

Hydraulic Dock Leveler
Dual Duty Constructor Series
Model "CH"
25,000 to 45,000 lbs. Capacity

Operation and Maintenance Manual

This Manual applies to dock levelers manufactured on or after
2014/12/31, with Serial Number(s) 30033 and greater.

P/N: 49-0116 - I

NORDOCK INC.

Website: nordockinc.com ~ Email: sales@nordockinc.com ~ Toll free: 866-885-4276
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.

NORDOCK®	
DESCRIPTION	
XX XX XX000 LBS	
SERIAL #:	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 its Model CH, CONSTRUCTOR™ 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 Nordock Inc. may deem advisable, without charge to the purchaser.

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.



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

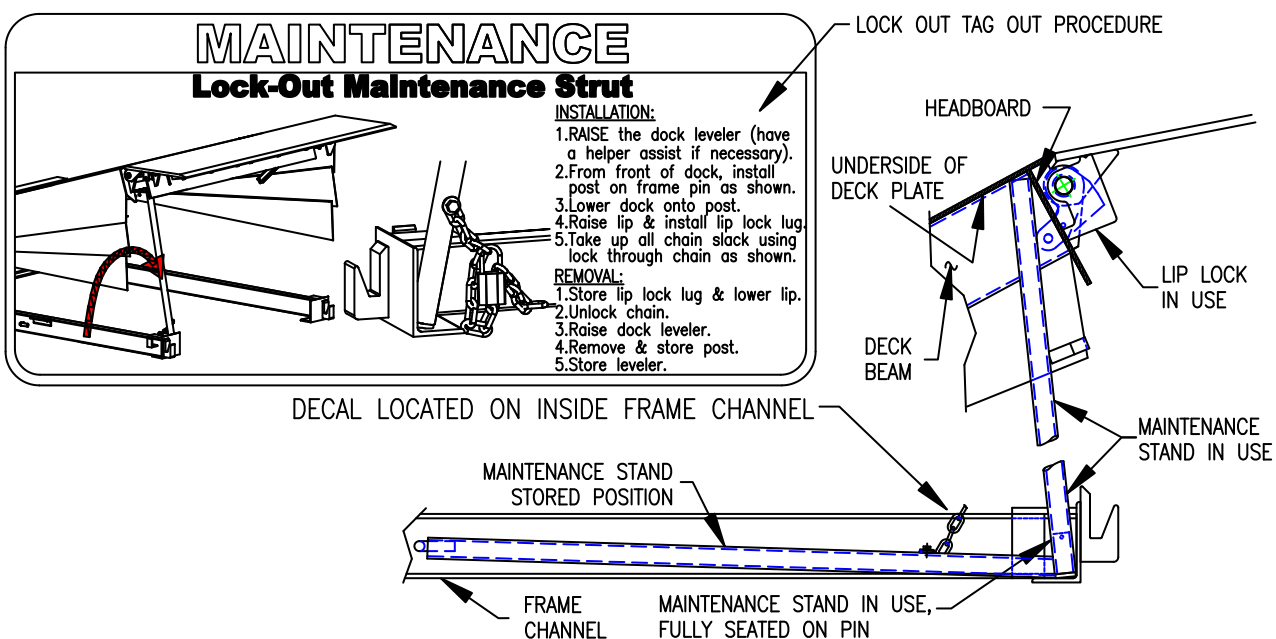
USE EXTREME CAUTION WHEN INSTALLING THE MAINTENANCE STAND

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.

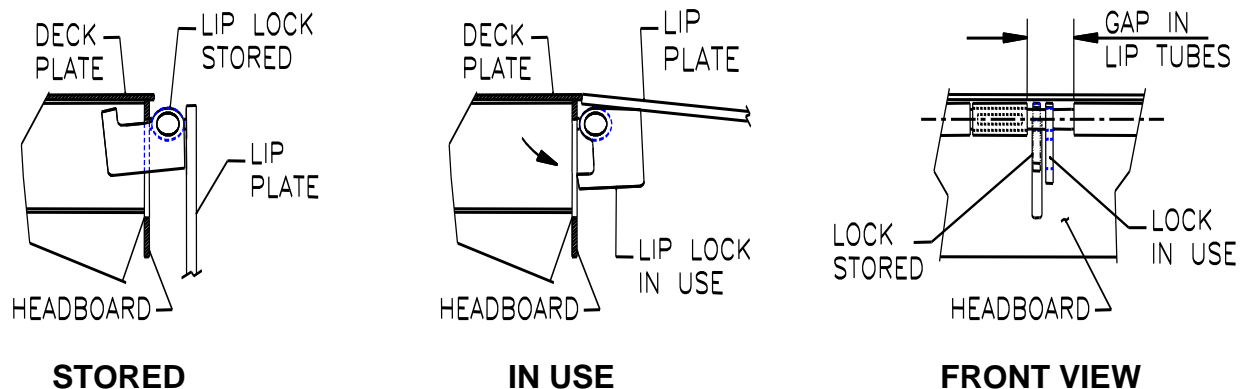


4. Lower the dock onto the stand, making sure the stand supports the deck plate and headboard between the deck beams, as shown. DO NOT support the dock from the bottom of the deck beam.
5. After completing work on the dock, unlock and lower the lip. Remove the maintenance stand and return to its stored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

Optional Lip Lock

1. Raise the dock leveler lip and rotate the lip maintenance lock out from the stored position.
2. Slide the lock to the right so that the bottom tab contacts the steel of the headboard and lower the lip onto the lock.

LIP LOCK POSITIONS:



To return the lock to the stored position, lift the lip, slide the lock plate to the left and rotate it back into the storage slot.

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.

CAUTION
Read and observe these warnings.
Failure to do so may result in personal injury or property damage.

- o Do not operate or service this equipment without proper training and knowledge.
- o Stand clear of all moving parts.
- o Do not operate this equipment if it appears to be broken or not functioning correctly.
- o Do not conduct maintenance or position yourself beneath the platform or any part of this equipment without the proper support and lockouts in place.
- o Contact your supervisor, an authorized Nordock Inc. representative and Nordock Inc. if you have any doubt of the safe operation, maintenance, or service of this equipment.

NORDOCK Phone 866-885-4276
www.nordockinc.com

NORDOCK products are covered by one or more of the following U.S. patents: 6,024,499; 6,062,790; 7,283,029; 7,394,829 and pending U.S. and Foreign applications.

Trademarks of NORDOCK Inc.
NORDOCK® AIRDOCK® TRUCK-L-DOCK® WEARTECH® LIGI-SMART™
DUAL-DUTY® HEAVY-METAL® BURA-GUARD™ MAST-GUARD™
PROTECTEERING™ CHAMBER™ HYDRA-FLDA™ AUTO-DECENTLIP™
AIR-STOP™ FULL-ACTION CRASH-GUARD™ BUCK-COR™
HEEL-TOUCH™ FALL-STOP™ FLOORFRAME™ RAINSHIELD™
RETRACTAFRAME™ COLISTORAGE™ SUPER-DUTY™

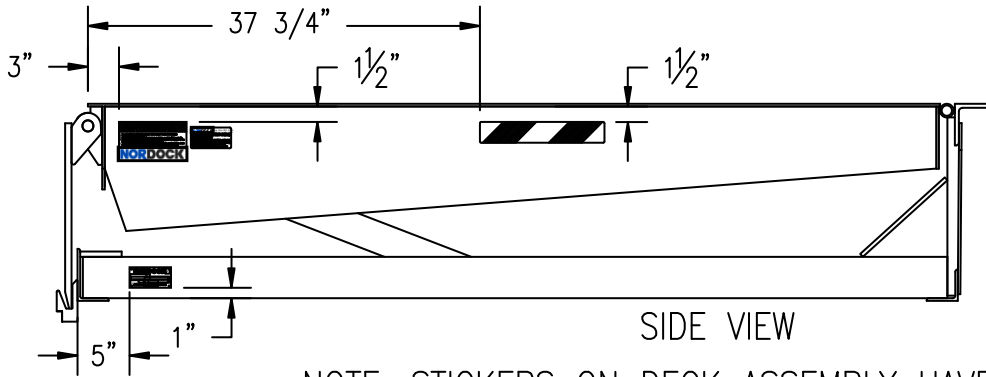
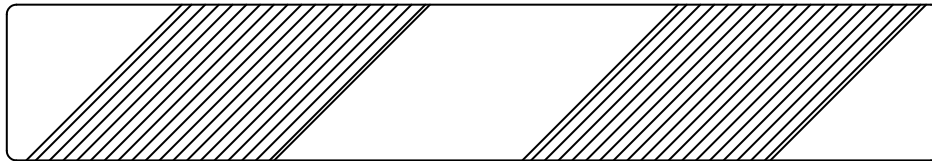


NORDOCK

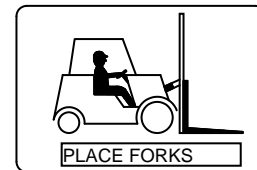
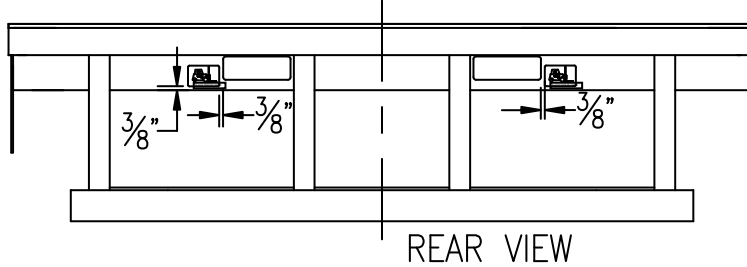
DESCRIPTION:

SERIAL #:

866-885-4276 ~ WWW.NORDOCKINC.COM
MADE IN CANADA



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

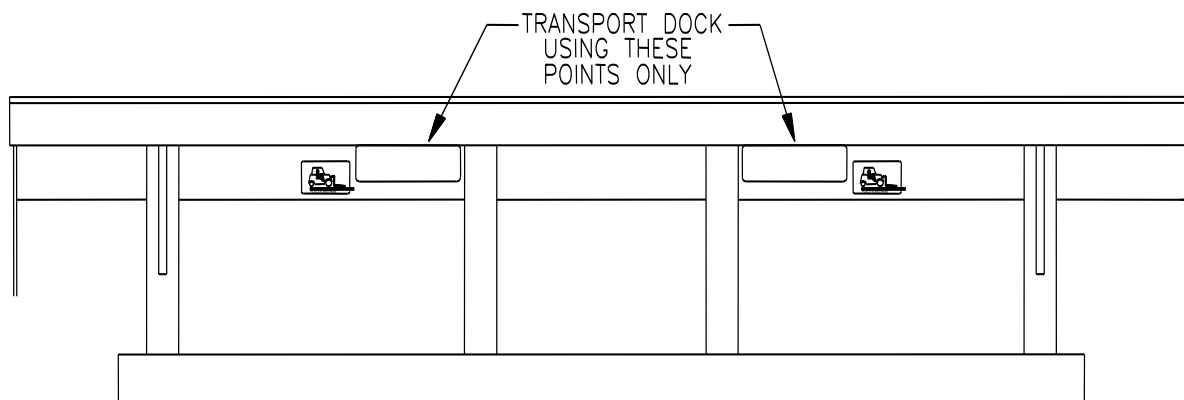
1. Check the entire pit area for proper construction according to the certified pit drawings. Ensure the pit walls are square and plumb. If this is a replacement, ensure the steel sections are in good, weldable condition. Check the electrical service running to the pit and make sure it is the same as 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.

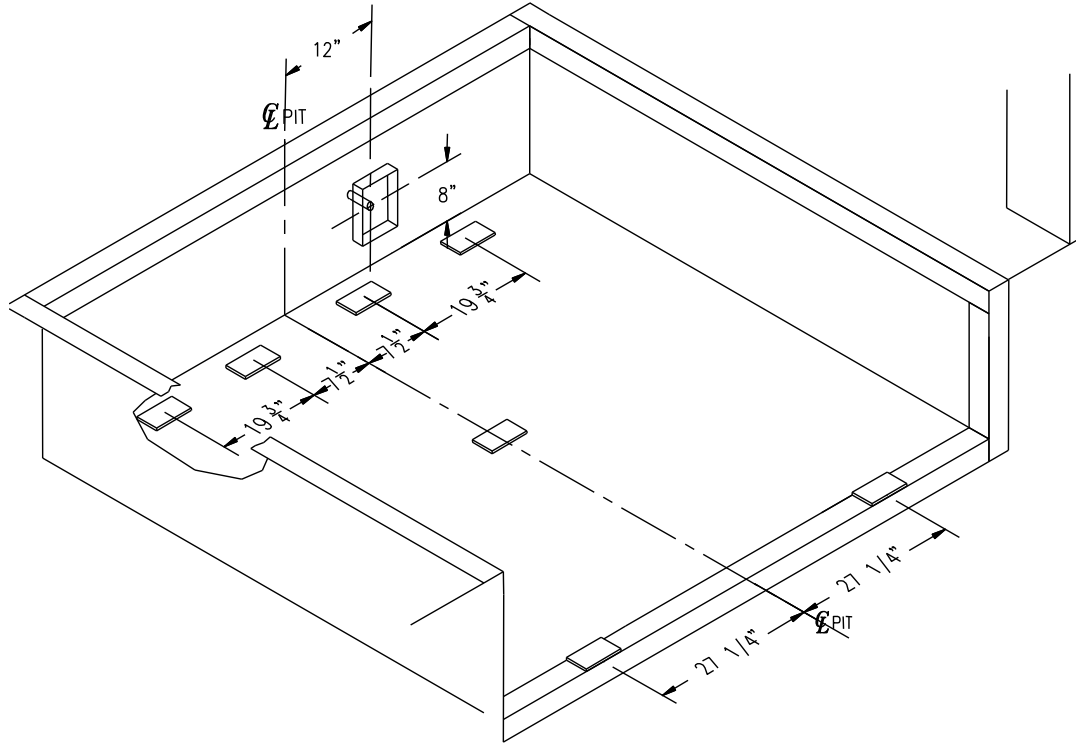
Dock Installation

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.

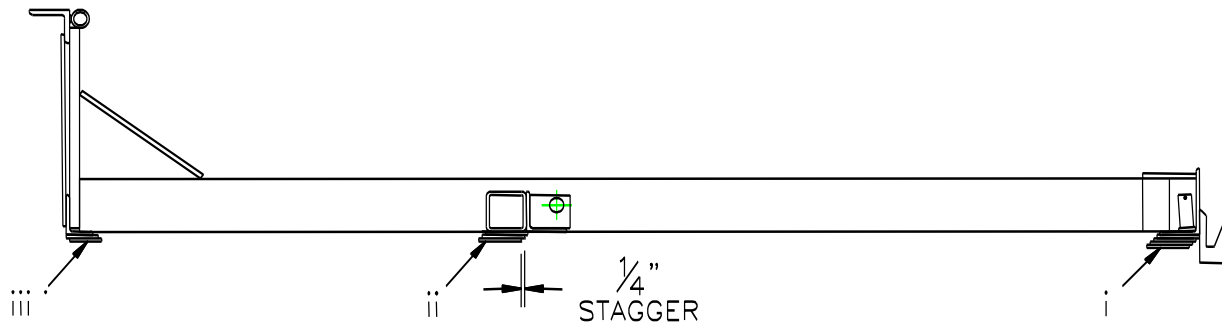


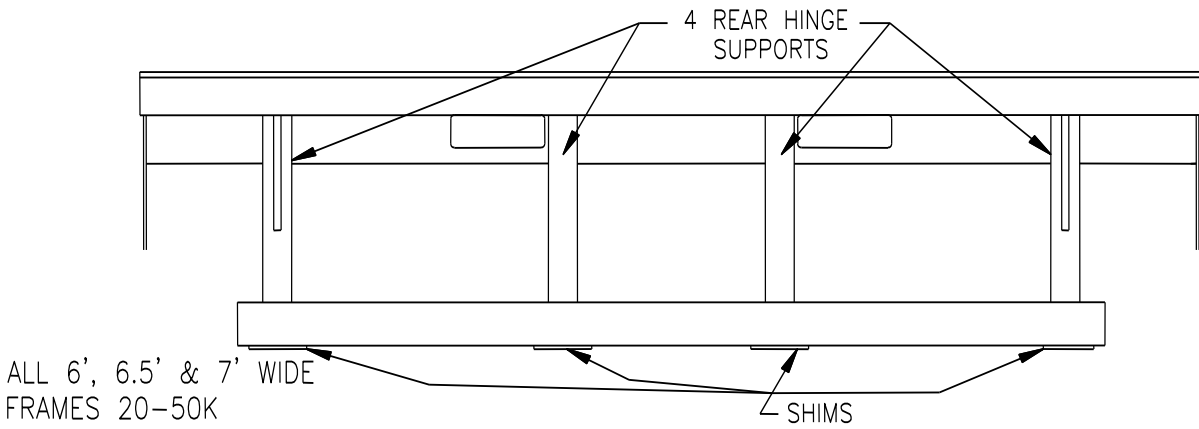
1. Have the control panel mounted and wired by a qualified electrician. See electrical diagram inside the control panel. Wires shown as dashed lines are field connections.

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.

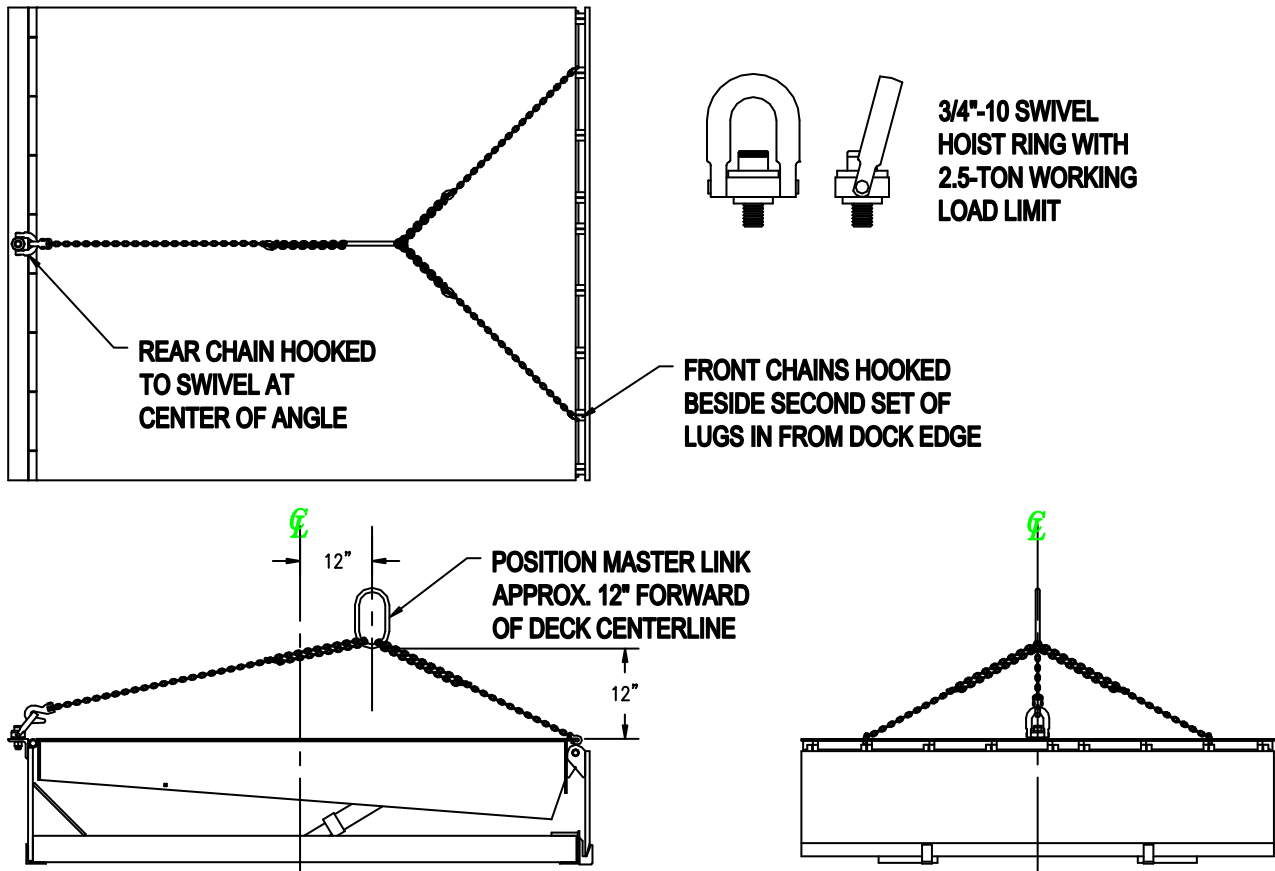


3. Shims must be placed in the following seven areas:
 - i. Under both frame rails directly behind the lip keeper lugs (2 Places).
 - ii. Under the cross tube where the cylinder mounts to the frame (1 Place).
 - iii. Under frame angle at the uprights connecting to the hinge angle (4 Places).

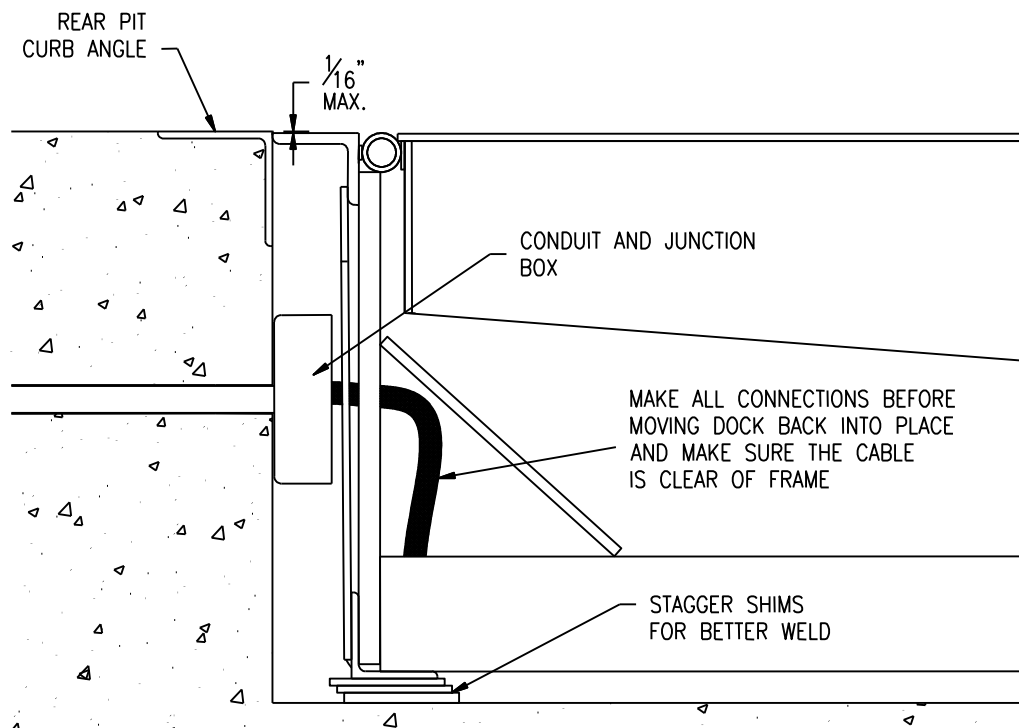




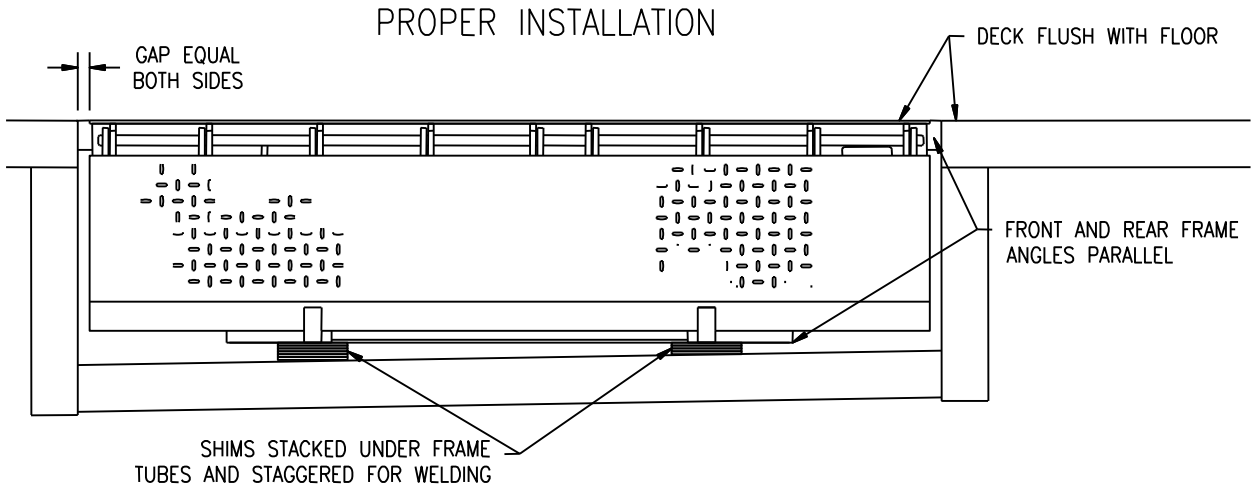
- Attach lifting chains to dock leveler. All chains must be minimum grade 80 and chain hooks have a minimum 1-ton capacity. An endless master link should also be used to assist in the levelling of the dock leveler. Three chains must be used; one hooked at the center of the hinge angle, two hooked on 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.



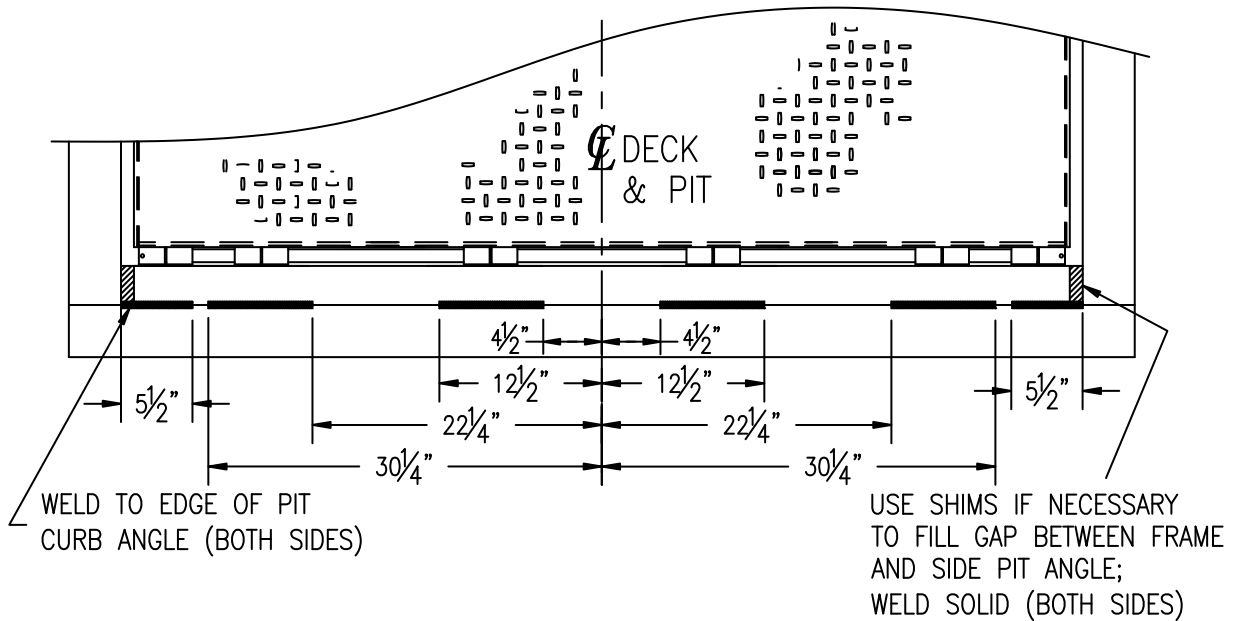
5. Lift the deck approximately 6" and check that it is level. Adjust chains accordingly if required. Do not attempt to install the dock if it is not level. Damage to the unit or personal injury may result.
6. Remove straps holding electrical cable and attach plug (If required). Temporarily strap cable to rear frame upright so that it can be easily reached for connection to pit outlet.
7. Place dock into pit. Leave room between the dock leveler and the rear pit wall so that the electrical connections can be made.
8. 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.

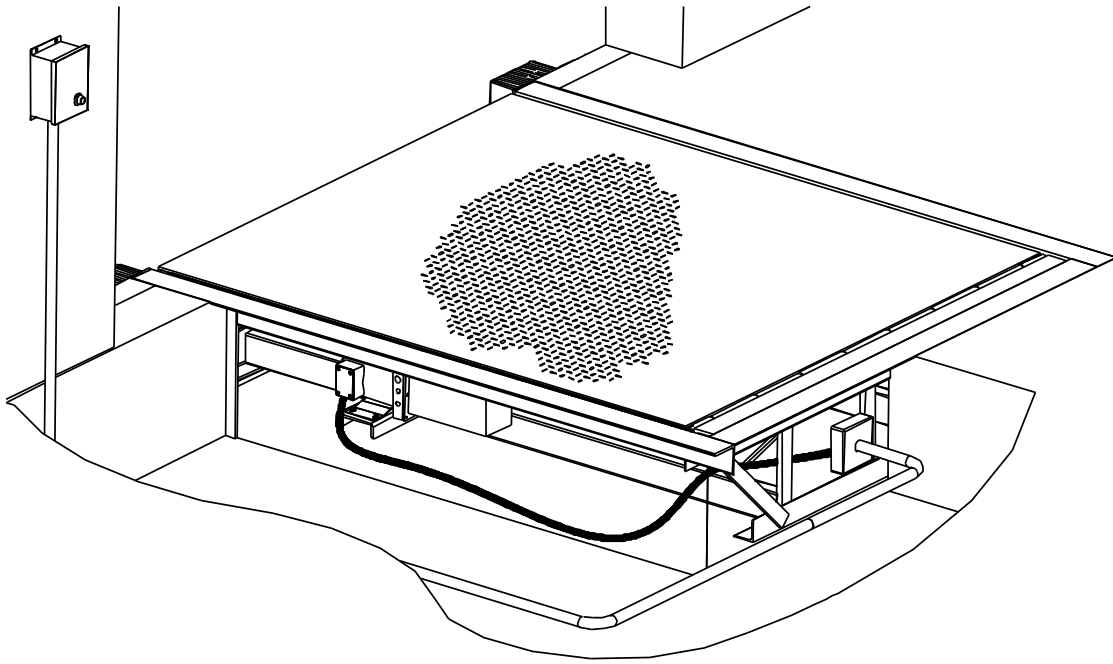


9. Move the dock so that the hinge angle is flush and tight to pit angle and is centered between side pit curb angles.
10. Remove the transport cables and raise the dock leveler. Install the maintenance supports and check the position of the shims. Re-position if necessary. There should be no more than 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.
11. Remove the maintenance support 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.



12. Raise the deck and re-install the maintenance support. See also Maintenance Stand Section, page 14 of this manual. Weld the shims solidly together, and weld the shims to both the frame and the front angle.
13. 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.

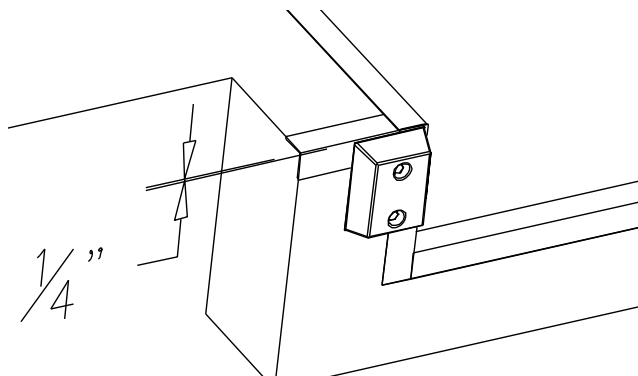
Note: It is the installer's responsibility to complete any paint touch-up and dock area clean up that may be required.

Bumper install

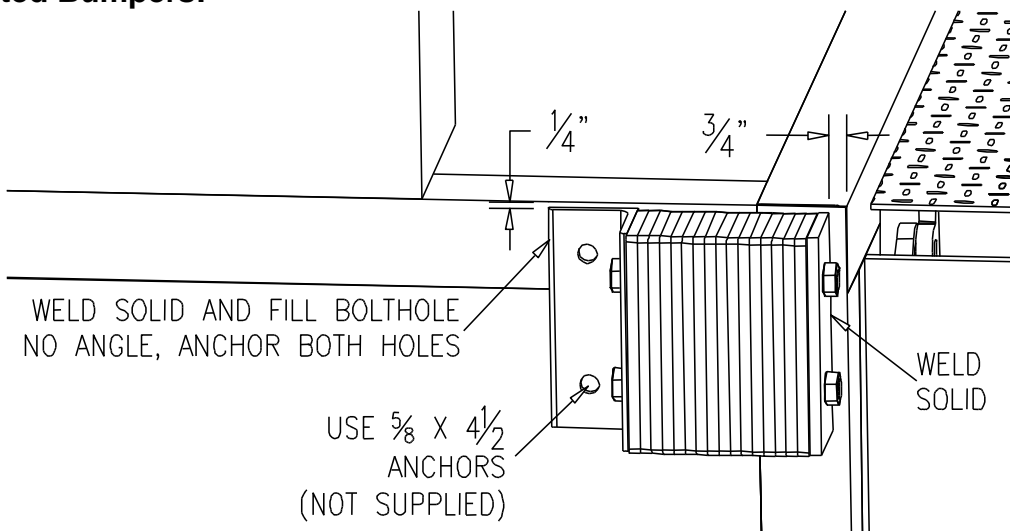
Bumpers should be installed on either side of the dock pit to prevent damage from trucks backing into the dock leveler. See below.

Moulded Bumpers:

Install bumpers 1/4" below floor level and against the edge of the pit or dock base. The top of the bumper should be 1/4" below the curb angle, and fastened to the wall using 5/8" x 6" wedge anchors with a 5/8" diameter flat washer (not supplied).



Laminated Bumpers:



Install bumper 1/4" below floor level and 3/4" away from the edge of the pit so that the bolt heads 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 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 as soon as 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 (Optional)

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

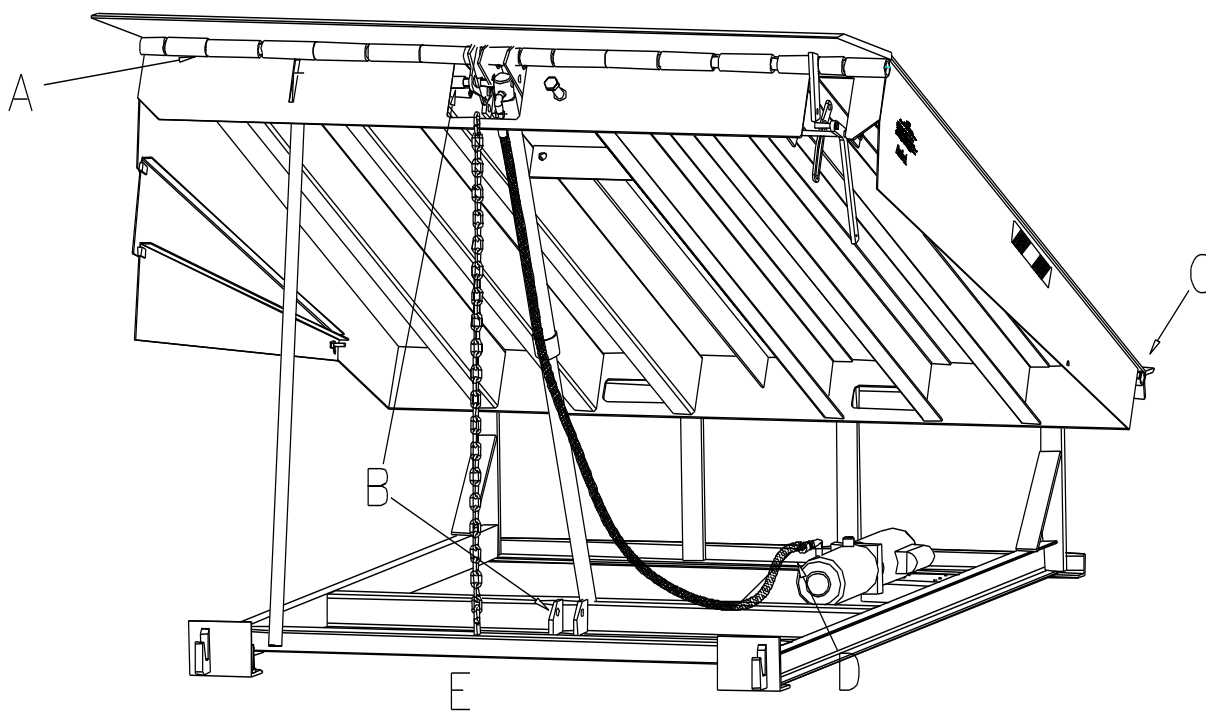
- 1a. Press the “RAISE” button until the ramp rises approximately 12”. Pull the lip extend handle located in the recessed pocket at the front left corner of the deck and hold as the deck descends below floor level.
- 1b. Do not walk or drive on the dock until it has completely stopped lowering. Ensure 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 **32** 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.

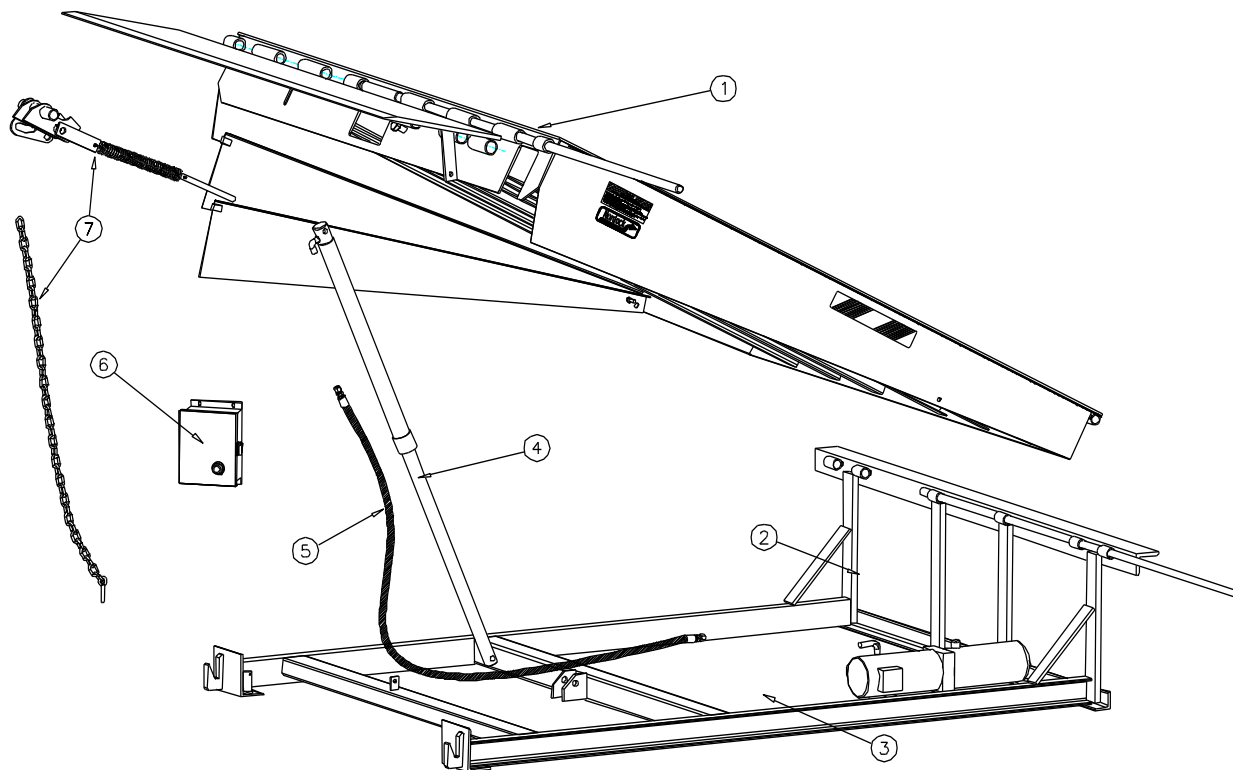
Use the chart below as an adjustment guide.

NOTE: Item numbers below refer to **Parts and Service Section 3 – Power Pack**

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

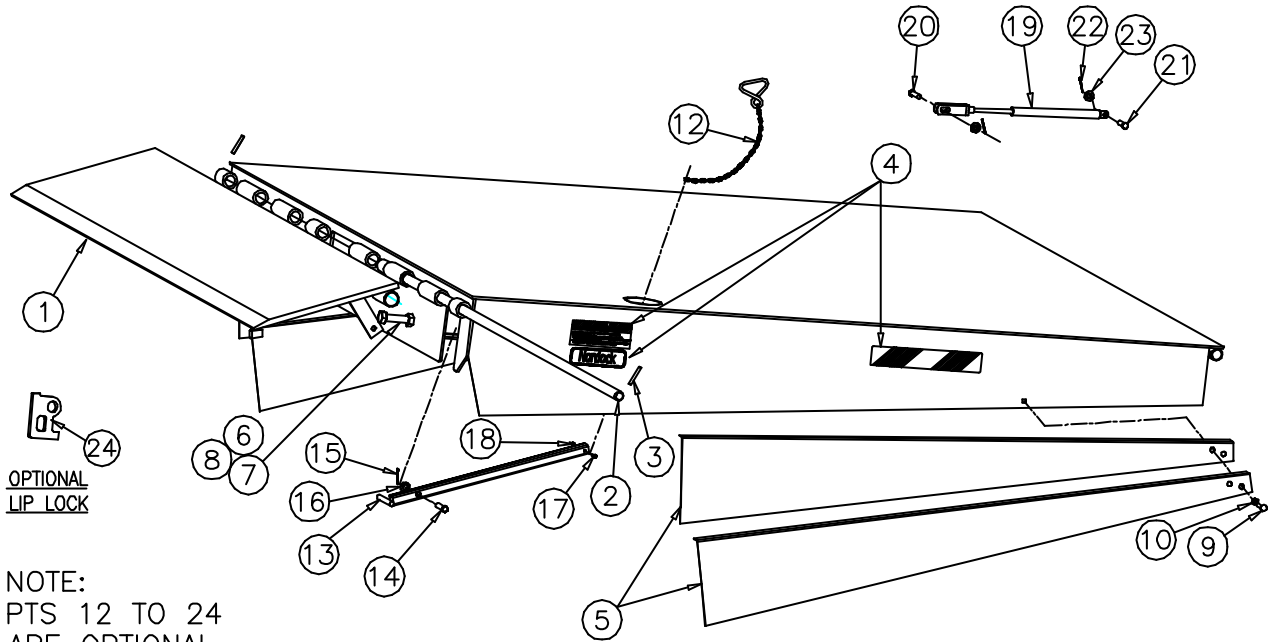
Parts and Service Tables



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

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

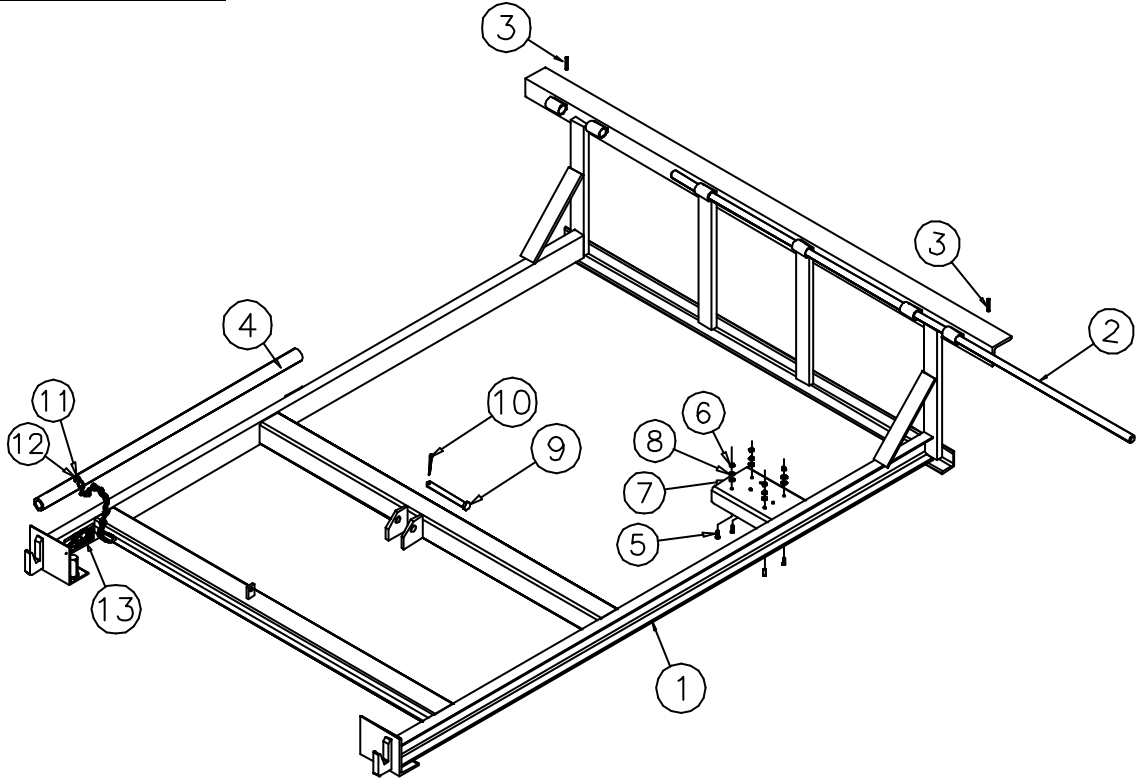


Item	Qty.	Description / Model						Note	
1	1	Lip Weldment							
		Capacity	Length	P/N					
				6'	6.5'	7'	7'T		70"
		25-30K	16"	42-1120	42-1129	42-1138	42-1147		42-1156
			18"	42-1121	42-1130	42-1139	42-1148		42-1157
			20"	42-1122	42-1131	42-1140	42-1149		42-1158
		35K	16"	42-1123	42-1132	42-1141	42-1150		42-1159
			18"	42-1124	42-1133	42-1142	42-1151		42-1160
			20"	42-1125	42-1134	42-1143	42-1152		42-1161
		40-45K	16"	42-1126	42-1135	42-1144	42-1153		42-1162
			18"	42-1127	42-1136	42-1145	42-1154		42-1163
			20"	42-1128	42-1137	42-1146	42-1155		42-1164
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" long	13-0555	
4	1	Dock leveler Decal Kit	42-0392	
5	1	Telescoping Side Skirt Kit	6' Long Docks	42-0393
	1		8' Long Docks	42-0394
6	1	5/8" Dia. Nut, Bolt x 4" Long	13-0302	
7	1	Washer, Lock, plated	13-0657	
8	1	Nut, Hex, 5/8"-11NC, 5/8", plated	13-0289	
9	2	Bolt, 3/8" - 16 UNC x 1 1/4" Carriage Head	13-0122	
10	2	Nut, 3/8" - 16 Grade 5, Nylock	13-0707	
Optional Equipment:				
12	1	Below Dock Chain – Deck to Handle (9 1/2")	42-1415	
13	1	Below Dock Control Lever – Handle to Lip	43-2016	
14	1	Clevis Pin – Lip Extend 1/2 x 2 1/4"	13-0288	
15	1	Cotter Pin, 1/8" x 1" long, plated	13-0171	
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	13-1858	
Gas Spring Components (when equipped):				
19	1	Gas Spring – Lip Extend (Quantity As Required)		
		Gas Spring c/w Clevis End	42-1568	
		Gas Spring only	13-2783	
20	1	Clevis Pin – Gas Spring to Lip, 1/2" x 1 1/4"	13-2111	
21	1	Clevis Pin – Gas Spring to Deck, 3/8" x 1 5/8"	13-0500	
22	2	Cotter Pin, 3/16" x 1	13-0171	
23	1	Washer, 3/8" SAE Flat	13-0203	
Optional Lip Maintenance Lock				
24	1	Lip Lock	All Docks	43-1062

Note 1 – For correct decal placement, see safety section.

Section 2 – Frame



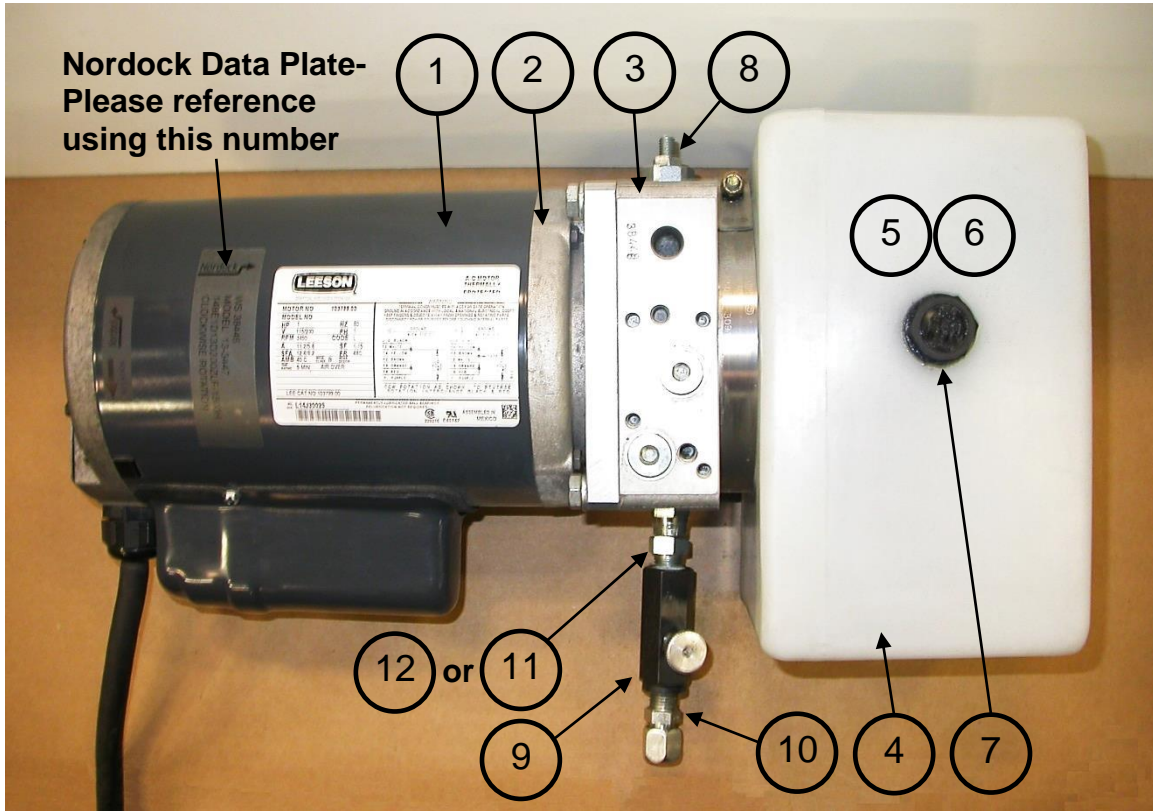
Item	Qty.	Description / Model				P/N	Note	
1	1	Frame Weldment	Dock Length	P/N- Dock Width			1	
				6'	6.5'	7'		70"
				8'	42-1459			42-1471
			8'	42-1465		42-1472		
2	1	Rear Hinge Rod	43-0154	43-0155	43-0156	43-0462		
3	2	1/4" x 2" Roll Pin				13-0555		
4	1	Maintenance / Support Stand				43-0262		
5	4	Bolt, 1/4" - 20 UNC x 1, Plated				13-0623		
6	4	Nut, 1/4" - 20 UNC, Nylock, Plated				13-0334		
7	4	Washer, 1/4" SAE Flat				13-0272		
8	4	Washer, Lock, 1/4", Plated				13-0335		
9	1	Lower Cylinder Pin, 3/4" dia.				43-0994		
10	1	Cotter Pin, 3/16" x 1 3/4"				13-0304		
11	1	Screw, Tek #14 x 1 1/4" long				13-2359		
12	1	Washer, 1/4" Fender				13-0271		
13	1	Decal, Dock leveler, Lock-Out Tag-Out				43-1287		

Note 1 – The standard Rear Frame angle width is 3". Angle widths may vary to suit pit length.

Please consult factory when ordering replacement frames.

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

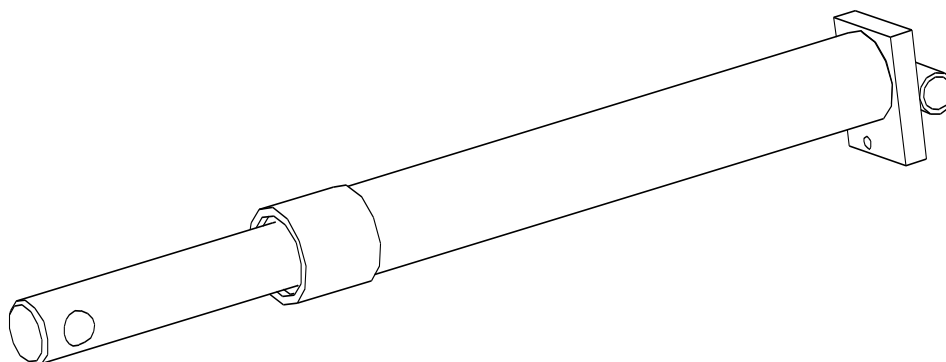
Section 3 – Power Pack and Related Hydraulic Components



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	
Power Pack Components:					
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			

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

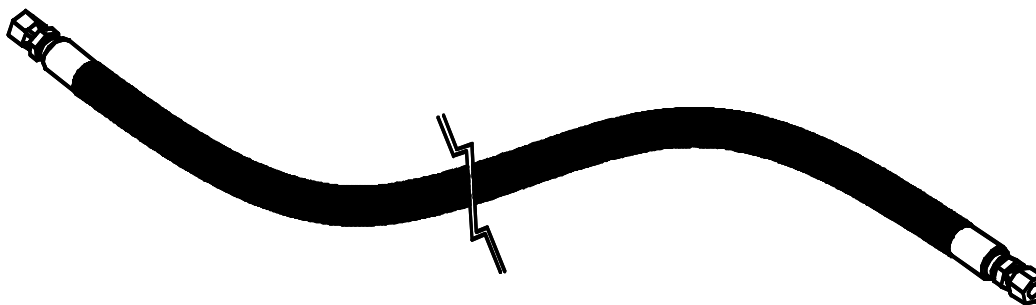
Section 4 – Hydraulic Cylinders



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

Note 1 – Standard lift cylinder used on 25-45K CH dock levelers.

Section 5 – Hydraulic Lines and Fittings

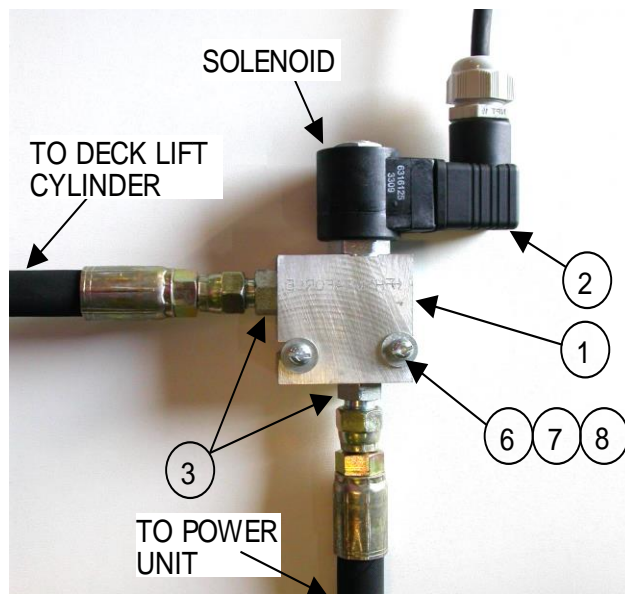


Dock length	Dia.	Description / Model	P/N	Note
6'	3/8"	Deck Lift Hose Assembly, x 72" long Hose kit, consisting of 1 hose	42-0559 13-1679	
8'	3/8"	Deck Lift Hose Assembly, x 72" long Hose kit, consisting of 1 hose	42-0560 13-1679	
Optional Emergency Stop:				
All	3/8"	Hose Assembly, Power Unit to Valve,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

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

Section 6 – Optional Equipment

Lip Extend/Emergency Stop Valve:



Item	Qty.	Description / Location	P/N	Note
1	1	Solenoid Valve / Rear Frame Brace	Complete Assembly 13-0826 Solenoid only 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	

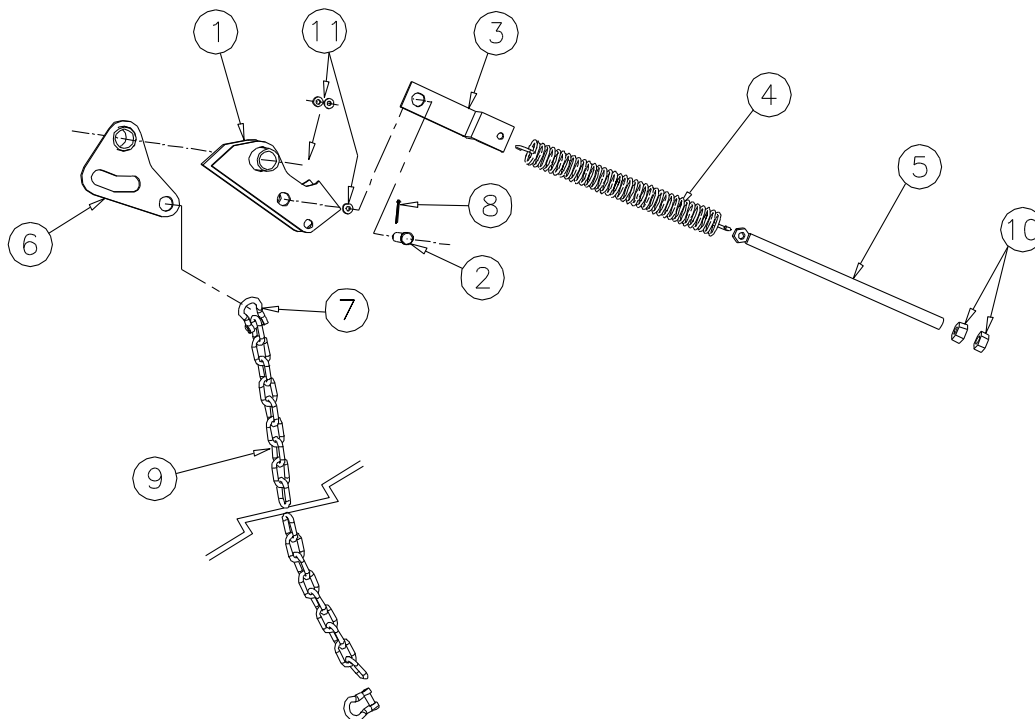
Note: See Section 5 for the hydraulic lines required for the Lip Extend/Emergency Stop valve.

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 7 – Lip Actuator Assembly



Item	Qty.	Description / Style	P/N	Note
1	1	Lip Cam Weldment	42-1166	
2	1	Pin, Lip Cam, 3/4" x 5"	42-1386	
3	1	Return Spring Mount	42-1333	
4	1	Cam Return Spring	13-0565	
5	1	Adjuster Rod	42-1443	
6	1	Lip Extend Actuator	42-1165	
7	2	Shackle, 5/16" Dia. Forged Steel with 5/16" Bolt	13-2161	
8	2	Cotter Pin, 3/16" x 1 3/4" long, plated	13-0304	
9	1	Actuator Chain	6' Long Dock 43-0415 8' Long Dock 43-0415	
10	2	Nut, 5/8-11unc, plated	13-0289	
11	3	Washer, 3/4" plated	13-0649	

Section 8 – Control Panels

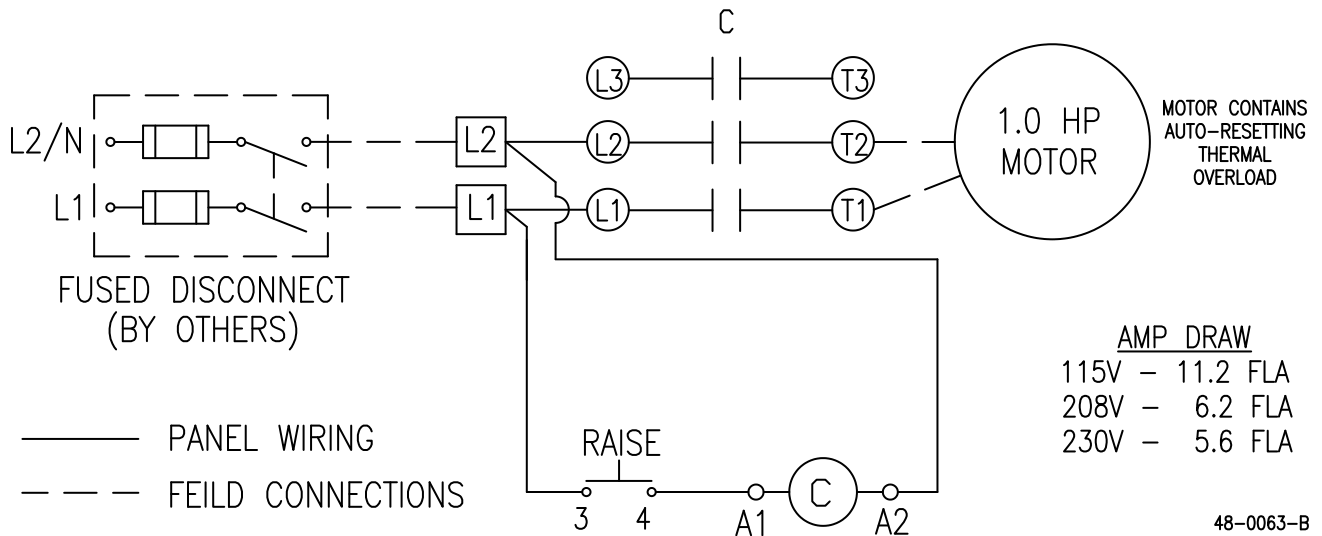
Volts/Ph.	Description / Style	P/N	Note
115/1/60	Standard Panel / Single Pushbutton	13-3767	
	2 Button – Deck Raise, Emergency Stop		
	3 Button – Deck Raise, Emergency Stop, On/Off Switch	13-3440	
208/230/1/60	Standard Panel / Single Pushbutton	13-3768	
	2 Button – Deck Raise, Emergency Stop		
	3 Button – 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.

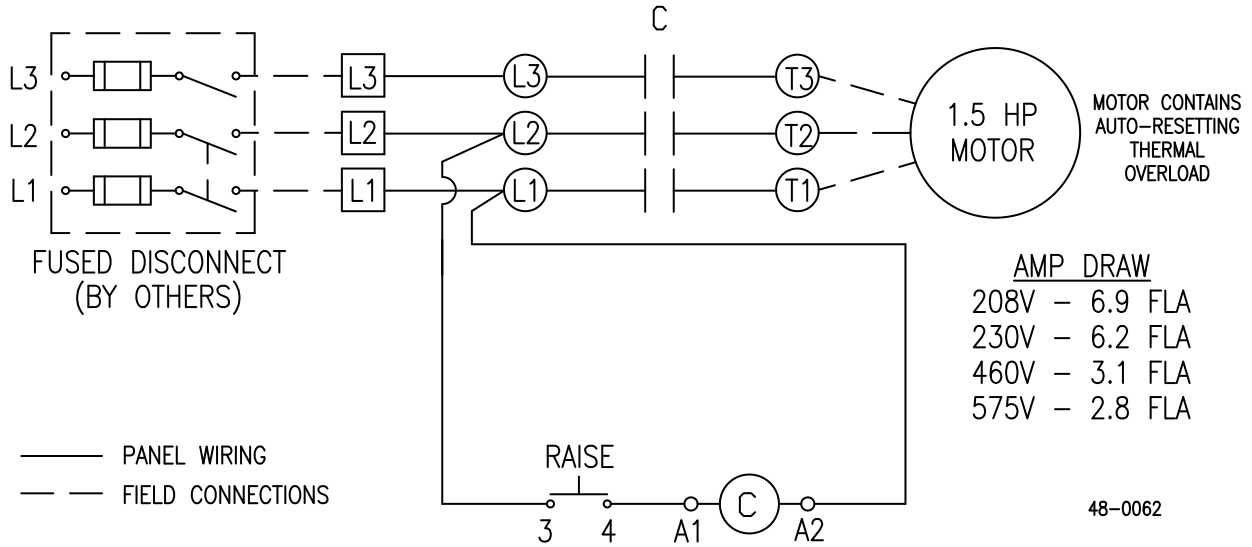
Single Phase 1 Button 110v-220v – Starter Only

42-0063-B



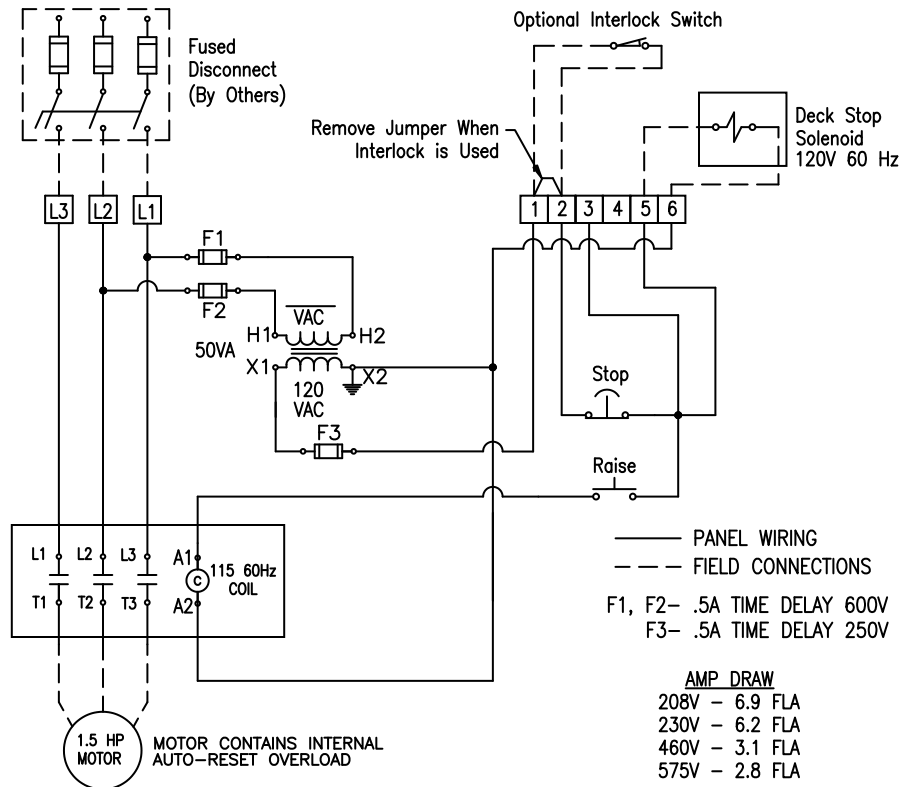
3 Phase 1 Button 208v-575v – Starter Only

42-0062-B



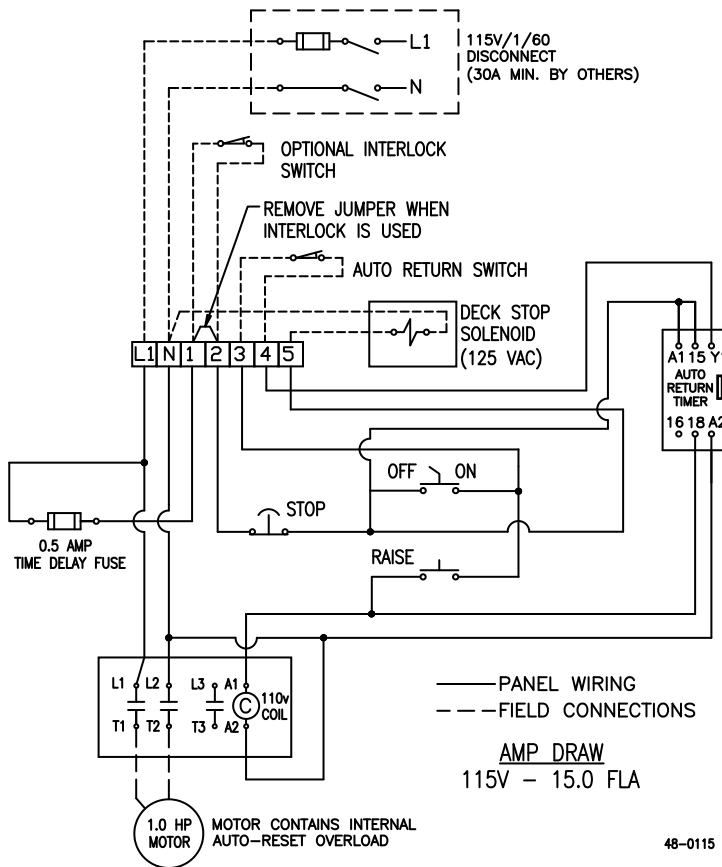
3 Phase 2 Button 208-575v - Starter and Emergency Stop

48-0083



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

48-0115



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

48-0113-A

