



Jib Crane for Bucket Elevators

Installation and Operation Manual

PNEG-1783

Date: 04-28-11

GSI GROUP



PNEG-1783

Contents

Chapter 1 Safety	4
Safety Guidelines	4
Safety Instructions	5
Chapter 2 Safety Decals	7
Chapter 3 Installation	8
Introduction	8
Attach Jib Mounting Column to the Bucket Head	9
Attach the Jib Crane Turret to the Mounting Column	11
Attach Rollers and Roller Guard to Turret	12
Attach Boom Assembly to the Turret	13
Attach Adjustable Tie Rod to the Boom and Turret	13
Trolley	13
Chapter 4 Jib Crane Operation	14
Chapter 5 Warranty	15

Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury.

Safety Instructions

Our foremost concern is your safety and the safety of others associated with this equipment. We want to keep you as a customer. This manual is to help you understand safe operating procedures and some problems which may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist, and to inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation where **SERIOUS INJURY** or **DEATH** may occur.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

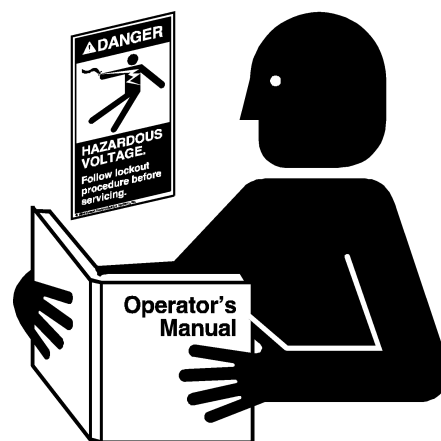
Follow Safety Instructions

Carefully read all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual or need assistance, contact your dealer.



Read and Understand Manual

Practice Safe Maintenance

Understand service procedures before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is in operation. Keep hands, feet and clothing away from rotating parts.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any built up grease oil and debris.



Maintain Equipment and Work Area

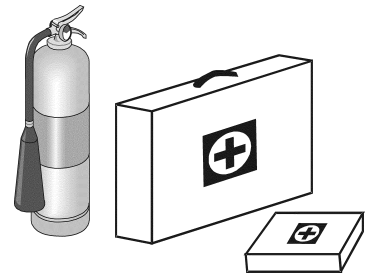
1. Safety

Prepare for Emergencies

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.



Keep Emergency Equipment Quickly Accessible

Wear Protective Clothing

Wear close fitting clothing and safety equipment appropriate to the job.

Remove all jewelry.

Long hair should be tied up and back.

Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

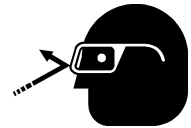
Wear steel toe boots to help protect your feet from falling debris. Tuck in any loose or dangling shoe strings.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

Wear hard hat to help protect your head.

Wear appropriate fall protection equipment when working at elevations greater than six feet (6').

Eye Protection



Gloves



Steel Toe Boots



Respirator



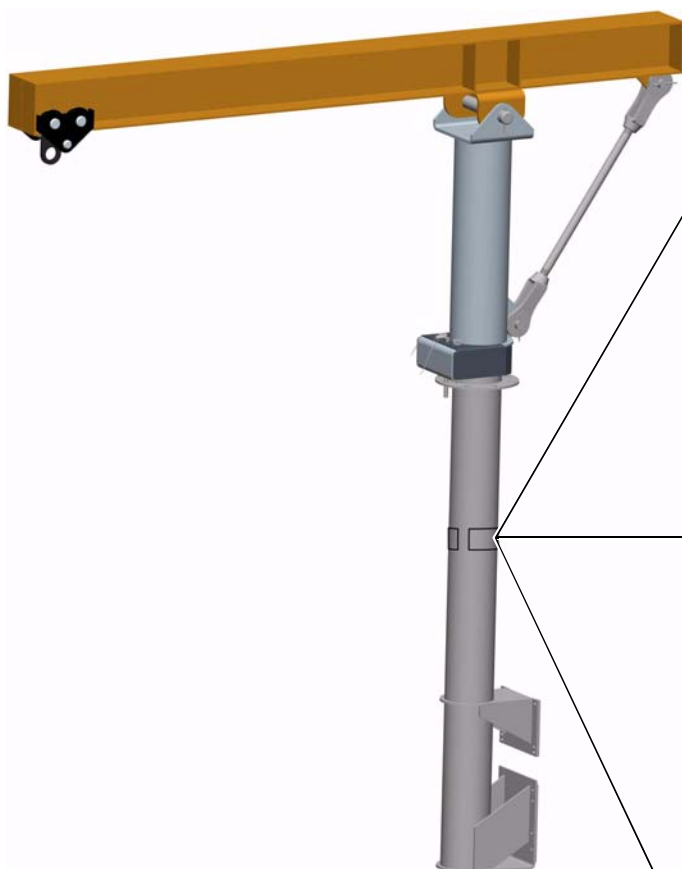
Hard Hat


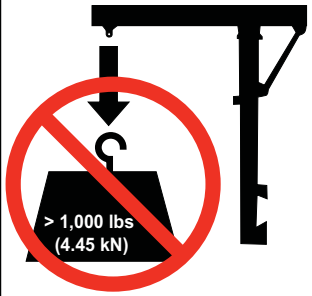



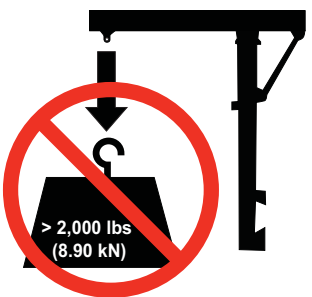
Fall Protection


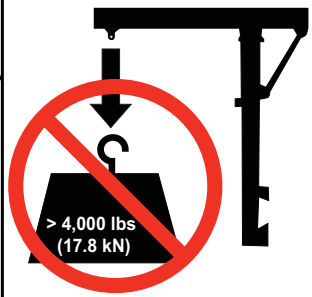


The decals are located as shown below:



 WARNING	
	<p>DO NOT EXCEED JIB CRANE LOAD LIMIT</p> <p>Load Limit = 1,000 LBS. (4.45 kN)</p> <p>Excessive load could damage jib crane and cause injury.</p> <p style="text-align: right; font-size: small;">DC-2148</p>

 WARNING	
	<p>DO NOT EXCEED JIB CRANE LOAD LIMIT</p> <p>Load Limit = 2,000 LBS. (8.90 kN)</p> <p>Excessive load could damage jib crane and cause injury.</p> <p style="text-align: right; font-size: small;">DC-2149</p>

 WARNING	
	<p>DO NOT EXCEED JIB CRANE LOAD LIMIT</p> <p>Load Limit = 4,000 LBS. (17.8 kN)</p> <p>Excessive load could damage jib crane and cause injury.</p> <p style="text-align: right; font-size: small;">DC-2150</p>

3. Installation

Introduction

The bucket elevator jib is designed to assist in the lifting and lowering of large replacement components, such as motors, to and from the top of the bucket elevator. ***The elevator platform itself is not intended to support the weight of the replacement components handled by the jib.*** The weight of the components must be supported by the jib through final installation. The jib will be provided by GSI while the cable, winch will be supplied by the customer. The jib can swivel 360° and can be parked in position by the user with the pin when not in use. Do not use the pin while under load. ***The winch should be permanently installed on the jib, winching from the ground is not advised. The jib is for vertical lifting only.***

Intended Use

The bucket elevator jib is designed to assist in the lifting and lowering of large replacement components, such as motors, to and from the top of the bucket elevator. Any other use is considered a misuse of the equipment.

Winch, Pulley and Cable

All lifting components such as the winch, pulley and cable used with the hoist must have a load rating equal to or greater than the load rating of the jib. Winch should be permanently installed on the jib. Winching from the ground is not advised. The jib is for vertical lifting only.

Maintenance

Before operation, inspect that all lifting components and equipment are secure and not damaged.

Attach Jib Mounting Column to the Bucket Head



DO NOT mount the jib to any structure unless you are sure the structure can safely support the loads imposed upon the structure.

Before attaching the upper bracket base plate to the head, you need to drill out or knock off the heads of the four (4) existing huck bolts (30"-42" elevators only). When the bolts are removed, use 3/8" x 1-1/4" bolts to attach the upper bracket and lower bracket base plate to the bucket head. (See Figure 3A below and Figure 3B on Page 10.)

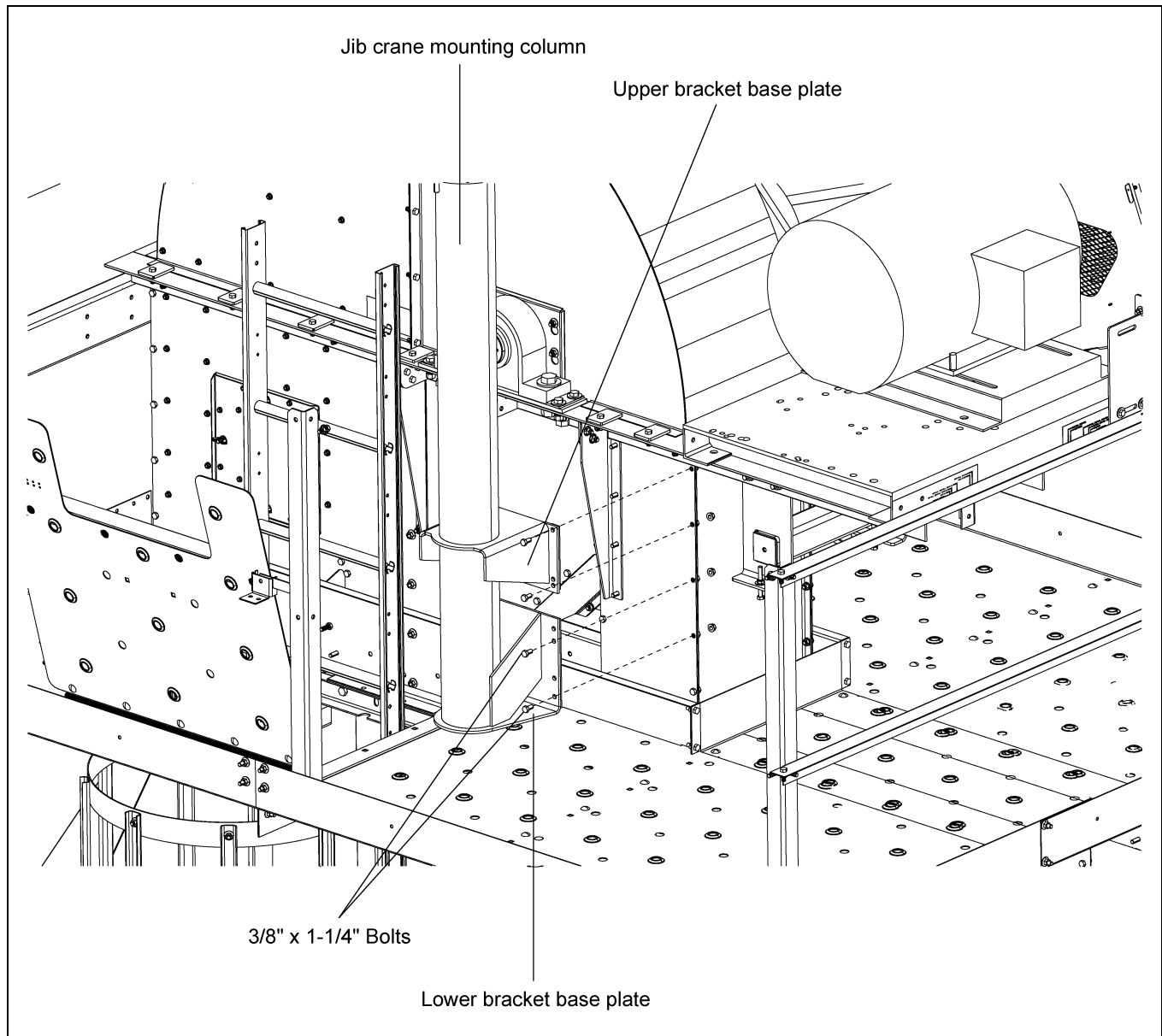


Figure 3A 16"-24" Bucket Elevator

3. Installation

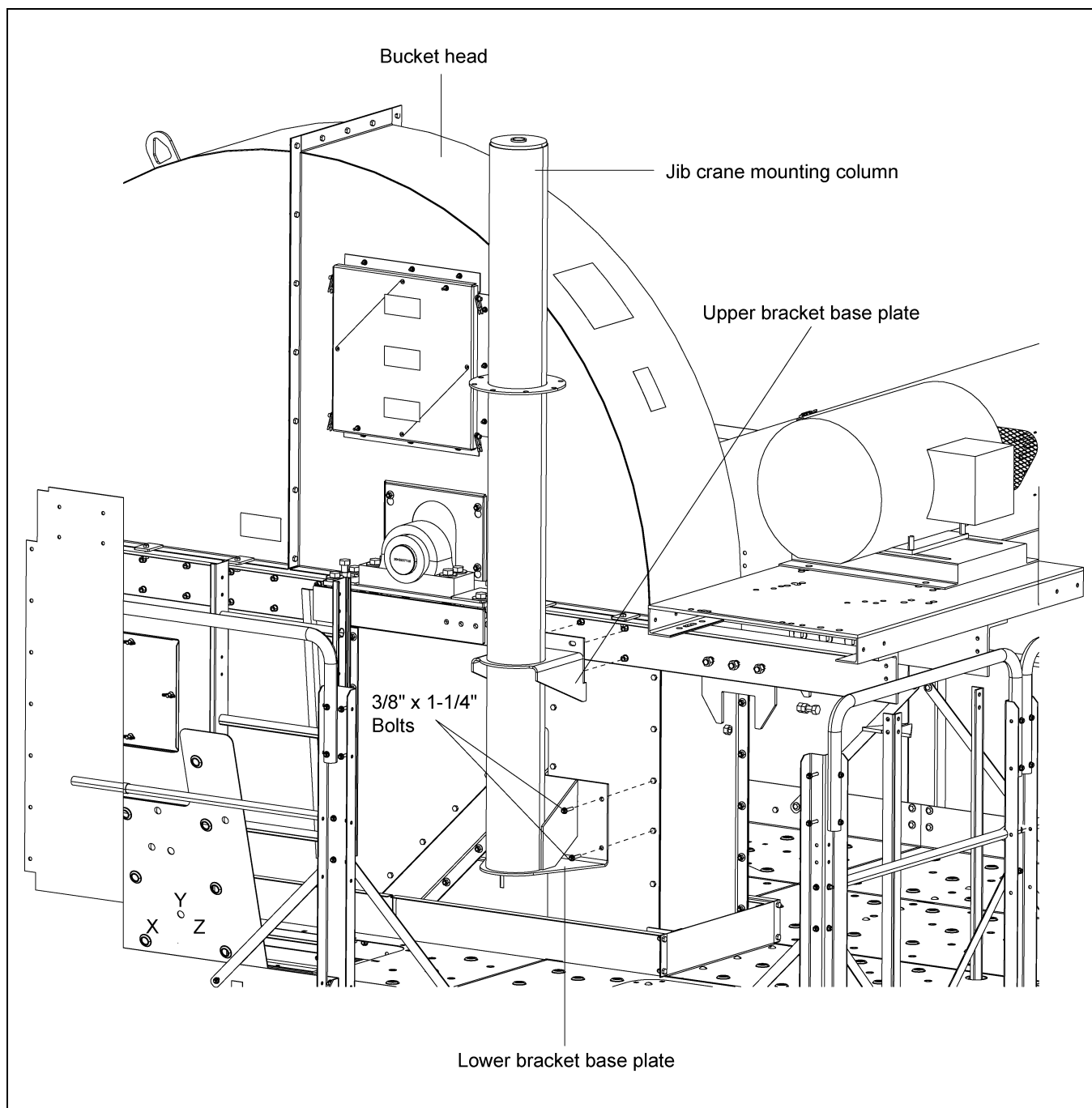


Figure 3B 30"-42" Bucket Elevator

Attach the Jib Crane Turret to the Mounting Column

Slide jib crane turret over mounting column as shown in [Figure 3C](#).

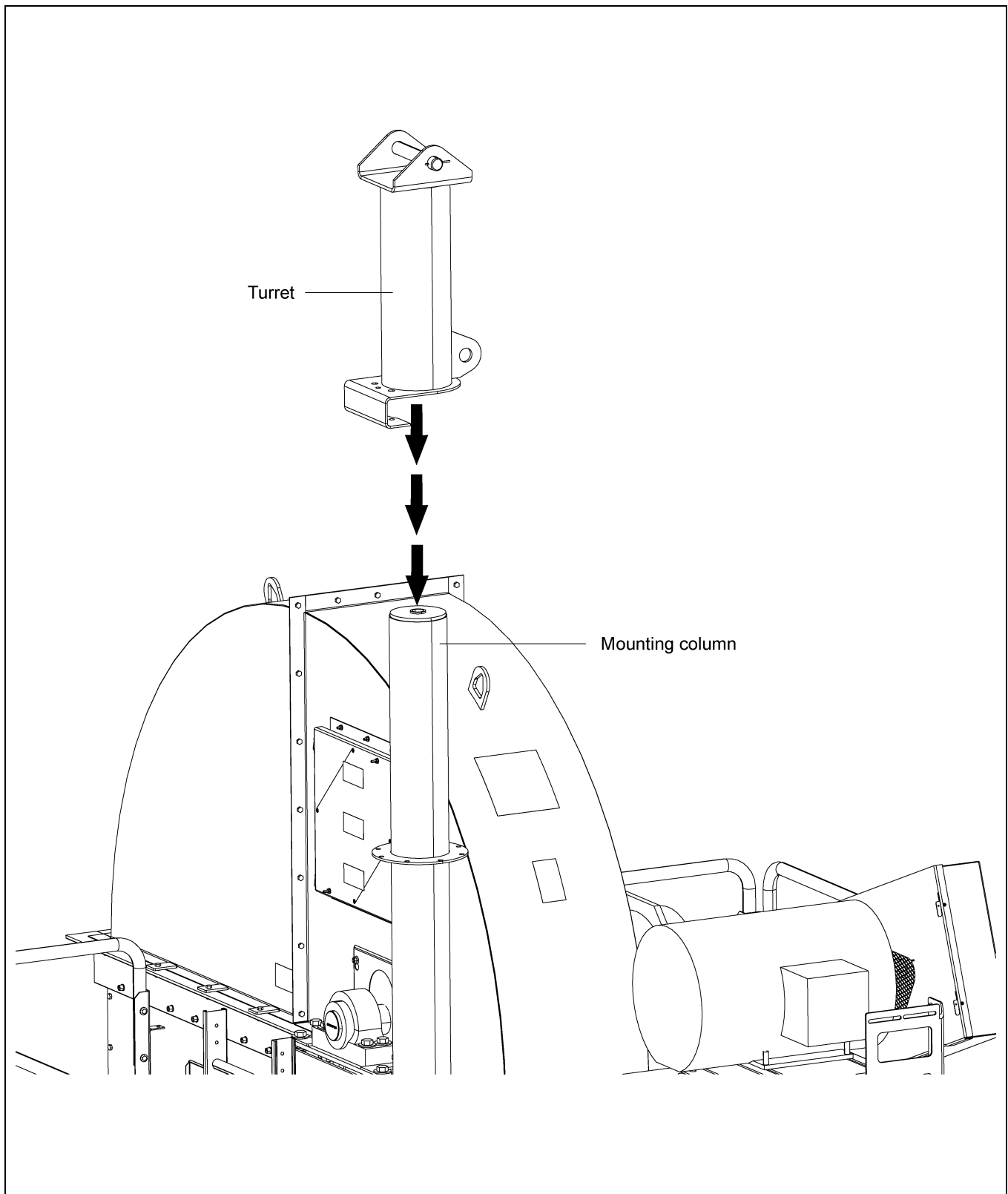


Figure 3C

3. Installation

Attach Rollers and Roller Guard to Turret

Attach rollers and roller guard to the turret using the shoulder bolts and 5/8" nuts as shown. Slide the pin tether cable through the holes in the roller guard and pin. Fasten in place with provided cable clamp. Insert the 90° pin constraint through the turret and the constraint plate to lock turret in place as shown in [Figure 3D](#) and [Figure 3E](#).

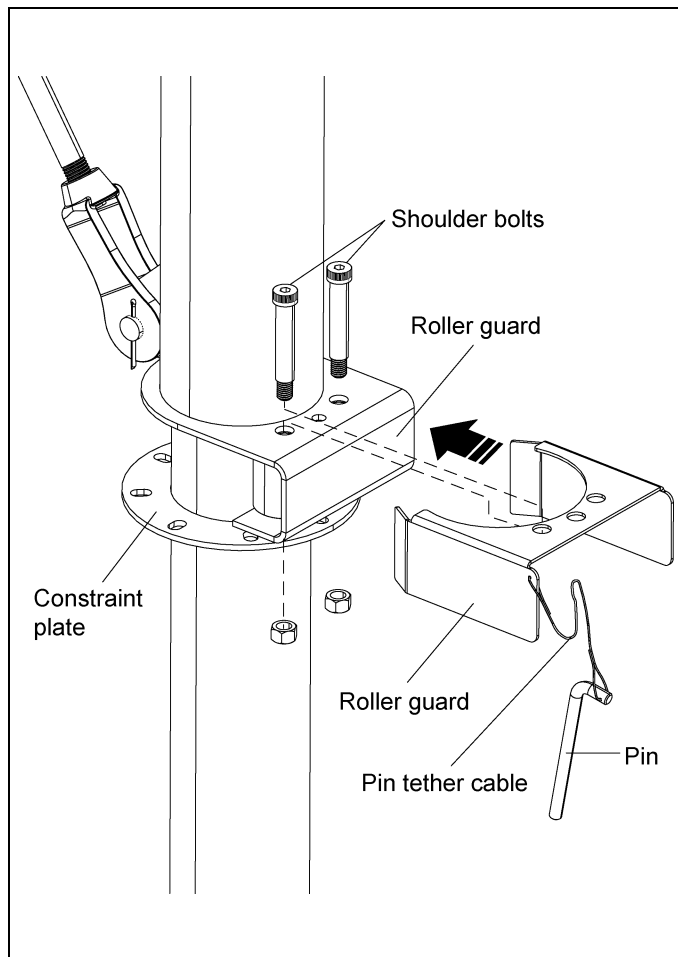


Figure 3D

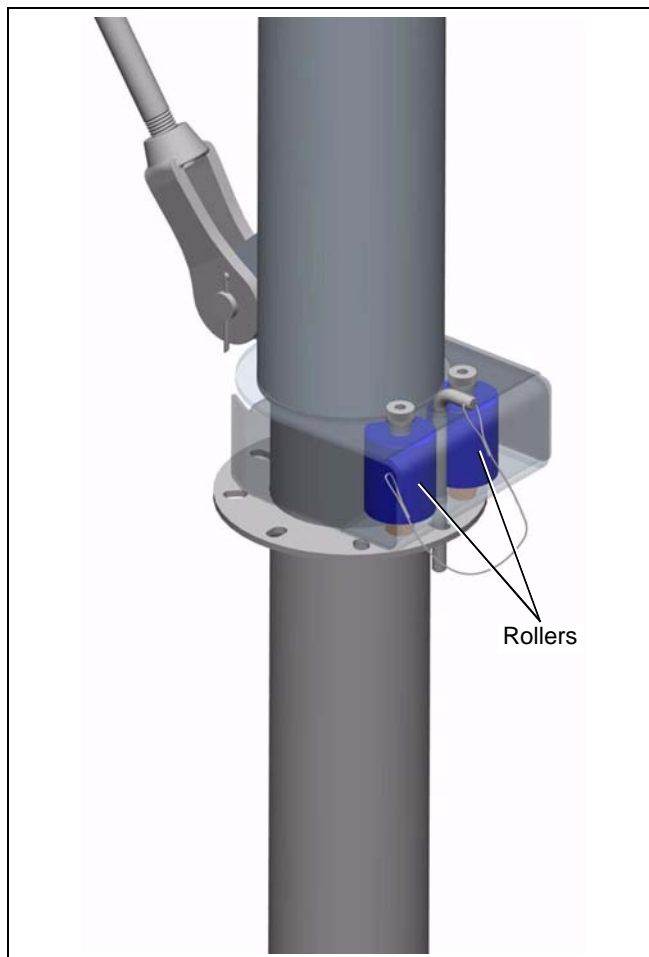


Figure 3E

Attach Boom Assembly to the Turret

Insert pivot pin through the turret and the boom assembly and fasten in place with the cotter pins as shown in [Figure 3F](#).

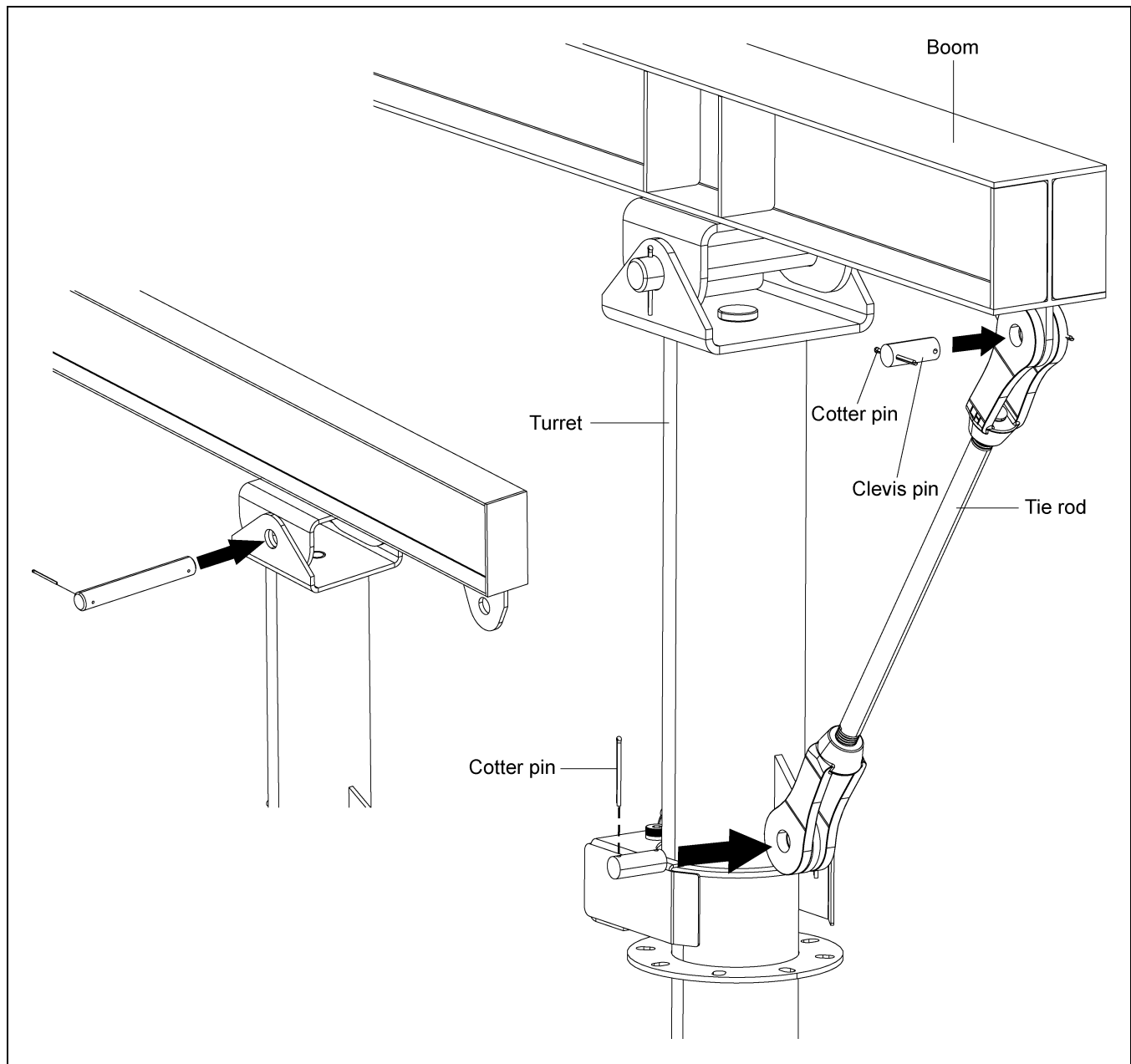


Figure 3F

Attach Adjustable Tie Rod to the Boom and Turret

Install clevis pin through the tie rod arm and turret bracket. Place other clevis pin through the tie rod arm and boom bracket. Fasten both clevis pins in place with a cotter pin on each side.

Trolley

Refer to manufacturers instructions supplied with trolley.

4. Jib Crane Operation



Before operation, inspect that all jib crane parts are secure and not damaged.



Do not exceed jib crane load limit. Jib crane failure could result.



Do not exceed platform load limit. Excessive load will damage platform and cause platform to fall. Injury or death will result.

Secure existing part being replaced to winching cable before detaching from elevator.

Detach part from elevator by loosening bolts.



Do not work under a suspended load. Make sure the area below the load is marked clearly and made inaccessible.

Remove pivot pin from turret. Winch part up and rotate part over the side of the platform.



Cable should not rub against the railing. Rubbing could cause damage to cable and weaken the cable.

Hoist original part to the ground making sure the cable does not rub against the railings or other equipment.

Detach original part onto ground and attach new part to cable.



Do not work under a suspended load. Make sure the area below the load is marked clearly and made inaccessible.

Make sure all personnel are clear of working area before hoisting replacement part. Hoist replacement part into final installation location. **DO NOT** place on platform.

Rotate part into installation position. Fasten new part in place and then remove cable from part.

Rotate boom into parked position and lock in place with pivot pin.

GSI Group, LLC Limited Warranty

The GSI Group, LLC ("GSI") warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user's sole remedy (and GSI's only obligation) is to repair or replace, at GSI's option and expense, products that in GSI's judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

Warranty Extensions:

The Limited Warranty period is extended for the following products:

	Product	Warranty Period	
AP Fans and Flooring	Performer Series Direct Drive Fan Motor	3 Years	* Warranty prorated from list price: 0 to 3 years - no cost to end-user 3 to 5 years - end-user pays 25% 5 to 7 years - end-user pays 50% 7 to 10 years - end-user pays 75%
	All Fiberglass Housings	Lifetime	
	All Fiberglass Propellers	Lifetime	
Cumberland Feeding/Watering Systems	Feeder System Pan Assemblies	5 Years **	** Warranty prorated from list price: 0 to 3 years - no cost to end-user 3 to 5 years - end-user pays 50%
	Feed Tubes (1-3/4" and 2.00")	10 Years *	
	Centerless Augers	10 Years *	
	Watering Nipples	10 Years *	
Grain Systems	Grain Bin Structural Design	5 Years	† Motors, burner components and moving parts not included. Portable dryer screens included. Tower dryer screens not included.
Grain Systems Farm Fans Zimmerman	Portable and Tower Dryers	2 Years	
	Portable and Tower Dryer Frames and Internal Infrastructure †	5 Years	

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12th) month from the date of purchase and continuing until the sixtieth (60th) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) PRODUCT MANUFACTURED OR SOLD BY GSI OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI shall not be liable for any direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction defects or unauthorized modifications to products which it manufactured. Modifications to products not specifically delineated in the manual accompanying the equipment at initial sale will void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

G S I G R O U P



GSI Group
1004 E. Illinois St.
Assumption, IL 62510-0020
Phone: 1-217-226-4421
Fax: 1-217-226-4420
www.gsiag.com