



NAS

Air Powered Dock Leveler

Owner's/User's Manual



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Recognize Safety Information

Safety-Alert Symbol



The Safety-Alert Symbol 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 DANGER 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 WARNING signifies the presence of a serious hazard or unsafe practice which may result in serious injury or death.

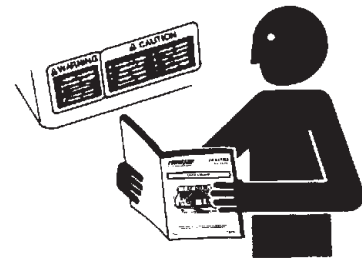
CAUTION

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

IMPORTANT

The use of the word IMPORTANT is to draw attention to a procedure that needs to be followed to prevent machine damage.

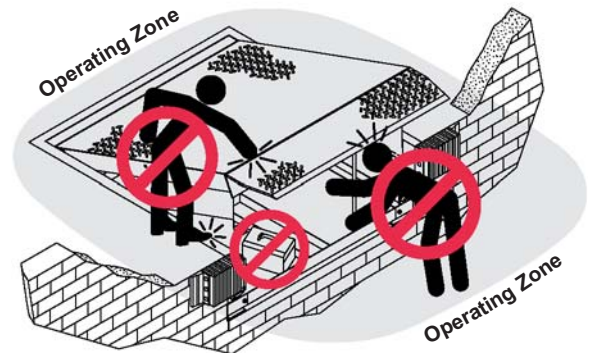
General Operational Safety Precautions



Read and understand the operating instructions 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 start 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 freight carrier is entering or leaving area.



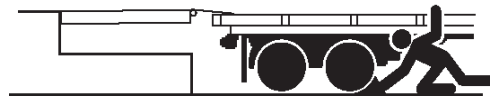
Do not move or use the dock leveling device if anyone is under or in front of it.



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



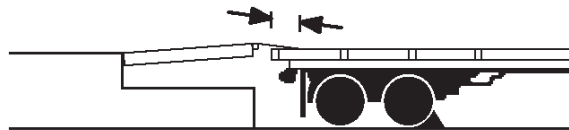
WARNING



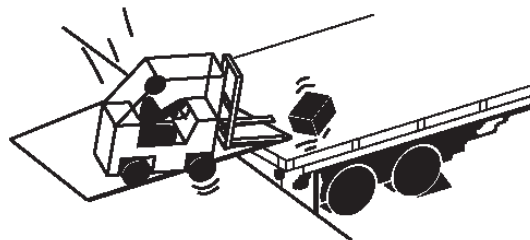
Chock/restrain all freight carriers. Never remove the wheel chocks until loading or unloading is finished and truck driver has been given permission to drive away.



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

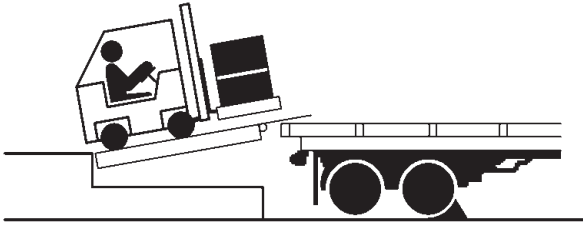


Make sure lip overlaps onto trailer at least 4 in. (102 mm).



Keep a safe distance from both side edges.

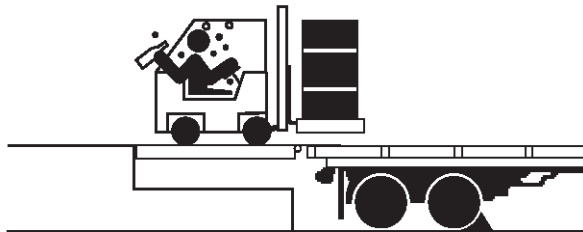
WARNING



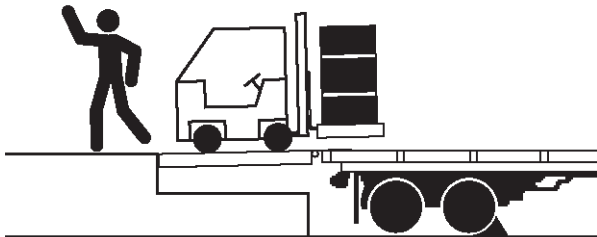
Do not use dock leveling device if freight carrier is too high or too low.



Do not overload the dock leveling device.



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

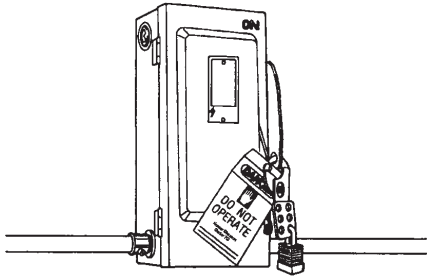


Do not leave equipment or material unattended on dock leveling device.

SAFETY

Maintenance Safety Precautions

DANGER

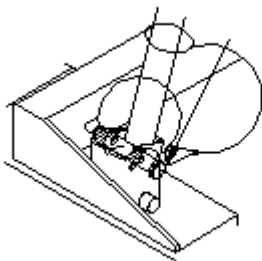


Hydraulic and electrical power must be OFF when servicing the equipment. For maximum protection, use an OSHA approved locking device to lock out all power sources. Only the person servicing the equipment should have the key to unlock the device.

CAUTION



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.



The maintenance prop must be in the upright "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 device.

WARNING

ALWAYS disconnect electrical power source and ground wire before welding on dock leveler.

DO NOT ground welding equipment to any hydraulic or electrical components of the dock leveler. Always ground to the dock leveler frame.

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

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.

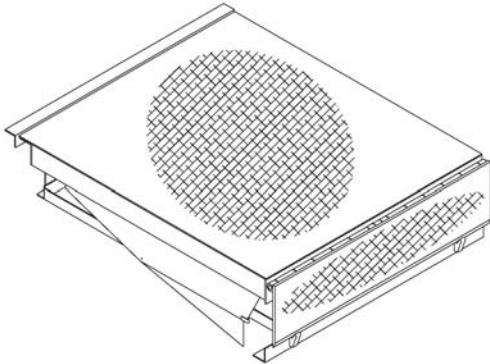
Always keep a fire extinguisher of the proper type nearby when grinding or welding.

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.

General Information



Congratulations on your choice of a NOVA dock leveler. This manual covers the Air Bag, NAS model air powered dock leveler.

Designed by NOVA 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. Its revolutionary air bag system efficiently controls and operates every function. To obtain maximum performance and longest possible use, a simple program of preventive maintenance is recommended.



The NAS dock leveler comes equipped with an electrical control panel, which allows push button operation of the dock leveler functions. Each NAS dock leveler unit and control panel has been factory prewired and tested to ensure satisfactory operation.

To illustrate which connections are to be made in the field at installation, electrical drawings are included with each order or by contacting NOVA Technical Services.

Once again, thank you and congratulations on your purchase of a NOVA NAS dock leveler.

Dock Leveler Stock Specifications

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

Width: NAS

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

Length

6 ft (1828.8 mm)
8 ft (2438 mm)
10 ft (3048 mm)

Capacity (CIR*)

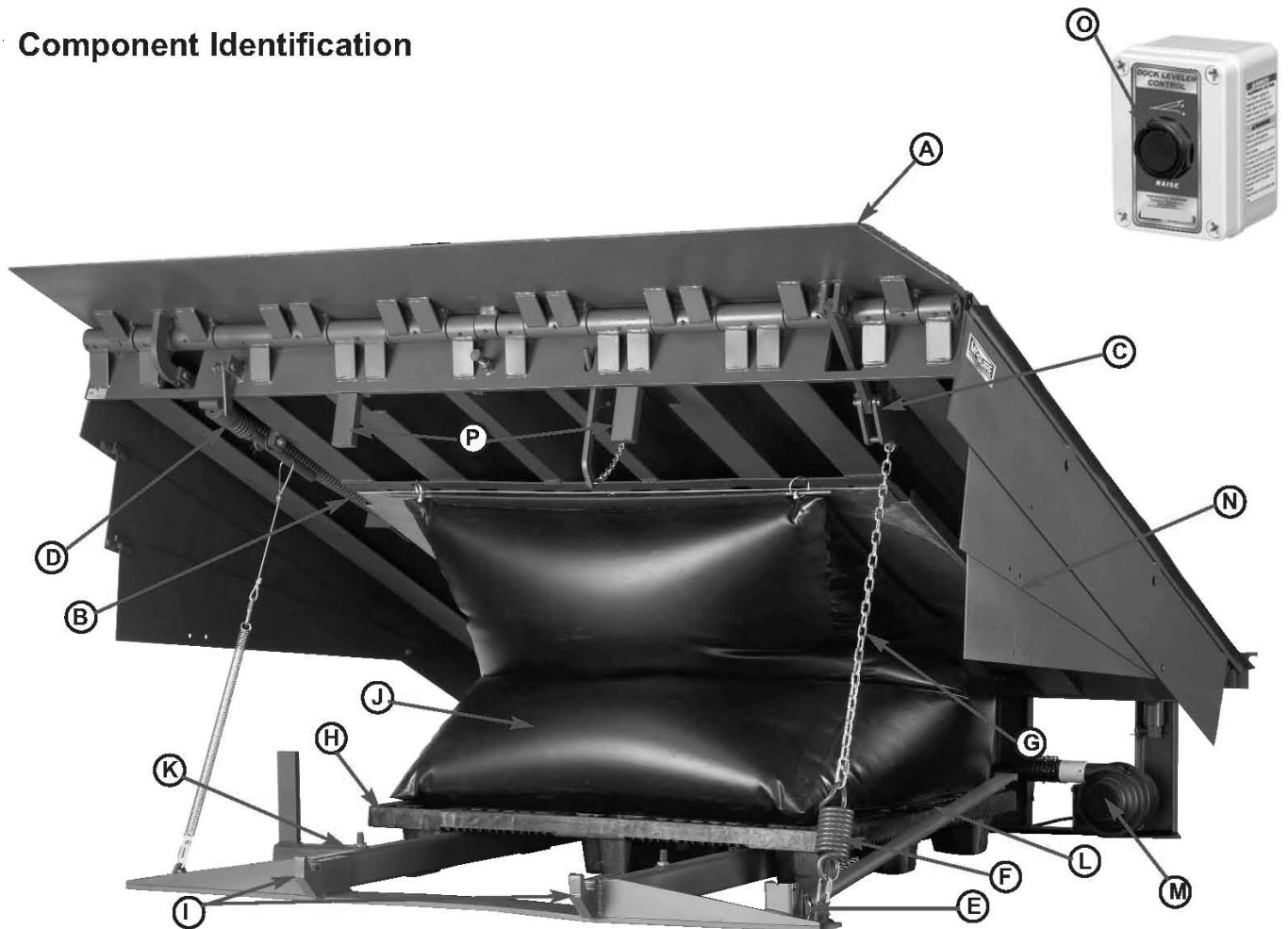
25,000 lb (11,340 kg)
30,000 lb (13,608 kg)
35,000 lb (15,876 kg)
40,000 lb (18,144 kg)
45,000 lb (20,412 kg)
55,000 lb (22,680 kg)

*CIR (Comparative Industry Rating)

All docks are available in 115V motors only.

INTRODUCTION

Component Identification



- | | | | |
|------------------------|--------------------------------|--------------------------|----------------------|
| A—Lip | E—Lip Maintenance Prop Pivot) | H—Air bag support pallet | L —Maintenance Prop |
| B—Lip Assist Rod | F— Lip Actuator Snubber Spring | I— Lip Keepers (2 used) | M—Blower Motor |
| C—Lip Linkage Assembly | G—Lip Actuator Chain | J— Air bag | N—Toe Guard (2 used) |
| D—Lip Latch Assembly | | K —Main Frame | O—Raise Button |
| | | | P—Safety Legs |

THEORY

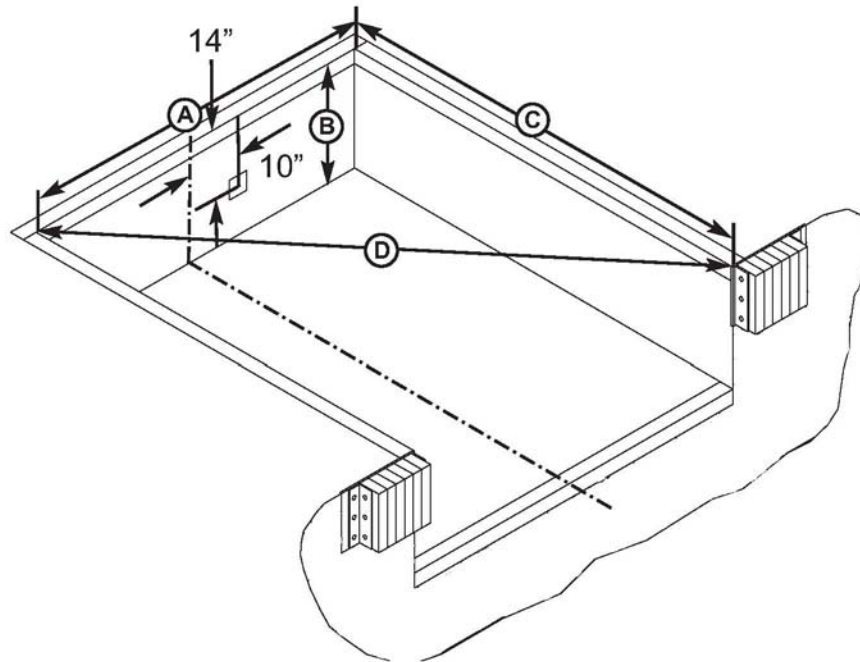
The NAS dock leveler uses a blower motor and one-button operation for ease of use. The dock leveler can be operated remotely using the RAISE button (O) on the control panel. This activates an electric blower motor (M). The blower forces air into the air bag (J), causing the platform to rise. Releasing the RAISE button allows the platform to lower. When the platform rises to the point where there is 2 — 3 in. (51 — 76. mm) from its full raised height, the lip spring (F) and lip actuator chain (G), causes the lip linkage assembly to push the lip out and up. The lip assist spring (not shown) also helps keep the lip extended. When the lip is fully extended, the lip latch cable engages the lip latch assembly, locking the lip in the extended position. The dock leveler has reached its full height when the lip is fully extended.

To lower the platform, release the Raise button (O)

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).
- Leveler went to the below-dock position, lip folds automatically, leveler rests on the safety legs (below dock position).
- Leveler went to the below dock position with operator holding the safety leg retract cable (not shown), safety legs are retracted, lip folds automatically causing dock to rest in the full below dock position.

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.

IMPORTANT

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

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

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

2. 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:

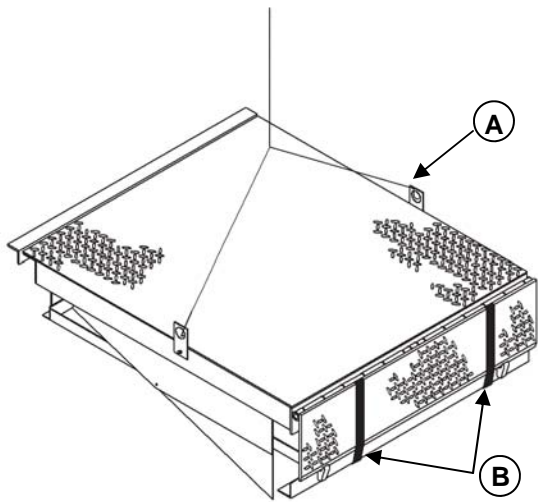
- Measure pit width distance (A) at both front and rear of pit.
- Measure dock floor-to-pit floor distance (B) at all four corners.
- Measure pit length distance (C) at both sides.
- Measure corner-to-corner (criss-cross) distance (D) at both sides. Take measurements at dock floor level and at pit floor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

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

3. Make sure the field junction box for the dock leveler (E) is at the correct location per pit diagrams.

INSTALLATION

Prepare Dock Leveler



A— Lifting Bracket (2 used) B — Shipping Bands

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



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 dock leveler and/or serious personal injury or death.

IMPORTANT

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 control panel and bumpers that may be banded to the frame of the dock leveler. DO NOT remove the shipping bands (B) around the platform lip and leveler frame at this time.

IMPORTANT

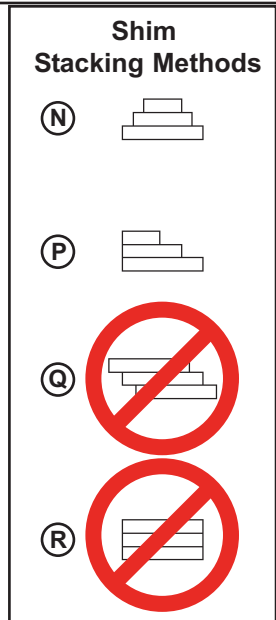
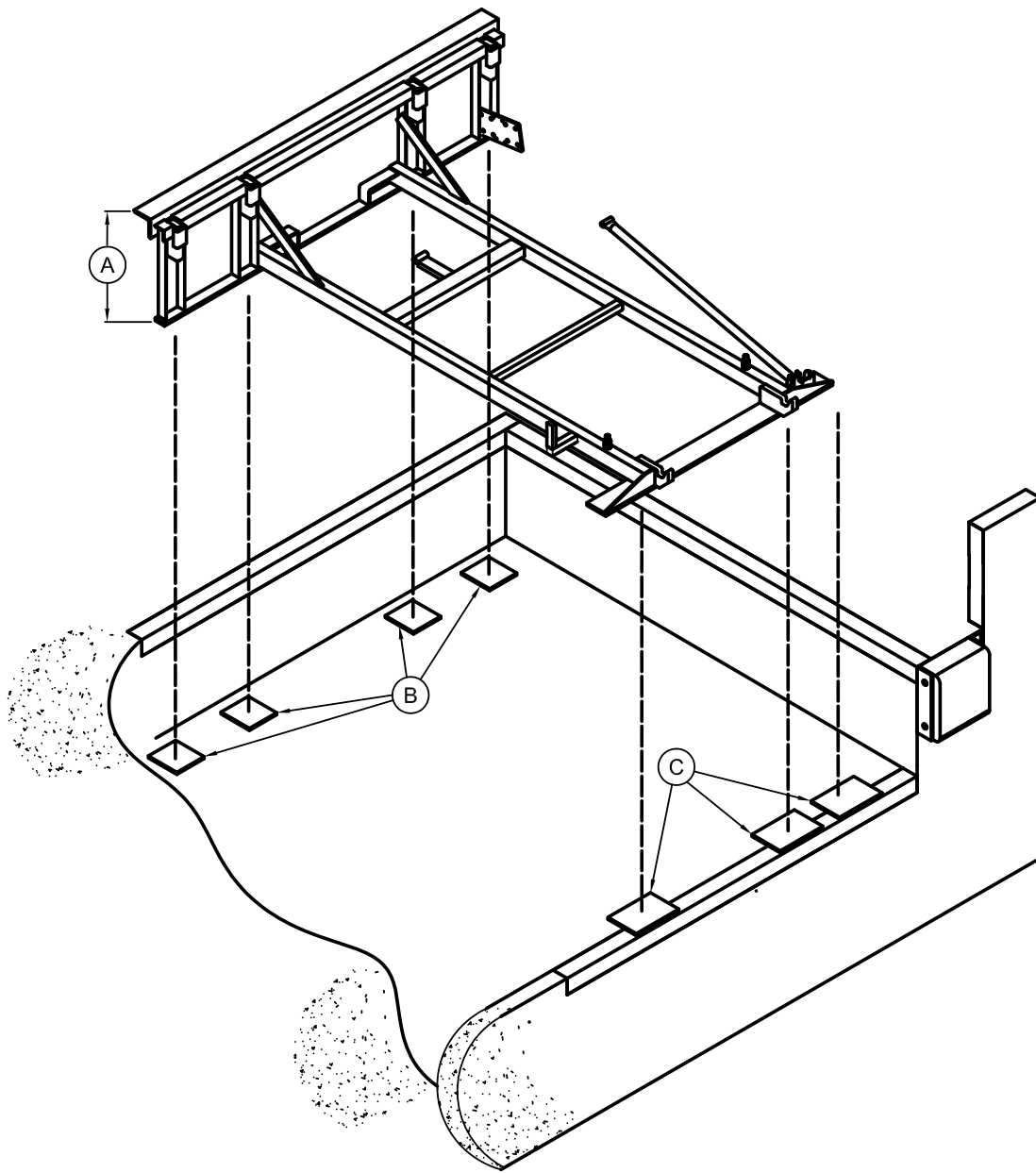
DO NOT overtighten the lifting bracket hardware. Overtightening can damage the weather seal, if equipped.

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.

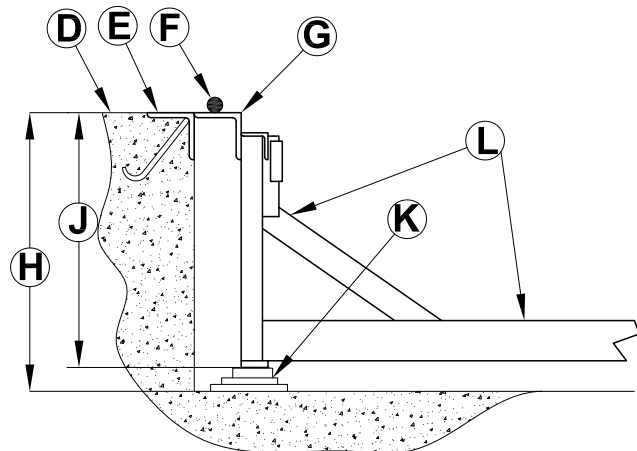
2. Make sure the mounting hardware of lifting brackets (A) is snug. The brackets should pivot relatively freely on the mounting cap screw. DO NOT overtighten.
3. Attach lifting chains to lifting brackets (A) and to a lifting device (i.e., hoist or fork truck) having the appropriate lifting capacity and reach.
4. Remove wood blocks that are attached to the Leveler frame before putting the dock leveler into the pit.
5. Attach a temporary, switched, power supply to the blower before lowering leveler into pit. Keep power cables clear of frame members, shim locations and pinch points. DO NOT CONNECT POWER AT THIS TIME.

INSTALLATION

Install Dock Leveler



- A—Distance (Leveler Frame Height)
- B—Shim Locations (Under Rear Vertical Supports, 4-5 Places TYP)
- C—Shim Locations (Under Lip Keepers, Shim Under Snubber Spring Mount)
- D—Dock Floor
- E—Rear Pit Curb Angle
- F—String
- G—Rear Hinge Frame Angle
- H—Distance (Dock Floor-to-Pit Floor)
- 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)



NOTE: NOVA 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 (L) for each shim location (B) by performing the following:
 - a. Measure leveler frame height distance (A).
 - b. Measure dock floor-to-pit floor distance (J) at each shim location (B). Write down the dimensions obtained at each location.
 - c. Subtract distance (A) from distance (J) to obtain the shim height. Repeat for each shim location.

IMPORTANT

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 (L) using the pyramid method (N) (preferred) or stepped method (P) 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 (Q) or straight method (R).

NOTE: To assist in obtaining an accurate measurement of distance (K), use a string (G) 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 (K) [top of shim stack (L) to dock floor]. Distance (K) must equal the dock leveler height (A).

4. For all NAS models, put a 1/4 in. (6.6 mm) thick shim at locations (B and C) .

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

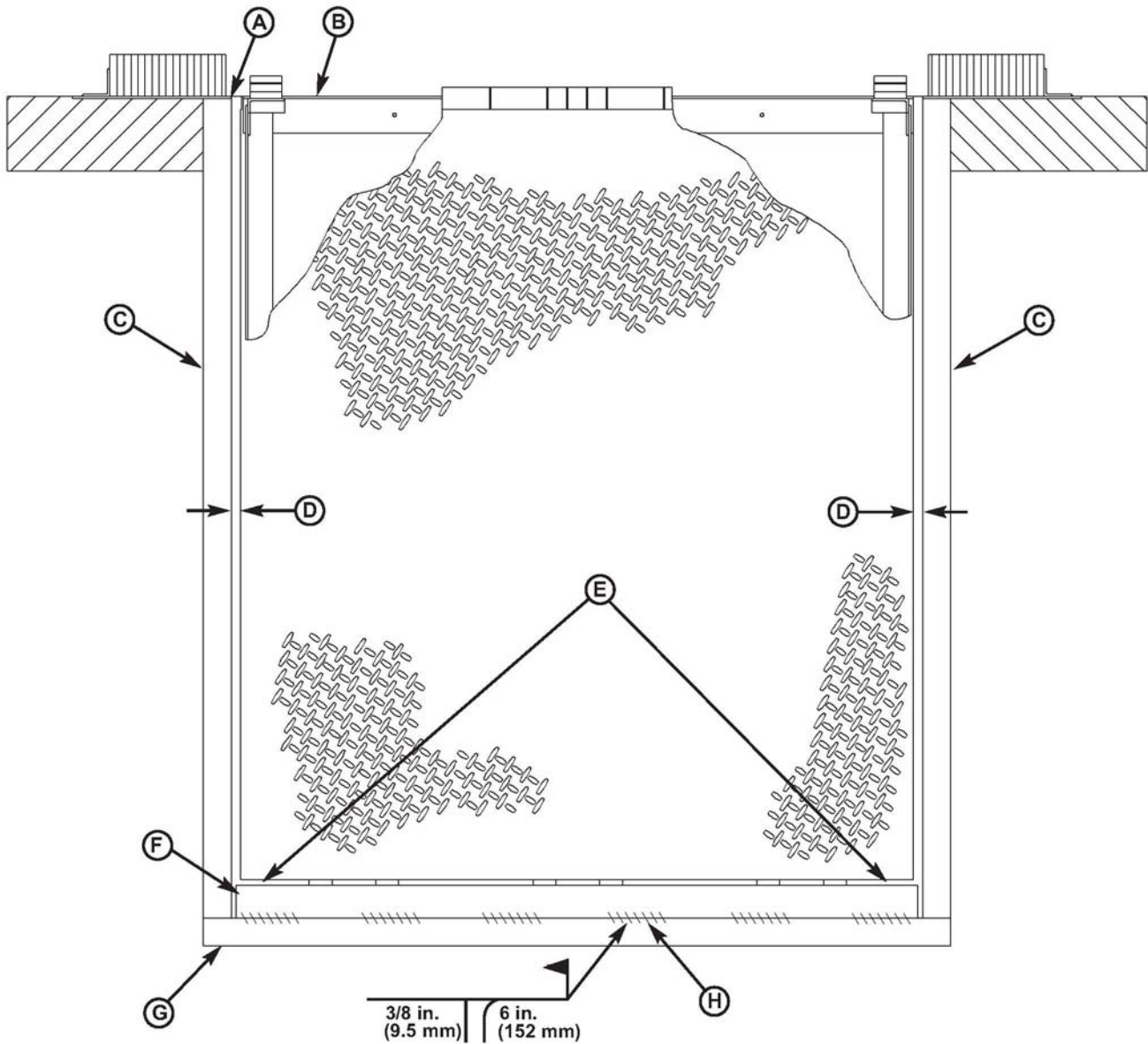


WARNING

The dock leveler is heavy. Use a lifting device and chains 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.

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. For all NAS models, 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. 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.

11. If leveler cannot be squared and/or made level as instructed in steps 8 — 10, contact NOVA Technical Services.

12. With the leveler square in the pit and flush with the surrounding dock, remove the banding on the of the leveler.

13. Connect the blower motor to the temporary power supply.

14. Slowly raise the platform. Check for binding as platform is being raised.

15. If binding occurs, lower the platform. Reposition leveler and/or add or remove shims as necessary. Slowly raise platform again. If platform still binds, contact NOVA Technical Services for further instructions.

16. All NAS models - Once leveler is flush, square and does not bind:

- a. Install shims under maintenance prop (C) page 10, where prop attaches to leveler frame. Make sure prop is solidly shimmed.
- b. Using the leveler's blower motor, raise the dock to the fully open position.



Figure 1



Figure 2



CAUTION

Two people are required to engage the maintenance prop: one person to operate the lifting device, the other person to engage the maintenance prop.



WARNING

DO NOT use the maintenance prop to support the raised platform until the maintenance prop has been properly shimmed and welded. The shims must be welded to each other, the leveler frame, and to the front pit curb steel. Failure to do this may result in serious personal injury or death.

- c. Raise maintenance prop to the service (upright) position and lock prop in this position using an OSHA approved locking device.

17. Disconnect power supply from motor.

IMPORTANT

DO NOT weld before disconnecting all electrical components.

DO NOT weld before removing air bag, air bag support pallet and hoses from leveler.

Protect or remove the blower motor before welding.

Failure to follow these instructions may result in damage to these components from stray sparks and weld splatter that will void your warranty.

18. Remove air bag and pallet support from the leveler by disconnecting air bag positioning rods from hooks on the underside of platform. (figure 1) and removing the band clamp from the motor coupler. (figure 2)

19. Remove or protect the blower motor from weld sparks and splatter.

Proceed to step 17.

INSTALLATION



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.

IMPORTANT

DO NOT connect the dock leveler electrical wiring and ground connections until all welding has been completed.

DO NOT ground welding equipment to any hydraulic or electrical components of the dock leveler. Always ground welding equipment to the dock leveler frame, NEVER to the platform.

Failure to follow these instructions may damage the motor, wiring, and/or control panel.

IMPORTANT

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 to malfunction and shorten the life span of the affected components.

NOTE: The illustration on page 12 shows a typical weld pattern. The weld pattern will vary slightly depending on size of dock leveler.

20. With the rear hinge frame angle (F) tight against the rear pit curb angle and flush with the 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.

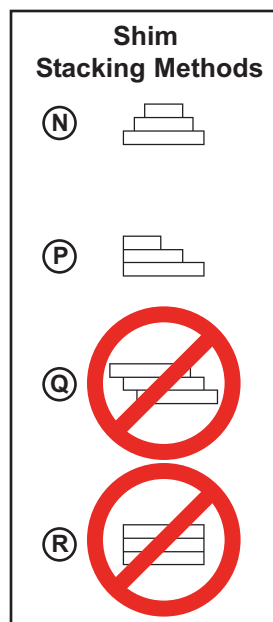
Start at each end with a 6 in. (152 mm) long weld. Space all the other welds out evenly leaving approximately 6 in. (152 mm) space between each weld.



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.

21. All model levelers: Install shims at locations (B, p.10) using the pyramid or stepped shimming method. Make sure the platform is level from side-to-side as well as from front-to-back and flush with dock floor.
22. Weld front of dock leveler frame (C) to shims located under the keepers, then weld the shims to the front pit curb steel.
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.
24. When all welding has been completed, paint all the welds and shims.



*For left/right orientation of dock leveler, see inside back cover of this manual.

INSTALLATION

Install Control Panel and Wiring

WARNING

The electrical power must be OFF prior to electrical installation. For maximum protection, use an OSHA approved locking device to lock out all power sources. Only the person installing the equipment should have the key to unlock the power source.

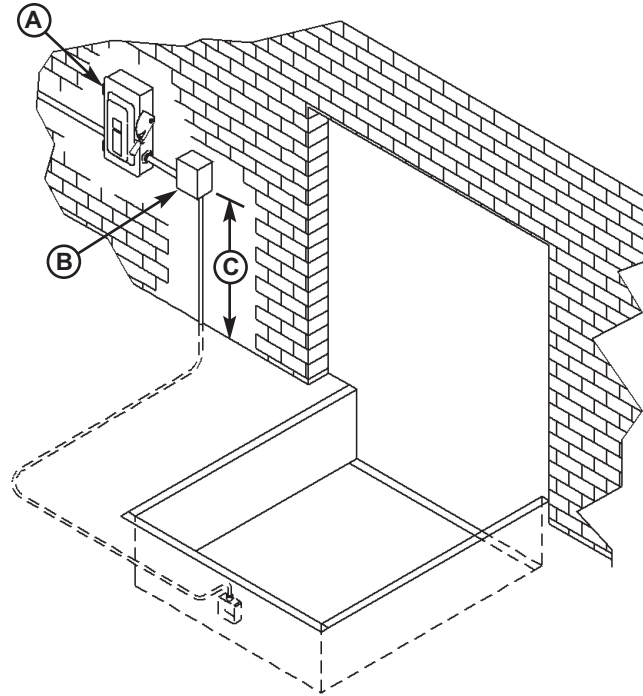
Failure to follow these instructions may result in serious personal injury or death.

WARNING

DO NOT make any final electrical connections until all welding has been completed. Failure to do this may result in serious personal injury or death.

CAUTION

All electrical work—including the installation of the disconnect panel, control panel, and final connections to the pit junction box—must be performed by a certified electrician and conform to all local and applicable national codes.



A—Disconnect Panel (provided by others)
B—Control Panel C—Distance, 48 in. (14 630 mm)

1. Mount the push button control panel (B) so bottom of control panel-to-dock floor distance (C) is 48 in. (1219.2 mm).
2. Install electrical disconnect panel (A) if not already installed.
3. Install and connect the control wiring.
4. Re-install the air bag, air bag support pallet and blower motor.
5. Connect the dock leveler power cable to the outlet in the pit junction box. Refer to the electrical drawings supplied with the dock leveler.
6. After all electrical connections in the pit have been made, raise the leveler, disengage the maintenance prop and allow the platform to lower.

Put New Dock Leveler Into Service

1. Disconnect the external lifting device and chains from the lifting brackets.
2. Check that the leveler is flush with the dock floor and that the platform lip contacts both lip keepers evenly.

If an excessive transition exists between the dock floor and leveler and/or lip does not contact both lip keepers evenly, contact NOVA Technical Services for further instructions.

3. Install the dock bumpers as required.
4. Turn the main electrical power ON.

WARNING

Always stand clear of platform lip when working in front of the dock leveler. Serious personal injury or death may result.

5. Raise the leveler platform fully by pushing and holding the RAISE button .

NOTE: The platform of a properly operating dock leveler will automatically stop rising when it reaches approximately 2 – 3 inches from its full raised height, at which point, the lip extends. When the lip is fully extended, it has reached the full raised position. (If the lip does not extend or extend fully, see Platform Rises to Full Height, But Lip Does Not Fully Extend in the Troubleshooting section.)

6. Release the RAISE button to lower the platform. As long as there is no truck present at the dock, the platform will lower to the full below-dock position as the lip folds.

NOTE: If a truck is present, the platform will lower until the lip rests on the truck/trailer bed. (See Operating Instructions in Operation section.)

7. When the platform lowers to the full below-dock position, the lip will fold. Push and hold the RAISE button until the platform rises just enough to clear the lip keepers, then release the RAISE button to allow the platform to lower to the cross-traffic (stored) position (lip engages lip keepers).

8. Perform steps 5 – 7 at least four times make sure the leveler functions properly and there is no binding.



CAUTION

Unless the dock leveler is equipped with a tethered remote, two people are required to engage the maintenance prop: one person to operate the unit, the other person to engage the maintenance prop.

9. Raise the platform fully. Hold the platform at this position using the RAISE button and move the maintenance prop to the service (upright) position. Release the RAISE button to allow the platform to lower until it is resting on the maintenance prop.

10. With the maintenance prop supporting the platform, remove the lifting brackets.

11. If equipped with vertical weather seals, position the seals so that the seals are directly under and aligned with the overhead door.

12. Support the toe guards, remove the bolt used in shipping and carefully release the toe guards.

13. Push and hold the RAISE button until the maintenance prop drops to its stored position. Release the RAISE button and allow the platform to lower fully. Check operation of toe-guards.

14. When the platform lowers to the full below-dock position, the lip will fold. Push and hold the RAISE button until the platform rises just enough to clear the lip keepers, then release the RAISE button to allow the platform to lower to the cross-traffic (stored) position (lip engages lip keepers.)

OPERATION

Operating Instructions

DANGER

Stay clear of dock leveler when freight carrier is entering or leaving dock area.

DO NOT move or use 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

Only trained personnel should operate the dock leveler.

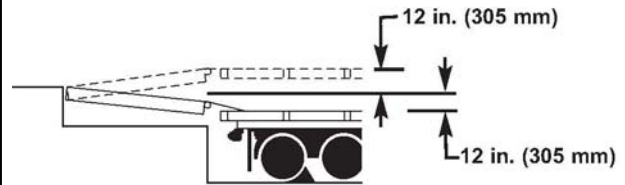
DO NOT use a broken or damaged dock leveler. Make sure proper service and maintenance procedures have been performed on leveler before using.

Truck/trailer wheels must be chocked unless the truck restraint is used. Never remove the wheel chocks until loading/unloading is finished and truck driver has been given permission to leave.

Make sure platform lip rests on the truck/trailer bed with at least 4 in. (102 mm) of overlap.

Maintain a safe distance from side edges of leveler during the loading/unloading process. Failure to follow these instructions may result in serious personal injury or death.

WARNING



The NAS pneumatic dock leveler is designed to compensate for a maximum ± 12 in.* (305 mm) of height difference between the loading dock and the truck bed. DO NOT use the dock leveler if the truck/trailer 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.

The dock leveler operating 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.

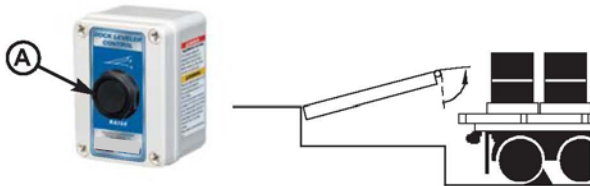
OPERATION

Operating Instructions — Continued

Ramp Loading/Unloading Instructions

NOTE: If end unloading is required, see End Loading/Unloading Instructions on page 20. For ramp loading or unloading, the NAS dock leveler can be operated by using the RAISE button on the control panel.

1. Check to make sure truck/trailer 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 truck/trailer wheels or use the truck restraint if available.



A-RAISE Button

4. Extend the platform lip onto truck/trailer as follows:
 - a. Raise the platform by pushing and holding RAISE button .
 - b. Hold the RAISE button until the lip is fully extended, then release the RAISE button. The platform will lower until the lip is resting on the truck/trailer bed.
 - c. Make sure that the lip is fully extended and supported on the truck/trailer along the entire width of the platform with at least 4 in. (102 mm) of lip contacting the truck bed.



5. Proceed with loading or unloading the truck/trailer.
6. If below dock loading is necessary, see steps 7-11. If not, proceed to step 12.

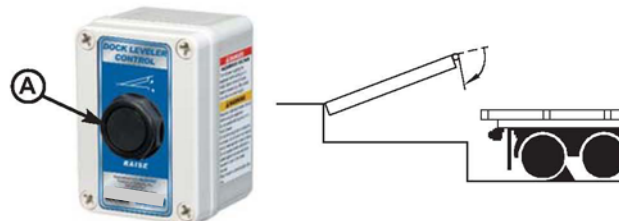
Below Dock Loading/Unloading Instructions

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

7. Check to make sure truck/trailer is positioned squarely against dock bumpers.
8. Instruct driver to remain at the dock until the loading or unloading process has been completed.
9. Chock the truck/trailer wheels or use truck restraint if present.
10. Raise the platform by pushing the raise button (A) to fully raise the leveler and extend the lip.
11. Walk out on the leveler, Pull and Hold the release ring (see picture below) until the platform lowers onto the trailer. Make sure there is a minimum of 4" of lip overlapping the trailer.



Loading/Unloading Completed - Reset Leveler



A—RAISE Button

12. When loading or unloading is finished, raise the platform by pushing and holding RAISE button (A) .
13. Hold the RAISE button until the lip folds enough to clear the truck/trailer bed, then release the RAISE button. The lip will fold and the platform will return to the cross-traffic position.
14. Remove chocks from truck/trailer wheels or release the truck restraint if used.
15. Indicate to driver that truck may leave the dock.

OPERATION

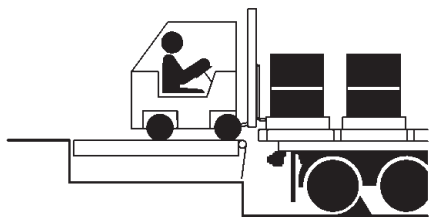
Operating Instructions—Continued

End Loading/Unloading Instructions

NOTE: If ramp loading is required, see Ramp Loading/Unloading Instructions on page 19.

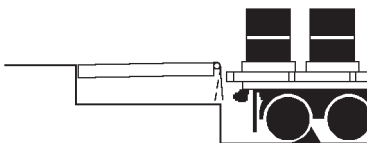
End loading or unloading can be done with the dock at the cross-traffic position or below-dock position, depending on the height of the truck/trailer bed.

1. Check to make sure truck/trailer 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 truck/trailer wheels or use the truck restraint if available.



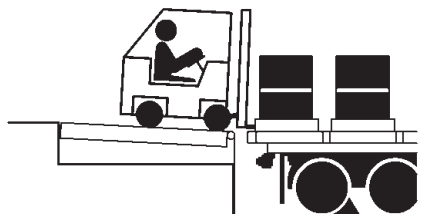
End Loading/Unloading—Platform at Cross-Traffic Position.

4. If truck/trailer bed is at or above dock floor level, leave leveler at the cross-traffic position and proceed with loading or unloading.

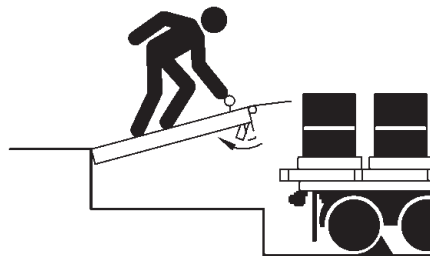


End Loading/Unloading—Platform Too High Use Below-Dock Position.

5. If truck/trailer bed is below the dock floor level, perform steps 6–12.



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

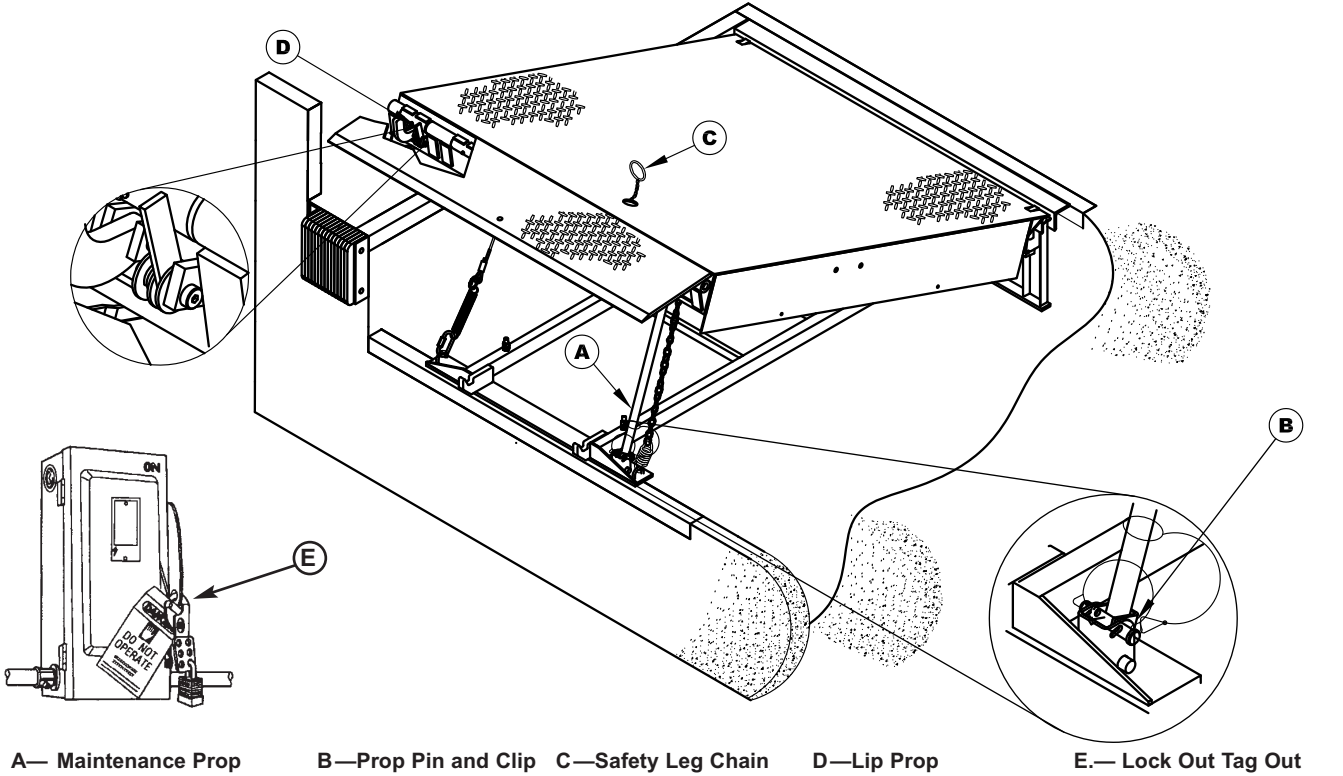


6. Push the Raise button to the platform high enough to clear the lip keepers, but not high enough to extend the lip.
7. Walk out on the leveler, pull and hold the safety leg retract pull ring (B) (located in the recess at the front of the platform). This will cause the lip to extend away from the lip keepers and the cross traffic safety legs to fold to allow the leveler to lower to the below dock position.
8. When the platform lip clears the lip keepers, continue to hold the pull chain as the leveler lowers to the below-dock service position. The platform will drift down to the full below-dock position.
9. Proceed with loading or unloading.

NOTE: When end unloading is finished and access to the rest of the truck/trailer is still required, the platform lip will need to be extended. See Ramp Loading/Unloading Instructions on page 19 for further instructions.

10. When the loading or unloading is finished, return the dock leveler platform to the cross-traffic (stored) position.
11. Push the Raise button (A) until the lip clears the lip keepers. Release Raise button, leveler will return to the stored or cross traffic position.
12. Remove chocks from truck/trailer wheels or release the truck restraint if used.
13. Indicate to the driver that the truck may leave the dock.

Service Dock Leveler Safely



A— Maintenance Prop B—Prop Pin and Clip C—Safety Leg Chain D—Lip Prop E.— Lock Out Tag Out

WARNING

When service under the dock leveler is required, always lock all electrical disconnects in the OFF position after raising the platform and engaging the maintenance prop. Failure to do this may result in serious personal injury or death.

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.

The 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.

Unless the dock leveler is equipped with a tethered remote, two people are required to engage the maintenance prop: one person to operate the unit, the other person to engage the maintenance prop.

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

Whenever performing maintenance under the dock leveler platform, support the platform with the maintenance prop (A). Position the maintenance prop behind front header plate while staying clear of the lip. The lip will fold down after the platform has rested on the maintenance prop. The Lip Prop may be used to keep the lip extended (D). Additional supports should be used to prevent the lip from collapsing if working under the leveler. Lock the maintenance prop in the service (B) position using an OSHA approved lockout/tagout device* (E).

Whenever servicing the dock leveler, lock the electrical power disconnect in the OFF position. Use only an OSHA approved lockout/tagout device* (E).

Only the person servicing the equipment should have the capability to remove the lockout/tagout devices. The Tag out devices* must inform that repairs are in process and clearly state who is responsible for the lockout condition. * Refer to OSHA regulation 1910.147.

MAINTENANCE

Periodic Maintenance

WARNING

Always stand clear of the dock leveler lip when working in front of the dock leveler.

The 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.

Unless the dock leveler is equipped with a tethered remote, two people are required to engage the maintenance prop: one person to operate the unit, the other person to engage the maintenance prop.

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



Under platform service

WARNING

Before performing any maintenance under the dock leveler, lock the electrical power source in OFF position and lock the maintenance prop in the service position using an approved locking device. (See Service Dock Leveler Safely in this section.)

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



Air Filter, service under rear of platform

Regular maintenance must be performed on a weekly and quarterly schedule.

Weekly Maintenance

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

NOTE: To thoroughly inspect the platform hinge area, put 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 cause abnormal operation.
- Inspect the area under the platform, around and under the air bag. Build-up of foreign material in this area may damage air bag components, causing abnormal operation.

IMPORTANT

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

Quarterly Maintenance

- Perform Weekly Service Items
- Lubricate the following areas with light weight machine oil:
 - (A)—Lip hinge area unless equipped with grease fittings (apply oil to the top of the entire length of lip hinge when platform is at the full below-dock position and lip is folded)
 - (B)—Platform hinge area (apply oil to top of all platform hinges when platform is at the full below-dock position)

NOTE: Apply grease to lip hinge grease fittings if equipped.

- Lubricate the following areas with light-weight machine oil:
 - (C)—Lip maintenance prop pivot
 - (D)—Lip link pivots
 - (E)—Safety leg linkage pivots
- Lubricate the following areas with white lithium grease (if equipped with grease fittings):
 - (A)—Lip hinge area (inject grease into all the lip hinge grease fittings)
 - (B)—Platform hinge area (inject grease into all the platform hinge grease fittings)
 - (F)—Lip assist pin

ADJUSTMENTS

Adjusting the Latch and Lip Actuator Spring Tension

WARNING

When service under the dock leveler is required, always lock all electrical disconnects in the OFF position after raising the platform and engaging the maintenance prop. Failure to do this may result in serious personal injury or death.

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.

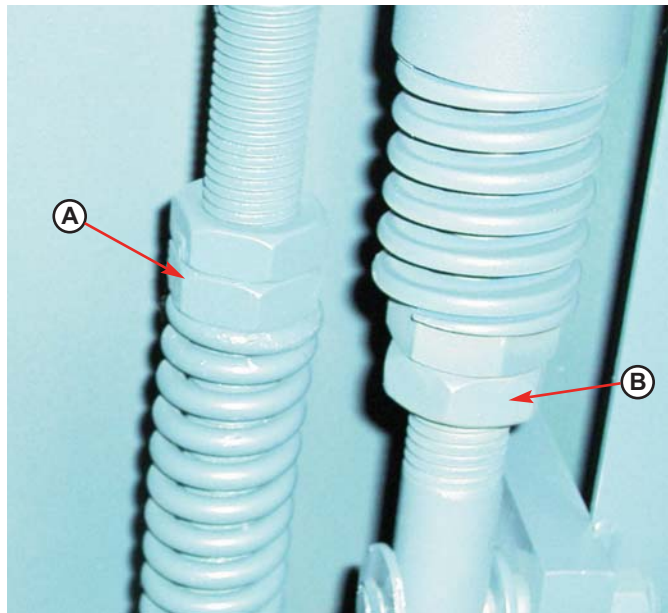
WARNING

Always stand clear of the dock leveler lip when working in front of the dock leveler.

The maintenance prop and lip 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.

Unless the dock leveler is equipped with a tethered remote, two people are required to engage the maintenance prop: one person to operate the unit, the other person to engage the maintenance prop.

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



A—Lip Latch Spring Adjustment

B—Lip Assist Spring Adjustment

Adjusting Lip Latch Spring Tension

This adjustment is set at the factory and should not require additional adjustment.

Unlike mechanical levelers, the lip will not immediately begin to fold as the platform returns to the stored position.

After the platform is fully raised, and the lip extends, the lip latch is designed to hold the lip in the extended position until the platform drifts down to the below dock position.

If the lip does not remain extended as the platform lowers, additional spring tension may be required.

NOTE: Use half-turn increments when adjusting lip assist spring. Check lip operation after each adjustment. Repeat until proper operation is obtained.

Adjust spring tension as follows:

- a. Loosen jam nut (A).
- b.
- b. To increase spring tension, turn nut (B) counter clockwise.
- c. To decrease spring tension, turn nut (B) clockwise.
- d. Tighten jam nut.

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

Adjusting Lip Assist Spring Tension

This adjustment is set at the factory and should not require additional adjustment.

Unlike mechanical levelers, the lip will not immediately begin to fold as the platform returns to the stored position.

The NAS leveler lip remains extended as the platform drifts down to the below dock position. The lip will automatically fold when the platform when the dock is resting on the safety legs in the below dock position. If the lip does not fully extend additional spring tension may be needed.

NOTE: Use two-turn increments when adjusting lip assist spring. Check lip operation after each adjustment. Repeat until proper operation is obtained.

Adjust spring tension 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.

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

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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.

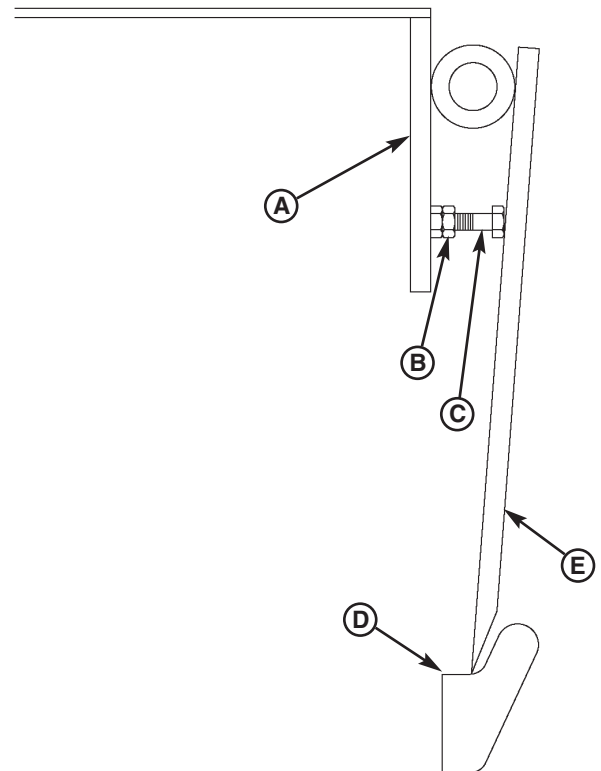
WARNING

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 Frame
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. Engage lip and maintenance prop.
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 frame (A).
 - Turn stop bolt “out” (counterclockwise) to hold lip further away from platform frame (A).
4. Tighten jam nut.(B)
5. Fully raise platform and disengage lip and maintenance prop.
6. Allow platform to lower to cross-traffic (stored) position.
7. Check lip position in both keepers. Repeat procedure if necessary.

TROUBLESHOOTING

Troubleshooting



WARNING

When service under the dock leveler is required, always lock all electrical disconnects in the OFF position after raising the platform and engaging the maintenance prop. Failure to do this may result in serious personal injury or death.



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.

The 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.

Unless the dock leveler is equipped with a tethered remote, two people are required to engage the maintenance prop: one person to operate the unit, the other person to engage the maintenance prop.

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

Before performing the detailed troubleshooting procedures, check the following items first:

- Check all fuses inside the control panel(s). Replace any blown fuse(s) with a fuse of equal specification.
- Make sure the correct voltages are present at the proper locations inside the control panel(s).

Symptom	Possible Cause	Solution
Platform does not rise. Motor does not energize.	Motor fuse blown.	Reset circuit panel or disconnect fuse. Determine cause of overload.
	Motor failure	Check voltage to motor. <ul style="list-style-type: none"> • If voltage is present and motor does not energize, replace motor. • If voltage is not present, check all components in series with the motor.
Platform does not rise. Motor hums, but does not run.	Incorrect voltage is present on line.	Check line for proper voltage <ul style="list-style-type: none"> • If proper voltage is not present, check all components in series with the motor. • If proper voltage is present and motor does not run, check for obstructions. • If no obstructions are found, replace motor.
Platform does not rise. Motor energizes, but does not run.	Line voltage too low.	<ul style="list-style-type: none"> • Check wiring to motor for high resistance. • Check for loose or corroded connections. • Check if gauge of wires to motor are of correct size and specification for load requirement. Replace if necessary.

TROUBLESHOOTING

Symptom	Possible Cause	Solution
Platform rises slowly	Air bladder or connecting ducts punctured	Check air bladder and ducting repair or replace as needed
	Damaged or restricted ducting	Replace damaged ducting or remove restriction
	Air intake clogged	Remove intake filter, clean or replace as needed
	Dock leveler binding	Check for visible obstructions that could cause binding. Remove obstructions. If no obstructions found, call NOVA Technical Services. See inside back cover for phone number and address.
Platform does not rise to full height.	See Platform Rises Slowly	See Platform Rises Slowly See Periodic Maintenance in the Maintenance section.
Platform DOES rise to full height, but lip DOES NOT extend or extend fully.	Lip assist spring needs additional tension.	Inspect lip actuator spring, replace as needed.
Lip does not extend.	Check the snubber spring assembly	The chain is too long and needs to be shortened OPEN HEIGHT 42.5" for 6 foot and 47.5" for 8 foot long. The assembly is broken or missing.
Lip extends almost immediately when the RAISE button is pushed. Platform rises after lip is fully extended.	Lip actuator chain caught on debris or framework.	Inspect lip actuator chain, clean area, insure chain is free from interference.
Lip extends but does not remain extended as leveler drops.	Lip latch spring needs additional tension.	See Adjustment Section: Lip Latch Spring. <ul style="list-style-type: none"> • Increase tension as needed to keep latch engaged. • Clean any debris from lip latch area. • Lubricate as instructed in maintenance section.

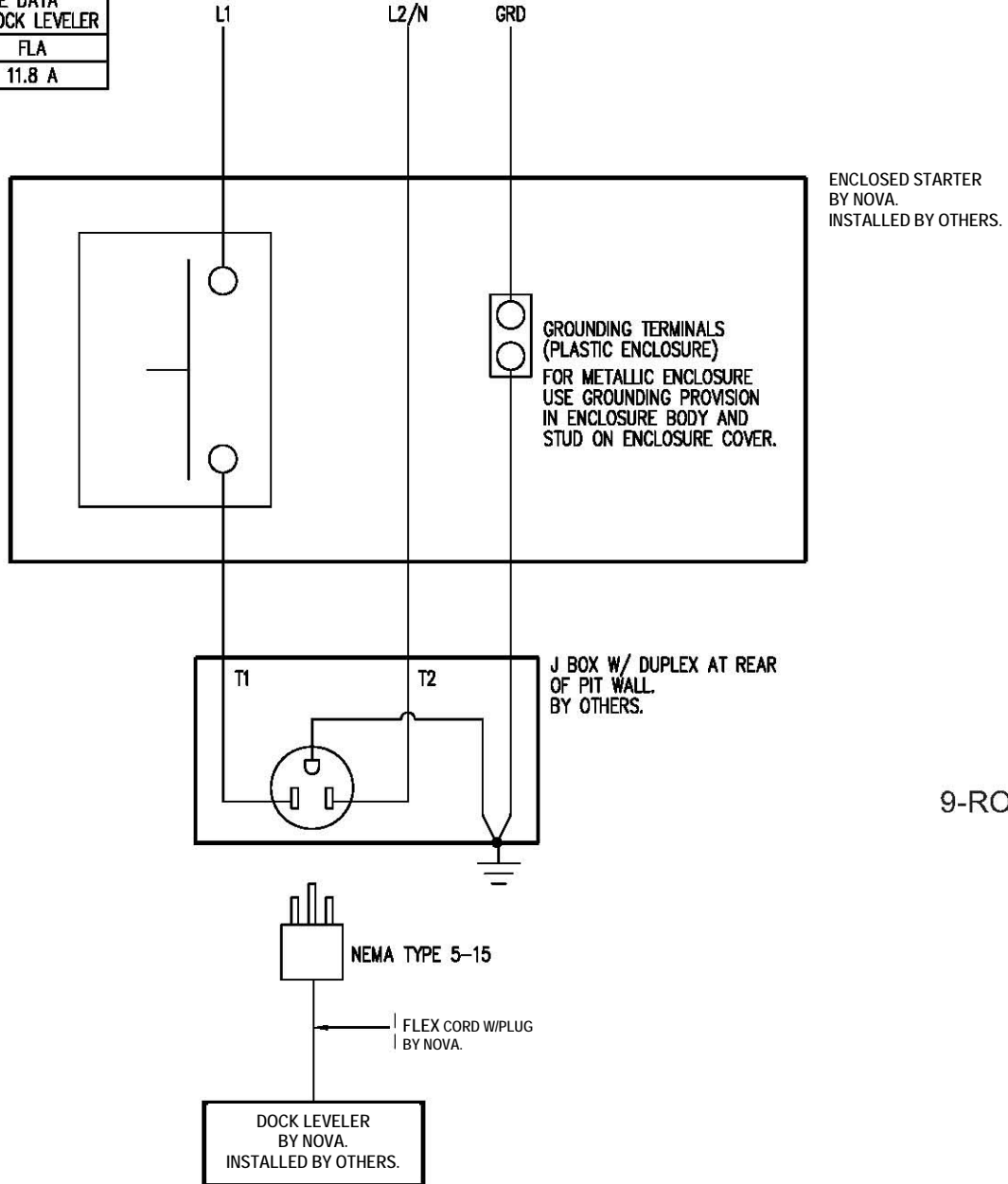
ELECTRICAL

TABLE 1			
RECOMMENDED FIELD WIRE SIZE			
CIRCUIT LENGTH			
50 FT	75 FT	125 FT	175 FT
10 AWG	8 AWG	6 AWG	4 AWG

TABLE 2
TOTAL 1 PHASE FLA = 11.8 A

TABLE 3	
MOTOR NAMEPLATE DATA MOTOR LOCATED AT DOCK LEVELER	
VOLTAGE	FLA
115 V	11.8 A

CUSTOMER SUPPLIED
115 V, 1 PHASE, 60 HZ
FROM BRANCH CIRCUIT DISCONNECT SWITCH
& OVERCURRENT DEVICE BY OTHERS.
SELECT DISCONNECT SWITCH &
OVERCURRENT DEVICE PER THE NEC.
LOCATE A DISCONNECT SWITCH
NEXT TO THE ENCLOSED STARTER.
DUAL ELEMENT TIME DELAY FUSES
MUST BE USED FOR BRANCH
CIRCUIT PROTECTION.
SEE TABLES 1, 2 AND 3



9-RO-800-A-A

Controls



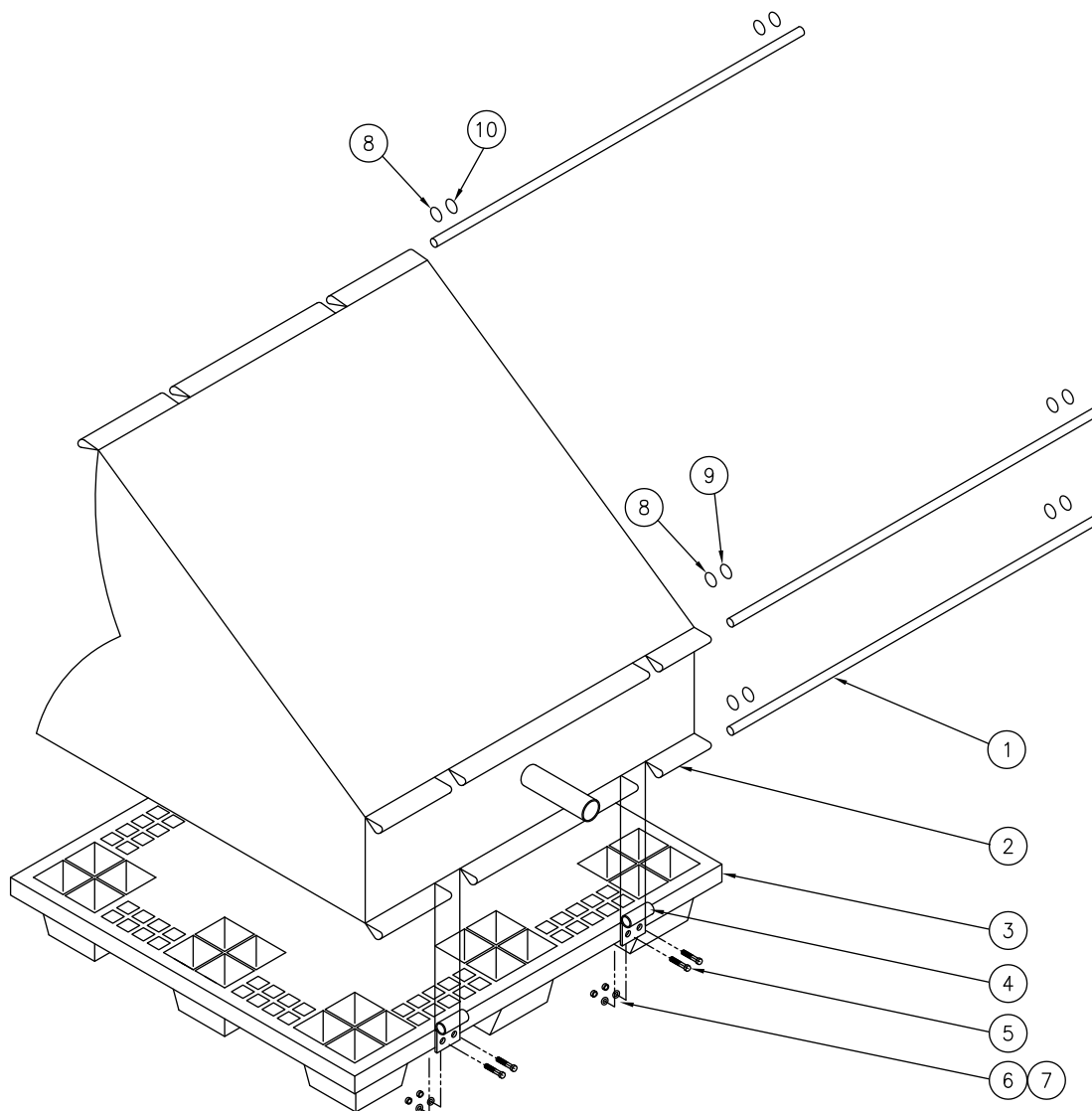
11.8FLA Amp Draw

Item	Quantity	Part Number	Description
A	1	7141-0207	Push Button Controller,
B	1	1751-0725	Decal

* Provide dock leveler serial number, voltage, phase, and options when calling or faxing controller orders.

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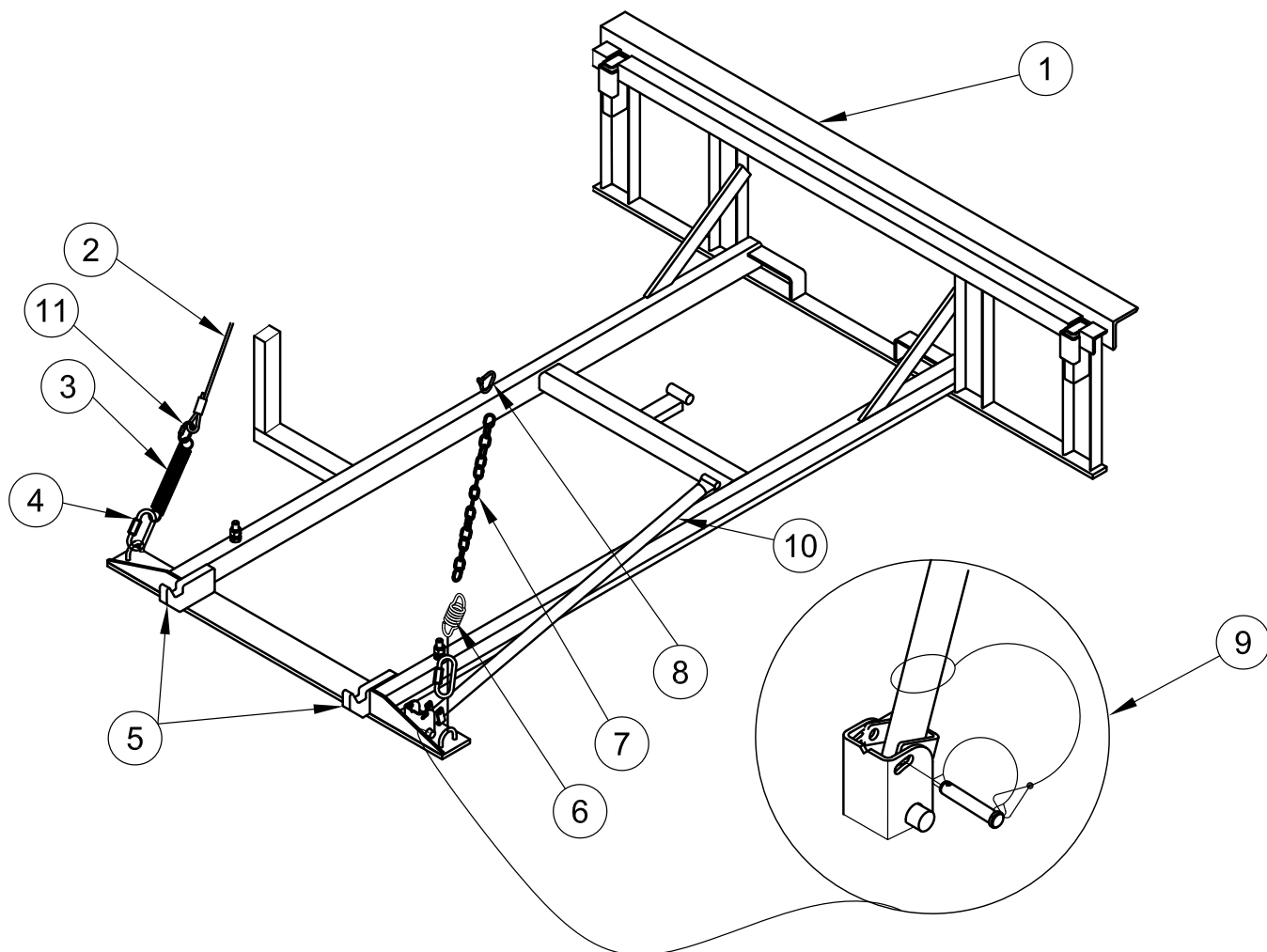
Airbag and Support Pallet



Item	Quantity	Part Number	Description
1	3	5812-0045	Hold Down Rod, 45" long x 7/16" diameter
2	1	5811-0009	Air Bag Bladder
3	1	5811-0012	Skid, Air Bag Leveler
4	2	5813-0001	Skid BRKT, Air Bag Leveler, BM
5	4	2101-0098	Screw, HHCS, 5/16-18UNC x 1-1/2 long
6	4	2101-0214	Nut, Flange, Top L/N, 5/16 - 18UNC
7	4	2101-0058	Washer, Lock 5/16
8	6	2101-0224	Rod Clamps
9	4	2101-0079	Washer Flat 1/2 inch
10	2	2101-0230	Ring, Split 1.75 O.D
3-10	1	5814-0029	Skid, Air Bag Leveler Assembly, Includes Items 3-10

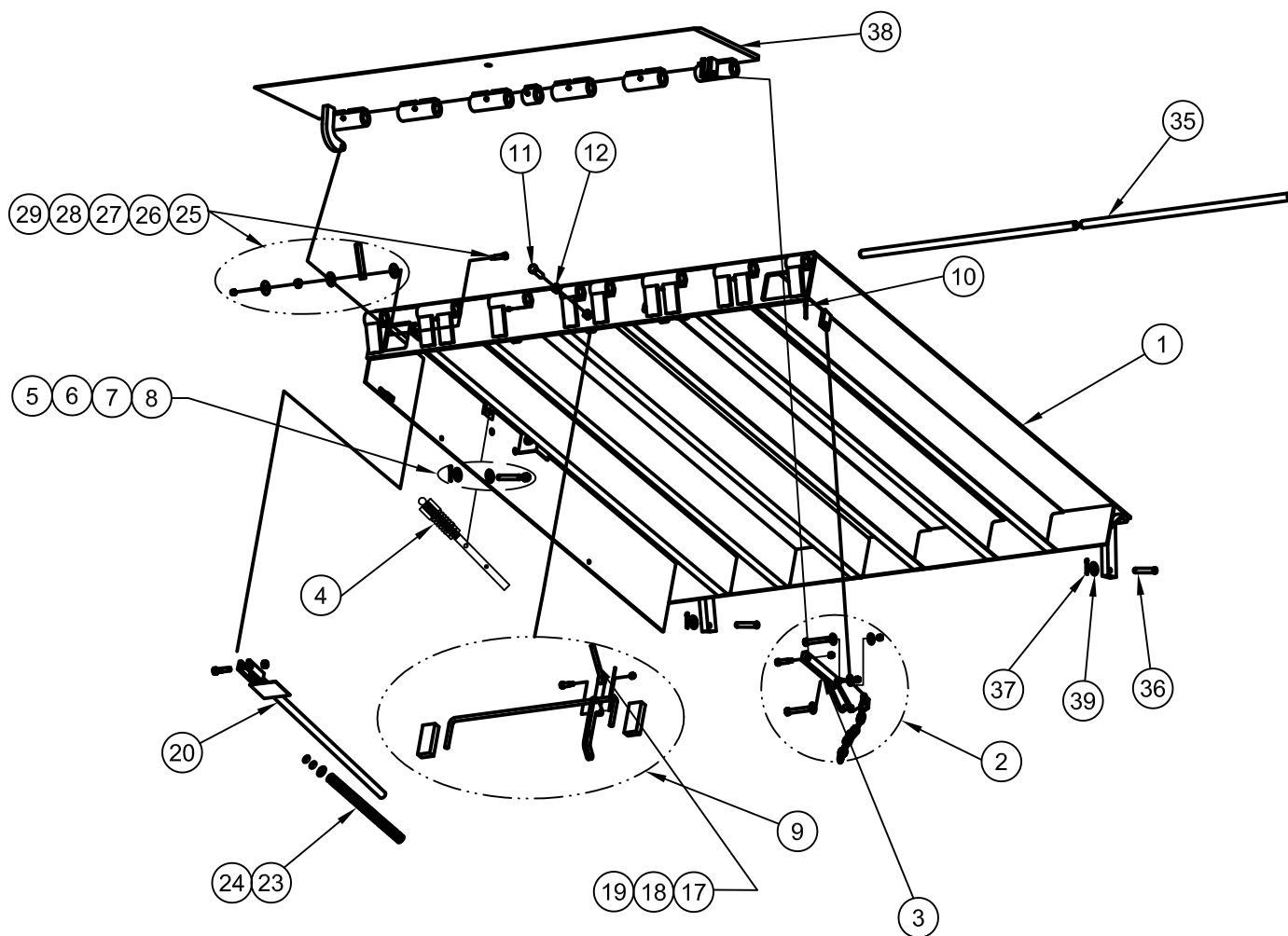
PARTS

Frame and Platform



Item	Quantity	Part Number	Description
1	1	8435-____ ¹	Frame, Welded Assembly
2	1	7952-0001	Cable A.C. Assembly 14.00 Final length
3	1	0941-0013	Spring Lip Latch Ext.
4	2	2101-0217	Link, Quick 1/4"
5	2	8432-1129	Keeper Lip 16 inch
	2	8432-1130	Keeper Lip 18 inch
	2	2101-0047	Cotter Pin, 1/4 x 2 in.
6	1	DOTH-2555	Spring, Snubber
7	1	DOTH-6839	Linkage,Lip Assist W/SNUBBER
8	1	DOTH-2421	Cold Shut
9	1	9201-0006	Prop Pin and Clip.
10	1	9224-0030	Maint. Prop 6 foot
	1	9224-0031	Maint. Prop 8 foot
	1	9244-0079	Maint. Prop 10 foot.
11	1	2101-0216	Link, Quick 1/8"

¹ CONSULT FACTORY



PLATFORMS ¹													
ITEM	QTY		6 FOOT				8 FOOT				10 FOOT		
1			6.0 FOOT	6.5 FOOT	7.0 FOOT		6.0 FOOT	6.5 FOOT	7.0 FOOT		6.0 FOOT	6.5 FOOT	7.0 FOOT
	1	<u>25K</u>	9515-	9515-	9515-	<u>25K</u>	9515-	9515-	9515-	<u>25K</u>	9515-	9515-	9515-
	1	<u>30K</u>	9515-	9515-	9515-	<u>30K</u>	9515-	9515-	9515-	<u>30K</u>	9515-	9515-	9515-
	1	<u>35K</u>	9515-	9515-	9515-	<u>35K</u>	9515-	9515-	9515-	<u>35K</u>	9515-	9515-	9515-
	1	<u>40K</u>	9515-	9515-	9515-	<u>40K</u>	9515-	9515-	9515-	<u>40K</u>	9515-	9515-	9515-
	1	<u>45K</u>	9515-	9515-	9515-	<u>45K</u>	9515-	9515-	9515-	<u>45K</u>	9515-	9515-	9515-
	1	<u>55K</u>	9515-	9515-	9515-	<u>55K</u>	9515-	9515-	9515-	<u>55K</u>	9515-	9515-	9515-

¹consult factory

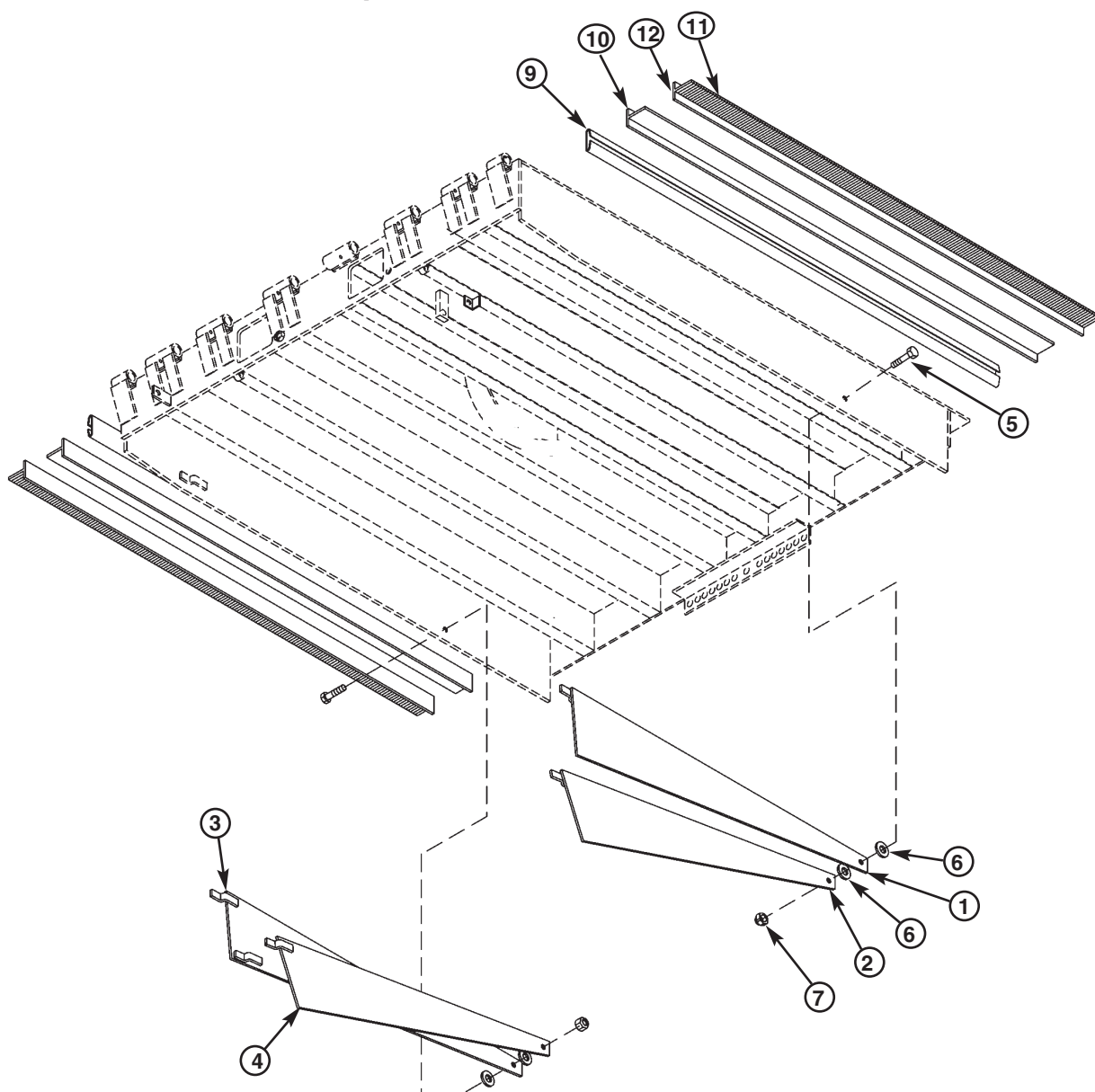
PARTS

2	1	DPLA-0338	LIP BANGER ASSY.
3	2	DPLA-0340	BAR
4	1	5775-0004	LIP LATCH ASSEMBLY
5	1	DOTH-2374	COTTER PIN
6	2	DOTH-2210	WASHER
7	1	DOTH-2351	BOLT/PIN
8	1	DOTH-2163	NUT, LOCK
9	1	DPLA-0360	BELOW DOCK CONTROL ASSY.
10	2	DOTH-2382	PIN, COTTER
11	1	DOTH-2074	BOLT, HEX 5/8-11 X 2.00
12	1	DOTH-2160	NUT, HEX 5/8-11
17	1	DPLA-0360	BDC PUSH ROD ASSY
18	1	DOTH-2060	BOLT SHOULDER
19	1	DOTH-2131	LOCK NUT 3/8-16
20	1	DLIP-0305	LIP ASSIST ROD ASSY. MA
23	1	DOTH-2550	SPRING ,LIP ASSIST STD 25K- 55K 6' 6.5' WD 16"
24	1	DOTH-2546	SPRING ,LIP ASSIST HEAVY 7'WD 18"-20" 25K-- 7'WD 18"-20:" 30K -55K
25	1	DOTP-2006	LIP PROP BAR
26	1	DOTH-2062	SHOULDER BOLT
27	1	OTH-2131	LOCK NUT
28	2	OTH-2214	WASHER
29	1	DOTH-2547	SPRING COMPRESSION
35		LIP SHAFTS	
	2	6.0 FOOT	DPLA-2101
	2	6.5 FOOT	DPLA-2102
	2	7.0 FOOT	DPLA-2103
36	2	DOTH-2355	PIN , CLEVIS
37	2	DOTH-2373	PIN, COTTER
39	2	2101-0079	WASHER, FLAT

38	LIPS						
	6.0 FOOT	25K	30K	35K	40/45K	55K	
1	16	0595-	0595-	0595-	0595-	0595-	
1	18	0595-	0595-	0595-	0595-	0595-	
1	20	0595-	0595-	0595-	0595-	0595-	
	6.5 FOOT						
1	16	0595-	0595-	0595-	0595-	0595-	
1	18	0595-	0595-	0595-	0595-	0595-	
1	20	0595-	0595-	0595-	0595-	0595-	
	7.0 FOOT						
1	16	0595-	0595-	0595-	0595-	0595-	
1	18	0595-	0595-	0595-	0595-	0595-	
1	20	0595-	0595-	0595-	0595-	0595-	

consult factory

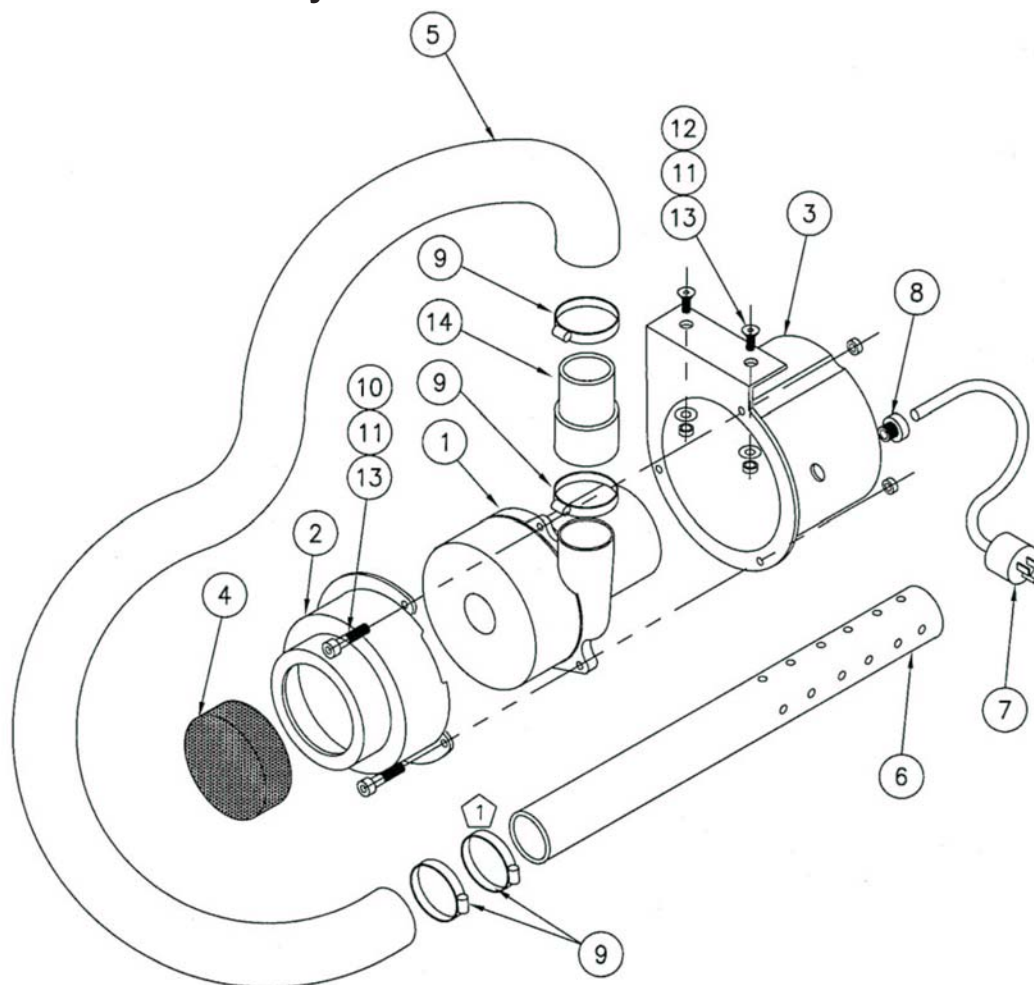
Toe Guard/Weather Seal—Optional



6 FOOT				8 FOOT				10 FOOT			
1	1	0014-0062	TOE GUARD LH MIDDLE	0014-0070	TOE GUARD LH MIDDLE	0014-0078	TOE GUARD LH MIDDLE				
2	1	0014-0066	TOE GUARD LH LOWER	0014-0074	TOE GUARD LH LOWER	0014-0082	TOE GUARD LH LOWER				
3	1	0014-0064	TOE GUARD RH MIDDLE	0014-0072	TOE GUARD RH MIDDLE	0014-0080	TOE GUARD RH MIDDLE				
4	1	0014-0068	TOE GUARD RH LOWER	0014-0076	TOE GUARD RH LOWER	0014-0084	TOE GUARD RH LOWER				
5	2	OTH-2043	SCREW CAP		SAME		SAME				
6	4	OTH-2207	WASHER		SAME		SAME				
7	2	OTH-2131	LOCK NUT		SAME		SAME				
*	1	DKIT-9179	FRTG COMPLETE R&L	DKIT-9180	FRTG COMPLETE R&L	DKIT-9181	FRTG COMPLETE R&L				
9	2	DOTH-2841	CHANNEL WEATHER SEAL	DOTH-2840	CHANNEL WEATHER SEAL	DOTH-2843	CHANNEL WEATHER SEAL				
10	2	DOTH-2824	T-RUBBER WEATHER SEAL	DOTH-2824	T-RUBBER WEATHER SEAL	CONSULT	FACTORY				
11	2	DOTH-2822	BRUSH WEATHER SEAL	DOTH-2822	BRUSH WEATHER SEAL	CONSULT	FACTORY				
12	2	DOTH-2821	EXTRUSION ALUM.	DOTH-2820	EXTRUSION ALUM.	CONSULT	FACTORY				

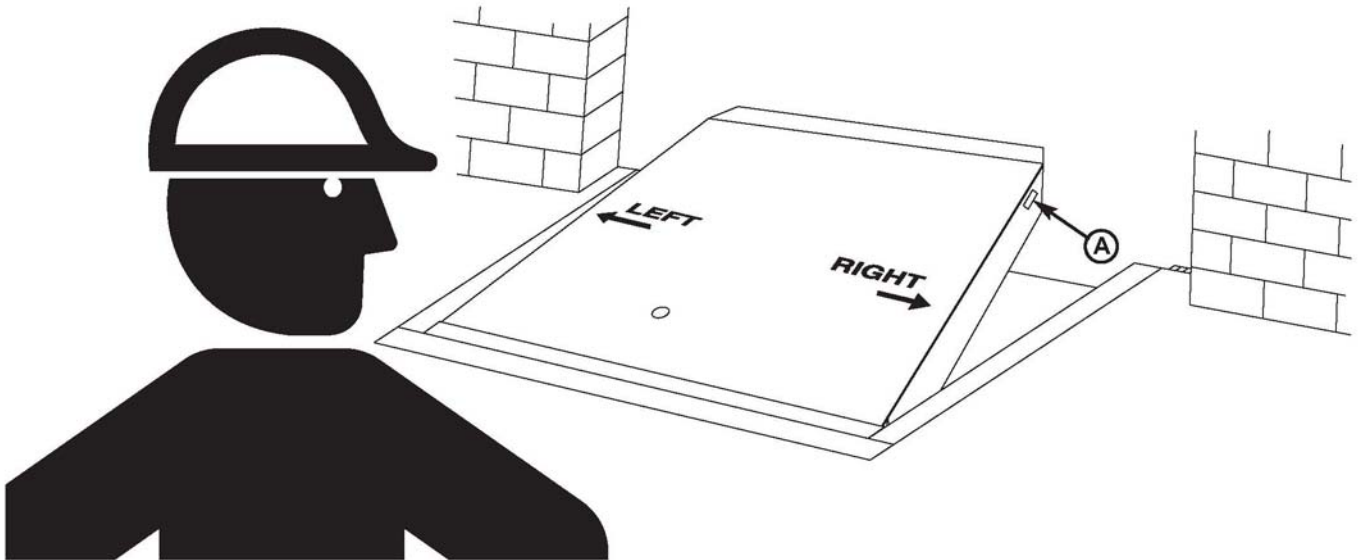
PARTS

Motor and Blower Assembly



Item	Quantity	Part Number	Description
		9395-0359	PPAC,Blower Assy, Includes 1-4,7,8,10-14
1	1		Fan / Motor, 115VAC, AP Series Levelers
2	1		Shroud, Fan End
3	1		Shroud, Motor End
4	1	9391-0021	Filter Element
5	1	9391-0022	Tube, 2" (50.8mm) OD, 36" (914.4mm) Length
6	1	9392-0047	Pipe, PVC, 1-1/2" SCH40 X 24" (38.1 X 609.6mm)
7	1		Cord Set, 115V, 3 Conductor, 6' (1828.8mm) long
8	1		Cord Grip
9	4	9391-0023	Clamp, Tube
10	3		Screw, Cap, Socket Head, 1/4-2 X 1-1/2
11	5	2101-0143	Nut, Hex, Nylon Locking, 1/4-2
12	2	2101-0007	Screw, Cap, Hex, 1/4-2 X 1 LG
13	8	2101-0005	Washer, Flat 1/4"
14	1		Adaptor, Hose, 1-1/2 to 1-1/4

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 NAS 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 NOVA'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:
 NOVA Technology
 N90W14507 Commerce Drive
 Menomonee Falls, WI 53051
 Phone: (800) 236-7325 | (262) 502-1592
 Fax: (262) 502-1511
 website: www.novalocks.com

<u>Dock Leveler Information</u>	
Model	_____
Serial No.	_____
NOVA Job No.	_____
<u>Original Owner Information</u>	
Name	_____
Address	_____ _____
<u>Installer Information</u>	
Name	_____
Address	_____ _____
Date of Installation	_____

NOTES

NOTES

NOVA WARRANTY

NAS SERIES LEVELER

NOVA Technology guarantees the materials, components, and workmanship in your NAS Series dock leveler to be of the highest quality and to be free of defects in material and workmanship for a full One (1) Year Base Warranty on all components. The Base Warranty includes replacement parts, labor, and freight.

The electrical components carry a one (1) year warranty.

The lifting components which include: seals, hoses, motor and air bladder carry an additional four (4) year total warranty.

Structural components carry an additional period of Four (4) Years on parts only (after two years customer is responsible for 20%, three years 30%, etc.).

Specifically, the structural warranty includes the frame, deck section, lip section, rear hinge, and front hinge.

NOVA Technology warrants all components to be free of defects in material and workmanship, under normal use, during the warranty period. This base warranty period begins upon the completion of the installation or the Sixtieth (60th) day after shipment, whichever is earlier.

In the event of any defect covered by this guarantee, NOVA Technology will remedy said defect by repairing or replacing all defective parts, bearing all of the costs for parts, labor, and transportation.

All guarantee claims will be settled on a timely basis when defects are found to be from other than improper installation, operating contrary to instructions or beyond rated load capacities, abuse, careless or negligent use, or failure to maintain the unit as recommended by the owner's/ user's manual.

There are no guarantees, either expressed or implied, including any implied guarantees of merchantability or fitness for a particular purpose which shall extend beyond the guarantee periods indicated above. This guarantee is valid only if the unit(s) is unaltered from original condition as delivered from the factory and a survey is completed by a NOVA representative.