LGH
THE LIFTING EXPERTS

OPERATION MANUAL

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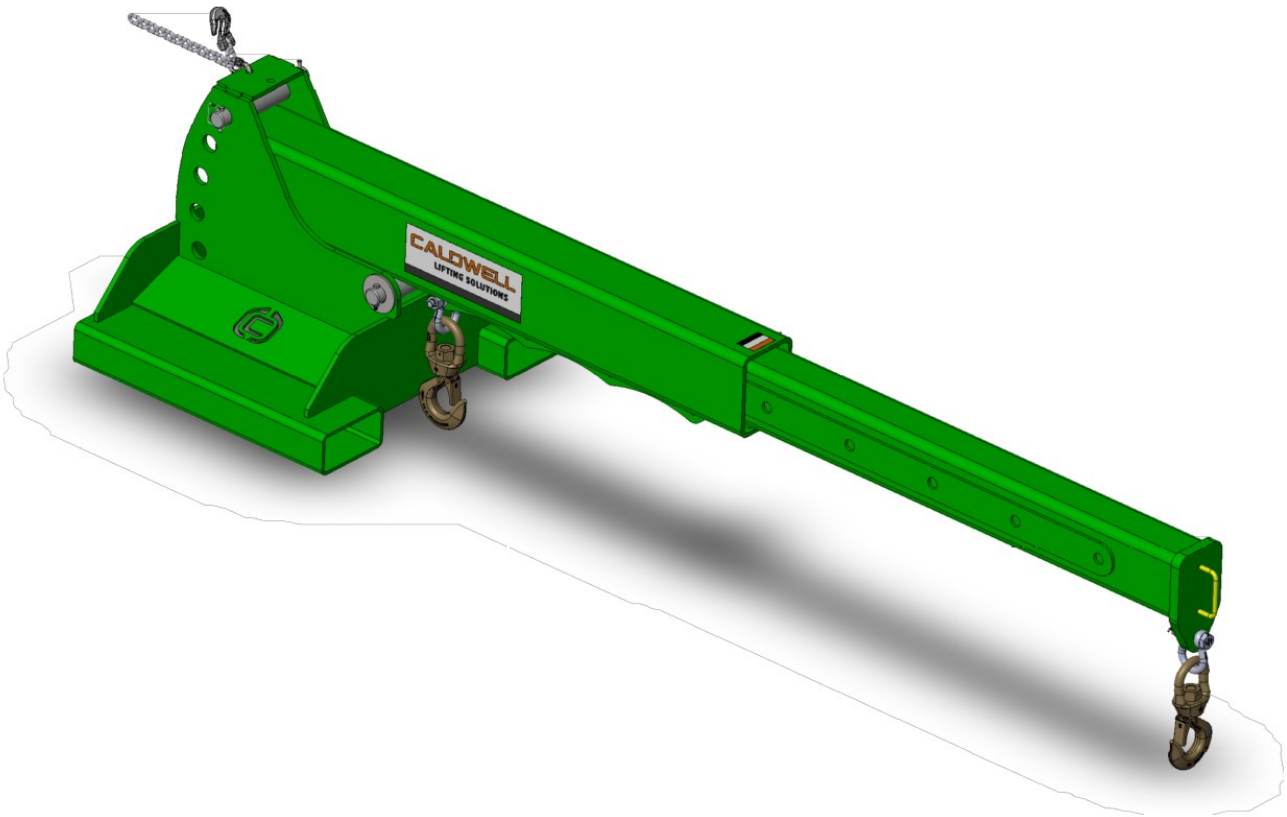
CALDWELL
LIFTING SOLUTIONS

LIF-TRUC™

INSTRUCTION MANUAL



Model Number: PBS-120

Telescoping Pivoting Fork Lift Boom

Serial Numbers: 1-192083-1, 1-192087-1, 1-192089-1, 1-192091-1, 1-192092-1, 1-192094-1, 1-192096-1, 1-192098-1, 1-192100-1, 1-192102-1, 1-192104-1 and 1-192128-1

Date: June 2025

PREFACE

Your new Caldwell product handles a load up to its rated capacity and load size limits. It is designed to perform specific tasks and to withstand forces based on lifting equipment design principles.

All qualified persons responsible for assembly, disassembly, operation, inspection, and maintenance shall read and understand all contents of this manual to avoid serious injury, death, or property damage. Keep this manual.

⚠WARNING

The installation, operation, and maintenance instructions in this manual are typical of your product. The safety information listed in this manual is not all inclusive. The owner or user is responsible for understanding and acting according to industry safety standards and any location, city, state, and federal safety regulations.

The lift truck capacity is affected by the load weight, boom weight, and hook positions. Whenever an attachment is used with a lift truck, the lift truck capacity changes and may be less than capacity shown on attachment. Consult lift truck nameplate.

Order Description
-Customer PO# 4639844963

Your Model may look different than the pictorial representations in the manual, however, information and instructions still apply.

DESCRIPTION

This is for the following sales orders. 192083, 192087, 192089, 192091, 192092, 192094, 192096, 192098, 192100, 192102, 192104 & 192128

- Maximum Rated capacity: 12,000lbs @ 3' to 6"
- 3100lbs. @ 12'
- Hook positions: 3' to 12' in 1' increments
- Fork Pockets: 3.5" x 8"
- 30" pocket length
- Estimated overall height: 30"
- Estimated weight: 1300 lbs.
- Painted RAL-6010 and labeled to compliance
- Includes (2) shackles and (2) swivel hooks
- Also includes a restraining chain assembly
- Approval drawings required, cancellation fee may apply, items is non-returnable

DESCRIPTION

The telescoping, pivoting lift boom only supports loads up to its rated capacity when loaded correctly. The telescoping, pivoting lift boom is a lift truck load supporting attachment designed for specific tasks withstanding forces based on the unit's rated capacity. Contract your lift truck manufacturer for written approval to attach and use the telescoping, pivoting lift boom with your lift truck, requesting the lift truck's rated capacity with attachment.

This manual contains important information to help you install, operate, maintain, and service your lifter from The Caldwell Group. We recommend that you study its contents thoroughly before putting the lifter into use. Read "General Lifting Safety Information." Then, through proper installation, application of correct operating procedures, and by practicing the recommended maintenance suggestions, you can expect maximum lifting service from your lifter.

When ordering replacement parts from this manual, it will be necessary that you include the model number and serial number with your order. This information has been provided in the front cover of this manual and on the lifter nameplate. Also include the item part number (if available) and quantity.

The contents of this manual are general in nature, and may cover features not incorporated on your lifter; therefore, the user must exercise care in applying instructions given in this manual. If specific information not in this manual is required, contact the factory by phone (800) 628-4263 or fax (815) 229-5686.

Service conditions have an important influence on the life of the wearing parts such as gears, bearings, pins, and electrical equipment. This must be considered when determining maintenance and inspection intervals to assure maximum life and safety.

The following information, data, and recommendations are not intended to, and do not in any way, limit the ingenuity or prerogative of the user to employ generally accepted maintenance and operating standards. Rather, this manual is intended only to provide guidelines and suggestions recommended for maintaining and operating this lifter.

SAFETY INFORMATION

GENERAL

Protect all authorized, qualified persons responsible for installation, operations, and inspection of your lifter from serious injury or death.

The owner or user is responsible for providing all proper devices, tools, and methods that are necessary to effectively protect each employee from recognized hazards, during installation, operation, maintenance, or servicing. The safety precautions stated in this manual are not all inclusive. The owner/user is responsible for understanding and acting according to industry standards and regulations and any other applicable local, city, state, or federal regulations.

TRAINING

Authorized, qualified individuals need comprehensive training in the use of protective equipment, safeguards, and safe operation of this equipment. Permit only authorized, qualified people to operate, maintain, and service your lifting equipment.

PERSONAL PROTECTION

Personal protective equipment is required whenever there are hazards that can do bodily harm through physical contact. The construction requirements of all personal protective equipment must be concurrent to the work performed.

The Caldwell Group accepts no responsibility or liability for any of its products that are improperly used. The safety information in this manual is provided as a guide for the user, and is not a substitute for proper training and usage.

SAFETY INFORMATION

⚠ DANGER

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

⚠ WARNING

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

⚠ CAUTION

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

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.

GENERAL LIFTING SAFETY INFORMATION

Initial Inspection

A qualified person shall inspect the following before initial use

- Inspect the overall unit for signs of damage or missing parts.
- Check all components for proper fluid levels and lubrication as needed.
- Check all fasteners for tightness.
- Test all functions for proper operation.

Use

- Verify each operator is qualified in proper lifting and rigging techniques.
- Request each operator to demonstrate proper lifting techniques using your Caldwell product.
- Inspect and test the lifter to verify everything is correct.
- Do not use a lifter labeled with an “Out of Service” tag.
- Verify the travel path or transport area is clear of people and obstructions.
- Do not allow the lifter to make any contact with any objects during loading, lifting, or transporting.
- Raise, Lower, or Transport the load only over specified areas.
- Barricade people from swing zones, fall zones, and crush zones.
- Confirm the load’s weight does not exceed your Caldwell product’s rated capacity.
- Confirm the combined weight of the load and your Caldwell product does not exceed the lift truck’s rated capacity.
- Confirm all lifting devices are free from any damages.
- Use only the hooks provided with the fork lift boom.
- Confirm the load’s center of gravity is in-line with the hoist’s center of gravity (single hook lifting only!)
- Confirm the load’s center of gravity is equal distance (symmetric) between the center of each hook (dual hook lifting only!)

GENERAL LIFTING SAFETY INFORMATION

Use

- Inspect the lifter, verify all equipment adjustments are correct and secure, before load attachment and lifting cycle begin.
- Confirm the load is ready for the lifting or transporting.
- Lift or transport only properly balanced loads.
- Accelerate and decelerate the lifter and load slowly and smoothly.
- Avoid swinging the load, transport slowly.
- Do not drag loads along the ground.
- Do not shock or side load the lifter.
- Ensure the load can withstand forces applied by the lifter.
- Inspect the load, confirm the load is ready for lifting, making sure nothing falls from the load or lifter during loading, lifting, or transporting.
- Do not lift loads over people.
- Prohibit people from standing under a load or attachment.
- Do not lift people.
- Prohibit any person from riding on the load or lifter.
- Obey stop signals from anyone.
- Do not leave a suspended load unattended.
- Start lifting the load slowly and gently, when load cycling is complete, set the load down gently on a load supporting surface.
- Store lifters in a designated place when not in use.
- Secure written approval from The Caldwell Group before making any alterations or modifications to the lifter. Modifications without approval voids your warranty.
- Do not use a lifter with damaged or missing identification tags, product safety labels or other markings. Contact The Caldwell Group if replacements are needed.

INSPECTION INFORMATION

Inspecting Practices

- An appointed person shall visually inspect the lifter on a daily, weekly, and annual schedule.
- Establish a regular inspection schedule based on severity of use and environmental conditions.

every lift inspection Visual examination by the operator before and during each lift.

frequent inspection Visual examination by operator or other designated person records not required.

Normal service…….. monthly
Heavy service……weekly to monthly
Severe service……...daily to weekly
Special or infrequent service……...qualified person recommendation

periodic inspection Visual inspection by a qualified person, keeping records for continuing evaluations.

Normal service…….. annually
Heavy service……quarterly
Severe service……...monthly
Special or infrequent service……...qualified person recommendation

Inspect for:

- All rigging used.
- Faulty operation.
- Damage, wear, deformation, cracks, or any defects on the fork beam assemblies, fasteners, hooks, mechanical parts, load supporting clevises or pins, welds, and attachment points.
- Loose fasteners, shackles, slings or rigging hardware.
- Structural bends, cracks, or any defect.
- Damaged, worn, or missing identification and product safety labels.

Inspection and Maintenance in this manual is only a guide for the user. Adjust inspection and maintenance schedules, according to actual environmental conditions and severity of use. If inspection reveals any damage, remove the lifter from service, tagging with an "OUT of SERVICE" tag. Contact The Caldwell Group for professional consultation and evaluation, regarding replace or repair: 815-229-5667.

GENERAL LAYOUT & CAPACITY

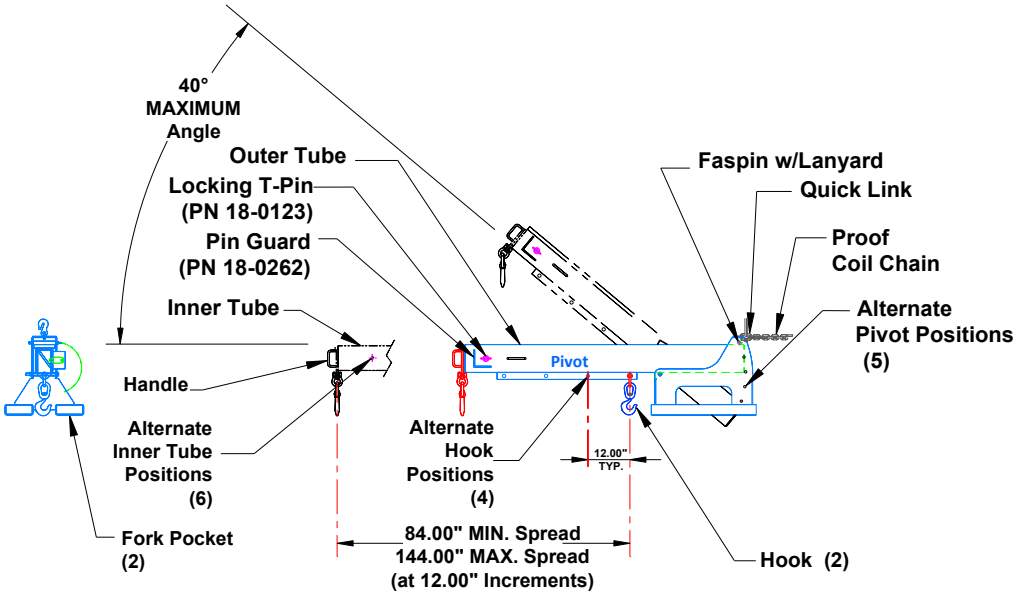


Figure 1

Capacity

Vertical CG :

PBS-120 = 10.61 in

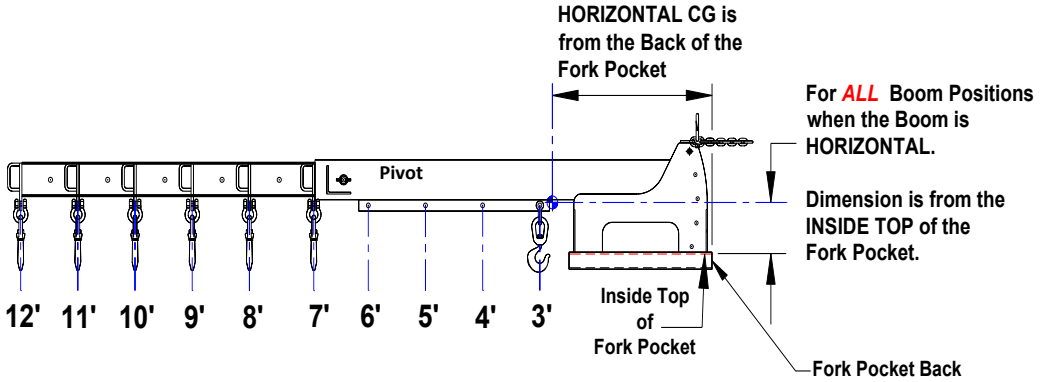


Figure 2

PBS-80 Boom Position (feet)	3' to 7'	8'	9'	10'	11'	12'
Horizontal CG (inches)	33.32	36.48	39.61	42.74	45.87	48.94

PBS-80 Boom Position (feet)	3' to 6'	7'	8'	9'	10'	11'	12'
Capacity (pounds)	12,000	10,000	8,750	7,775	7,000	6,350	5,525

LIFTING BOOM FORKLIFT ATTACHMENT

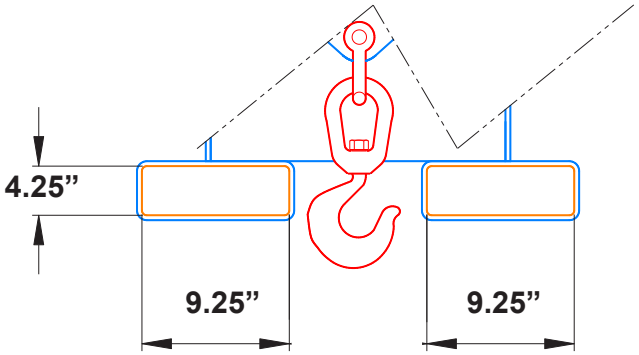


Figure 3

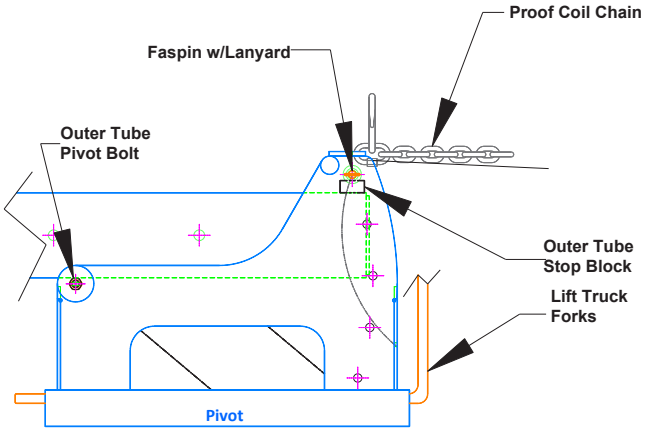


Figure 4

⚠WARNING

Before attaching and using the telescoping, pivoting fork lift boom:

- **Contact your lift truck manufacturer.**
- **Request written approval to use the telescoping, pivoting fork lift boom with your lift truck.**
- **Rated capacity on your boom is only for the telescoping, pivoting fork lift boom.**
- **The lift truck manufacturer must provide the rated capacity for the boom and lift truck combined.**

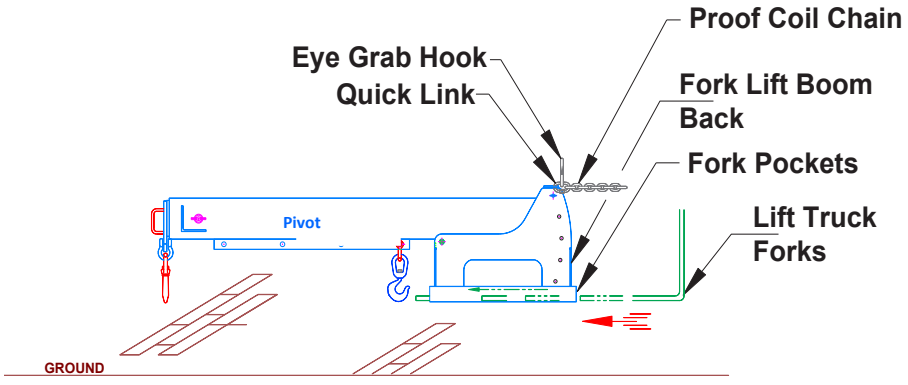


Figure 5

LIFTING BOOM FORKLIFT ATTACHMENT

Loading the Fork Lift Boom on the Lift Truck

- Lift the forks of the lift truck several inches off the floor.
- Slowly, drive the lift truck towards the back of the boom.
- Stop the lift truck.
- Slowly, adjust the height of the forks, aligning them with the fork pockets on the boom.
- Slowly, drive the lift truck forward.
- Stop the lift truck.
- Make any additional adjustments, assuring the lift truck forks are in alignment with the bottom fork pockets.
- Insert the forks into the boom fork pockets.
- Continue driving the lift truck forward until the forks are able to properly support the boom. The back side of the boom must be touching the lift truck's fork carriage.
- Stop the lift truck.
- Secure the boom to the lift truck with the restraint chain. Allow no slack in the restraint chain.
- Adjust the boom's spread once the boom has been lifted 3 feet off the ground (see figure 1 & 5).
    - Know the intended load's size and weight.
    - Determine the required spread for the intended load's size and weight (spread is defined as the center to center distance between the two lifting hooks, use only symmetric loading).
    - Pull the locking T-pin out, freeing the inner tube for spread adjustment.

⚠WARNING

- **Moving parts can crush and cut.**
- **Adjust only when unloaded.**
- **Secure all pins prior to lift.**
- **Attach load after all adjustments are secured.**
- **Perform a test lift.**

⚠DANGER

- **Falling load will cause serious injury or death.**
- **Completely insert pin through the inner tube, before load attachment.**
- **Fully support the boom, before removing the faspin.**
- **Do not allow people to support the boom.**
- **Completely insert faspin, before load attachment.**

LIFTING BOOM SPREAD ADJUSTMENT

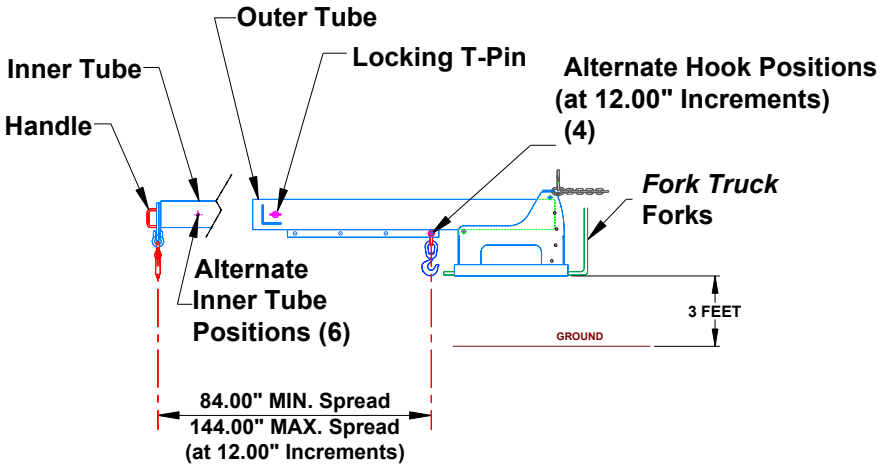


Figure 6

- Turn the T-pin 90°, from horizontal to vertical (see figures 7 & 8).
- Hold the inner tube handle.
- Push or pull the inner tube until the approximate overall length is obtained.
- Rotate the T-pin 90°, returning to horizontal (see figures 7 & 8).
- Slightly, push or pull the inner tube handle until you hear a click. The clicking sound, indicates the locking T-pin is completely inserted through the locking hole on the inner tube.
- Position the hooks to achieve proper spread dimensions (see figure 6).

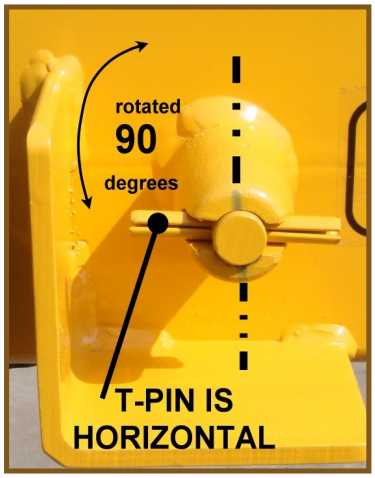


Figure 7

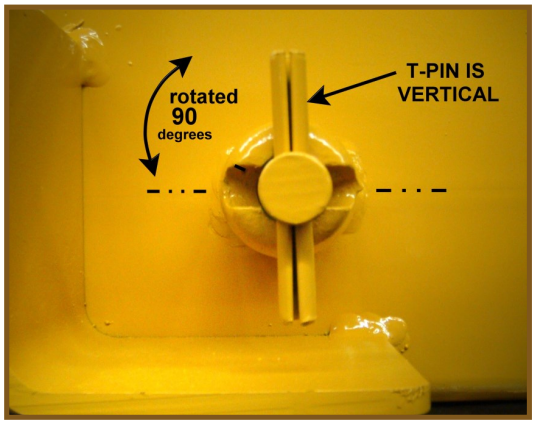


Figure 8

PIVOTING BOOM ADJUSTMENT

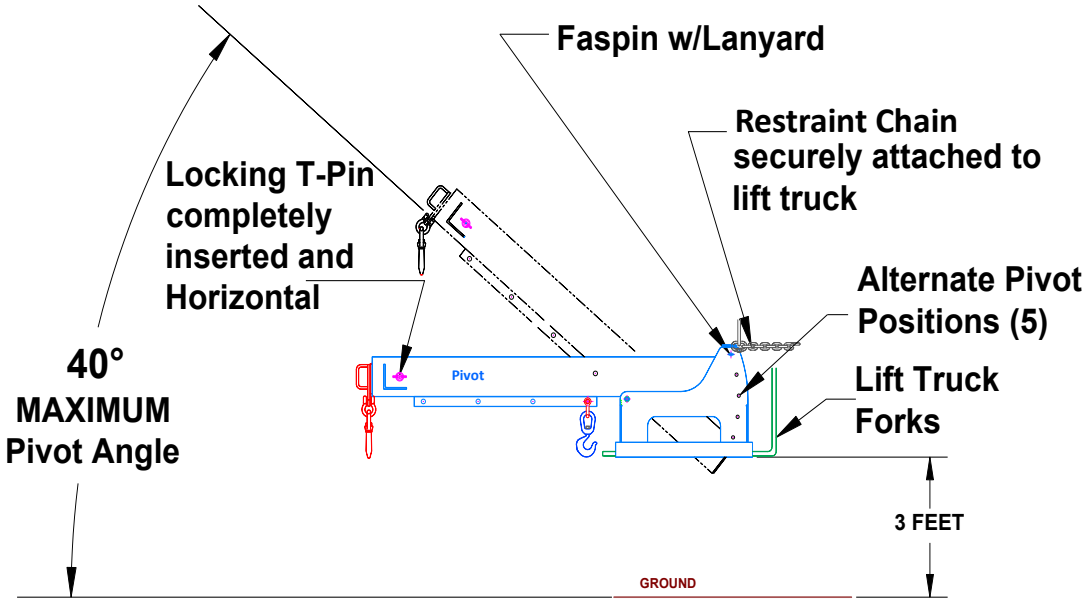


Figure 9

- Ready to adjust the lifter's pivot angle once the following conditions are met:
  - Restraint chain is securely attached to both the lifter and the lift truck.
  - Locking T-pin is completely inserted and horizontal.
  - Hook positions are concurrent with the required spread dimension.
  - The pivoting boom is about three feet from the ground.
- Support the boom with a hoist or overhead crane, before removing the faspin, see figure 10.
- Remove the faspin.
- Move the pivoting boom up, slowly, with a hoist or overhead crane while the boom rotates on the pivot bolt, see figure 10.

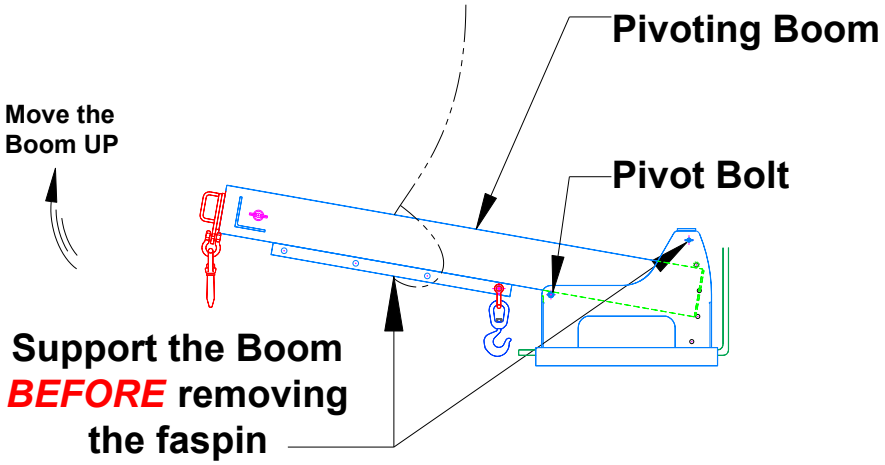


Figure 10

PIVOTING BOOM ADJUSTMENT

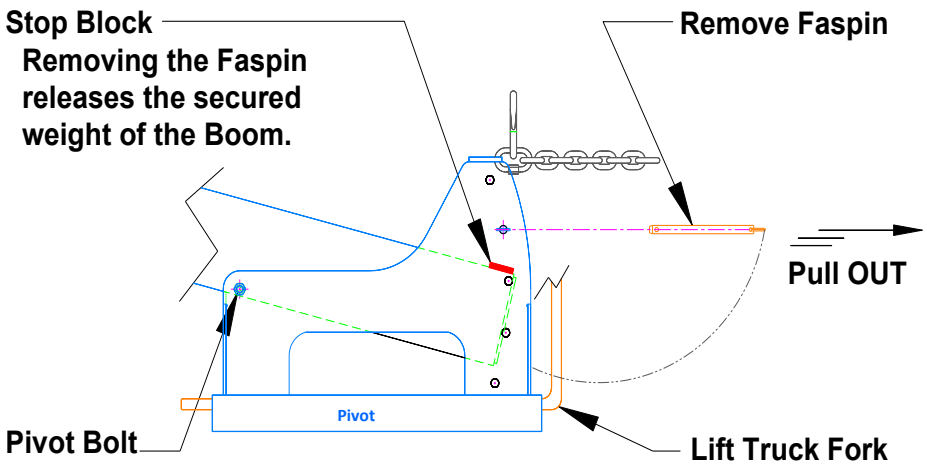


Figure 11

- Rotate the boom upwards enough so the stop block clears the “new” Faspin hole.
- Continue supporting and stabilizing the boom with a hoist or overhead crane.

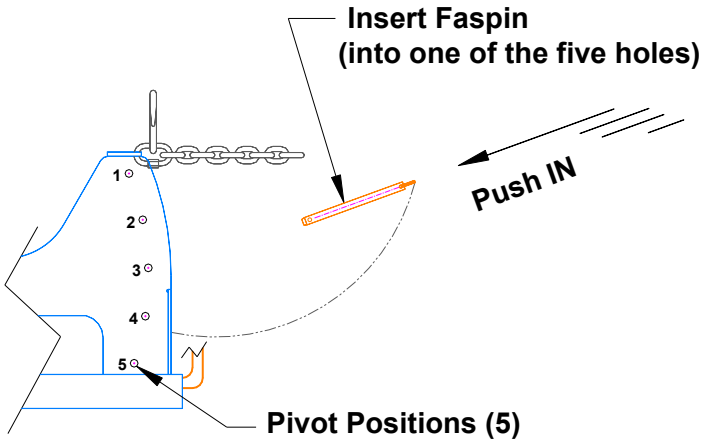


Figure 12

- Insert the Faspin into one of the five alternate pivot positions.
- Completely insert the Faspin before loading and transporting the pivoting boom.
- After completely inserting the Faspin, remove the supporting hoist or overhead crane for the boom.

PROPER LIFTING

Lifting with 2 Hooks

Before attaching the load, verify the following:

- Restraint chain is securely attached to both the boom and the lift truck.
- Telescopic spread is adjusted for the designated load size and weight.
- Locking T-pin is completely inserted and horizontal.
- Faspin is completely inserted.
- The boom has been adjusted parallel to horizontal.
- Faspin is completely inserted.
- Outer tube is resting on the pivot bolt and the weight of the boom is pressing on the Faspin.

- Know the weight and size of the designated load, and the maximum capacity at the selected hook position for your boom.
- Move and securely fasten the hooks, achieving the required spread, center to center between both hooks.
- Attach one sling to each hook, using only the hooks. Use only the hooks supplied with the pivoting lifting boom. Select slings with a rated capacity equal to or greater than the weight of the load.
- Position the boom above the designated load.
- Slowly, lower the boom over the load for sling attachment.
- Attach both slings, one on each hook, and to the designated load.
- The load's center of gravity must be equal distance between the center of each sling, this is symmetric loading (see figure 13).
- Perform a test lift of several inches, verifying load security and balance; verify the lifter is level and horizontal or slightly above horizontal (see figure 14).

⚠WARNING

During lifting, transporting, and lowering, the designated load:

- **When the pivoting forklift boom is loaded on the lift truck, keep the lift truck forks level or slightly above horizontal, preventing the boom from falling off the lift truck forks.**
- **Ensure the lift truck is on firm, level footing, when raising, lowering, or transporting a loaded or unloaded boom.**
- **Drive the fork truck slowly.**
- **Do not suddenly accelerate or decelerate the lift truck with an attached boom, loaded or unloaded, while raising, lowering, or transporting.**

PROPER LIFTING

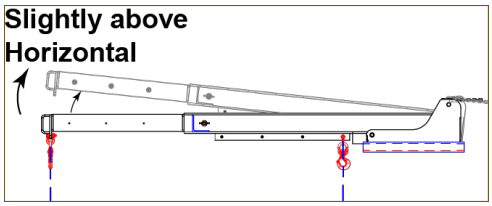


Figure 13

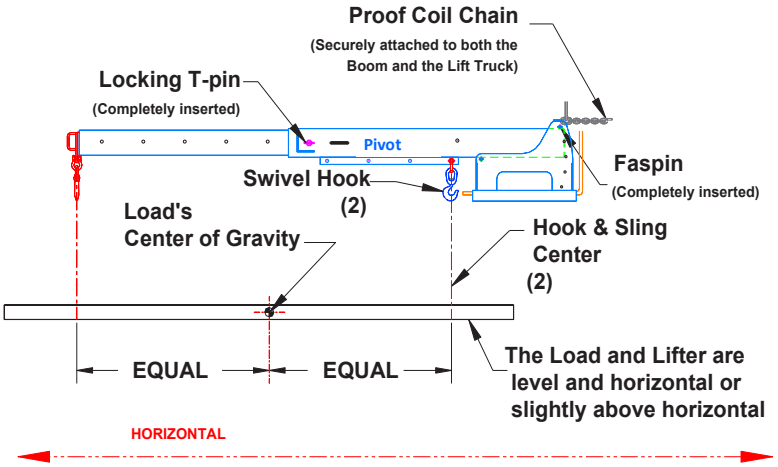


Figure 14

Lifting with 1 Hook

Before attaching the load, verify the following:

- Restraint chain is securely attached to both the boom and the lift truck.
- Telescopic spread is adjusted for the designated load size and weight.
- Locking T-pin is completely inserted and horizontal.
- Pivoting boom has been adjusted at the correct angle for the load size and weight.
- Faspin is completely inserted.
- Outer tube is resting on the pivot bolt and the weight of the boom is pressing on the Faspin.

- Know the weight and size of the designated load, and the maximum capacity at the selected hook position for your boom.
- Attach a sling to the hook, using only the hook. Use only a hook supplied with the pivoting lifting boom. Select slings with a rated capacity equal to or greater than the weight of the load.
- Position the boom above the designated load.
- Slowly, lower the boom over the load for sling attachment.
- Attach the sling to the designated load.
- The load's center of gravity must be in alignment with the center of the hook, see figure 10.
- Perform a test lift of several inches, verifying load security and balance; verify the load is level and horizontal, see figure 15.

PROPER & IMPROPER LIFTING

Proper Lifting with 1 Hook

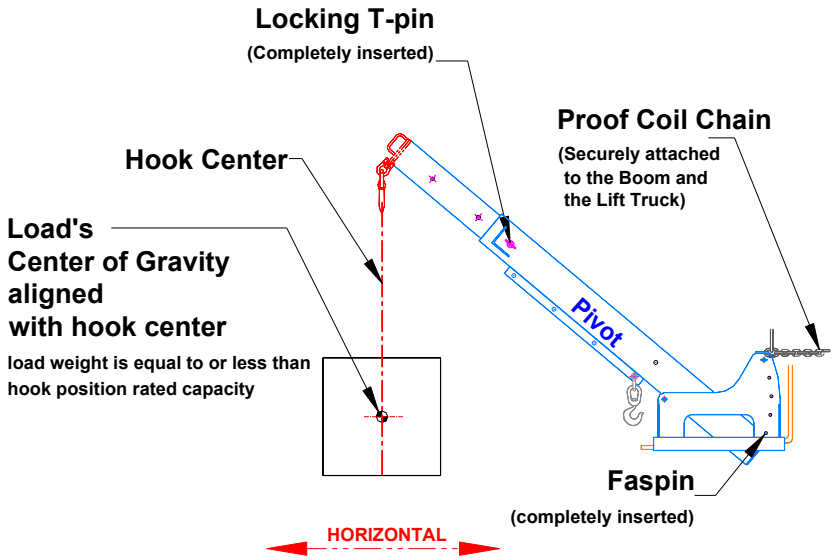


Figure 15

Improper Asymmetric Loading: Lifting with 1 Hook

- Stop the lift truck.
- Adjust the load position:
  - Align the load's center of gravity with the hook center.
  - Adjust the load until it is parallel to horizontal, see figure 15.

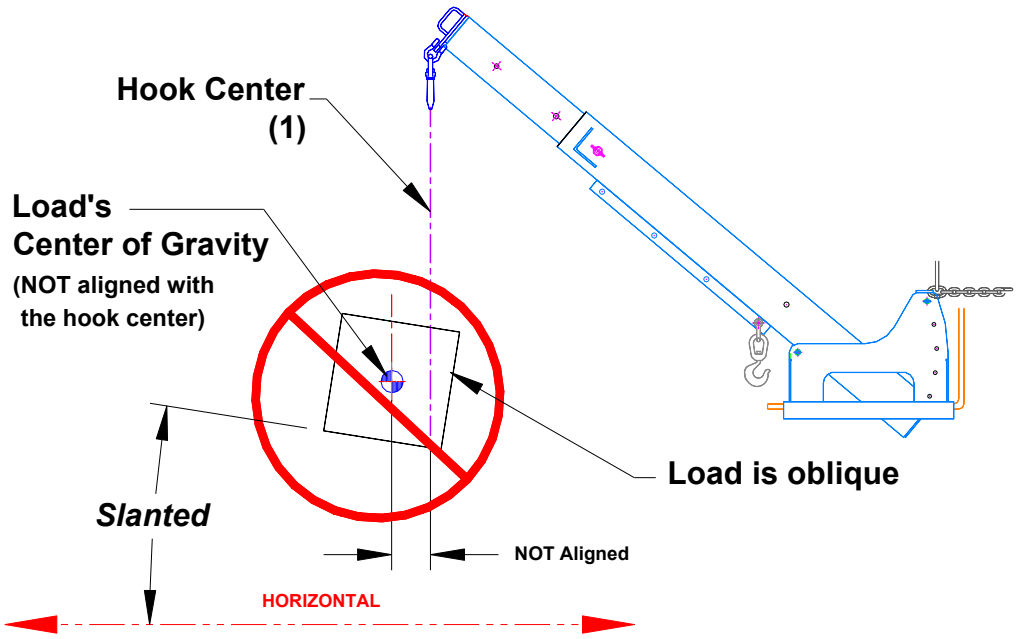


Figure 16

IMPROPER LIFTING

⚠WARNING

- **Do not drive the lift truck forward when the boom, loaded or unloaded, is pointing downward (see figure 17).**
- **Do not lift or transport an asymmetrical load (see figure 18).**
- **Do not lift or transport a load oblique to horizontal, (slanted).**

Boom Tipped Forward

- Stop the lift truck.
- Adjust the lift truck forks back to a load level (or slightly above horizontal) state (see figures 13 & 14).

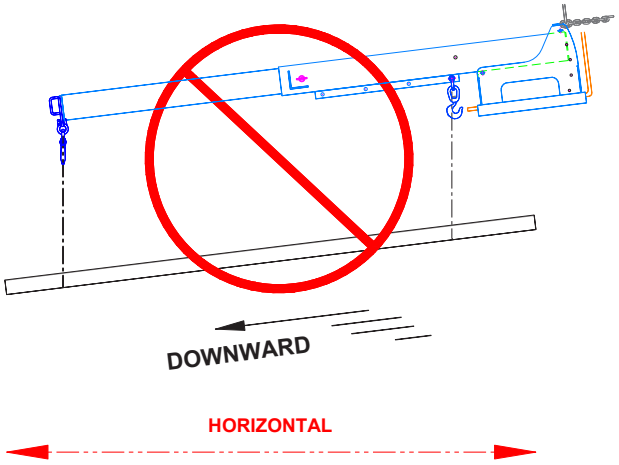


Figure 17

Asymmetric Loading: Lifting with 2 Hooks

- Stop the lift truck.
- Adjust the load position, aligning the load's center of gravity equal distance between both hook centers, symmetric loading (see figure 9)

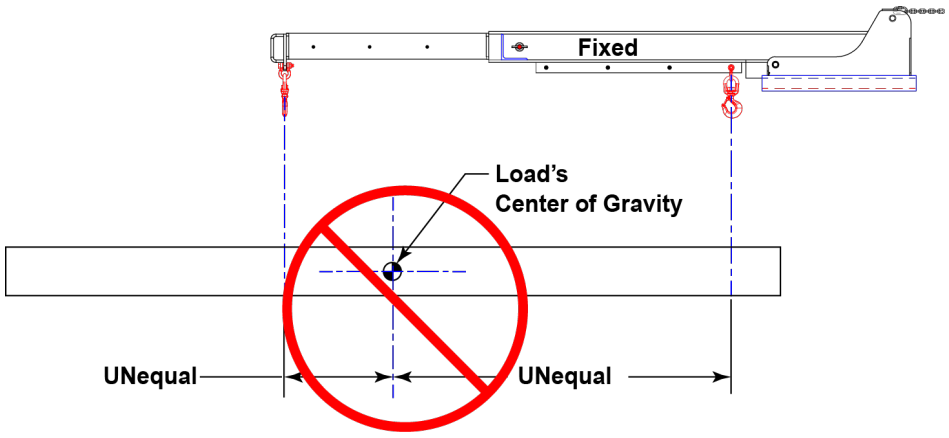
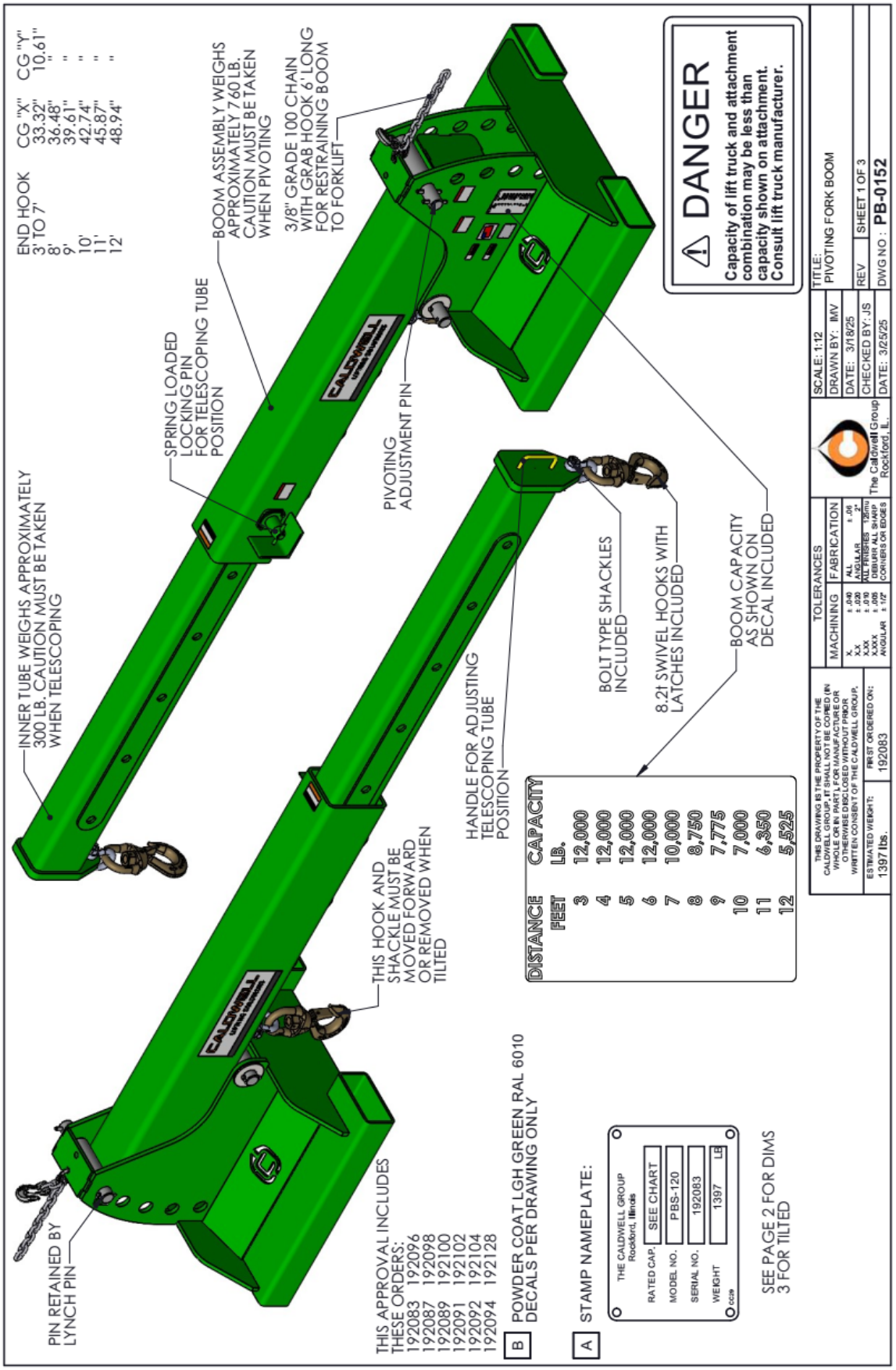
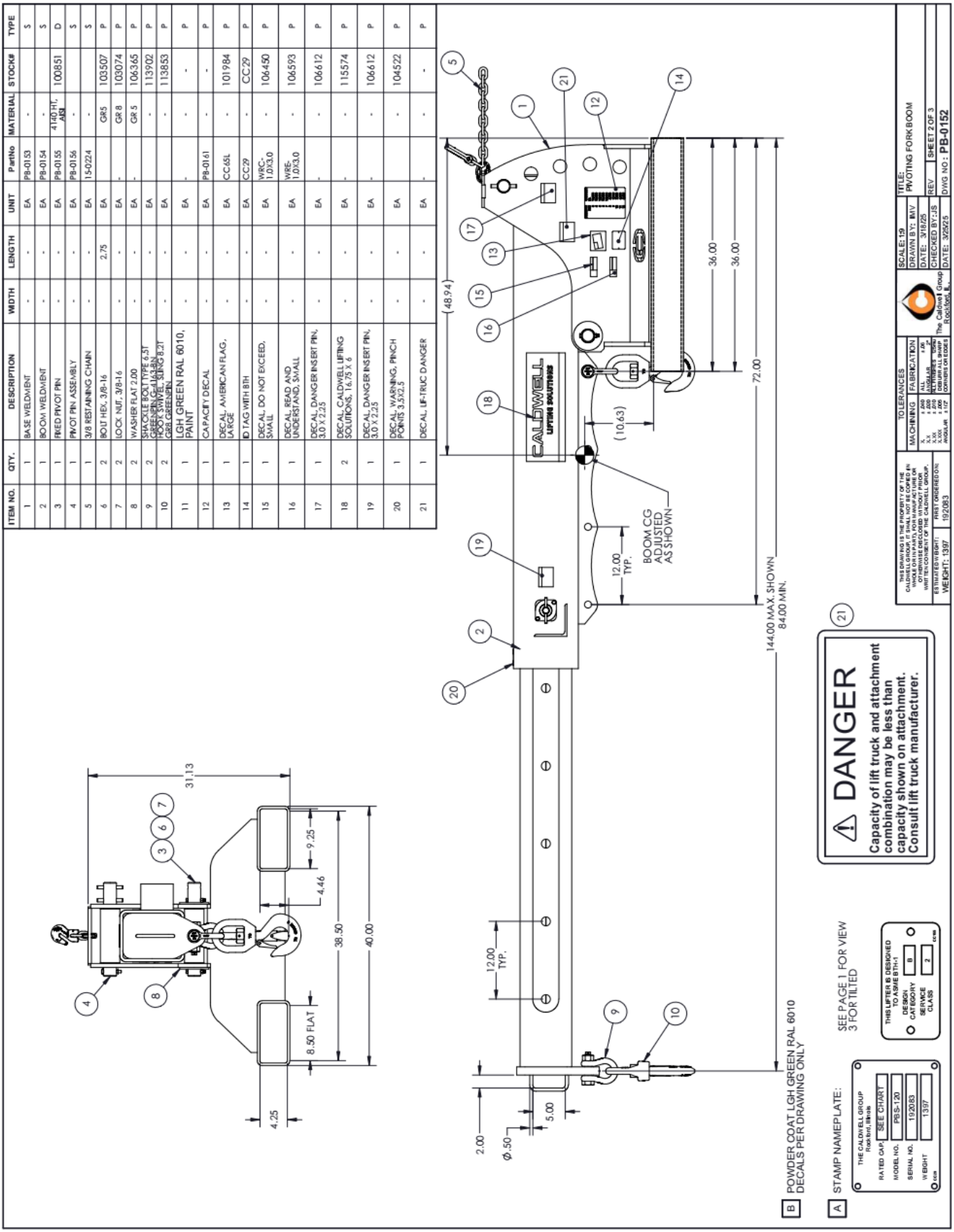


Figure 18

ASSEMBLY DRAWING



ASSEMBLY DRAWING



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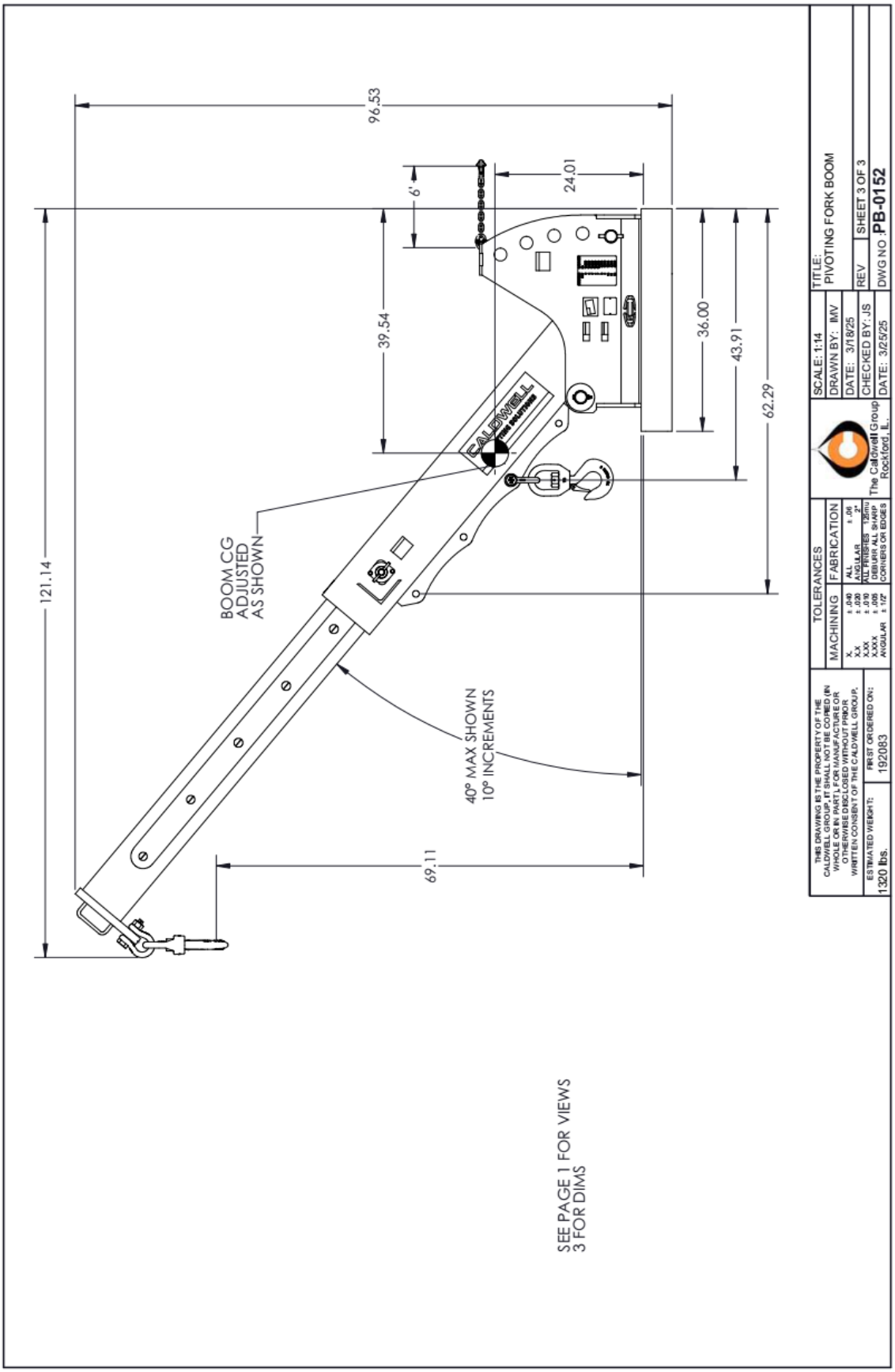

The Caldwell Group
4080 Logistics Pkwy
Rockford, IL 61109

P.O. Box 6005
Rockford, IL 61109

800.628.4263
815.229.5667

815.229.5686 fax
caldwellinc.com