



Hydraulic Dock Leveler
Barrier Series - Sliding Lip
Model "SBL"
30,000 to 50,000 lbs. Capacity

## **Operation and Maintenance Manual**

This manual applies to dock levelers manufactured on or after February 2017, with Serial Numbers 37900 and greater.

P/N: 49-0247-B

### NORDOCK INC.

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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.

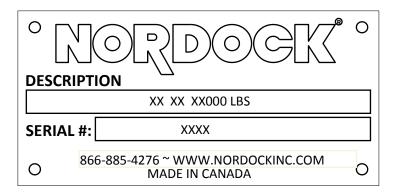
If you have any questions about this manual, the dock leveler, its components, or our products and services, please call us at 1-866-885-4276 and we will be happy to assist you. With proper care and maintenance, this dock leveler is designed to work effectively and efficiently for many years to come.

### 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.



### 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 SBL, FALL-SAFE™ 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:

- 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.

<u>In addition</u>, 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 co ponents 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.

- 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.
- 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.
- 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**

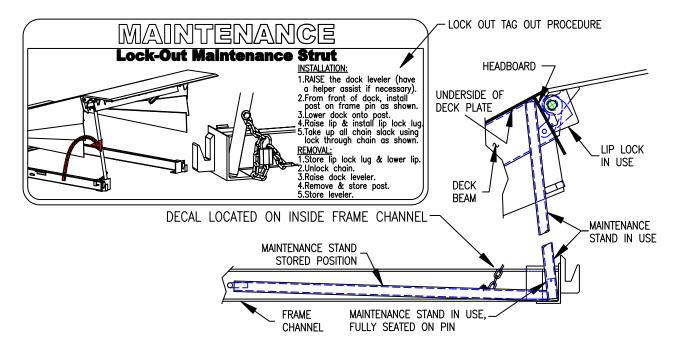
**USE EXTREME CAUTION WHEN INSTALLING THE MAINTENANCE STAND** 

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.

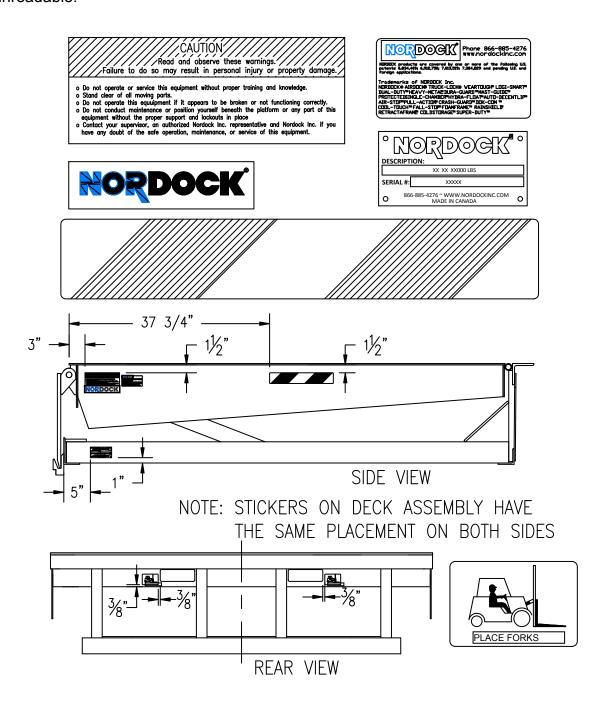
- 1. Raise the dock to its highest position.
- 2. Raise the lip and use the lip lock to hold the lip in the extended position.
- Remove the maintenance stand, located on the frame lower outside left side and position one end onto the adjacent pin (on the frame). The stand will slope toward the rear of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



## **Installation**

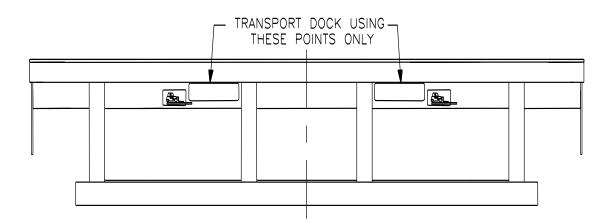
# **⚠ WARNING**

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.

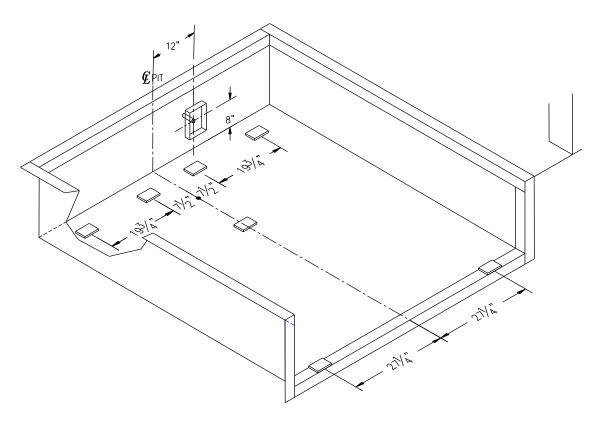
#### **Pit Check**

- 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, weld-able 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 <u>before</u> 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 next page for best rear pit placement.

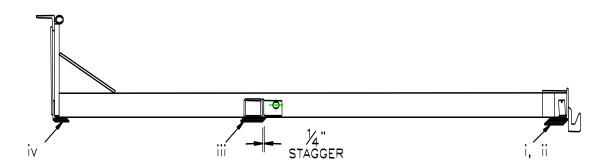
### **Dock Installation**

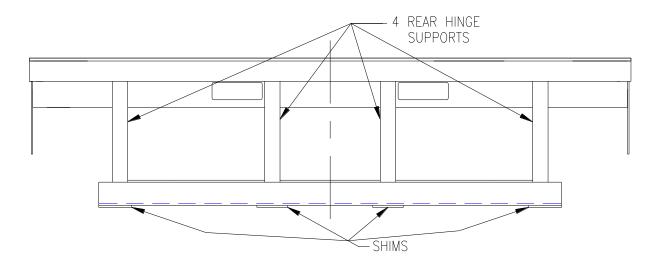


- 1. Have the control panel mounted and wired by a qualified electrician. See electrical diagram inside the control panel. Wires shown as dashed lines are field connections.
- 2. Shims may be placed in the pit prior to the installation of the dock. Make sure shim heights are all the same depth from the edge of the pit area. For best weld, stagger shims at least 1/4". At this time, tack-weld the shims only. See below for correct placement of shims.

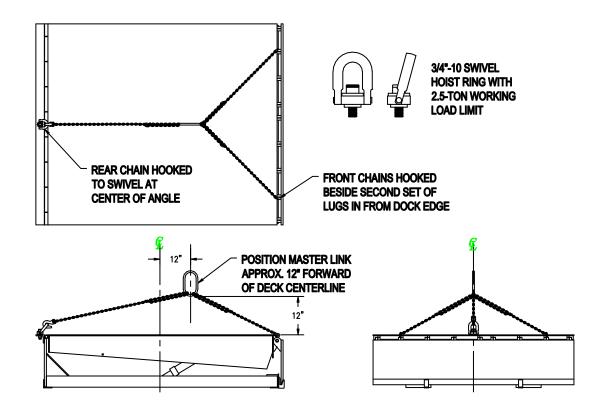


- 3. Shims must be placed in the following seven areas:
  - I. Under both frame rails directly behind the lip keeper lugs. (2 places)
  - II. Under the left frame rail. directly below the maintenance stand mounting pin.

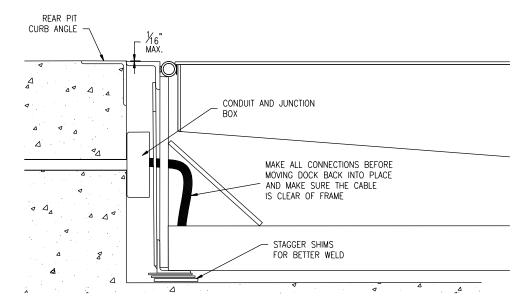




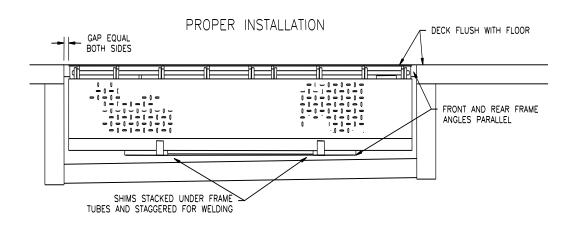
- Remove straps holding electrical cable and if required, attach plug (not included).
   Temporarily strap cable to rear frame upright so that it can be easily reached for connection to pit outlet.
- 5. Attach the lifting chains to the front of dock leveler and a swivel hoisting to the rear of the dock leveler in the 3/4"-10 threaded hole. 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.



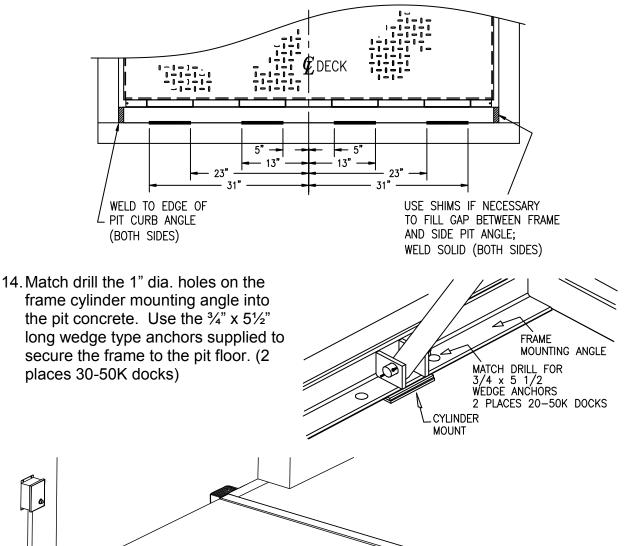
- 6. Lift the deck approximately 6" and check that it is level. Adjust chains accordingly if required. Do not attempt to install the dock if it is not level. Damage to the unit or personal injury may result.
- 7. Place dock into pit. Leave room between the dock leveler and the rear pit wall so that the 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 dock so that hinge angle should fit flush and tight to pit angle and be centered between side pit curb angles.
- 10. Remove the transport cables and 'raise' the dock leveler. Install the maintenance support 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. See also Maintenance Procedure pg. 5 of this manual.



- 12. 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.
- 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.

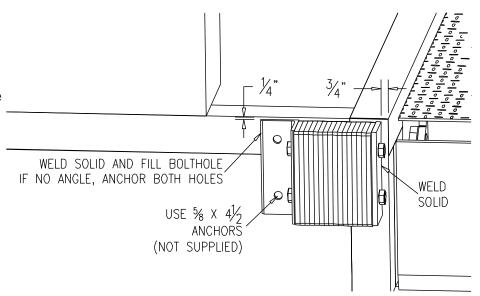
**Note:** It is the installer's responsibility to complete any paint touch-up and dock area clean up that may be required.

### **Bumper Install**

Bumpers should be installed 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**

# **MARNING**

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 <u>Below Dock Control</u> in this section.

#### **Standard (Single Pushbutton) 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.
- 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 reaches its highest point and the lip extends approximately 2".
- 1b. The ramp will lower below level and rest on the truck bed. Do not walk or drive on the dock until it has completely stopped lowering.

### **Lip Extend and/or Optional Auto Return Control Panel**

- 1. If equipped, turn the ON/OFF switch to the "ON" position, and pull the emergency stop pushbutton out.
- 2. Push and hold the "RAISE" button. The ramp will rise and once the lip has cleared the deck of the truck, press the "EXTEND" button to push the lip out. Release the button once the lip has extended and the deck will lower and rest on the truck bed.
- 3. Proceed with loading and/or unloading.

- 4. 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.
- 5. Ensure the lip is seated in the lip keepers before walking or driving on the dock.
- 6. Push in the "STOP" button and turn the ON/OFF button to the "OFF" position (if equipped).

### Below Dock Control – For Below Dock End Loading

If equipped with Auto Return, turn the ON/OFF switch to the "OFF" position.

To lower the ramp without extending the lip, for loading below dock level, substitute item 2 in the preceding instructions with the following:

- 2a. Press the "RAISE" button until the ramp clears the keepers and the truck bed by approximately 6" and release the button.
- 2b. before the ramp returns to the keepers, press the "EXTEND" button to extend the lip approximately 2" out from its resting position. Release the button and the dock will rest on the below dock supports. Do not walk or drive on the dock until it has completely stopped lowering.

#### **Auto Return**

In the event a truck pulls away from the dock before the lip is stored, the auto return feature will raise the ramp for a set time and the lip will store automatically. If this occurs check that the lip has stored properly on the lip store lugs, and it is recommended that all safety practices be reviewed.

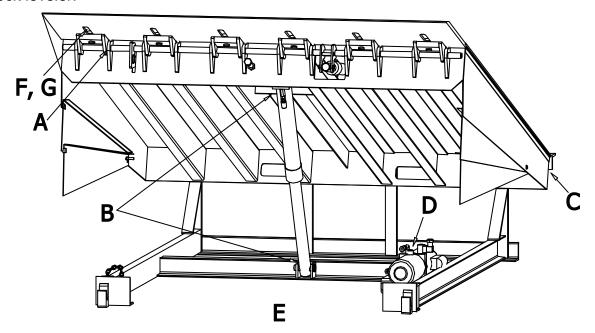
**Note:** If the dock leveler is equipped with an auto return feature it is necessary to turn the selector button to the "OFF" position to perform the below dock control function. Follow the instructions and turn the selector to "OFF" as the ramp approaches full below dock position. Turn the switch to the "ON" position only when loading or unloading is complete, and all persons, equipment and material are cleared from the dock.

# **Maintenance and Lubrication**

# **⚠ WARNING**

Before operating or maintaining the dock leveler, read and follow the safety practices and maintenance procedure 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.



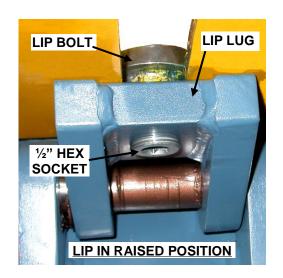
Item	Lubrication	Adjustment	Cleaning		
- A -	Every 90 days	None	Remove debris as		
Lip Hinge	Using grease	110110	required		
- B -	Every 90 days	None	Remove debris as		
Cylinder Pivot Pins	Using light oil	INOTIC	required		
- C -	Every 90 Days	None	Remove debris as		
Dock Hinge	Using light oil	INOTIC	required		
- D -	Check level daily		Remove and clean strainer		
Hydraulic Oil	Change oil yearly	None	and magnet yearly		
Reservoir					
- E –	None	None	Every 90 days or as		
Pit Area	None	inone	required to remove debris		
- F -	Every 90 days, Using	None	Remove debris as		
Lip Lug Bolt Track	dry spray lubricant	None	required		
- G –	Vendy De Terrore Lin Delte Con next nere				
Lip Bolts	Yearly - Re-Torque Lip Bolts, See next page				

### **Lip Bolt Re-Torque**

#### -VERY IMPORTANT-

Re-torque all the lip bolts annually to a recommended tightening torque of **300 ft.-lbs dry thread**.

Recommended tools: 1/2" Hex Bit – 3/4" Drive 3/4" Drive Torque Wrench



### **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.

To make adjustments: Remove the outer cap, as required, and loosen the locknut.

Use the chart below as an adjustment guide.

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

Iten	Name / Function	Adjustment
10	Sequence Valve (Blue Cap)	-Required if lip extends before the deck
	-Sends flow to the lip cylinder when	raises.
	deck is at full height	-Turn adjustment screw clockwise to control
		the lip extend.
		-Adjust in 1/8 turn increments.
11	Pressure Relief Valve (Red Cap)	-Required if having motor stalling problems.
	-controls maximum pressure	-Turn counter-clockwise (loosen) to lower
		relief pressure.
		-Adjust in 1/8 turn increments.
12	Flow Control Valve	-Turn adjustment screw clockwise (tighten)
	-controls downward speed of deck.	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.

### **Acceptable Lubricants and Oils**

#### <u>Hydraulic</u>

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.:

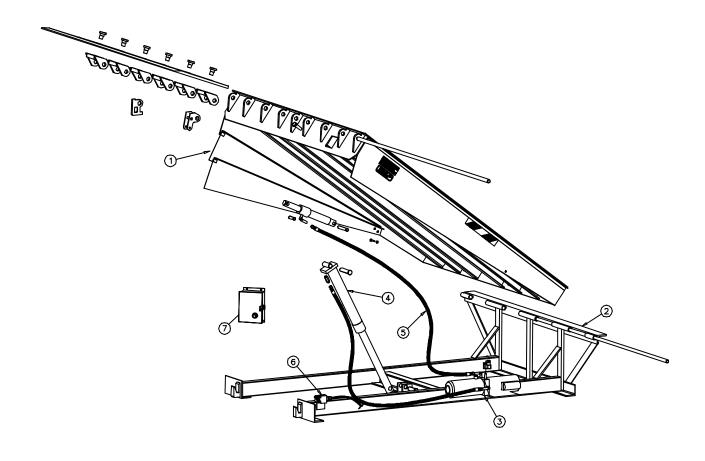
**CHEVRON DURA-LITH EP-2** 

#### <u>Light Oil</u>

Light oils used should have good penetration and adhesion qualities.

.

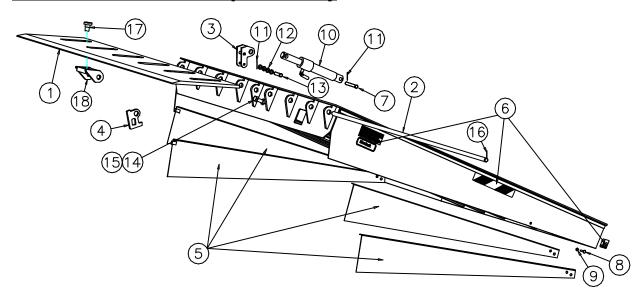
# Parts and Service Tables



Item	Description
Number/	
Section	
1	Deck and Lip Assembly
2	Frame Assembly
3	Power Pack and Related Hydraulic Components
4	Hydraulic Cylinders
5	Hydraulic Lines and Fittings
6	Optional Equipment
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 Inc. Remember to make note of the model and serial number of the unit for accurate parts and service.

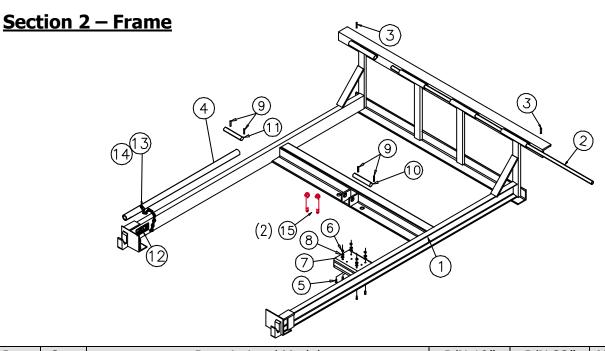
### <u>Section 1 – Deck and Lip Assembly</u>



Item	Qty.		Description / Model					Note	
		Lin Diata 20		P/N	N, Deck Wid	dth			
1	1	Lip Plate, 30- 50K, 20" long	6'	6.5'	7'	7'T	70"		
		SUK, 20 long	43-1508	43-1509	43-1510	43-1513	43-1514		
2	1	Hinge Rod, 1"	43-1511	43-1511	43-1512	43-1512	43-1511		
							P/N		
3	1	Lip Cam Weldme	ent		30-50K		42-2964		
4	1	Lip Safety Lock L	.ug				43-0452		
5	1	Telescoping Side	Skirt Kit –	6'			42-0393		
		Telescoping Side	Skirt Kit –	8'			42-0394		
		Telescoping Side	Skirt Kit –	10'			42-0395		
6	1	Dock Leveler De	cal Kit				42-0392	1	
7	1	Clevis Pin, 1/2" x	Clevis Pin, 1/2" x 4 1/2" 13-3672						
		Optional St St Pi	in 43-1026						
8	2	Bolt, 3/8" - 16 UN	IC x 1 1/4" (	Carriage He	ead		13-0122		
9	2	Nut, 3/8" - 16 Gra	ade 5, Nyloc	:k			13-0707		
10	1	Lip Cylinder - 1 1	/2"				C1-0009		
		Seal Kit - 1 1/2"					C3-0025		
11	2	Cotter Pin, 1/8" x	1"				13-0171		
12	4	Washer, 1/2" Flat	t				13-0267		
13	1	Clevis Pin, 1/2" x	3 1/2"				13-0399		
		Optional St St Pi	n, ½" x 4"				13-1025		
14	1	5/8" Dia. Nut, Bo	lt x 4" Long				13-0302		
15	1	Nut, Hex, 5/8"-11	NC, plated				13-0289		
16	2	Roll pin, 1/4" x 2"	13-0555						
17	6	Bolt, Lip - 6' & 6.	5' Wide Docks					2	
17	8	Bolt, Lip - 7' Wide							
18	6	Lip Lug Weldmer					42-2963		
10	8	Lip Lug Weldmer	nt, 30-50K -	7' Wide Do	ck		72-2303		

NOTE 1: - For correct decal placement, see safety section.

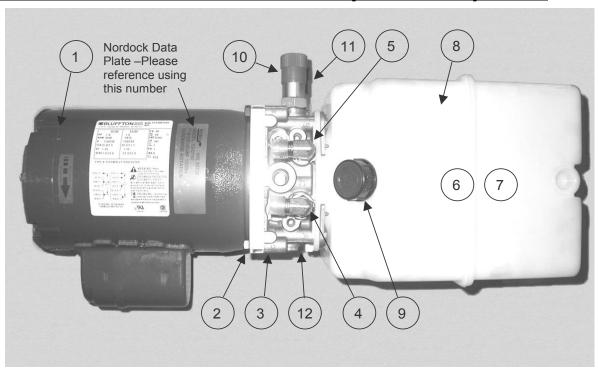
NOTE 2: - See Maintenance and Lubrication Section for lip bolt recommended tightening torque.



Item	Qty.	Description / Model		P/N 19"	P/N 23"	Note	
					Frame	Frame	
1	1	Frame Weldment, 30-50K		6 X 6	42-2950		
				6 X 8	42-2951	42-2999	
			_	6 X 10	42-2952		
				6.5X 6	42-2953		
				6.5 X 8	42-2954		1
			_	6.5 X 10	42-2955		
				7 X 6	42-2956		
				7 X 8	42-2957	42-2998	
		LI		7 X 10	42-2958	40.0454	
2	1	Hinge Rod, 7/8"		Dock	6'	43-0154	
				Width	6.5' 7'	43-0155	
					70"	43-0156	
3	2	Doll Dip. 4/4" v 2"	43-0462 13-0555				
4	1	Roll Pin, 1/4" x 2"  Maintenance / Support Stand	10" 9	23" Frames	. (40")	43-0262	
		• •	19 α	23 Flailles	5 (40 )		
5	4	Bolt, Hex, 1/4" – 20 UNC x 1"				13-0623	
6	4	Nut, 1/4" – 20 UNC, Plated				13-0334	
7	4	Washer, 1/4" SAE Flat				13-0272	
8	4	Washer, 1/4" Lock				13-0335	
9	4	Cotter Pin, 1/4" x 1 3/4"				13-0992	
10	1	Lower Cylinder Mount Pin, 4 1/2" lor	ng			43-0312	
		Optional St St Pin				43-1028	
11	1	Upper Cylinder Mount Pin, 6 3/4" lor	ng			43-0310	
		Optional St St Pin				43-1027	
12	1	Decal, Dock leveler, Lock-Out Tag				43-1287	
13	1	Screw, ¼" -14 x 1, Tek, Hex Head, plated				13-0273	
14	1	Washer, ¼" Fender, Plated	Washer, ¼" Fender, Plated				
15	2	Anchor, Wedge, <sup>3</sup> / <sub>4</sub> " x 5 ½" long, pland Boor Frame angle width in 3". Width				13-4569	

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

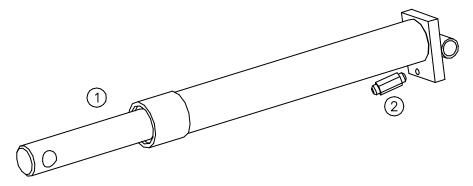
### <u>Section 3 – Power Pack and Related Hydraulic Components</u>



Item	Qty.	Description / Model			P/N	Note
		Complete Power Pack	115	/ 230 V 1 Ph.	13-0790	
		Assembly	230	/ 460 V 3 Ph.	13-0791	
		(Pts 1-12 below)	575	V 3 Ph.	13-0792	
Powe	r Pack	Components:				
1	1	Drive Motor		115 / 230 v. 1 PH		
				230 / 460 v. 3 PH		
				575 v. 3 Ph.		
2	1	Motor Coupler		Standard Duty		
3	1	Manifold Assembly	Standard Duty			
4	1	Hydraulic Fitting, 90° 3/8" FNPT x #6MJIC, Deck Lift Port			1	
5	1	Hydraulic Fitting, 90° 3/8" FNPT x #6MJIC, Lip Ext. Port				
6	1	Pump Assembly (Inside Tank	()			
7	1	Oil Pickup Screen and Tube	(Inside	e Tank)		
8	1	Hydraulic Oil Reservoir Kit		13-2824		
9	1	Filler / Vent Cap		13-3596		
10	1	Sequence Valve Cartridge		13-2419		
11	1	Pressure Relief Valve Cartridge			13-3332	
12	1	Flow Control Valve, Adjusting	y Nee	dle w O-Ring & Nut	13-3341	

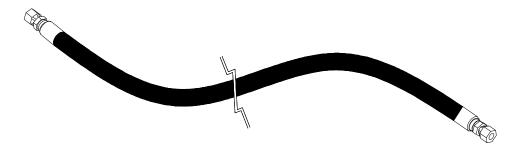
Note 1 – Consult factory when ordering individual power pack components.

### Section 4 – Hydraulic Cylinders



Item	Qty.	Description	Dock	Cylinder	Stroke	P/N	Note
			Length	Length			
1	1	Deck Lift Cylinder, 2" Diameter,	6'	25" Closed	17"	C1-0011	
		20-50K	8'	25" Closed	17"	C1-0011	
			10'	28" Closed	20"	C1-0030	
	1	Seal Kit, 2"	All			C3-0020	
2	A/R	Velocity Fuse	20-50K Docks, 3 gpm			13-0306	
		(1 required per cylinder)					

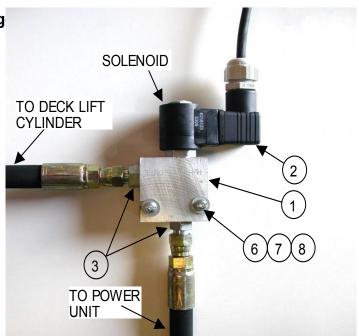
### Section 5 - Hydraulic Lines and Fittings



Dock	Dia.	Description / Model	P/N	Note		
length						
6'	3/8"	Deck Lift Hose Assembly, x 72" long	42-0383			
		Lip Hose Assembly, x 48" long	42-0386	1		
		Hose kit, consisting of 1 each above hoses	13-1678			
8'	3/8"	Deck Lift Hose Assembly, x 75" long	42-0384			
		Lip Hose Assembly, x 54" long	42-0387	1		
		Hose kit, consisting of 1 each above hoses	13-1677			
10'	3/8"	Deck Lift Hose Assembly, x 87" long	42-0385	1		
		Lip Hose Assembly, x 78" long	42-0388			
Emergen	cy Stop	):	•			
All	3/8"	Hose Assembly, Power Unit to Valve, x 18" long	13-3370			
All	3/8"	Hose Assembly, Deck Lift, x 72" long	42-0383			
Optional	Optional Remote Mount Power Pack, standard length:					
All	3/8"	Hose Assembly, Deck Lift & Lip, x 20'-0" long (2 hoses required per dock)	42-1545			

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

### Lip Extend/Emerg



Item	Qty.	Description / Loca	tion	P/N	Note
1	1	Solenoid Valve / Rear Frame Brace	Complete Assembly Solenoid only	13-0826 13-0595	
2	1	Receptacle, solenoid valve, Hershma	,	13-2371	
3	2	Hydraulic Fitting, Str. #6 JICM / 9/16	13-0609		
4	1	Pushbutton / Control Panel, Lip Exter	nd (not shown)	13-0317	
5	1	Mushroom Pushbutton, / Control Par Button (not shown)	el, Emergency Stop	13-0318	
6	2	Screw, #10-24 x 1 1/2" long, plated, co	ombo 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.

### <u>Section 6 – Optional Equipment</u>

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

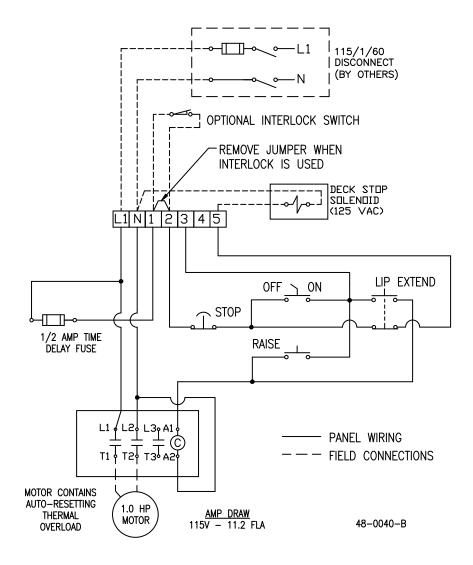
Volts/Ph.	Description / Style	P/N	Note
115/1/60	Standard, 3 Button – Deck Raise, Lip Extend, and Emergency Stop	13-1132	
	Optional:		
	4 Button – Deck Raise, Lip Extend and Emergency Stop, Auto Return	13-1350	
208/1/60	Standard, 3 Button – Deck Raise, Lip Extend, and Emergency Stop	13-2625	
	Optional:		
	4 Button – Deck Raise, Lip Extend and Emergency Stop, Auto Return	13-3017	
230/1/60	Standard, 3 Button – Deck Raise, Lip Extend, and Emergency Stop	13-2626	
	Optional:		
	4 Button – Deck Raise, Lip Extend and Emergency Stop, Auto Return	13-1982	
208/3/60	Standard, 3 Button – Deck Raise, Lip Extend, and Emergency Stop	13-2402	
	Optional:		
	4 Button – Deck Raise, Lip Extend and Emergency Stop, Auto Return	13-1243	
230/3/60	Standard, 3 Button – Deck Raise, Lip Extend, and Emergency Stop	13-2382	
	Optional:		
	4 Button – Deck Raise, Lip Extend and Emergency Stop, Auto Return	13-3574	
460/3/60	Standard, 3 Button – Deck Raise, Lip Extend, and Emergency Stop	13-2500	
	Optional:		
	4 Button – Deck Raise, Lip Extend and Emergency Stop, Auto Return	13-2426	
575/3/60	Standard, 3 Button – Deck Raise, Lip Extend, and Emergency Stop	43-0261	
	Optional:		
	4 Button – Deck Raise, Lip Extend and Emergency Stop, Auto Return	13-3784	

NOTE: All panels higher than 115V have a reduced voltage secondary to 115V.

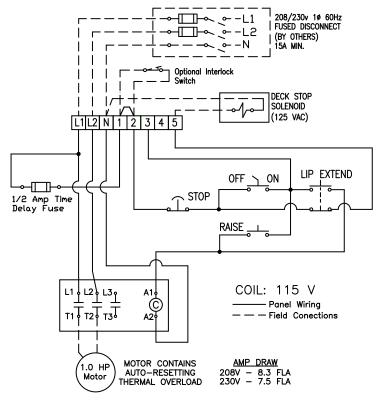
### Wiring Diagrams

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.

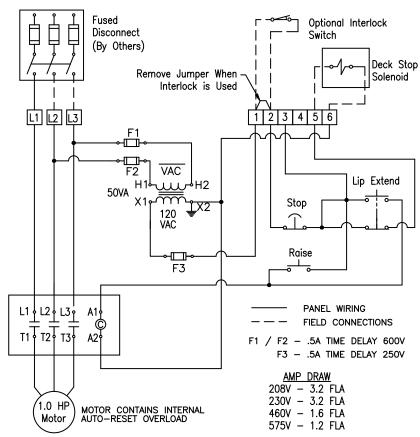
# Single Phase 3 Button 115v - Starter, Lip Out and Emergency Stop 48-0040-B



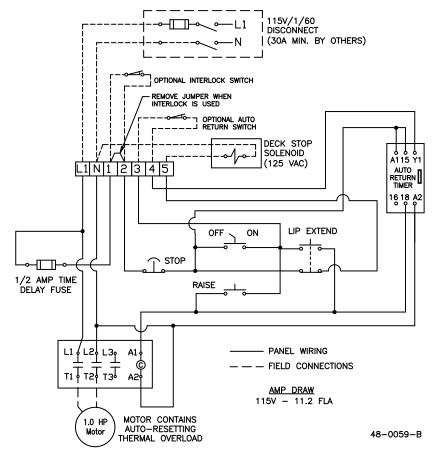
# <u>Single Phase 3 Button 220v - Starter, Lip Out and Emergency Stop</u> 48-0014-B



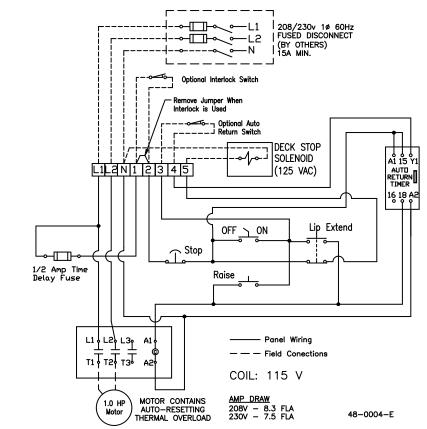
# 3 Phase 3 Button 208v-575v - Starter, Lip Out and Emergency Stop 48-0022-C



## Single Phase 4 Button 115v - Starter, Lip Out, Emergency Stop and Auto Return 48-0059-B



# Single Phase 4 Button 220v - Starter, Lip Out, Emergency Stop and Auto Return 48-0004-E



# <u>3 Phase 4 Button 208v-575v - Starter, Lip Out, Emergency Stop and Auto Return</u> <sup>48-0019-D</sup>

