

# Material Roller

## Operation and Maintenance Manual



174005 - Material Roller, Hydraulic Side Angle



Register your  
**WARRANTY**  
within 30 days  
of purchase



888-376-7027 | [BlueDiamondAttachments.com](http://BlueDiamondAttachments.com)



BD-092

# Introduction: Owner Information

Thank you for your decision to purchase a Blue Diamond® Material Roller. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator's manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and /or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator's Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

Blue Diamond is continually working to improve its products. Blue Diamond reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, Blue Diamond makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Blue Diamond assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Blue Diamond Attachments Dealer for assistance, information, or additional copies of the manual. Contact [www.bluediamondattachments.com](http://www.bluediamondattachments.com) or call 888-376-7027 for a complete list of dealers in your area.

## Serial Number Location:

Please record attachment information in the space provided for future reference.



Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer Name: \_\_\_\_\_

Dealer Number: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

The serial number plate is located in the center just forward of the attachment mounting plate.

Always use your serial number when requesting information or when ordering parts.

**NOTE:** The directions left, right, front and rear, as mentioned throughout this manual, are as viewed from the operator's position.

# Table of Contents

---

1. Safety .....	4-5
1.1 General Safety .....	4
1.2 Qualified Operators.....	4
1.3 Operating Safety.....	5
2. Parts Assemblies .....	6-15
2.1 Material Roller .....	6
2.2 Quick Attach Assembly .....	7
2.3 Rotary Actuator Assembly .....	8
2.4 Rotary Actuator .....	9
2.5 Main Boom Assembly .....	10
2.6 Boom Pivot Assembly.....	11
2.7 Hub Assembly.....	12
2.8 Stem Hub Assembly.....	13
2.9 Fork Bracket.....	14
2.10 Available Roll Stems.....	15
3. Warranty .....	17

# 1. Safety

## 1.1 General Safety Information



### **WARNING**



The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



### **CAUTION**



The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

## 1.2 Qualified Operators

### **Safe Operation Needs a Qualified Operator**



### **WARNING**



#### **AVOID SERIOUS INJURY OR DEATH**

Operators must receive instructions before operating the machine. Untrained operators can cause serious injury or death.

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

### **Operator Training**

- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area.

# 1. Safety

## 1.3 Operating Safety



### WARNING



Exercise care when operating any machinery. This manual acts as a guide and is not an exhaustive list of all safety precautions. The operator is ultimately responsible for safe operation of the vehicle and attachment.



### WARNING



Keep arms and legs away from the attachment while motor is running. Only approach once all parts have stopped moving.



### CAUTION

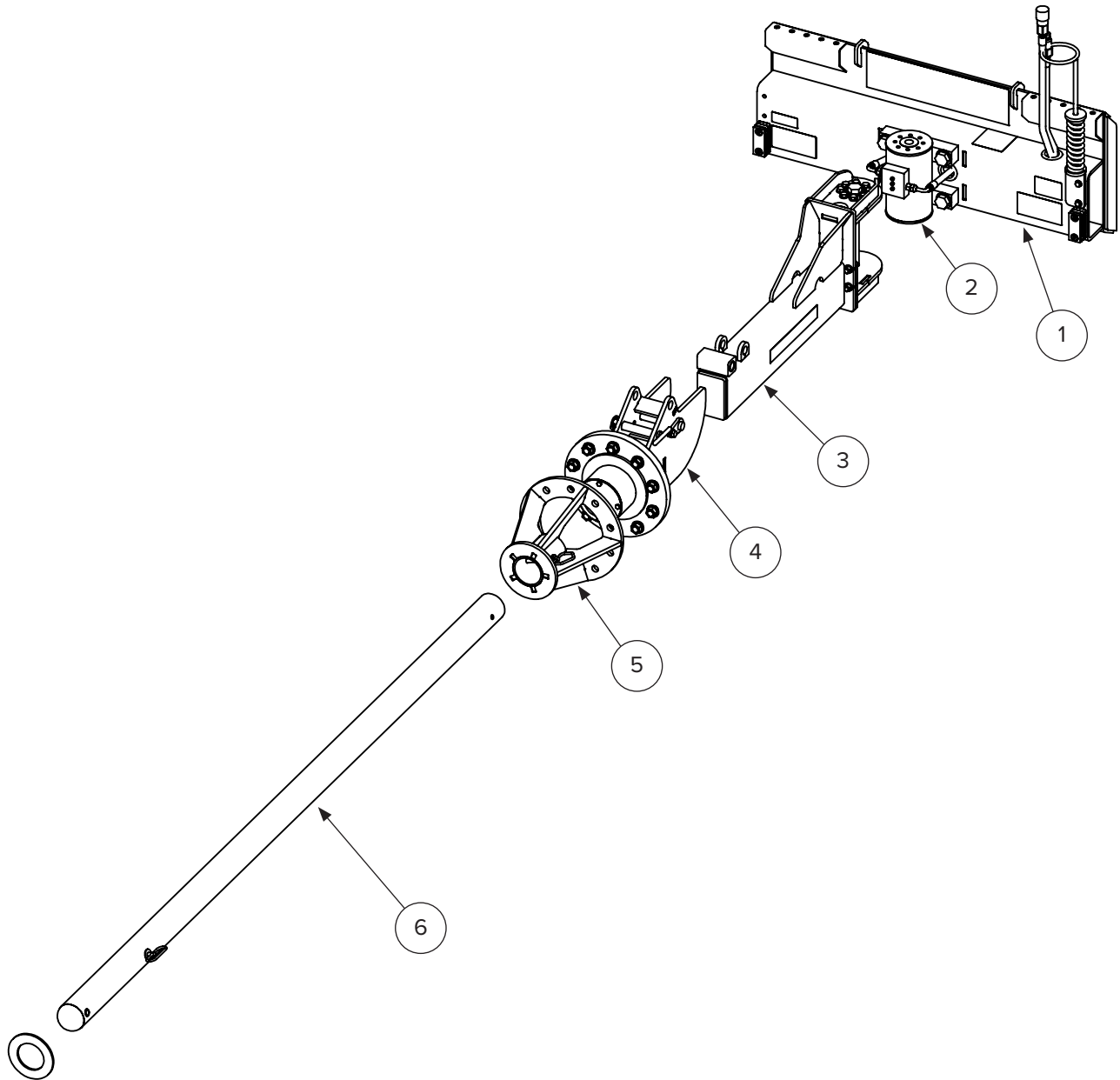


Practice caution when manipulating this attachment. The length can make it unwieldy.

- Read and follow instructions in this manual and the machine's Operator's Manual before operating.
- This equipment is dangerous to persons unfamiliar with its operation.
- Check for overhead and/or underground lines before operating equipment (if applicable).
- In addition to the design and configuration of equipment, hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.
- Check that the attachment is securely fastened to the machine.
- Operate the equipment only from the operator's position.
- The equipment must be used **ONLY** on approved machines.
- **DO NOT** modify the equipment in any way. Unauthorized modification may impair the function and/or safety and may void the warranty.
- Take **CAUTION** if operating equipment in poor visibility conditions such as fog, darkness, or any conditions that limit clear visibility less than 300 feet (100 m) in front of and to the sides of the equipment.
- Wear safety glasses, gloves, hearing protection, and other protective clothing when required.

## 2. Parts Assemblies

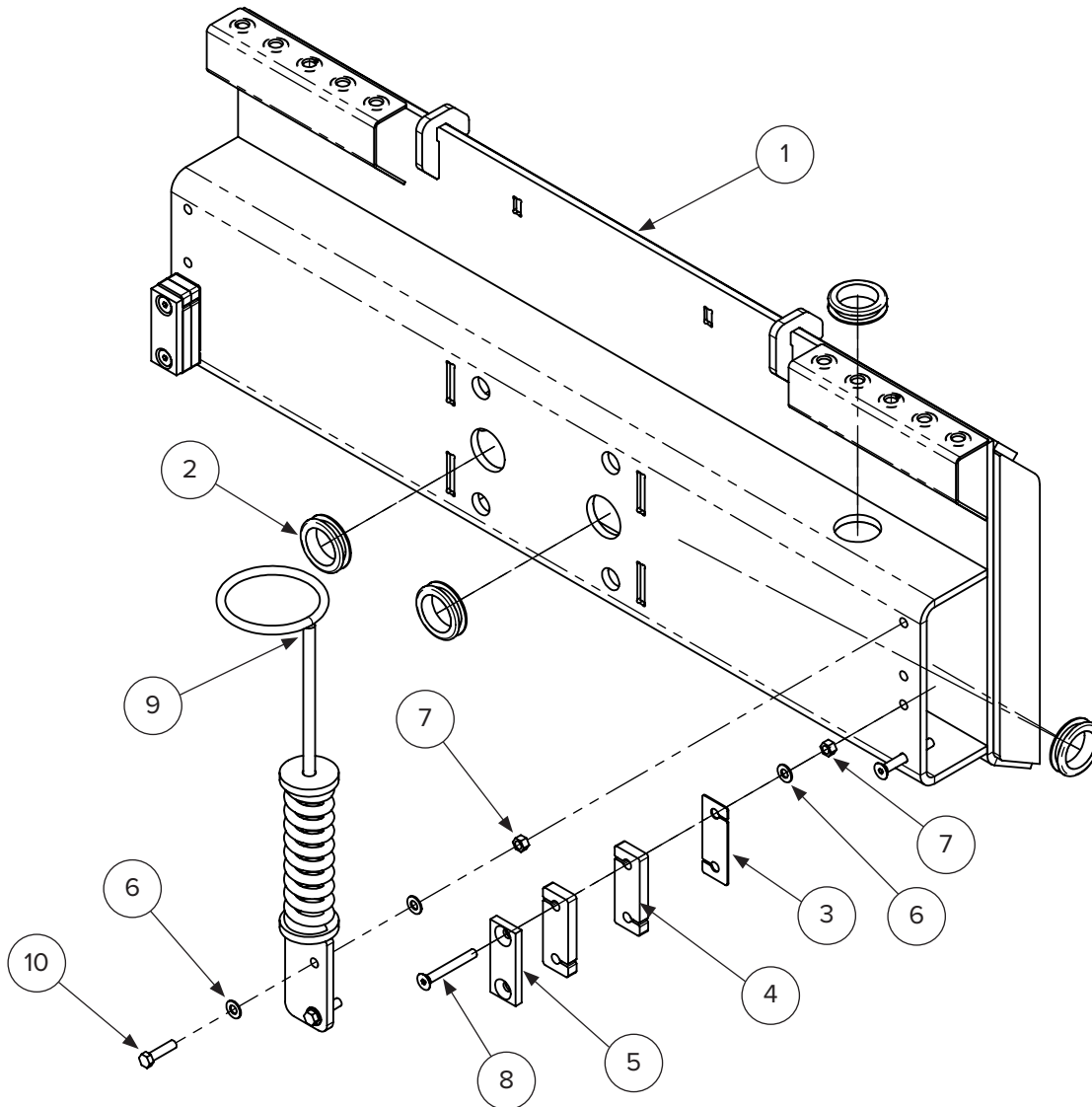
### 2.1 Material Roller



ITEM	PART NUMBER	DESCRIPTION	QTY
1	274006	Material Roller Quick Attach Assembly	1
2	274007	Material Roller Rotary Actuator Assembly	1
3	274008	Material Roller Main Boom Assembly	1
4	274025	Material Roller Boom Pivot Assy	1
5	274026	Material Roller Stem Hub Assembly	1
6	—	Roll Stems (See page 16)	1

## 2. Parts Assemblies

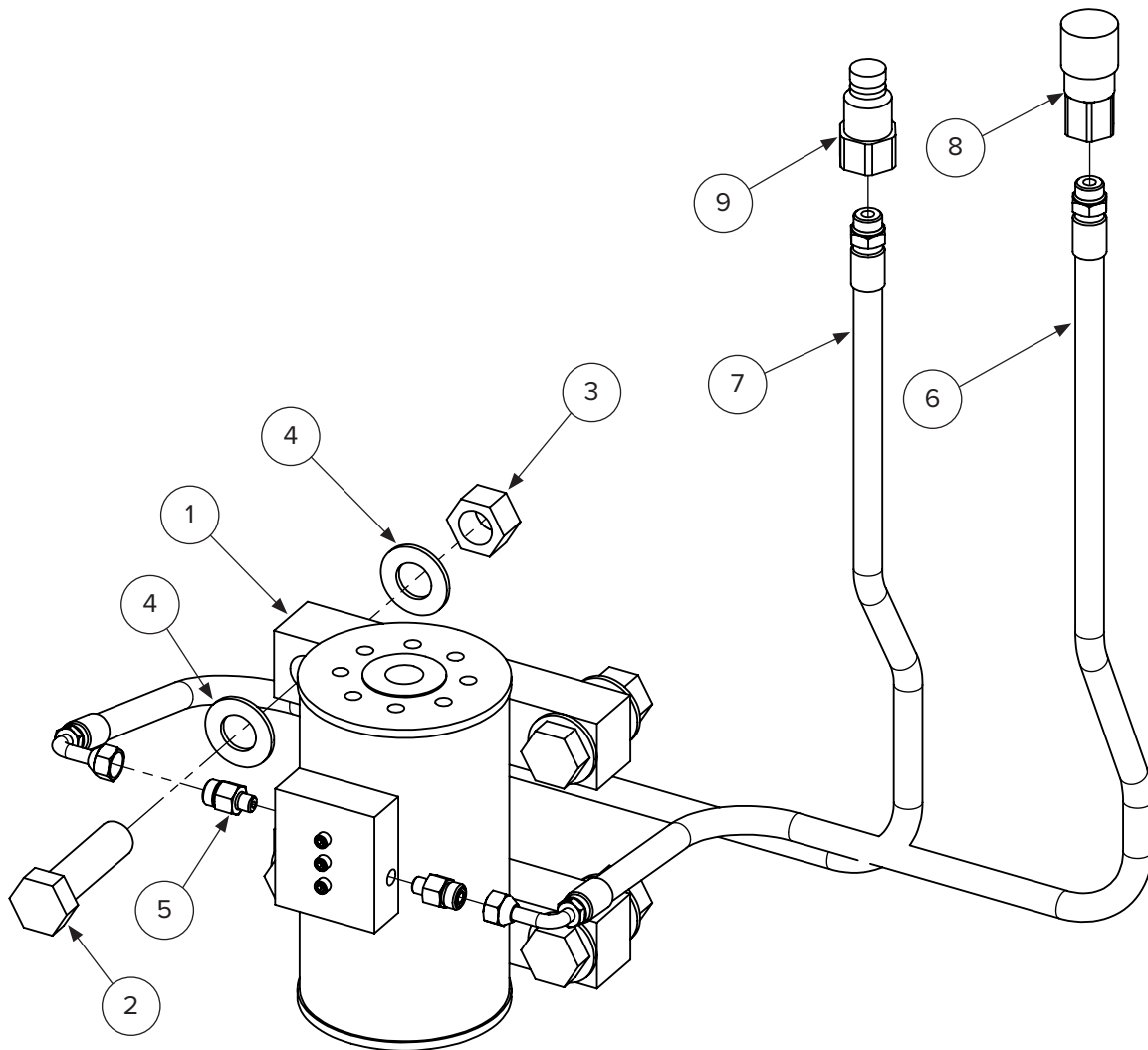
### 2.2 Roller Quick Attach Assembly



ITEM	PART NUMBER	DESCRIPTION	QTY
1	274000	Roller Quick Attach	1
2	274003	Grommet — 1.75 ID X .38 Thick	4
3	274029	Plate, Stopper Spacer .06	2
4	274028	Plate, Stopper Spacer .5	4
5	274015	Bar, Wheel Tube Shim	2
6	299725	Washer, 3/8 SAE GR8 ZY	8
7	299572	Nut, 3/8-16 GR8 ZY	6
8	299310	Cap Screw, 3/8-16 X 3.0 CTRSK GR8 ZC	4
9	274031	Hose Ring Weldment	1
10	299428	Bolt, 3/8-16 X 1.5 GR8 ZY	2

## 2. Parts Assemblies

### 2.3 Rotary Actuator Assembly

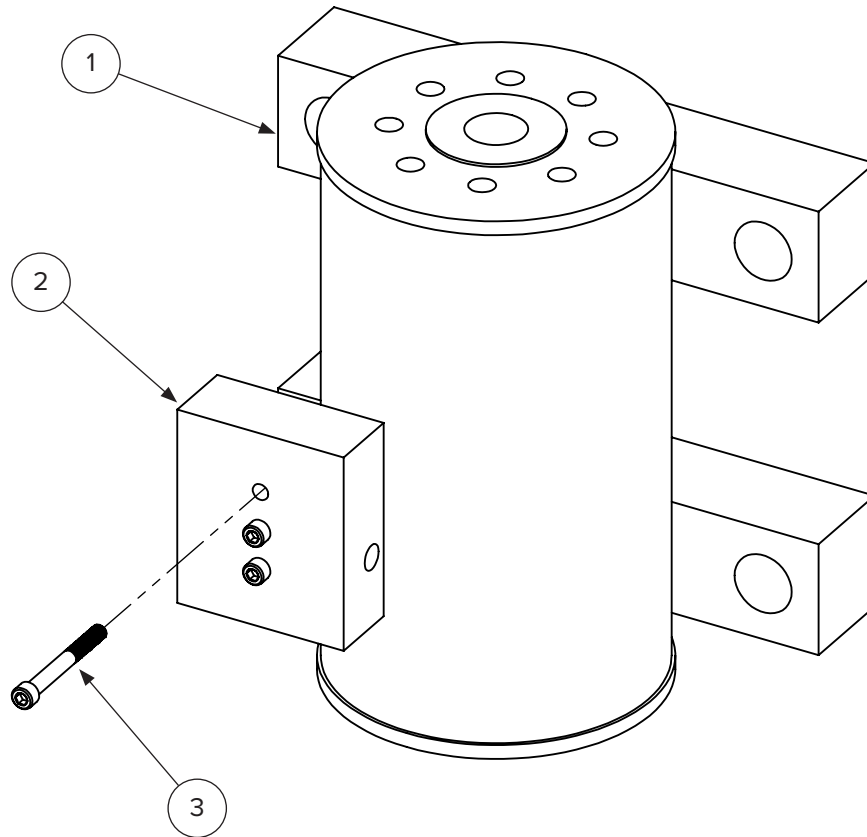


ITEM	PART NUMBER	DESCRIPTION	QTY
1	274027	Rotary Actuator, Valve	1
2	299494	Bolt, 1"-8 X 3.50 GR8 ZY	4
3	299659	Nut, 1-8 TL GR8 ZY	4
4	299750	Washer, 1" SAE GR8 ZY	8
5	274012	HYD Fitting, 6M ORFS X 4M ORB RST .031	2
6	274009	Hose, 3/8 X 94, 3000	1
7	274010	Hose, 3/8 X 100, 3000	1
8	224009	Coupler, Female Flat Face	1
9	224010	Coupler, Male Flat Face	1



## 2. Parts Assemblies

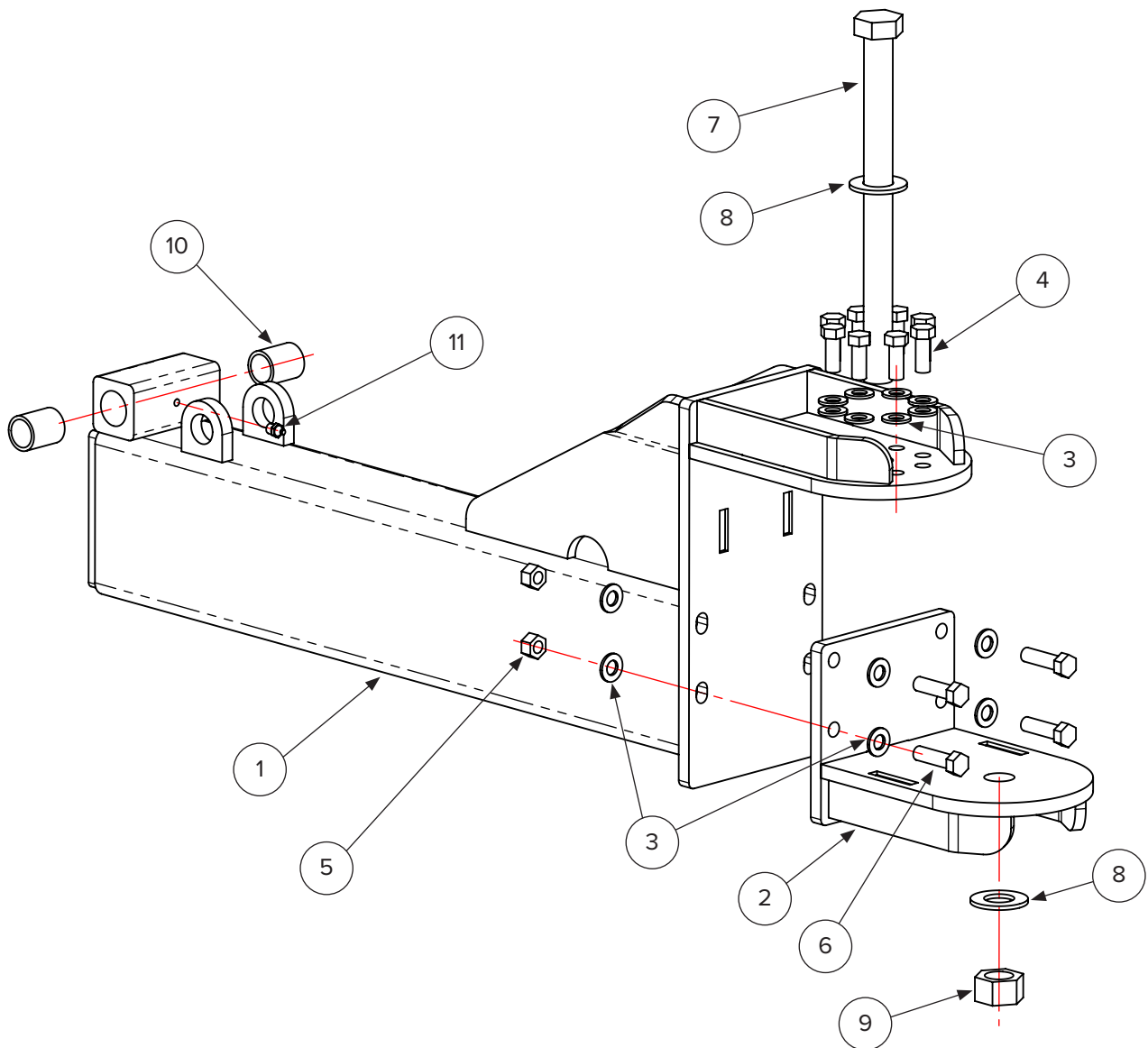
### 2.4 Rotary Actuator



ITEM	PART NUMBER	DESCRIPTION	QTY
1	274027	Valve Assembly	1
2	274014	Valve, Rotary Actuator Lock	1
3	299323	SHCS, 1/4 - 20 X 2.25 Long	3

## 2. Parts Assemblies

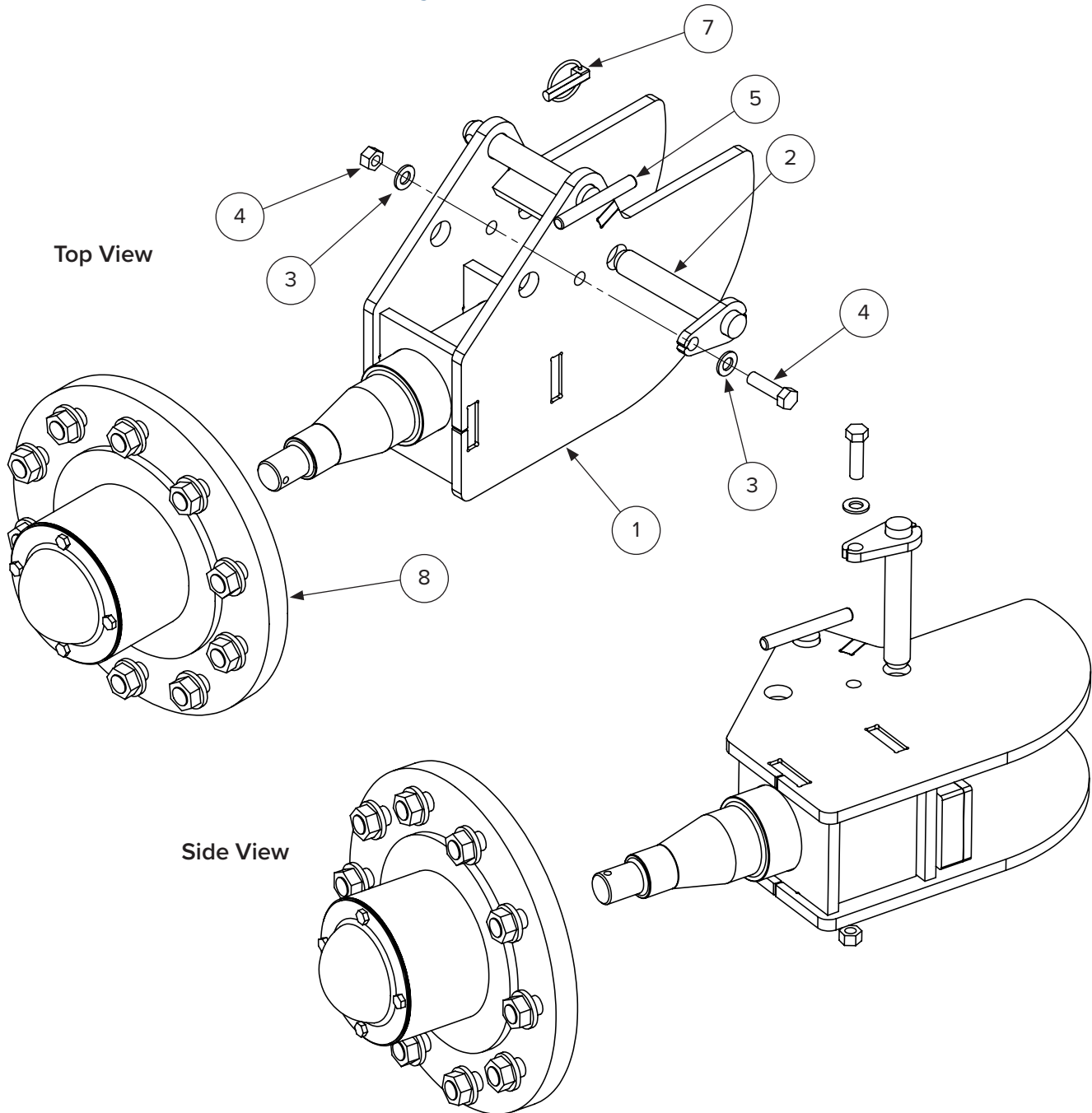
### 2.5 Main Boom Assembly



ITEM	PART NUMBER	DESCRIPTION	QTY
1	274001	Roller Boom Weldment	1
2	274002	Boom Mount Bracket	1
3	299732	Washer — 1/2 SAE GR8 ZY	16
4	299344	Bolt — 1/2-13 X 1.25 GR8 ZY	8
5	299574	Nut — 1/2-13 X 1.25 GR8 ZY	4
6	299439	Bolt — 1/2-13 X X 1.75 GR8 ZY	4
7	299494	Bolt, 1"-8 X 12.5 GR8 ZY	1
8	299750	Washer, 1" SAE GR8 ZY	2
9	299659	Nut, 1-8 TL GR8 ZY	1
10	274011	Bushing, 1.0ID X 1.25OD X 1.5	2
11	206341-1	Grease Zerk, 1/8 NPT ST.	1

## 2. Parts Assemblies

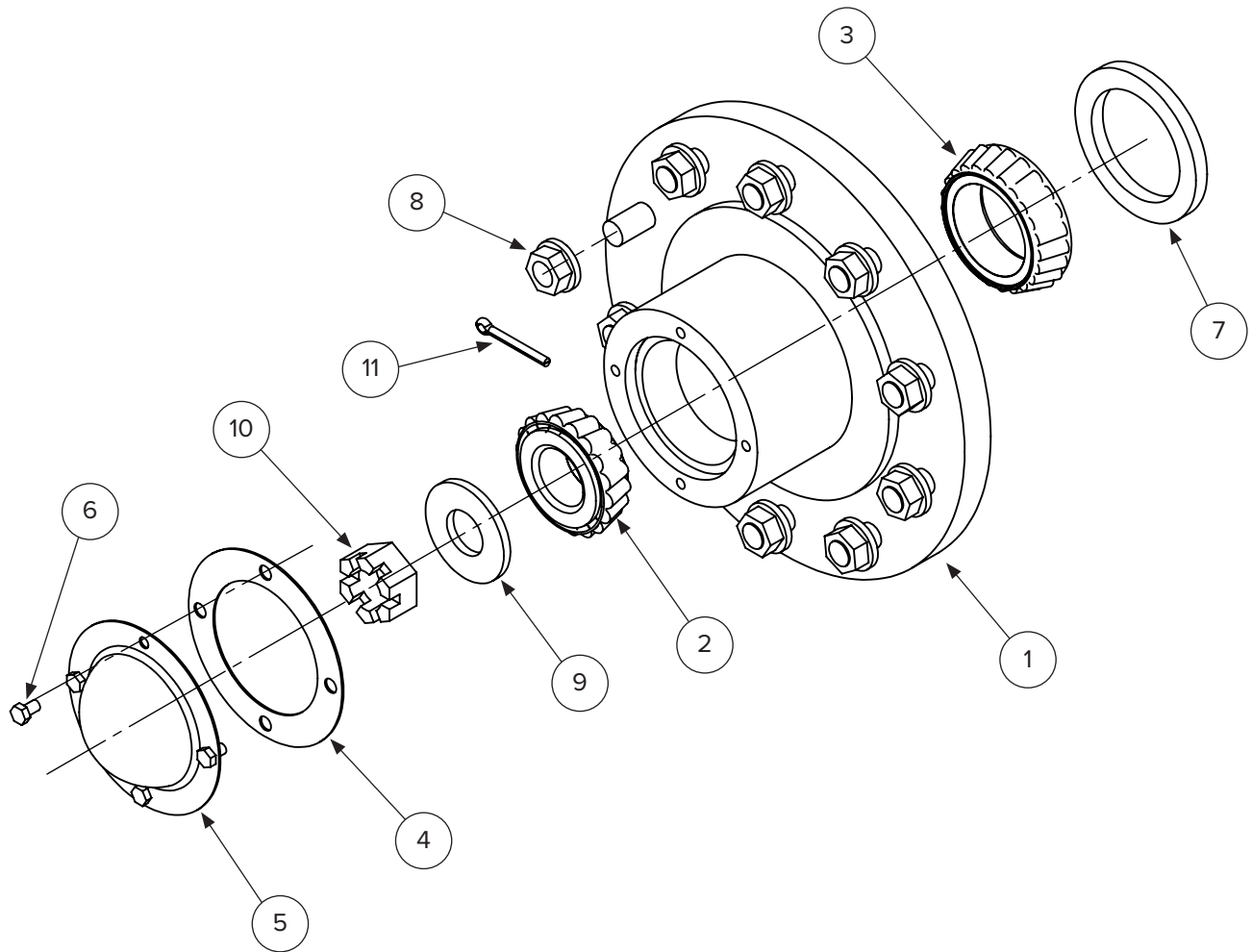
### 2.6 Boom Pivot Assembly



ITEM	PART NUMBER	DESCRIPTION	QTY
1	274017	Roller Hinge, 3.38 Spindle	1
2	274004	Pin - Boom Pivot	1
3	299732	Washer, 1/2 SAE GR8 ZY	2
4	299439	Bolt - 1/2-13 X 1.75 GR8 ZY	1
5	274005	Lock Pin	1
6	299574	Nut, 1/2-13 GR8 HEX ZY	1
7	274035	Linch Pin, 7/16	1
8	274016	Hub Assembly, 10 Bolt, 873	1

## 2. Parts Assemblies

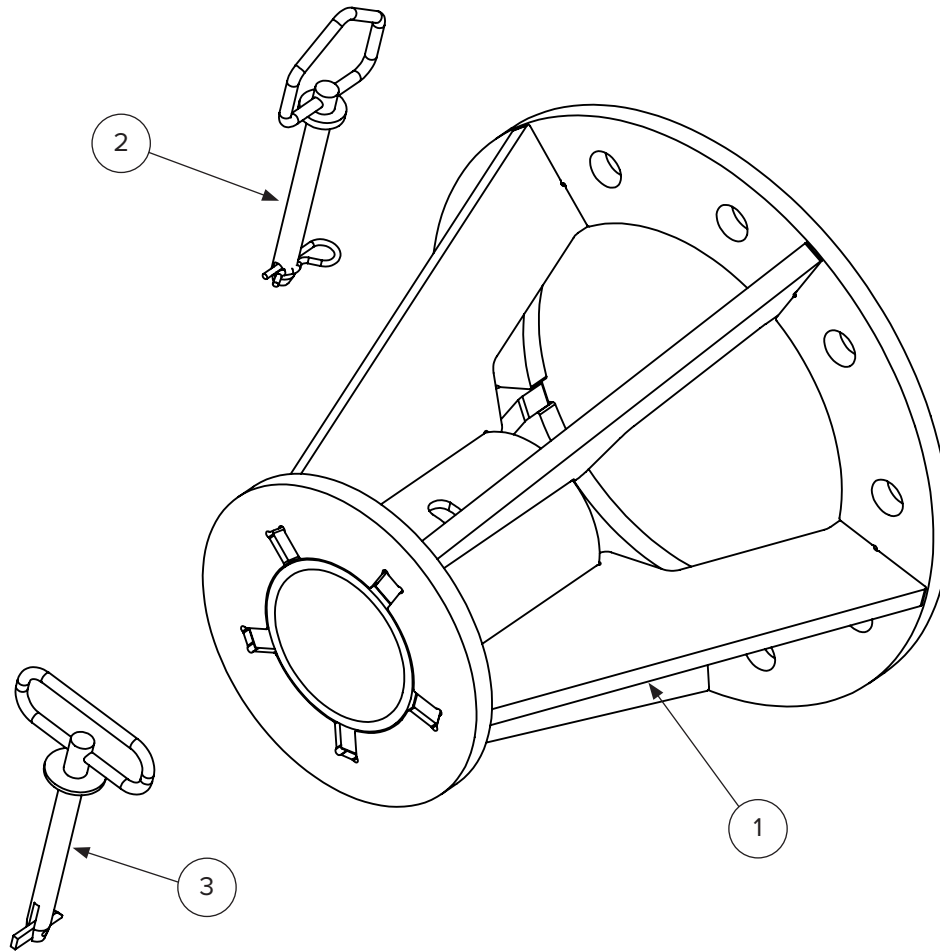
### 2.7 Hub Assembly, 10 Bolt, 873



ITEM	PART NUMBER	DESCRIPTION	QTY
1	274018	Hub, 10 Bolt, 873, Hub & Cups Only	1
2	274022	Tapered Bearing Cone, 460	1
3	274023	Tapered Bearing Cone, 33275	1
4	274020	Gasket, 10 Bolt Hub	1
5	274019	Hub Cap, 10-Bolt	1
6	299485	Bolt, 5/16-18 X .5, GR5 CZ	4
7	274024	Shaft Seal, 3.375 ID X 4.625 OD X .43	1
8	299563	Flange Nut, 3/4-16, GR8 ZY	10
9	274021	Washer, 1.38 ID X 3.0 OD X .25	1
10	299631	Nut, 1 1/2-12 Slotted Hex	1
11	299519	Cotter Pin, .20 X 2.25	1

## 2. Parts Assemblies

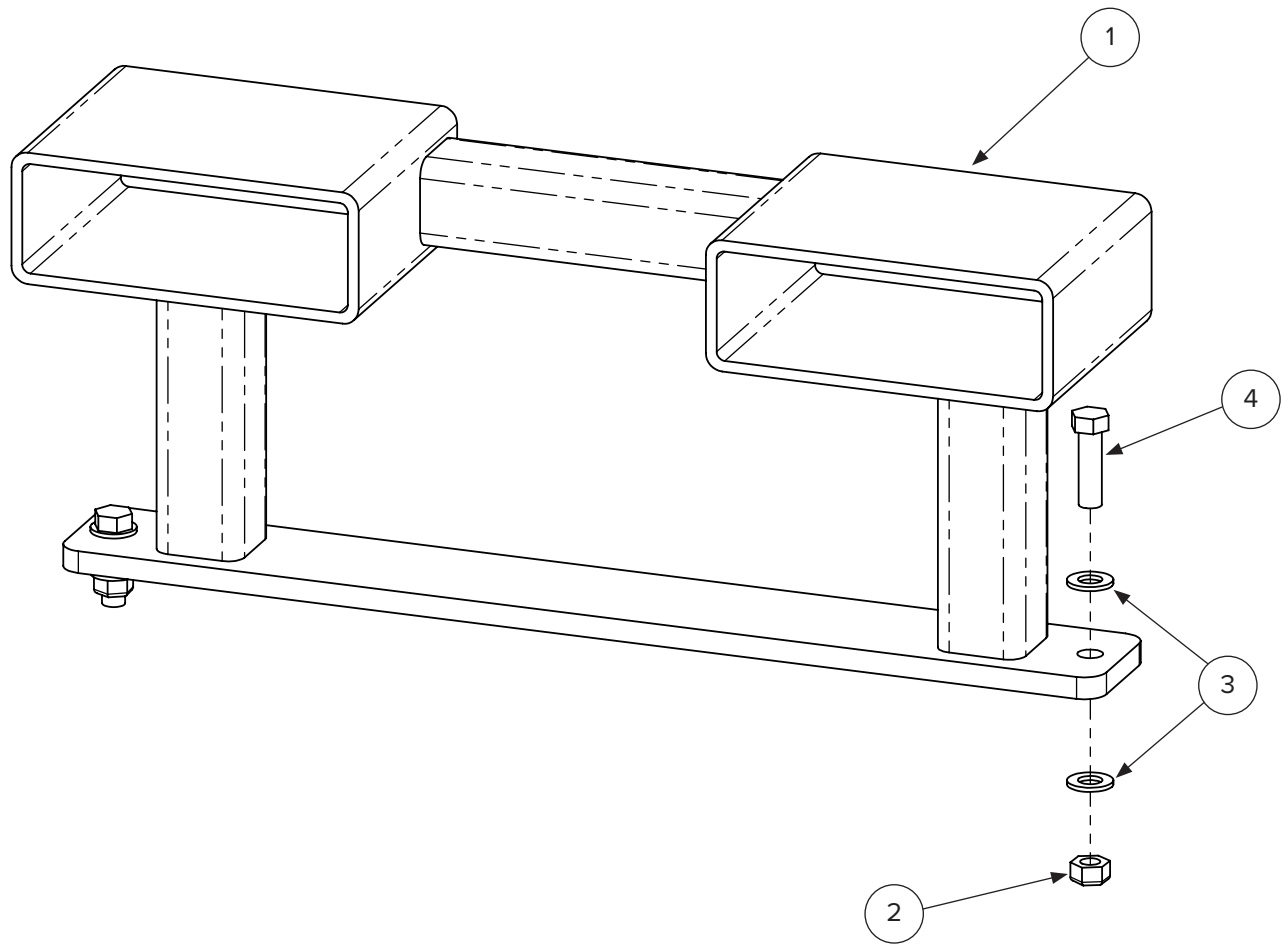
### 2.8 Stem Hub Assembly



ITEM	PART NUMBER	DESCRIPTION	QTY
1	274178	Roll Hub Mount, 10 Bolt	1
2	274013	Pin - 1/2 X 4 1/4 Hitch	1
3	274033	Pin - 1/2 X 3 1/2 Swivel Lock	1

## 2. Parts Assemblies

### 2.9 Fork Bracket

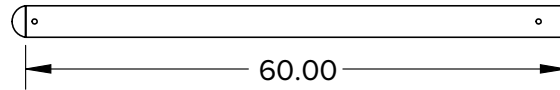


ITEM	PART NUMBER	DESCRIPTION	QTY
1	274030	Fork Bracket	1
2	299655	Nut, 1/2-13, SLTL GR8 ZY	2
3	299732	Washer, 1/2 SAE GR8 ZY	4
4	299439	Bolt - 1/2-13 X 1.75 GR8 ZY	2

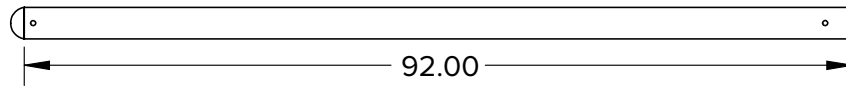
## 2. Parts Assemblies

### 2.10 Available Roll Stems

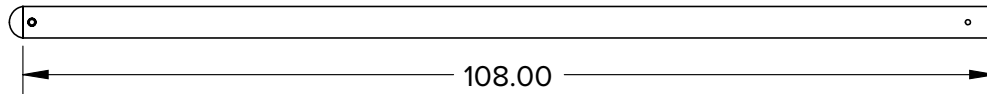
174105 - 3.5" DIA. ROLL STEM FOR 4' WIDE ROLL



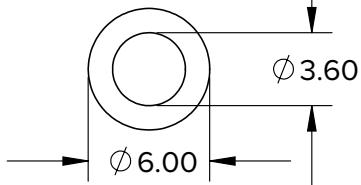
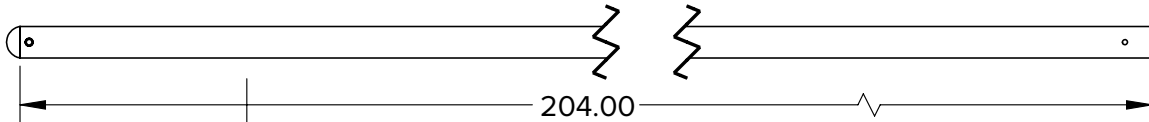
174110 - 3.5" DIA. ROLL STEM FOR 6.67' WIDE ROLL



174115 - 3.5" DIA. ROLL STEM FOR 8' WIDE ROLL

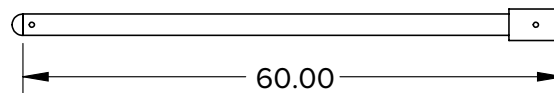


174120 - 3.5" DIA. ROLL STEM FOR 16' WIDE ROLL

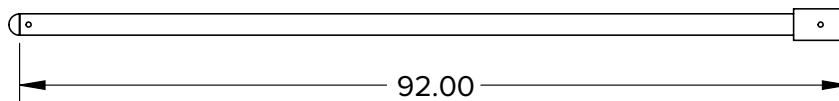


274034 - 3.5" ROLL HOLDER PLATE  
(SUPPLIED WITH ALL 3.5" DIA. STEMS)

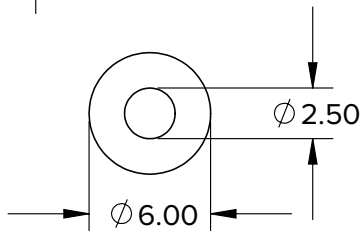
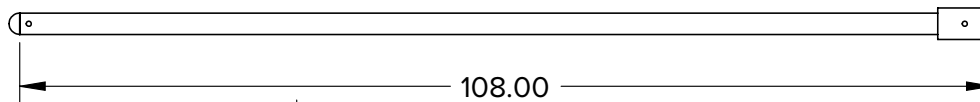
174130 - 2 3/8" DIA. ROLL STEM FOR 4' WIDE ROLL



174135 - 2 3/8" DIA. ROLL STEM FOR 6.67' WIDE ROLL



174140 - 2 3/8" DIA. ROLL STEM FOR 8' WIDE ROLL



274036 - 2 3/8" ROLL HOLDER PLATE  
(SUPPLIED WITH ALL 2 3/8" DIA. STEMS)

**This page intentionally  
left blank**





## Warranty

### MANUFACTURER'S LIMITED WARRANTY

BLUE DIAMOND® ATTACHMENTS, a manufacturer of quality attachments, warrants new BLUE DIAMOND® ATTACHMENTS products and/or attachments at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth by BLUE DIAMOND® ATTACHMENTS, LLC.

BLUE DIAMOND® ATTACHMENTS liability for any defect with respect to accepted goods shall be limited to repairing the goods at a BLUE DIAMOND® ATTACHMENTS designated location or at an authorized dealer location, or replacing them, as BLUE DIAMOND® ATTACHMENTS shall elect. The above shall be in accordance with BLUE DIAMOND® ATTACHMENTS warranty adjustment policies. BLUE DIAMOND® ATTACHMENTS obligation shall terminate twelve (12) months for the Material Roller after the delivery of the goods to original purchaser.

This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the BLUE DIAMOND® ATTACHMENTS factory or authorized BLUE DIAMOND® ATTACHMENTS dealership or in any way so as in BLUE DIAMOND® ATTACHMENTS judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident beyond the company recommended machine rated capacity.

### WARRANTY CLAIM

To submit a warranty claim, a claim must be filed with BLUE DIAMOND® ATTACHMENTS before work is performed. The BLUE DIAMOND® PRODUCT SUPPORT TEAM will advise repairs and applicable parts exchanges. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

### EXCLUSIONS OF WARRANTY

Except as otherwise expressly stated herein, BLUE DIAMOND® ATTACHMENTS makes no representation or warranty of any kind, expressed or implied, AND MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE. BLUE DIAMOND® ATTACHMENTS shall not be liable for incidental or consequential damages for any breach or warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of the goods by the buyer.

No agent, employee, or representative of BLUE DIAMOND® ATTACHMENTS has any authority to bind BLUE DIAMOND® ATTACHMENTS to any affirmation, representation, or warranty concerning its machinery and/or attachments except as specifically set forth herein.

This warranty policy supersedes any previous documents.

**NOTE:** Blue Diamond® Attachments is a trademark of BLUE DIAMOND® ATTACHMENTS



**QUALITY | DEPENDABILITY | INTEGRITY**

Blue Diamond® Attachments  
4512 Anderson Road, Knoxville, TN 37918  
888-376-7027