

STEEL DOCKBOARD

STR Series

Installation & Owner's Manual



by

JH INDUSTRIES, INC.

1981 E. Aurora, Rd.
Twinsburg, Ohio 44087
(330) 963-4105 (Phone)
1-800-321-4968 (Toll Free)
www.copperloy.com

Model # _____
Serial # _____
Date: _____

WARNING

Do not install, operate or service this product unless you have read and understand the Safety Practices, Warnings, Installation and Operating Instructions contained in this manual. Failure to do so could result in serious injury or death.



WARRANTY

ALL WARRANTY CLAIMS MUST HAVE PRE-APPROVED RATES, TIMES AND AUTHORIZATION NUMBERS PRIOR TO ANY FIELD WORK, IN ORDER TO BE ACCEPTED BY JH INDUSTRIES, INC.

J H Industries, Inc. expressly warrants that any Steel Dock Board sold by it will be free from defects in material and workmanship under normal use for a period of one (1) year from the earlier of, 1) sixty (60) days after the date of shipment, or 2) the date of installation of the Steel Dock Board by the original purchaser, provided the purchaser maintains and operates the Steel Dock Board in accordance with the Owners Manual.

In the event that the Steel Dock Board proves to be defective in materials or manufacturing workmanship within the applicable period, J H Industries, Inc. will, at its option:

1. Replace the Steel Dock Board or the defective portion thereof without charge to the purchaser, or
2. Alter or repair the Steel Dock Board, on site or elsewhere, without charge to the purchaser.

This warranty IS EXCLUSIVE AND IS IN LIEU OF ALL GUARANTEES AND WARRANTIES, EXPRESSED OR IMPLIED BY ANYONE OTHER THAN J H Industries, Inc. sole warranty obligation shall be as set forth above.

The warranty does not cover any failure caused by improper installation, abuse, misapplication, overloading, negligence, or failure to lubricate and adjust the Steel Dock Board properly. Parts requiring replacement due to damage resulting from vehicle impact, abuse, improper operation or lack of proper protection are not covered by this warranty. Seller assumes no responsibility or liability for (1) consequential damages of any kind which result from the use or misuse of the Steel Dock Board; (2) damage or failure resulting from the use of unauthorized replacement parts or modification to the EDGE-OF-DOCK; (3) damage resulting from the misuse of the Steel Dock Board. THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ABOVE. THERE IS NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

J H Industries, Inc. warranties extend only to the product itself.

J H Industries, Inc. DISCLAIMS all liability arising out of the workmanship, methods and materials used by the installer.

J H Industries, Inc. DISCLAIMS all liability for premature wear, product failure, property damage or bodily injury arising from improper installation or maintenance.

WARRANTIES, whether expressed or implied, relating to workmanship and materials used in connection with the installation of J H Industries, Inc. products are specifically DISCLAIMED.

INTRODUCTION

Welcome, and thank you for purchasing your Steel Dock Board from Copperloy by JH Industries. It is designed to give you years of trouble-free operation.

This manual contains information that is needed to operate and maintain the leveler safely. It also contains a complete parts list and information about ordering replacement parts. Please read completely before using your new leveler.

This manual also contains a complete parts list and information about ordering replacement parts. JH Industries, Inc. has selected components for best fit and function for each of our products, therefore replacement parts should be identical to original equipment or have written approval for non-original equipment. **JH Industries, Inc. will not be responsible for equipment failures due to incorrect or non-approved replacement parts.**

Verify that this is the most current Installation, Operation and Service Manuals.

To obtain an updated version please contact:

JH Industries Inc.

1981 E. Aurora Rd.

Twinsburg, Ohio 44087

(330) 963-4105 (Phone) or 1-800-321-4968 (toll free)

Or visit our website under EOD SEL to download and print an up to date version.



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SAFETY

A product safety sign or label should alert persons to a specific hazard, the degree or level of hazard seriousness, the probable consequence of involvement with the hazard, and how the hazard can be avoided. **SIGNAL WORD** is a word or words that designate a degree or level of hazard seriousness. The signal words for product safety signs are **“DANGER, WARNING, CAUTION”** and **“NOTICE”**. Below is each of these signal words along with their definitions as directly referenced from *ANSI Z535.4-1998*.



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.



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



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.

NOTICE!

“NOTICE” is the preferred signal word to address practices not related to personal injury. The safety alert symbol shall not be used with this signal word. As an alternative to “NOTICE”, the word “CAUTION” without the safety alert symbol may be used to indicate a message not related to personal injury.

SAFETY PRACTICES

WARNING

Read and follow all safety practices and owners manual warnings before installing, operating or servicing the Steel Dockboard. Failure to follow the information provided could result in death or serious injury.

Before doing any maintenance or repair on the Steel Dockboard **MAKE SURE DOCKBOARD IS RESTING FLAT ON THE GROUND OR AD-EQUATE SUPPORT. See Fig. 23 & 24.**

If you do not understand the instructions or if you have any problems or questions using or operating the Steel Dock Board, contact your supervisor or the factory for assistance.

OPERATION

ONLY trained personnel are to operate or service Steel Dock Boards. Call factory for replacement warning labels, or owner's manual.

ALWAYS before using the Steel Dock Board:

- Ensure trailer is backed in against bumpers.
- Remove any end loads if required.
- Check trailer alignment to avoid lip interference. If lip does not lower to trailer bed, reposition vehicle.
- Chock truck wheels or lock truck in place with a truck restraining device and set brakes.

ALWAYS before allowing vehicle to leave the dock:

- Ensure that no equipment, material or people are on the Steel Dock Board.
- Return the Steel Dock Board to its stored position at dock level.

NEVER exceed 5 mph when driving on dock board.

NEVER exceed the rated capacity of the dock board.

NEVER travel on dock board unless lip is securely on truck floor. Visually check that the lip is supported by the truck bed and has a minimum of 4" of overlap onto the truck bed.

NEVER use the dock board if the understructure is resting on the dock or truck. The ramp and lip are the only areas of the board that must rest on the dock or truck.

DO NOT use the dock board with equipment, material, or people on or in the path of the ramp or lip.

DO NOT operate the dock leveler when anyone is in front of it.

DO NOT attempt to lift or lower the dock board ramp or lip by any means other than that described in the operation procedures contained in this manual. Keep hands and feet clear of the dock board at all times and maintain a safe distance from the underside of the dock board while raising or lowering.

DO NOT use this unit to service trailers outside its intended working range, see serial tag for height difference range. Verify with the manufacturers of all equipment to be used on your specific steel dock board, to ensure that operating equipment at all specified grades are within safe operation. Do not operate any equipment that will not safely operate at any of the grades shown on page 4 at either ramp or lip.

Many trailers have air ride suspensions that may cause the trailer to move away from the dock during loading and unloading operations (commonly referred to as dock or trailer walk). The potential for dock walk caused by air ride suspensions may be reduced by exhausting or "dumping" the air from the air ride suspension system before servicing the trailer.

DO NOT USE THE DOCKBOARD if it looks broken or does not seem to operate properly. Tell your supervisor it needs repair right away.

DO NOT operate the dock board if operation or use causes undue physical strain or if physical impairments could lead to undue strain in back, muscles, limbs, or joints.

Dock Boards are designed to be used in positive height difference situations. The dock board must be turned 180 degrees for negative height differences.



SAFETY PRACTICES, CONTINUED

MAINTENANCE AND SERVICE

Remove the dock board from service and use OSHA approved lock-out tag-out peripherals as indicated by your companies safety practices. Let employees know this equipment is out of use and cannot be used.

Place the dock board on a flat level surface or supports before doing any maintenance or service.

Any modification or alteration without written consent of JH Industries Inc. will nullify the warranty of the dock board.



WARNING
DO NOT modify or repair any of the dock board without the written consent of JH Industries Inc.. Any modification or alteration to the dock board may result in serious injury or death.

STEEL DOCKBOARD GRADE CHART

For Fork Lift Truck use: 11° Grade (19%)												
MAX. HEIGHT DIFF. (ins.)	4	5	6	7-1/2	8-1/2	9-1/2	10-1/2	12	13	14	15	16
BOARD LENGTH (ins.)	30	36	42	48	54	60	66	72	78	84	90	96

For Walkie Truck use: 8° Grade (14%)												
MAX. HEIGHT DIFF. (ins.)	3	3-3/4	4-1/2	5-1/2	6-1/4	7	8	8-3/4	9-1/2	10-1/2	11-1/4	12
BOARD LENGTH (ins.)	30	36	42	48	54	60	66	72	78	84	90	96



WARNING
Verify with the manufacturers of all equipment to be used on your specific Steel Dock board, to ensure that operating equipment at all specified grades are within safe operation. Do not operate any equipment that will not safely operate at any of the grades shown for application. Failure to do so could result in death or serious injury.

Average Floor Heights of Empty Semi-Trailers and Trucks		
TYPE OF TRUCK	Min. Height	Max. Height
Over-the-Road (Regular)	48"	54"
Over-the-Road (Heavy Duty)	51"	56"
Refrigerated	50"	56"
Flat Bed	58"	60"
City Delivery	42"	50"
Container on Chassis	52"	58"
Moving Van	32"	42"



CAPACITY

CALCULATING CAPACITY

Determining required dock board capacity:

LIFT TRUCKS:

GVW (Gross Vehicle Weight) = lift truck weight + battery + heaviest load

Dock Board min. Capacity = GVW * 90%

This will show the lowest capacity dock board to be used at specified location. However, if any one of the following conditions below exists, multiply calculated dock board min. capacity by 1.33.

CONDITIONS

More than 8 trucks serviced per day

Three-Wheeled fork trucks (14,000# GVW or less)

Fork trucks travel faster than 3-mph

Fork trucks have front-end attachments or side shifters



Do not exceed dock board capacity. Over loading dock boards could result in death or serious injury.

OWNER'S RESPONSIBILITIES

The owner's responsibilities include the following:

The owner should recognize the inherent danger of the interface between dock and transport vehicle. The owner should, therefore, train and instruct operators in the safe use of dock leveling devices.

When a transport vehicle is positioned as closely as practicable to a dock leveling device, there shall be at least 4" of overlap between the front edge of the lip and the edge of the floor or sill of the transport vehicle. (See Figure 20)

The owner shall see that all nameplates, caution and instruction markings or labels are in place and that the appropriate operating and maintenance manuals are provided to users and shall not be obscured from the view of operating or maintenance personnel for whom such warnings are intended.

Manufacturer's recommended periodic maintenance and inspection procedures in effect at date of shipment shall be followed, and written records of the performance of these procedures should be kept.

Dock leveling devices that are structurally damaged or have experienced a sudden loss of support while under load, such as might occur when a transport vehicle is pulled out from under the dock leveling device, shall be removed from service, inspected by the manufacturer's authorized representative, and repaired as needed

before being placed back in service.

Modifications or alterations of dock leveling devices shall be made only with written permission of the original manufacturer.

When industrial vehicles are driven on and off transport vehicles during the loading and unloading operation, the brakes on the transport vehicle shall be applied and wheel chocks or positive restraints that provide the equivalent protection of wheel chocks engaged.

The dock leveler should never be used outside its vertical working range or vertical lifting range or outside the manufacturer's labeled rated capacity. See Capacity Section (Page 5). It must also be compatible with the loading equipment and other conditions relating to the dock.

OPERATION

WARNING

Before operating the dockboard read and follow Safety Practices in this manual.

Use by untrained people could result in serious injury or death. Read and follow complete Operation Instructions. **DO NOT USE THE DOCK BOARD IF IT LOOKS BROKEN OR DAMAGED OR DOES NOT SEEM TO WORK RIGHT.** Tell your supervisor it needs repair.

Always be certain that the truck wheels are chocked, or that the truck is locked in place by a truck restraining device and the brakes are set, before loading or unloading. Trucks pulling away from the dock unexpectedly could result in death or serious injury.

Keep all body parts clear of the dock board when moving or using the board. Only use approved lifting devices or equipment to move the dock board. Failure to follow these and other provided warnings could result in death or serious injury.

Do not operate dock board if operation causes undue physical strain or if physical impairments could lead to undue strain in back, muscles, limbs or joints.

CAUTION

To avoid damage to load and dock board do not place into truck if loads will be in way of dock board lip. If the lip touches loads before resting on carrier floor, the dock board must be removed and end loads must be removed before using dock board. Damage to dock board or loads may occur.

INTRODUCTION

The Dock Board is designed to span and compensate for space and height differences between a loading dock and freight carrier to allow safe, efficient freight transfers.

The Dock Board is a steel structural weldment that rests on the dock and carrier floor at positive height differences. To use in negative height differences the board is to be used in reverse. The length of the board determines the amount of height difference the board can handle. Capacity is determined by the structural design of the board.

WARNING

Before using make sure the board is rated for the correct capacity **NEVER OVERLOAD THE DOCK BOARD.**

Before use make sure the dock board is the correct length for the needed height difference.

Verify with the fork truck manufacturer that the fork truck can handle the grade at your specified height difference. **NEVER USE EQUIPEMENT OR FORK TRUCKS THAT CANNOT HANDLE THE MAXIMUM GRADE AT EACH SITE.**

Improper use or loading may result in death or serious injury.

OPERATION *(Positive height difference docks)*

1. Have the truck back into the dock location to be loaded. The truck will back up to the bumpers and pull slightly forward to keep the truck about 1" at most away from the bumpers. *(See Figure 1)*
2. Have the driver set the brakes and release the air from the suspension. Tell truck driver "Your truck must stay at the dock."
3. Chock or hitch truck. *(See Figure 1)*

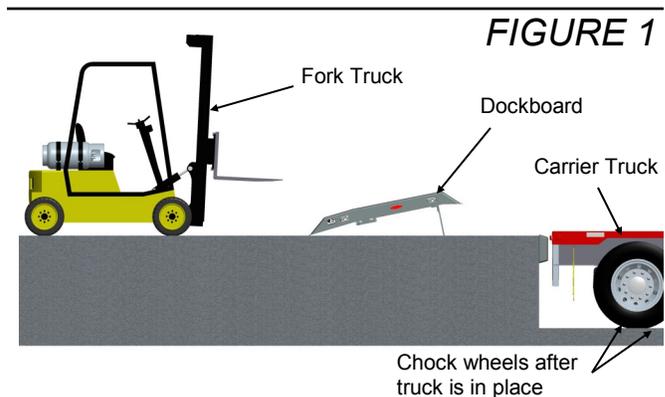


FIGURE 1

Dock Board in rest position with truck at dock. Make sure legs and ramp end of dock board are securely resting on the ground and board does not rock or move.

For Lifting Chains go to Step #6

4. **LIFTING LOOPS:** Flip lifting loops up by hand until loops stay in place. *(See Figure 2)*

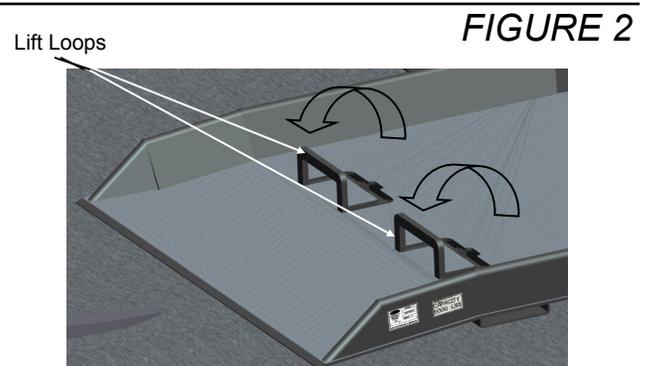


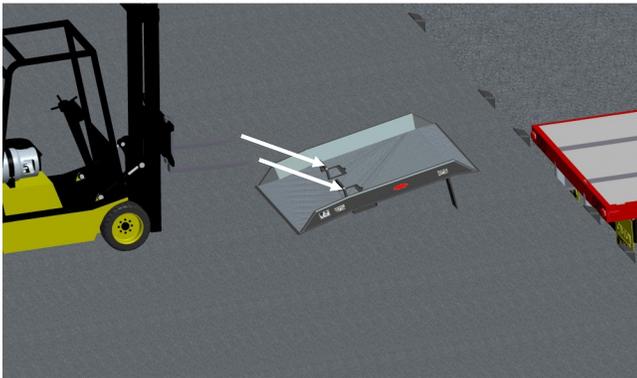
FIGURE 2

- 6 *Dock Board in rest position with truck at dock. Flip lifting loops up by hand until loops stay in place.*

OPERATION, CONTINUED

- With the dock board in the rest position drive fork truck to the center of the ramp side of the board. Adjust the height of the forks to fit inside the lifting loops. Slowly drive forward adjusting forks as needed until the forks start to slide into the lifting loops. Keep the forks clear of the dock board floor and the lift loops best as possible to prevent damage to the dock board. Continue to drive the fork truck forward until the mast is against the dock board plate. (See Figure 3 & 4) **Skip to Step #8**

FIGURE 3



Dock Board in rest position with truck at dock. Line up forks with lift loops on dock board. Raise and lower and shift side to side as needed to place forks centered on lifting loops.

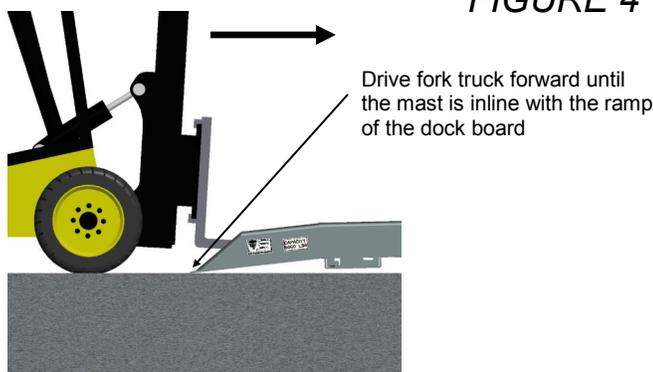
⚠ WARNING

Before use verify the lifting capacity of the fork truck can safely lift the dock board.

Only lift the dock board using both lifting loops, NEVER use only one loop. Verify the forks are seated properly inside the lifting loops and are far enough through the loops to lift safely.

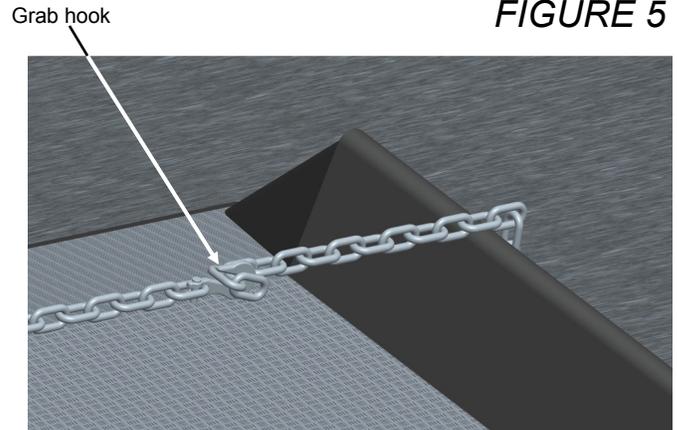
Failure to follow above safety practices may result in death or serious injury.

FIGURE 4



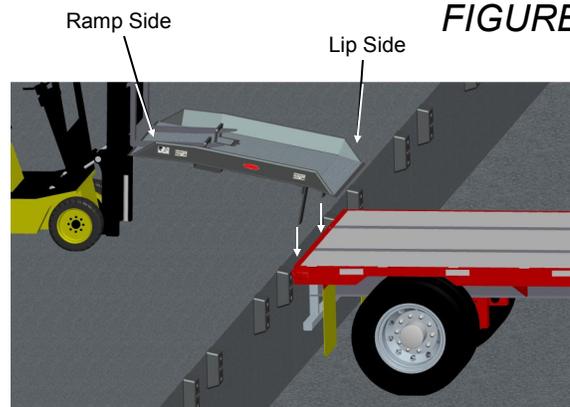
- OPTIONAL LIFTING CHAINS:** Pull lifting chains tight to one another and hook chains together. The chain will fit into the grab hook. (See Figure 5)

FIGURE 5



- With the dock board in the rest position drive fork truck to the center of the ramp side of the board. Adjust the height of the forks to fit between the dock board plate and the chain. Slowly drive forward adjusting forks as needed until the forks start to slide under the chain and over the dock board plate. Keep the forks clear of the dock board floor and the chain best as possible to prevent damage to the dock board. Continue to drive the fork truck forward until the mast is against the dock board plate. (See Figure 4)
- Slowly raise the dock board so the front legs clear the floor. The lip side of the dock board will raise last and the ramp will rise until it rests on the underside of the forks. (See Figure 6)

FIGURE 6

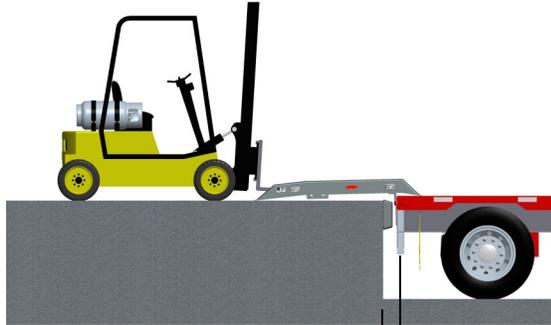


- Drive forward slowly until legs of dock board are between the carrier trailer and the dock. Slowly lower the dock board so the lip rests on the carrier floor. Continue lowering until the lip is resting on the

OPERATION, CONTINUED

dock. Make sure the legs do not rest on any part of the truck carrier or dock. (See Figure 7)

FIGURE 7



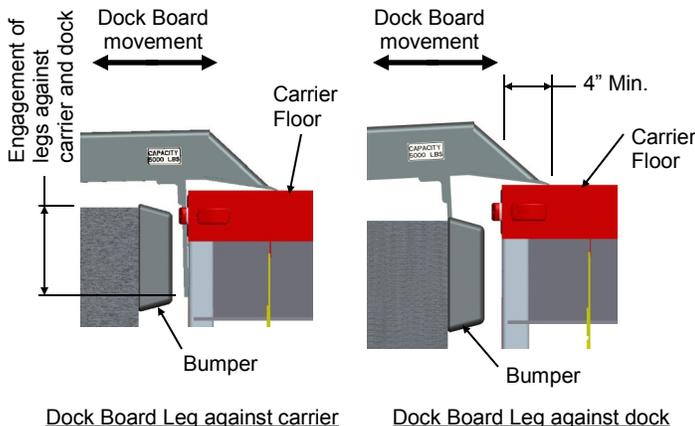
Before lowering make sure dock board legs are between the carrier trailer and the dock.

10. Slowly back the fork truck away from the dock board. Once the fork truck is clear of the dock board flip the lifting loops back into their stored position or disconnect the lifting chains and place them to the outside of the side curbs.

⚠ DANGER

Before using the dock board after it is in place, make sure the lip safely and sufficiently rests on the carrier floor. The lip should be resting a min. of 4" on the carrier floor when the legs are against the face of the dock. If the carrier is too far away from the bumpers the lip may not have adequate support to use safely. If the lip does not sufficiently rest on the carrier floor the lip could slide off which will result in death or serious injury. (See Figure 7)

FIGURE 8



11. Verify before use that the dock board lip rests on the carrier floor by a min. of 4". If the lip does not safely rest on the carrier floor the dock board will need to

be removed and the truck will need to back up closer to the bumpers. Verify the legs are free and clear of the carrier and the dock. Verify the legs are long enough to engage the carrier and the dock. If the height difference is beyond the design of the dock board the legs may not be long enough. (See Figure 8)

12. Drive slowly over the dock board to load and unload carrier. Do not drag loads over the dock board.
13. Once completed remove dock board in reverse operations.

⚠ WARNING

Never allow the truck carrier to leave before the dock board is removed. If the dock board is resting on the truck carrier and the truck pulls away serious injury or death may occur.

Verify the legs are free and clear of the carrier and dock. If the legs are resting on or caught on the dock or carrier serious injury or death may occur.

Verify the legs are long enough to engage the carrier and dock, if the legs are not long enough the board can move far enough for the lip to disengage from the carrier allowing the board to fall. Serious injury or death may occur.

If any process or procedure shown in this manual is unclear do not use the dock board and contact the manufacturer for clarification. Using the dock board unsafely may cause serious injury or death.

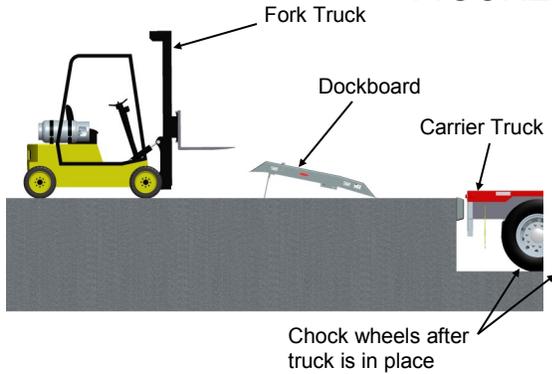
OPERATION (Negative height difference docks)

1. Have the truck back into the dock location to be loaded. The truck will back up to the bumpers and pull slightly forward to keep the truck about 1" at most away from the bumpers. (See Figure 9)
2. Have the driver set the brakes and release the air from the suspension. Tell truck driver "Your truck must stay at the dock."
3. Chock or hitch truck. (See Figure 9)
4. Pull lifting chains tight to one another and hook chains together. The chain will fit into the grab hook. (See Figure 10)
5. With the dock board in the rest position drive fork truck to the center of the lip side of the board. Adjust the height of the forks to fit between the dock board plate and the chain. Slowly drive forward adjusting forks as needed until the forks start to slide under the chain and over the dock board plate. Keep the forks clear of the dock board floor and the chain best as possible to prevent damage to the dock board. Continue to drive the fork truck forward

OPERATION, CONTINUED

until the mast is against the dock board plate. (See Figure 10 & 11)

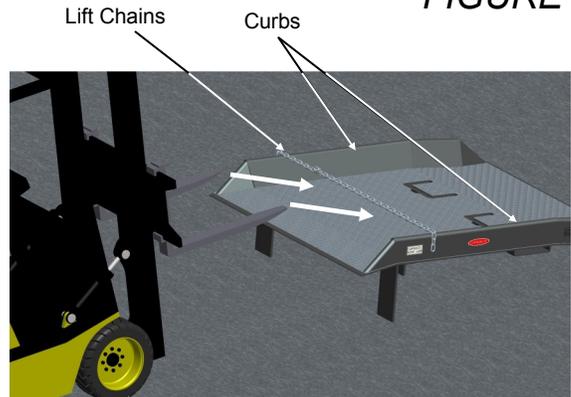
FIGURE 9



Dock Board in rest position with truck at dock. Make sure legs and ramp end of dock board are securely resting on the ground and board does not rock or move.

lower the dock board so the ramp rests on the carrier floor. Continue lowering until the ramp is resting on the truck carrier floor. Make sure the legs do not rest on any part of the truck carrier or dock. (See Figure 12 & 13)

FIGURE 11



Dock Board in rest position with truck at dock. Line up forks between curbs on dock board. Raise and lower and shift side to side as needed to place forks between dock board plate and chains.

8. Slowly back the fork truck away from the dock board. Once the fork truck is clear of the dock board flip the lifting loops back into their stored position.

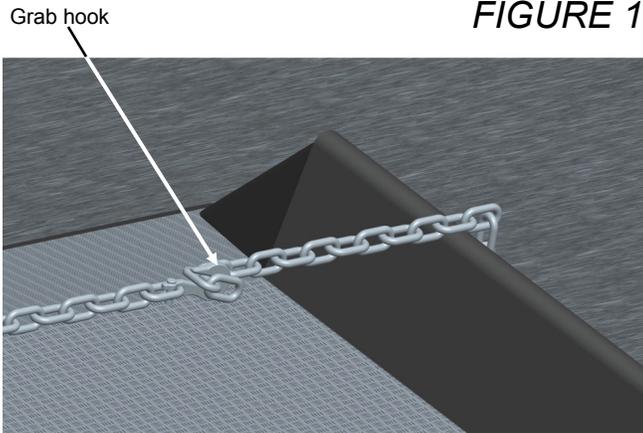
⚠ WARNING

Before use verify the lifting capacity of the fork truck can safely lift the dock board.

Only lift the dock board with both forks spread out under the chain. Verify the forks are seated properly under the chain and are far enough through the chain to lift safely.

Failure to follow above safety practices may result in death or serious injury.

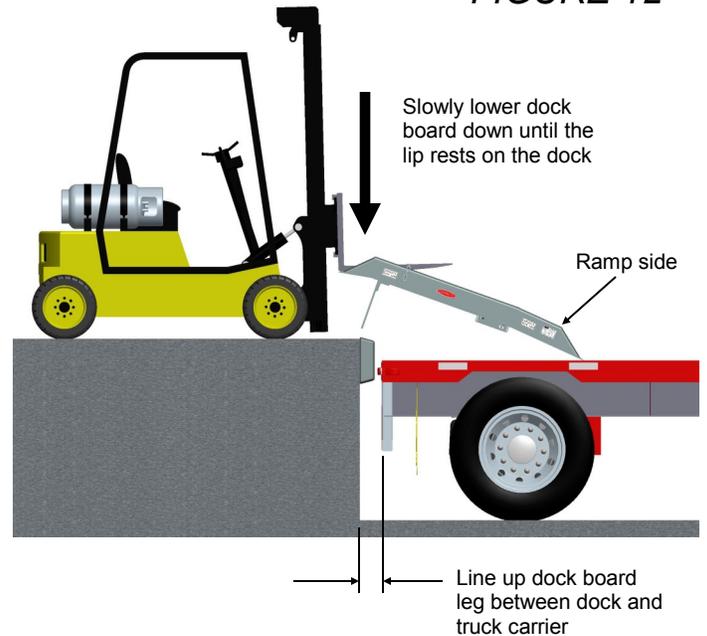
FIGURE 10



Slide chain into grab hook as shown. Chain should be tight and secure before lifting.

6. Slowly raise the dock board so the legs and ramp end clear the floor. The ramp side of the dock board will raise last and the lip will rise until it rests on the underside of the forks. (See Figure 12)
7. Drive forward slowly until legs of dock board are between the carrier trailer and the dock. Slowly

FIGURE 12

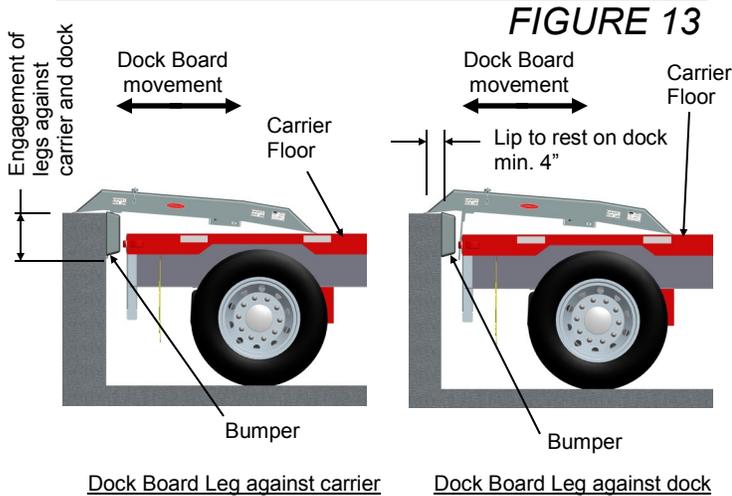


⚠ WARNING

Before using the dock board after it is in place, make sure the lip safely and sufficiently rests on the

OPERATION & MAINTENANCE

carrier floor. The lip should be resting a min. of 4” on the carrier floor when the legs are against the face of the dock. If the carrier is too far away from the bumpers the lip may not have adequate support to use safely. If the lip does not sufficiently rest on the carrier floor the lip could slide off which will result in death or serious injury. (See Figure 13)



- bumpers. Verify the legs are free and clear of the carrier and the dock. Verify the legs are long enough to engage the carrier and the dock. If the height difference is beyond the design of the dock board the legs may not be long enough. (See Figure 13)
10. Un-hook the chains and clear the chains from the board. Put each chain to the outside of the curb so it does not interfere with loading or unloading.
 11. Drive slowly over the dock board to load and unload carrier. Do not drag loads over the dock board.
 12. Once completed remove dock board in reverse operations.

⚠ WARNING

If the dock board is not used in the correct orientation based on height difference the board will not rest properly on the dock or truck carrier and cause the board to rock or move uncontrollably. Please follow all directions and safety practices in this manual. Failure to follow these and other warnings and practices may result in serious injury or death.

9. Verify before use that the dock board lip rests on the dock by a min. of 4”. If the lip does not safely rest on the dock the dock board will need to be removed and the truck will need to back up closer to the

MAINTENANCE

Before every use	<ul style="list-style-type: none"> • Visually inspect the entire dock board • Check lift loops for proper function • Make sure both legs are not bent or damaged
Every (6) Months or 50 Hrs. of use (whichever comes first)	<ul style="list-style-type: none"> • Visually inspect the entire dock board • Verify all safety labels are legible and adhered properly • Clean out lift loop holder area • Touch up paint as necessary to prevent rust (Contact JH Industries, Inc. for paint color)

⚠ CAUTION

Routine periodic maintenance should be performed per above table. Failure to do so could result in damage, premature failure or wear of the dock board.

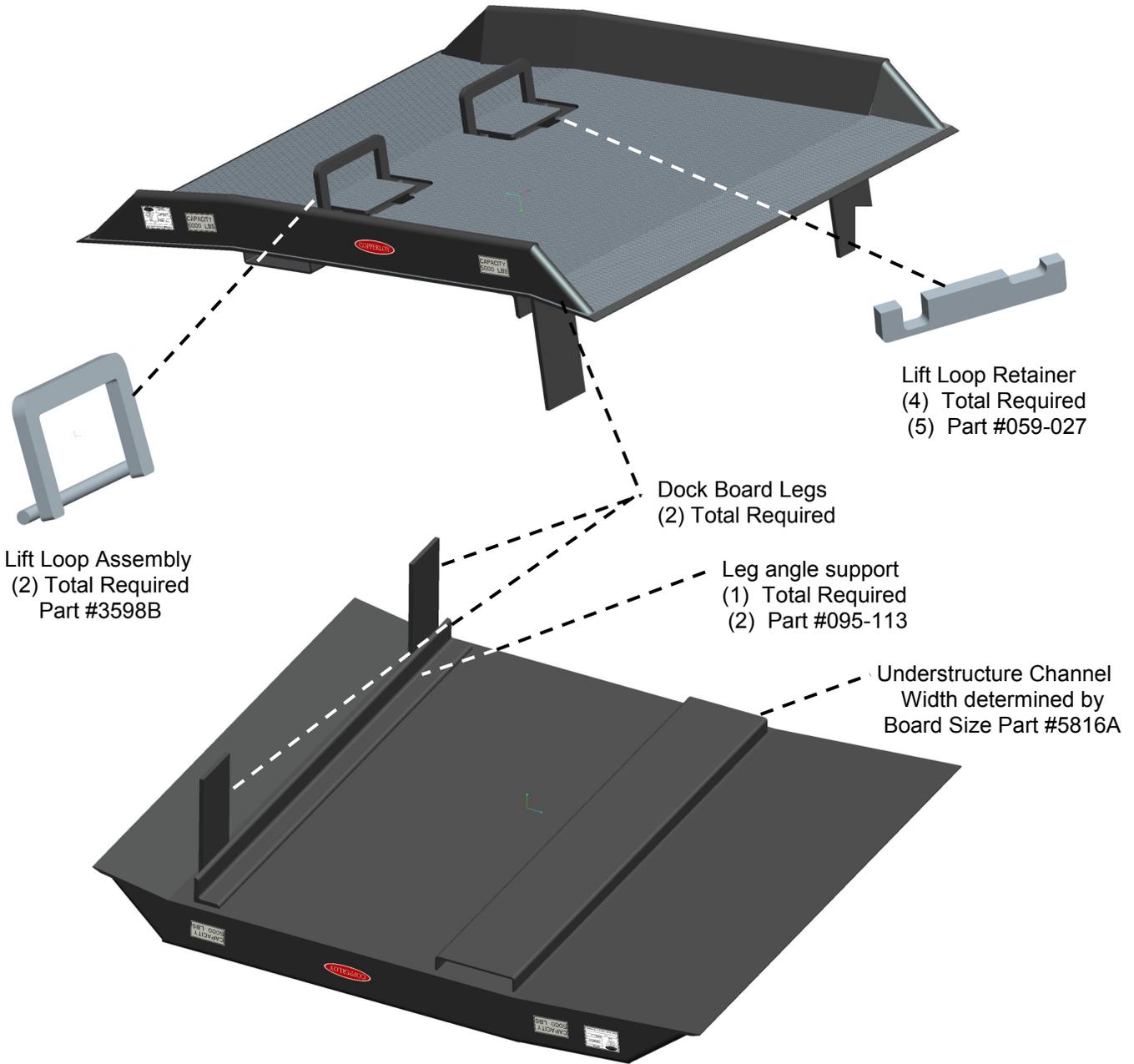
⚠ WARNING

Only trained and qualified personnel should maintain this equipment. Failure to do so could result in property damage, serious injury or death.

During maintenance the dock board should be placed on a flat secure surface able to support the overall weight of the dock board. Failure to support the dock board while maintenance is being performed could result in serious injury or death.

STANDARD PARTS

STR MODEL DOCK BOARD



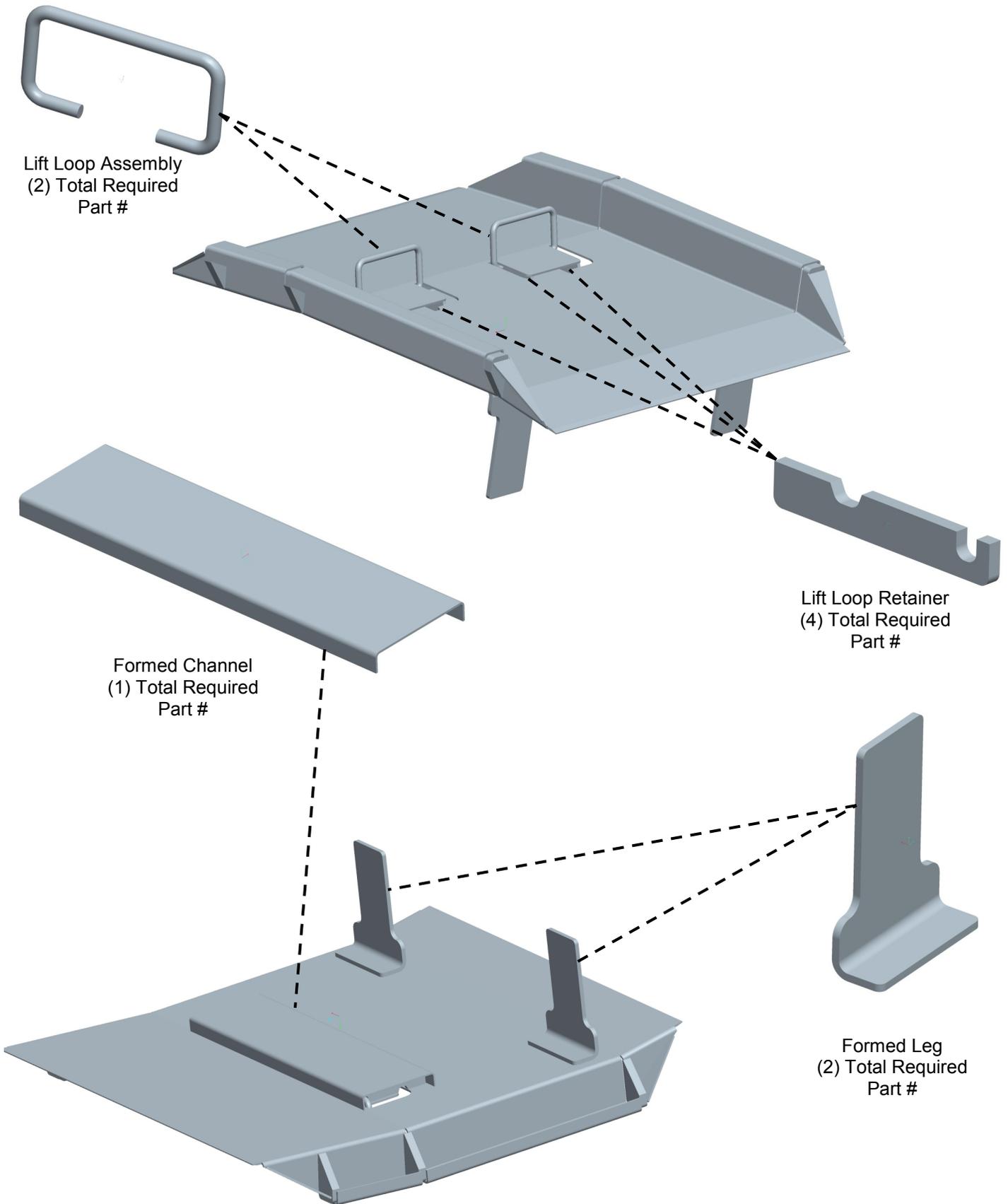
STANDARD SPARE PARTS

Dock boards are a welded assembly that is designed and welded to meet the requirements to support the desired capacity. Any modifications or alterations that are not approved by the factory could decrease the capacity or safety of the dock board. Before replacing or installing any spare parts consult the factory for installation instructions.

WARNING

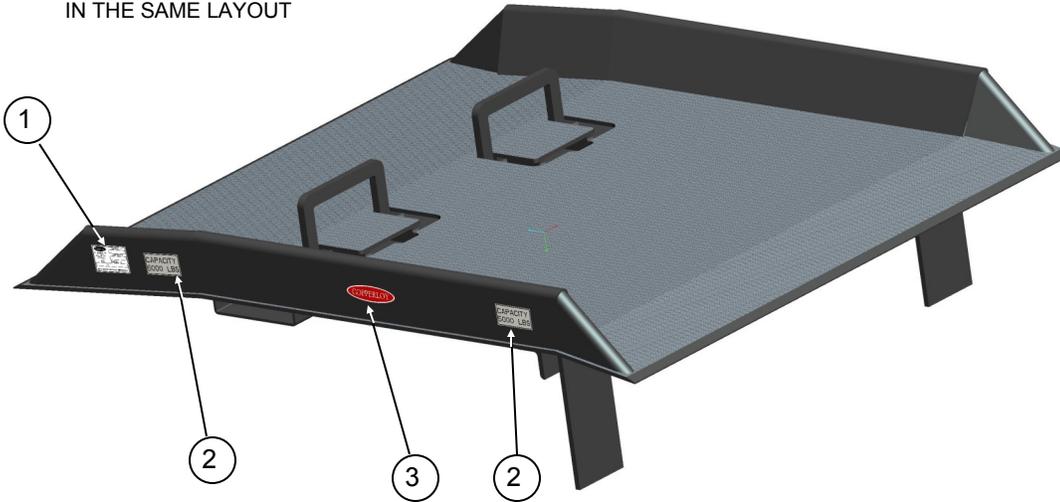
All modifications and alterations to any equipment requires written approval from the factory (JH Industries, Inc.). Any modifications or alterations may cause the board to be unsafe or not structurally sound, this may result in serious injury or death.

STANDARD PARTS



LABELS & TROUBLE SHOOTING

NOTE:
THE OTHER SIDE OF THE DOCK
BOARD HAS THE SAME LABELS
IN THE SAME LAYOUT



		SERIAL #
JH Industries Inc. 1981 E. Aurora Rd. Twinsburg, Ohio 44097 1-800-321-4968 www.copperloy.com		12345
		CAPACITY
		15,000 LBS.
H.D.	MODEL #	
12"	STR15-60-60	
MANUALS AND INSTRUCTIONS ONLINE AT WWW.COPPERLOY.COM		

- ① 12-00121, Serial Tag (Req's 2 total)

CAPACITY
2500 LBS

- ② 12-00123, Capacity (Req's 4 total)



- ③ 12-00122, Copperloy Logo (Req's 2 total)



JH Industries, Inc.
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Toll Free: 1-800-321-4968

www.copperloy.com