



Gantry  
System for  
both Floor  
and Roof  
Truss Lines

# SQ-1 INTELLIGENT GANTRY

Operators Manual

**ALWAYS DISCONNECT AND LOCK OUT ANY POWER SOURCES WHEN ADJUSTING OR REPAIRING ANY EQUIPMENT!**

## **FOREWORD**

**This manual explains the proper maintenance of Square 1 Design Gantry Rollers as well as the daily lubrication and periodic inspection procedures.** Please read this manual thoroughly even though you may already be familiar with other Square 1 Design equipment, because it contains the most current information about the Square 1 Design Gantry Roller. This manual has been based on the standard Square 1 Design Gantry Roller. If you have any questions on modifications to your equipment, please contact Square 1 Design., or your sales representative. Square 1 Design reserves the right to make any changes or modifications to this manual or its Gantry Roller without giving notice and without incurring obligation.

**ALWAYS DISCONNECT AND LOCK OUT ANY POWER SOURCES WHEN ADJUSTING OR REPAIRING ANY EQUIPMENT!**

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**BEFORE INITIAL OPERATION**

- **Please read this manual thoroughly.** This will give you a better understanding of a Square 1 Design Gantry Roller and permit you to operate it correctly and safely.
- **Identify and inform ALL employees who will operate or be near the Square 1 Design equipment of all concerns in this manual and on the production floor.** It is very important from both the employers and manufactures standpoint that employee's safety comes above all else. The employer should make sure any employee who either operates or works near the equipment has been properly trained and given written notice of any and all safety concerns on the production floor.
- **Always perform pre-operation checks and periodic maintenance.** This will help prevent sudden malfunctions (due to poorly maintained equipment), improve work efficiency and help insure safe working conditions.

**GENERAL DESCRIPTION**

The Square 1 Design Gantry Roller is an initial press machine. It is designed to be used in conjunction with a conveyor system to increase the assembly speed of finished wood trusses. The standard Square 1 Design Gantry Roller operates at a constant work speed of 120 feet per minute. The Square 1 Design Gantry Roller's heavy-duty design will allow it to press even the heaviest gauge plate very quickly and easily. The model # and serial # are located inside the Electrical panel of the Square 1 Design Gantry Roller. This information will be needed when contacting Square 1 Design for service information. Any information that is needed can be obtained by contacting you sales representative or:

**Square 1 Design & Manufacture Inc.**

**1 Clark Road**

**Shelbyville, IN 46176**

**Phone: +1-866-647-7771**

**Fax: +1-866-646-5771**

**[www.Square1Design.com](http://www.Square1Design.com)**

**[Sales@square1design.com](mailto:Sales@square1design.com)**

## **OPERATION OF THE GANTRY ROLLER**

The Square 1 Design Gantry Roller is very simple to operate and maintain. Square 1 Design suggests that operation of Square 1 Design equipment proceed in the following manor:

1. Everyone near the machine read the manual so general safety guidelines can be identified.
2. Everyone near the machine identify the safety devices and how they operate.
3. Perform daily, weekly, and monthly safety and maintenance analysis.
4. Correct any problems before operation of the equipment is started.
5. Check the area before beginning to be certain no employees are near the machine.

## **SAFETY AND MAINTENANCE**

Employee safety is to key concern at Square 1 Design Manufacturing and should also be at your production facility. It is important to stress safety concerns around any type of production equipment because serious injury can occur without the proper training and supervision. Square 1 Design & Manufacture Inc. suggests that any employee who will operate or work around this equipment be given the opportunity to read this manual and receive training from qualified personnel at your facility. With the proper maintenance the equipment and work area become much safer. Square 1 Design & Manufacture Inc. has the following list of general safety and maintenance guidelines that should accompany any safety standards your company has established.

### **SAFETY GUIDELINES**

1. **Cleanliness:** The area surrounding the Square 1 Design Gantry Roller must be checked daily for any obstructions such as loose lumber or plates that could jam any area of the machine.
2. **Operate new equipment with special caution:** People are sometimes overconfident that the new equipment will work just like old equipment. This is not always true and a special caution should be taken around the new equipment.
3. **Proper equipment use:** Individuals working on or near the Square 1 Design Equipment, to prevent injury, should wear the proper equipment. Loose fitting clothing that can be caught in the machine or on the Gantry itself should **NOT** worn. Safety glasses **MUST** be worn for the protection of the employees. Employees without the Proper equipment should not be allowed near the Square 1 Design Gantry Roller. It is management's responsibility to enforce these guidelines, as well as the employees responsibility to make sure these guidelines are enforced.
4. **Safety bars should be identified and proven to be in proper working order.** All employees who will be working on or near the Square 1 Design Gantry Roller should know how the safety features work and confirm the machine is operating properly. If any employee notices the equipment may be malfunctioning in any way, a supervisor is to be notified and the power to the equipment is to be locked down until the problem can be rectified.
5. **Disconnect and lock out all power sources before any maintenance or repair is to take place.** It is important for the equipment's power to be disconnected and locked out to prevent accidental start-ups whether by another employee or workers error.
6. **Follow the safety checklist Daily.** The following checklist should be followed daily to ensure employees safety and a safe work environment.

### **SAFETY CHECKLIST**

**Daily:**

- A. Check safety bars to assure they move freely and easy.
- B. Check to make sure the machine stops properly when the safety bars/safety sensors are activated.
- C. Check for unusual noised, overheating, oil leaks, or other unusual machine characteristics.
- D. Check bearings for wear.
- E. Visually inspect motors and gearboxes for excessive dirt, heat, or vibration.
- F. Check gearbox oil levels (fill as required)
- G. Check ventilation openings to assure they are not clogged by dirt or dust.
- H. Check the area around the machine and track for cleanliness.
- I. Check to be sure everyone around the machine is wearing the proper equipment.
- J. Perform daily maintenance
- K. Be sure area is clear of people when starting the machine.

**Weekly:**

- A. Check all bolts, nuts and set screws and tighten as require.
- B. Check drive train tension and adjust if necessary.
- C. Check oil level in drive unit and add proper amount if necessary.
- D. Use compressed air to remove sawdust and dirt build-up on the system and around the bearings.\*

**\*Wear eye protection when using the compressed air.**

## **MAINTENANCE**

As mentioned earlier, keeping the equipment well maintained makes the work environment safer and allows reliable production for many years. Maintenance of the Square 1 Design Gantry Roller consists of lubricating the machine and chain, then tightening the nuts and bolts. The following is a maintenance schedule **MUST** be followed.

**Motors:** The gearboxes on each motor have sight gauges for oil levels; insure that both motors are kept at the correct level.

**Chain:** A non-detergent petroleum based oil every 18 hours should be used.

**Greased Fittings:** General-purpose grease should be used every 8 hours or as needed.

**Nuts and Bolts:** All nuts and bolts must be checked and tightened before operation of the Gantry Roller.

**Air Lines:** All Air fittings and lines must be checked to provide the correct air volume.

### **General Operation**

Operation of the Square 1 Design Gantry roller requires the operator to not only pay attention to his safety but to every other employee's safety as well. The entire work area must be inspected before operation of the machine.

After the safety inspection, the operator should review the functions of the control buttons. There are 4 buttons on the standard gantry that allow the operator to run the machine. They are as follows:

**1-Red Stop Button** This button is used in situations where immediate breaking is required. When this button is pressed power is cut off to the motors. When this power is cut the fail-safe brakes activate stopping the drive shafts. **Caution should be taken to stop the machine prior to an obstacle because the machine's weight may keep it rolling for a few seconds after the brakes have activated.**

**1-Forward Button** This button moves the machine in forward motion.

**1-Reverse Button** This button moves the machine in reverse motion.

Along with general machine operation the operator must also perform several daily operational adjustments. This section lists these adjustments and instructs the user on how to perform them.

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### **DRIVE TRAIN ADJUSTMENT**

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Square 1 Design Gantry Rollers have a drive train on both the left and right ends. All rollers are pre-set at Square 1 Design & Manufacture Inc. for a standard 2" x 4" and the chain tension is pre-set. Adjustment may be necessary, depending on actual moisture content and wood size.

### **CHAIN ADJUSTMENT**

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Begin by removing the bolt and lock washer that is holding the right end chain guard on (See Exhibit 3). Lift off the chain guard to allow enough space to work free of any obstructions. Loosen the two lock nuts holding the idler sprocket adjustment screw in place. Loosen the four nuts that mount the bearings to the machine

The idler sprocket may then be adjusted by turning the threaded bolt clockwise to increase tension, counter clockwise to decrease tension. Care must be taken to keep the sprocket in line with the other sprockets. A little slack is desirable as it allows the chain links to seat themselves on the sprocket teeth. This will reduce wear on the sprocket and bearings.

After the adjustment is complete, the locknut must be tightened to maintain proper tension. Retighten the four mounting bolts. Replace the chain guard and replace the lock washer and bolt.

### **ROLLER ADJUSTMENT**

**ALWAYS DISCONNECT AND LOCK OUT ANY POWER SOURCES WHEN ADJUSTING OR REPAIRING ANY EQUIPMENT!**

The Square 1 Design Gantry Roller has up to 4 ½" of total roller adjustment.

To adjust the roller height, the drive chain idler sprocket adjustments must be loosened to allow plenty of slack in the drive chains. Care must be taken during roller adjustment to assure there is enough slack in the drive chains to allow full roller adjustment.

To lower the roller, loosen the bottom roller adjustment nuts at both ends of the roller assembly. Begin by turning the top roller adjustment nuts counter clockwise to lower each end of the roller. Lower the roller until it comes to rest on top of the 2 x 4\*. Tighten the bottom roller adjustment nuts.

To raise the roller loosen the bottom roller adjustment nuts on both ends of the roller assembly (See Exhibit 5). Begin by turning the top roller adjustment clockwise to raise each end of the roller until a 2 x 4\* can be inserted between the two rollers at each end. The roll will then need to be lowered slightly to put pressure on the wood. Tighten the bottom roller adjustment nuts.

Readjust the chain drive to proper tension. **Caution should be taken not to restart the machine without resetting the tension, as this will cause damage to the sprockets and the chain.**

**\*These are the instructions for a truss made from 2" lumber. For variations in thickness, the same directions can be followed using the same size lumber from which the truss is going to be made.**

## **REPAIR AND REPLACEMENT**

In the case that a part of the machine is not working properly, this section lists how to remove and replace the correct part from Square 1 Design Gantry Roller. If parts are needed it is recommended that you contact Square 1 Design & Manufacture Inc. at the address listed [on page 14](#).

### **ELECTRICAL**

The following sections cover the electrical portions of the Square 1 Design Gantry Roller. Exhibits listed throughout this section contain a parts list and breakout of each item. Replacement parts are available as individual components or as complete units. Square 1 Design machines use SO multi-conductor cable with sealed fittings. Any repairs should be done using the same materials.

### **SAFETY SWITCHES**

There are 2 safety switches on each machine. Switches are available through Square 1 Design & Manufacture Inc. If they should need to be replaced contact Square 1 Design & Manufacture Inc. to make sure they are installed properly.

#### **REMOVAL OF SAFETY SWITCHES**

The safety switches are set to work with the safety bars. Remove the screws, nuts and lock washers holding the switch in place. Loosen the conduit locknut and unscrew the switch from the conduit. The wiring can now be disconnected and a new switch can be installed using the schematic as a guide. Reverse the instructions to reinstall the safety switches. Set actuator arm against the safety bar and tighten.

Test and make sure safety bar is working properly before attempting to use the machine.

### **CONTROL PANEL**

This unit is available as a complete control panel, a starter, or component parts for starters. Refer to the Electrical Schematic provided for parts list, breakout, and schematic to determine the information needed.

#### **REMOVAL OF CONTROL PANEL**

To remove the control panel, first disconnect the wiring inside the box to all motors, switches and input voltage. Remove the conduit locknuts inside and pull the conduit free from the panel.

The control panel can now be removed by unfastening the 4 nuts and bolts mounting it to the mounting bracket.

Reverse the order to install the panel.

Refer to the schematic that came with your machine for the rewiring.

Make sure the machine is operating correctly prior to running production.

#### **PENDANT SWITCH REMOVAL**

ALL 3 SWITCHES (Stop, Forward, and Reverse) can be replaced by using the same method. First remove the back plate off of the control pendant. Unscrew the switch from the plate. Remove the nameplate and push the switch through the panel.

Reverse the procedure for re installing the switch to the front of the panel.

Be extra cautious the buttons match the front panel when reinstalling (The stop button say Stop etc.)

Refer to the schematic that came with your machine when making the connections.

Make sure the machine is operating correctly prior to running production.

## **MOTORS**

The motors are available as a complete unit or in component parts.

### **MOTOR REMOVAL**

Both motors (left and right drive) may be removed and replaced by the same method. Begin by disconnecting the electrical connections inside the connection box mounted on the side of the motor. Unscrewing 4 nuts holding the cover on the connection box can do this. The connection box cover is connected to the conduit. It can be set aside for reassembly.

Remove the drive sprocket and the 4 bolts holding the motor mounting plate. Be careful as the motor and gearbox are very heavy and should be supported before removing the bolts.

Reverse the procedure to remount the motor.

Refer to the schematic provided to make the electrical connections.

Make sure the machine runs properly before running the machine in production.

## **MECHANICAL**

The following section covers the mechanical portion of the Square 1 Design Gantry Roller.

Exhibits listed throughout this section contain parts lists and breakouts of common replacement parts. Some replacement parts are available as individual components and other are available only as a complete unit. Contact Square 1 Design & Manufacture Inc. or you sales representative for more information.

### **DRIVE ASSEMBLY**

The drive assembly contains a number of component parts that are available as replacements.

### **CHAIN REMOVAL**

Remove the chain guards.

Locate the master link in the chain making sure it is in a location with easy access.

Reduce the tension on the chain. Remove the master link by unsnapping the retaining clip and removing the link plate. Slide the master link out of the chain.

Reverse the procedure for reassembly.

Make sure the machine is operating correctly prior to running production

### **DRIVE SPROCKET REMOVAL**

Remove the chain guards.

Remove the chain from the drive train assembly. For the sprocket with a bushing: loosen the set screw in the key, remove the 3 hex head cap screws holding the bushing tight. Screw in 2 bolts into the 2 jack bolt holes. Tighten these bolts until the taper lock bushing is loose. It can be removed using the correct size puller. The sprocket will now slide off. For the sprocket with the setscrews: loosen both setscrews and slide off sprocket.

It may be necessary to use fine grade emery paper to remove any butts from the shaft before reassembly. Reverse the procedure before reassembly.

Make sure the machine is operating correctly prior to running production.

### **IDLER SPROCKET REMOVAL**

Remove the chain guards.

Remove the chain from the drive train.

Remove the 4 bolts holding the bearings in place.

To remove the sprocket, loosen the 2 set screws holding the shaft in position in the bearings.

Reverse the procedure for reassembly and grease before start up.

Make sure the machine is operating correctly prior to running production.

## **ROLLER**

The roller and bushings are replaceable items. Contact Square 1 Design for breakouts to determine the replacement parts required.

### **BEARING REMOVAL**

Remove the chain guards.

You will need to remove the roller sprocket before starting the bearing removal. Support the roll to prevent any moving.

First, unfasten the 4 bolts A, B, C, and D. Remove the bearing side supports

Remove the grease insert from the bearing block. Loosen the roll adjustment bolts.

Pop the pins out of the adjustment rod to the bearing block. Unscrew the roll adjustment rod from the bearing block. Pull the bearing block off of the shaft with the correct tools.

Check the bearing housing for damage. If the bearing has worn through the housing it will have to be replaced.

To remove the bearing, use an arbor slightly smaller the O.D. of the bearing, and press it out of the housing. When pressing a new bearing into the housing, care must be taken to prevent damage to the bearing. After the bearing is installed in the housing, the grease holes must be drilled. Use the housing as a guide for the drilling.

Remove all burrs from the I.D. of the bearing.

Check the shaft for burrs before reassembly. Reverse the procedure to reassemble and reseal all fittings before start-up.

Make sure the machine is operating correctly prior to running production.

### **ROLLER REMOVAL**

Follow the directions to remove the bearing blocks. The roller can be removed by two different methods.

To remove the roller from the top of the machine: disconnect all electrical from the top frame. Remove top guard from frame. Remove the nuts from the top of the bearing block.

Remove the head assembly. Repeat this procedure for the other side.

Place slings around the roller and attach a crane or hoist of proper capacity and lift the roller from the unit.

Reverse the procedure to reassemble and grease all fittings before start-up.

## **WARRANTY**

Square 1 Design & Manufacture, Inc. warrants the equipment manufactured by it, to be free from defects in materials or workmanship for one (1) year from the date of delivery to the original purchaser. This is provided the equipment had been properly installed, operated, used, cared for, adjusted, cleaned and lubricated by the owner. All equipment claimed to be defective shall be returned to Square 1 Design & Manufacture, Inc. charges prepaid. All collect shipments will be refused. If upon inspection Square 1 Design & Manufacture Inc. determines to its satisfaction, that any part of the equipment is defective, Square 1 Design & Manufacture, Inc, at its option, correct the defect by repair or replacement. This warranty shall not apply if the original equipment had been altered or modified by any person other than Square 1 Design & Manufacture Inc. This Warranty shall not apply to starters, motors, gear reducers, or microswitches that are component parts of the equipment. Those separate component parts are governed by separate warranties of the respective component manufacturers, which warranties of the respective component manufacturers which warranties may be shorter than or longer than the one (1) year warranty granted by Square 1 Design & Manufacture, Inc. upon request by the owner. Any repairs are available from Square 1 Design & Manufacture Inc. upon request by owner. Any repair or replacement of such component parts shall be governed solely by manufacturer, and it shall be owner's responsibility to enforce any warranty claims directly with such component part manufacturer.

**EXCEPTION FOR THIS WARRANTY AS EXPRESSLY STATED, SQUARE 1 DESIGN & MANUFACTURE, INC. MAKES NO OTHER WARRANT EXPRESSED OR IMPLIED. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS HEREBY DISCLAIMED.**

Square 1 Design & Manufacture Inc. shall not be liable for damages, direct, consequential, or incidental, or for delays, if such occur as a result of defects in material or workmanship.

## **SQUARE 1 DESIGN & MANUFACTURE INC.**

**PURCHASE DATE:** \_\_\_\_\_

**MODEL NUMBER:** \_\_\_\_\_

**SERIAL NUMBER:** \_\_\_\_\_

**ORDERING REPLACEMENT PARTS:**

Replacement parts can be ordered by calling, emailing, or faxing:

**Square 1 Design & Manufacture Inc.**

**1 Clark Road**

**Shelbyville, IN 46176**

**Phone: +1-866-647-7771**

**Fax: +1-866-646-5771**

**www.Square1Design.com**

**[Sales@square1design.com](mailto:Sales@square1design.com)**

When ordering parts, you must include the serial and model #'s of your Square 1 Design Gantry Roller.

## **TROUBLESHOOTING**

There are several problems that can occur due to general vibration of the machine, or lack of maintenance. The following list the 4 common calls that Square 1 Design receives:

<b>Problem</b>	<b>Cause</b>	<b>Results</b>
The machine will not press the plates tight enough.	The bogie wheels are not tight to the tube.	Adjust the bogie wheels up to the bottom of the tube.
	Your wood is smaller than previous wood.	Adjust the roller down to match the wood.
One side of the machine starts before the other.	Chains are not adjusted properly.	Retighten chains equally.
		This may have to be done several times up and down the track.
The machine presses the plate good on one piece of wood at the joint, but not on the other.	Wood is different sizes.	Use uniform wood in the truss.
Intermittent electrical problems during operation of the machine.	A loose wire in the system.	Check all contacts in the box, push buttons, and safety switches.

## **PM Schedule for Square 1 Design Intelligent Gantry System**

**Prior to performing any PM's please follow your companies Lock Out/Tag Out Procedure to prevent injury.**

### **Monthly PM Schedule**

- Grease Gantry.
- Check chain tension.
- Tighten down button head cap screws that hold skins in place.
- Hand check set screws located on sprockets

### **Quarterly PM Schedule**

### **Semi-Annual PM Schedule**

### **Annual PM Schedule**

#### **26 Grease Fittings Per machine 13 per side**

Remove Covers located on the end of the Square 1 Design Intelligent Gantry to access Grease Fittings

1 on the roller per side. Located behind the large drive sprocket. (This is accessible once End Cover is removed.)

4 for the idler shafts per side, Located to the left and right of the large drive sprocket. (These are accessible once End Cover is removed.)

4 for the black wheels per side, fitting located on the bottom side of the bearing. (These are accessible from under the Gantry.)

2 for the slack adjuster. Located below the large drive sprocket. (These are accessible once the End Cover is removed)

#### **Check for Chain Tension**

Below the Drive Sprocket there are 2 bearing, a sprocket and a shaft that make up the Tensioner. If chain is too loose adjustment is made by loosening the 4 (1/2" Bolts that hold the bearings in place) Then adjusting down the 1/2" full thread bolts at the top of the weldment. Adjust evenly, when desired tension is applied to the chain, tighten down jam nuts, and retighten the 4 bolts that hold the bearings in place.

#### **Tighten button head cap screws that hold skins in place.**

These are the black in color cap screws that hold the outside guards in place. Doing this will help prevent the loose of fasteners and help with noise.

#### **Hand Check set screws**

Check set screws in the sprockets, with an Allen Key just make sure that the set screws haven't vibrated loose. There are 2 per sprocket, and 2 per black drive wheel, with the exception of the drive sprocket that has 1 in the key way. While doing this also check the locking collars.

#### **Safety Sensor Bracket**

Verify that the bolts that hold the mounting bracket are tight, lack of doing so could cause that sensor to move and in turn throw off the sensors location.

### **Quarterly PM Schedule**

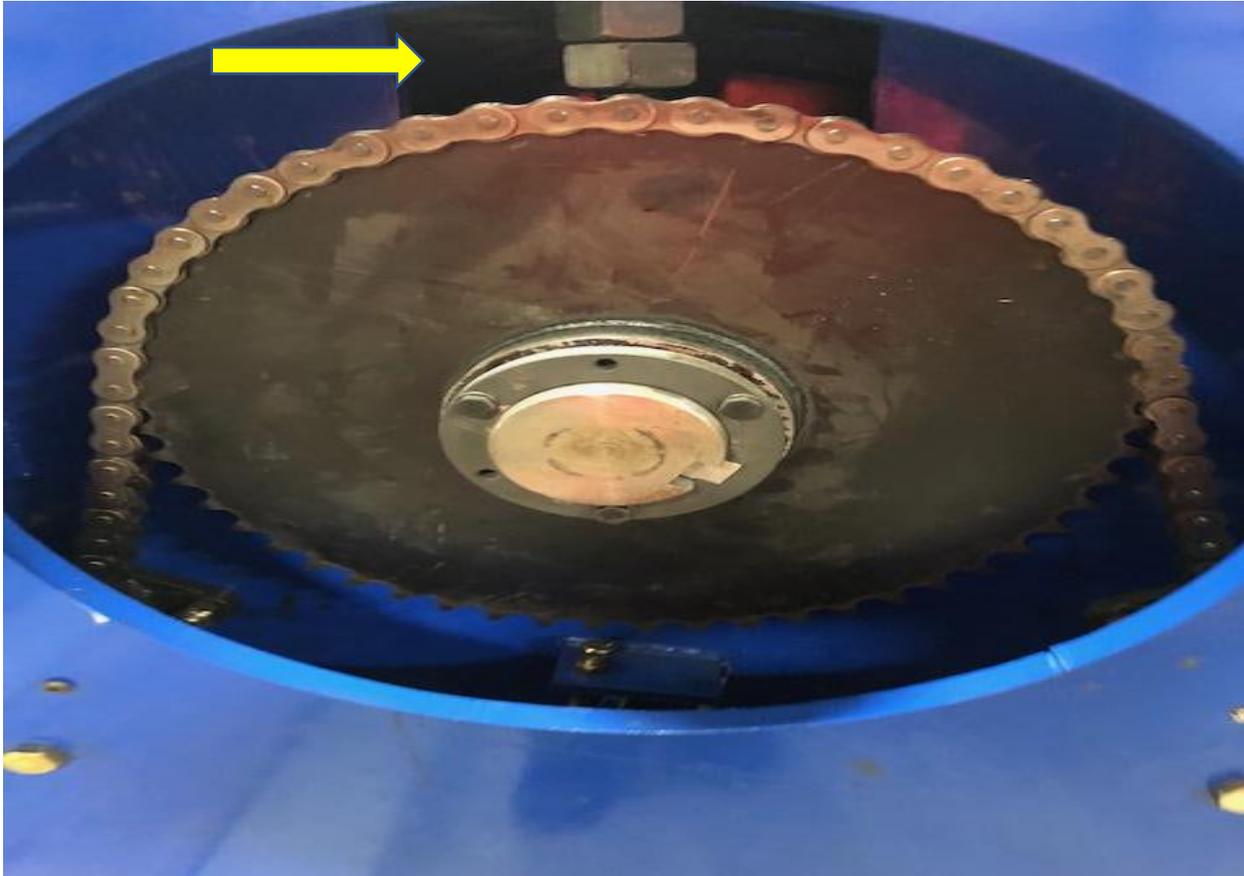
- All monthly PM's should be completed.
- Check to make sure that no electrical connections have come loose.

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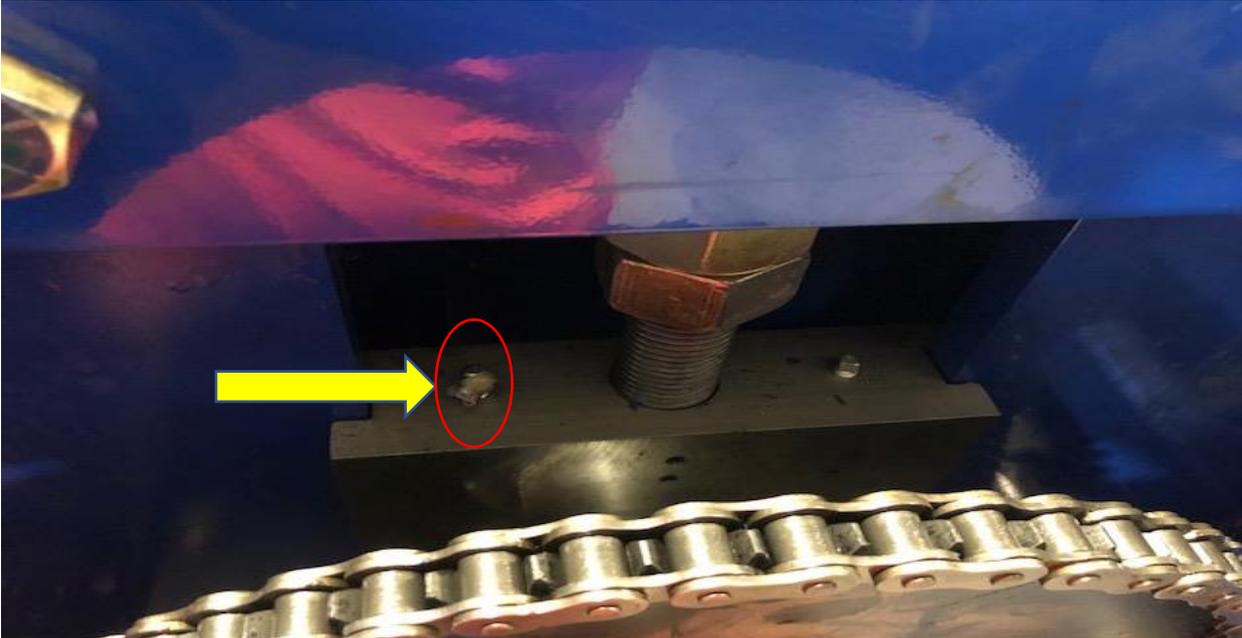
- Verify that no air connections have come loose.
- Check 1-1/2" Jam nuts located above and below the headset and verify that they are tight. If these become loose it will allow for the roll to move up and down and not provide a good press of the plates.
- Verify that the 1" bolts and jam nuts located on the bogie blocks are tight.

**Annual PM Schedule**

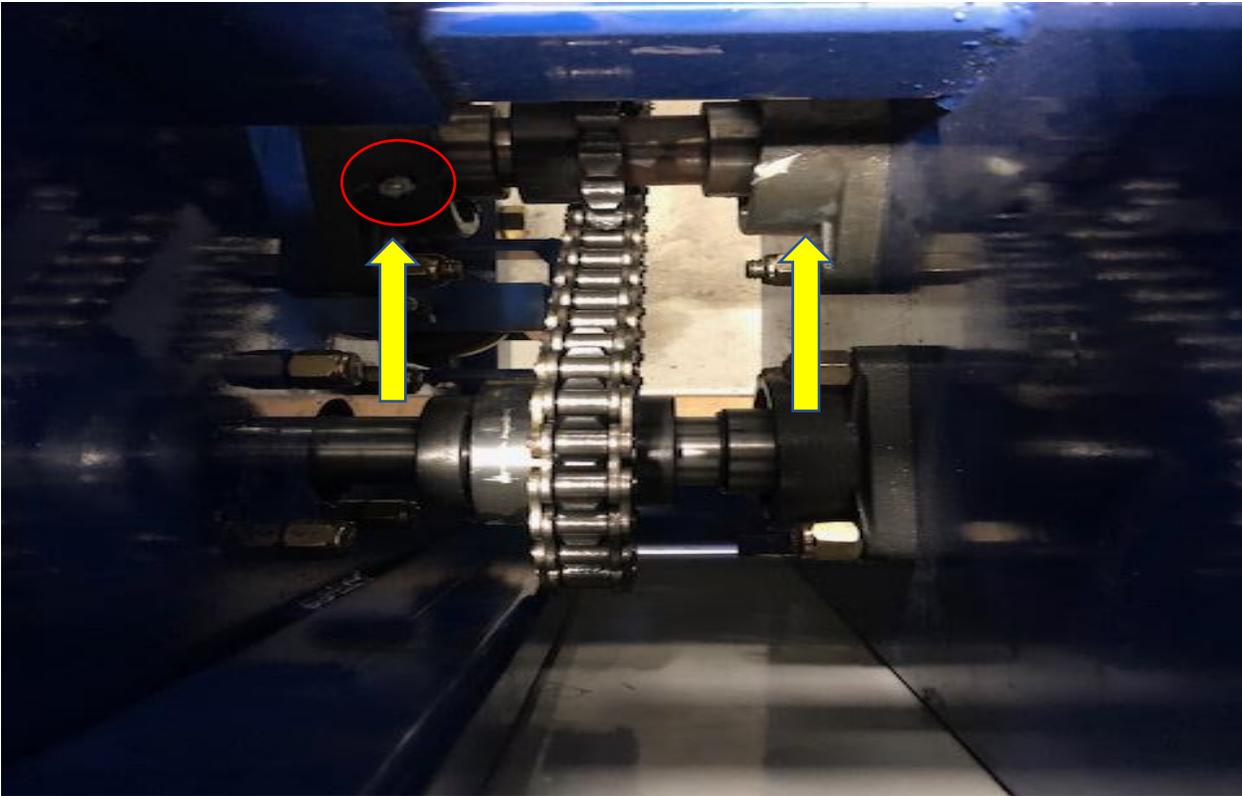
- All monthly PM's should be completed.
- All Quarterly PM's should be completed.



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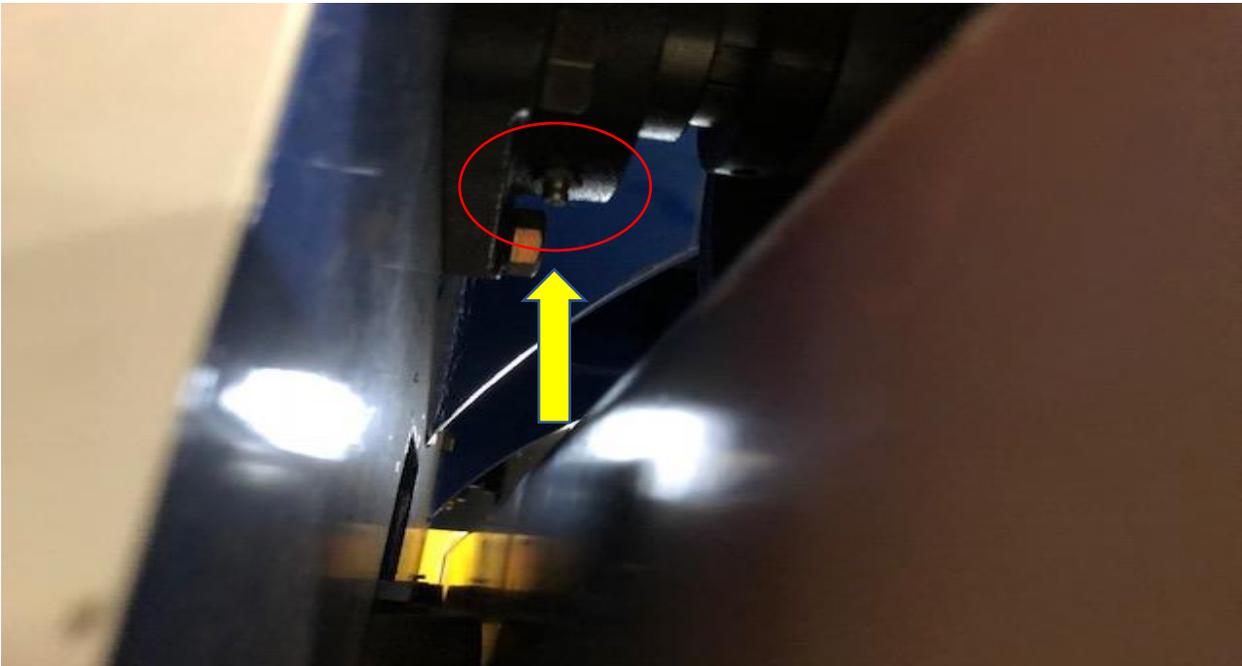


Location of Grease Fitting for the Roll



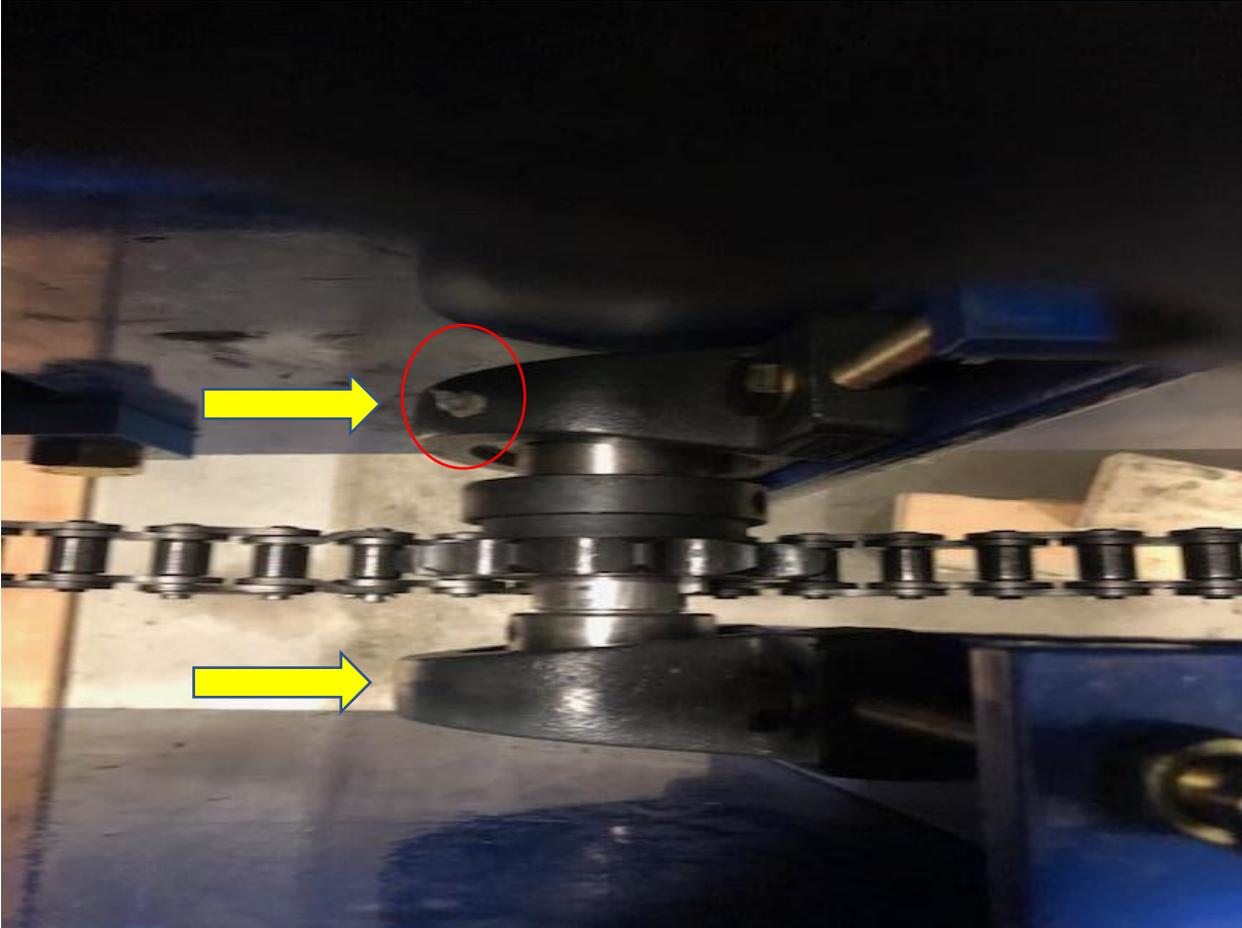
Location of Grease Fittings for Idler Bearings

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Location of Grease Fittings for Drive Wheels

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Location of Grease Fittings for Slack Adjuster bearings.

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Location of Roll Height Adjustment Jam Nut Location

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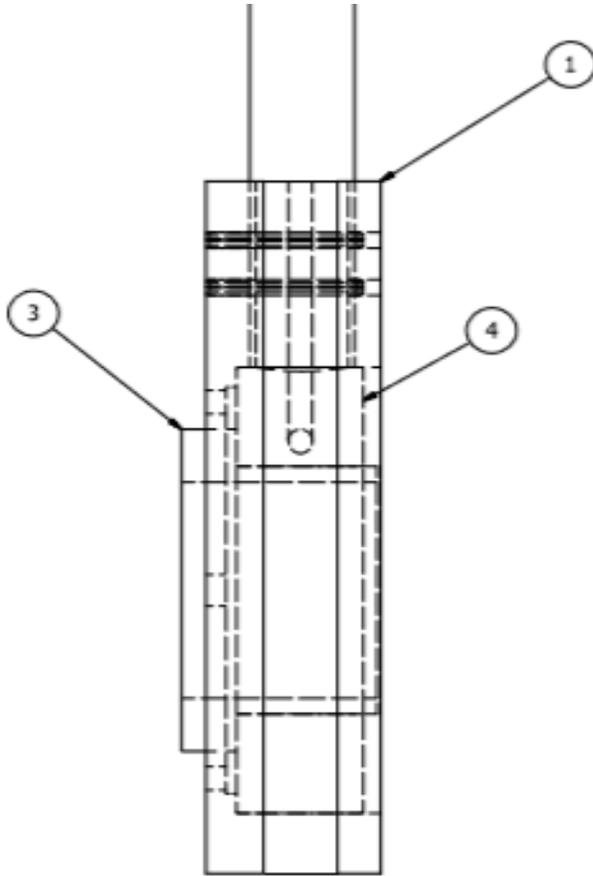


Location of Bogie Block Bolts and adjustment bolts and Jam Nuts.

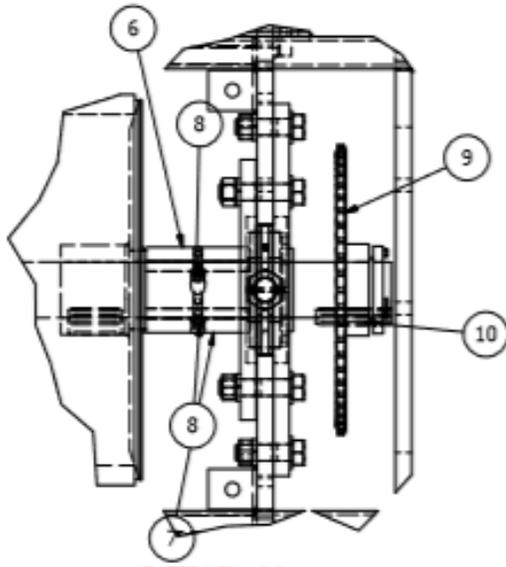


Location of Bolts for Sensor Bracket

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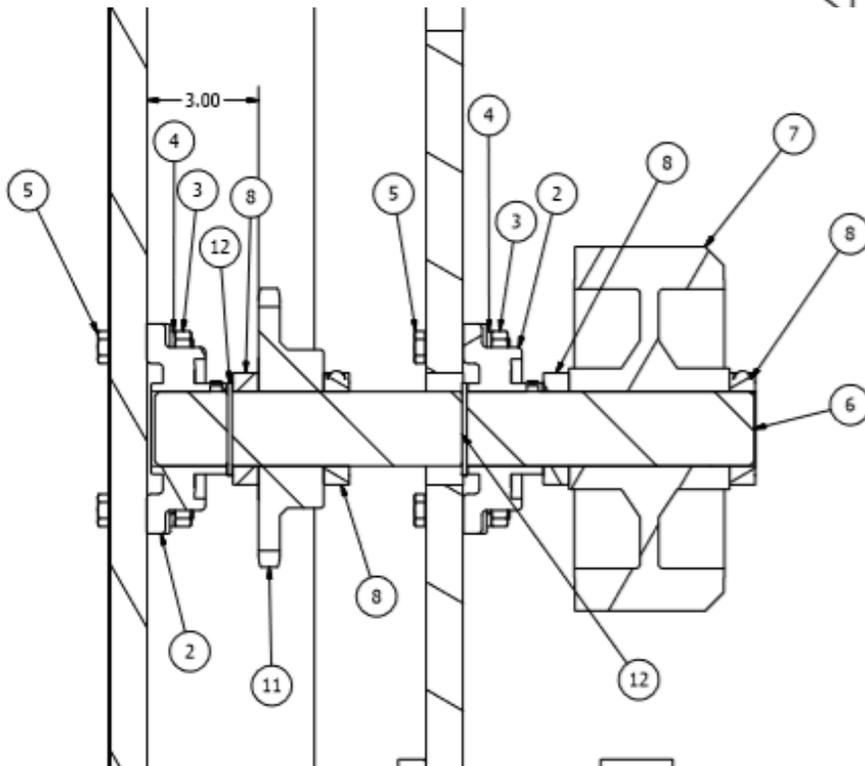
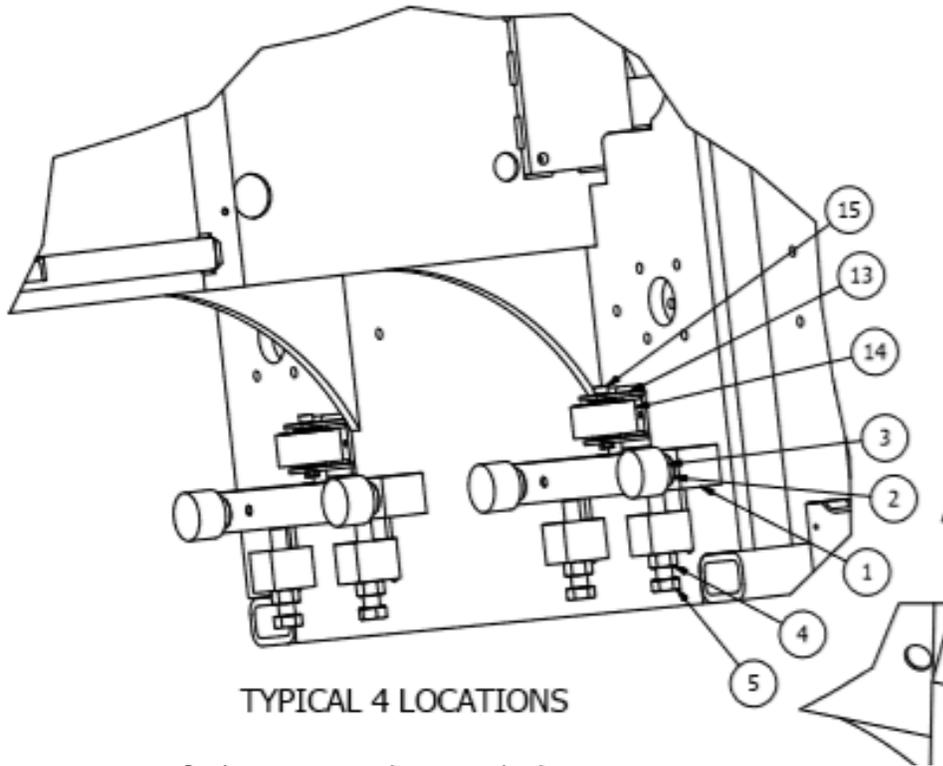


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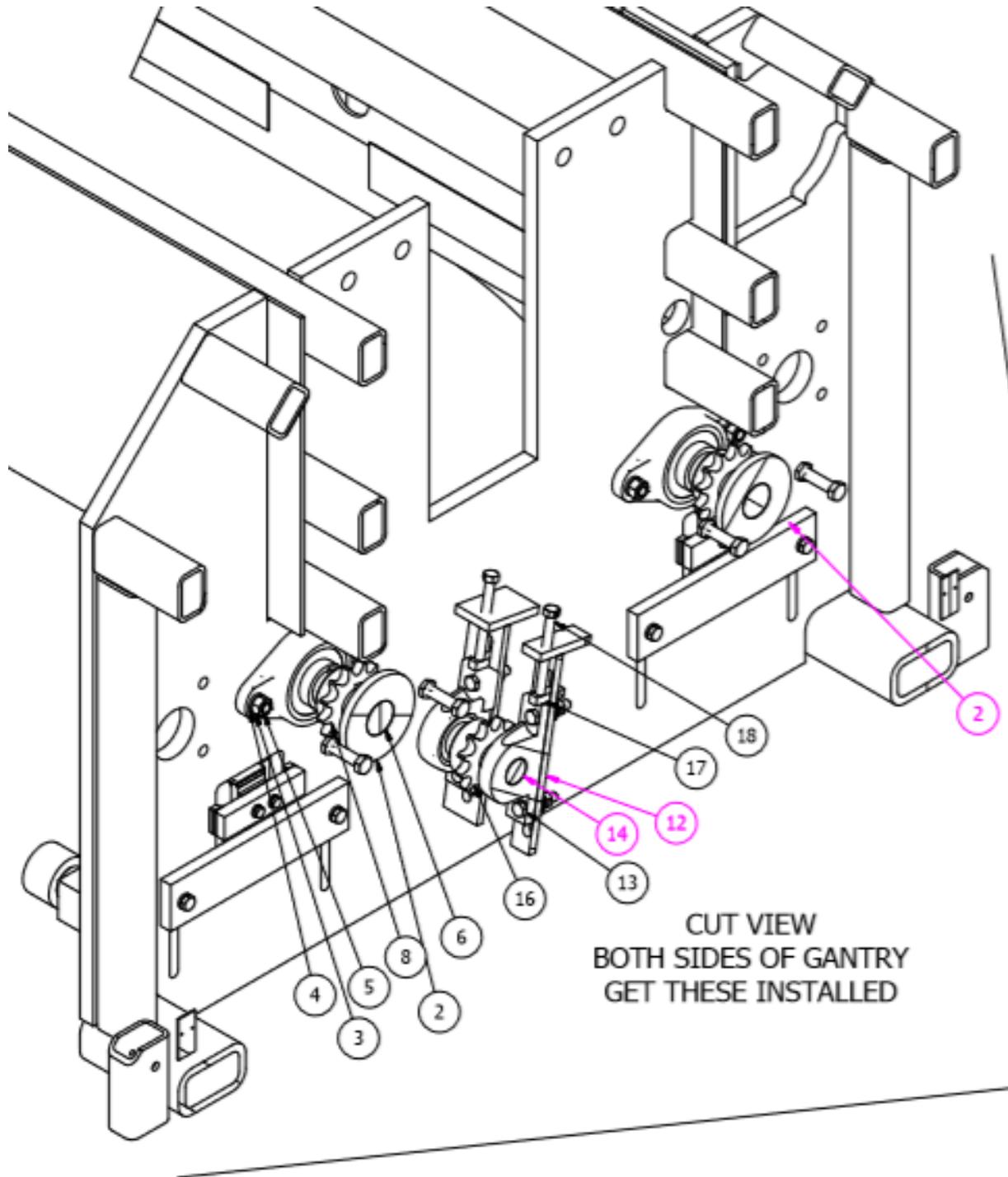


DETAIL V  
OTHER SIDE MIRRORED

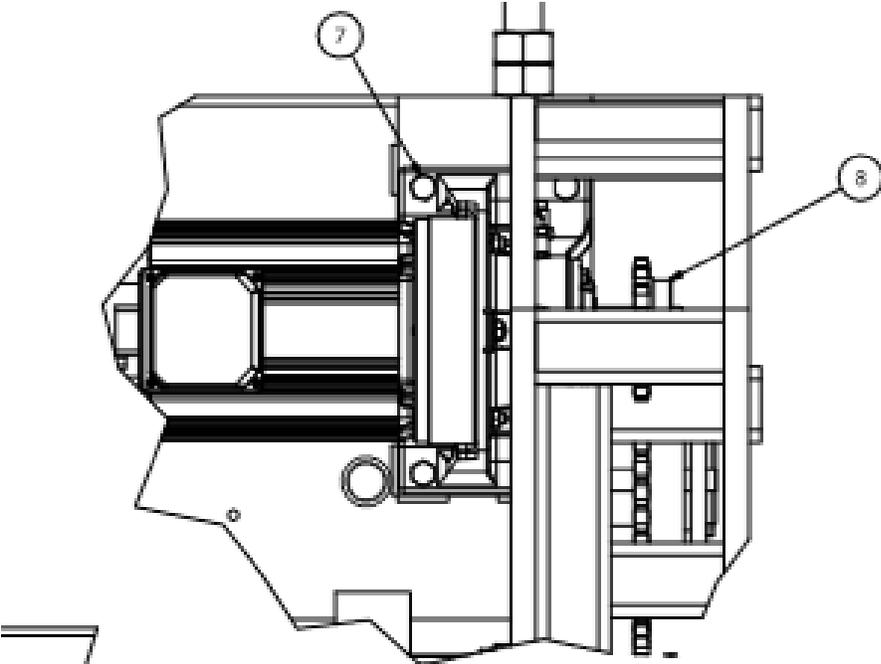
**ALWAYS DISCONNECT AND LOCK OUT ANY POWER SOURCES WHEN ADJUSTING OR REPAIRING ANY EQUIPMENT!**



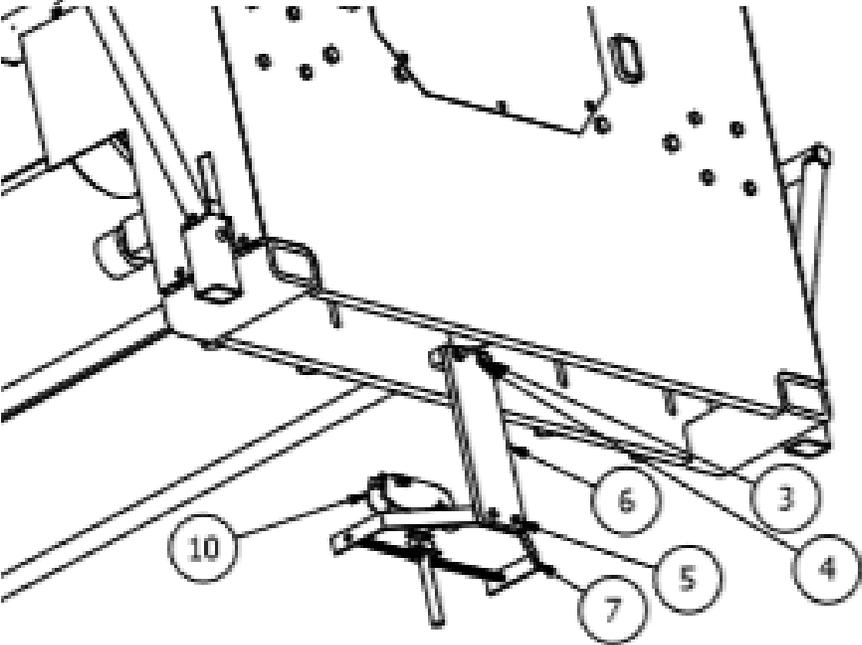
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DETAIL E



**ALWAYS DISCONNECT AND LOCK OUT ANY POWER SOURCES WHEN ADJUSTING OR REPAIRING ANY EQUIPMENT!**

<b>Part Number</b>	<b>Location</b>	<b>Page Location</b>
GA-03-0024-SM	Bearing Block	Page 24; Number 1
BEAR-0014	Bearing Adapter (Floor Truss)	Page 24; Number 3
BEAR-0013	Bearing inside Bearing Block; (Floor Truss)	Page 24; Number 4
*BEAR-0017	Bearing Inside Bearing Block; (Roof Truss)	
SPRO-0018	Sprocket on Roll	Page 24; Detail V; Number 9
WHE-0010	Guide Wheel on Side of Gantry (Red)	Page 25; Number 14
*WHE-0020	Guide Wheel on Side of Gantry (Black)	Page 25; Number 14
BEAR-0015	Load Runner; Bottom of the Drive Tube	Page 25; Number 3
WHE-0019	Drive Wheel (Green)	Page 25; Number 7
*WHE-0021	Drive Wheel (Black)	Page 25; Number 7
SPRO-0021	Sprocket Attached to the Drive Wheel Shaft	Page 25; Number 11
BEAR-0002	Bearing that Holds Drive wheel Shaft; 4 Bolt Flange	Page 25; Number 2
GA-03-0015-SM	Shaft for Drive Wheel	Page 25; Number 6
SHCO-0001	Locking Collars on Drive Wheel Shaft; 1 Piece	Page 25; Number 8
*SCHO-0006	Locking Collars on Drive Wheel Shaft; 2 Piece	Page 25; Number 8
ASME B18.27.2 NA4-2	Snap Ring on Drive Wheel Shaft	Page 25; Number 12
GA-03-0027-SM	Shaft for Slack Adjuster	Page 26; Number 14
BEAR-0016	Bearing for Slack Adjuster; 2 Bolt Pillow Block	Page 26; Number 12
SPRO-0020	Sprocket for Slack Adjuster	Page 26; Number 16
GA-03-0028-SM	Shaft for Idler	Page 26; Number 6
BEAR-0007	Bearing for Idler Shaft; 2 Bolt Flange Bearing	Page 26; Number 2
SPRO-0010	Sprocket for Idler Shaft	Page 26; Number 8
Gantry Motor	7.5 HP	Page 27; Detail E; Number 7
*Gantry Motor	10 HP	Page 27; Detail E; Number 7
SPRO-0022	Sprocket on the Motor	Page 27; Detail E; Number 8
**ELAC-0002	Electrical Collector with Connection Cable (Please Specify MFG for Re-Order)	Page 27; Number 10
**ELAC-0125	Electrical Collector Tow Arm; Number 3 (Please Specify MFG for Re-Order)	Page 27; Number 7
ELAC-0129	3 Button Pendant to Operate Gantry	
**ELAC-0006	Electrical Track Joint Cover	
**ELAC-0007	Electrical Track Anchor Clamp	
**ELAC-0101	Electrical Track Hanger Clamp	
<b>*Please Specify as some SQ-1 Gantry Systems may vary.</b>		
<b>**Please Specify Manufacture of Electrical Track as some SQ-1 Gantry Systems may vary.</b>		

**ALWAYS DISCONNECT AND LOCK OUT ANY POWER SOURCES WHEN ADJUSTING OR REPAIRING ANY EQUIPMENT!**