



## **Hydraulic Dock Leveler Dual Duty Series**

**Model "ND"**

**20,000 to 50,000 lbs. Capacity**

### **Operation and Maintenance Manual**

This Manual applies to all models produced after 2018/09/20  
with Serial number(s) SN44064 and greater.

**P/N: 49-0171-F**

***NORDOCK INC.***

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Nordock Inc. reserves the right to make changes to specifications without notice or obligation. Nordock products may be covered by various U.S. and foreign patents or pending applications.

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# Preface

## **PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY**

This manual gives detailed information and instruction on how to operate and maintain your equipment correctly. Failure to do so could result in personal injury, and/or equipment damage. Please consider this manual a permanent part of the unit and keep it with the dock leveler for reference whenever needed.

If you have any questions about this manual, the dock leveler, it's components, or our products and services, please call us at 1-866-885-4276 and we will be happy to assist you. With proper care and maintenance, this dock leveler is designed to work effectively and efficiently for many years to come.

### Problems, Errors and Omissions

This manual has been prepared with the utmost care and attention to detail as to ensure accurate parts and service information should the need arise. Nordock Incorporated believes this manual will provide the operators of this unit all the necessary information required to operate and maintain it for many years. If you believe there is an error, if you have a problem following the guidelines, or if there is information that you feel is missing from this manual, please contact us at the above number so we may attend to the issue immediately.

### Dock Identification

It is very important that in order to provide the best possible service from Nordock Inc., please include the model, serial number and capacity of the dock leveler whenever you contact us. Below is the same serial number decal that will be found on the left side frame rail (standing on the dock, facing the lip). Please fill in the information from the decal on the dock leveler to this area. This will greatly reduce the possibility of improper parts being shipped to you.

<b>NORDOCK®</b>	
<b>DESCRIPTION</b>	
XX XX XX000 LBS	
<b>SERIAL #:</b>	XXXX
866-885-4276 ~ WWW.NORDOCKINC.COM	
MADE IN CANADA	

### Copyright

This manual is copyright to Nordock Incorporated. All information, text, drawings, and technical data contained herein are for reference only. No part of this manual may be copied, altered, or stored on electronic media, and cannot be revealed to others for the purpose of competition.

# Warranty

Nordock Inc. expressly warrants that it's Model ND, DUAL-DUTY™ Series hydraulic dock leveler shall remain free of defects in material and workmanship under normal use for a period of one-year from the date of delivery to the purchaser. The purchaser must maintain and operate the product in accordance with proper procedures. In the event the product proves defective in material or workmanship, Nordock Inc. will either:

1. Replace the product or the defective portion thereof without charge to the purchaser; or,
2. Alter or repair the product on site or elsewhere, as may deem advisable, without charge to the purchaser.

In addition, Nordock guarantees, under specified guidelines, the structural components\* for Ten-Years, the front and rear hinges for Twenty-Years and the hydraulic components\* for Five-Years. All structural guarantees are based on the Nordock Application Guide and must be adhered to.

The warranty stated herein is that offered by Nordock Inc. and expressly disclaims all implied warranties including those of merchantability and fitness. This warranty does not cover any failure caused by improper installation, misapplication, overloading, abuse, negligence, or failure to maintain and protect the equipment from vehicle impact. Nordock Inc. or its representative assume no responsibility or liability for any incidental or consequential damages of any kind including loss of use of any equipment, damage or failure resulting from the use of unauthorized replacement parts or equipment modification, or damages resulting from the misuse of the equipment.

Nordock Inc. warranties extend only to the product itself. Nordock Inc. disclaims all liability of any kind arising out of the workmanship, methods and materials used by the installer or premature product wear, product failure, property damage or bodily injury arising from improper installation.

These warranties as stated herein are the exclusive remedies for all claims.

\* Structural components include the deck, lip and frame welded assemblies. Hydraulic components include the motor, pump, hydraulic cylinders, hose and fittings.



# Safety



## WARNING

**The operators of this unit must read these safety practices before installing, operating or servicing the dock leveler. Failure to follow these safety practices may result in bodily injury, property damage or death.**

Read and follow the operating instructions contained in this manual before operating the dock leveler. If you do not understand the instructions, contact your supervisor for explanation and instruction on the safe operation of this unit. The following guidelines are to be used in conjunction with all laws, governances and codes in effect where the dock leveler is installed.

1. Inspect the dock leveler both before the truck arrives, and once it has left to ensure that all parts are undamaged and in good working order. If the dock leveler does not appear to function properly, or if it looks damaged, disconnect the power supply, lock out the control panel and report it immediately to your supervisor and safety representative.
2. Be sure that the tires of the truck are properly chocked, or that the truck is properly locked in place by a functioning restraining device before loading or unloading.
3. Stay clear of the dock leveler when it is in motion.
4. Do not operate the dock leveler with equipment, material, or people on the ramp or lip. **Never use a fork truck or any type of material handling equipment to lower the ramp.**
5. Keep hands and feet clear of hinges at all times. Do not attempt to raise the ramp or lip manually. If the dock leveler fails to operate using the procedures contained in this manual, do not use the dock leveler. Disconnect the power supply, lock out the control panel and report it immediately to your supervisor and safety representative. Contact Nordock Inc. or an authorized service representative for service.
6. Use extreme caution when installing the maintenance/support stand. Stay clear of the dock until it has risen fully. **Do not stand under the dock after the stand has been removed.** The lip may fold rapidly, striking the worker.
7. Be sure both lip and deck maintenance support stands are in place, the power has been disconnected and the control panel locked out before entering the dock leveler pit area. See also Maintenance Procedure next page.
8. Any work to be performed on the electrical system must be carried out by a qualified electrician.
9. Any work to be performed on the hydraulic system must be carried out by a qualified hydraulic technician or specialist.

10. Ensure the dock leveler is clear of all material, equipment, or people before the chocks are removed, or the truck is released from the restraint. After loading or unloading, make sure the dock has been returned to its level, stored position.

If you have any questions, contact your supervisor or your local Nordock Inc. representative.

## **Maintenance Procedure**



# **WARNING**

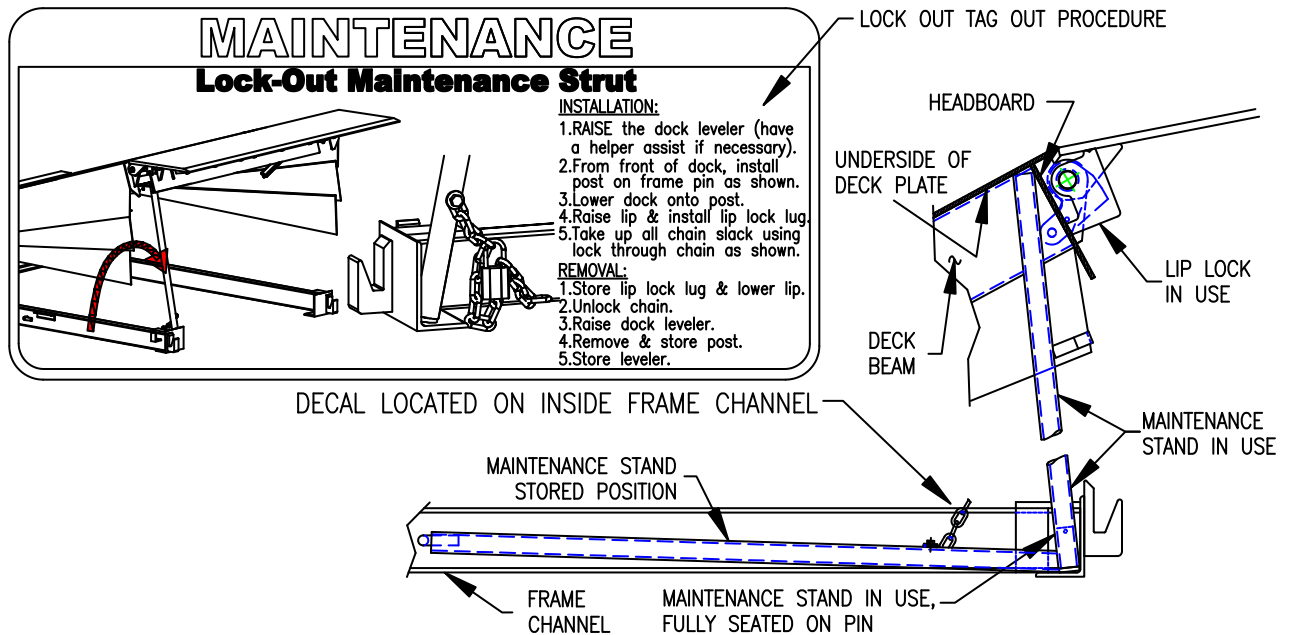
**USE EXTREME CAUTION WHEN INSTALLING THE MAINTENANCE STAND**

**ONLY USE THE PIN PROVIDED TO PROPERLY LOCATE THE MAINTENANCE STAND. SUPPORTING THE LEVELER AT ANY OTHER LOCATION CAN RESULT IN SERIOUS BODILY HARM AND EQUIPMENT DAMAGE.**

**BE SURE THE POWER HAS BEEN DISCONNECTED, THE CONTROL PANEL IS LOCKED OUT AND BOTH LIP AND DECK MAINTENANCE SUPPORTS ARE IN PLACE BEFORE ENTERING THE DOCK LEVELER PIT AREA.**

Before operating or maintaining the dock leveler, read and follow the practices in the Safety Section and all warnings contained in this manual. Failure to follow the guidelines in this manual and those in effect in the workplace can result in serious bodily harm and equipment damage.

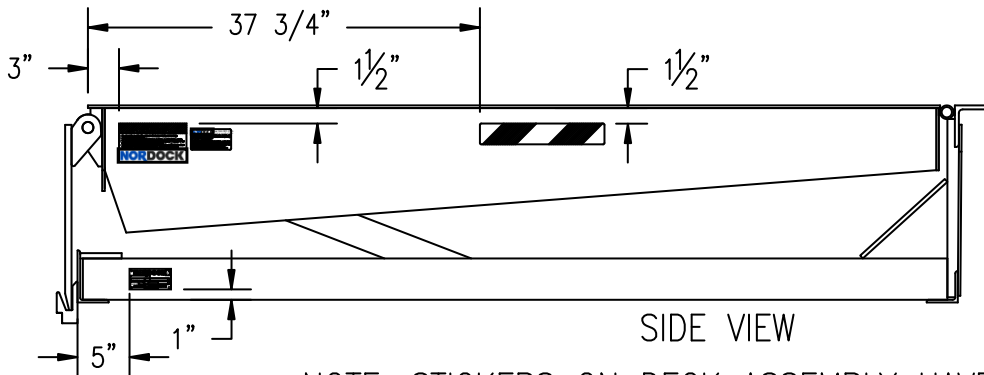
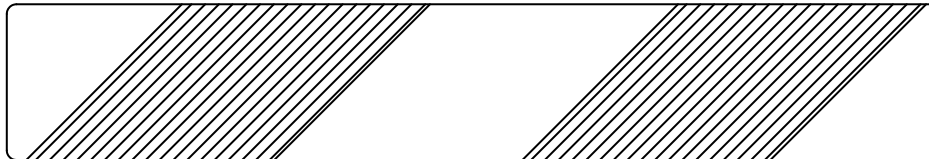
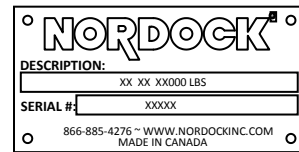
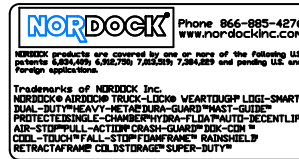
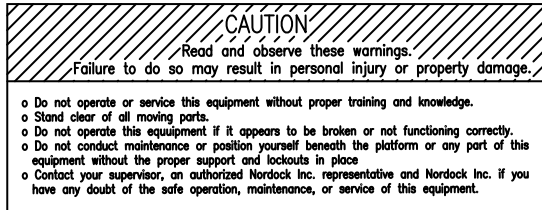
1. Raise the dock to its highest position.
2. Raise the lip and use the lip lock to hold the lip in the extended position.
3. Remove the maintenance stand, located on the frame lower outside left side and position one end onto the adjacent pin (on the frame). The stand will slope toward the rear of the dock, but should be kept vertical left or right.



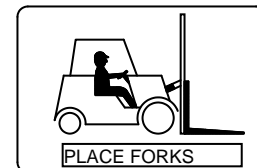
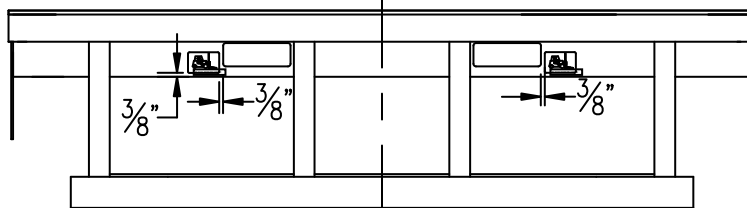
4. Lower the dock onto the stand, making sure the stand supports the deck plate and headboard between the deck beams, as shown. DO NOT support the dock from the bottom of the deck beam.
5. After completing work on the dock, unlock and lower the lip. Remove the maintenance stand and return to its stored position. Do not stand under the dock after the support has been removed

## Labels

The labels and decals on the dock leveler must be kept in clean, legible condition at all times. The following shows the decals and their placement on the dock leveler. Please check their condition on a daily basis, and replace them immediately if they become unreadable.



NOTE: STICKERS ON DECK ASSEMBLY HAVE THE SAME PLACEMENT ON BOTH SIDES



# Installation



## **WARNING**

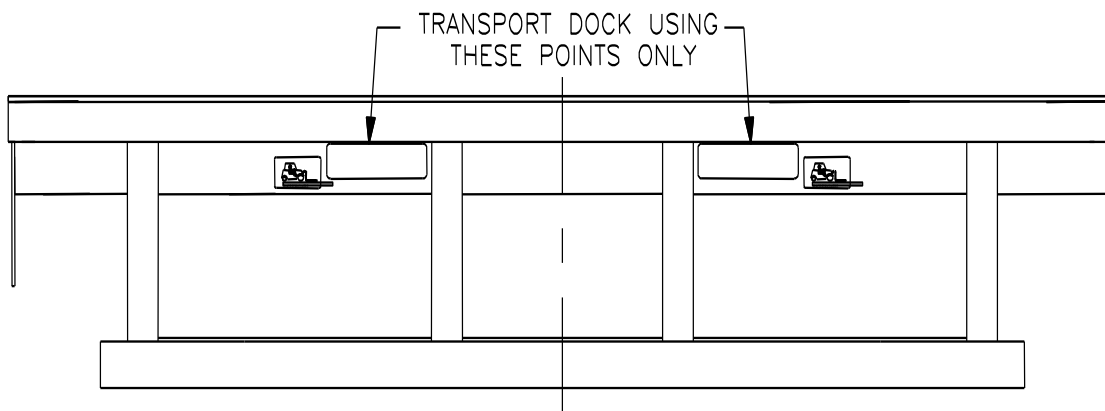
Before operating or maintaining the dock leveler, read and follow the safety practices contained in this manual. Failure to follow the guidelines in this manual and those in effect in the workplace can result in serious bodily harm and equipment damage.

### **Pit Check**

1. Check the entire pit area for proper construction according to the certified pit drawings. Ensure the pit walls are square and plumb. If this is a replacement, ensure the steel sections are in good, weldable condition. Check the electrical service running to the pit and make sure it is the same as the voltage and phase as shown on the wiring diagram in the control panel.
2. Complete any pre-wiring procedures before the dock is placed in the pit. Ensure that any cables, plugs or leads are connected to the dock, and that there are correct corresponding leads, receptacles or device boxes with covers in the pit.
3. Make sure that any conduit and/or junction boxes do not interfere with the frame uprights. See drawing below for best placement.

### **Dock Installation**

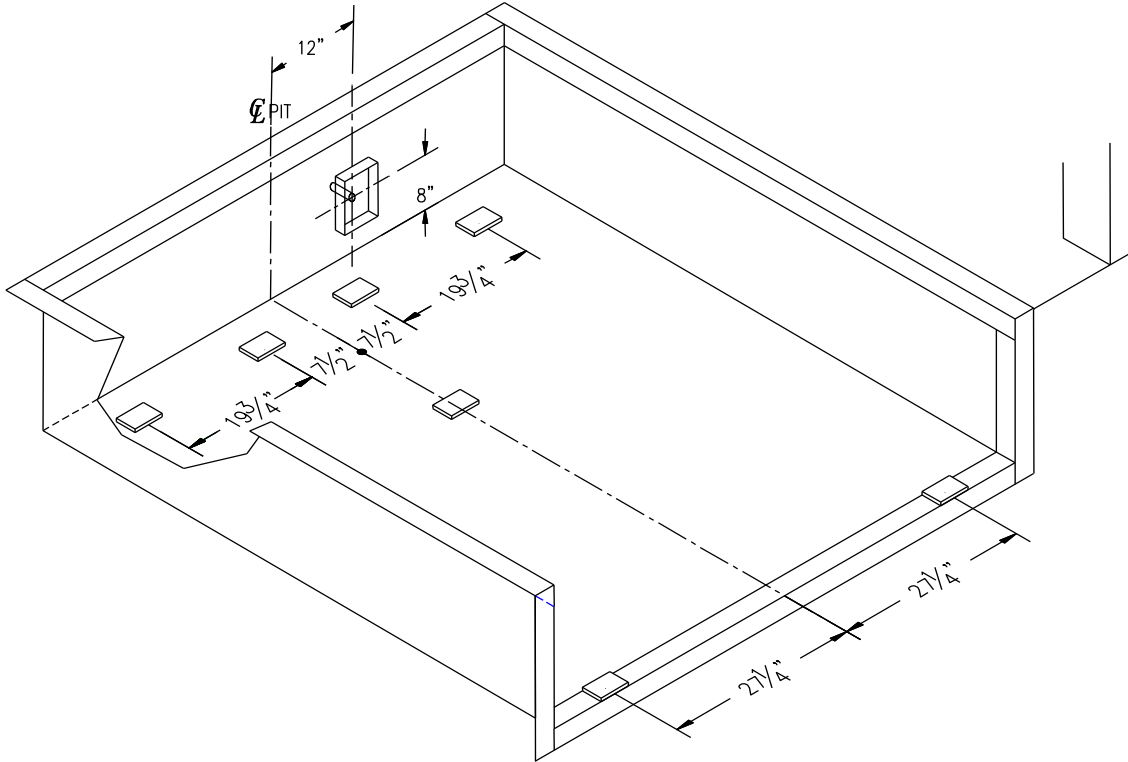
**Note:** When moving the dock leveler in preparation to installation, it is crucial that the unit be moved only using the fork pockets at the rear of the frame.



1. Have the control panel mounted and wired by a qualified electrician. See electrical diagram inside the control panel. Wires shown as dashed lines are field connections.

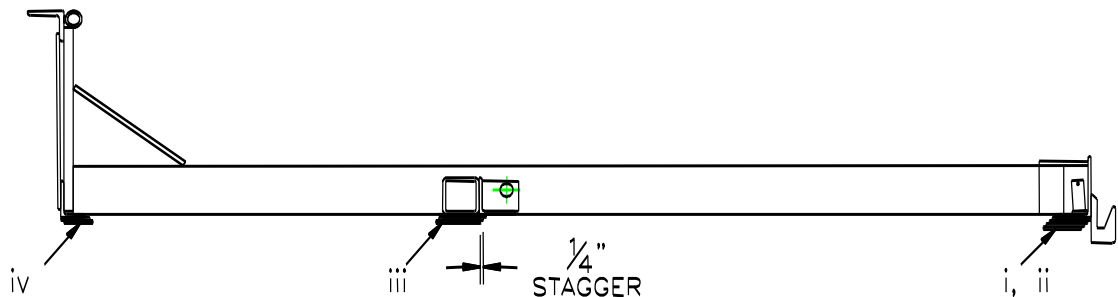


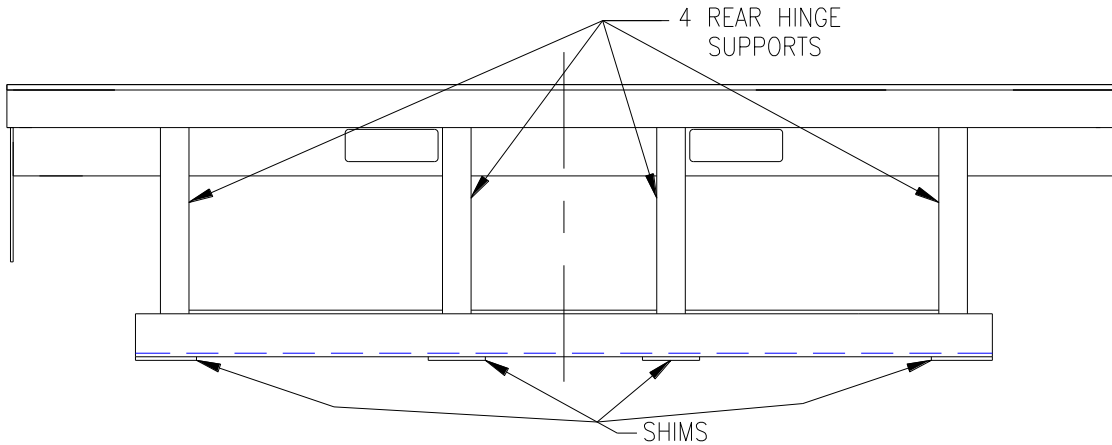
2. Shims may be placed in the pit prior to the installation of the dock. Make sure shim heights all equal the same depth from the edge of the pit area. For best weld, stagger shims at least 1/4 inch. At this time, tack-weld the shims only. See below for correct placement of shims.



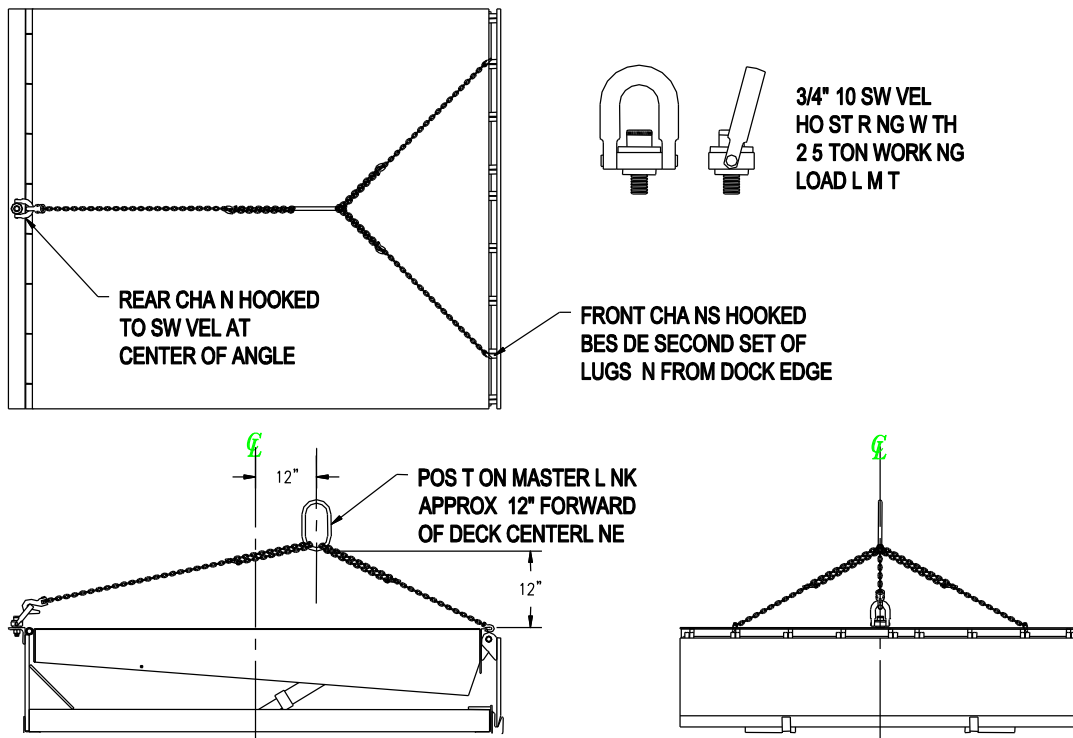
Shims should be placed in the following seven areas:

- i. Under both front frame rails directly behind the lip keeper lugs. (2 places)
- ii. Under the left frame rail, directly below the maintenance stand mounting pin. (can be integral with shim in (i.) above.
- iii. Under the cross tube where the cylinder mounts to the frame.
- iv. Under rear frame angle at the uprights connecting to the hinge angle. (4 places all docks)





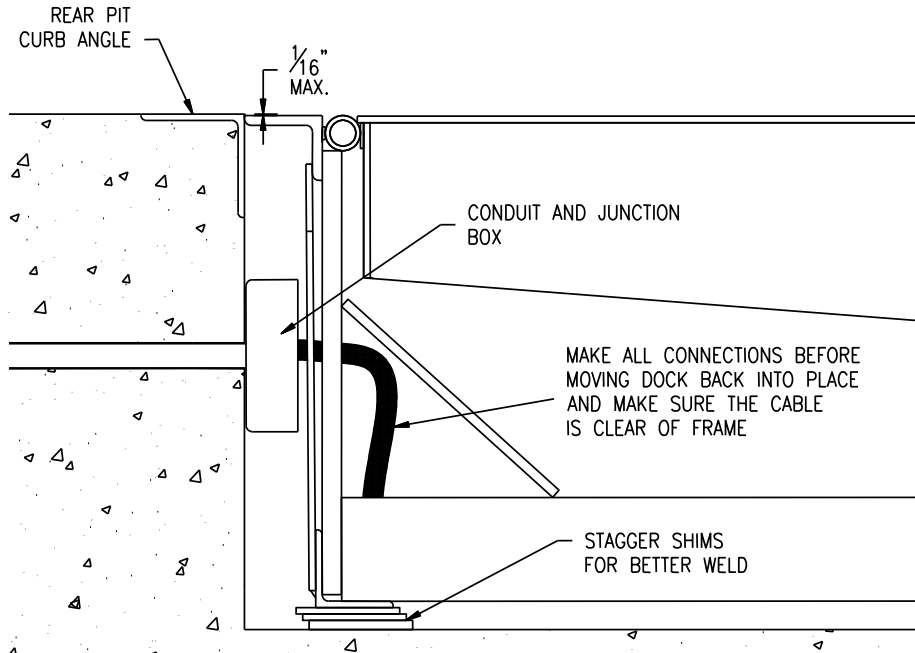
3. Attach lifting chains to dock leveler. All chains must be minimum grade 80 and chain hooks have a minimum 1-ton capacity. An endless master link should also be used to assist in the levelling of the dock leveler. Three chains must be used; one hooked at the center of the hinge angle, two hooked on the front deck plate outside the second set of lip lugs from the sides of the deck. Attach the chains so that the master link is approximately 12" forward of the center of the deck, and centered along the width.



4. Lift the deck approximately 6" and check that it is level. Adjust chains accordingly if required. Do not attempt to install the dock if it is not level. Damage to the unit or personal injury may result.
5. Remove straps holding electrical cable and attach plug (If required). Temporarily strap cable to rear frame upright so that it can be easily reached for connection to pit outlet.

6. Place dock into pit. Leave room between the dock leveler and the rear pit wall so that the electrical connections can be made.

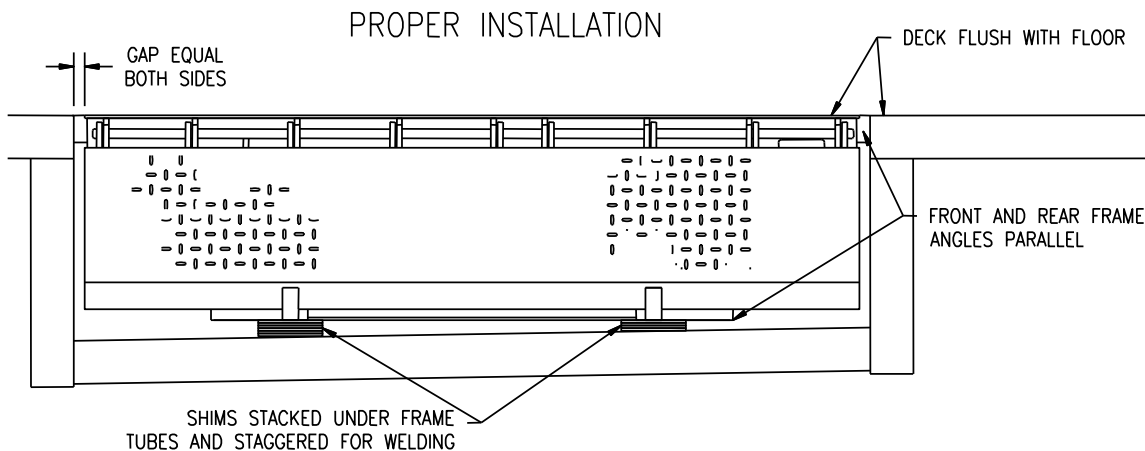
7. Connect dock leveler to the source connection in the pit area. Ensure that when the dock leveler is pushed into place that the dock does not crush the cord.



8. Move the dock so that the hinge angle is flush and tight to pit angle and is centered between side pit curb angles.

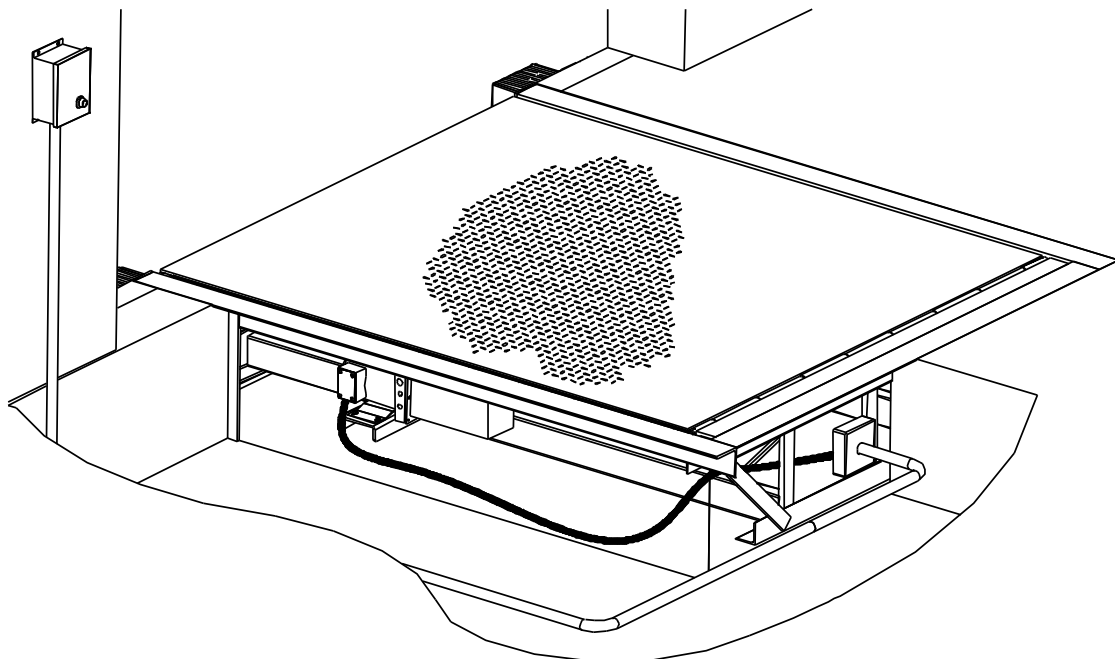
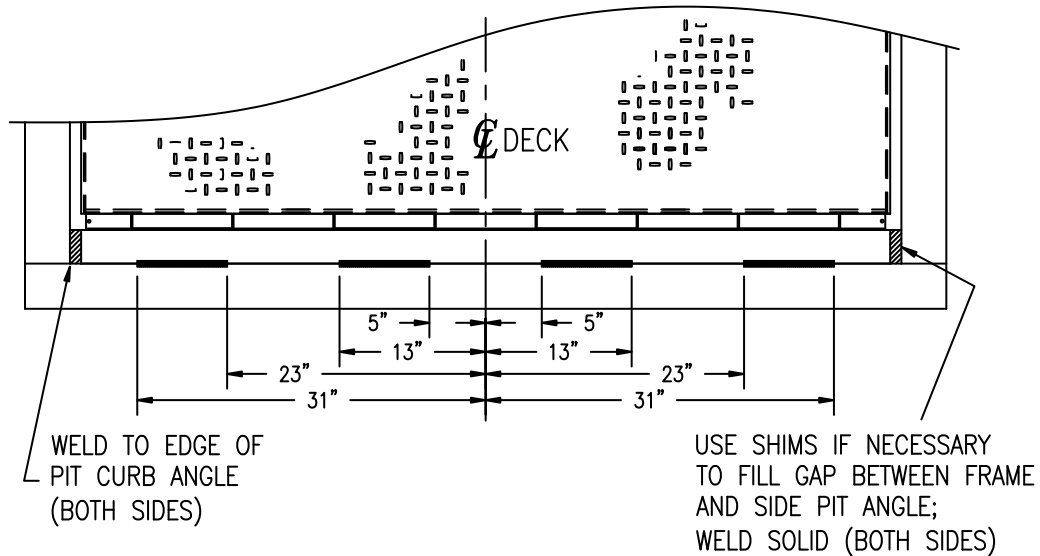
9. Remove the transport cables and raise the dock leveler. Install the maintenance supports (see also Maintenance Stand section, page 15 of this manual) and check the position of the shims. Re-position if necessary. There should be no more than 1/16" in height difference at any point between the pit curb angle and the dock leveler. Tack-weld the hinge angle to the pit curb angle.

10. Remove the maintenance supports and lower the dock to its stored position. Check that the dock is still squarely positioned and level with the pit sides. Add or remove shims as necessary.



11. Raise the deck and re-install the maintenance support. Weld the shims solidly together, and weld the shims to both the frame and the front angle.

12. Weld the rear hinge angle to the rear and side pit curb angles as shown below.

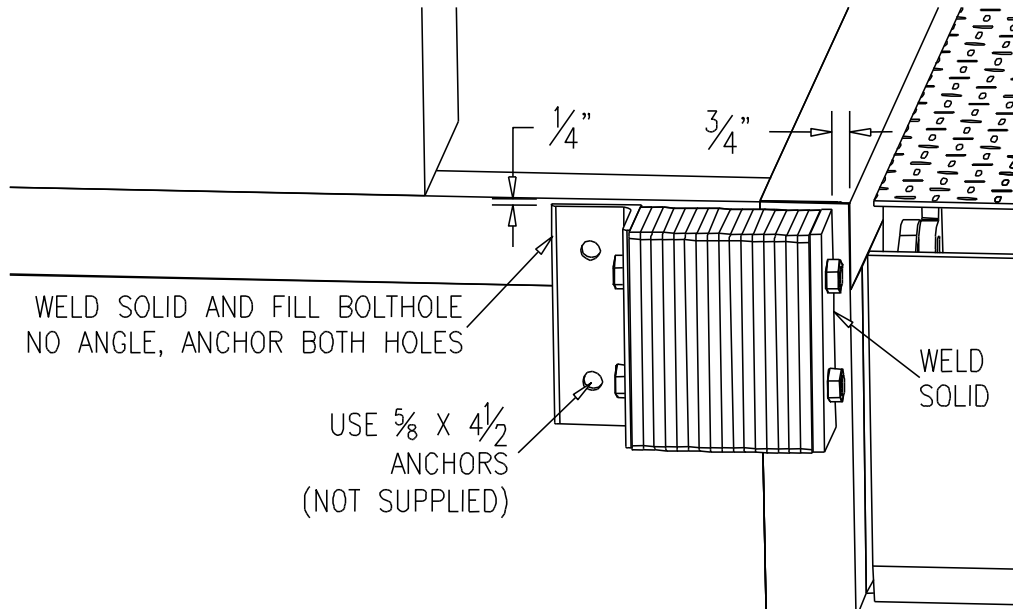


Correct installation will ensure consistent, efficient operation for many years to come.

**Note:** It is the installer's responsibility to complete any paint touch-up and dock area clean up that may be required.

## **Bumper install**

Bumpers should be installed as follows to prevent damage from trucks backing into the dock leveler.



Install bumper so that it is 1/4" below floor level for proper securing, and 3/4" away from the edge of the pit so that the heads of the bolts will clear the lip as it passes the bumper.

Weld the bumper wherever possible to the pit curb angle, and use 5/8" x 4 1/2" wedge anchors (not supplied) in the angle holes.

## Operation



### **WARNING**

Before operating or maintaining the dock leveler, read and follow the safety practices contained in this manual. Failure to follow the guidelines in this manual and those in effect in the workplace can result in serious bodily harm and equipment damage.

**Note:** If the truck to be serviced is below dock level, please see the additional instructions for Below Dock Control in this section.

### **Standard Control Panel**

1. Push and hold the “RAISE” button. The ramp will rise and the lip will extend once the deck has reached its highest point. Release the button once the lip has extended and the deck will lower and rest on the truck bed.
2. Proceed with loading and/or unloading.
3. To return the dock leveler to its stored position, push and hold the “RAISE” button until the lip clears the bed. The lip will fold and when the button is released, it will return to its stored position.
4. Ensure the lip is seated in the lip keepers before walking or driving on the dock.

### **Below Dock Control**

To lower the ramp without extending the lip for loading below dock level, substitute item 1 in the preceding instructions with the following:

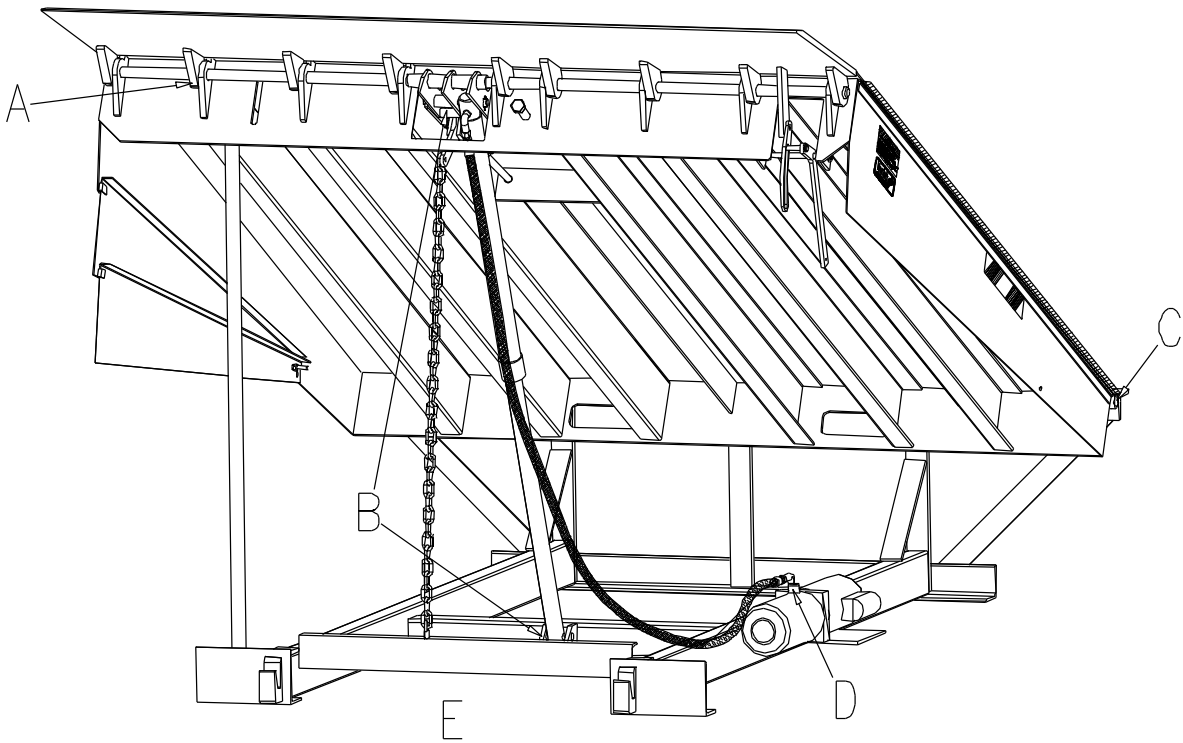
- 1a. Press the “RAISE” button until the ramp rises approximately 12”. Pull the lip extend handle located in the recessed pocket at the front left corner of the deck and hold as the deck descends below floor level.
- 1b. Do not walk or drive on the dock until it has completely stopped lowering. Ensure the release handle has been completely retracted into the pocket.

# Maintenance and Lubrication

 **WARNING**

Before operating or maintaining the dock leveler, read and follow the safety practices contained in this manual. Failure to follow the guidelines in this manual and those in effect in the workplace can result in serious bodily harm and equipment damage.

**Note:** Use only the lubricant grades specified in this manual. Failure to use the materials listed may lead to premature failure, and will void any warranty claims for the dock leveler.



Item	Lubrication	Adjustment	Cleaning
- A - Lip Hinge	Every 90 days Using grease	None	Remove debris as required
- B - Cylinder Pivot Pins	Every 90 days Using light oil	None	Remove debris as required
- C - Dock Hinge	Every 90 Days Using light oil	None	Remove debris as required
- D - Hydraulic Oil Reservoir	Check level every 90 days Change oil yearly	None	Remove and clean strainer and magnet yearly
- E - Pit Area	None	None	Every 90 days or as required to remove debris

## **Acceptable Lubricants and Oils**

### Hydraulic

Oils used in the hydraulic system must meet minimum ISO grade 22 standard. E.G.:

COMMERCIAL OIL MULIT-VIS MV22  
 MOBIL AERO HFA (49011)  
 EXXON UNIVIS GRADE J13  
 TEXACO AIRCRAFT OIL #1537BB  
 U.S.OIL CO. #5606 (LOW TEMP)  
 SHELL TELLUS T22

**Optional** Biodegradable oils (Nordock PN 13-0807) are E.G.:

Greenland ES Green Plus  
 Forsythe 6282/B2 Power Flo

### Grease

Grease used for hinges must meet a minimum EP-2 grade. E.G.:

CHEVRON DURA-LITH EP-2

### Light Oil

Light oils used should have good penetration and adhesion qualities.

## **Hydraulic Adjustment**

**Note:** Power units are set at the factory to optimum performance. Adjustment is rarely necessary and should only be performed by a qualified hydraulic technician.

Use the chart below as an adjustment guide.

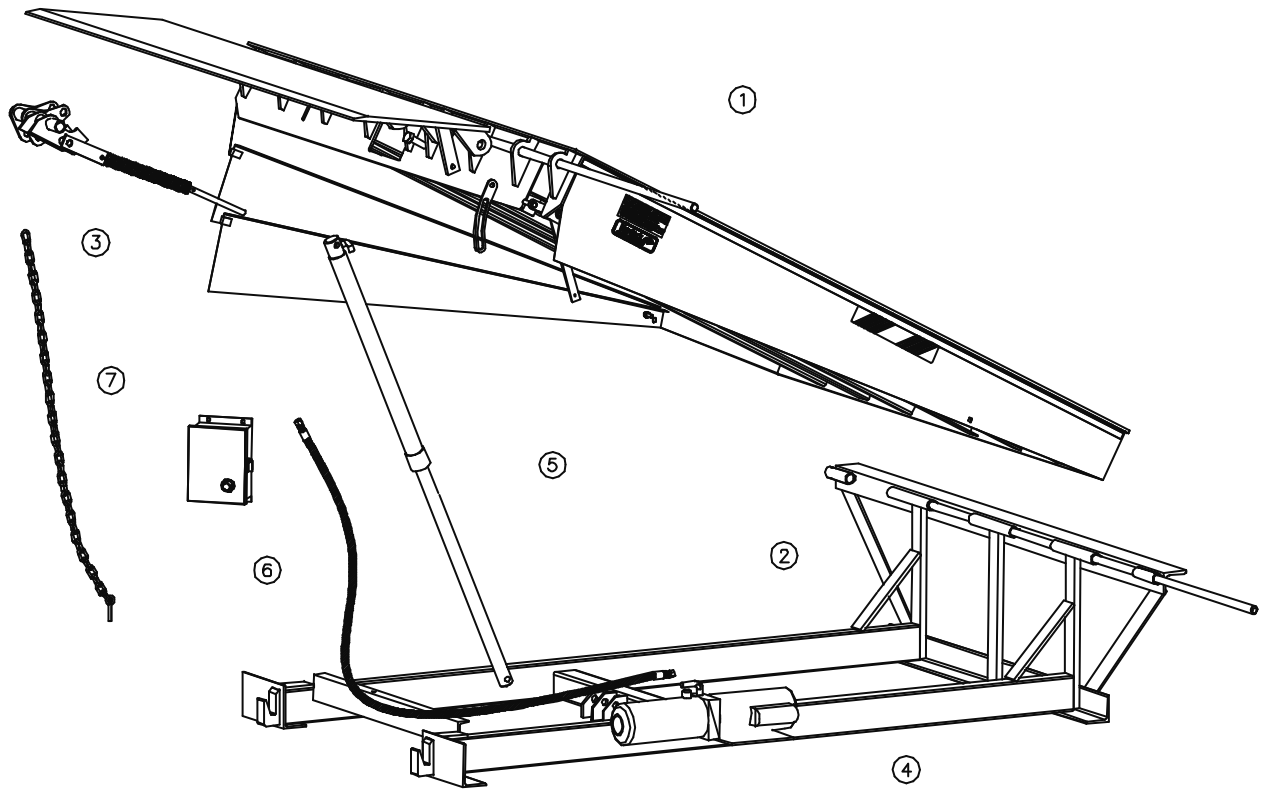
**NOTE:** Item numbers below refer to Parts and Service Section 4 – Power Pack

Item	Name / Function	Adjustment
8	<b>Pressure Relief Valve</b> -controls maximum pressure	-Required <b>only</b> for motor stalling problems. -Loosen the locknut. -Turn counter-clockwise (loosen) to lower relief pressure. -Adjust in 1/8 turn increments.
9	<b>Flow Control Valve</b> -controls downward speed of deck.	-Unlock the nut under the thumbwheel to allow adjustment. -Turn the adjusting thumbwheel clockwise (tighten) to slow speed or turn counter-clockwise (loosen) to increase speed. -Adjust in 1/8 turn increments.

For all- Retighten locknut and replace cap, if applicable, after adjustment is complete.



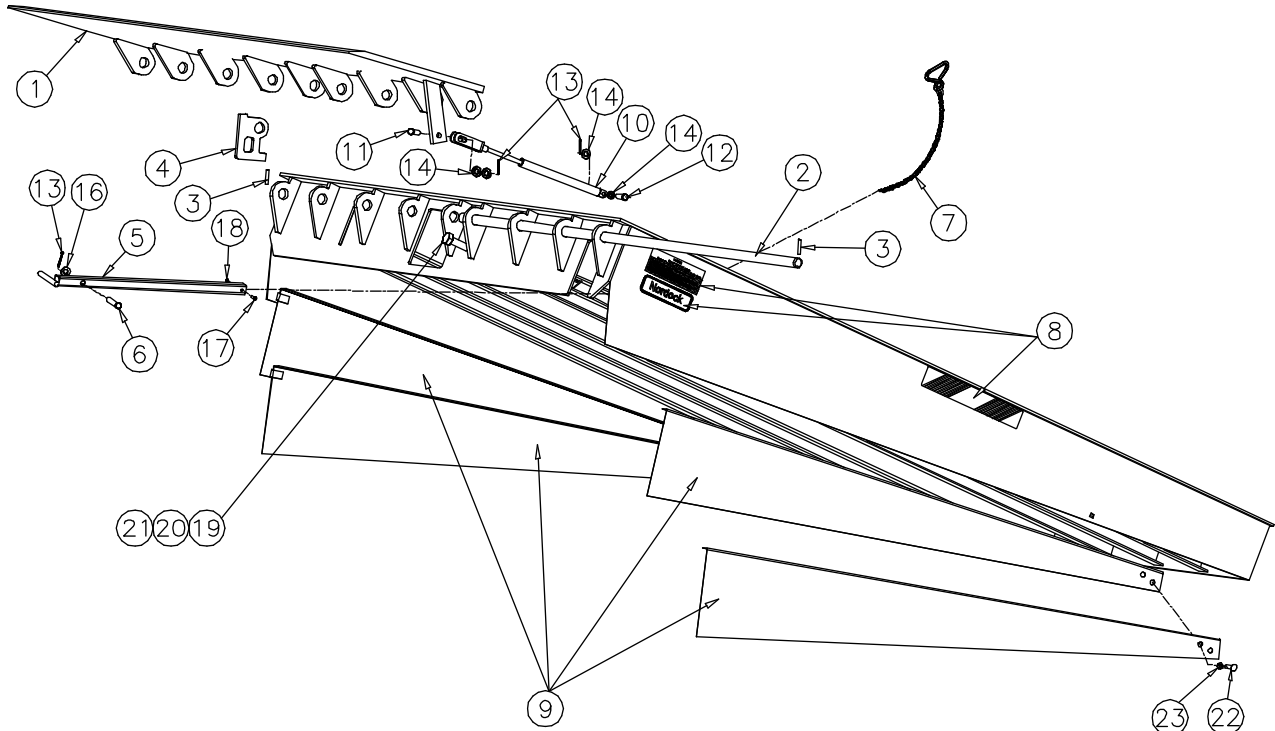
## Parts and Service Table



Item Number/ Section	Description
1	Deck and Lip Assembly
2	Frame Assembly
3	Lip Extension Mechanism Power
4	Pack and Related Hydraulic Components
5	Hydraulic Cylinders
6	Hydraulic Lines and Fittings
7	Control Panel

**Note:** Not all parts and weldments are noted in this manual. Only those that are serviceable and /or replaceable will be listed. For additional information on those parts not included in this manual, please contact Nordock. Remember to make note of the model and serial number of the unit for accurate parts and service.

## Section 1 – Deck and Lip Assembly

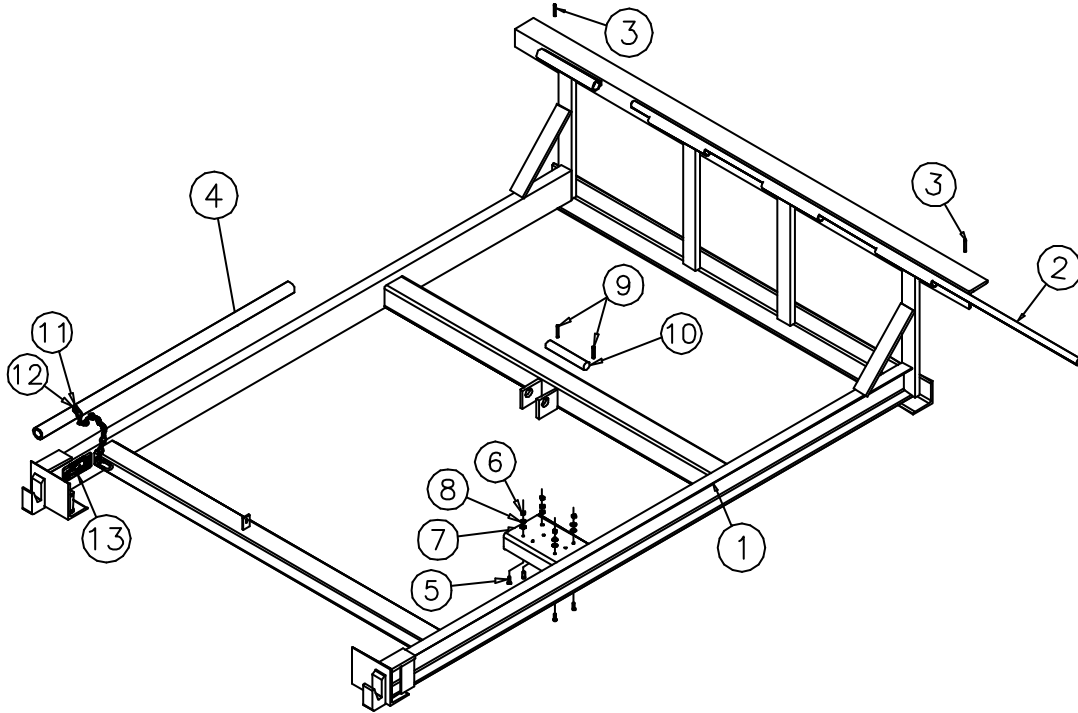


Item	Qty.	Description / Model						Note	
1	1	Lip Weldment							
		Capacity	Length	P/N					
				6'	6.5'	7'	7'T		70"
		20-25K	16"	42-0300	42-0308	42-0317	42-0323		42-0807
			18"	42-0301	42-0309	42-0318	42-0324		42-0810
			20"	42-0302	42-0310	42-0319	42-0325		42-0813
		30-40K	16"	42-0303	42-0311	42-0020	42-0326		42-0808
			18"	42-0009	42-0312	42-0021	42-0327		42-0811
			20"	42-0304	42-0313	42-0022	42-0328		42-0814
		45-50K	16"	42-0305	42-0314	42-0320	42-0329		42-0809
			18"	42-0306	42-0315	42-0321	42-0330		42-0812
			20"	42-0307	42-0316	42-0322	42-0331		42-0815
2	1	Lip Hinge Rod	43-0148	43-0149	43-0150	43-0150	43-0465		

Item	Qty.	Description / Model	P/N	Note
3	2	Roll Pin, 1/4" x 2	13-0555	
4	1	Lip Safety Lock Lug	43-0252	
5	1	Below Dock Control Lever – Handle to Lip	42-2016	
6	1	Clevis Pin – Lip Extend, 1/2" x 2 1/4"	13-0288	
7	1	Below Dock Control Chain – Deck to Handle (9 1/2")	42-1415	
8	1	Dock leveler Decal Kit	42-0392	1
9	1	Telescoping Side Skirt Kit	6' Long Docks	42-0393
	1		8' Long Docks	42-0394
	1		10' Long Docks	42-0395
10	A/R	Gas Spring – Lip Extend (Quantity As Required)	42-1568	
		Gas Spring c/w Clevis End		
11	1	Clevis Pin – Gas Spring to Lip 1/2" x 1 1/4"	13-2111	
12	1	Clevis Pin – Gas Spring to Deck 3/8" x 1 5/8"	13-0500	
13	3	Cotter Pin – 1/8" x 1	13-0171	
14	A/R	Washer, 3/8" SAE Flat	13-0203	
16	1	Washer, 1/2", plated	13-0267	
17	1	Screw, 10-24 x 1" long, plated	13-0841	
18	1	Nut, Nylock, 10-24 plated	13-1858	
19	1	5/8" Dia. Nut, Bolt x 4" Long	13-0302	
20	1	Washer, Lock, 5/8" plated	13-0657	
21	1	Nut, Hex, 5/8"-11NC, 5/8", plated	13-0289	
22	2	Bolt, 3/8" - 16 UNC x 1 1/4" Carriage Head	13-0122	
23	2	Nut, 3/8" - 16 Grade 5, Nylock	13-0707	

**Note1 – For correct decal placement, see safety section.**

## Section 2 – Frame

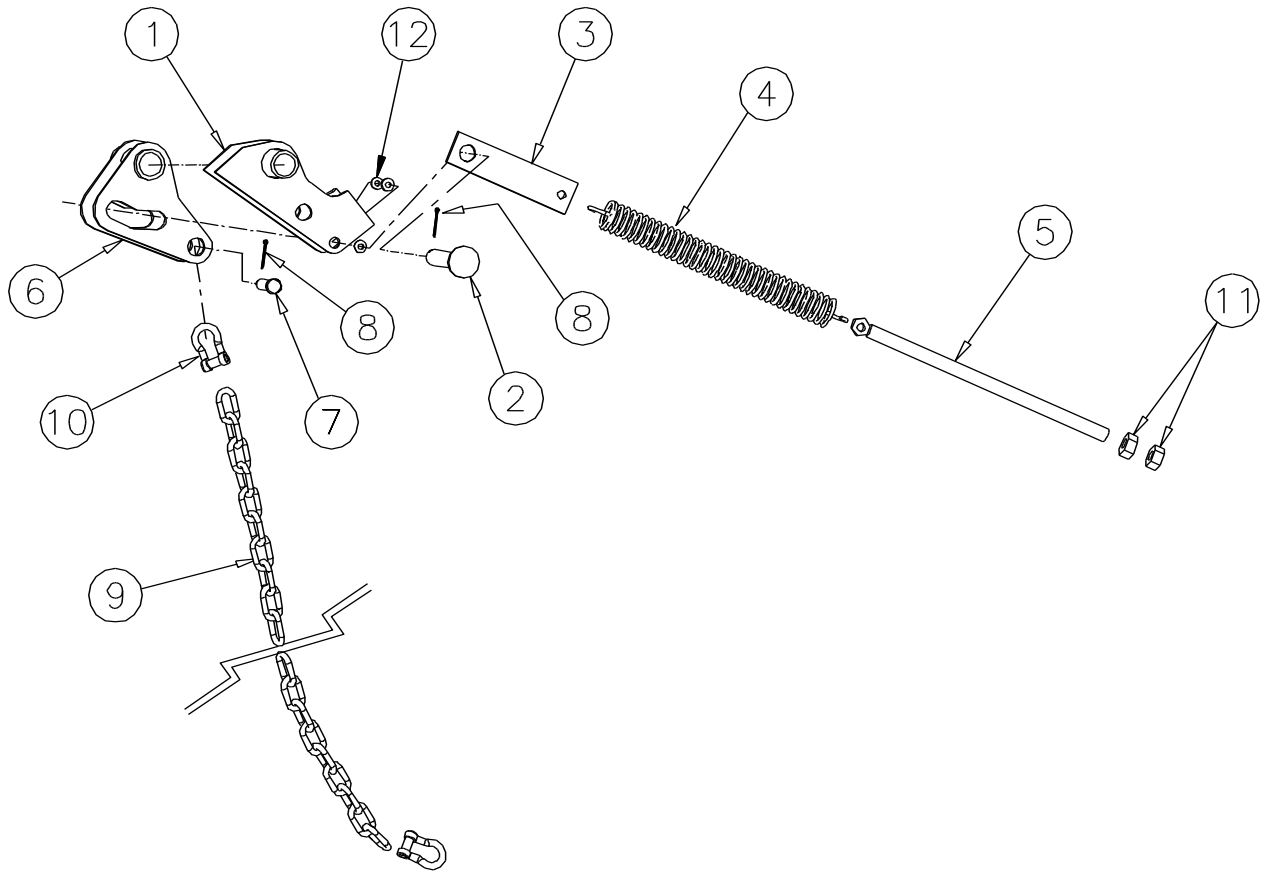


Item	Qty.	Description / Model				P/N	Note	
1	1	Frame Weldment 20-40K	Dock Length	P/N- Dock Width				1
				6'	6.5'	7'	70"	
			6'	42-3220	42-3223	42-3226	42-3229	
			8'	42-3221	42-3224	42-3227		
		45-50K	6'	42-2473	42-2476	42-2479		
			8'	42-2474	42-2477	42-2480		
			10'	42-2475	42-2478	42-2481		
2	1	Rear Hinge Rod	43-0154	43-0155	43-0156	43-0462		
3	2	1/4" x 2" Roll Pin				13-0555		
4	1	Maintenance / Support Stand				43-0262		
5	4	Bolt, 1/4" - 20 UNC x 1, Plated				13-0623		
6	4	Nut, 1/4" - 20 UNC Plated				13-0334		
7	4	Washer, 1/4" SAE Flat				13-0272		
8	4	Washer, Lock, 1/4", Plated				13-0335		
9	1	Cotter Pin, 3/16" x 1 3/4"				13-0304		
10	1	Lower Cylinder Pin, 3/4" dia.				43-0994		
11	1	Washer, 1/4" Fender, Plated				13-0271		
12	1	Screw, 1/4" -14 x 1, Tek, Hex Head, plated				13-0273		
13	1	Decal, Dock leveler, Lock-Out Tag-Out				43-1287		

**Note 1 – The standard Rear Frame angle width is 3". Widths may vary to suit pit length. Please consult factory when ordering replacement frames.**

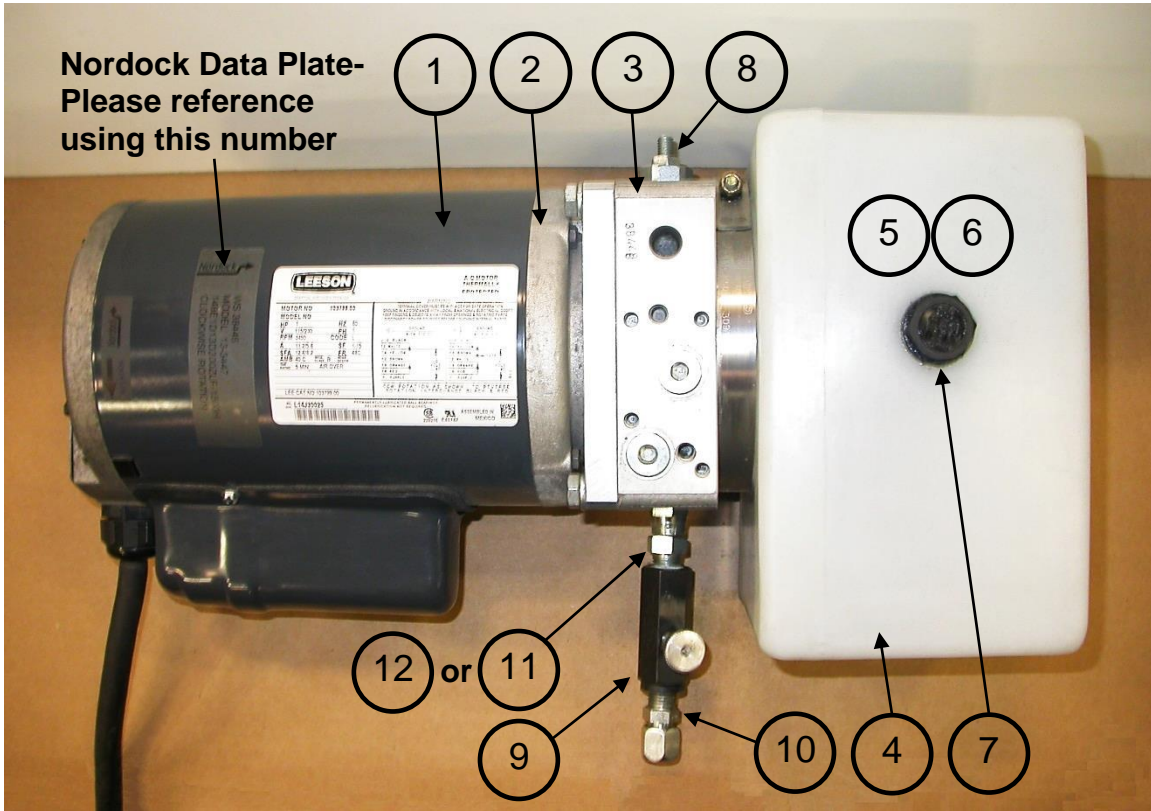
**Note 2 – ND docks use a spacer kit for a 23" frame depth.**

### Section 3 – Lip Actuator Assembly



Item	Qty.	Description / Style	P/N	Note
1	1	Lip Cam Weldment	42-0684	
2	1	Pin, Lip Cam, 3/4" Dia. x 6"	42-0687	
3	1	Return Spring Mount	43-0256	
4	1	Cam Return Spring, 8" Overall	13-0565	
5	1	Adjuster Rod	42-1443	
6	1	Lip Extend Actuator	42-0685	
7	1	Clevis Pin, 3/4" Dia. x 2" Steel Plated	13-1208	
8	2	Cotter Pin, 3/16" x 1 3/4"	13-0304	
9	1	Actuator Chain	6' Long Dock 8' Long Dock 10' Long Dock	43-0415 43-0415 43-0417
10	2	Shackle, 5/16" Dia. Forged Steel c/w 5/16" bolt	13-2161	
11	2	Nut, 5/8"-11UNC, plated	13-0289	
12	3	Washer, 3/4", plated	13-0649	

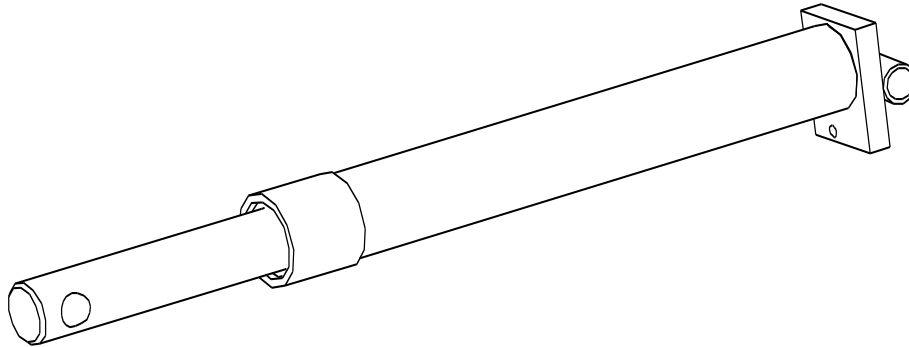
## Section 4 – Power Pack and Related Hydraulic Components



Item	Qty.	Description / Model		P/N	Note
		Complete Power Pack Assembly (Pts 1-12 below)	115 / 230 V 1 Ph 208 / 230 / 460 V 3 Ph 575 V 3 Ph	13-3447 13-3448 13-3449	
<b>Power Pack Components:</b>					
1	1	Drive Motor	115 / 230 v. 1 PH 230 / 460 v. 3 PH 575 v. 3 Ph		1
2	1	Motor Coupler	Standard Duty		
3	1	Manifold Assembly	Standard Duty		
4	1	Hydraulic Oil Reservoir			
5	1	Pump Assembly (Inside Tank)		13-3598	
6	1	Oil Pickup Screen and Tube (Inside Tank)			
7	1	Cap, Filler/ Vent			
8	1	Pressure Relief Valve Cartridge			
9	1	Flow Control Valve		13-1020	
10	1	Fitting, Hydraulic, Adapter, 9/16 (6) MJIC x 1/4 (4) MNPT		13-0100	
11	1	Fitting, Hydraulic, Adapter, 90°, 1/4 (4) MNPT x 3/8 (6) FJIC Swivel		13-0421	
12	1	Fitting, Hydraulic, Adapter, 1/4 (4) MNPT x 3/8 (6) FJIC Swivel		13-3518	

**Note 1 – Consult factory when ordering individual power pack components.**

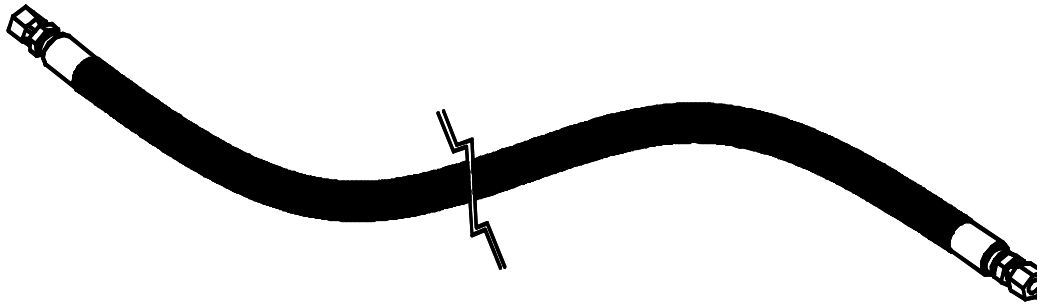
## **Section 5 – Hydraulic Cylinders**



Ram Dia.	Length	Description / Model	P/N	Note
1 1/2"	All	Seal Kit	C3-0025	
	29" Closed	22" Stroke, Deck Lift Cylinder	C1-0040	1
	29" Closed	22" Stroke, Deck Lift Cylinder w/ Velocity Fuse	C1-0042	

**Note 1 – Standard lift cylinder used on 20-50K ND dock levelers.**

## **Section 6 – Hydraulic Lines and Fittings**

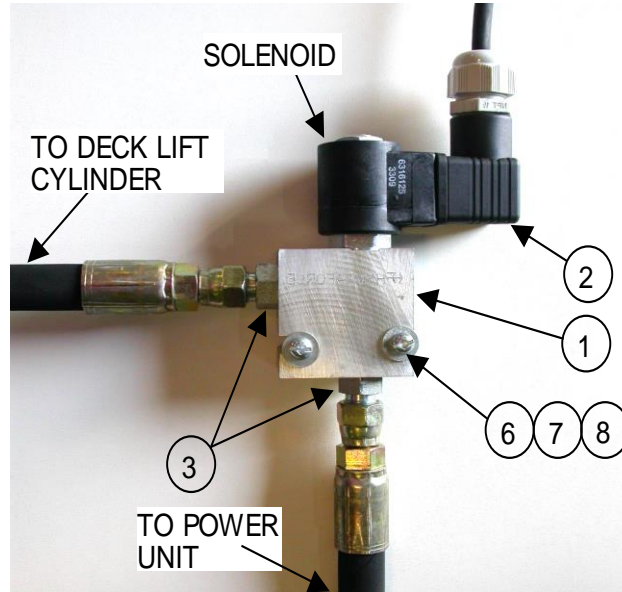


Dock length	Dia.	Description / Model	P/N	Note
6'	3/8"	Deck Lift Hose Assembly, x 72" long Hose kit, consisting of 1 hose	42-0559 13-1679	1
8'	3/8"	Deck Lift Hose Assembly, x 72" long Hose kit, consisting of 1 hose	42-0560 13-1679	1
10'	3/8"	Deck Lift Assembly, x 72" long Hose kit, consisting of 1 hose	42-0560 13-1679	1
Optional Emergency Stop:				
All	3/8"	Hose Assembly, Power Unit to Valve, x 18" long	13-3370	1
Optional Remote Mount Power Pack, standard length:				
All	3/8"	Hose Assembly, Deck Lift & Lip, x 20'-0" long (1 hose)	42-1545	1

**Note 1: All hoses are #6 with 2 straight FJIC ends**

## Section 7 – Optional Equipment

### Lip Extend/Emergency Stop Valve:



Item	Qty.	Description / Location	P/N	Note	
1	1	Solenoid Valve / Rear Frame Brace	Complete Assembly Solenoid only	13-0826 13-0595	
2	1	Receptacle, solenoid valve, Hershman		13-2371	
3	2	Hydraulic Fitting, Str. #6 JICM / 9/16 M ORB		13-1309	
4	1	Pushbutton / Control Panel, Lip Extend (not shown)		13-0317	
5	1	Mushroom Pushbutton, / Control Panel, Emergency Stop Button (not shown)		13-0318	
6	2	Screw, #10-24 x 1 1/2" long, plated, combo head		13-0274	
7	2	Washer, Lock, #10, plated		13-0948	
8	2	Washer, Flat, #10, plated		13-1956	

**Note:** See Section 5 for the hydraulic lines required for the Lip Extend/Emergency Stop valve.

### Other Options:

Option	Qty.	Description / Location	P/N	Note
Auto Return	1	Limit Switch / Located on Frame Rail	13-0298	
	1	Timer / Control Panel	13-0156	
	1	On / Off Selector / Control Panel	13-0316	
Bumpers	2	Standard Bumper, AF410-11	61-0001	1
Weather Seals	6'	Brush Seal and Mounting Extrusion Kit	61-0025	
	8'	Brush Seal and Mounting Extrusion Kit	61-0024	
	10'	Brush Seal and Mounting Extrusion Kit, (3 pc)	61-0024	
Fall Safe	1	Velocity Fuse / Deck Lift Cylinder	13-0306	
Remote Mount	1	Wall Mount Bracket	43-0428	
Power Pack	4	Bolt, Hex, 1/4" – 20 UNC x 1"	13-0623	
	4	Nut, 1/4" – 20 UNC, Plated	13-0334	
	4	Washer, 1/4" SAE Flat	13-0272	
	4	Washer, 1/4" Lock	13-0335	

**Note 1 – For custom bumper sizes and applications, please contact your nearest Nordock representative or call 1-866-885-4276.**



## **Section 8 – Control Panels**

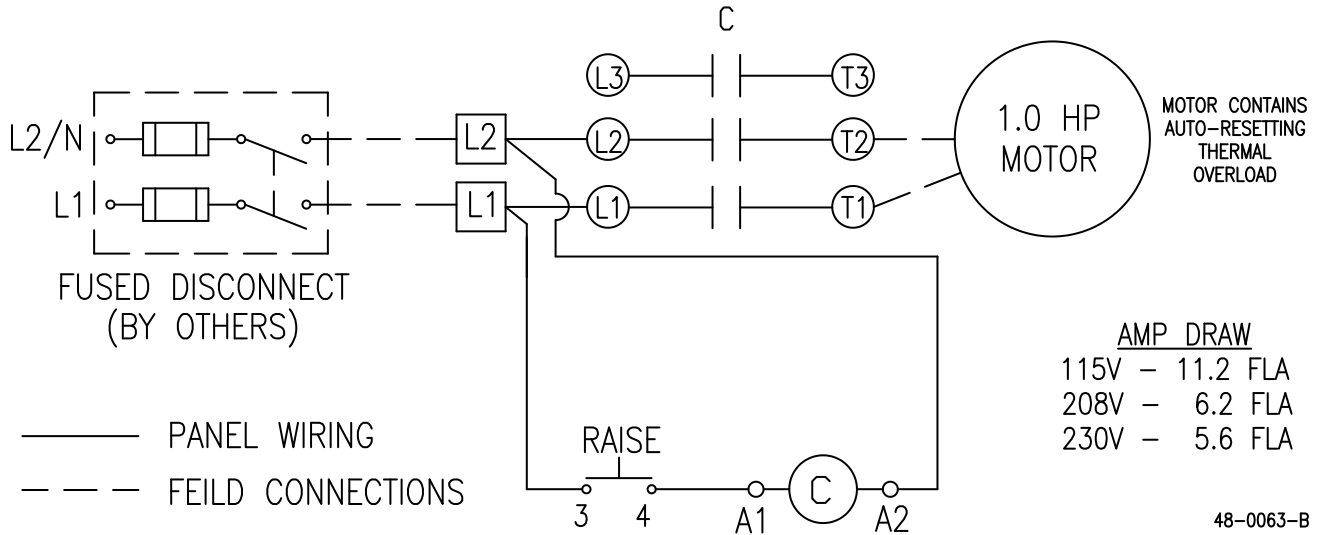
Volts/Ph.	Description / Style	P/N	Note
115/1/60	Standard Panel / Single Pushbutton	13-3767	
	2 Button – Deck Raise, Emergency Stop		
	3 Button – Deck Raise, Emergency Stop, On/Off Switch	13-3440	
208/230/1/60	Standard Panel / Single Pushbutton	13-3768	
	2 Button – Deck Raise, Emergency Stop		
	3 Button – Deck Raise, Emergency Stop, On/Off Switch		
208/3/60	Standard Panel / Single Pushbutton	13-3769	
	2 Button – Deck Raise, Emergency Stop		
	3 Button – Deck Raise, Emergency Stop, On/Off Switch	13-3411	
230/3/60	Standard Panel / Single Pushbutton	13-3769	
	2 Button – Deck Raise, Emergency Stop		
	3 Button – Deck Raise, Emergency Stop, On/Off Switch	13-3412	
460/3/60	Standard Panel / Single Pushbutton	13-3770	
	2 Button – Deck Raise, Emergency Stop	13-3238	
	3 Button – Deck Raise, Emergency Stop, On/Off Switch	13-3413	
575/3/60	Standard Panel / Single Pushbutton	13-3771	
	2 Button – Deck Raise, Emergency Stop		
	3 Button – Deck Raise, Emergency Stop, On/Off Switch	13-3414	

## Wiring Diagrams

The following wiring diagrams may be wired in conjunction with other systems used with the dock leveler. Please consult Nordock Inc. or a qualified electrician before performing any work on the control panel or its components.

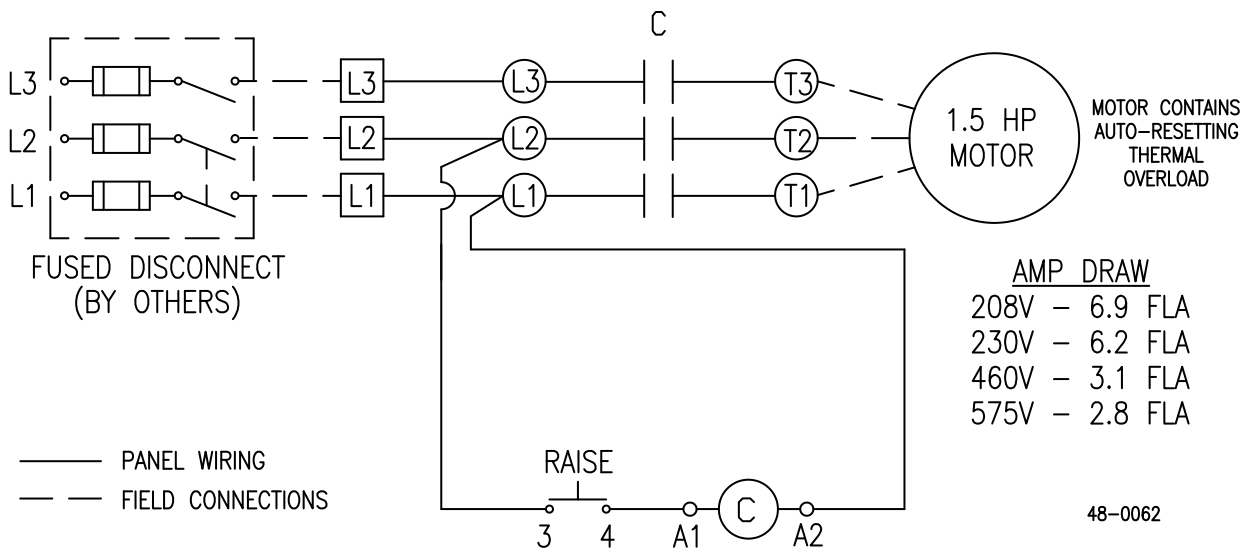
### Single Phase 1 Button 110v-220v – Starter Only

42-0063-B



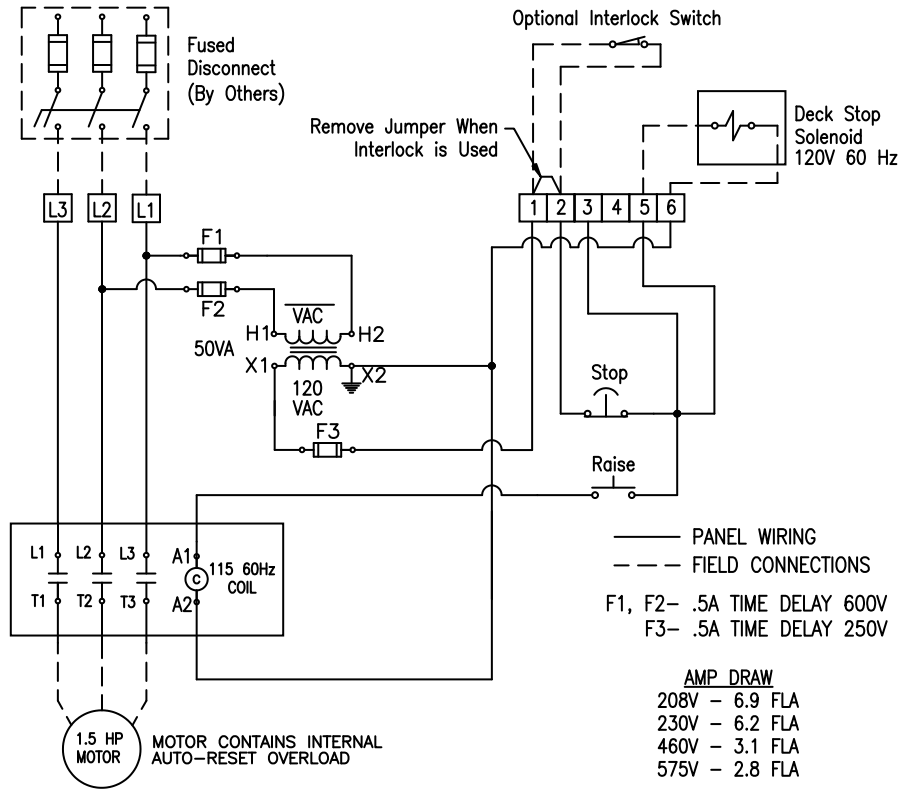
### 3 Phase 1 Button 208v-575v – Starter Only

42-0062-B



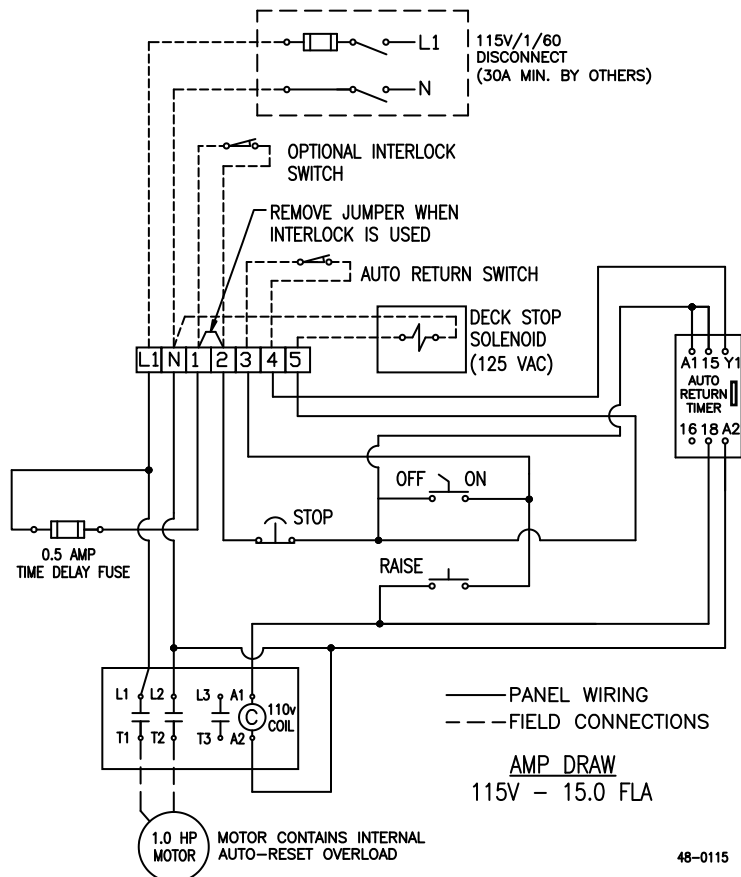
### 3 Phase 2 Button 208-575v - Starter and Emergency Stop

48-0083



### Single Phase 3 Button 120v - Starter, Emergency Stop and Auto Return

48-0115



48-0115

### 3 Phase 3 Button 208-575v – Starter, Emergency Stop and Auto Return

48-0113-A

