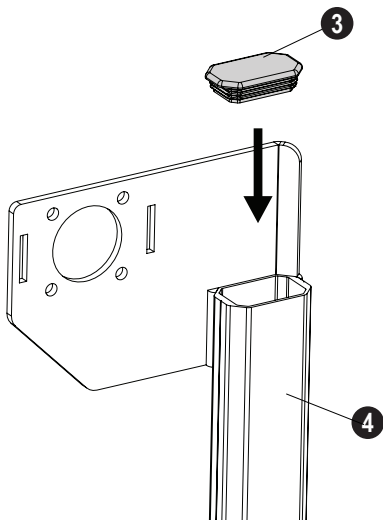


IMAGE 123

**STEP 2:** Fully thread end fittings (9) onto both ends of flex arm joint (7). Tighten so end fittings are parallel.

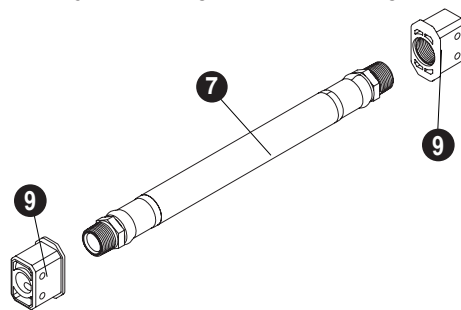


IMAGE 125

**⚠ WARNING**  
Flex arms are under tension while torsion springs are engaged. Use caution when assembling and disassembling arms. Failure to read and follow instructions may result in serious injury or death.

**STEP 3:** Insert **flex arm joint (7)** into **upper flex arm (4)** and slide **bellow (8)** over **flex arm joint (7)**. Align holes in upper flex arm, bellow plates, flex arm joint and bellow. Fasten with **bolts (C)** and **nuts (H)**.

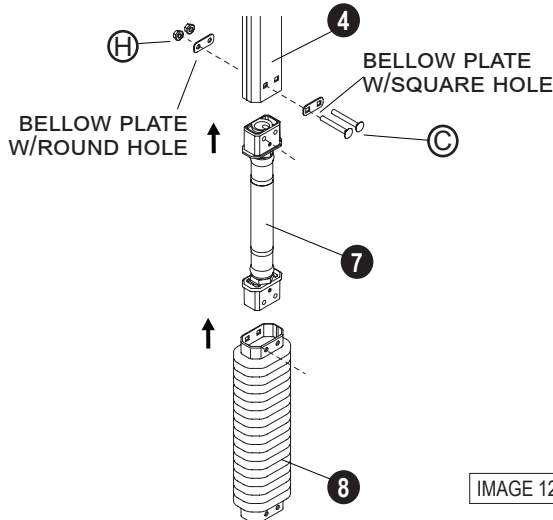


IMAGE 127

**STEP 4:** Insert lower **end fitting (9)** into **lower flex arm assembly (10)** with end of bellow over outside of arm. Align holes in lower flex arm assembly, bellow plates, end fitting and bellow. Fasten with **bolts (C)** and **nuts (H)**.

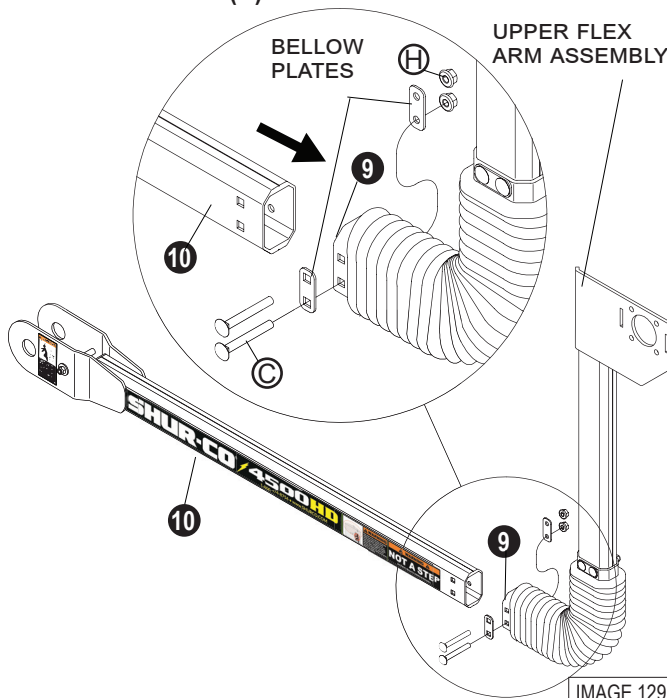


IMAGE 129

**CAUTION**

The upper arm bracket and lower arm warning decals must be installed facing away from the trailer and in plain view as shown above.

**STEP 5:** Assemble two **spacer washers (Q)** onto the pivot pin.

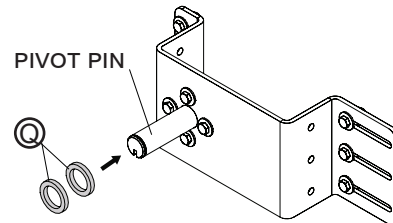


IMAGE 131

**STEP 6:** Assemble the **spiral torsion springs (13)** and **lower flex arm (10)** onto the pivot pin. Hook the springs over the **spacer tube (12)**.

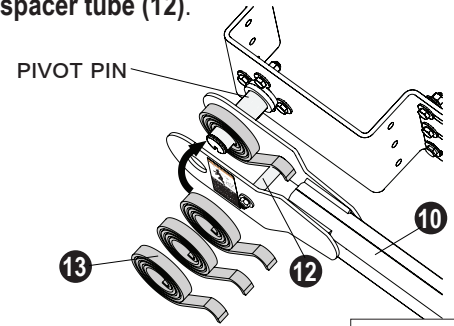


IMAGE 133

**STEP 7:** Secure with **washer (L)** and **retaining ring (T)**.

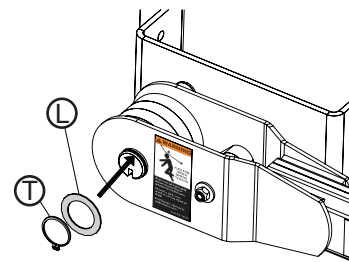


IMAGE 135

**STEP 8:** Insert the **roll tube** through the **bearing mount box (2)**, **bearing ring (1)** and upper flex arm **bearing plate**. Position roll tube so it extends 5 inches past bearing plate as shown. Fasten with **bolts (D)** and **nuts (H)**, anchoring bearing ring between bolts.

*DEBURR ROLL TUBE IF NEEDED BEFORE SLIDING THROUGH BEARING MOUNT BOX & RING*

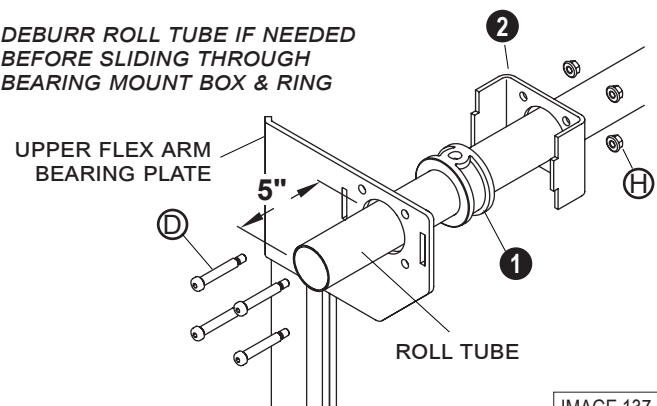


IMAGE 137

**STEP 9:** Adjust the roll tube so the flex arm lies on a vertical plane, parallel to the face panel and perpendicular to the roll tube.

**NOTICE:** Ensure the roll tube extends past the end of the bearing plate a minimum of 5" for proper arm containment.

ALIGN FLEX ARM WITH VERTICAL PLANE  
PARALLEL TO FACE PANEL

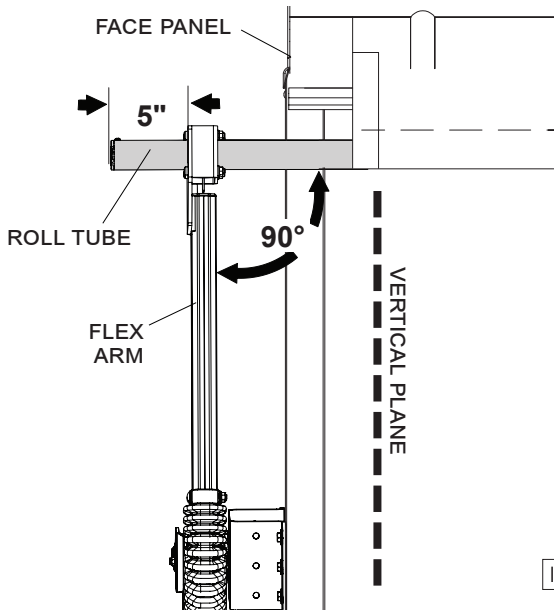


IMAGE 139

**STEP 10:** When the front flex arm is vertical, drill 3/16-inch holes and fasten the bearing ring (1) to the roll tube with two rivets (B).

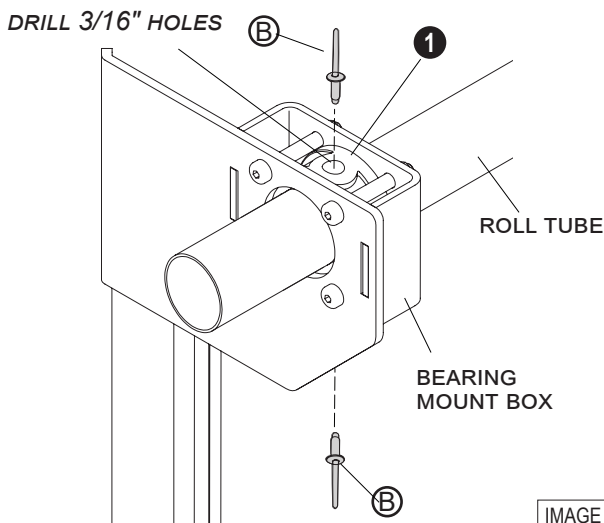


IMAGE 140

**STEP 11:** Re-fasten tarp to roll tube with existing U-clamps and screws. Tighten all fasteners securely. Tighten front flex arm connections.

**STEP 12:** Insert end plug (14) into the end of the roll tube and lightly tap into place.

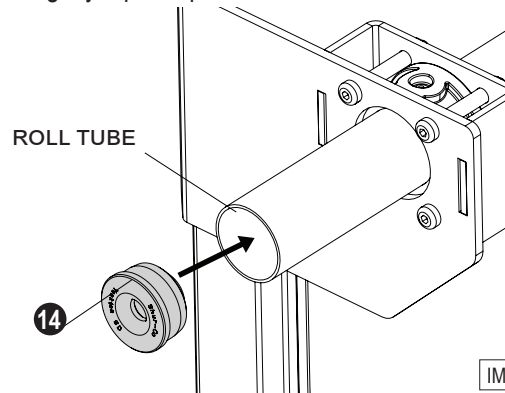


IMAGE 143

**STEP 13:** Mark location 7/16" from edge of end plug. Secure end plug to roll tube with screw (A).

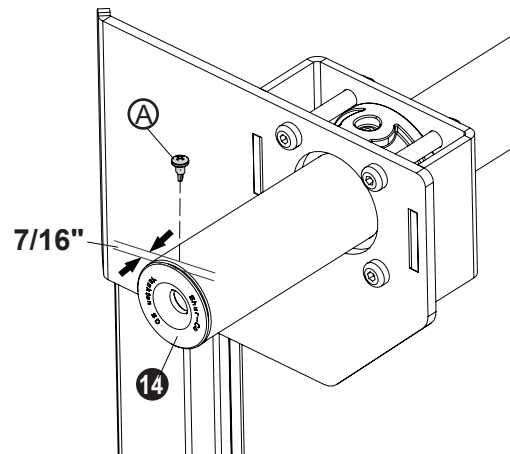
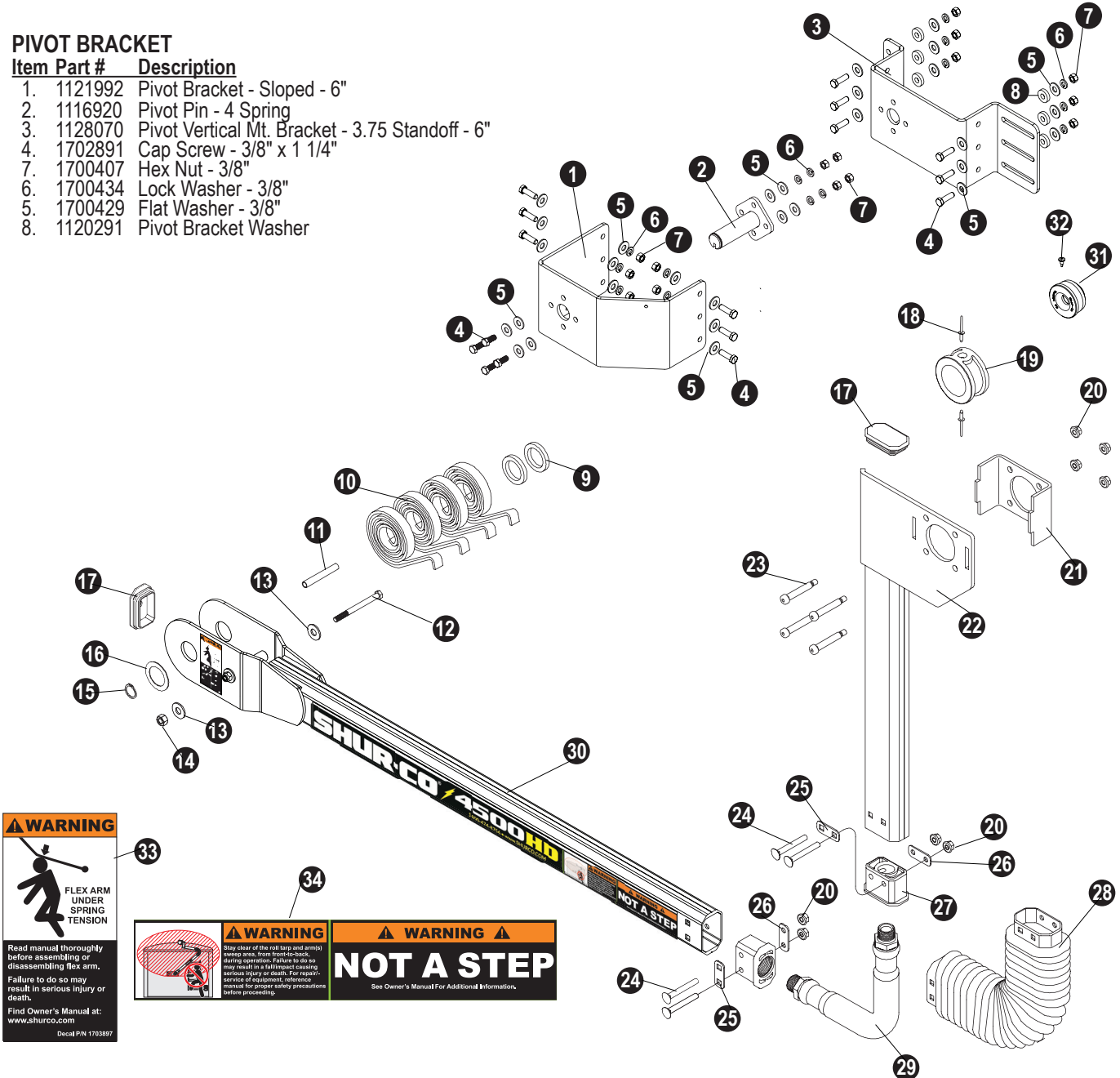


IMAGE 145

**PIVOT BRACKET**

Item	Part #	Description
1.	1121992	Pivot Bracket - Sloped - 6"
2.	1116920	Pivot Pin - 4 Spring
3.	1128070	Pivot Vertical Mt. Bracket - 3.75 Standoff - 6"
4.	1702891	Cap Screw - 3/8" x 1 1/4"
7.	1700407	Hex Nut - 3/8"
6.	1700434	Lock Washer - 3/8"
5.	1700429	Flat Washer - 3/8"
8.	1120291	Pivot Bracket Washer



**WARNING**

**FLEX ARM UNDER SPRING TENSION**

Read manual thoroughly before assembling or disassembling flex arm. Failure to do so may result in serious injury or death.

Find Owner's Manual at: [www.shurco.com](http://www.shurco.com)

Decal P/N 1703897

**WARNING**

Stay clear of the roll tarp and arm(s) sweep area, from front-to-back, during operation. Failure to do so may result in a fall-related causing serious injury or death. For repair-service of equipment, reference manual for proper safety precautions before proceeding.

**NOT A STEP**

See Owner's Manual For Additional Information.

**FRONT ARM**

Item	Part #	Description
9.	1118318	Spacer Washer - 1/4" x 1.28"
10.	1111027	Spiral Torsion Spring
11.	1117033	Spacer Tube - .35" x 2 5/8"
12.	1201022	Cap Screw - 5/16" x 3 1/2"
13.	1700428	Flat Washer - 5/16"
14.	1700419	Nylon Lock Nut - 5/16"
15.	1702888	Retaining Ring - 1 1/4"
16.	1702890	Flat Washer - 1 1/4"
17.	1704892	Cap Plug
18.	1706103	Blind Rivet - 3/16"
19.	1704942	Bearing Nylon
20.	1704931	Flanged Nylon Lock Nut - 5/16"

Item	Part #	Description
21.	1121430	Bearing Mount Box
22.	1121281	Upper Flex Arm - Bearing
23.	1704943	Shoulder Bolt - 3/8" x 2" Thd. x 5/16" x 1/2"
24.	1701455	Carriage Bolt - 5/16" x 2 1/2"
25.	1121414	Bellow Plate - Square Holes
26.	1121413	Bellow Plate - Round Holes
27.	1704891	End Fitting
28.	1704775	Bellow - HD Series Arm
29.	1706825	Flex Arm Joint - 12"
30.	1121617	Lower Flex Arm w/Warning Decals - Front
31.	1100138	Nylon End Plug
32.	1704743	Self-Drilling Screw - #10 x 1/2"
33.	1703897	Flex Arm Tension Warning Decal
34.	1707862	Flex Arm Step Warning Decal

IMAGE 701

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2309 SHURLOCK STREET | YANKTON, SD 57078-0713  
PHONE: 1.866.748.7435 | FAX: 1.605.665.0501  
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