



TARPING SYSTEMS & ACCESSORIES

P/N 1124960 Rev. D

OWNER'S MANUAL

Heavy-Duty Front Arm Return 3" Roll Tubes

READ BEFORE INSTALLING

PO BOX 713 ■ 2309 SHUR-LOK STREET ■ YANKTON, SD 57078-0713
PHONE 1-800-4-SHUR-LOK (1-800-474-8756) ■ FAX 605-665-0501
www.shurco.com

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SHIPPING. Orders are shipped F.O.B. from the Shur-Co®, LLC sites listed below. No full freight is allowed or prepaid shipment accepted unless quoted and approved in writing prior to acceptance of the order. All shipments are made by the most reasonable means in accordance with size and weight of order, unless specified routing instructions are furnished by the customer. Shipments are made daily via U.P.S. and common carrier. Claims for shortages must be made within 10 days. All claims for damages or loss in transit must be made with the carrier. No collect calls will be accepted. To ensure delivery of orders, we need your full street address and phone number. When you receive your shipment, examine it carefully. Be sure all cartons listed on the delivery sheet are accounted for. Large items may be packaged separately. If a carton is damaged, open it and inspect the contents before signing for delivery. If merchandise is damaged, describe damage on the delivery receipt. Failure on your part to document damaged or missing merchandise on the delivery receipt releases the carrier of all liability; repair or replacement will be the customer's responsibility.

WARRANTY. We warrant all new products are free of defects in materials and workmanship.* This warranty is effective if products are properly installed and used for the purpose for which they were intended and applies to the original buyer only. Except as set forth above or in any product-specific warranty documentation, we make no other warranties, express or implied, including but not limited to warranties of merchantability of fitness for a particular use.

Returns of a product for warranty must be accompanied by a Return Merchandise Authorization number (RMA#), obtained by calling Customer Service at 866-748-7435, and sent, with freight paid by us, to Shur-Co®, LLC, 2309 Shur-Lok St., PO Box 713, Yankton, SD 57078. All products returned without an RMA# will be refused. When we issue the RMA#, we will also issue a call tag to have UPS (or other freight company) pick up the product. C.O.D. returns not accepted. We will pay no storage fees for a warranty product return prior to pick by us or the freight company. If a warranty product return is scheduled to be picked up by us, we will pick up the product at our earliest convenience.

If a product returned is found, in our judgement, to be defective in material or workmanship, our obligation under this warranty is limited to the repair or replacement of the product, which will be made by us. Repair or replacement will be at our discretion, with replacements being made using current products performing in the equivalent function. Labor charges, other than those incurred at our factory, including, but not limited to, any labor to install a repaired or replacement product, are not covered under this warranty. All expenses associated with delivering defective products to our factory and delivering repaired or replacement products from our factory to the owner will be paid by us.

If the product returned is found, in our judgement, to be non-warrantable, the owner will be contacted to authorize repair work, purchase of a replacement product or return of the product, all of which will be at the owner's expense. Payment authorization must be received by us before any non-warrantable product is repaired, replaced or returned. All expenses associated with delivering the repaired non-warrantable product, a replacement product or the non-warrantable product from our factory to the owner will be paid by the owner.

In no event will we be liable for any damages of any kind to person, product or property, including but not limited to indirect, incidental, special, consequential or punitive damages, or damages for loss of profits or revenue, even if we have been advised of the possibility of such damages. There are no warranties for used products or products that have been repaired, altered, modified or subjected to misuse, negligence or accident. We will not repair or replace products that fail or malfunction due to ordinary wear and tear, except as expressly noted in a product-specific warranty. Use of non-Shur-Co®, LLC parts in conjunction with Shur-Co®, LLC products will void this product warranty.

*Certain products have specific warranties that differ from this warranty, for example motors and electronics. Product-specific warranty documentation is available for these items. In the event of a conflict between this warranty and a product-specific warranty, the product-specific warranty will govern.

RETURN POLICY. All sales final. See WARRANTY above for return details.

OTHER. All prices, product listings, sizes, weights and manufacturing details are subject to change without notice. No person is authorized to modify the foregoing conditions of sale whatsoever.

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For more info, log on to our website:

www.shurco.com

MESSAGE TO OWNERS

Thank you for buying this tarping system from Shur-Co®. We appreciate your confidence in our products. Please read and thoroughly understand this manual before installing and/or operating this system.

Pay particular attention to important safety and operating instructions, as well as warnings and cautions. The hazard symbol  is used to alert users to potentially hazardous conditions and is followed by caution, warning or danger messages.

Failure to READ AND FOLLOW INSTRUCTIONS could result in failure of your tarping system and/or personal injury. Your trailer requirements may, however, call for minor variations to these instructions.

Please inspect your tarping system periodically. Repair or replace worn or damaged parts to your system.

QUESTIONS? CALL OUR HELP LINE:
1-866-748-7435
 MON-FRI 8 AM-5 PM CENTRAL TIME

SAFETY

We at Shur-Co® are concerned with your safety and the safety of all those operating this system. Therefore, we have provided safety decals at various locations on your tarping system. Keep decals as clean as possible at all times. Replace any decal that has become worn or damaged, painted over or otherwise difficult to read. Replacement decals are available through Shur-Co® dealers.

SAFETY INSTRUCTIONS

- 1. Always wear safety glasses during installation and operation.**
- 2. Stay clear of moving parts.**
- 3. No other use of this system is authorized, except as designed.**

RUST PREVENTION

To prevent rust, paint all exposed metal, such as weld seams and/or metal exposed by grinding or cutting, with corrosion-resistant paint.

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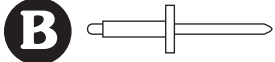
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TOOLS REQUIRED

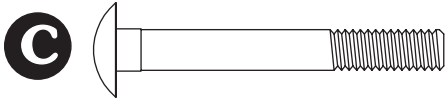
1. Welder
2. Hammer
3. Center Punch or Transfer Punch
4. #3 Phillips Insert Bit
5. Air or Electric Impact Wrench (9/16" deep socket)
6. 7/16" Deep Socket
7. 3/8" Combination Wrench
8. 9/16" Combination Wrench
9. 1/2" Combination Wrench
10. 1/8" Hex Wrench Long T-Handle
11. 3/16" Hex Wrench Long T-Handle (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



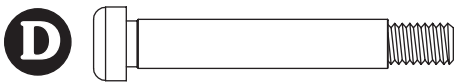
A 1704743 Self-Drilling Screw - #10 x x 1/2"



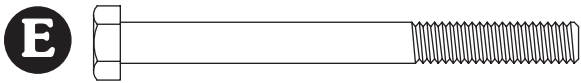
B 1706103 Blind Rivet - 3/16"



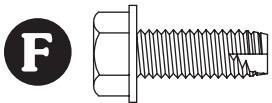
C 1701455 Carriage Bolt - 5/16" x 2 1/2"



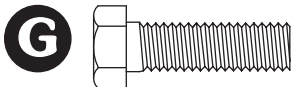
D 1704943 Shoulder Bolt - 3/8" x 2 - 5/16" x 1/2" Thd.



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



F 1700400 Self-Tapping Screw - 3/8" x 1"



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



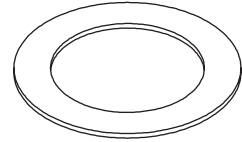
H 1704931 Flanged Nylon Lock Nut - 5/16"



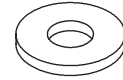
J 1700419 Nylon Lock Nut - 5/16"



K 1700407 Hex Nut - 3/8"



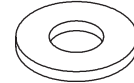
L 1702890 Flat Washer - 1 1/4"



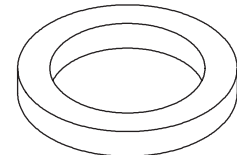
M 1700428 Flat Washer - 5/16"



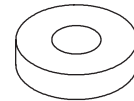
N 1700434 Lock Washer - 3/8"



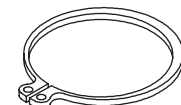
P 1700429 Flat Washer - 3/8"



Q 1118318 Spacer Washer - 1/4" x 1.81"



R 1120291 Pivot Bracket Washer



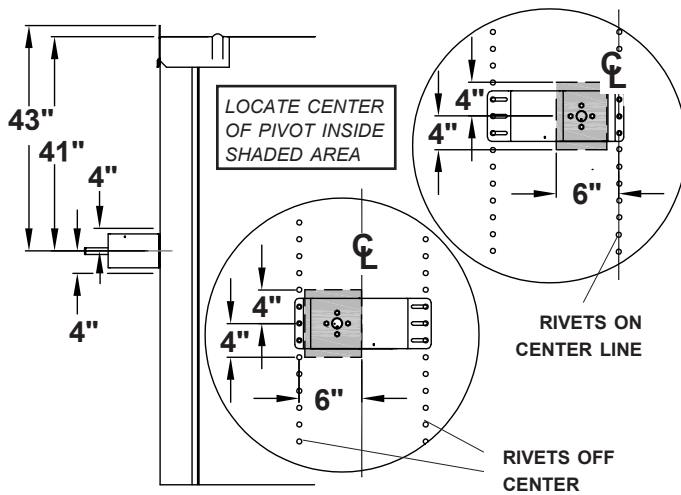
T 1702888 Retaining Ring

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

NOTE: Read pages 2 and 3 entirely before drilling holes. Determine if rivets are centered or off center on front and rear of trailer.

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

STEP 1: Locate pivot mount bracket on front passenger 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.

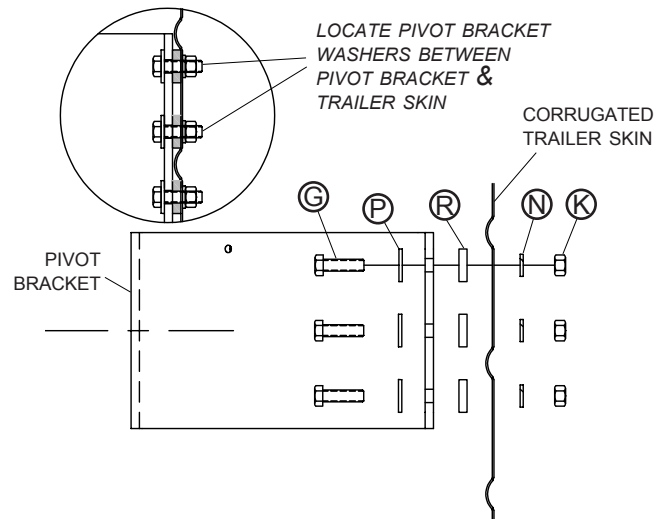


NOTE: Mount brackets into support braces on trailer, if possible. If bracket cannot be mounted into support braces, reinforce mounting area with backer plate for adequate support. Before drilling any holes, make sure flex arm has clear pathway to operate.

INSTALL BRACKETS ON HORIZONTALLY CORRUGATED TRAILERS

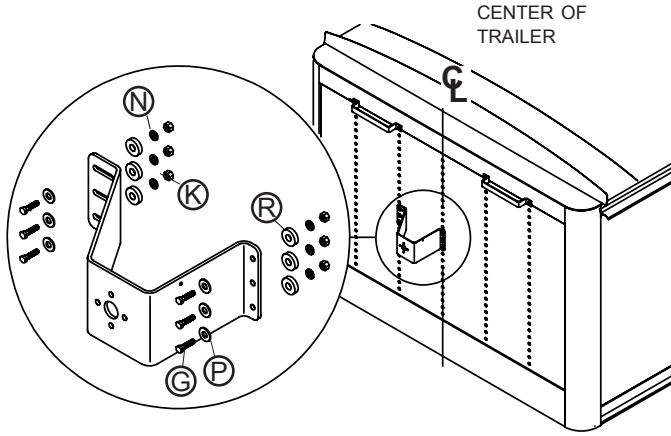
NOTE: Use pivot bracket washers (R) only when horizontal corrugation on trailer prevents bracket from contacting trailer skin.

STEP 2: If installing pivot bracket or pivot mount bracket on horizontally corrugated trailer skin, use brackets as guide to mark hole locations. Mark and drill 13/32" holes in trailer and fasten with screws (G), flat washers (P), lock washers (N), pivot bracket washers (R) and nuts (K). Locate pivot bracket washers between pivot bracket and trailer skin as shown.

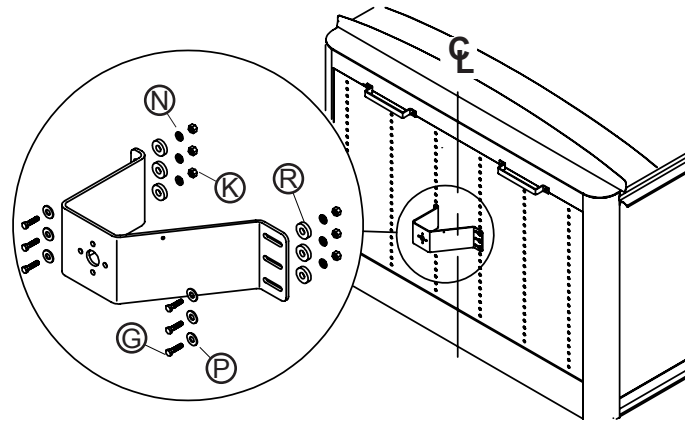


STEP 3: Place pivot mount brackets on trailer as shown below. Using brackets as guide, mark mounting hole locations.

RIVETS/CORRUGATION ON CENTER



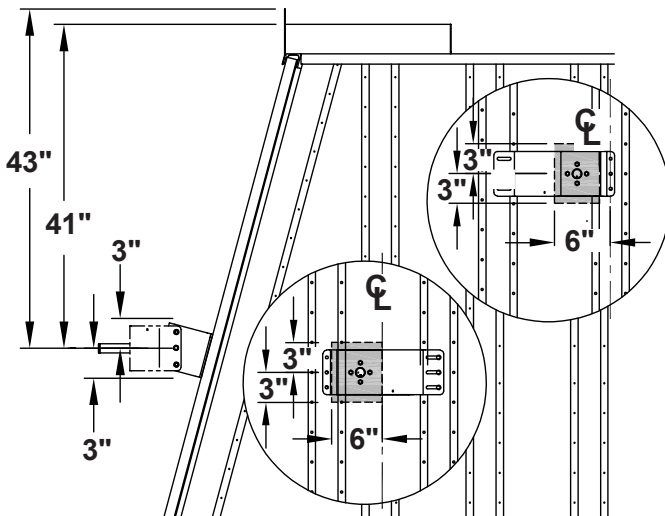
RIVETS/CORRUGATION OFF CENTER



NOTE: Read entire page before drilling holes. Determine if ribs are centered or off center on front and rear of trailer.

NOTE: Use pivot bracket washers **Ⓡ** only when horizontal corrugation on trailer skin prevents bracket from contacting trailer skin (see instructions on page 2).

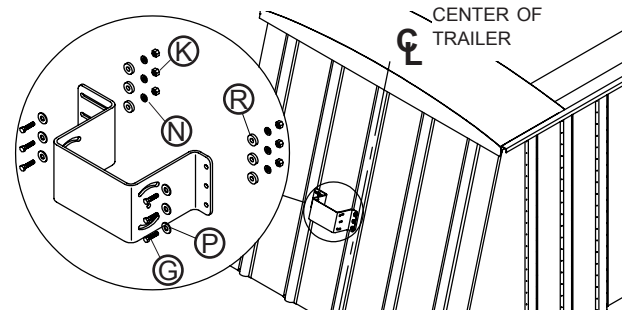
STEP 1: Locate sloped pivot mount bracket 41" down from top of cap or 43" from top of windshield, measuring vertically as shown. Do not measure along slope of trailer.



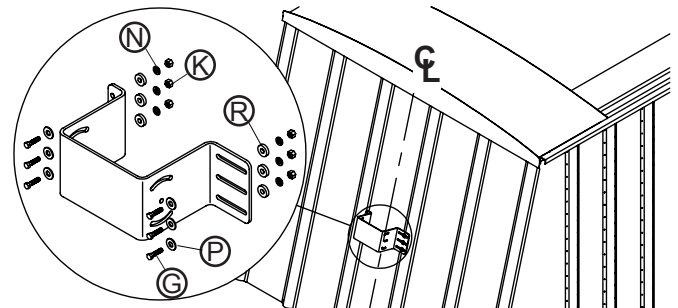
NOTE: Mount brackets into support braces on trailer, if possible. If bracket cannot be mounted into support braces, reinforce mounting area with backer plate for adequate support. If bracket does not sit flush with skin of trailer, install spacers between mounting bracket and trailer to assure solid contact through support braces or backer plate. Before drilling any holes, make sure flex arm has clear pathway to operate.

STEP 2: Place pivot mount brackets on trailer as shown below. Using brackets as guide, mark mounting hole locations.

RIVETS/CORRUGATION ON CENTER



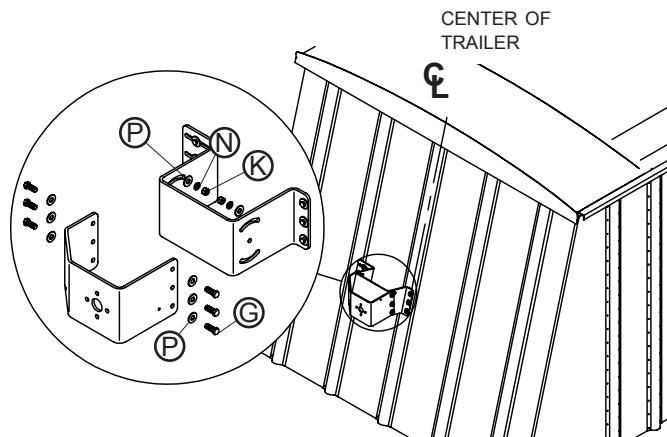
RIVETS/CORRUGATION OFF CENTER



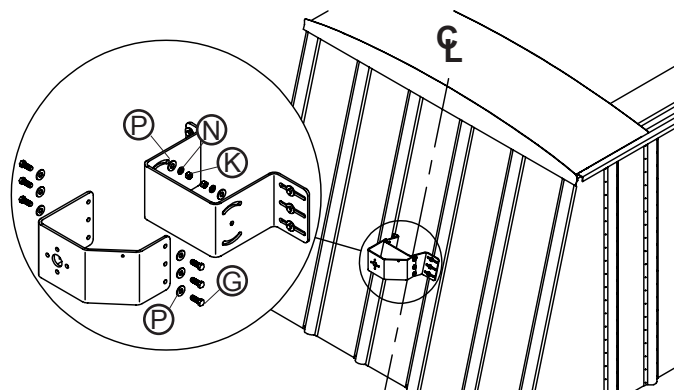
STEP 3: Drill 13/32" holes in trailer. Fasten sloped pivot mount bracket to trailer with screws **ⓐ**, washers **Ⓝ**, **Ⓟ** and **Ⓡ** and nuts **Ⓠ**.

STEP 4: Place pivot brackets on pivot mount brackets on front of trailer as shown below. Fasten pivot brackets to pivot mount brackets with screws **C**, flat washers **D**, lock washers **N** and nuts **K**.

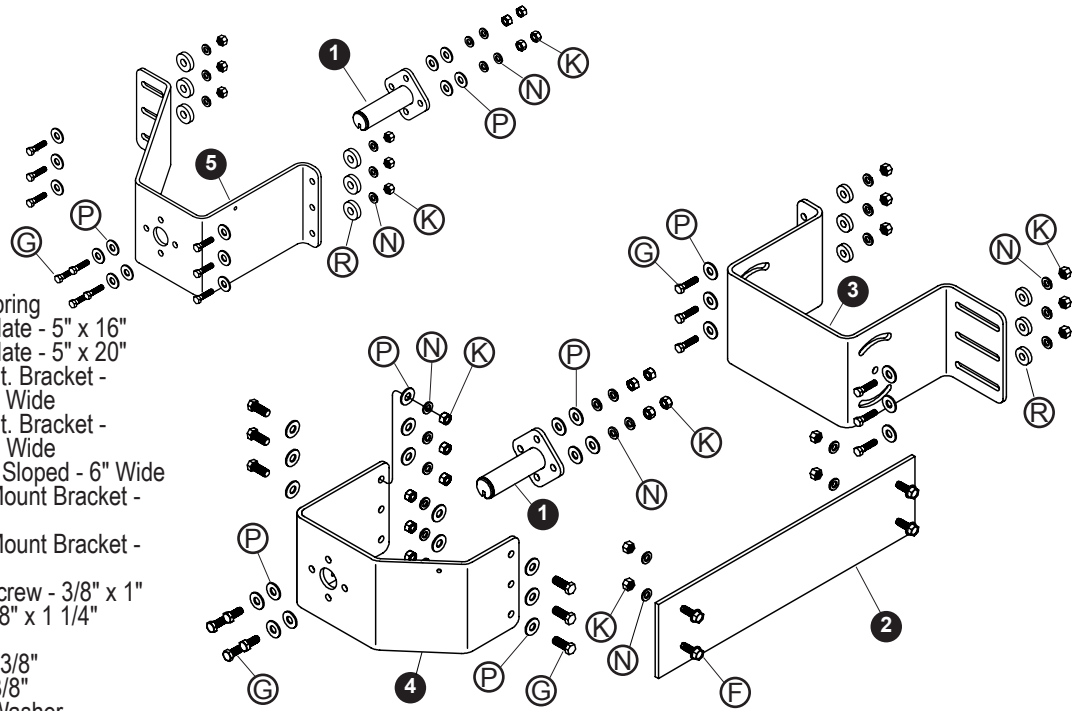
RIVETS/CORRUGATION ON CENTER



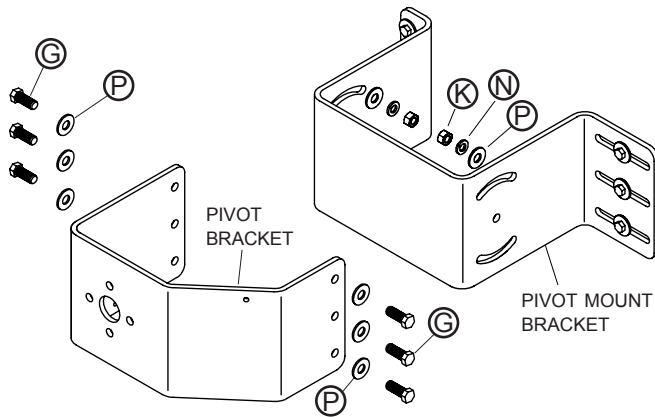
RIVETS/CORRUGATION OFF CENTER



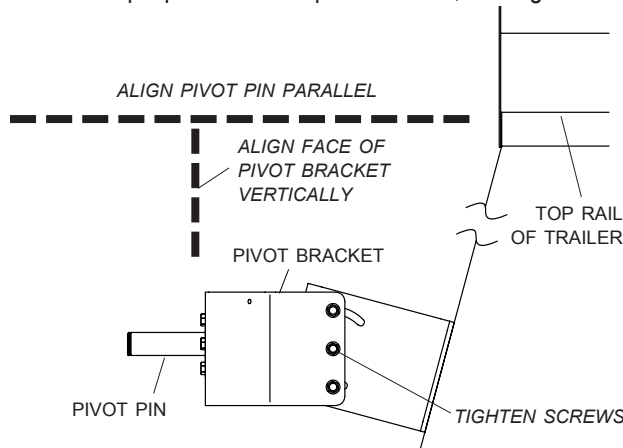
Item	Part #	Description
1.	1116920	Pivot Pin - 4 Spring
2.	1120361	Pivot Backer Plate - 5" x 16"
	1120418	Pivot Backer Plate - 5" x 20"
3.	1121993	Sloped Pivot Mt. Bracket - 6" Standoff - 6" Wide
	1121994	Sloped Pivot Mt. Bracket - 8" Standoff - 6" Wide
4.	1121992	Pivot Bracket - Sloped - 6" Wide
5.	1116919	Vertical Pivot Mount Bracket - 7 1/4" Standoff
	1117031	Vertical Pivot Mount Bracket - 9 1/4" Standoff
F.	1700400	Self-Tapping Screw - 3/8" x 1"
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



STEP 1: Align and loosely fasten pivot bracket to pivot mount bracket with screws **G**, washers **N** and **P** and nuts **K**.

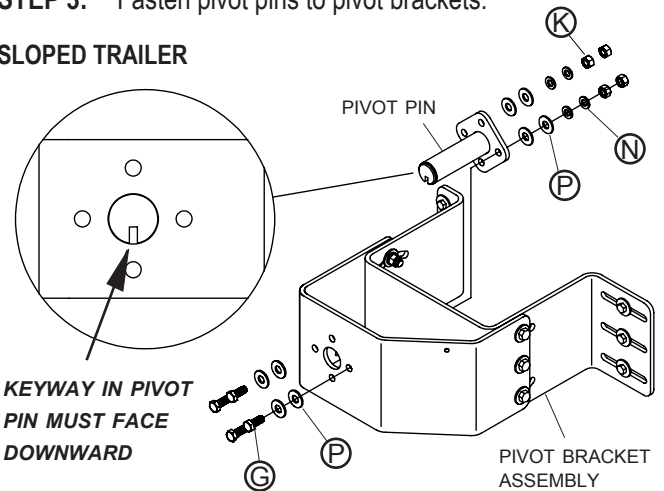


STEP 2: Align face of pivot bracket vertically and align pivot pin parallel with top rail of trailer, then tighten screws.

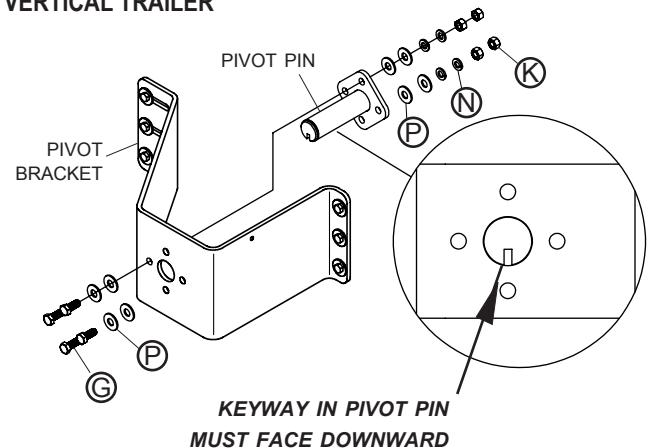


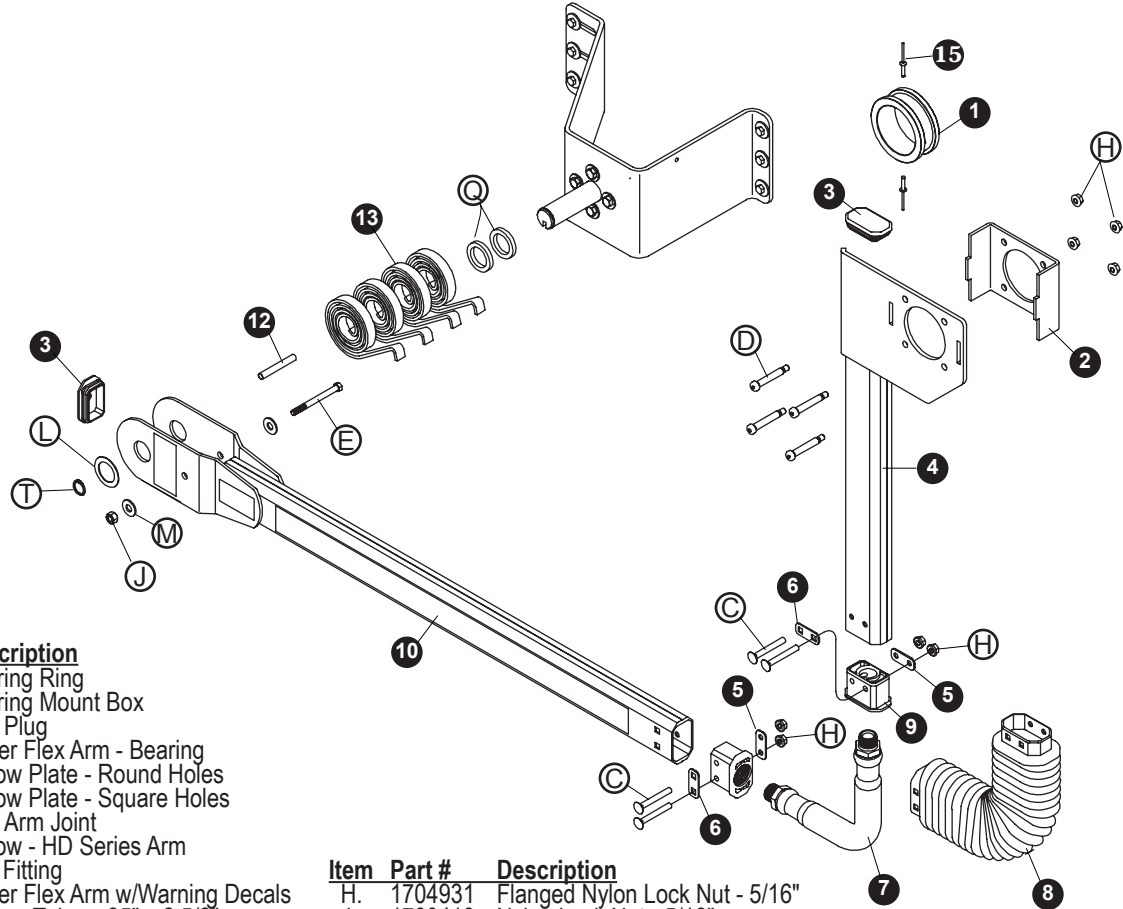
STEP 3: Fasten pivot pins to pivot brackets.

SLOPED TRAILER



VERTICAL TRAILER

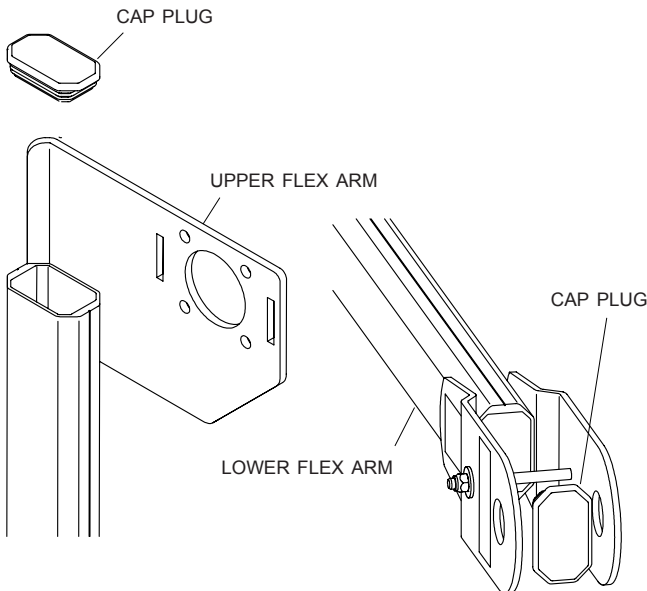




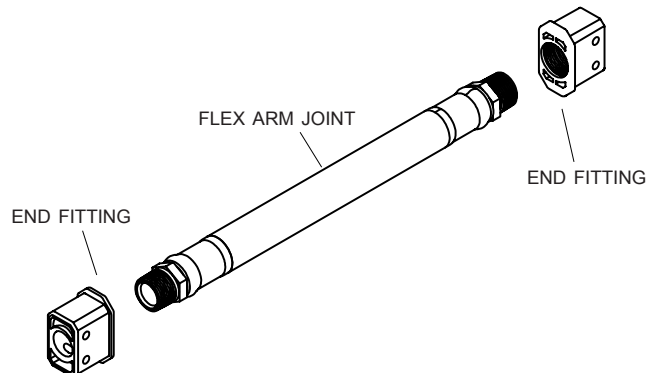
Item	Part #	Description
1.	1705160	Bearing Ring
2.	1123248	Bearing Mount Box
3.	1704892	Cap Plug
4.	1124958	Upper Flex Arm - Bearing
5.	1121413	Bellow Plate - Round Holes
6.	1121414	Bellow Plate - Square Holes
7.	1703873	Flex Arm Joint
8.	1704775	Bellow - HD Series Arm
9.	1704891	End Fitting
10.	1122000	Lower Flex Arm w/Warning Decals
12.	1117033	Spacer Tube - .35" x 2 5/8"
13.	1111027	Spiral Torsion Spring
14.	1121041	Roll Tube Cap
15.	1706103	Blind Rivet - 3/16"
C.	1701455	Carriage Bolt - 5/16" x 2 1/2"
E.	1201022	Cap Screw - 5/16" x 3 1/2"

Item	Part #	Description
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"
D.	1704943	Shoulder Bolt - 3/8" x 2" Thd. x 5/16" x 1/2"

STEP 1: Install cap plugs on upper and lower flex arms.



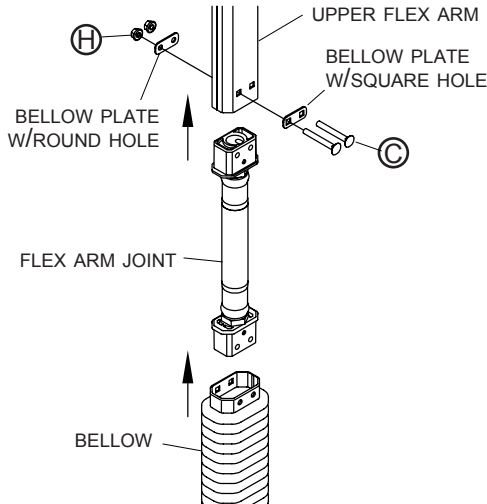
STEP 2: Fully thread end fittings onto both ends of flex arm joint. Tighten so end fittings are parallel.



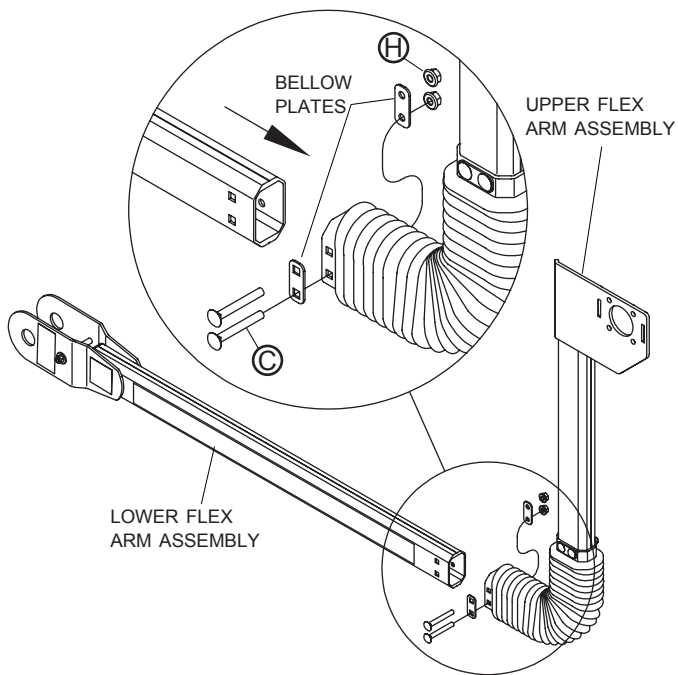
⚠ WARNING

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

STEP 3: Insert flex arm joint into upper flex arm and slide bellow over flex arm joint. Align holes in upper flex arm, bellow plates, flex arm joint and bellow. Fasten with bolts **C** and nuts **I**.

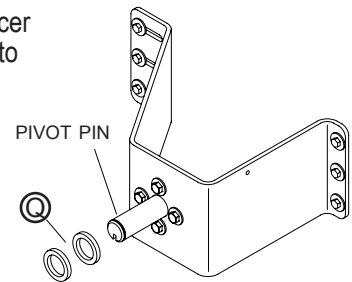


STEP 4: Insert lower end fitting into lower flex arm assembly with end of bellow over outside of arm. Align holes in lower flex arm assembly, bellow plates, end fitting and bellow. Fasten with bolts **C** and nuts **I**.

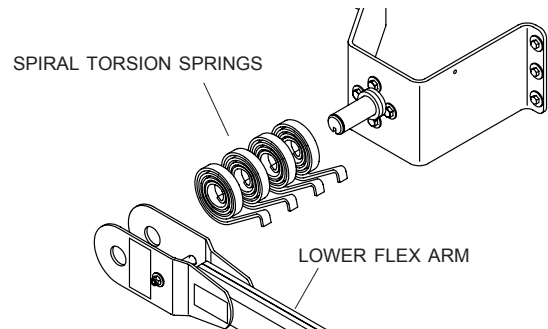


NOTE: Bracket on upper flex arm must face toward outside of trailer as shown above.

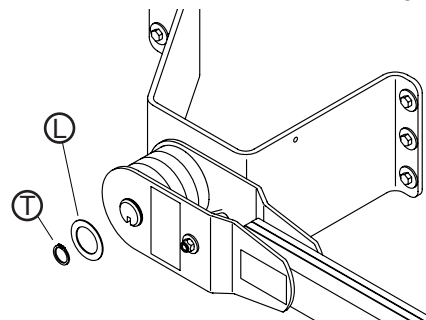
STEP 5: Assemble spacer washers **Q** onto pivot pin.



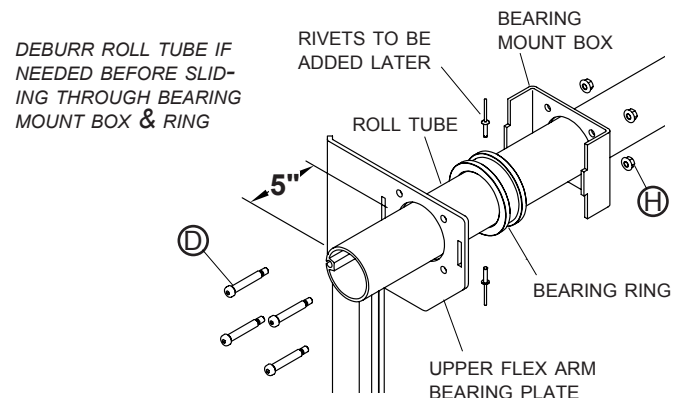
STEP 6: Assemble spiral torsion springs and lower flex arm onto pivot pin. Hook springs over screw **B** and spacer tube.



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



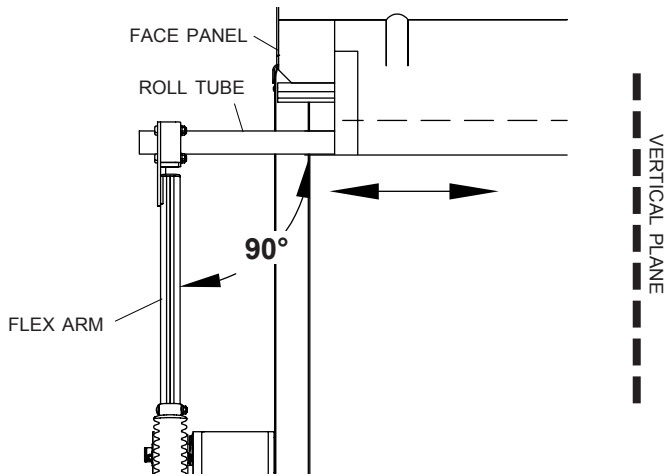
STEP 8: Insert roll tube through bearing mount box, bearing ring and upper flex arm bearing plate, aligning end of splined shaft 5" past bearing plate as shown. Fasten with bolts **D** and nuts **I**, anchoring bearing ring between bolts.



STEP 1: Adjust roll tube toward front or rear of trailer so flex arm lies on vertical plane parallel to face panel and perpendicular to roll tube.

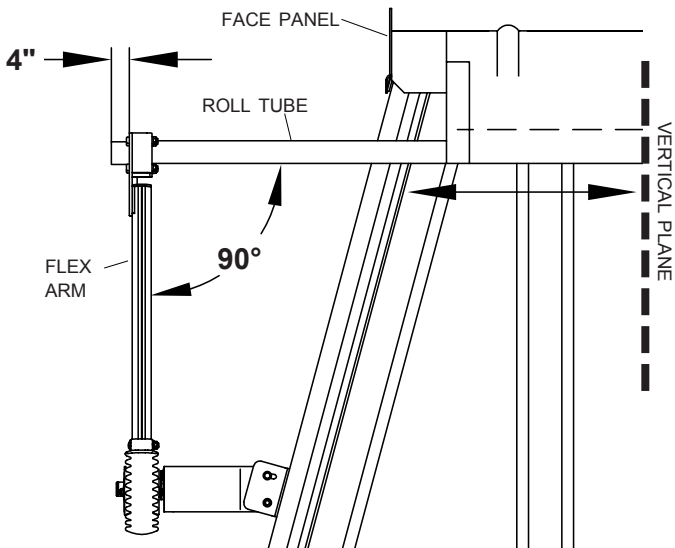
VERTICAL TRAILER

ALIGN FLEX ARM WITH VERTICAL PLANE PARALLEL TO FACE PANEL

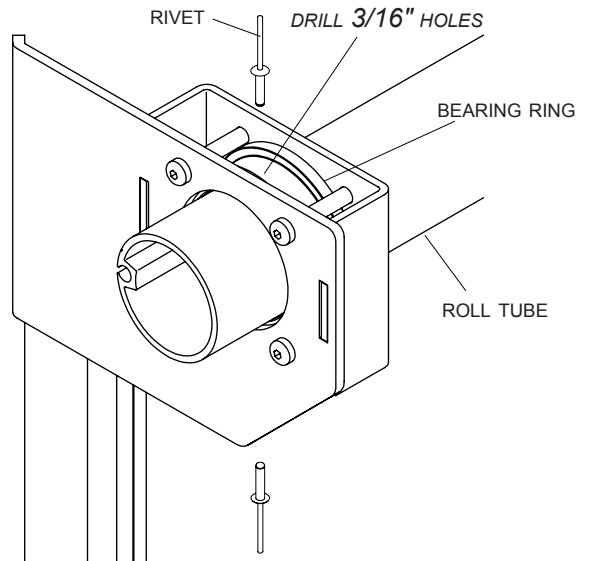


SLOPED TRAILER

ALIGN FLEX ARM WITH VERTICAL PLANE PARALLEL TO FACE PANEL

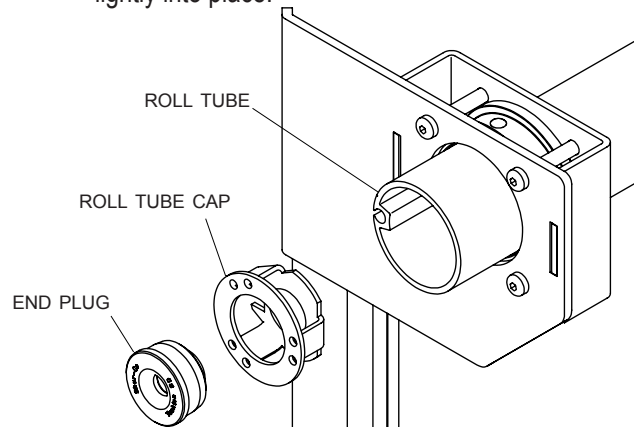


STEP 3: When front flex arm is vertical, drill 3/16" holes and fasten bearing ring to roll tube with two rivets.

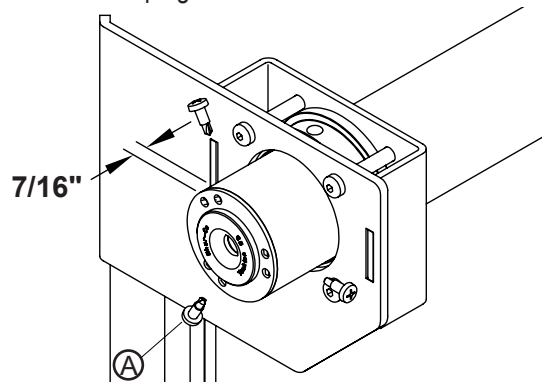


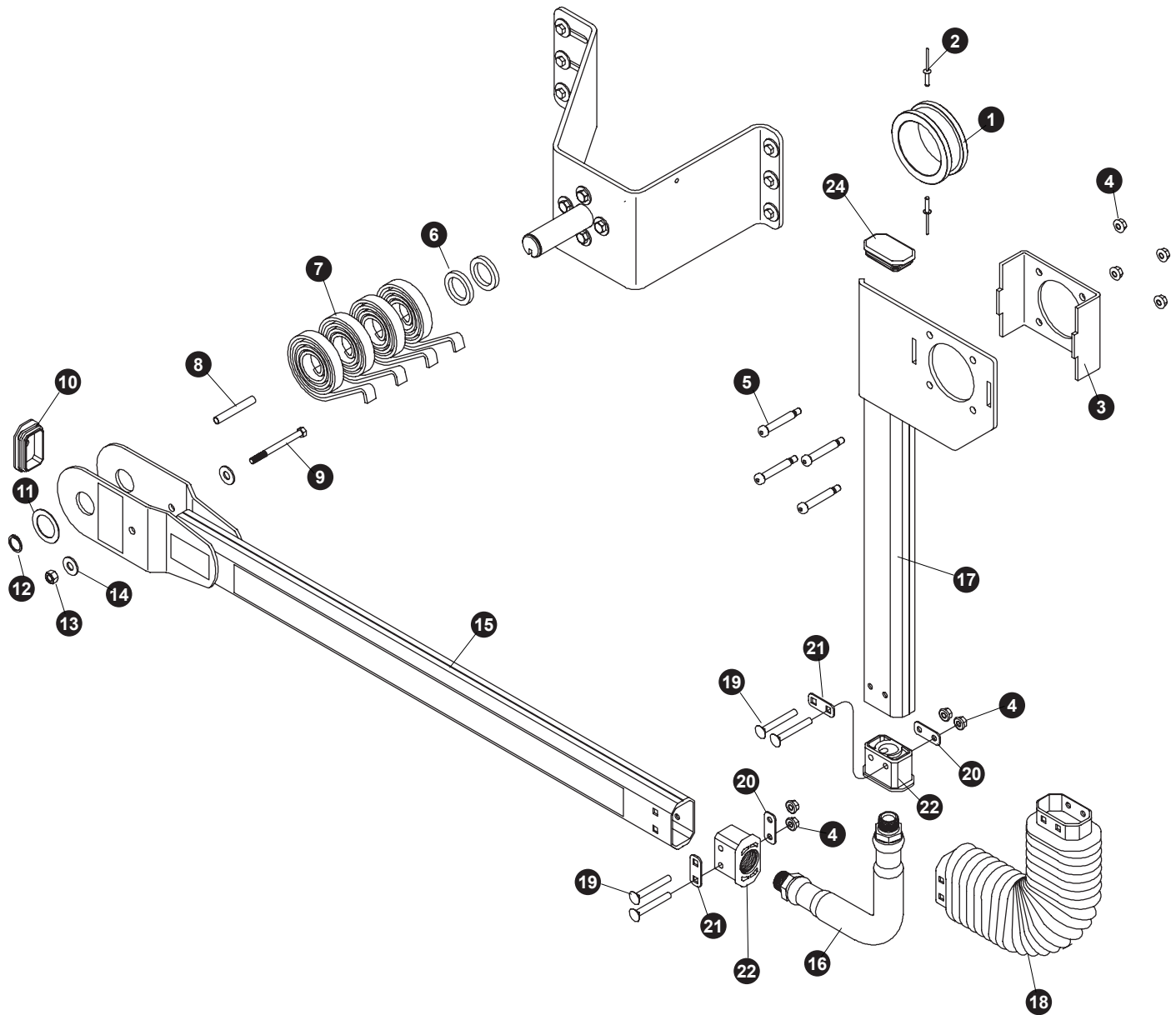
STEP 4: Re-fasten tarp to roll tube with existing U-clamps and screws. Tighten all fasteners securely. Tighten front flex arm connections.

STEP 5: Insert roll tube cap and end plug into roll tube. Tap lightly into place.



STEP 6: Mark location 7/16" from edge of end plug. Secure end plug to roll tube with screws (A).





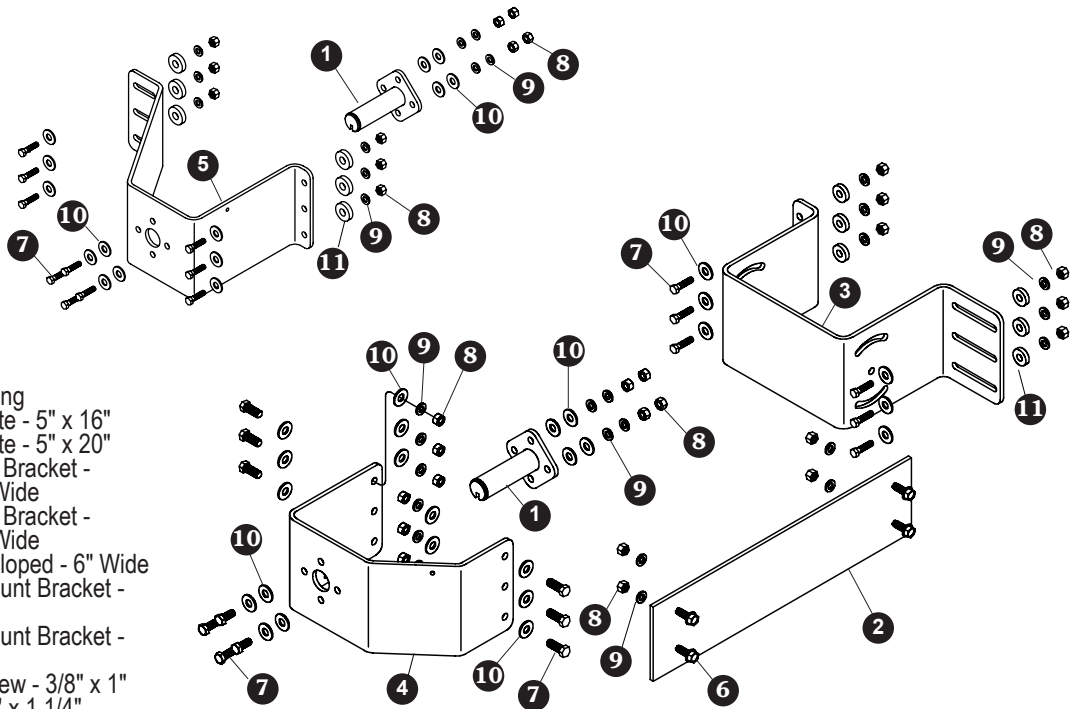
FRONT ARM RETURNS

Item Part # Description

1.	1705160	Bearing Ring
2.	1706103	Blind Rivet - 3/16"
3.	1123248	Bearing Mount Box
4.	1704931	Flanged Nylon Lock Nut - 5/16"
5.	1704943	Shoulder Bolt - 3/8" x 2" Thd. x 5/16" x 1/2"
6.	1118318	Spacer Washer - 1/4" x 1.81" OD x 1.28"
7.	1111027	Spiral Torsion Spring
8.	1117033	Spacer Tube - .35" x 2 5/8"
9.	1201022	Cap Screw - 5/16" x 3 1/2"
10.	1704892	Cap Plug
11.	1702890	Flat Washer - 1 1/4"
12.	1702888	External Retaining Ring - 1 1/4"

Item Part # Description

13.	1700419	Nylon Lock Nut - 5/16"
14.	1700428	Flat Washer - 5/16"
15.	1121617	Lower Flex Arm w/Warning Decals (Includes items 15; 16; 20; 21; 22)
16.	1703873	Flex Arm Joint
17.	1124958	Upper Flex Arm - Bearing
18.	1704775	4500 Series HD Bellow
19.	1701455	Carriage Bolt - 5/16" x 2 1/2"
20.	1121413	Bellow Plate - Round Holes
21.	1121414	Bellow Plate - Square Holes
22.	1704891	End Fitting
23.	1121041	Roll Tube Cap
24.	1704892	Cap Plug



PIVOT BRACKETS

Item	Part #	Description
1.	1116920	Pivot Pin - 4 Spring
2.	1120361	Pivot Backer Plate - 5" x 16"
	1120418	Pivot Backer Plate - 5" x 20"
3.	1121993	Sloped Pivot Mt. Bracket - 6" Standoff - 6" Wide
	1121994	Sloped Pivot Mt. Bracket - 8" Standoff - 6" Wide
4.	1121992	Pivot Bracket - Sloped - 6" Wide
5.	1116919	Vertical Pivot Mount Bracket - 7 1/4" Standoff
	1117031	Vertical Pivot Mount Bracket - 9 1/4" Standoff
6.	1700400	Self-Tapping Screw - 3/8" x 1"
7.	1702891	Cap Screw - 3/8" x 1 1/4"
8.	1700407	Hex Nut - 3/8"
9.	1700434	Lock Washer - 3/8"
10.	1700429	Flat Washer - 3/8"
11.	1120291	Pivot Bracket Washer

NOTE: Replace system parts only with Genuine Shur-Co® parts to ensure proper system function. If Genuine Shur-Co® parts are not used, warranty could be void.

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