

Mechanical Dock Leveler
Edge Mount Series
Model "EM"
20,000 to 50,000 lbs. Capacity

Operation and Maintenance Manual

This manual applies to all Mechanical Edge Mount Dock Levelers shipped on or after 2013/02/12, with Serial number(s) 24171 and greater.

P/N: 49-0194-A

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, 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 one of the deck support gussets, generally located beside the maintenance support pocket. 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 all of its manufactured product 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 at its option 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

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.

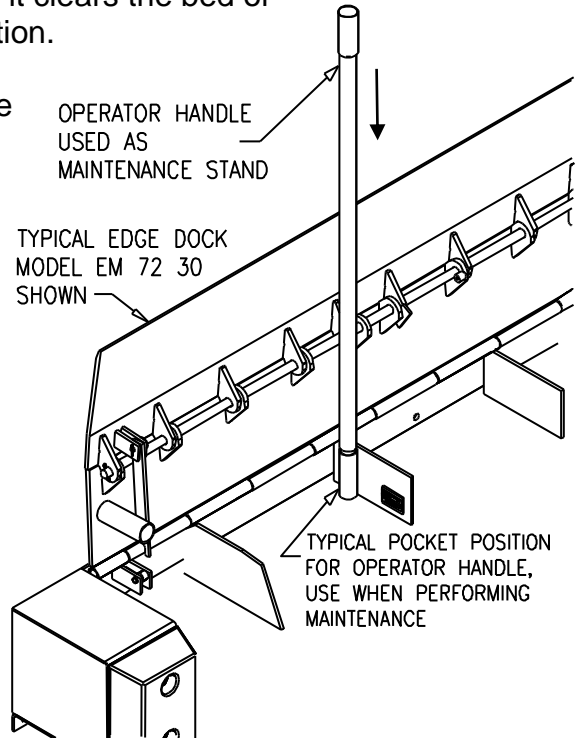
1. Inspect the dock leveler to ensure that all parts are undamaged and in good working order. If the dock leveler does not appear to function properly, or if it looks damaged, **DO NOT USE THE DOCK LEVELER**. Section off the dock area, and notify your supervisor and safety representative.
2. Be sure 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. Do not stand on the dock leveler when it is in motion. Stand on the floor behind the hinge as the deck rises. Ensure no one is near the lip, as it will extend as the deck lowers, and will fold quickly.
4. Do not operate the dock leveler with equipment, material, or people on the ramp or lip, and 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. Contact Nordock Inc. or an authorized service representative for service.
6. Whenever any maintenance or repair is to be performed on the dock leveler, barricade the area around the deck, and place clear signage on the perimeter that the dock is not to be operated.
7. 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.
8. Make sure your footing is firm as the dock is being raised or lowered. The weight of the dock will shift as it is being lowered.
9. Never use your legs or feet to hold the dock leveler. Always maintain a firm grasp of the handle with both hands when raising or lowering the deck.

10. After loading or unloading, make sure the dock has been returned to its level, stored position. Raise the dock leveler until it clears the bed of the truck, then rotate back to its stored position.

11. Always remove the operator handle from the deck pocket before loading or unloading a truck. Failure to do so may inadvertently result in damage to the dock with moving loads.

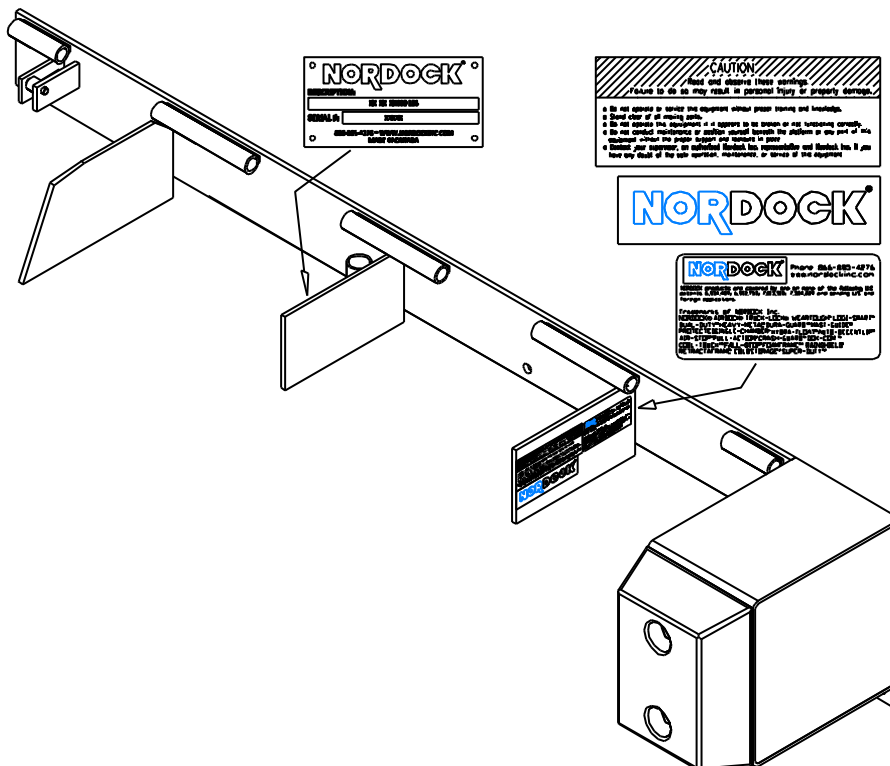
12. Use the pocket provided on the back weldment of the dock to insert the operator handle when performing maintenance. The handle acts as a maintenance stand. See diagram this page.

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



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. The replacement decal kit (P/N 42-0392) is available by contacting your local Nordock representative or by calling 1-866-885-4276.

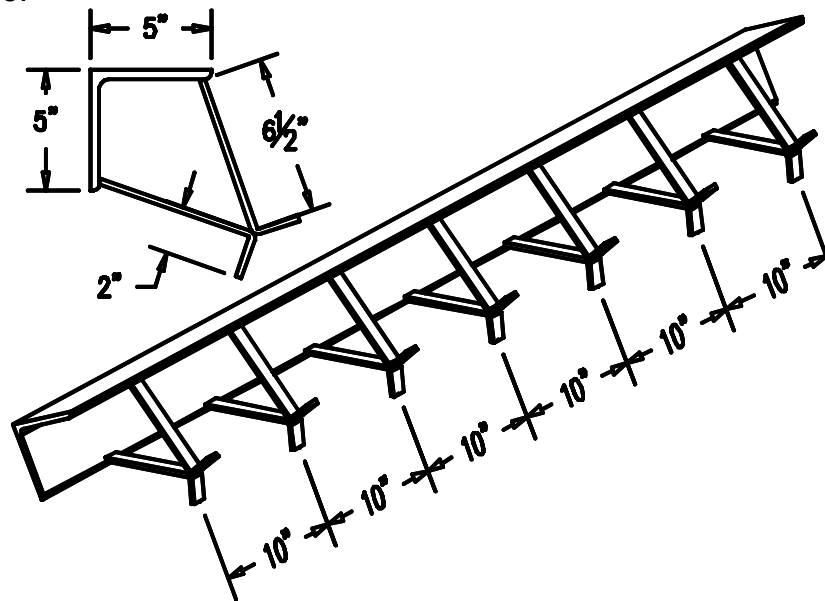


Installation

New Construction

When installing the dock leveler in new construction, there are certain minimum requirements that must be followed to ensure proper mounting. Failure to meet these requirements may cause improper operation, dock failure, or personal injury. Nordock Inc. will assume no liability or warranty for damage caused by improper installation.

The base angle that will mount to the back plate of the dock leveler must be centered in the door opening and fully embedded in concrete using 5" x 5" x 3/8" angle, with anchoring spaced 10" apart from the center of the angle to the outermost edges of the mounting angle.

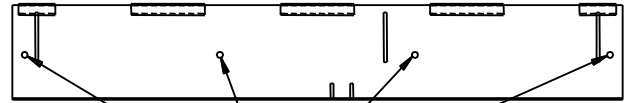
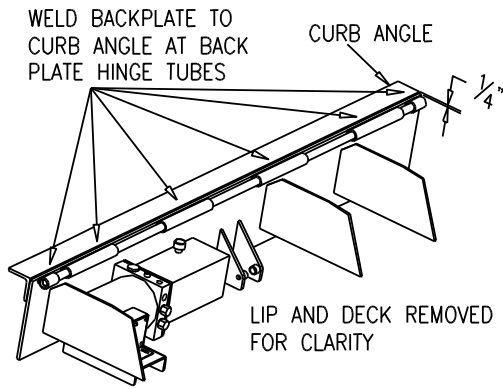


Existing Building:

If the dock leveler is to be installed in an existing building, the base angle and surrounding concrete must be in good condition. Excessive rust, poor concrete condition, or if the mounting angle is pulling away from the concrete constitutes substandard conditions, which must be rectified before the dock leveler can be installed. Nordock Inc. will assume no liability or warranty for damage caused by improper installation.

Dock Leveler Installation

1. Lift the dock leveler into position centered in the door opening, leaving the back plate 1/4" below the mounting angle. Ensure the unit is level.
2. Tack-weld the sides of the angle to hold the unit in place. Then stitch weld the back plate to the mounting angle the full length of the hinge tubes as shown below:

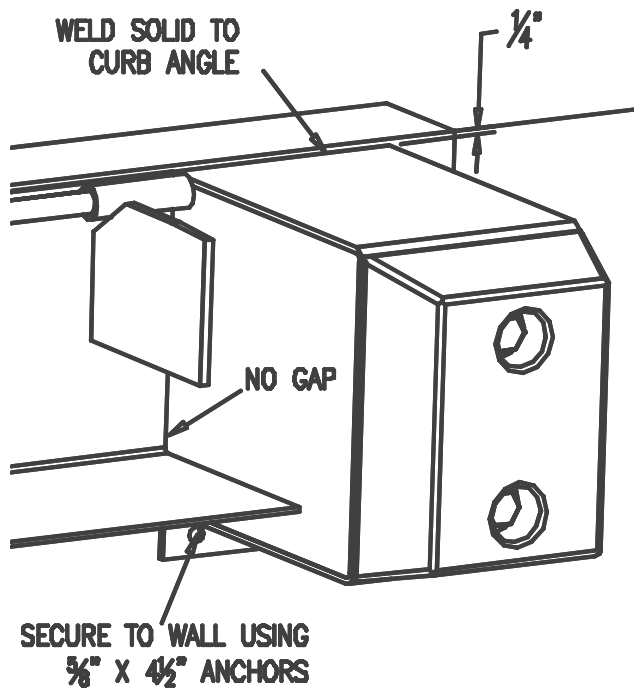


DRILL AND ANCHOR USING
 $\frac{5}{8}$ " X $4\frac{1}{2}$ " CONCRETE ANCHORS
 4 PLACES - 78" & 83" WIDE UNITS
 3 PLACES - 66" & 72" WIDE UNITS

3. Drill and anchor the dock leveler to the concrete wall using $\frac{5}{8}$ " x $4\frac{1}{2}$ " wedge anchor bolts (not supplied).
4. Lower the lip and deck to their parked position. If the unit is hydraulically powered, it may now be wired according to the wiring diagram.

Bumper Installation:

The bumpers should be mounted directly beside the back plate. In the use of bumper box extensions (non-pit applications), the top of the box should be $\frac{1}{4}$ " below the curb angle, and welded solid; the bottom should be fastened to the wall using $\frac{5}{8}$ " x $4\frac{1}{2}$ " wedge anchors (not supplied).



Install bumper so that it is $\frac{1}{4}$ " below floor level for proper securing, and against the edge of the pit or dock base.

Weld the bumper wherever possible to the pit curb angle, and use $\frac{5}{8}$ " X $4\frac{1}{2}$ " wedge anchors (by others) in the angle holes.

Operation



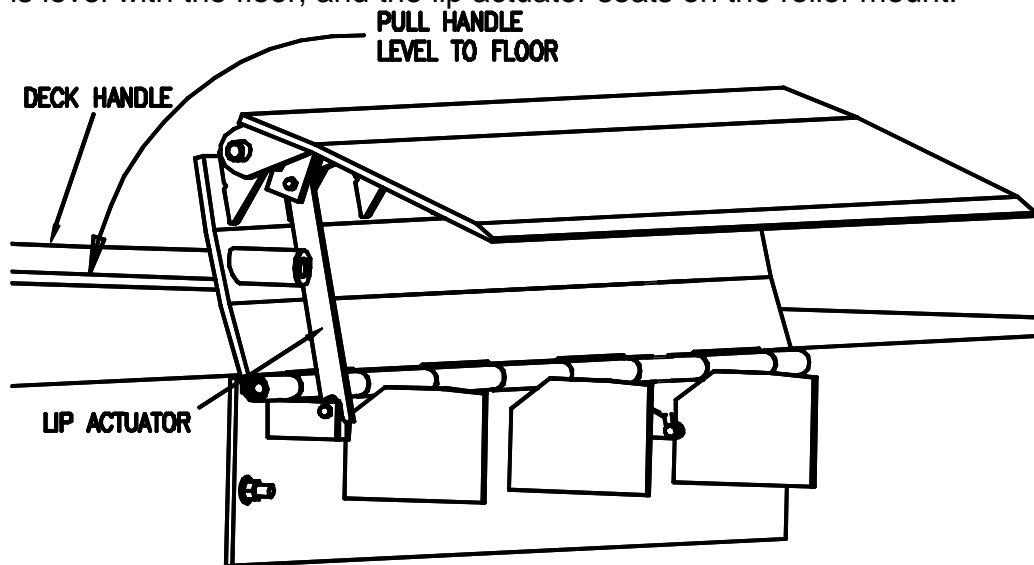
WARNING

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.

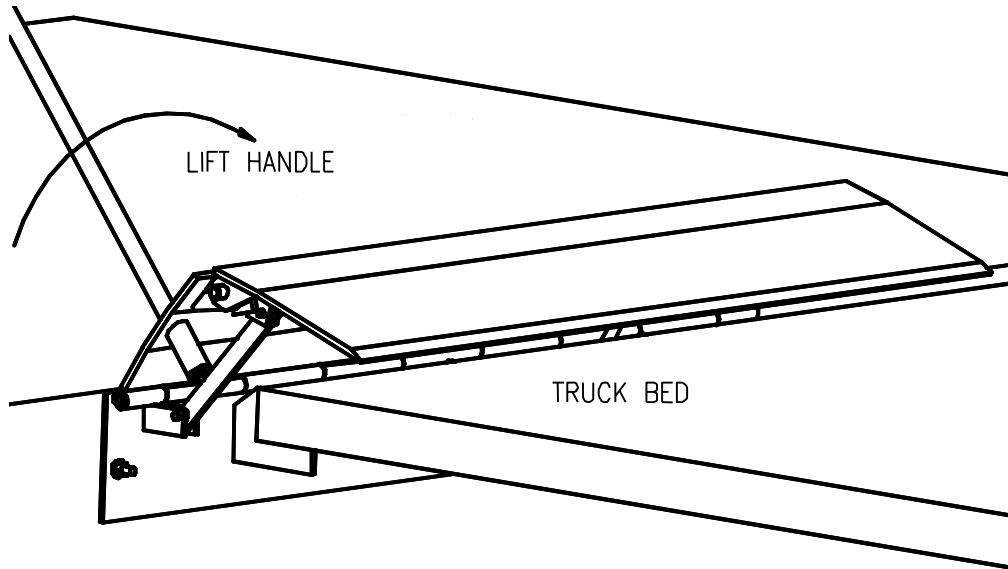
Standard Operation

Note: Bumpers have been removed from diagrams for clarity.

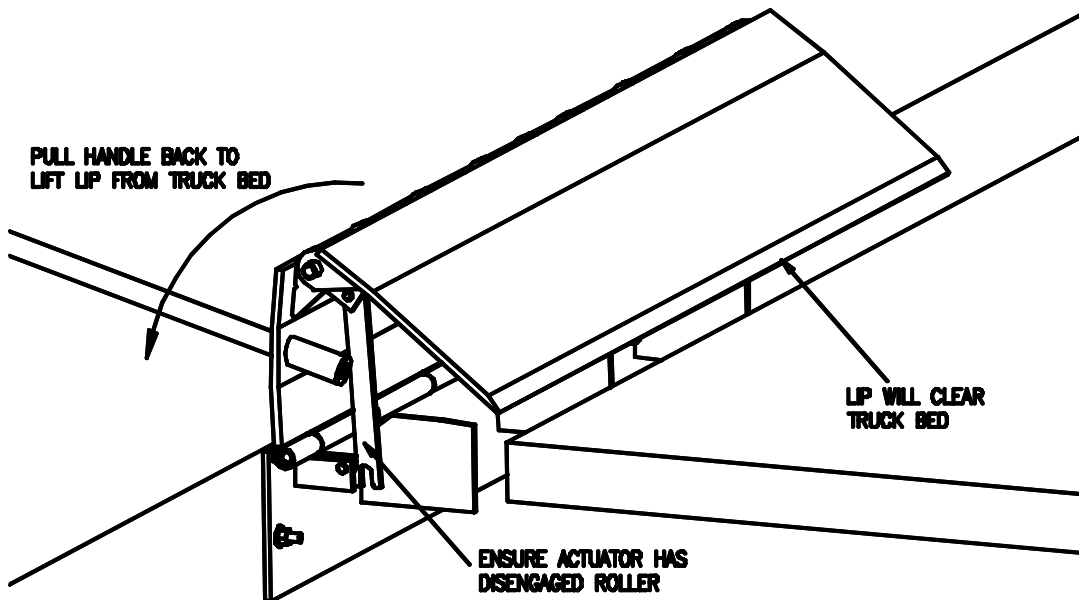
1. Insert deck handle into pocket on the top of the deck. Pull the handle back until it is level with the floor, and the lip actuator seats on the roller mount.



2. Lift the handle up and the lip will extend. In a slow and controlled manner, lower the deck onto the truck bed. Check that the lip actuator has disengaged from the roller mount. Push the handle forward to release actuator if required.



3. Remove the handle and store in its' proper location. Proceed with loading or unloading.



4. To return the dock to the stored position, insert the handle in the pocket and pull back until the lip clears the bed of the truck. The lip may fall slightly to the lip stop. Return the deck to the stored position by slowly allowing the deck to rotate down onto the deck stops.
5. Remove end loads with the dock in the stored position.

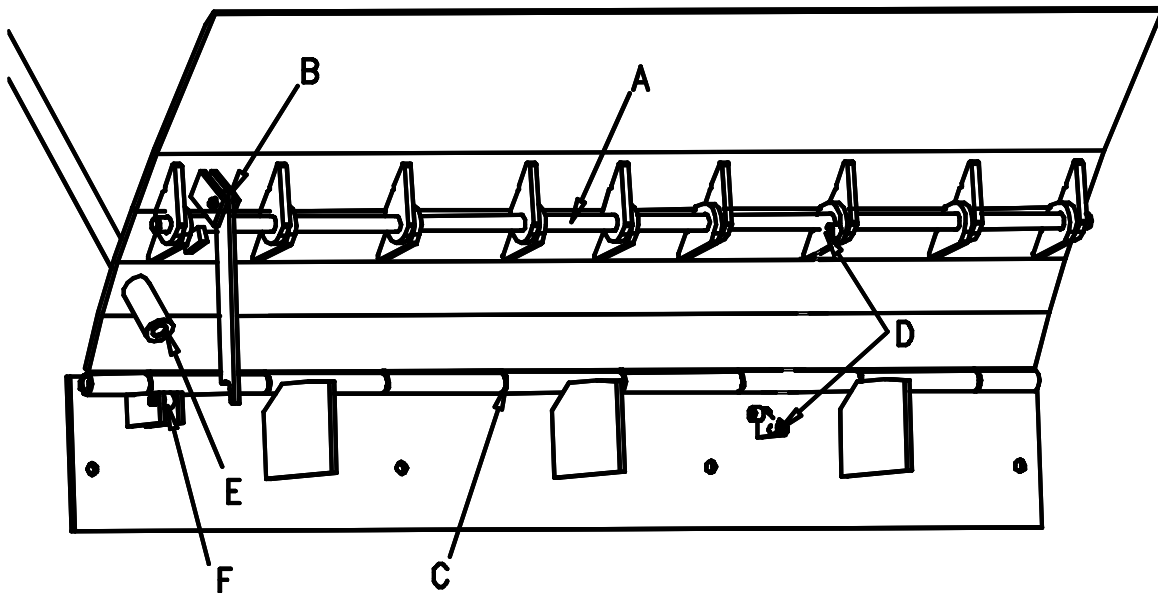
Maintenance and Lubrication



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

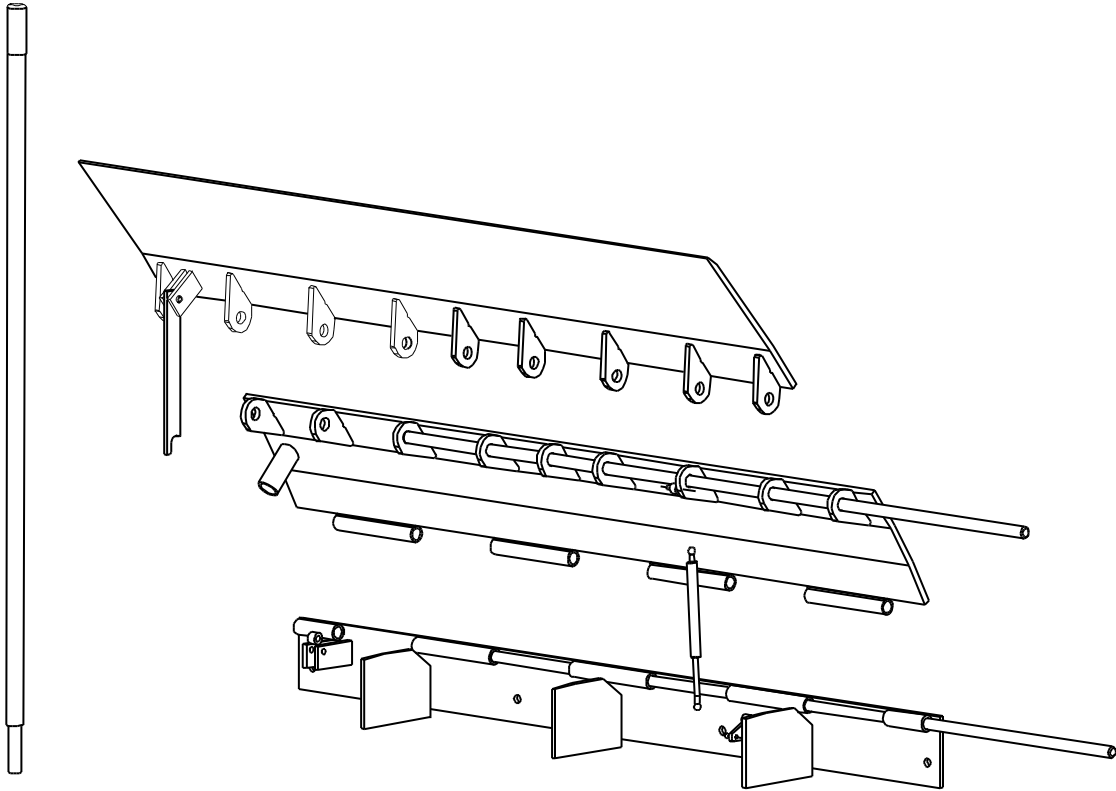
Note: Lubricate all shown points using high grade light oil with good adhesion qualities.



Item	Lubrication	Adjustment	Cleaning
-A- Lip Hinge	Every 90 days Using grease	None	Remove debris as required
- B - Lip Actuator	Every 90 days Using light oil	None	Remove debris as required
- C - Deck Hinge	Every 90 days Grease	None	Remove debris as required
- D - Gas Spring Mount	Every 90 days Using light oil	None	Remove debris as required
-E- Handle Pocket	Every 90 days	None	Remove debris as required
-F- Actuator Roller	Every 90 days Using light oil	None	Remove debris as required

Grease: Grease used for hinges must meet a minimum EP-2 grade. E.g.: CHEVRON DURA-LITH EP-2

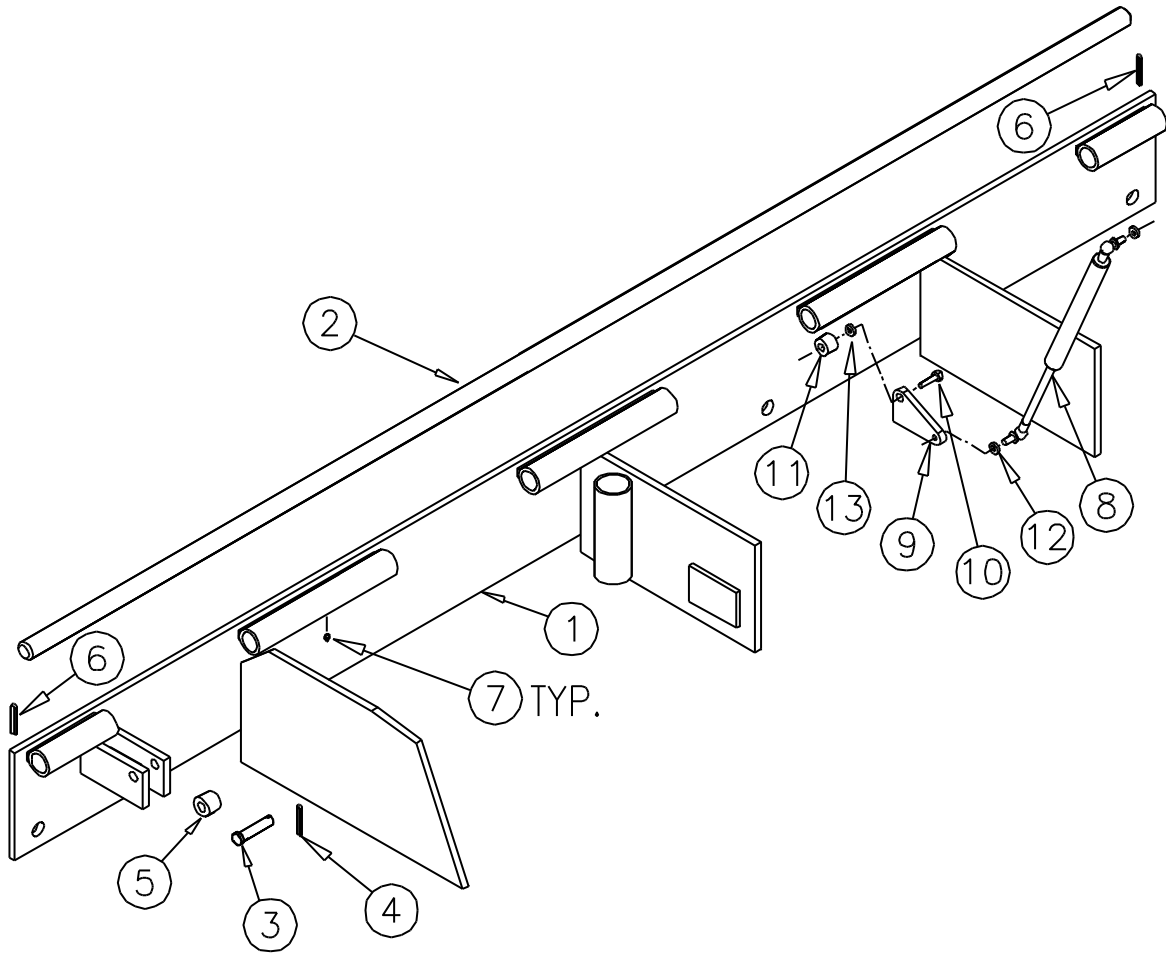
Parts and Service Tables



Item Number/ Section	Description
1	Base Assembly
2	Deck Assembly
3	Lip Assembly

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.

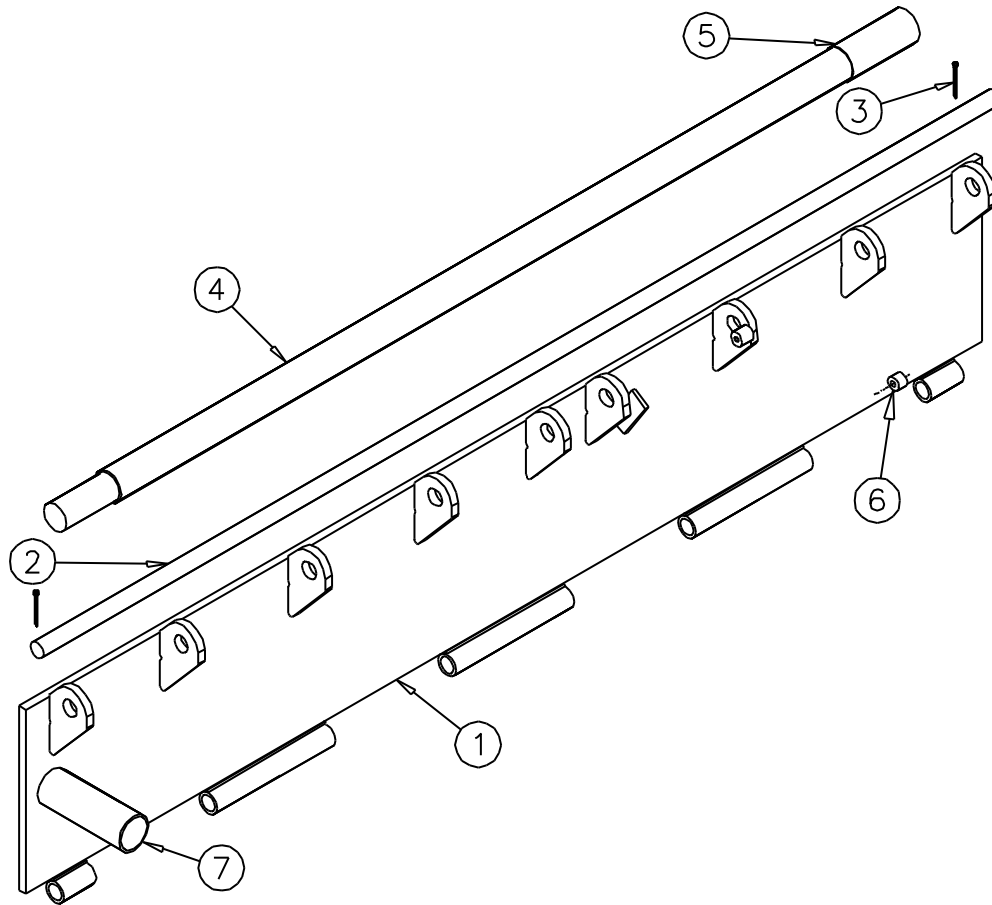
Section 1 – Back Plate Assembly



Item	Qty	Description / Model	P/N (Width)				Note
			66"	72"	78"	83"	
1	1	Back Plate Weldment 20K 30K 40K 45-50K	42-0871 42-0689 42-0990 42-1563	42-0501 42-0690 42-0245 42-1570	42-0691 42-1175 42-0977 42-1551	42-1176 42-0692 42-1177 42-1577	
2	1	Rear Hinge Rod	43-0302	43-0154	43-0155	43-0156	
3	1	Clevis Pin, 1/2" x 2 1/2"				13-1099	
4	1	Cotter Pin, 1/8" x 1"				13-0171	
5	1	Roller, 1" dia. X 1 3/8" long				43-0821	
6	2	Spring Pin				13-0555	
7	A/R	Grease Fitting, 3/16" drive in				13-0655	

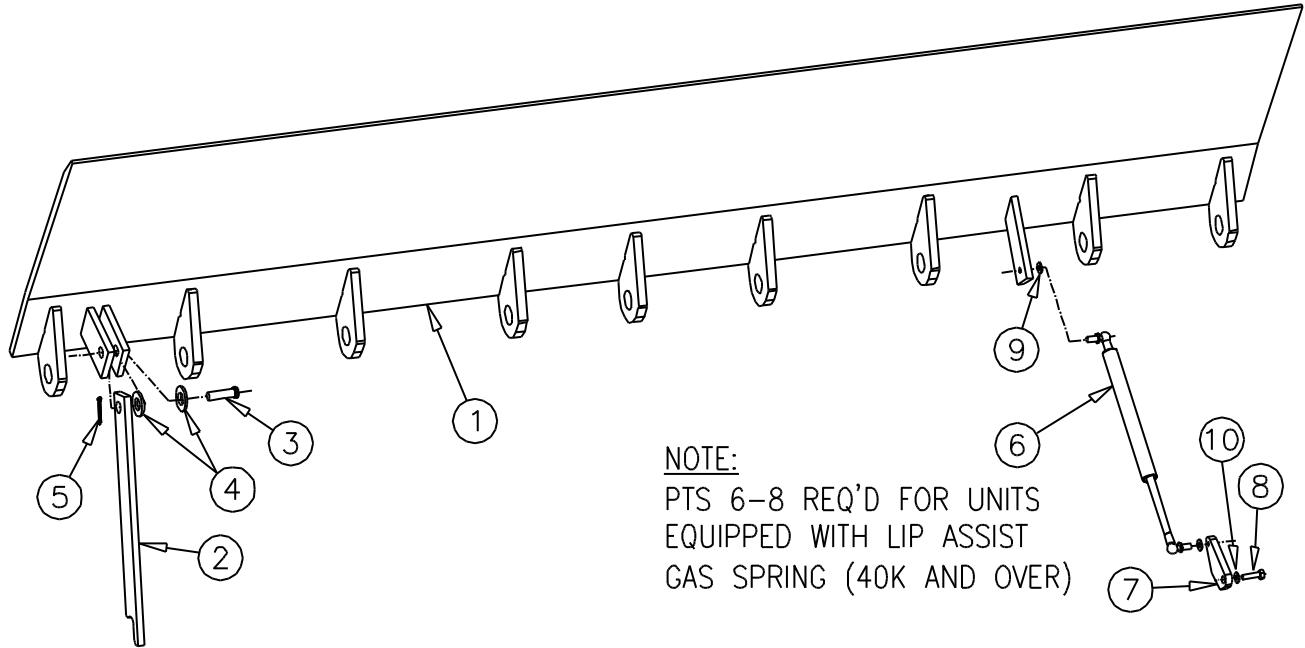
Item	Gas Spring			Description	P/N	Note
	Qty -1	Qty -2	Qty -3			
8	1	2	3	Gas Spring, 16 3/8" long, c/w ends	13-3201	
9	1	2	3	Gas Spring Pivot Bracket, 3/8"NC thread	43-1228	
10	1	2	3	Bolt, Shoulder, 1/2 x 1/2, Plated	13-0965	
11	1	2	3	Pivot Stud, 3/8"NC thread	43-1229	
12	2	4	6	Lock washer, 3/8"	13-0767	
13	1	2	3	Lock washer, 1/2"	13-0688	

Section 2 – Deck Assembly



Item	Qty.	Description / Model	P/N (Width)				Note	
			66"	72"	78"	83"		
1	1	Deck Weldment	20K	42-0693	42-0694	42-0695	42-0696	
			30K	42-0697	42-0688	42-0698	42-0699	
			40K	42-0991	42-0246	42-0976	42-1178	
			45K	42-1564	42-1569	42-1550	42-1578	
			50K	42-1565	42-1580	42-1596	42-1593	
2	1	Lip Hinge Rod	43-0303	43-0148	43-0149	43-0150		
3	2	Cotter Pin, 1/4 x 1 3/4"				13-0992		
Item	Qty.	Description / Model	P/N		Note			
4	1	Deck Handle Weldment	42-1543					
5	1	Handle Grip, 4 1/2" long	13-0514					
6	1	Pivot Stud, only if equipped with lip assist gas spring	43-0197					
7	Ref.	Handle Pocket x 4" Long (part of Item 1 weldment)	43-0277					

Section 3 – Lip Assembly



NOTE:
 PTS 6-8 REQ'D FOR UNITS
 EQUIPPED WITH LIP ASSIST
 GAS SPRING (40K AND OVER)

Item	Qty	Description / Model		P/N (Lip Width)					Note	
				66"	72"	78"	83"	83" Taper		
1	1	Lip Weldment	20K	16"	42-0591	42-0566	42-0592	42-0593	42-1179	
				18	42-0594	42-0595	42-0596	42-0597	42-1180	
			30K	16"	42-0598	42-0551	42-0599	42-0600	42-1181	
				18"	42-0601	42-0602	42-0603	42-0604	42-1182	
			40K	16"	42-0992	42-0247	42-0975	42-1183	42-1184	
				18	42-1185	42-1186	42-1187	42-1188	42-1189	
			45K	16"	42-1494	42-1571	42-1552	42-1579		
				18"		42-1576				
			50K	16"	42-1495	42-1581		42-1594		
				18		42-1586				

Item	Qty	Description / Model	P/N	Note
2	1	Lip Extension Arm	43-0171	
3	1	Clevis Pin, 5/8" x 1 3/4"	13-1731	
4	2	Washer, 5/8"	13-2147	
5	1	Cotter Pin, 1/8" x 1"	13-0171	
Lip Assist Gas Spring, if Equipped:				
6	1	Gas Spring Assembly, 12 3/8" long	42-2399	
7	1	Lip Pivot Bracket	43-1019	
8	1	Bolt, Shoulder, 3/8 x 1/2, Plated	13-1085	
9	2	Washer, Lock, 5/16", Plated	13-0946	
10	1	Washer, Lock, 3/8", Plated	13-0767	

Section 4 – Bumpers and Boxes

Item	Qty	Description / Model	P/N	Note
Standard				
1	2	Bumper, Molded 4" x 10" x 13"	21-0005	
2	2	Bumper Box, 10" x 14" x 13 ½" long, 14" projection	61-0013	
3	4	Nut, 5/8" NC-11, plated, (for molded bumper only)	13-0289	
4	4	Washer, 5/8" flat, plated, (for molded bumper only)	13-0952	
5	2	Optional Bumper, Laminated, 4 1/2" x 10" long, FF-410-8	61-0027	
Optional 20" Laminated type:				
4	2	Bumper, Laminated, 4 1/2" x 20" long, FF-420-8	61-0042	
5	2	Bumper Box, 10" x 14" x 20 ½" long	61-0096	
Optional 20" Steel Face or Spring type:				
6	2	Steel Spring Bumper, L and R	61-0012	
7	2	Steel Face Bumper, 5" x 20" long, FFS-520-8	61-0069	
8	2	Bumper Box, 10" x 13" x 20 ½" long	61-0125	