



CM-Series

Dock Leveler

Owner's/User's Manual





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Recognize Safety Information

Safety-Alert Symbol

The <u>Safety-Alert Symbol</u> identifies important safety messages on equipment, safety signs, in manuals, or elsewhere. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

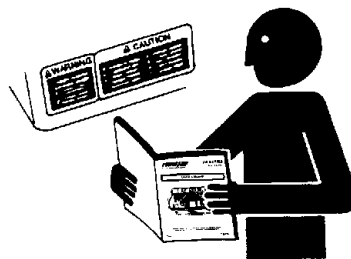
 DANGER
The use of the word <u>DANGER</u> signifies the presence of an extreme hazard or unsafe practice which will most likely result in severe injury or death.

 WARNING
The use of the word <u>WARNING</u> signifies the presence of a serious hazard or unsafe practice which may result in serious injury or death.

 CAUTION
The use of the word <u>CAUTION</u> signifies possible hazard or unsafe practice which could result in personal injury.

NOTICE
The use of the word <u>NOTICE</u> is to draw attention to a procedure that needs to be followed to prevent machine damage.

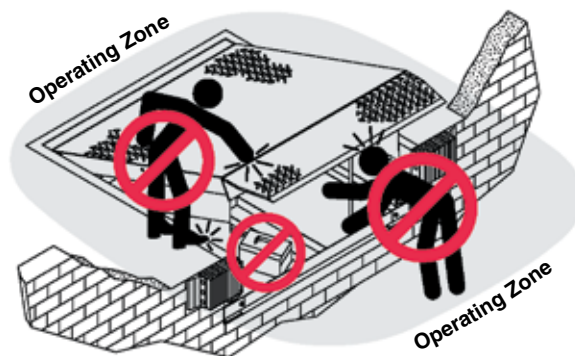
General Operational Safety Precautions



Read and understand the Owner's/User's manual and become thoroughly familiar with the equipment and its controls before operating the dock leveler.

Never operate a dock leveler while a safety device or guard is removed or disconnected.

Never remove DANGER, WARNING, or CAUTION signs or decals on the equipment unless replacing them.



DO NOT activate the equipment until all unauthorized personnel in the area have been warned and have moved outside the operating zone.

Remove any tools or foreign objects from the operating zone before starting.

Keep the operating zone free of obstacles that could cause a person to trip or fall.

SAFETY

Operational Safety Precautions



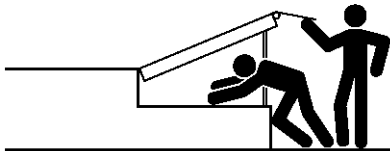
Learn the safe way to operate this equipment. Read and understand the manufacturer's instructions. If you have any questions, ask your supervisor.



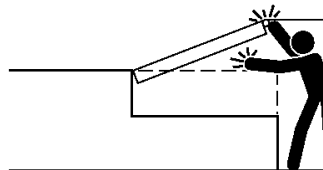
DANGER



Stay clear of dock leveling device when transport vehicle is entering or leaving area.



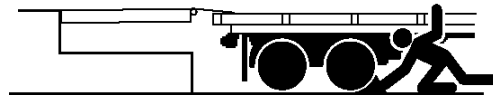
Do not move or use the dock leveling device if anyone is under or in front of it.



Keep hands and feet clear of pinch points. Avoid putting any part of your body near moving parts.



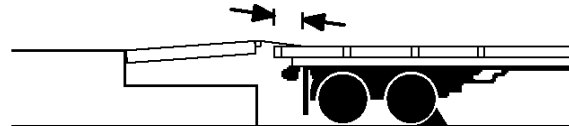
WARNING



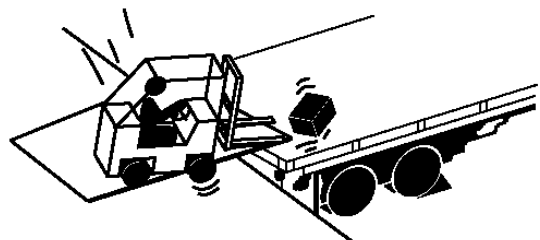
Chock/restrain all transport vehicles. Never remove the wheel chocks until loading or unloading is finished and transport vehicles driver has been given permission to drive away.



Do not use a broken or damaged dock leveling device. Make sure proper service and maintenance procedures have been performed before using.

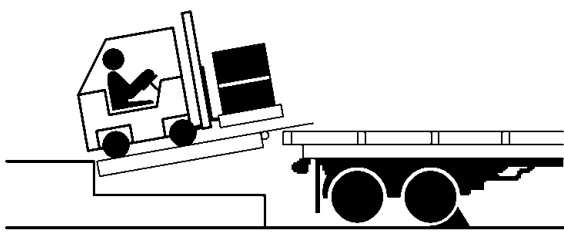


Make sure lip overlaps onto transport vehicles bed at least 4 in. (102 mm).

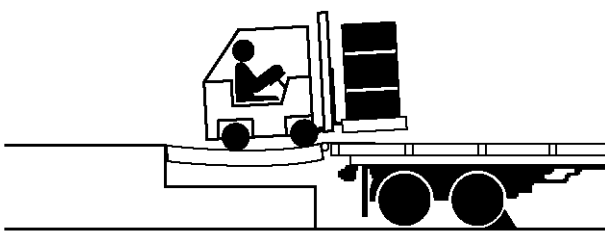


Keep a safe distance from both side edges.

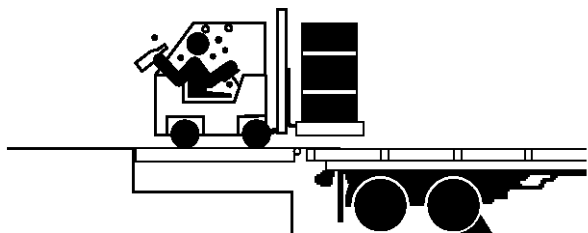
! WARNING



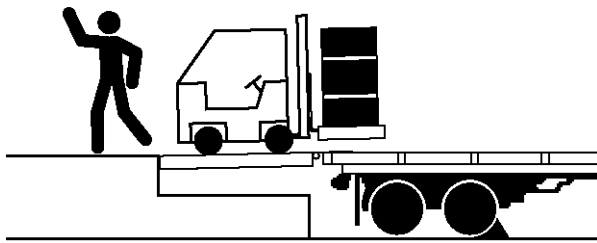
Do not use dock leveling device if transports vehicles bed is too high or too low.



Do not overload the dock leveling device.



Do not operate any equipment while under the influence of alcohol or drugs.



Do not leave equipment or material unattended on dock leveling device.

SAFETY

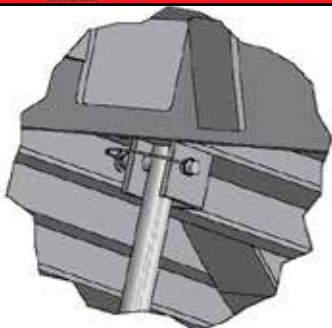
Maintenance Safety Precautions

WARNING



Always post safety warnings and barricade the work area at dock level and ground level to prevent unauthorized use of the unit before maintenance is complete.

DANGER



A maintenance prop permanently attached and hinged to the unit with means for lock out/tag out requirements (per OSHA 1910.147) is included with each pit style dock leveler. In addition, it is recommended and good safety practice to use an additional means to support the dock platform and lip anytime when physically working in front of or under the dock leveler. This additional means may include, but not limited to a boom truck, fork truck, stabilizing bar or equivalent.

WARNING

DO NOT grind or weld if hydraulic fluid or other flammable liquid is present on the surface to be ground or welded

DO NOT grind or weld if uncontained hydraulic fluid or other flammable liquid is present. Stray sparks can ignite spills or leaks near the work area. Always clean up the oil leaks and spills before proceeding with grinding or welding.

Always keep a fire extinguisher of the proper type nearby when grinding or welding.

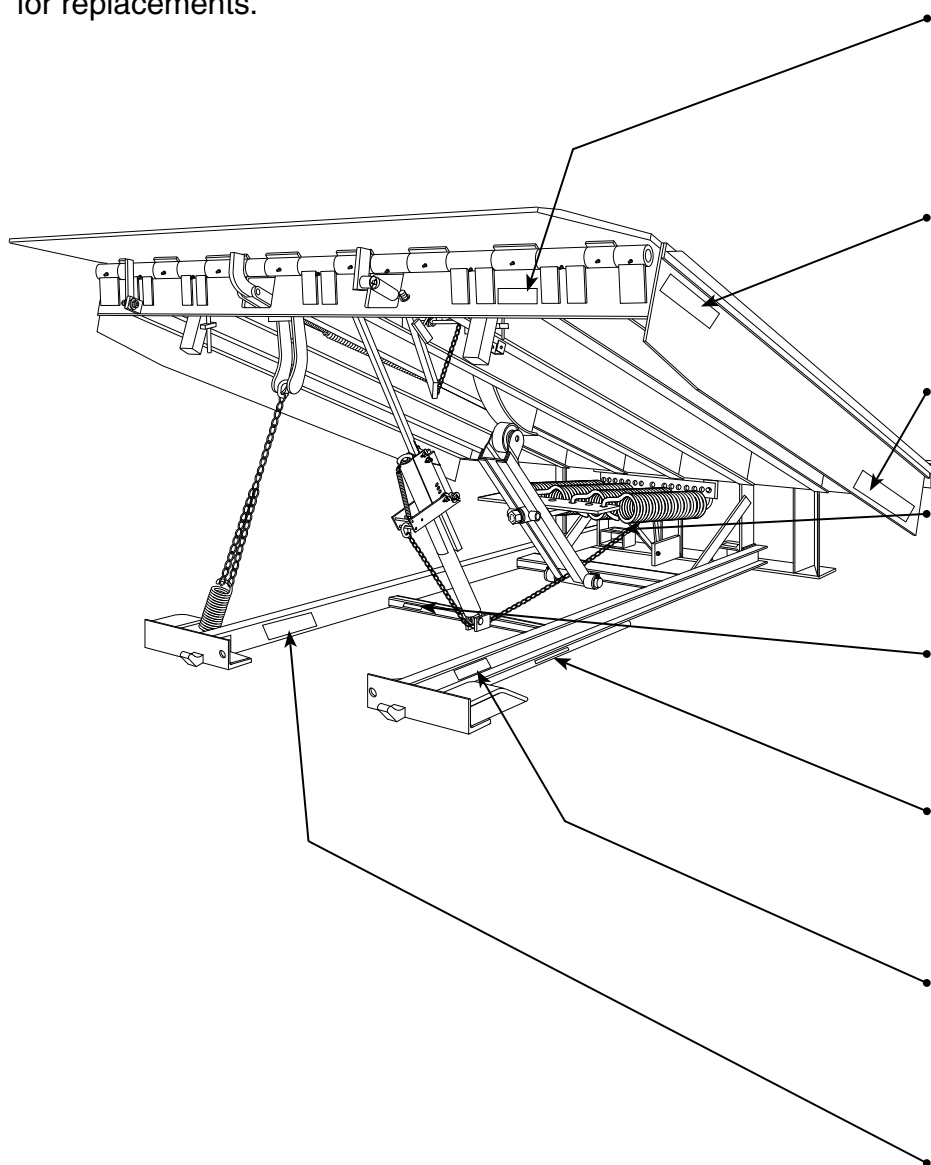
Failure to follow these instructions may result in serious personal injury or death.

WARNING

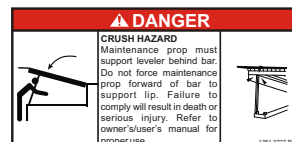
ALWAYS stand clear of dock leveler lip when working in front of the dock leveler. Failure to do this may result in serious personal injury or death.

Safety Decals

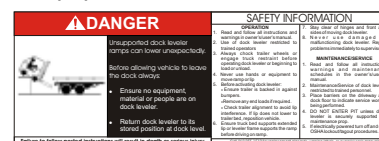
Every 90 days (quarterly) inspect all safety labels and tags to ensure they are on the dock leveler and are easily legible. If any are missing or require replacement, please call 1-800-643-5424 for replacements.



1751-0727



1751-0730 (x2)



(decal placed in same position on both sides)

1751-0329 (x2)



(decal placed in same position on both sides)

1751-0330 (x2)



(decal placed in same position on both sides)

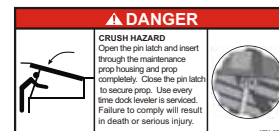
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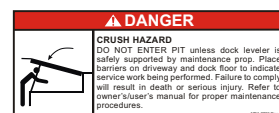
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1751-0789



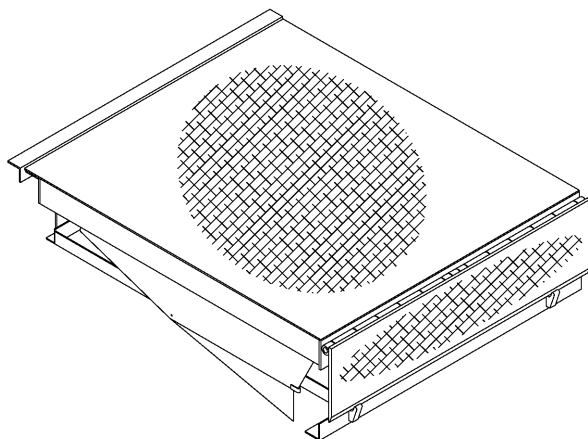
1751-0726



OWNER'S/USER'S RESPONSIBILITIES

1. The owner/ user should recognize the inherent dangers of the interface between the loading dock and the transportation vehicle. The owner/ user should, therefore, train and instruct all operators in the safe operation and use of the loading dock equipment in accordance with manufacturer's recommendations and industry standards. Effective operator training should also focus on the owner's/user's company policies and operating conditions. Maintaining, updating and re training all operators on safe working habits and operation of the equipment, regardless of previous experience, should be done on a regular basis and should include an understanding and familiarity with all functions of the equipment. Owner's/ user's shall actively maintain, update and retrain all operators on safe working habits and operations of the equipment.
2. The manufacturer shall provide to the initial purchaser all necessary information regarding Safety Information, Operation, Installation and Safety Precautions, Recommended Initial and Periodic Inspections Procedures, Planned Maintenance Schedule, Product Specifications, Troubleshooting Guide, Parts Break Down, Warranty Information, and Manufacturers Contact Information, as well as tables to identify the grade(slope) for all variations of length or configuration of the dock leveling device and information identifying the maximum uncontrolled drop encountered when sudden removal of support while in the working range of the equipment.
3. It is recommended that when the transportation vehicle is positioned correctly in the dock opening and in contact with both bumpers, there shall be a minimum of 4.00 inches (100mm) overlap of the leveling device and the transportation vehicle at all times during the loading and unloading process.
4. The Owner/User must review all name plates, placards, decals, instructions and posted warnings and place the same in view of the operator or maintenance personnel for whom such warnings are intended for. Contact manufacturer for any replacements.
5. Manufacturer's recommended periodic maintenance and inspection procedures in effect at the date of shipment shall be followed at all times. Written documentation of maintenance, replacement parts or damage should be retained. In the event of damage notification to the manufacturer is required.
6. Loading dock equipment that has been structurally damaged or has experienced a sudden loss of main support while under load (such as what might occur when a transport vehicle pulls out from under the leveling device) shall be removed from service, inspected by a manufacturer's authorized representative, and repaired or replaced as needed before being placed back in service.
7. Any modifications or alterations of loading dock equipment shall only be done with prior written approval from the manufacturer and the same shall be at least as safe as the original equipment was prior to the modification and shall also satisfy all safety requirements of the manufacturer for the particular application of the leveling device.
8. When industrial moving devices are being used in the loading or unloading of product from the transportation vehicle, this vehicle shall have the brakes and wheel chocks applied appropriately or all other positive restraining device shall be fully utilized. It is recommended that trailers with air-ride suspension systems shall have its air exhausted prior to performing loading and unloading operation to minimize trailer bed drop.
9. Loading dock safety equipment should never be used outside of its intended use, vertical working range, or capacity. Please consult the manufacturer if you have any questions as to the use, vertical working range or capacity of the equipment. Only properly trained and authorized personnel should operate the equipment.
10. When selecting loading dock safety equipment, it is important to consider not only present requirements but also future plans and any possible adverse conditions, environmental factors or usage.

General Information



Congratulations on your choice of a Poweramp dock leveler. This manual covers the CM-series mechanical dock leveler.

Designed by Poweramp to be a marvel of simplicity and efficiency, your dock leveler, when properly installed, will provide many years of trouble-free performance with an absolute minimum of maintenance. To obtain maximum performance and longest possible use, a simple program of preventive maintenance is recommended.

Once again, thank you and congratulations on your purchase of a Poweramp mechanical dock leveler.

Dock Leveler Stock Specifications

CM-Series dock levelers are available in the following sizes, weight capacities, and options:

Width

- 6 ft. (1828.8 mm)
- 6-1/2 ft. (1981.2 mm)
- 7 ft. (2133.6 mm)

Length

- 5 ft. (1424 mm)
- 6 ft. (1828.8 mm)
- 8 ft. (2438 mm)
- 10 ft. (3048 mm)

Capacity (CIR*)

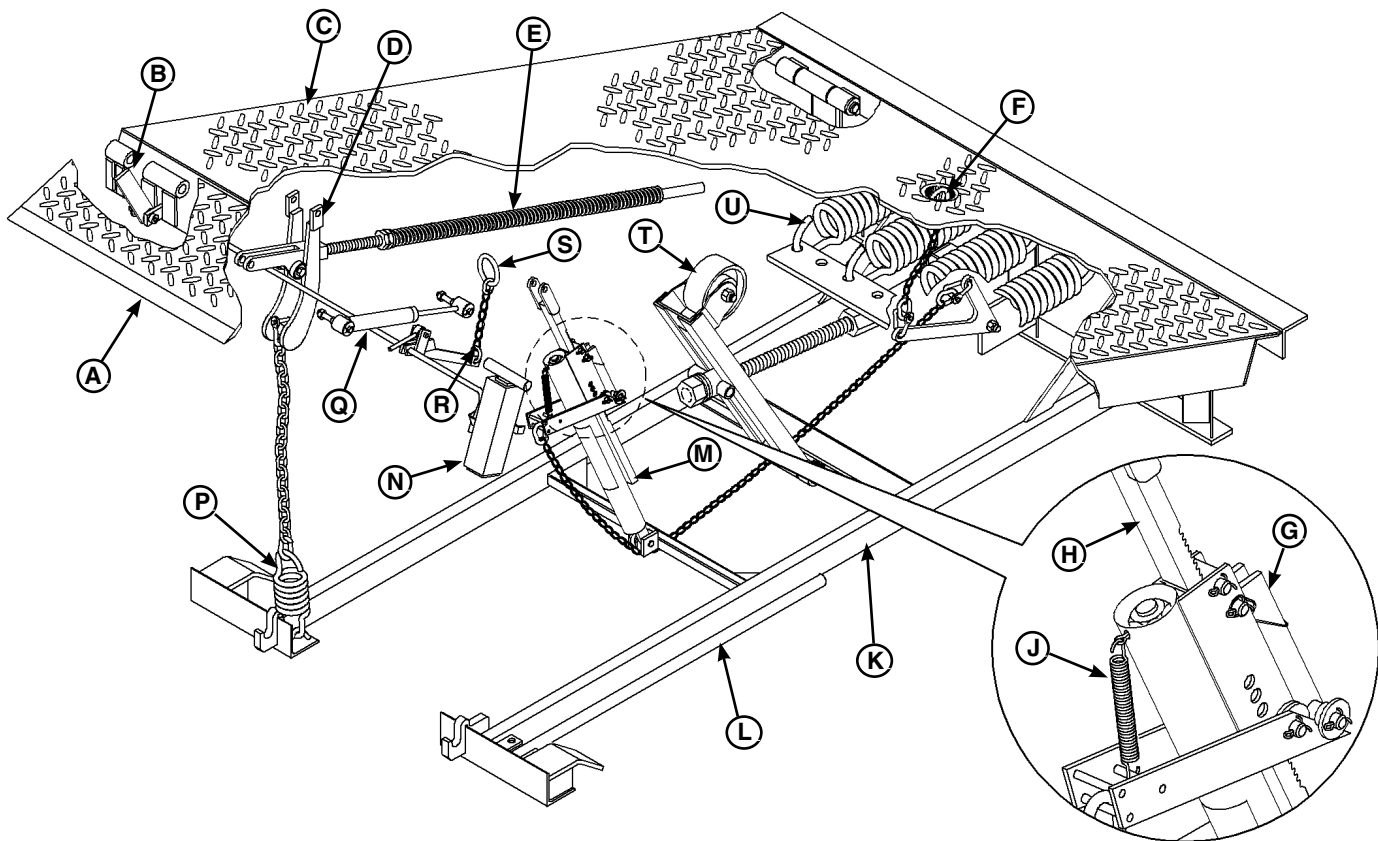
- 20,000 lb. (9072 kg)
- 25,000 lb. (11 340 kg)
- 30,000 lb. (13 608 kg)

* CIR (Comparative Industry Rating)

Call Poweramp for your specific needs.

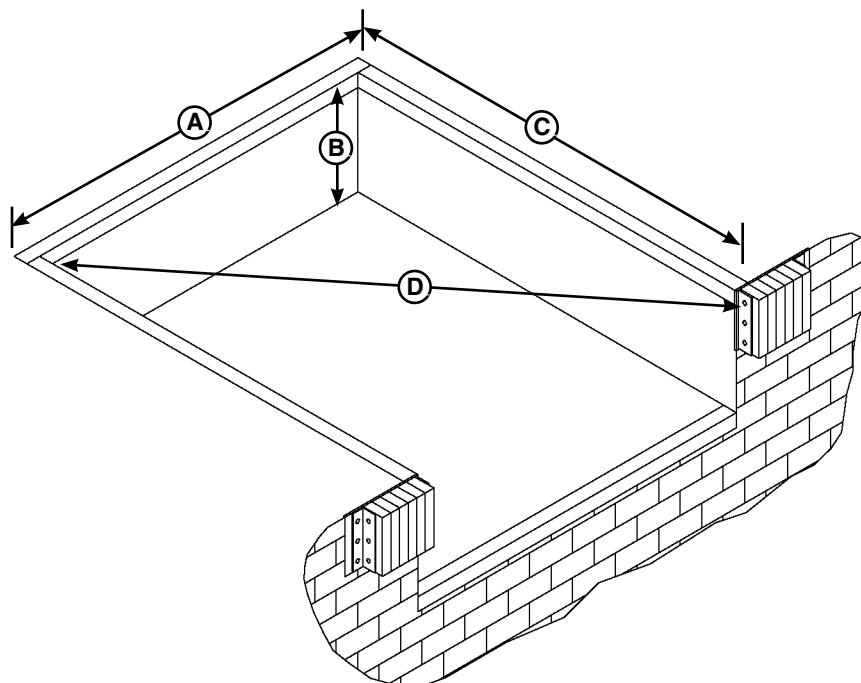
INTRODUCTION

Component Identification



- | | | | |
|--------------------------|---------------------------|-------------------------------|---------------------------------|
| A — Lip | F — Platform Release Ring | L — Platform Maintenance Prop | R — Safety Leg Linkage |
| B — Lip Maintenance Prop | G — Ratchet Pawl | M — Hold-Down Mechanism | S — Safety Leg Release Ring |
| C — Platform | H — Ratchet Bar | N — Safety Leg (2 used) | T — Lift Arm Assembly |
| D — Lip Banger | J — Release Arm Spring | P — Lip (Snubber) Spring | U — Lift (Main) Spring Assembly |
| E — Lip Assist Spring | K — Main Frame | Q — Lip Shock Absorber | |

Prepare Pit



A — Distance (Pit Width)
(Front and Rear)

B — Distance (Dock Floor-to-Pit
Floor) (All Four Corners)

C — Distance (Pit Length)
(Both Sides of Pit)

D — Distance (Pit Corner-to-Corner)
(Top, Bottom, and Both Sides)



WARNING

Post safety warnings and barricade the work area at dock level and ground level to prevent unauthorized use of the dock leveler before installation has been completed.

Failure to follow the installation instructions can result in damage to dock leveler, the facilities, and/or serious personal injury or death.



CAUTION

Only trained installation professionals with the proper equipment should install this product.

NOTICE

DO NOT remove the shipping bands around the dock leveler lip until instructed to do so.

1. Before lowering the dock leveler into the pit, the following must be performed:

2. Remove all debris from the pit and sweep the pit clean.

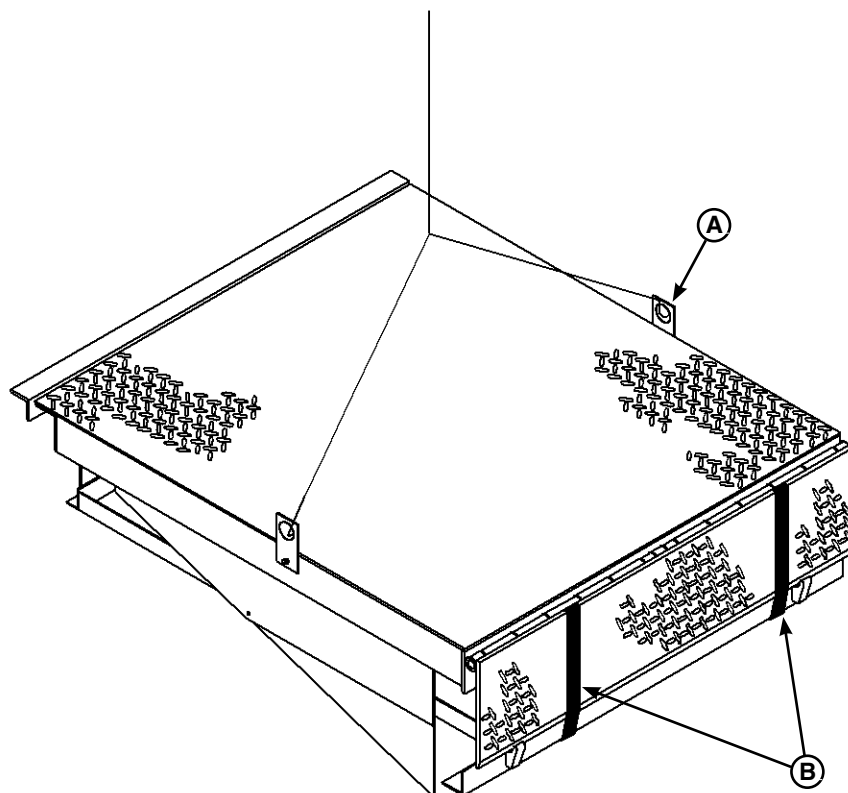
3. Check the entire dock leveler pit for proper construction according to approved/certified pit drawings. Make sure pit is square by making the following measurements:

- Measure pit width distance (A) at both front and rear of pit.
- Measure dock floor-to-pit floor distance (B) at all four corners.
- Measure pit length distance (C) at both sides.
- Measure corner-to-corner (criss-cross) distance (D) at both sides. Take measurements at dock floor level and at pit floor level.

4. If any measurement is off by more than 1/8 in. (3.18 mm), contact Systems Inc. Technical Services before proceeding.

INSTALLATION

Prepare Dock Leveler



A— Lifting Bracket (2 used)

B — Shipping Bands



WARNING

The dock leveler is heavy. Use a lifting device and chains with the appropriate lifting capacity and reach.

Always use the lifting brackets provided with the unit whenever lowering or lifting a dock leveler into or out of a pit.

Failure to follow these instructions may result in damage to the dock leveler and/or serious personal injury or death.

Poweramp dock levelers are designed with installation in mind. Each unit is shipped with lifting brackets (A) fastened to the platform side joists.

NOTICE

DO NOT remove the shipping bands (B) around the platform lip and leveler frame at this time. The shipping bands are needed to hold the leveler together during the installation process.

1. Remove any bumpers that may be banded, or bolted to the frame of the dock leveler.

DO NOT remove the shipping bands (B) around the platform lip and leveler frame at this time.

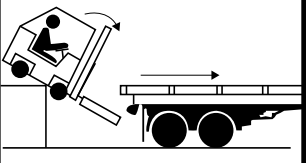


NOTE: Overall width of platform and lifting brackets (A) must be kept to a minimum to prevent interference between the lifting brackets and the pit walls as the dock leveler is lowered into the pit.

2. Make sure the mounting hardware of lifting brackets (A) is snug. The brackets should pivot relatively freely on the mounting cap screw. DO NOT over-tighten.
3. Attach lifting chains to lifting brackets (A) and to a lifting device (i.e., hoist or fork truck) having the appropriate lifting capacity and reach.
4. Remove wood blocks that are attached to the leveler frame before putting the dock leveler into the pit.

NOTICE

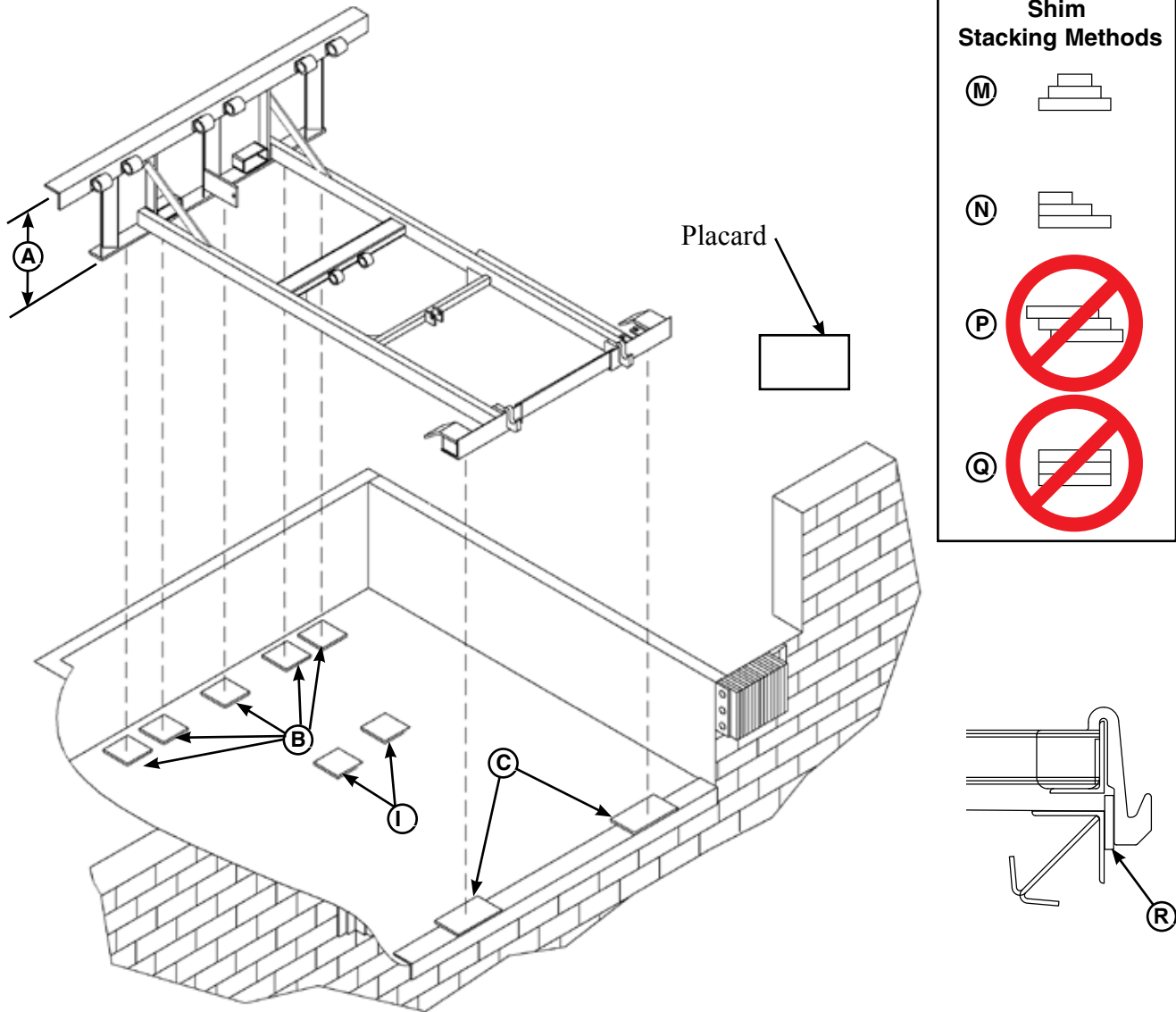
DO NOT over-tighten the lifting bracket hardware. Over-tightening can damage the weather seal, if equipped.

PLACARD 1751-0875 MUST PLACED IN CLOSE PROXIMITY AND IN CLEAR VIEW OF THE LEVELER

<h1>! DANGER</h1>		<h2>OPERATING INSTRUCTIONS</h2>	
<h3>MECHANICAL DOCK LEVELERS</h3>			
 <ul style="list-style-type: none"> • Read and follow all instructions, warnings, and maintenance schedules in the manual and on placards. • Operation and servicing of dock leveler is restricted to authorized personnel. <ul style="list-style-type: none"> • Always chock transport vehicle wheels or engage vehicle restraint and set parking brakes before operating dock leveler or beginning to load or unload. • Before activating dock leveler, ensure lip avoids contact with transport vehicle sides and cargo. If lip does not lower to transport vehicle bed, reposition transport vehicle. • Ensure the transport vehicle floor supports extended lip or the leveler frame (lip keepers or below dock endload supports) supports the ramp before driving on ramp. • Stay clear of hinges and front and sides of moving dock leveler. • Never use hands or equipment to move the ramp or lip. • Never use damaged or malfunctioning dock leveler. Report problems immediately to supervisor. • Always store dock leveler and remove people, material, and equipment from ramp before vehicle leaves the dock. • DO NOT ENTER PIT unless dock leveler is securely supported by the maintenance prop. • Disconnect power and follow proper lockout/tagout procedures for the dock leveler before entering the dock leveler pit or doing any repair or inspection under the dock leveler. <p>FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN DEATH OR OTHER SERIOUS INJURY.</p> <div style="display: flex; align-items: center;">  <div> <p>Scan to view our owner's/user's manuals online. www.DockSystemsInc.com 1.800.643.5424 Call for additional placards, or manuals, or with questions regarding proper use, maintenance, and repair of dock leveler.</p> </div> </div> <div style="text-align: right; font-size: small;">  1751-0875 Rev A </div>	<div style="background-color: red; color: white; text-align: center; padding: 5px;"> NORMAL OPERATION </div> <ol style="list-style-type: none"> 1. Raise the platform by pulling and holding the platform release ring. 2. Hold the platform release ring until the lip is fully extended, then release the platform release ring. Walk out onto the platform. The platform will lower until lip is resting on the transport vehicle. <div style="background-color: red; color: white; text-align: center; padding: 5px; margin-top: 10px;"> STORING LEVELER </div> <ol style="list-style-type: none"> 1. Pull the platform release ring. Slowly walk the platform down allowing enough time for the lip to fold, clearing the transport vehicle. Once lip clears transport vehicle, continue to walk leveler to the cross-traffic position. <div style="background-color: red; color: white; text-align: center; padding: 5px; margin-top: 10px;"> BELOW DOCK ENDLOADING </div> <ul style="list-style-type: none"> • Pull and hold the platform release ring until the platform is at the fully-raised position. Slowly walk the platform down allowing enough time for the lip to fold. Just before the platform reaches the cross-traffic position, pull and hold the safety leg retract pull ring located in a recess at front of the platform. The platform will continue lowering to the full below dock position. 		

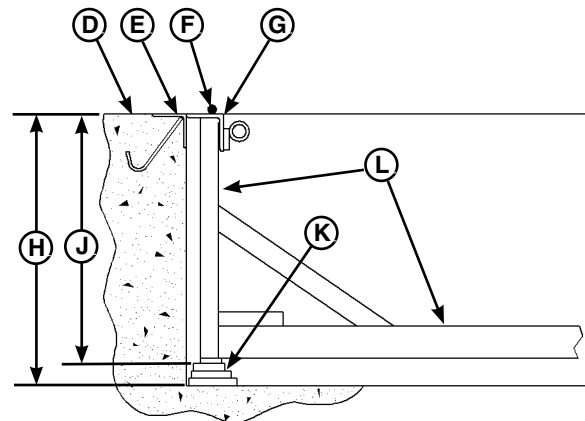
INSTALLATION

Install Dock Leveler



- A— Distance (Leveler Frame Height)
- B— Shim Locations (Under Rear Vertical Supports)
- C— Shim Locations (Under Lip Keepers and Prop)
- D— Dock Floor
- E— Rear Pit Curb Angle
- F— String
- G— Rear Hinge Frame Angle
- H— Distance (Dock Floor-to-Pit Floor)

- I— Shim Locations (Lift Arm)
- J— Distance (Top of Shim Stack-to-Dock Floor)
- K— Shim Stack
- L— Dock Leveler Frame
- M— Pyramid (Preferred)
- N— Stepped (Acceptable)
- P— Offset (Not Acceptable)
- Q— Straight (Not Acceptable)
- R— Lip Keeper (Shim between lip keeper and curb angle as required)



NOTE: Poweramp dock levelers are designed with a nominal 1/2 in. (12.7 mm) shimming distance to allow for pit inconsistencies.

1. Determine height of shim stack (K) for each shim location (B) by performing the following:
 - a. Measure leveler frame height distance (A).
 - b. Measure dock floor-to-pit floor distance (H) at each shim location (B). Write down the dimensions obtained at each location.
 - c. Subtract distance (A) from distance (H) to obtain the shim height. Repeat for each shim location.

NOTICE

The minimum size of the shim that contacts the leveler frame (i.e., the top shim of each shim stack) must be at least 4-1/2 x 4-1/2 in. (114.3 x 114.3 mm) to support the full width of the frame rail and to provide a shelf for a fillet weld.

Use the thickest shim stock possible for stability and weld penetration purposes. DO NOT use multiple layers of 1/8 in. (3.18 mm) or thinner shim stock.

2. Using the results obtained in step 1, create the individual shim stacks on the pit floor at locations (B). Build each shim stack (K) using the pyramid method (M) (preferred) or stepped method (N) with the top shim having a minimum size of 4-1/2 x 4-1/2 in. (114.3 x 114.3 mm) and each successive lower shim being larger so the shims can be welded together using a fillet weld. DO NOT use offset method (P) or straight method (Q).

NOTE: To assist in obtaining an accurate measurement of distance (J), use a string (F) pulled tight across the pit opening, directly over the shim locations.

3. Verify that each shim stack is at the correct height by measuring distance (J) [top of shim stack (K) to dock floor]. Distance (J) must equal the dock leveler height (A).

4. Put a 1/4 in. (6.6 mm) thick shim at locations (C) (under lip keepers/maintenance prop and safety legs). Make sure shims are larger than frame angle iron so pyramid or stepped stacking method can be used.



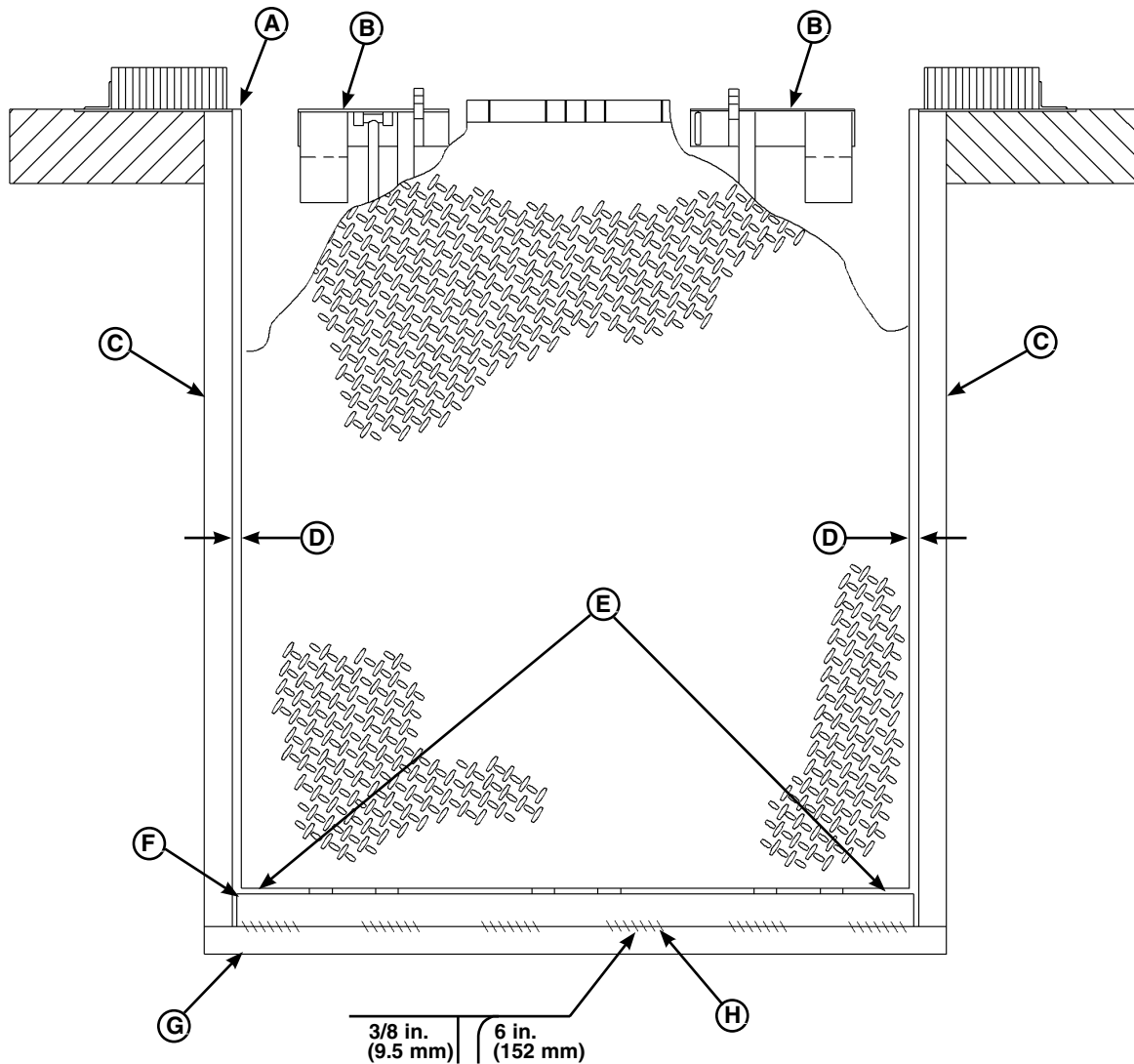
WARNING

The dock leveler is heavy. Use chains and a lifting device with the appropriate lifting capacity and reach. Failure to do so may result in damage to dock leveler and/or serious personal injury or death.

NOTE: A 1/4 in. (6.6 mm) thick shim at locations (C) is used only as a starting point. The final shim stack height will be determined after the dock leveler is lowered into the pit.

5. Using an appropriate lifting device connected to the lifting brackets, lower dock leveler into the pit so rear hinge frame angle (G) is tight against rear pit curb angle (E) across full width of the leveler frame.
6. Allow rear of dock leveler to rest on the rear shims while keeping the front of the dock leveler level with the dock floor.
7. Add shims at front shim locations (C) so front of dock leveler will stay level with dock floor when leveler is resting fully on shims.

INSTALLATION



A— Front of Dock Pit
B— Dock Leveler Frame

C— Side Pit Curb Angle
D— Gap [3/4 in. (19 mm)
Minimum]

E— Pry Locations
F— Rear Hinge Frame
Angle

G— Rear Pit Curb Angle
H— Flare Bevel Weld, Typical
(To Fit Spacing)

8. With rear hinge frame angle (F) tight against rear pit curb angle (G), perform/check the following:

- Pry between the platform and rear hinge frame angle at locations (E) to make sure rear edge of platform is parallel to the rear hinge frame angle (F).
- Gap (D) must exist equally along both sides of leveler so weather seal (if equipped) will not bind during dock leveler operation.

9. If gap (D) cannot be obtained equally at both sides of leveler, grind or add material at the rear edge of rear hinge frame angle (F) as needed.

10. Allow the dock leveler to rest fully on the shim stacks. Make sure the leveler is in the cross-traffic (stored) position with lip resting on lip keepers.

11. Check that a smooth and level transition exists between the dock floor and the dock leveler platform. Add or remove shims as necessary until a smooth transition is obtained.

12. If leveler cannot be squared and made level as instructed in steps 8 – 10, contact Systems Inc. Technical Services.

WARNING

DO NOT grind or weld if hydraulic fluid or other flammable liquid is present on the surface to be ground or welded.

DO NOT grind or weld if uncontained hydraulic fluid or other flammable liquid is present. Stray sparks can ignite spills or leaks near the work area. Always clean up the oil leaks and spills before proceeding with grinding or welding.

Always keep a fire extinguisher of the proper type nearby when grinding or welding.

Failure to follow these instructions may result in serious personal injury or death.

NOTICE

Always ground welding equipment to the dock leveler frame, NEVER to the platform.

DO NOT weld continuously along the full length of the rear hinge frame angle. This can put unnecessary stress on the leveler components, causing the leveler not to function correctly and shortening the lifespan of the affected components.

NOTE: The illustration on the previous page shows a typical weld pattern. The weld pattern will vary slightly depending on size of dock leveler.

13. With the rear hinge frame angle (F) tight against the rear pit curb angle (G), weld the rear hinge frame angle (F) to the rear pit curb angle (G) using a 3/8 in. (9.5 mm) flare bevel skip weld—each weld being 6 in. (152 mm) long.

Start at each end with a 6 in. (152 mm) long weld. Space all the other welds out evenly leaving approximately 6 in. (152 mm) space between each weld.

Alternate welding locations to distribute heat. Welding sequentially from one end to the other may cause warping or distortion.

14. Remove shipping bands at this time. Allow platform to float. Add/Remove shims as necessary to bring platform level/flush with floor.

WARNING

Make sure all personnel are outside of the leveler operating zone and stand clear of the platform lip before removing the shipping bands. Failure to do this may result in serious personal injury or death.

15. Weld front of dock leveler frame (B) to shims located under the keepers, then weld the shims to the front pit curb steel.

16. Disconnect lifting device and chains from the lifting brackets.

WARNING

Make sure all personnel are outside of the leveler operating zone and clear of the platform lip before activating the leveler. Failure to do this may result in serious personal injury or death.

NOTICE

When activating the leveler, always pull AND hold the platform release ring until the platform is at the full-raised position. Releasing the ring while the platform is still rising may result in damage to the equipment.

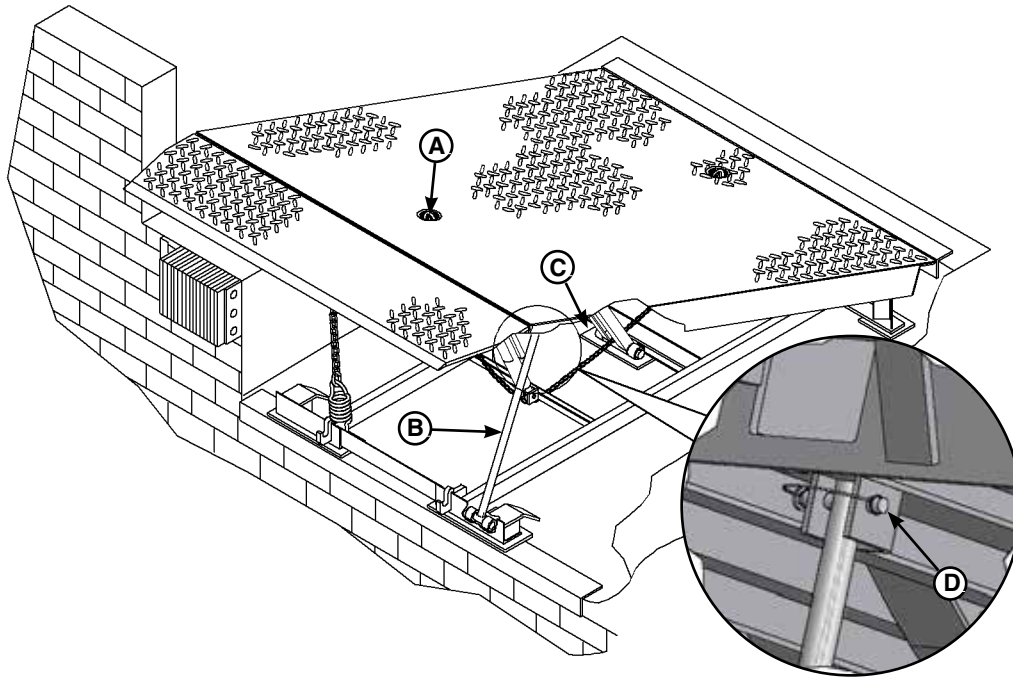
17. Pull and hold the release ring (located in recess at rear of platform) until the platform is fully raised. Check for binding as platform rises.

18. Slowly walk out onto the platform to lower the platform. Allow the platform to lower to the cross-traffic position. Check for binding as platform lowers.

19. If binding occurs, reposition leveler and/or add or remove shims as necessary. Raise and lower platform again. If platform still binds, contact Systems Inc. Technical Services for further instructions.

20. Check that the leveler is flush with the dock floor and that the platform lip contacts both lip keepers evenly.

INSTALLATION



A— Safety Leg Chain Pull Ring B— Platform Maintenance Prop C— Shim Location (Under Lift Arm Pivot) D—Prop Pin & Clip

21. Pull the release ring to raise platform. Engage the platform maintenance prop (B) in the service (upright) position and lock the maintenance prop at this position using an OSHA approved locking device (D). Engage lip maintenance prop.

WARNING

Make sure the platform is properly supported in the raised position before entering the pit to finish weld the shims. Failure to do this may result in serious personal injury or death.

22. Install shims under lift arm at locations (C) using the pyramid shimming method. The lift arm pivot must be solidly shimmed the entire length of the lift arm pivot. Make sure the lift arm pivot is level from side-to-side.

23. Finish weld all shims using a fillet weld.

- Weld all shims within each shim stack to each other, then weld the shim stack to the leveler frame.
- Weld the front leveler frame shim stacks to the front pit curb steel if not done previously.

24. When all welding has been completed, remove all slag then paint all the welds and shims.

25. Remove the lifting brackets from the platform side joists.

26. Disengage the platform maintenance prop.

27. Slowly walk out onto the platform to lower the platform until it is at the cross-traffic (stored) position.

28. Check operation of dock leveler by cycling the leveler at least four times.

- When the platform is at full height, lip will be fully extended.
- Lip will begin to drop after full height is reached, taking approximately 12 seconds to fully fold.

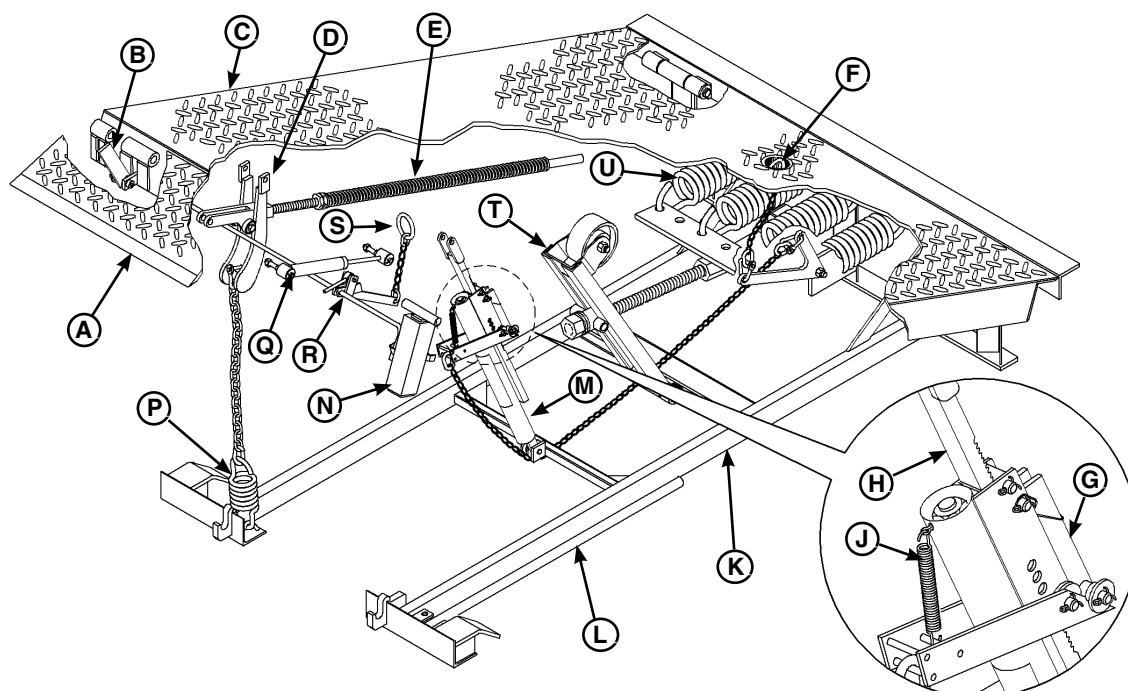
29. Check below-dock position by walking platform down before lip folds completely.

- Lip will be over lip keepers.
- Platform safety legs will be resting on frame.

30. Check full below-dock position by walking the platform down. Pull and hold safety leg chain (A) before lip folds completely.

31. If the lip does not extend fully or lip folds too quickly, see appropriate symptom in the Troubleshooting section.

32. Install the dock bumpers as required.



A — Lip	F — Platform Release Ring	L — Platform Maintenance Prop	R — Safety Leg Linkage
B — Lip Maintenance Prop	G — Ratchet Pawl	M — Hold-Down Mechanism	S — Safety Leg Retract Pull Ring
C — Platform	H — Ratchet Bar	N — Safety Leg (2 used)	T — Lift Arm
D — Lip Banger	J — Release Arm Spring	P — Snubber Spring	U — Lift Springs
E — Lip Assist Spring	K — Main Frame	Q — Shock Absorber	

The CM-series mechanical dock leveler uses large lift springs (U) to apply force to lift arm (T). The lift arm pushes against the underside of the platform (C), rolling on the cam (not pictured) forcing the platform to rise. The force of the spring tension is just enough to lift the weight of the platform.

NOTICE

When activating the leveler, always pull AND hold the platform release ring until the platform is at the full raised position. Releasing the ring while the platform is still rising may result in damage to the equipment.

To actuate the dock leveler platform, the operator pulls and holds the platform release ring (F) located in the recess at the rear of the platform. This causes ratchet pawl (G) to disengage from ratchet bar (H). With the ratchet pawl disengaged, spring tension from lift springs (U) forces the platform to rise.

NOTE: Ratchet pawl (G) and bar (H) are part of the hold-down mechanism (M)

The ratchet pawl disengages only when the platform release ring (F) is pulled AND held. Spring tension from pawl spring (J) causes the ratchet pawl to engage the ratchet bar when the release ring is let go.

When the platform rises to approximately 2 – 3 inches (51 – 76 mm) from its full raised height, the snubber spring (P) and a chain pulls the lip link (D) forward. This, in conjunction with the lip assist spring (E), causes the lip linkage to push the lip out and up. The lip assist spring also helps control the amount of time required for the lip to fully fold.

To lower the platform, the operator walks out onto the platform. The platform will lower until the extended lip rests on the truck bed. If the lip did not fully extend or there is no truck at the dock, the platform will lower until one of the following conditions occur:

- Lip is resting on lip keepers (cross-traffic position).
- Lip did not fully fold causing the platform to rest on safety legs (below-dock position).
- Lip did not fully fold and safety legs are retracted, causing the platform to rest on the safety stops (full below-dock position).

The hold-down ratchet assembly will keep the platform at the desired position until the platform release ring is pulled again.

OPERATION

Operating Instructions

DANGER

Stay clear of dock leveler when transport vehicle is entering or leaving dock area.

DO NOT raise or lower the dock leveler if anyone is under or in front of leveler.

Keep hands and feet clear of pinch points. Avoid putting any part of your body near moving parts.

Failure to follow these instructions may result in severe personal injury or death.

WARNING

DO NOT activate the dock leveler until the transport vehicle is positioned squarely against the bumpers and the transport vehicles are chocked.

Never remove the wheel chocks until loading and unloading is finished and transport vehicles driver has been given permission to leave.

DO NOT use the dock leveler if the transport vehicle is too high or too low.

NEVER use a fork truck or any other material handling equipment to lower the dock leveler.

DO NOT drive any equipment onto the dock leveler until platform lip is resting on the transport vehicle with at least 4 in. (102 mm) of overlap.

Always maintain a safe distance from side edges of leveler during the loading and unloading process.

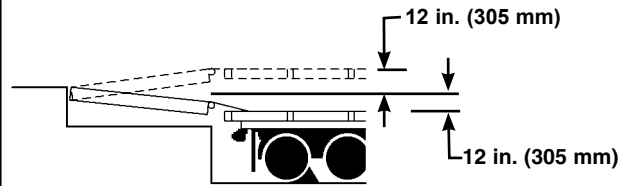
NEVER attempt to walk on an unsupported lip.

NEVER allow untrained personnel to operate the dock leveler.

NEVER attempt to lift any part of the leveler by hand.

Failure to follow these instructions may result in serious personal injury or death.

WARNING



The VH hydraulic dock leveler is designed to compensate for a maximum ± 12 in.* (305 mm) of height difference between the loading dock and the transport vehicles bed. DO NOT use the dock leveler if the transport vehicles bed is more than 12 in. (305 mm) higher or lower than the dock floor.

*service height may vary with design specifications

DO NOT overload the dock leveler.

DO NOT operate any equipment while under the influence of alcohol or drugs.

DO NOT leave equipment or material unattended on the dock leveler.

Failure to follow these instructions may result in personal injury and/or damage to equipment.

NOTICE

When activating the leveler, always pull AND hold the platform release ring until the platform is at the full-raised position. Releasing the ring while the platform is still rising may result in damage to the equipment.

The dock leveler operation instructions are divided into the two methods of loading and unloading:

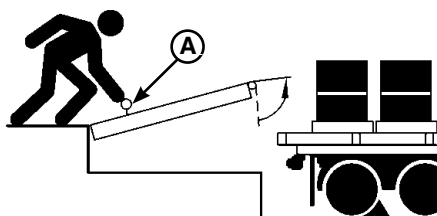
- **For ramp loading and unloading, see Ramp Loading/Unloading Instructions on page 19.**
- **For end loading and unloading, see End Loading/Unloading Instructions on page 20.**

Operating Instructions — Continued

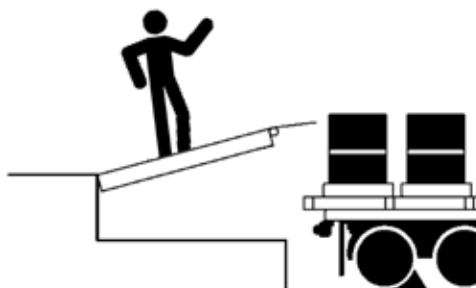
Ramp Loading/Unloading Instructions

NOTE: If end unloading is required, see End Loading/Unloading Instructions on page 20.

1. Check to make sure transport vehicle is positioned squarely against dock bumpers.
2. Instruct driver to remain at the dock until the loading or unloading process has been completed.
3. Chock the transport vehicles wheels or use vehicle restraint if present.

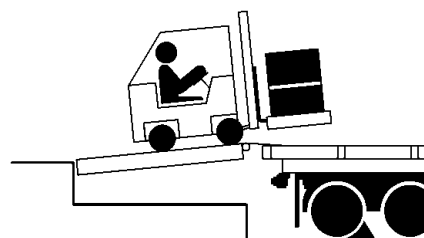


4. Raise the platform by pulling and holding the platform release ring (A).
5. Hold the release ring until the platform is at the fully-raised position and lip is fully extended.



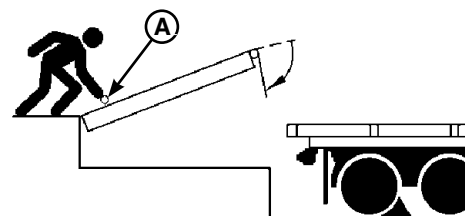
6. Walk out onto the platform. The platform will lower until the lip rests on the transport vehicle.

7. Make sure that the lip is fully extended and supported on the transport vehicle along the entire width of the platform with at least 4 in. (102 mm) of lip contacting the transport vehicles bed.



8. Proceed with loading or unloading.

NOTE: If end loading is necessary, see End Loading/Unloading Instructions on page 20.



9. When the loading or unloading process has been completed, return platform to cross-traffic (stored) position as follows:

- a. Raise the platform to the full-raised position by pulling and holding the platform release ring (A).
- b. Lower platform by slowly walking out onto the platform allowing time for the lip to fully fold and clear the transport vehicle. Continue walking out on platform until platform lowers to the cross-traffic position (lip engages in the lip keepers).

10. Remove chocks from transport vehicle wheels or release vehicle restraint if used.

11. Indicate to driver that transport vehicle may leave the dock.

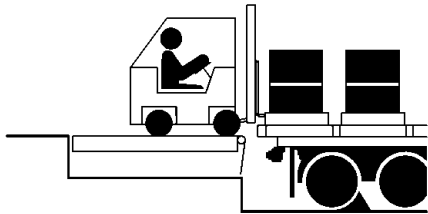
OPERATION

Operating Instructions — Continued

End Loading/Unloading Instructions

NOTE: End loading or unloading can be done with the dock at the cross-traffic position or below-dock position depending on the height of the transport vehicles bed.

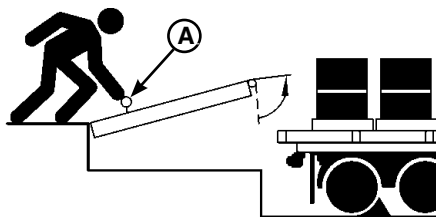
1. Check to make sure transport vehicle is positioned squarely against dock bumpers.
2. Instruct driver to remain at the dock until the loading or unloading process has been completed.
3. Chock the transport vehicles wheels or use vehicle restraint if present.



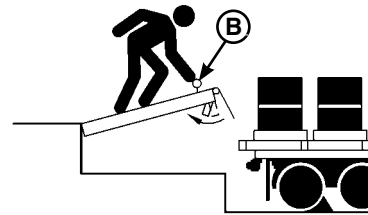
End Loading/Unloading — Platform at Cross-Traffic Position.

4. If transport vehicles bed is at or above dock floor level, leave leveler at the cross-traffic position and proceed with loading or unloading. When finished, perform steps 9 and 10.

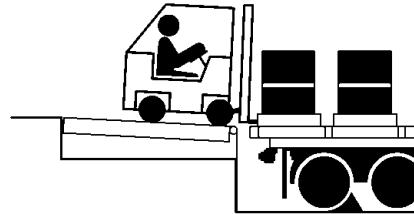
If transport vehicles bed is below the dock floor level, perform steps 5 – 10.



5. Pull and hold the platform release ring (A) until the platform is at the fully-raised position.



6. Slowly walk the platform down allowing enough time for the lip to fold. Just before the platform reaches the cross-traffic position, pull and hold the safety leg retract pull ring (B) (located in a recess at front of the platform). The platform will continue lowering to the full below dock position.



End Loading/Unloading — Platform at Below-Dock Position.

7. Proceed with loading or unloading.

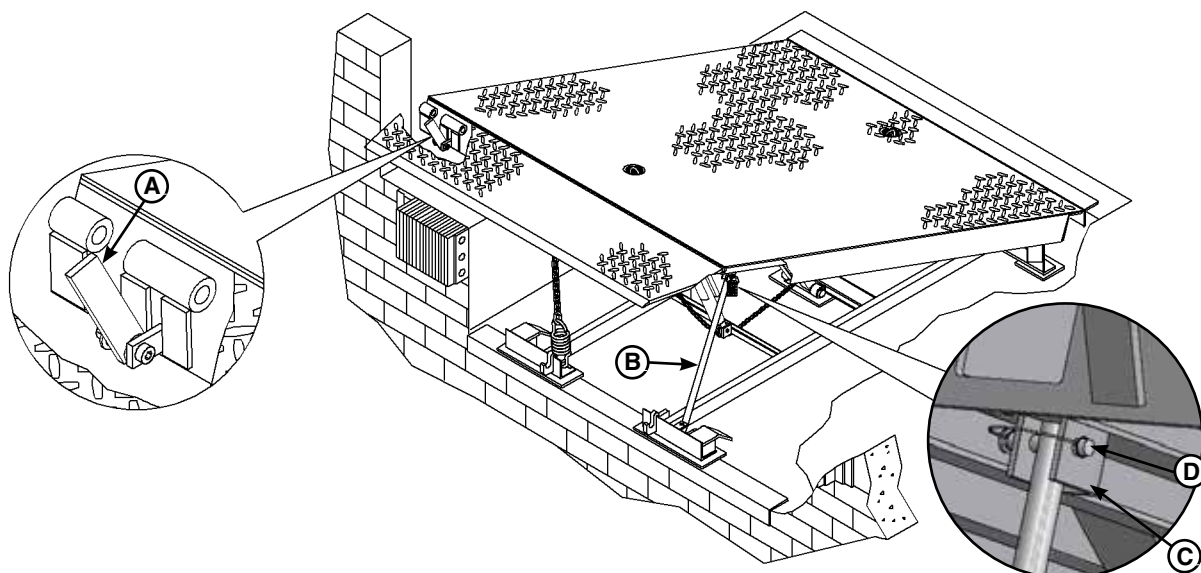
NOTE: When end unloading is finished and additional access to the transport vehicle requires that the platform lip be extended, see Ramp Loading/Unloading Instructions on page 19 for further instructions.

8. When loading or unloading is finished, raise the platform to the full-raised position by pulling and holding the platform release ring. Slowly walk the platform down, allowing enough time for the lip to fold. The platform will lower to the cross-traffic position (lip engages in the lip keepers).

9. Remove chocks from the transport vehicles wheels or release vehicle restraint if used.

10. Indicate to the driver that the transport vehicle may leave the dock.

Service Dock Leveler Safely



A — Lip Maintenance Prop

B — Platform Maintenance Prop

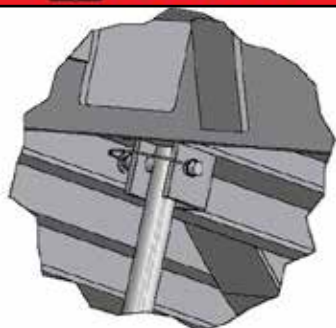
C — U-Bracket

D — Prop Pin & Clip

WARNING

Always post safety warnings and barricade the work area at dock level and ground level to prevent unauthorized use of the dock leveler before maintenance is complete. Failure to do this may result in serious personal injury or death.

DANGER



A maintenance prop permanently attached and hinged to the unit with means for lock out/tag out requirements (per OSHA 1910.147) is included with each pit style dock leveler. In addition, it is recommended and good safety practice to use an additional means to support the dock platform and lip anytime when physically working in front of or under the dock leveler. This additional means may include, but not limited to a boom truck, fork truck, stabilizing bar or equivalent.

Whenever maintenance is to be performed under the dock leveler platform, support the platform with the platform maintenance prop (B).

Put the platform maintenance prop in the service (upright) position so that the prop is cradled in the u-bracket (C). Lock the platform maintenance prop in this position by inserting the prop pin and clip (D) or attaching an OSHA approved lockout device* and tagout device*, supplied by others.

Only the person servicing the equipment should have the capability to remove the lockout device. The tagout device must inform that repairs are in process and clearly state who is responsible for the lockout condition.

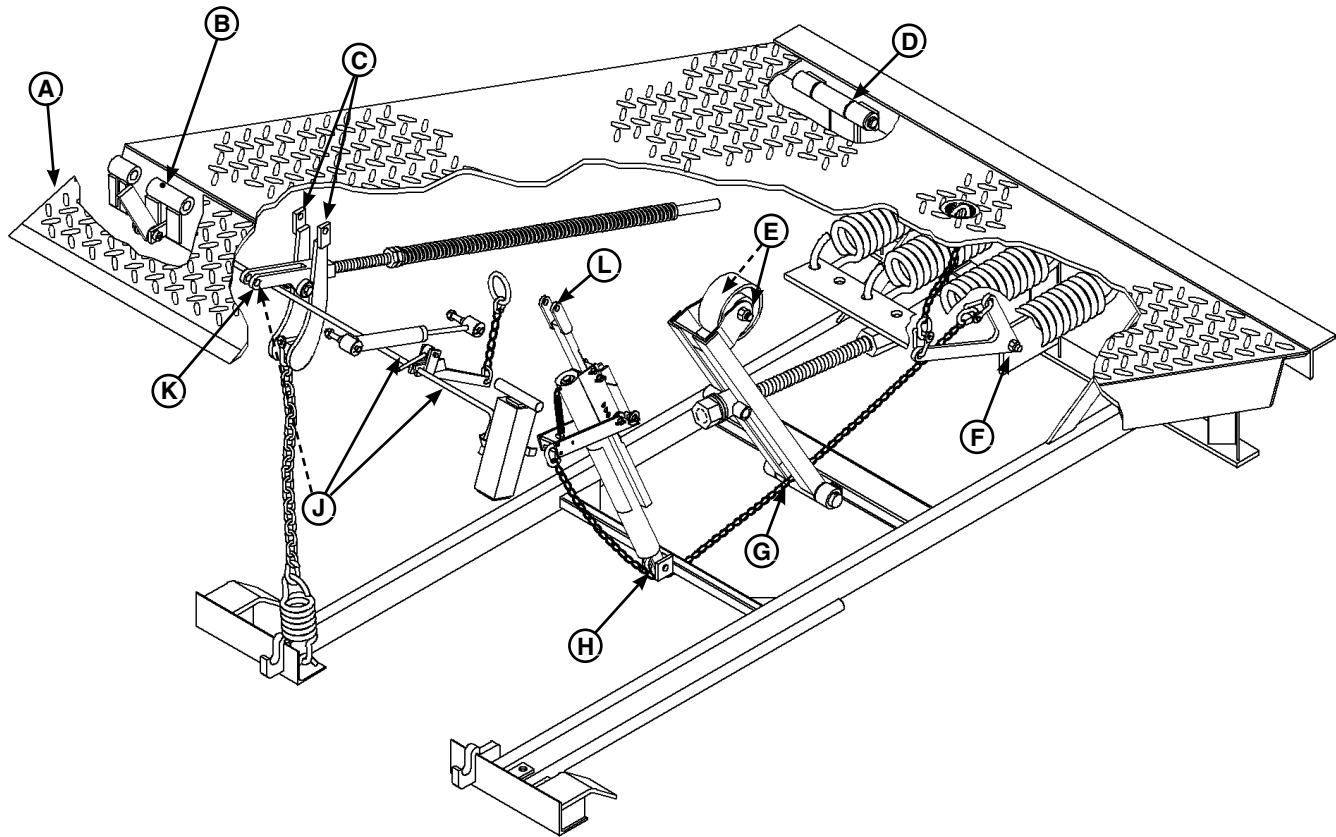
If maintenance requires that the lip be in the extended position, raise the lip by hand and support the lip with the lip maintenance prop (A).

NOTE: Make sure to disengage the lip maintenance prop and allow the lip to fold fully before disengaging the platform maintenance prop.

* Refer to OSHA regulation 1910.147.

MAINTENANCE

Periodic Maintenance



A — Lip Hinge Grease Fittings
B — Lip Maintenance Prop Pivot
C — Lip Banger Pivots
D — Platform Hinge Area

E — Lift Arm Roller Bushing
F — E-Z Release Bellcrank Pivot
G — Lift Arm Pivot
H — Hold-Down Pivot/Pulley

J — Safety Leg Linkage Pivots
K — Lip Lift Assist Pin
L — Hold Down-to-Platform Pin

WARNING

Always post safety warnings and barricade the work area at dock level and ground level to prevent unauthorized use of the dock leveler before maintenance is complete. Failure to do this may result in serious personal injury or death.

WARNING

Always stand clear of the dock leveler lip when working in front of the dock leveler. Failure to do this may result in serious personal injury or death.

WARNING

The platform maintenance prop **MUST** be in the service position when working under the dock leveler. For maximum protection, use an OSHA approved locking device to lock the maintenance prop in the service position. Only the person servicing the equipment should have the key to unlock the maintenance prop.

Failure to follow these instructions may result in serious personal injury or death.

Regular maintenance must be performed on a weekly and quarterly schedule. Follow all safety precautions.

Weekly Maintenance

- Operate the dock leveler through the complete operating cycle to maintain lubrication.

NOTE: To thoroughly inspect the platform hinge area, position the platform in the full below-dock position.

- Inspect the platform hinge and the lip hinge areas. The hinge areas must be kept free of dirt and debris. Build-up of foreign material in the hinge areas will increase wear and cause abnormal operation.



CAUTION

Failure to properly lubricate the dock leveler will cause abnormal operation of the leveler.

DO NOT lubricate the hold-down ratchet bar and pawl.

Quarterly Maintenance

- Lubricate the following areas with light-weight machine oil:

(B)— Lip maintenance prop pivot

(C)— Lip banger pivots

(F)— E-Z release bellcrank pivot

(H)— Hold-down pivot/pulley

(J)— Safety leg linkage pivots

(L)— Hold down-to-platform pin

- Lubricate the following areas with white lithium grease:

(A)— Lip hinge area (inject grease into all the lip hinge grease fittings)

(D)— Platform hinge area (inject grease into all the platform hinge grease fittings)

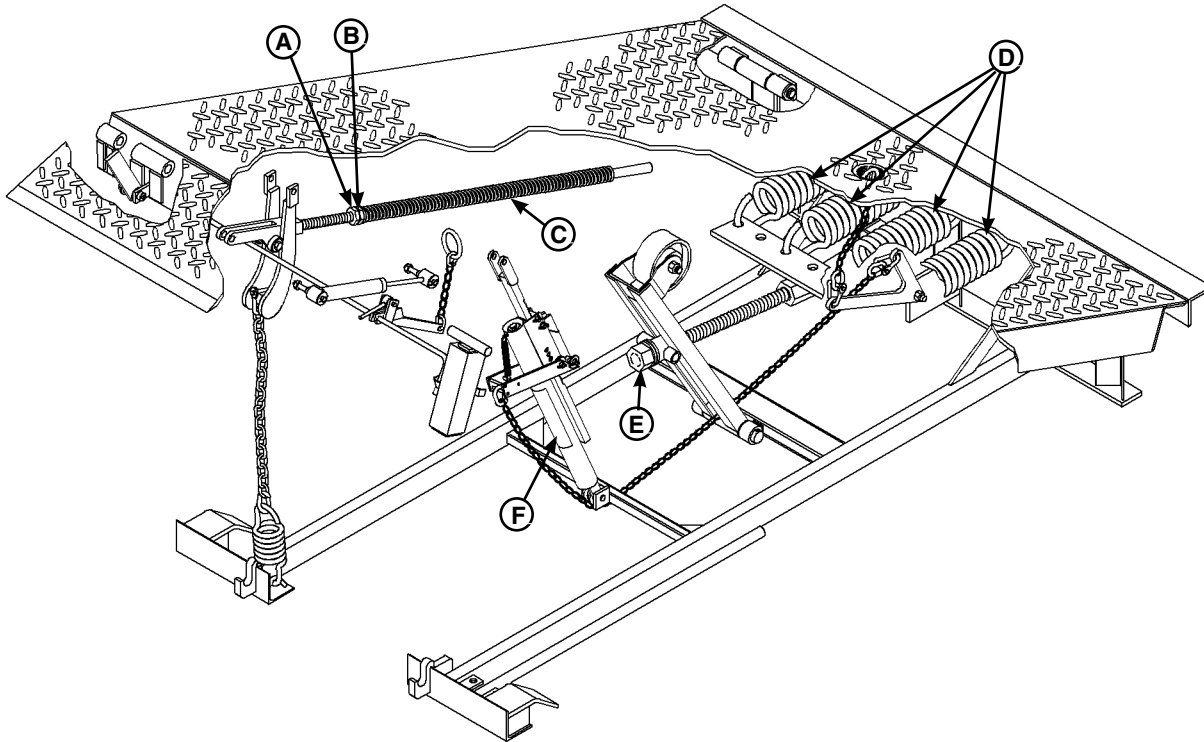
(E)—Lift arm roller bushing

(G)— Lift arm pivot

(K)— Lip assist pin

ADJUSTMENTS

Adjust Lift Arm Spring and Lip Assist Spring Tension



A — Jam Nut
B — Adjustment Nut

C — Lip Assist Spring
D — Lift Springs

E — Lift Spring Bolt
F — Hold-Down Mechanism

WARNING

Always post safety warnings and barricade the work area at dock level and ground level to prevent unauthorized use of the dock leveler before maintenance is complete. Failure to do this may result in serious personal injury or death.

WARNING

Always stand clear of the dock leveler lip when working in front of the dock leveler. Failure to do this may result in serious personal injury or death.

WARNING

The platform maintenance prop **MUST** be in the service position when working under the dock leveler. For maximum protection, use an OSHA approved locking device to lock the maintenance prop in the service position. Only the person servicing the equipment should have the key to unlock the maintenance prop.

Failure to follow these instructions may result in serious personal injury or death.

NOTE: Adjusting the tension of lift springs (D) usually requires that the lip assist spring (C) also be adjusted.

If the platform does not rise fully and/or lip does not extend fully, the lift spring tension may be set too low.

If the platform cannot be walked down or is difficult to walk down, the lift spring tension may be set too high.



WARNING

If the platform does not rise fully on its own, it may be necessary to use an external lifting device. Use a lifting device with the appropriate lifting capacity to safely raise the platform. Make sure to engage and lock the platform maintenance prop after raising the platform. Failure to do this may result in serious personal injury or death.

NOTICE

When using an external lifting device to raise the platform, make sure hold-down mechanism (F) is disengaged. Pull and hold platform release ring during the lifting process to avoid shearing the ratchet pawl and ratchet bar teeth.

Lip Operation Adjustment

1. Raise leveler a couple inches above the keepers.
2. Manual raise lip to full open.
3. Allow lip to drop. Time from full open to fully closed should be between 18 to 20 seconds.

Lip drops to early or takes too long to drop the tension must be adjusted on the lip assist spring.

4. Raise the platform and engage the maintenance prop. Lock out tag out, in the service position using an appropriate locking device.

5. Adjust tension on the lip assist spring (A,B) as follows:
 - a. Loosen jam nut (A).
 - b. To increase spring tension, turn nut (B) clockwise.
 - c. To decrease spring tension, turn nut (B) counterclockwise.
 - d. Tighten jam nut.

NOTE: Use 1/2 turn increments when adjusting lip assist nut (B). Check lip operation after each adjustment. Repeat until proper operation is obtained.

Main Spring Adjustment

If the platform does not rise fully and/or lip does not extend fully, the lift spring tension may be set too low.

If the platform cannot be walked down or is difficult to walk down, the lift spring tension may be set too high

- To increase lift spring tension, turn lift spring bolt (E) clockwise.
- To decrease lift spring tension, turn lift spring bolt (E) counterclockwise.

6. After lift spring adjustment is completed, check operation of the lip.

NOTE: Use 1/2 turn increments when adjusting the main springs (E). Check platform operation after each adjustment. Repeat until proper operation is obtained.

- If the lip folds before the platform can be walked down, tension of lip assist spring See step 1.

7. Recheck operation of platform and lip. Readjust lift spring tension and lip assist spring tension until proper operation is obtained.

ADJUSTMENTS

Adjust Lip Stop Bolt

WARNING

Always post safety warnings and barricade the work area at dock level and ground level to prevent unauthorized use of the dock leveler before maintenance is complete. Failure to do this may result in serious personal injury or death.

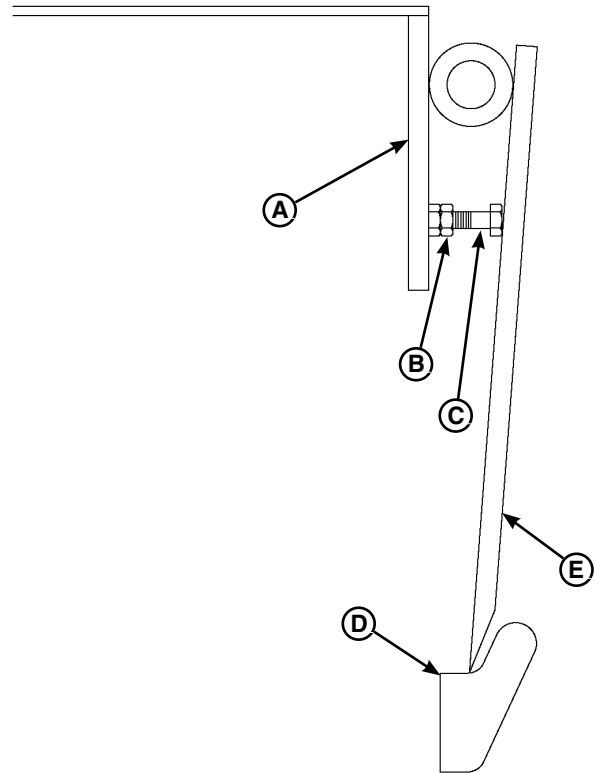
WARNING

Always stand clear of the dock leveler lip when working in front of the dock leveler. Failure to do this may result in serious personal injury or death.

WARNING

The platform maintenance prop **MUST** be in the service position when working under the dock leveler. For maximum protection, use an OSHA approved locking device to lock the maintenance prop in the service position. Only the person servicing the equipment should have the key to unlock the maintenance prop.

Failure to follow these instructions may result in serious personal injury or death.



A— Platform
B— Jam Nut
C— Stop Bolt

D — Lip Keeper
E — Lip

Check that lip (E) is fully resting on the lip keepers (D) and at the lowest part of the keeper cradle. If lip is not resting properly in keepers, perform the following adjustment.

1. Fully raise platform. Manually raise the lip and engage lip maintenance prop (not shown).
2. Loosen jam nut (B).
3. Adjust stop bolt (C) as necessary.
 - Turn stop bolt “in” (clockwise) to allow lip to fold closer to platform (A).
 - Turn stop bolt “out” (counterclockwise) to hold lip further away from platform (A).

4. Tighten jam nut (B).
5. Disengage lip maintenance prop.
6. Walk platform down to cross-traffic (stored) position.
7. Check lip position in both keepers. Repeat procedure if necessary.

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TROUBLESHOOTING

WARNING

Always post safety warnings and barricade the work area at dock level and ground level to prevent unauthorized use of the dock leveler before maintenance is complete. Failure to do this may result in serious personal injury or death.

WARNING

Always stand clear of the dock leveler lip when working in front of the dock leveler. Failure to do this may result in serious personal injury or death.

WARNING

The platform maintenance prop **MUST** be in the service position when working under the dock leveler. For maximum protection, use an OSHA approved locking device to lock the maintenance prop in the service position. Only the person servicing the equipment should have the key to unlock the maintenance prop.

Failure to follow these instructions may result in serious personal injury or death.

Symptom	Possible Cause	Solution
Platform does not rise.	Heavy object(s) on platform.	Remove object(s) from platform. <i>NOTE: For safety reasons, the dock leveler is designed to lift only the platform's own weight.</i>
	Disconnected or broken release cable.	Connect or replace cable.
	Dock leveler binds.	Check for visible obstructions that could cause binding. Check weather seal if equipped. If no obstructions found, call Systems Inc. Technical Services. See inside back cover for phone number and address.
	Main Springs	Main Springs out or a adjustment or broken main springs
Platform rises slowly or does not rise to the full raised position.	Heavy object(s) on platform.	Remove object(s) from platform. <i>NOTE: For safety reasons, the dock leveler is designed to lift only the platform's own weight.</i>
	Dock leveler binds.	Check for visible obstructions that could cause binding. Check weather seal if equipped. If no obstructions found, call Systems Inc. Technical Services. See inside back cover for phone number and address.
	Insufficient main spring tension.	Increase tension on main springs. (See Adjust Lift Arm Spring and Lip Assist Spring Tension in the Adjustments section.)
	Damaged or worn hold-down mechanism.	Clean and inspect hold-down mechanism.
	Main Springs	Main Springs out or a adjustment or broken main springs
	Caster Wheel on cam	Dry or damaged bearings on caster wheel.

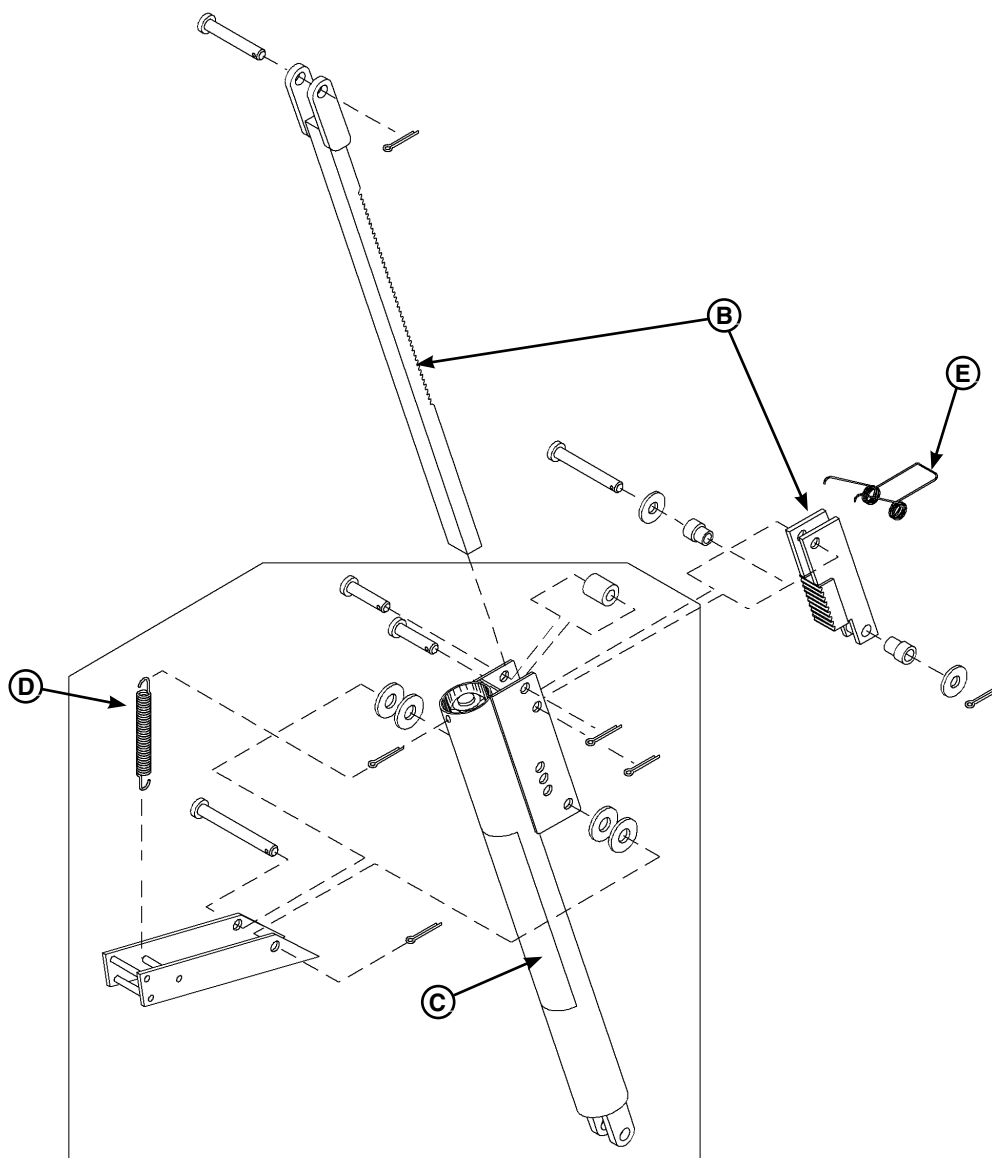
TROUBLESHOOTING

Symptom	Possible Cause	Solution
Platform rises to full height, but lip does not fully extend.	Lip assist chain disconnected or broken.	Connect or replace chain.
	Insufficient main spring tension.	Increase tension on main lift springs. (See Adjust Lift Arm Spring and Lip Assist Spring Tension in the Adjustments section.)
	Insufficient lip assist force.	Increase lip assist spring tension. (See Adjust Lift Arm Spring and Lip Assist Spring Tension in the Adjustments section.)
Platform does not lower when operator walks out onto the platform.	Excessive main spring tension.	Reduce main spring tension. (See Adjust Lift Arm Spring and Lip Assist Spring Tension in the Adjustments section.)
	Damaged or worn hold-down mechanism.	Clean and inspect hold-down mechanism.
	Caster Wheel on Cam	Dry or damaged bearings on caster wheel.
Lip folds too fast during normal walk-down.	Insufficient lip assist force.	Increase lip assist spring tension. (See Adjust Lift Arm Spring and Lip Assist Spring Tension in the Adjustments section.)
	Disconnected, worn, or broken shock absorber.	Inspect shock absorber. Connect or replace shock absorber.
Platform does not stay down.	Entangled release chain.	Remove cause of entanglement.
	Dirt impacted in ratchet bar teeth.	Clean and inspect ratchet bar and ratchet pawl teeth. DO NOT lubricate the ratchet assembly.
	Broken or damaged ratchet assembly teeth.	Replace ratchet assembly. DO NOT lubricate the ratchet assembly.
	Disconnected or broken hold-down pivot pins.	Replace hold-down pivot pins.
	Damaged or worn hold-down mechanism.	Clean and inspect hold-down mechanism.
Lip does not fold after truck departs.	Lip hinge binding because of lack of lubrication	Inject grease into all of the lip hinge grease fittings. (See Periodic Maintenance in the Maintenance section.)
	Excessive lip assist force.	Decrease lip assist spring tension. (See Adjust Lift Arm Spring and Lip Assist Spring Tension in the Adjustments section.)

NOTES

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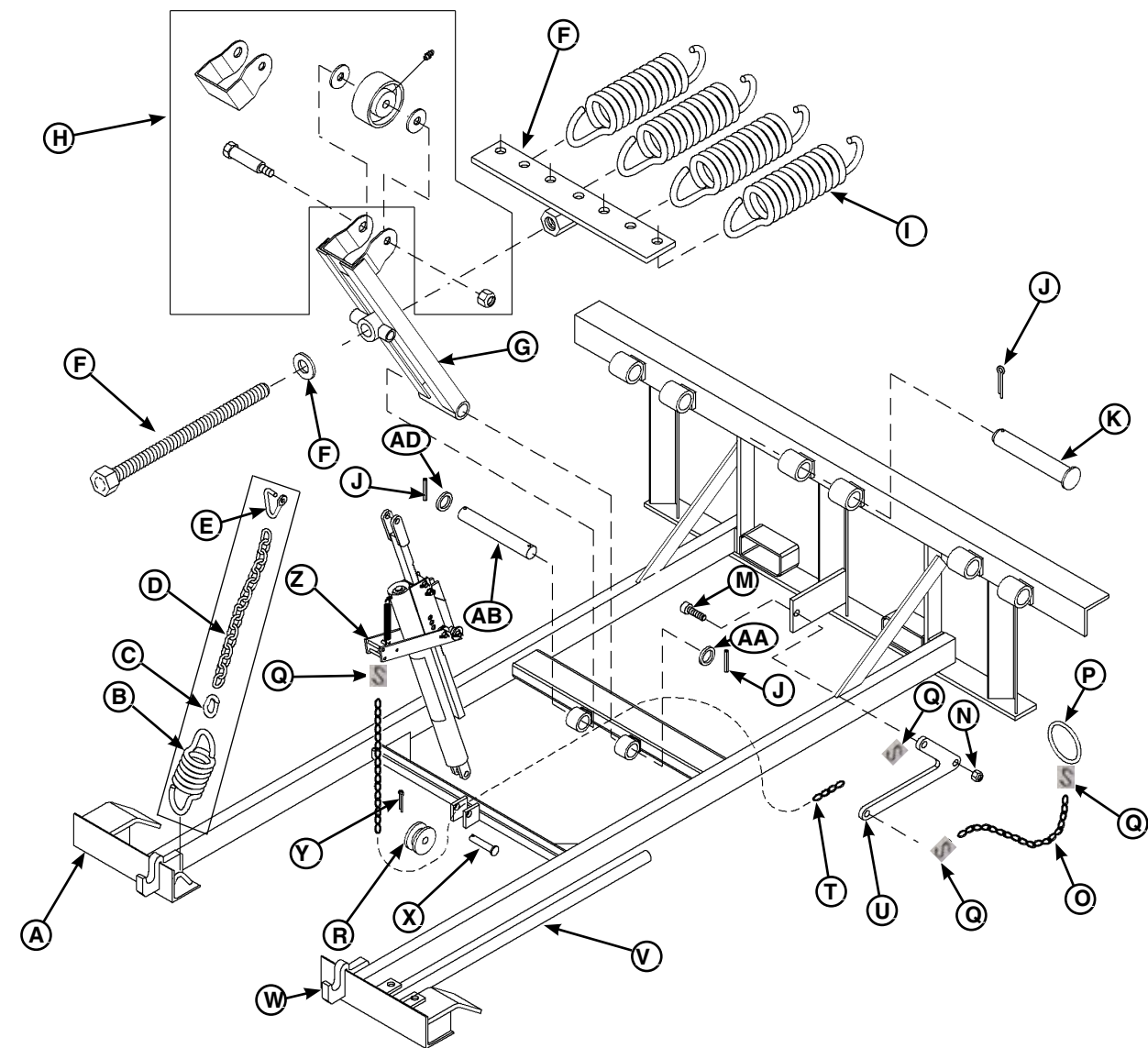
Hold-Down Mechanism



Item	Quantity	Part Number	Description
	1	DOTH-2563	Hold Down Assembly Complete, 31.5" Ratchet Bar
	1	DOTH-2564	Hold Down Assembly Complete, 34.5" Ratchet Bar
B	1	DKIT-2575	Ratchet Bar and Pawl Assembly 31.5" Ratchet Bar
	1	DKIT-2576	Ratchet Bar and Pawl Assembly 34.5" Ratchet Bar
C	1	1751-0043	Decal, Warning
D	1	DOTH-2559	Spring, Release Arm
E	1	DOTH-2556	Pawl Spring

PARTS

Frame Components



BASE FRAMES							
ITEM	QTY	6' LONG		8' LONG		10' LONG	
		6' WIDE	20K/50K	6' WIDE	20K/50K	6' WIDE	20K/50K
A	1	16	DRFA-1003	16	DRFA-1012	16	DRFA-1021
		18	DRFA-1004	18	DRFA-1013	18	DRFA-1022
		20	DRFA-1005	20	DRFA-1014	20	DRFA-1023
		6.5' WIDE	20K/50K	6.5' WIDE	20K/50K	6.5' WIDE	20K/50K
		16	DRFA-1006	16	DRFA-1015	16	DRFA-1024
		18	DRFA-1007	18	DRFA-1016	18	DRFA-1025
		20	DRFA-1008	20	DRFA-1017	20	DRFA-1026
		7' WIDE	20K/50K	7' WIDE	20K/50K	7' WIDE	20K/50K
		16	DRFA-1009	16	DRFA-1018	16	DRFA-1027
		18	DRFA-1010	18	DRFA-1019	18	DRFA-1028
		20	DRFA-1011	20	DRFA-1020	20	DRFA-1029

Frame Components

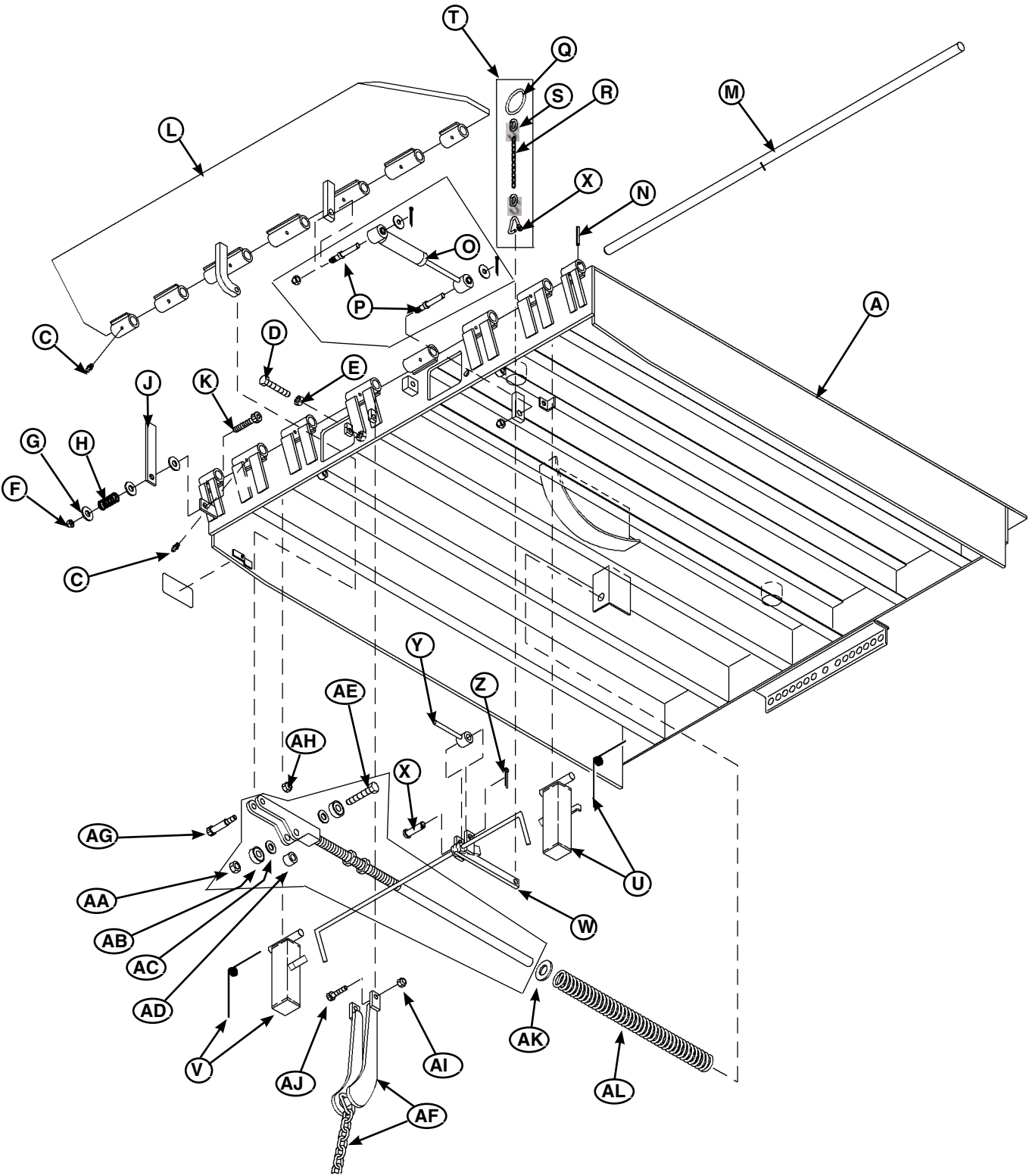
Item	Quantity	Part Number	Description
A	1	DFRA_____ 1	Frame, Welded Assembly (see page 32)
		DFRA-_____ 1	Frame, Clean Sweep, Welded Assembly (Optional)
Snubber Spring Assembly			
B	1	DOTH-2555	Spring, Snubber
C	1	DOTH-2422	3/8 Shackle.
D	1	DOTH-6832	Chain,
E	1	DOTH-2421	Cold Shut Link, 5/16 in.
		DKIT-6439	Spring, Snubber assembly (Includes B-E)
F	1	DFRA-0326	6 Foot Bolt, Spring Adjuster & Plate, Spring Tensioner
		DFRA-0327	8 Foot Bolt, Spring Adjuster & Plate, Spring Tensioner
	1	DOTH-2222	Washer
G	1	DOTP-6424 1	Lift Arm, Short, 25”
		DOTP-6423 1	Lift Arm, Long, 27”
H	1	DOTH-2401	Roller Assembly, Cam (Replaces DOTH-2402)
I	AR*	DOTH-_____ 1	Spring, Lift
J	5	DOTH-2382	Pin, Cotter, 1/4 x 2 in.
K	3	9202-0002	Pin, Rear Hinge
		9202-0009	Pin, Rear Hinge Optional Stainless Steel
M	1	DOTH-2061	Bolt, Shoulder
N	1	DOTH-2131	Nut, Nylon Lock
E-Z Release Dock Release Chain Assembly			
O	1	DOTH-2412	Chain
P	1	DOTH-2423	Ring, Chain
Q	2	DOTH-2440	S Hook
	1	DLPA-1210	Below Dock Release Chain Assembly
Hold-Down Release Chain (Release Arm to Hold-Down)			
R	1	DFRA-0350	Roller
Q	1	DOTH-2440	S Hook
T	1	DPLA-1211	Hold-Down Release Chain 5’6’8 and ’10
		DKIT-9905	Hold-Down Release Chain Assembly 5’6’8’and 10’
U	1	DOTH-6929	Arm, E-Z Release
V	1	DOTP-_____ 1	Prop, Maintenance
W	2	8432-0983 1	Keeper, 16” Lip, 20” Pit
		8432-0984 1	Keeper, 18” Lip, 20” Pit
		8432-0985 1	Keeper, 20” Lip, 20” Pit
		8432-0986 1	Keeper, 16” Lip, 24” Pit
		8432-0987 1	Keeper, 18” Lip, 24” Pit
		8432-0988 1	Keeper, 20” Lip, 24” Pit
X	1	DOTH-2356	Pin, Clevis
Y	1	DOTH-2375	Pin, Cotter
Z	1	DOTH-2563	Hold-Down Assembly Complete, 31.5” Ratchet Bar
		DOTH-2564	Hold-Down Assembly Complete, 34.5” Ratchet Bar
AA	1	DOTH-2222	Washer
AB	1	DRFA-1205	Pin

*AR = As Required

¹ Provide dock leveler serial number, platform size, lip size and pit depth when calling or faxing orders.

PARTS

Platform Components



Platform Components

Item	Quantity	Part Number	Description
A	1	See Page 34	Platform, Welded Assembly
C	AR*	DOTH-2424	Fitting, Grease
D	1	DOTH-2075	Cap Screw, Lip Stop
E	2	DOTH-2160	Nut, Hex 5/8-11
F	1	DOTH-2131	Nut, Nylon Lock
G	2	DOTH-2214	Washer
H	1	DOTH-2547	Spring, Lip Maintenance Prop
J	1	DOTP-2006	Prop, Lip Maintenance
K	1	DOTH-2062	Cap Screw
L	1	See Page 36	Lip, Welded Assembly
M	2	DPLA-2101	Pin, Lip Hinge 6 ft. wide
		DLPA-2102	Pin, Lip Hinge 6.5 ft. wide
		DLPA-2103	Pin, Lip Hinge 7 ft. wide
N	2	DOTH-2380	Pin, Cotter
Shock Absorber Assembly			
O	1	DOTH-2582	Shock Absorber
P	1	DOTH-6465	Gas Shock Mounting Kit
	1	DKIT-6465	Single Shock Absorber Assembly (Includes Items P&Q)
Safety Legs Assembly			
Q	1	DOTH-2423	Ring, Chain
R	1	DOTH-2412	Chain, Safety Leg
S	2	DOTH-2440	S Hook
T	1	DLPA-1215	Below Dock Pull chain (Includes Items Q - R)
U	1	DOTH-6231	Leg, Left Safety Assembly with Spring
V	1	DOTH-6232	Leg, Right Safety Assembly with Spring
W	1	DPLA-2122	Pull Bar Rod Assembly, Safety Leg
X	1	DOTH-2356	Pin, Clevis - Option on CM Models
Y	1	DOTP-6647	Rod, Push - Option on CM Models
Z	1	DOTH-2374	Pin, Cotter - Option on CM Models
Lip Assist Assembly			
AA	1	DOTH-2160	Nut, Nylon Lock, 5/8 -11 UNC
AB	2	DOTH-2449	Bearing, Roller
AC	2	DOTH-2211	Washer, 5/8", 1-5/16 in. OD x 11/16 in. ID
AD	1	DOTH-6644	Spacer, 1-1/4 in. OD x 3/4 in. ID x 1 in.
AE	1	DOTH-2076	Cap Screw, 5/8 -11 UNC x 3-1/2 in.
	1	DPLA-2130	Rod, Lip Assist Adjuster, (1-1/8in. x 34in. Heavy Duty) (Includes AA-AE)
AF	1	DPLA-2126	Link, Lip With Chain
AG	1	DOTH-2061	Bolt, Shoulder
AH	1	DOTH-2131	Nut, Nylon Lock
AI	2	DOTH-2131	Nut, Nylon Lock, 3/8 -16 in.
AJ	2	DOTH-2061	Bolt, Socket-Head Shoulder
AK	1	DOTH-2218	Washer, 2' OD
AL	1	DOTH-2548	Spring, STD, Lip Assist 30"
		DOTH-2546	Spring, HD, Lip Assist 30"

*AR = As Required

Continued on next page

¹ Provide dock leveler serial number, platform size, and lip size when calling or faxing orders.

PARTS

Platform Components

Continued from previous page

PLATFORMS													
ITEM	QTY		6' Long				8' Long				10' Long		
			6.0' Wide	6.5' Wide	7.0' Wide		6.0' Wide	6.5' Wide	7.0 FOOT		6.0' Wide	6.5' Wide	7.0' Wide
A	1	25K	DPLA-1008	DPLA-1029	DPLA-1050	25K	DPLA-1015	DPLA-1036	DPLA-1057	25K	DPLA-1022	DPLA-1043	DPLA-1064
	1	30K	DPLA-1009	DPLA-1030	DPLA-1051	35K	DPLA-1016	DPLA-1037	DPLA-1058	35K	DPLA-1023	DPLA-1044	DPLA-1065

LIPS				
L	QTY.		25K	30K
		6.0'		
	1		16 DLIP-1000	DLIP-1003
	1		18 DLIP-1001	DLIP-1004
	1		20 DLIP-1002	DLIP-1005
		6.5'		
	1		16 DLIP-1018	DLIP-1021
	1		18 DLIP-1019	DLIP-1022
	1		20 DLIP-1020	DLIP-1023
		7.0'		
	1		16 DLIP-1036	DLIP-1039
	1		18 DLIP-1037	DLIP-1040
	1		20 DLIP-1038	DLIP-1041

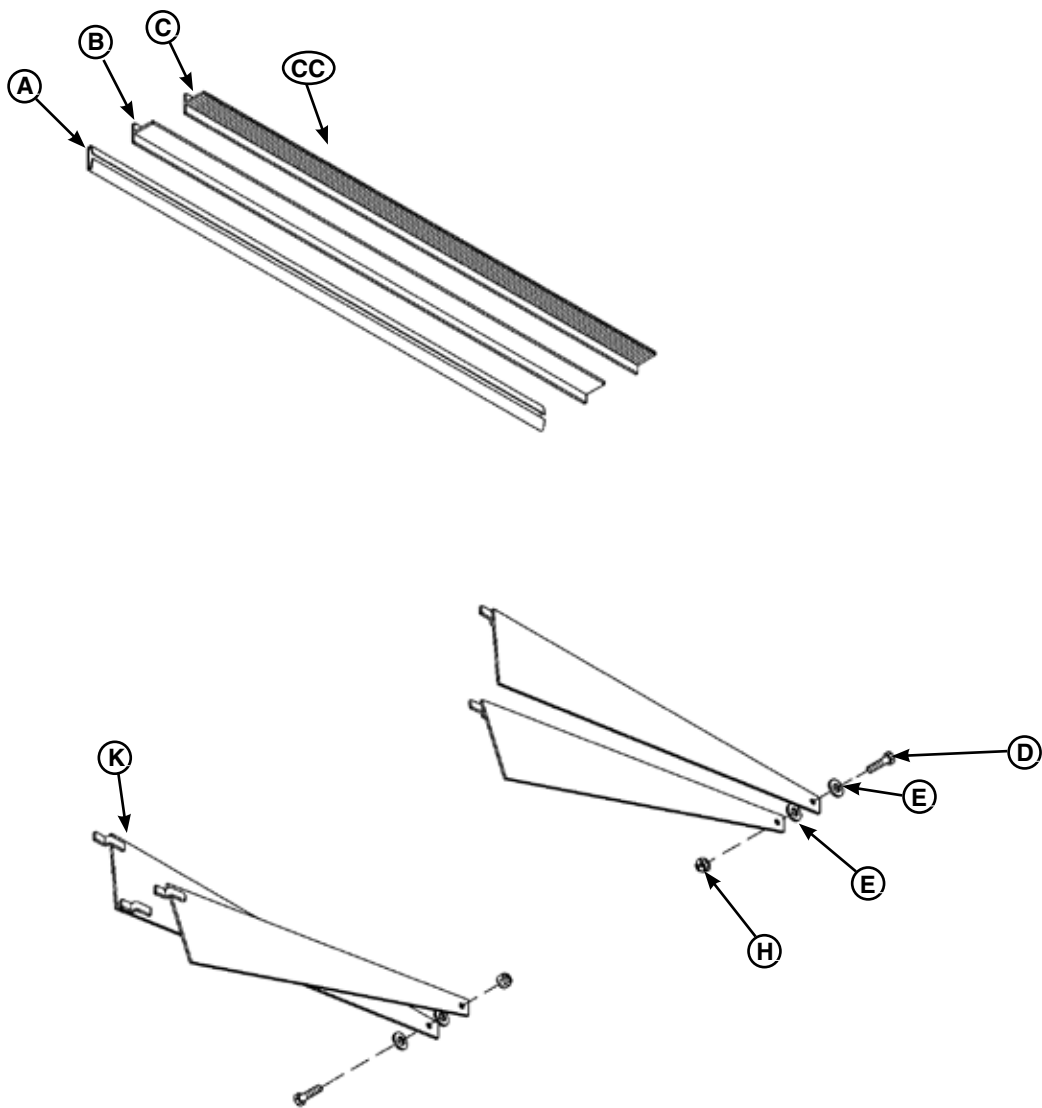
Main Springs

55	SEE CHART	DOTH-2570	SPRING MAIN 6620	A	SEE CHART	DOTH-2550	REG LIP SPRING (ORANGE)
56	SEE CHART	DOTH-2574	SPRING MAIN 6635	B	SEE CHART	DOTH-2546	HEAVY DUTY LIP SPRING (GREEN)
57	SEE CHART	DOTH-2576	SPRING MAIN 6820	C	SEE CHART	DOTH-2548	STANDARD LIP SPRING (WHITE)
58	SEE CHART	DOTH-2578	SPRING MAIN 6835				

6' LONG			
6.0' WIDE	20K	25K	30K
16	(3)55 C	(3)55 C	(2)55, (1)56 B
18	(3)55 B	(3)55 C	(2)55, (1)56 B
20	(2)55, (1)56 B	(2)55, (1)56 B	(2)55, (1)56 B
6.5' WIDE			
16	(2)55, (1)56 B	(2)55, (1)56 B	(2)55, (1)56 B
18	(2)55, (1)56 B	(2)55, (1)56 B	(2)55, (1)56 B
20	(2)55, (1)56 B	(2)55, (1)56 B	(2)55, (1)56 B
7.0' WIDE			
16	(1)55, (56) B	(1)55, (2)56 B	(1)55, (2)56 B
18	(4)55 (4)56 B	(1)55, (2)56 B	(1)55, (2)56 B
20	(4)55 (4)56 B	(1)55, (2)56 B	(2)55, (2)56 B
8' LONG			
6.0' WIDE	20K	25K	30K
16	(4)55 C	(4)55 C	(2)55 B
18	(2)55, (2)56 B	(2)55, (2)56 B	(2)55 B
20	(2)55, (2)56 B	(2)55, (1)56 B	(2)55 B
6.5' WIDE			
16	(2)55, (2)56 B	(2)55, (2)56 B	(2)55, (2)56 B
18	(2)55, (2)56 B	(2)55, (2)56 B	(4)57 B
20	(2)55, (2)56 B	(2)55, (2)56 B	(4)57 B
7.0' WIDE			
16	2)55, (2)56 B	(4)57 B	(4)57 B
18	2)55, (2)56 B	(4)57 B	(4)57 B
20	2)55, (2)56 B	(4)57 B	(4)57 B

PARTS

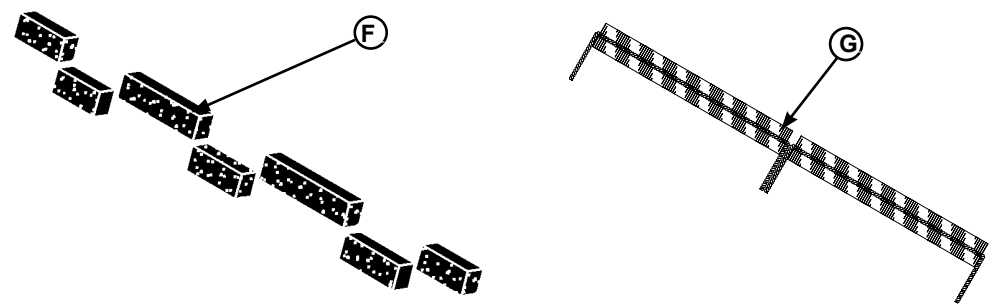
Toe Guard/Weather Seal—Optional



Item	Quantity	Part Number	Description
A	2	DOTH-2818	Channel, Weather Seal, 84"
B	2	DOTH-2824	T-Rubber, Weather Seal, 84"
C	2	DOTH-2820	Extrusion, Brush Weather Seal, 84"
CC	2	DOTH-2822	Brush Weather Seal, 1.58" x 84"
D	2	DOTH-2043	Cap Screw
E	4	DOTH-2207	Washer
H	2	DOTH-2131	Nut, Nylon Lock

Toe Guard / Weather Seal Options			
E	1	DKIT-9178	Full Range Toe Guard Assembly, 5'
		DKIT-9179	Full Range Toe Guard Assembly, 6'
		DKIT-9180	Full Range Toe Guard Assembly, 8'
		DKIT-9181	Full Range Toe Guard Assembly, 10'
	1	DKIT-9292	KIT COMPLETE RUBBER WEATHER SEAL 6'-8'
	1	DKIT-9293	KIT COMPLETE BRUSH WEATHER SEAL 6'-8'

Rear Seals

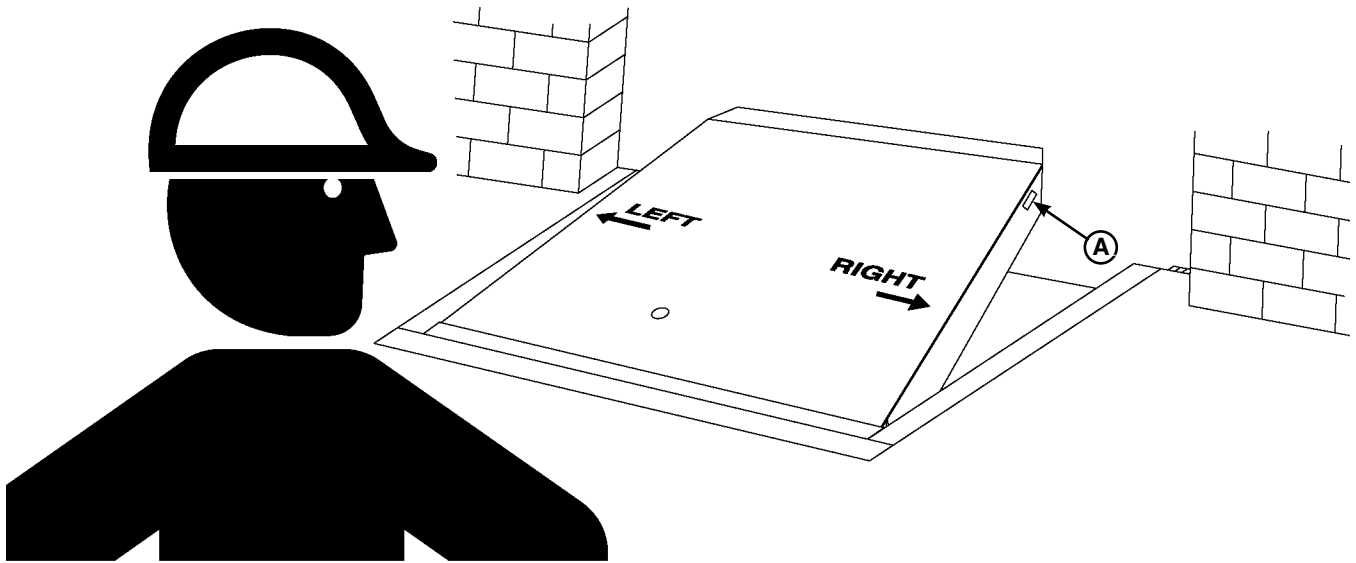


Item	Quantity	Part Number	Description
G	1	0195-0044	Rear Powerseal (Brush Seal)
F	1	0195-0046	Foam Seal Fits 6' (self adhesive backing)
		0195-0047	Foam Seal Fits 6-1/2' (self adhesive backing)
		0195-0048	Foam Seal Fits 7' (self adhesive backing)

NOTES

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Customer Information



NOTE: Refer to illustration for left/right orientation of dock leveler.

The model/serial number decal (A) is located on the right platform joist near the front (lip) of dock leveler.

When you receive your CM-series dock leveler, write down the dock leveler model and serial number in the form provided. This will help ensure safe keeping of the numbers in the event the model/serial number decal (A) becomes lost or damaged.

Also, write down Poweramp's job number, the company that installed the dock leveler, and the original owner's name. This will all help to identify the specific dock leveler if more information is required.

When ordering, use part numbers and description to help identify the item ordered. Do not use "item" numbers. These are only for locating the position of the parts. Always give dock leveler MODEL NUMBER and/or SERIAL NUMBER.

For service, call or contact:

Systems, Inc.
P.O. Box 309
Germantown, WI 53022

Phone: (800) 643-5424
Fax: (262) 255-5917

Dock Leveler Information	
Model	_____
Serial No.	_____
Systems Inc., Job No.	_____
Original Owner Information	
Name	_____
Address	_____ _____
Installer Information	
Name	_____
Address	_____ _____
Date of Installation	_____

STANDARD PRODUCT WARRANTY

SYSTEMS, INC. warrants that its products will be free from defects in design, materials and workmanship for a period of one (1) year from the date of shipment. All claims for breach of this warranty must be made within 30 days after the defect is or can with reasonable care, be detected. In no event shall any claim be made more than 30 days after this warranty has expired. In order to be entitled to the benefits of this warranty, the product must have been properly installed, maintained and operated in accordance with all manufacturer's recommendations and/or specified design parameters and not otherwise have been subject to abuse, misuse, misapplication, acts of nature, overloading, unauthorized repair or modification, application in a corrosive environment or lack of maintenance. Periodic lubrication, adjustment and inspection in accordance with all manufacturers' recommendations are the sole responsibility of the Owner/User.

In the event of a defect, as determined by SYSTEMS INC., covered by this warranty, SYSTEMS INC. shall remedy such defect by repairing or replacing any defective equipment or parts, bearing the cost for the parts, labor and transportation. This shall be exclusive remedy for all claims whether based on contract, negligence or strict liability.

WARRANTY LIMITATIONS

THE ABOVE WARRANTIES ARE IN LIEU OF ANY OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SYSTEMS INC. AND ITS SUBSIDIARIES SHALL NOT IN ANY EVENT BE LIABLE TO ANYONE, INCLUDING THIRD PARTIES, FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND INCLUDING BUT NOT LIMITED TO, BREACH OF WARRANTY, LOSS OF USE, LOSS OF PROFIT, INTERRUPTION OF BUSINESS OR LOSS OF GOODWILL.

PRODUCT SPECIFIC WARRANTY "CM DM HM" SERIES LEVELER

In addition to the "Standard Product Warranty" provided with all Poweramp® Products, Systems Inc., guarantees materials, components and workmanship to be free of defects for the following extended periods:

- **Structural Warranty** – For a period of ten (10) years from the date of shipment, product will carry a prorated structural warranty. This warranty specifically applies to; the deck section, lip section, frame, rear hinge assembly and front hinge assembly only. This warranty covers structural repairs to or replacement of dock leveler in Systems Inc sole discretion and expense including reasonable labor, materials, freight and travel. If Systems Inc determines replacement is necessary, it will provide the original purchaser with a credit toward the purchase of the new replacement Systems Inc. product in the amount equal to the original purchase price of the warranted product F.O.B. point of manufacture, discounted on a ten year straight line basis by the number of years of use prior to replacement.