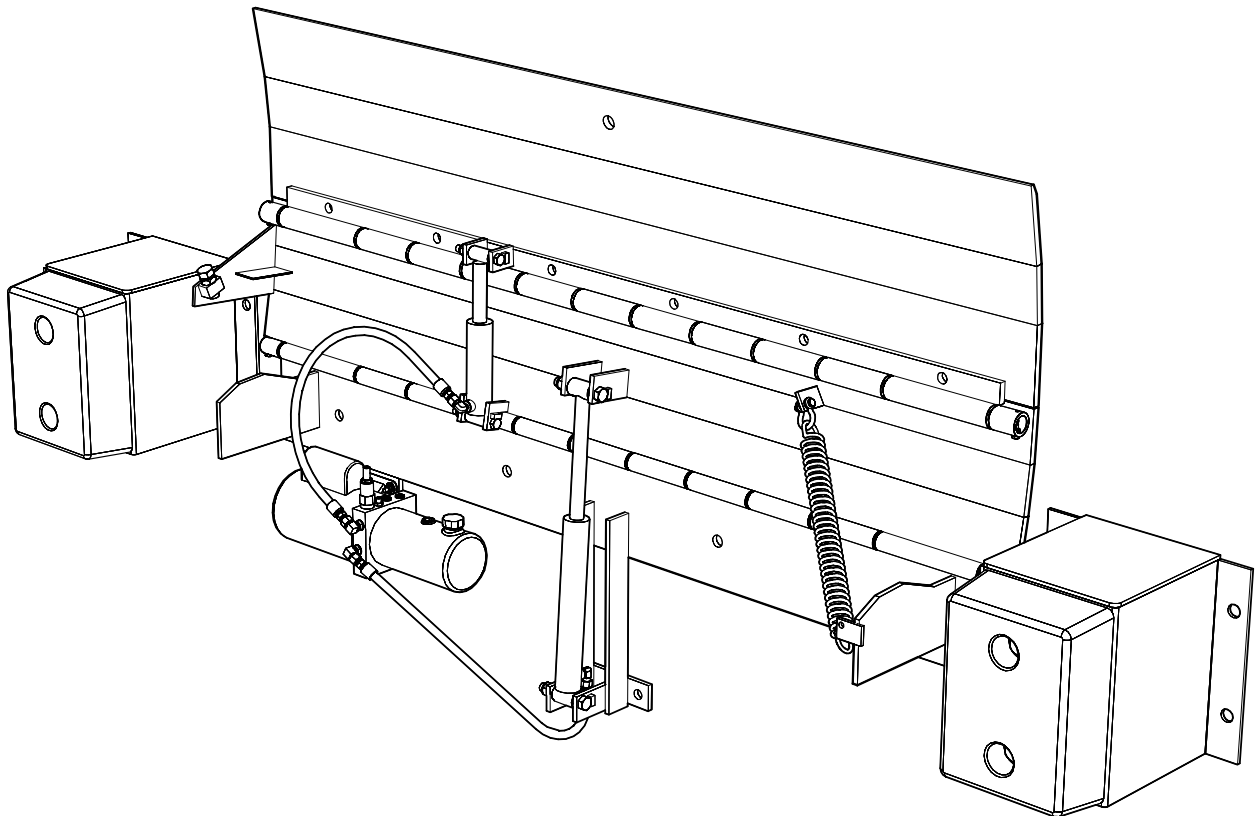


OWNER'S MANUAL



Mini-Dok Hydraulic Dock Leveler

Fully Hydraulic Edge-of-Dock Leveler
25,000 lb. Capacities

Model Nos. MDXH

TABLE OF CONTENTS

1. Introduction	3
2. Receipt Inspection.....	3
3. Installation Diagram - Mechanical Mini-Dok.....	4
4. Installation Instructions.....	5
4.1 Final Inspection	9
4.2 Installation Types	10
5. Routine Servicing And Maintenance.....	14
6. Component Identification	14
7. Operator Daily Inspection.....	Error! Bookmark not defined.
8. Planned Maintenance	Error! Bookmark not defined.
9. Planned Maintenance Intervals.....	Error! Bookmark not defined.
9.1 Maintenance Sequence.....	Error! Bookmark not defined.
10. Safety Information	18
10.1 General.....	18
10.2 Safety Signs And Safety Messages	19
10.3 General Safety Rules	20
10.4 Safety Procedures.....	21
11. The Mini-Dok Edge of Dock Leveler - Functional Description	22
12. Operator Maintenance And Care	23
12.1 Daily Safety Inspection.....	23
12.2 Visual Checks.....	23
12.3 Operator's Daily Check List.....	25
12.4 Operating Hazards	26
13. Before Operating The Dock Leveler	29
13.1 Load Handling	29
13.2 Traveling With A Load.....	29
14. Operating Instructions – Typical	30
15. Operating Procedures - Pictorials	31

16. Trouble Shooting..... 37

17. Mini-dok - Parts Listings..... 39

 17.1 General Assembly - 25,000 lb. Capacity - 72" Wide..... 39

18. Service / Maintenance History 43

1. Introduction

Read and understand these instructions before commencing work.

Responsibilities:

The contractor and / or subcontractor under the direction of the contractor is responsible for the installation using these Instructions:

Date of Issue: 01/19/06, Part #411-253-OFT

Assumptions:

The individuals responsible for performing these instructions are capable and experienced with installing this type of equipment.

2. Receipt Inspection

This equipment has been thoroughly inspected prior to leaving the factory. Before placing the equipment in service it should be thoroughly checked for damage or loss occurring in transit.

IMPORTANT! : IF ANY DAMAGE OR LOSS IS EVIDENT, A CLAIM MUST BE MADE AGAINST THE CARRIER.

3. Installation Diagram - Mechanical Mini-Dok

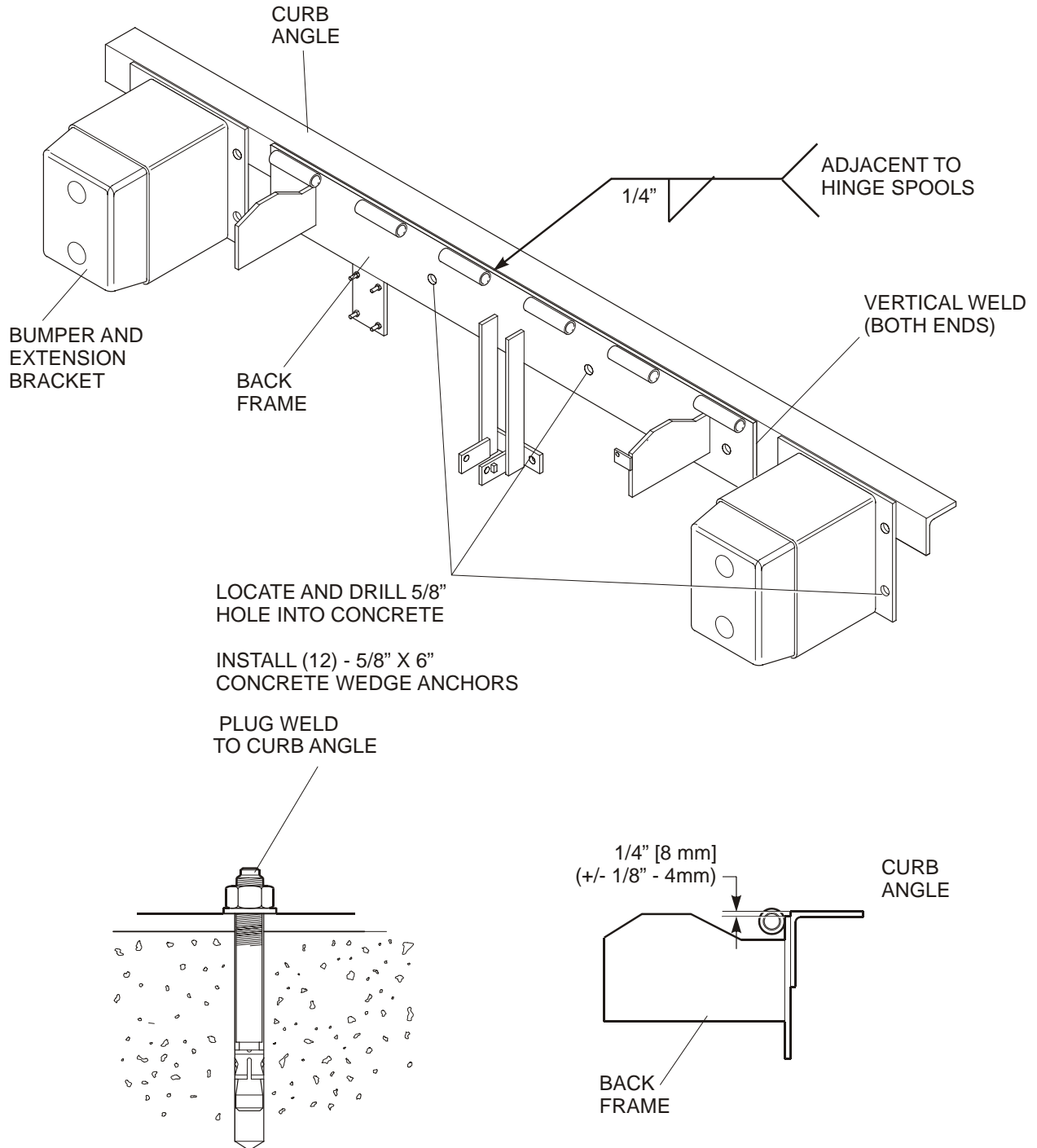


Figure 1 : Mini-Dok Edge-Of-Dock Leveler - Installation

4. Installation Instructions



WARNING! : DO NOT WORK UNDER OR AROUND THE MINI-DOK BEING INSTALLED WITHOUT FIRST PLACING ADEQUATE BARRIERS TO POSITIVELY PREVENT VEHICLE TRAFFIC FROM ENTERING THE WORK AREA.

1. Inspect the loading dock curb angle and verify that it is firmly embedded and anchored in the concrete and is minimum 3" x 3" x 1/4" (75 x 75 x 6mm) steel. If there is no curb angle, if anchoring or embedding is questionable, or is not of minimum size specified, install a face plate following the instructions in *Section 4.2 : Installation Types* before proceeding with the installation.



WARNING! : THE MINI-DOK MUST BE WELDED TO A FIRMLY EMBEDDED CURB ANGLE OR OTHER DOCK STEEL AS DESCRIBED IN THE INSTALLATION INSTRUCTIONS. DO NOT ATTEMPT TO USE ONLY BOLTS OR LAGS TO ATTACH THE MINI-DOK TO THE CONCRETE.

2. Unband the Mini-Dok and discard all shipping material.



WARNING! : USE CAUTION WHEN UNBANDING THE MINI-DOK. KEEP HANDS CLEAR OF PINCH POINTS AND WEAR APPROPRIATE SAFETY ATTIRE - GLASSES, GLOVES AND WORK BOOTS

3. Locate and set aside the pushbutton control box and hydraulic power pack with mounting bracket. Remove the bumper extensions and store outside the immediate work area.
4. Using appropriate hoisting equipment, use the lifting eye located in the lip to sling the Mini-Dok into position against the curb angle.



WARNING! : USE CAUTION WHEN LIFTING OR MOVING THE MINI-DOK. DO NOT ATTEMPT TO LIFT WITHOUT SUITABLE HOISTING EQUIPMENT CAPABLE OF LIFTING AS MUCH AS 600 LBS.

5. Position the back frame so that the top of the frame is 1/4" (8mm) below the level of the top of the curb angle (plus or minus 1/8" (4mm). Ensure that the top of frame is parallel with the top of the curb angle.
6. Tack weld the top of back frame securely to curb angle.
7. Assure back frame is firmly against curb angle or dock face concrete and plug-weld the back frame to the curb angle at the four circular holes in the frame. If curb angle does not overlap these holes, use the back plate as a template and drill four holes 5/8" dia. x 6" (15mm x 150mm) deep, in the dock face concrete. Clean out holes and insert and permanently install appropriate concrete anchors. Tighten enough to secure Back Frame.
8. Finish weld the top of the back frame to the curb angle. Weld 1/4" x 5" (6mm x 125mm) long welds on both ends of the back frame. Repeat the 1/4" x 5" long welds on 9" (225mm) centers across the full width of the back frame.
9. Vertical weld both ends of back frame to curb angle, full length of vertical contact. Tighten Lag bolts at this time securely.
10. Position the left-hand bumper bracket (as viewed when standing on the driveway in front of the Mini-Dok) so that there is 1/2" (13mm) clearance between the bracket side and the deck plate, and the bracket is level with the top of the curb angle. Weld all horizontal and vertical contact areas between bracket and curb angle and plug weld mounting holes that overlap curb angle. Install concrete lag bolts 5/8" x 6" (15mm x 150mm) in mounting holes that are not welded.
11. Position the right-hand bumper bracket so that there is a 1/2" (13mm) clearance between the bracket and the Mini-Dok deck plate. Securely weld and lag as described in Step 10.

12. Securely mount the push button control box permanently onto an interior wall adjacent to the doorway opening, approximately 50" (1270mm) above the floor level.
13. Securely mount the Safety Placard permanently onto an interior wall adjacent to the pushbutton control box, in a location that is approximately 6 feet (1800 mm) above the floor level. Assure that the placard is clearly visible to the Mini-Dok operator.

Self-Contained Powerpack Installation

14. Mount the Hydraulic Powerpack in the standard location on the Mini-Dok Back Frame. Mount the Powerpack on to the Back Frame with the hardware provided. Tighten securely. Attach the hydraulic hose provided to the fitting on the power pack center manifold and the opposite end to the fitting located at the base of the lift cylinder. Repeat the same for the lip cylinder. Ensure that the hose is free of kinks and clear of any obstructions. Secure the hose to the foundation structure using clips. Enlist the services of a qualified electrician to have the electrical conduit and wiring installed between the push button control box and the power pack motor.

Remote Powerpack Installation

15. Securely mount the hydraulic power pack horizontally on an interior wall adjacent to the door opening, at approximately 8 feet (2438mm) above the floor level. Install 1-1/2 " (38mm) conduit for hydraulic hose, from the lift cylinder up and through the exterior wall to the hydraulic powerpack. Pull the hydraulic hose through the conduit and attach to the fitting on the power pack center manifold and the opposite end to the fitting located at the base of the lift cylinder. Repeat the same for the lip cylinder. Ensure that the hose is free of kinks and clear of any obstructions. Secure the hose to the foundation structure using clips. Enlist the services of a qualified electrician to have the electrical conduit and wiring installed between the push button control box and the power pack motor.

16. Loosen and remove the hydraulic hose from the base of the lift and lip cylinders. This will allow the air to be bled from the cylinders when the hoisting equipment is removed from the Mini-Dok and the deck plate is allowed to be lowered.
17. Remove the shipping plug from the hydraulic reservoir on the power pack and replace with the breather cap provided in the cloth bag attached to the power pack.
18. Lower the hoisting equipment and allow the Mini-Dok to lower and fold down to its stored (fully lowered) position. Remove the hoisting equipment.



WARNING! : ENSURE THAT THE MINI-DOK DECK AND LIP PLATES ARE FULLY LOWERED BEFORE PERFORMING ANY FURTHER WORK ON OR AROUND THE UNIT.

19. Re-attach and securely tighten the hydraulic hoses onto the lift and lip cylinders.

Note: In the case of remote installations it may be necessary to preload the hydraulic hose with fluid prior to installation to the lift and lip cylinders.



WARNING! : ALL POWER SUPPLY CONNECTIONS MUST BE PERFORMED BY A QUALIFIED ELECTRICIAN.

20. With the unit in its stored position - with both cylinders fully retracted, fill the hydraulic reservoir to within 1/2" (13mm) from the top of the reservoir with Mobil DTE13 or equivalent.
21. Lubricate all pivot points using SAE30 motor oil or equivalent.

4.1 Final Inspection

1. Clean up the entire work area and apply touch-up paint to all welds, scratches and burns.
2. Ensure all fasteners have been securely tightened and / or locked.
3. Test run the Mini-Dok through a minimum of ten (10) full cycles to bleed entrapped air from the hydraulic system. A several second delay in response time from selecting the UP function to actual motion indicates that air is trapped in the system and bleeding is required. If additional problems are noted, see the Troubleshooting section of this manual.
4. Inspect the fluid level in the powerpack hydraulic reservoir. The level should be approximately 1/2" (13mm) below the top of the reservoir. Add fluid with a specification of or equivalent to Mobil DTE13.
5. Inspect all hydraulic connections for leaks and tighten as required.
6. Check that all electrical and hydraulic conduits hoses and wires are physically protected against damage and are adequately secured.
7. Replace all wiring and hydraulic diagrams into the control box.
8. Leave these Instructions with the Mini-Dok for use by owner.

4.2 Installation Types

Curb Angle

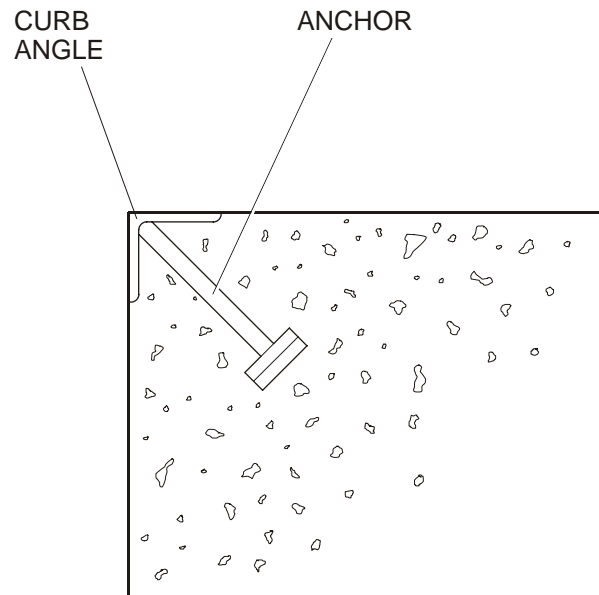


Figure 2 : Curb Angle Arrangement

- Must be poured-in with dock concrete.
- 3" x 3" x 1/4" minimum, steel curb angle.
- Weld-on concrete anchors to be minimum 5/8" x 6" long located on 12" centers with one anchor 3" from each end.

Approach Ramp Installation

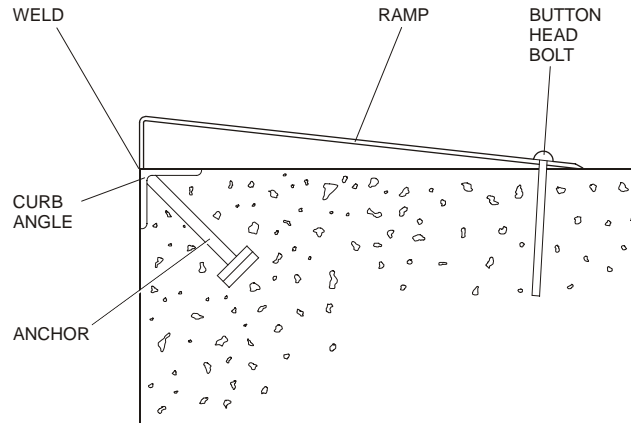


Figure 3 : Approach Ramp Arrangement

- Position ramp as illustrated. Outside edge of ramp flush with outside edge of curb angle.
- Tack-weld ramp to curb angle.
- Drill 3/4" dia. holes using ramp as a template. Insert 5/8" expansion sleeves (010-116). Install and tighten 5/8" x 1-1/2" button-head bolts (010-117) using 3/8" Allen key wrench
- Weld the ramp to the curb angle as illustrated. 1/4" x 5" welds on 9" centers.

Face Plate Types - For use on existing docks with no curb steel

One Piece Angle Plate

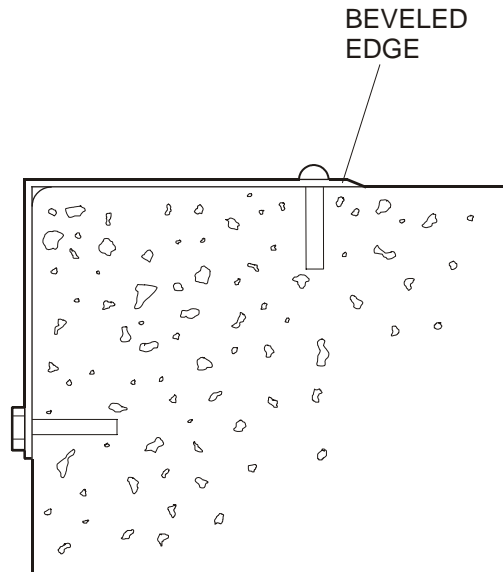


Figure 4 : One Piece Angle Plate Arrangement

- 1/4" minimum plate thickness. Top plate 13" wide, face plate 10-" wide. Length to suit Mini-Dok model.
- Place angle plate on existing dock as shown. Use as drill template.
- Lag to sound concrete as follows:

Top Plate - Drill 3/4" dia. x 3-1/2" deep holes. Insert 5/8" expansion sleeves (010-116). Install and tighten 5/8" x 1-1/2" button-head bolts (010-117) using 3/8" Allen key.

Face Plate - Drill 5/8" dia x 6" deep holes. Insert 5/8" x 6" long anchor wedges (010-108) and tighten all fasteners to concrete.

**Two Piece Angle Plate
(Welded together on Site)**

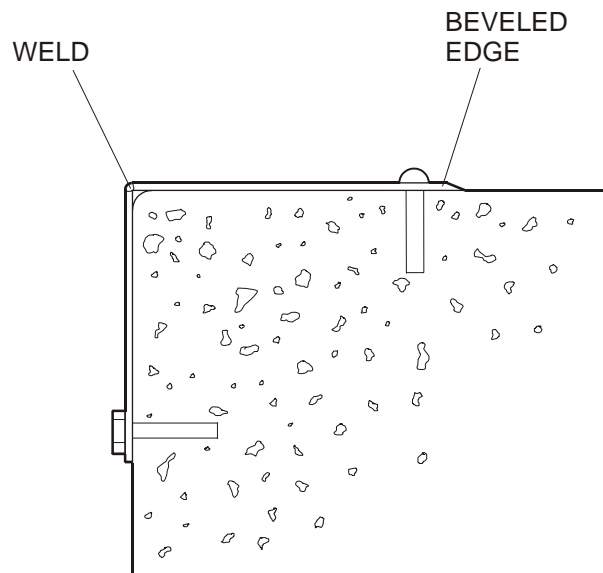


Figure 5 : One Piece Angle Plate Arrangement

- 1/4" minimum plate thickness. Top plate 13" wide, face plate 10" wide. Length to suite Mini-Dok model.
- Place top plate on top of existing dock, front edge flush with dock face, full length.
- Drill 3/4" dia. x 3-1/2" deep holes using plate as template. Insert 5/8" expansion sleeves (010-116). Install and tighten 5/8" x 1-1/2" button-head bolts (010-117) using 3/8" Allen key wrench.
- Place face plate in position as shown. Position top edge for welding and tack-weld to top plate.
- Drill 5/8" dia. x 6" deep holes using plate as a template. Insert 5/8" x 6" long anchor assembly (010-108) and tighten all fasteners to concrete.
- Weld the two plates together as illustrated. 1/4" x 5" long welds on 9" centers.

5. Routine Servicing And Maintenance

Regular maintenance and care of the Mini-Dok Leveler is very important for cost and operation efficiency and more importantly; operator safety. A faulty Mini-Dok Leveler is a potential source of danger to the operator, and to other personnel working near it. As with all quality equipment, keep the Mini-Dok Leveler in good operating condition by following the recommended schedule of maintenance.

Failure to do so could also void the manufacturer's warranty.

Complete the Warranty Validation Form provided with this manual and return it to factory.

6. Component Identification

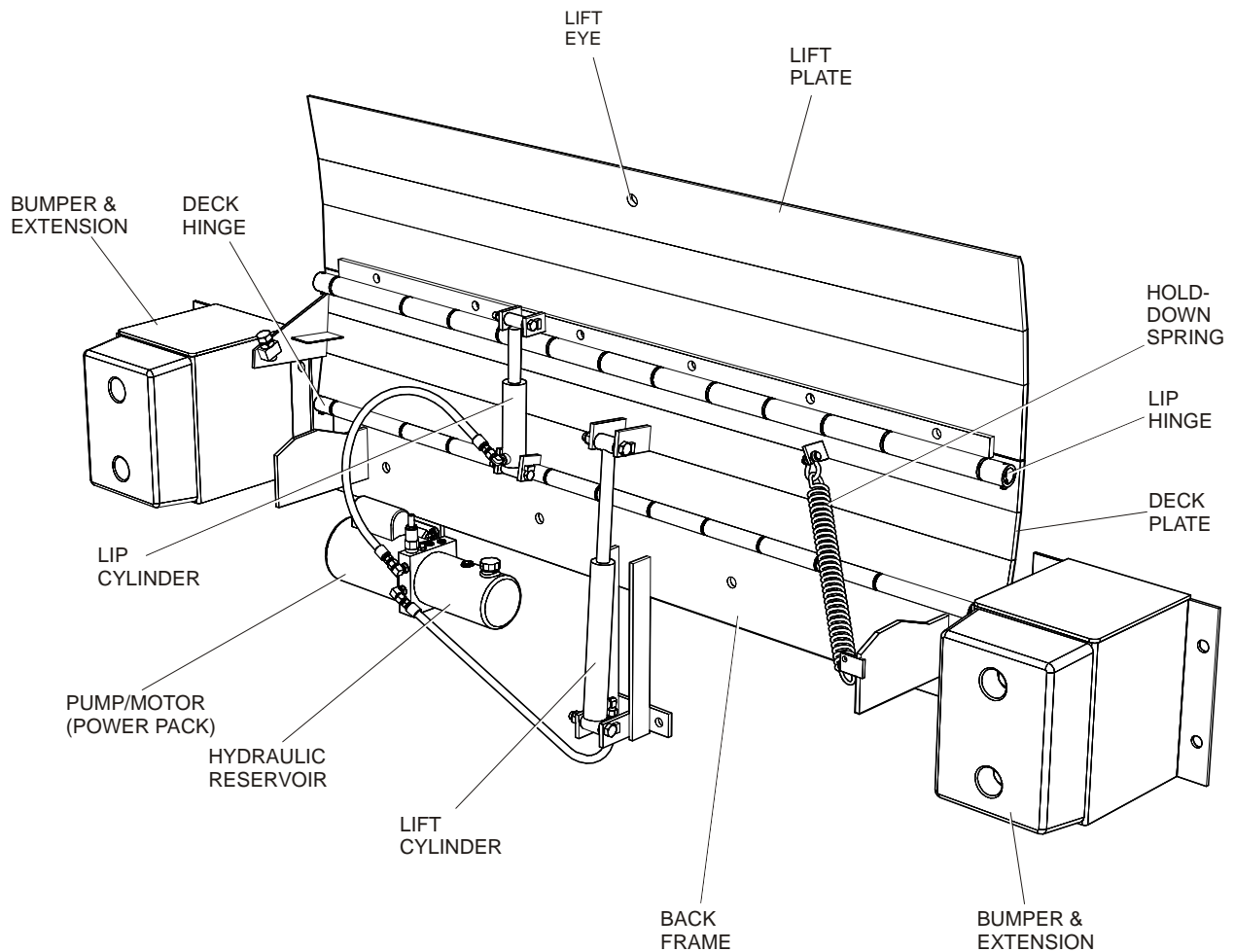
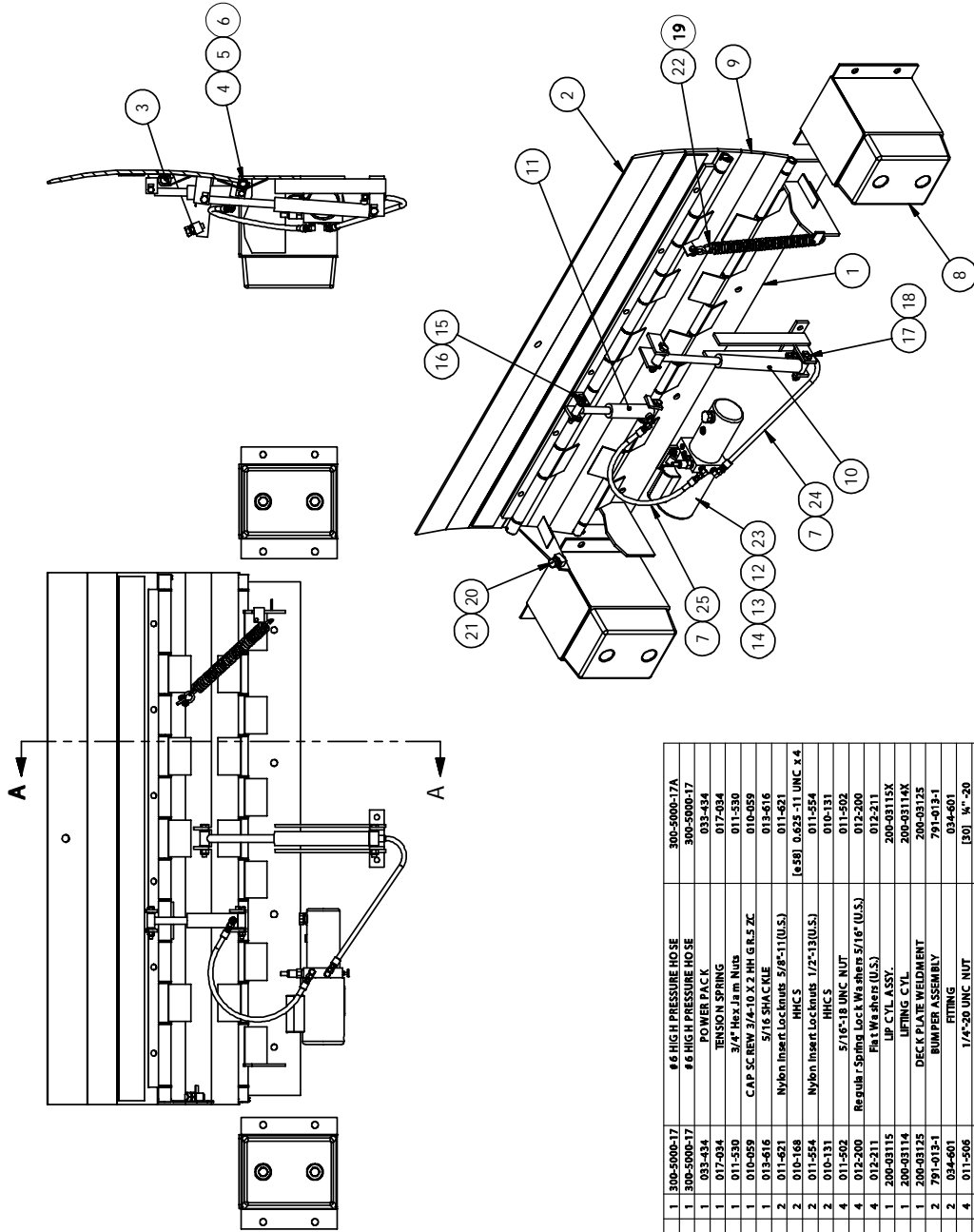
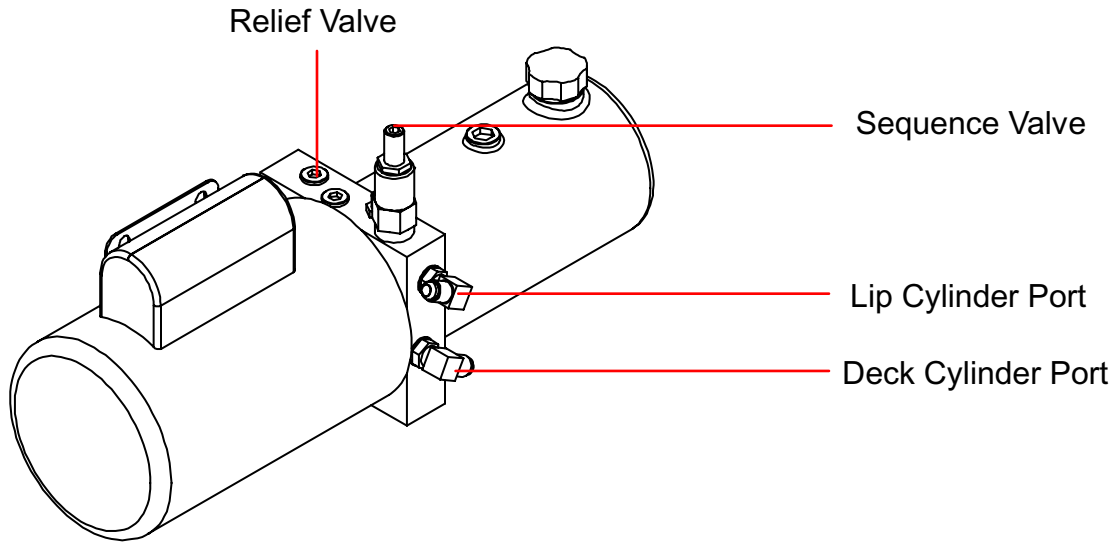


Figure 6 : Mini-Dok Fully Hydraulic Edge-Of-Dock Leveler - Component Identification

MODEL	II # 1	II # 2	II # 3	II # 4	II # 9	II # 25
MDX6630H	200-03121	200-03130	300-172	200-01513	200-03124	300-5000-17
MDX7230H	200-03122	200-03131	300-173	200-01513-1	200-03125	300-5000-17
MDX7830H	200-03123	200-03132	300-174	200-01513-2	200-03126	300-5000-19



ITEM NO.	QTY.	PART NO.	DESCRIPTION	DWG. NO.
25	1	300-5000-17A	# 6 HIGH PRESSURE HOSE	300-5000-17A
24	1	300-5000-17	# 6 HIGH PRESSURE HOSE	300-5000-17
23	1	033-434	POWER PACK	033-434
22	1	012-034	TENSION SPRING	012-034
21	1	011-530	3/4" Hex Jam Nut	011-530
20	1	010-989	CAP SCREW 3/4x10 X 2 HH GR5 ZC	010-989
19	1	013-416	5/16 SHACKLE	013-416
18	2	011-431	Nylon Insert Locknuts 5/8"-11 (U.S.)	011-431
17	2	010-469	Nylon Insert Locknuts 1/2"-13 (U.S.)	010-469
16	2	011-554	Nylon Insert Locknuts 5/8"-11 (U.S.)	011-554
15	2	010-331	Nylon Insert Locknuts 1/2"-13 (U.S.)	010-331
14	4	011-506	5/16"-18 UNC. NUT	011-506
13	4	012-200	Regulr. Spring Lock Washers 5/16" (U.S.)	012-200
12	4	012-211	PH Washers (U.S.)	012-211
11	1	200-93115	UP CIL ASSY.	200-93115X
10	1	200-93114	LIFTING CIL	200-93114K
9	1	200-93125	DECK PLATE WELDMENT	200-93125
8	2	791-013-1	BUMPER ASSEMBLY	791-013-1
7	2	094-601	FITTING	094-601
6	4	011-506	1/4"-20 UNC. NUT	011-506
5	4	010-600	CAP SCREW 1/4x20 X 3/4 HH	010-600
4	1	200-01513-1	PH	200-01506
3	1	300-173	PH	200-01506
2	1	200-93131	LIP PLATE WELDMENT	200-93131
1	1	200-93122	BACK BEAM WELDMENT	200-93122



SPECIFICATIONS:

- * 1 HP MOTOR, ELECTRIC MOTOR
- * ELECTRIC MOTOR: 115/230/1/60
- * FULL LOAD AMPS = 14.0/6.8
- * 4 1/2 DIA X 8" LONG TANK (55 CUBIC INCH USABLE CAPACITY)
- * GEAR TYPE PUMP 0.043 CUBIC INCH / REV.
- * RELIEF PRESSURE SET AT 1,500 PSI (ADJUSTMENT RANGE 500 TO 3,200 PSI)
- * SEQUENTIAL PRESSURE SET AT 1,000 PSI
- * ADJUSTABLE DECK LOWERING VALVE
- * TWO #6 SAE 'O' RING TO #6 JIC 90° ELBOW FITTINGS
- * FITTING SET AT 30° WITH HORIZONTAL AS SHOWN

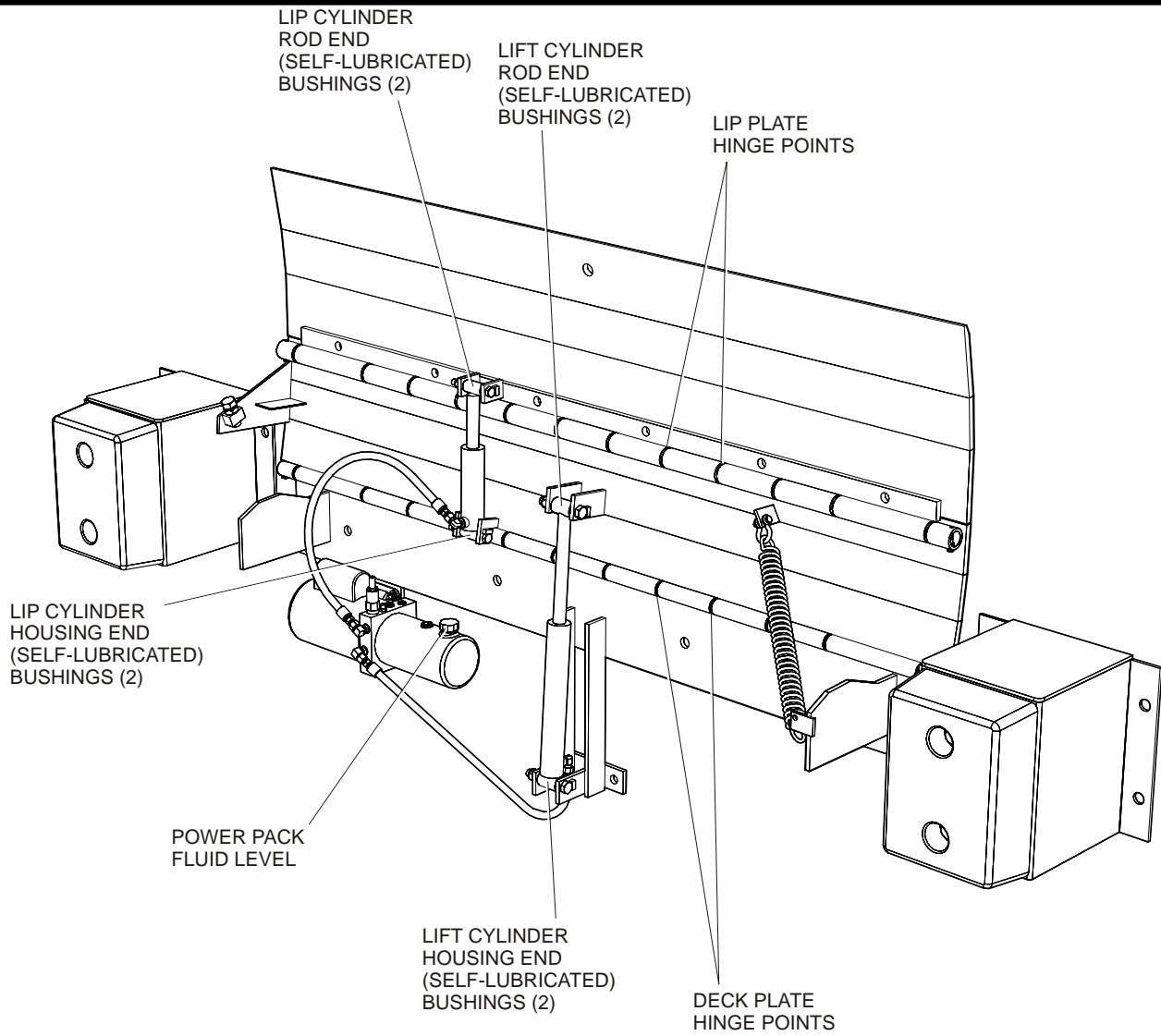


Figure 7 : Mini-Dok Maintenance/Lubrication Points

7. Safety Information

7.1 General

Mini-Dok Levelers are specialized equipment with unique operating characteristics, designed to perform a specific job. Their function and operation is not like any other piece of equipment. They require specific instructions and rules for safe operation and maintenance.

In general, dock equipment accidents that result in injury or death can be the result of:

- Operator not properly trained
- Operator not experienced with Mini-Dock Leveler operation
- Basic safety rules not followed
- Mini-Dock Leveler not maintained in safe operating condition

This manual is designed to assist the operator become knowledgeable with respect to Mini-Dok Leveler safety. This manual illustrates and instructs the operator about safety inspections and the important general safety rules and hazards of Mini-Dok Leveler operation. It describes the special components and features of the Mini-Dok Leveler and explains their functions. The correct operating procedures are shown and explained. Illustrations and important safety messages are included for clear understanding.

The operator's manual is not a training manual. It is a guide to help trained and authorized operators safely operate their Mini-Dok Leveler by emphasizing and illustrating the correct procedures. However, it cannot cover every possible situation that may result in an accident. Watch for hazards in all work areas and avoid or correct them. Do not allow potentially hazardous situations to go ignored or uncorrected. Read and understand all the information in this manual. Be aware of and obey all company safety rules! Be sure that all equipment is maintained in a safe condition. Do not operate a damaged or malfunctioning Mini-Dok Leveler. Practice safe operation every time the Mini-Dok Leveler is used.

This manual is intended to be readily available. Keep it near the Mini-Dok Leveler as a ready reference for anyone who may operate or service it. If the Mini-Dok Leveler being operated is not equipped with a manual, request to obtain one and have it located near the Mini-Dok Leveler. An authorized dealer or distributor is readily available to answer questions about Mini-Dok

Leveler operation and maintenance and will provide additional information should it be required.

7.2 Safety Signs And Safety Messages

Improper operation can cause accidents. Don't take chances with incorrect or damaged equipment. **Read** and **understand** the procedures for safe operation and maintenance outlined in this manual. Don't hesitate to ask for help.

Stay alert! Follow safety rules, regulations, and procedures. Avoid accidents by recognizing dangerous procedures or situations before they occur.

Safety signs and messages are placed in this manual to provide instructions and identify specific areas where potential hazards exist and special precautions should be taken. Know and understand the meaning of these instructions, signs, and messages. Damage to the Mini-Dok Leveler, death, or serious injury may result if these messages are not followed. If warning decals are damaged, they must be replaced. Contact an authorized dealer or distributor for replacements.

Place Safety Placard on wall near dock in clear view of operator.

NOTE : This message is used when special information, instructions or identification are required relating to procedures, equipment, tools, capacities and other special data.

IMPORTANT! : This message is used when special precautions should be taken to ensure a correct action or to avoid damage to or malfunction of the Mini-Dok Leveler or a component.



CAUTION! : This message indicates a potentially hazardous situation which, if not avoided, *may result in minor or moderate injury*



WARNING! : THIS MESSAGE INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.



DANGER! : THIS MESSAGE INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

7.3 General Safety Rules

- Be familiar with the Operating Principles of the Mini-Dok Leveler before attempting to operate it. Refer to Section 15 : Operating Procedures,.
- Do not exceed the Rated Capacity of the Mini-Dok Leveler as stated on the identification plate located on the right front side.



1. Mini-Dok Leveler model number or registered name.
2. Mini-Dok Leveler serial number – An identification number assigned to this particular Mini-Dock Leveler and should be used when requesting information or ordering service parts for this Mini-Dock Leveler from an authorized dealer or distributor.
3. Mini-Dok Leveler Capacity Rating – **Do not overload the dock leveler.**
 - Do not allow untrained personnel to operate the Mini-Dok Leveler.
 - Read this entire manual before attempting to operate the Mini-Dok Leveler.

7.4 Safety Procedures

1. Always keep the work area clean and free of litter.
2. Never allow dirt or debris to enter the pit area by way of the side openings.
3. Always clean all side openings of all dirt and debris.
4. Always clean away all dirt and debris from the lip hinge,
5. Always clean up dry and liquid spills immediately when they occur.
6. Always maintain proper lighting in the work area.
7. Never leave the Mini-Dock Leveler unattended in the raised position.
8. Always observe that the lip is seated inside the lip keepers after lowering into the stowed position.
9. Never leave loads sitting on the Mini-Dock Leveler.
10. Never attempt to raise the Mini-Dock Leveler if someone is standing on it.
11. Never operate a broken or damaged Mini-Dock Leveler. Insist on immediate repairs by a qualified service technician.
12. Never attempt to perform repairs. Always defer even the smallest repairs to a qualified service technician.
13. Never try to lift or move any part of the Mini-Dok Leveler manually.
14. Never allow the use of the Mini-Dok Leveler if the transporter is not secured by a restraint device or wheel chocks.
15. Never allow use of the Mini-Dok Leveler if the full width of the lip is not in full contact with and fully supported by a transporter vehicle load bed.
16. Always secure and center loads on the lift truck forks. Loose or unbalanced loads are dangerous.
17. Always be aware of overhead clearance. Know the height of the lift truck, with and without a load. Check the clearance when crossing the dock leveler.
18. Always keep the lift truck load low and tilted back.

8. The Mini-Dok Edge of Dock Leveler - Functional Description

- The Mini-Dok is intended to be used as a bridge located between a loading dock floor surface and the rear deck upper surface of a Transporter Vehicle.
- The Mini-Dok upper deck plate complete with a hinged, vertically hanging lip plate is located flush with the floor surface and is permanently mounted on the outer edge of the loading dock.
- The rear deck surface of a Transporter Vehicle is parked and blocked in place against the dock bumpers that are integral components of the Mini-Dok, in working alignment with the Mini-Dok. A Mini-Dok used in conjunction with a Truck Restraint is ideal for this application. Consult your local Dealer/Distributor.
- The Mini-Dok is operated by maintaining pressure on a push button switch located on a control box. The push button activates a hydraulic pump/motor that forces fluid into a hydraulic lift cylinder. As the cylinder rod extends, the deck is rotated up into a vertical position. When the lift cylinder reaches its maximum extension the smaller lip cylinder begins to extend forcing the lip plate into a vertical position as well. The push button switch is then released. As the operator releases the push button switch, the lip cylinder remains extended while the lift cylinder retracts. This forces the lip plate to remain in an extended position as the deck plate moves forward. The lip plate moves forward horizontally until the underside comes to rest on the load bed of the transporter vehicle.
- A bridge is now formed that is supported at the building end by the dock floor and at the vehicle end by the transporter vehicle load bed.
- No other means of support is provided when in this position.
- The Mini-Dok is restored to its original stored position by the operator before the vehicle is allowed to depart.

Refer to Section 6 : Component Identification for illustration of Mini-Dok Components.

Refer to Section 15 : Operating Procedures - Pictorials for detailed operating sequence.

9. Operator Maintenance And Care

9.1 Daily Safety Inspection

Before using a Mini-Dok, it is the operator's responsibility to check its condition and be sure it is safe to operate.

Check for damage and maintenance problems; have repairs made before the Mini-Dok is operated. Unusual noises or problems must be reported immediately to a supervisor or other designated authority.

Never attempt to perform repairs. Always defer even the smallest repairs to a qualified service technician. Have a qualified Dock Leveler Service Technician make repairs using parts approved by the manufacturer.

Do not operate a Mini-Dok if it is in need of repair. If it is in unsafe condition, do not commence operation and report the condition to the proper authority. If the Mini-Dok becomes unsafe during operations, stop operating the Mini-Dok, report the problem immediately, and have it corrected.

Mini-Doks should be inspected every day, at the start and end of each shift. In general, the daily inspection should include the visual and functional checks described on the following pages. As an aid in carrying out this inspection the manufacturer has prepared a form for reproduction and daily use. *Refer to Section 12.3 : Operators Daily Checklist.* The manufacturer recommends that this form be used to make a daily record of inspection and Mini-Dok condition.

9.2 Visual Checks

First, perform a visual inspection of the Mini-Dok and its major components:

1. Inspect the Mini-Dok from all possible viewpoints. Take note of obvious damage that may have been caused by operation during the last shift.
2. Check that all capacity, safety, and warning plates or decals are attached and legible.
3. Inspect for damaged or missing parts, rust, corrosion, bent parts, cracks, etc.
4. Carefully inspect the hinge points for cracks, breaks, bending, twists, and wear.

Visually inspect the Mini-Dok for signs of structural damage or mechanical malfunction as it is operated throughout the day. Be alert to abnormal sounds or operation and visually observe the condition of all components.



DANGER! : DO NOT ENTER THE AREA IN FRONT OF OR BELOW THE DOCK LEVELER. SERIOUS PERSONAL INJURY AND/OR DEATH MAY RESULT.

With Mini-Dok in its stowed position, clean away wood splinters, nails, and other debris from the upper hinge surface.



WARNING! THE UPPER HINGE POINT IS A HAZARDOUS PINCH POINT. DO NOT USE FINGERS OR HANDS TO REMOVE FOREIGN MATERIALS. USE APPROPRIATE TOOLS.

Clean up spills and debris from the dock area floor and the Mini-Dok deck immediately when they are observed.

If all the Daily Inspection checks are normal or satisfactory, the Mini-Dok can be operated.

Make a record on *Section 12.3 : Operator's Daily Checklist* of all problems that are detected. Review the checklist to be sure it has been completed and turn it in to the person responsible for Dock Leveler Maintenance. Be sure any unusual noises or problems are investigated immediately.

Do not operate a Mini-Dok that has a maintenance problem or is not safe to operate.

9.3 Operator's Daily Check List

INSTRUCTIONS FOR USE: Indicate "OK for Use" with a check mark ✓ in the appropriate box of each inspection point.

- Inspect the Mini-Dok from all possible viewpoints and take note of obvious damage that may have been caused by operation during the last shift.
- Check that all capacity, safety, identification plates, etc. are attached and legible.
- Inspect for damaged or missing parts, rust, corrosion, bent parts, cracks, etc.
- Carefully inspect the hinge points for cracks, breaks, bending, twists, and wear.
- Inspect the control box for signs of visible damage.
- With the Mini-Dok in its stowed position, clean away wood splinters, nails and other debris from the upper lip-hinge surface by sweeping with broom.
- Check for missing or damaged dock bumpers mounted on the dock face.
- Clean up spills from the dock area floor and the Mini-Dok immediately when they are observed.
- Visually inspect the Mini-Dok for signs of structural damage or mechanical malfunction as the Dock Leveler is operated throughout the day. Be alert to abnormal sounds or operation and visually observe the condition of all components

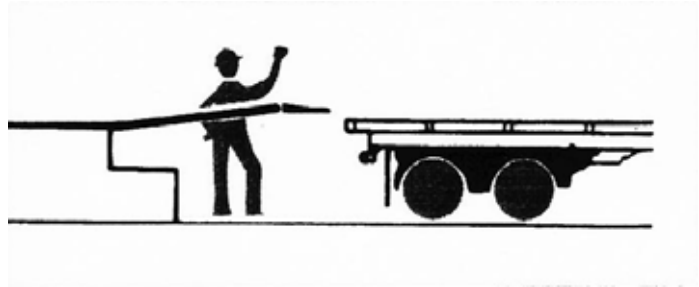
Explain faults briefly in the space provided below.

INSPECTED BY: _____ **DATE:** _____

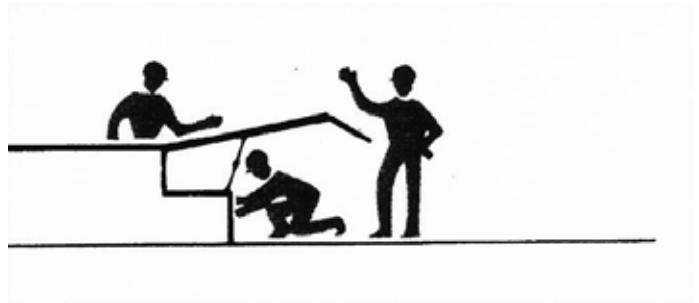
Forward checklist to the person responsible for dock leveler maintenance.

9.4 Operating Hazards

- Do not operate the dock leveler without being trained to do so.
- Know and follow all of these warnings and instructions:



1. Stay clear of dock leveler when transporter vehicle is entering or leaving area.



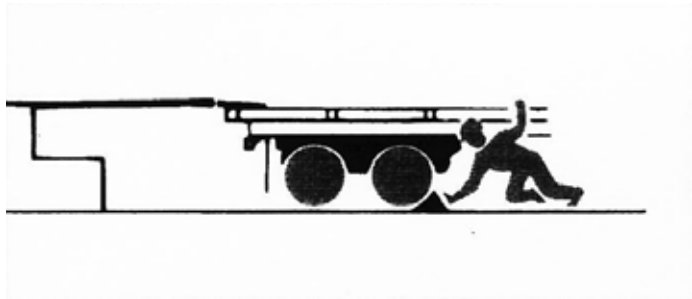
2. Do not use or move the dock leveler if anyone is under or in front.



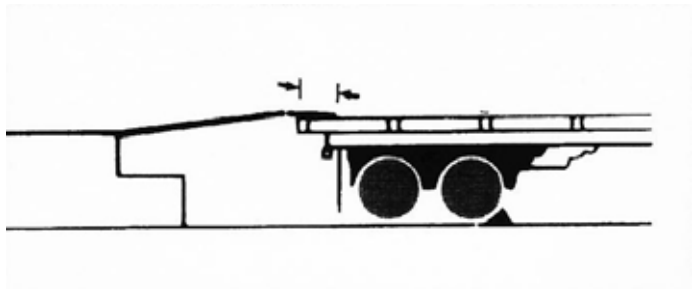
3. Keep hands and feet clear of pinch points.



4. Keep a safe distance from both side edges.



5. Chock or restrain all transporter vehicles.



6. Lip must overlap bed of transporter vehicle a minimum of 4" (100mm).



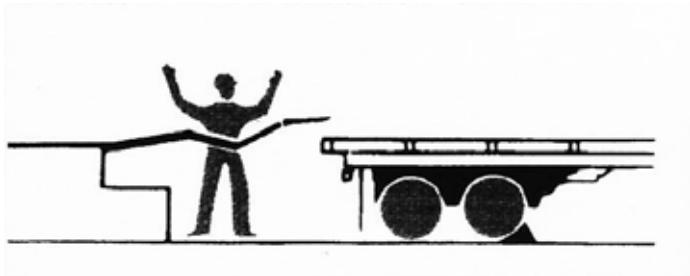
7. Do not use dock leveler if transporter vehicle exceeds service range of 5" (130mm) above or below zero grade.



8. Do not exceed the rated capacity as indicated on name plate.



9. Do not leave equipment or material unattended on dock leveler.



10. Do not use a broken or damaged dock leveler.

10. Before Operating The Dock Leveler

Anyone who is required to operate a Dock Leveler must read and understand the information in this Owner's Manual and must be trained and authorized before initial operation.

The Owner's Manual should be stored where it can be made readily available.



WARNING! : A MINI-DOK CAN BE A POTENTIAL THREAT TO PERSONS AND PROPERTY IF NOT USED PROPERLY. SAFE OPERATION IS THE RESPONSIBILITY OF THE OPERATOR.

10.1 Load Handling

Handle only loads that are within the Mini-Dok rated capacity as shown on the nameplate. This includes the weight of the fork truck and the weight of its load.

Handle only stable or safely arranged loads. Take the time to correctly stack and band loose items. Center the load on the Lift Truck Forks.

10.2 Traveling With A Load

Travel with load or carriage as low as possible across the Mini-Dok deck. Never travel with the load or carriage raised (elevated) in a high position. Do not elevate the load until clear of the Mini-Dok.

Use special care when handling and traveling with long, high, or wide loads-to avoid losing the load, striking bystanders or obstructions. Do not turn until clear of the Mini-Dok.

Watch clearances around the Mini-Dok during travel. Look out for obstructions, especially overhead.

The impact of moving in and out of the trailer may cause the trailer to creep forward or move. A Truck Restraint that is used properly will prevent this situation from occurring. The following is a list of other prevention measures:

- Apply trailer brakes.
- Use wheel chocks.
- Use other suitable trailer-to-dock locking system if available.

11. Operating Instructions – Typical

Refer to Section 11 : The Mini-Dok Edge of Dock Leveler - Functional Description

1. The Mini-Dok is operated by pushing and holding the push-button switch at the control box
2. The deck and lip plates are sequentially rotated up into a vertical position.
3. When the both the deck and lip plates reach the maximum up-travel stop, the operator then releases the push button switch allows the deck to move forward into a horizontal position while the lip plate stays rigid.
4. The lip plate moves forward horizontally, as the deck rotates downward, until the underside comes to rest on the load bed of the transporter vehicle.
5. The unit is now ready for traffic.

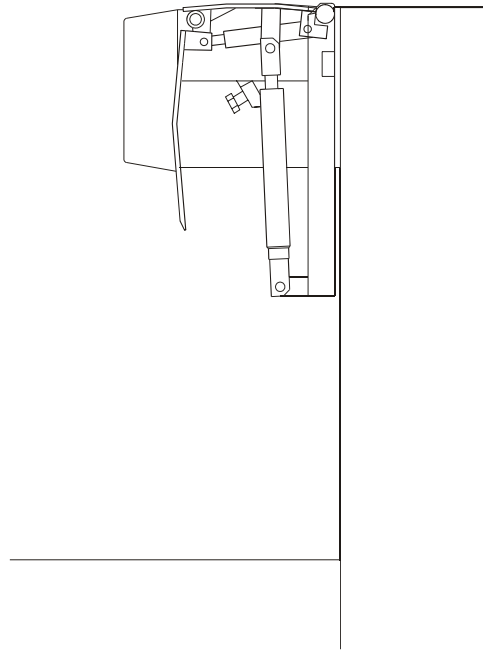


WARNING! : CHOCK THE VEHICLE WHEELS OR OTHERWISE SECURE THE VEHICLE TO PREVENT ITS MOVEMENT BEFORE COMMENCING TRAFFIC ACROSS THE MINI-DOK. A TRUCK RESTRAINT IS IDEAL FOR THIS APPLICATION. CONSULT YOUR LOCAL DEALER/DISTRIBUTOR.

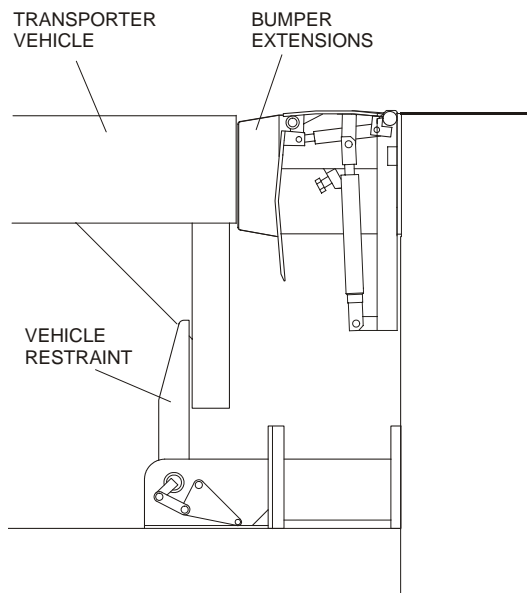
6. The operator then uses the push button switch to return the Mini-Dok to stowed position before the transporter vehicle departs.
7. Raise the deck is then raised just enough for the lip to clear the transporter vehicle load bed. The unit is then allowed to lower into stored position.

12. Operating Procedures - Pictorials

DOCK IS AVAILABLE FOR USE



1. The transporter vehicle driver reverses the vehicle into position firmly against the dock bumper extensions.

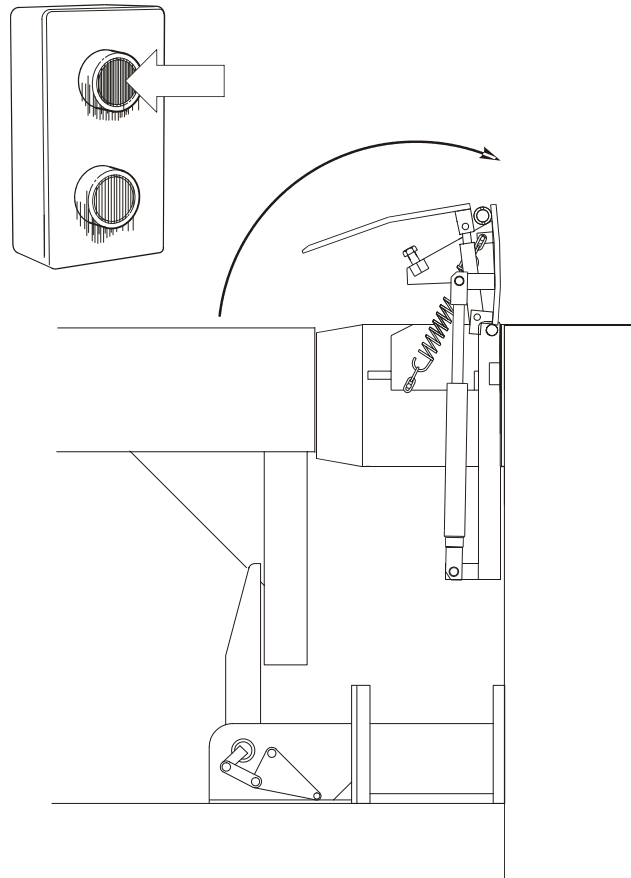


2. The dock operator assures the transporter vehicle is blocked securely (using either a vehicle restraint or wheel chocks) to prevent forward creep or unexpected departure.

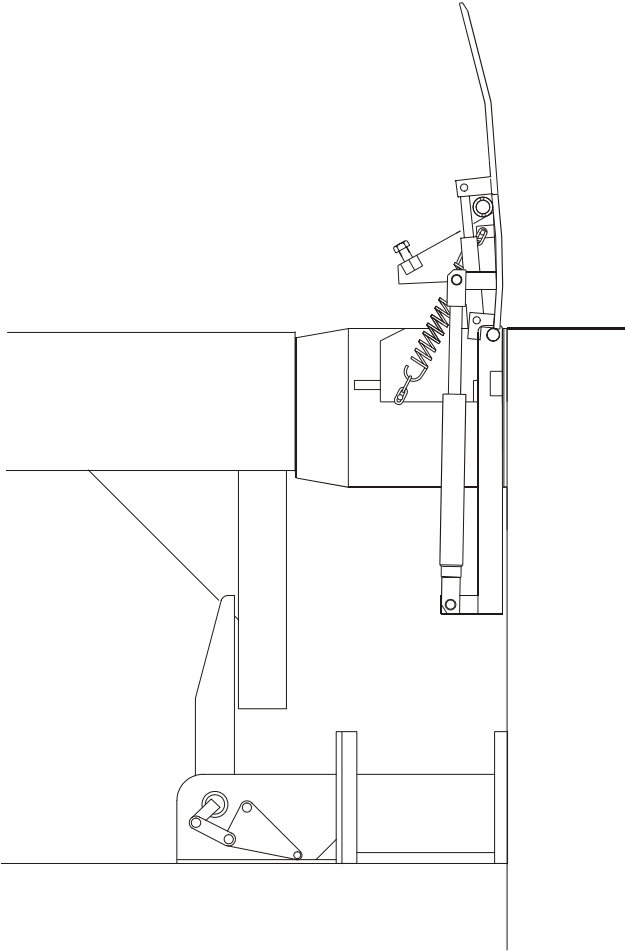


WARNING! : DO NOT ATTEMPT TO POSITION THE DECK OR LIP PLATES BY HAND.

3. The operator maintains pressure on the "UP" push button to raise the Mini-Dok to its most extended raised position.

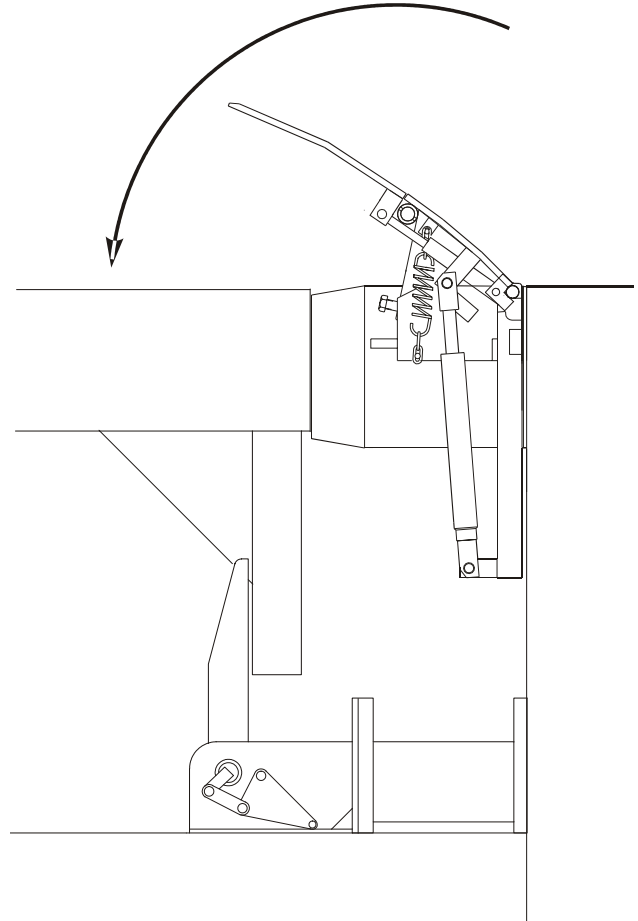


The Lift Cylinder will extend to its maximum length, raising the Deck Plate to a near vertical position. When the Lift Cylinder has reached its fullest extension the Lip Cylinder begins to extend.



The Lip Plate will also be raised to a near vertical position.

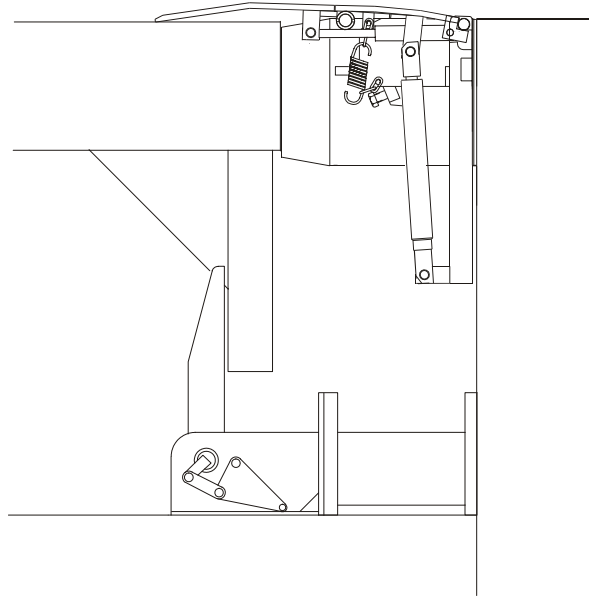
4. The operator releases the pushbutton which allows the Mini-Dok to lower.



During this step, the Lip Cylinder will remain extended while the Lift Cylinder retracts. This forces the Lip Plate to remain in a horizontal position while the Deck Plate extends. The Lip Plate will then come to rest on the loadbed of the transport vehicle.



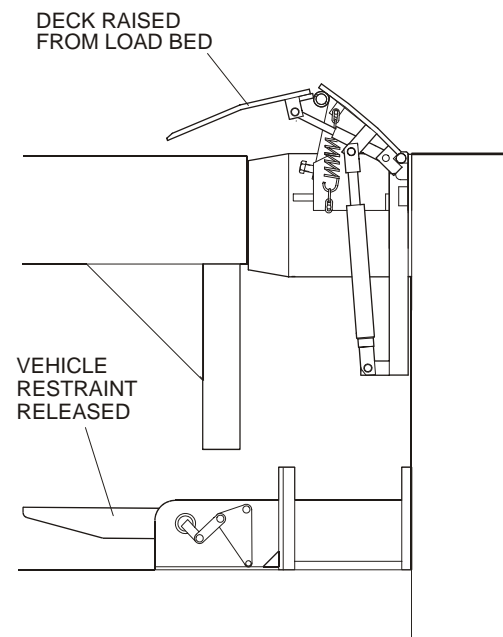
WARNING! : THE LIP PLATE MUST OVERLAP THE TRANSPORTER VEHICLE LOADBED BY A MINIMUM OF 4" (100MM) FULL WIDTH.



5. With the lip plate in full contact with the transporter vehicle loadbed, the loading/unloading operation can be completed.

NOTE: The control handle is returned to the stored position.

6. When the loading/unloading operation is completed, the operator repeats Steps 3&4 - to raise the lip plate off the transporter vehicle loadbed.

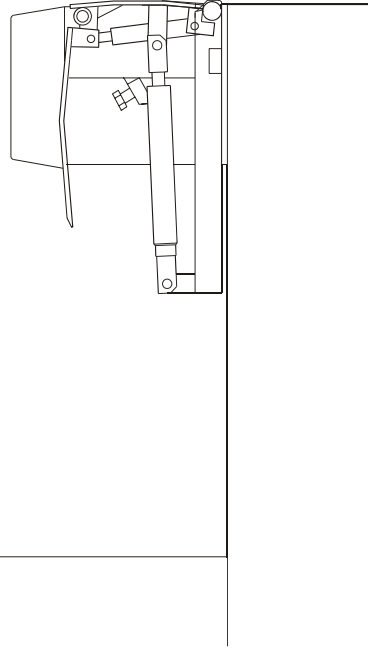


The deck is raised just enough for the lip to clear the transporter vehicle loadbed.

7. The operator releases the vehicle restraint or removes the wheel chocks to allow the transporter vehicle to depart.



WARNING! : THE TRANSPORTER VEHICLE SHOULD NEVER BE ALLOWED TO DEPART WITH THE LIP PLATE RESTING ON THE LOADED.



8. The operator releases the "UP" pushbutton allowing the lip and deck to lower under its own weight into stored position.

The dock is once again available for use.

13. Trouble Shooting



WARNING! : DO NOT ATTEMPT TO INSTALL, MAKE REPAIRS OR ADJUSTMENTS. ONLY A TRAINED AND AUTHORIZED SERVICE TECHNICIAN SHOULD PERFORM REPAIRS OR ADJUSTMENTS. ONLY A QUALIFIED CONTRACTOR/SUB-CONTRACTOR SHOULD PERFORM THE INSTALLATION PROCESS. CONTACT YOUR LOCAL DEALER OR DISTRIBUTOR FOR ASSISTANCE.

Problem	Possible Cause
<p>Mini-Dok does not raise when pushbutton operated. - Motor does not run</p>	<ul style="list-style-type: none"> • Electrical power supply to control station is not turned 'ON'. • Faulty wiring or connections. • Motor thermal overload tripped 'Open'. <ul style="list-style-type: none"> - Single phase is 'Auto Reset' after cooling period. - Three phase is 'Manual Reset' at control station. • Faulty motor contactor - no tip contact. • Faulty motor - check wiring connections.
<p>Mini-Dok does not raise when pushbutton is operated. - Motor runs freely</p>	<ul style="list-style-type: none"> • Motor is running in reverse rotation <ul style="list-style-type: none"> - 3 phase only - Reverse any 2 main power supply leads • No hydraulic fluid in reservoir <ul style="list-style-type: none"> - fill with Mobile DTE13 or equivalent. • Leaking or disconnected hydraulic hose. • Pressure relief valve in pump by-passing. • Faulty pump.
<p>Mini-Dok raises partially and slowly stops before reaching fully raised height. - Operating sound of power pack changes and increases</p>	<ul style="list-style-type: none"> • Inadequate hydraulic fluid. <ul style="list-style-type: none"> - Top up with Mobile DTE13 or equivalent. - Leaking or disconnected hydraulic hose. • Relief valve in pump by-passing.
<p>Motor continues to run after pushbutton is released</p>	<ul style="list-style-type: none"> • Faulty Motor contactor. <ul style="list-style-type: none"> - Contact tips are welded.

TroubleShooting (continued)

Problem	Possible Cause
<p>Unit does not lower from fully raised position when pushbutton is released</p>	<ul style="list-style-type: none"> • Adjustment of pull-down spring required. <ul style="list-style-type: none"> - Shorten pull-down chain to increase spring tension. <i>Note: Increase spring tension only enough to provide usual lowering action.</i> • Lubricate all pivot points - SAE10 oil.
<p>Unit lowers from fully raised position, but lip does not remain horizontal as deck plate rotates downward. - Lip does not deploy onto loadbed</p>	<ul style="list-style-type: none"> • Deck stop chain requires adjustment. Do not operate Mini-Dok with stop chain removed. • Power Pack requires Sequential Pressure setting adjustment. (Consult Factory)
<p>Lip Plate raises early causing it to strike the rear of the transporter vehicle</p>	<ul style="list-style-type: none"> • Power Pack requires Sequential Pressure setting adjustment. (Consult Factory) • Deck/Lip Stop requires adjustment. <i>(See Items 22 & 23, Figure 8 : General Assembly - 25,000 lb. Capacity - 72" Wide)</i>

14. Mini-dok - Parts Listings

14.1 General Assembly - 25,000 lb. Capacity - 72" Wide

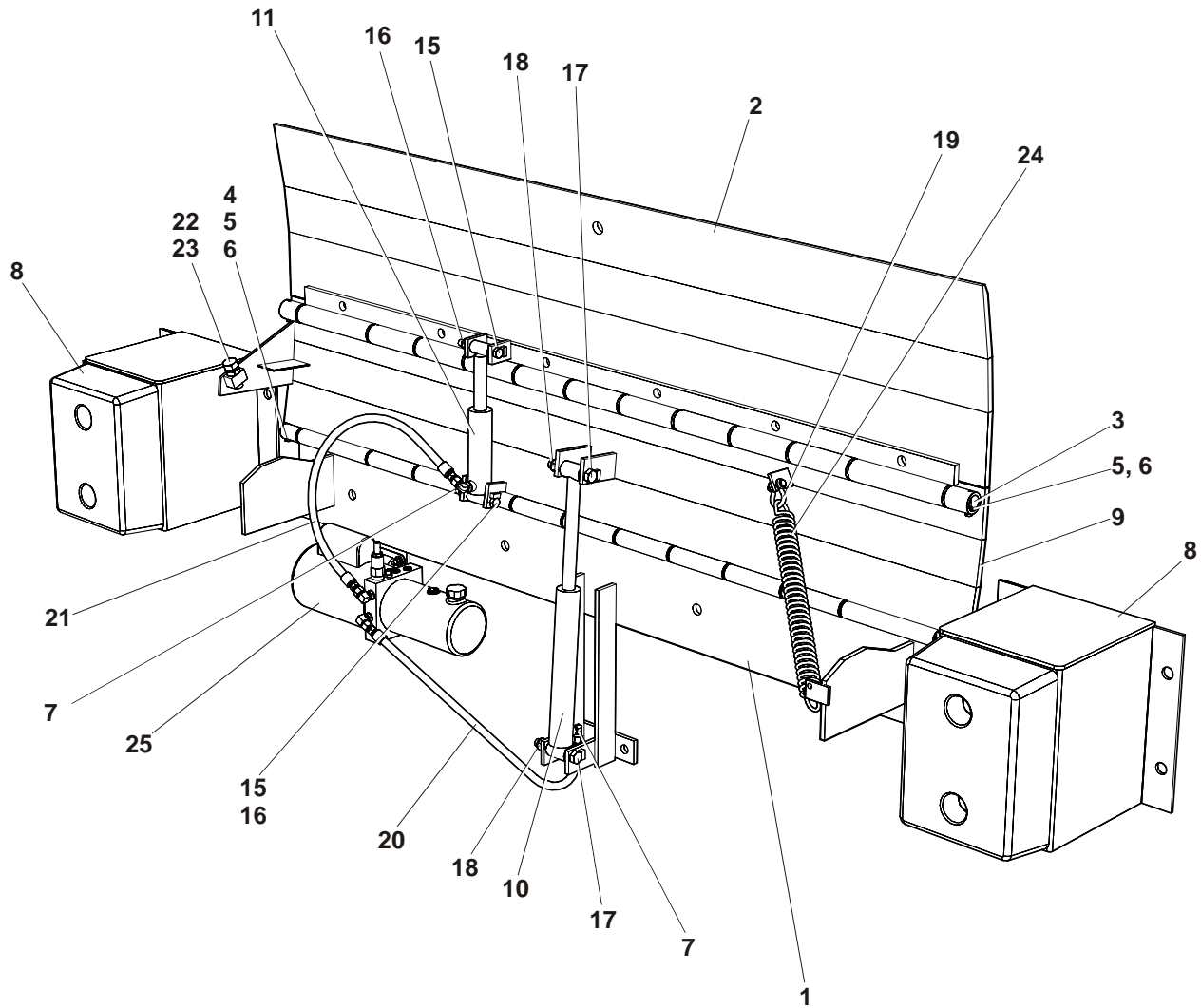


Figure 8 : General Assembly - 25,000 lb. Capacity - 72" Wide

General Assembly - 25,000 lb. Capacity - 72" Wide

Item	Qty	Part No	General Description	Specific Description
				REF. DRWG. 200-03103
1	1	200-03104	Back Beam Weldment 72" Width	25K-72"W
2	1	200-03106	Lip Plate Weldment 72" Wide	25K-72"W
3	1	300-173	Pin, Lip 25# 70-1/4"Lg]	25K-72"W
4	1	200-01513-1	Pin, Lip 7/8"D X 70 1/4"	25K-72"W
5	4	010-000	Capscrew, Hex Hd. 1/4"-20 X 3/4" Gr.5	25K-72"W
6	4	011-506	Nut, Hex - 1/4"-20	25K-72"W
7	2	034-601	Adaptor, 90 Deg # 2103-4-6	25K-72"W
8	2	791-013-1	Bumper Bracket Ass'y DB13 (11"Ext)	25K-72"W
9	1	200-03105	Deck Plate Weldment 72" Width	25K-72"W
10	1	200-03114	Lifting Cylinder Assy	25K-72"W
11	1	200-03115	Lip Cylinder Assy.	25K-72"W
12	4	012-211	Washer, Flat - 5/16" BS	25K-72"W
13	4	012-200	Washer, Lock 5/16" - Helical	25K-72"W
14	4	011-502	Nut, Hex - 5/16"-18	25K-72"W
15	2	010-131	Capscrew, Hex Hd. - 1/2"-13 X 4"	25K-72"W
16	2	011-554	Nut, Hex - 1/2"-13 Nylon Insert	25K-72"W
17	2	010-168	Capscrew, Hex Hd. - 5/8" X 4" LG.	25K-72"W
18	2	011-621	Nut, Hex (Use 011-501) 5/8"-11 Nylock	25K-72"W
19	1	013-616	Shackle, 5/16" Round Pin Anchor	25K-72"W
20	1	300-5000-17	Hose, #6 HP Str. Swivel(2)	25K-72"W
21	1	300-5000-17	Hose, #6 HP Str. Swivel(2)	25K-72"W
22	1	010-059	Capscrew, Hex Hd. - 3/4"-10 X 2" Gr.5	25K-72"W
23	1	011-530	Nut, Hex Jam - 3/4"-10	25K-72"W
24	1	017-034	Spring Wire - 1.625"OD X .250"	25K-72"W
25	1	033-434	Power Pack - 115V/1Ø/60Hz	25K-72"W
26	1	027-006	Control Box - Push Button	115V/1Ø/60Hz - 1HP

* - INDENTED SUB-ASSEMBLY – SHOWN ON SAME PAGE

** - SUB-ASSEMBLY SHOWN ON SEPARATE PAGE

15. Schematics

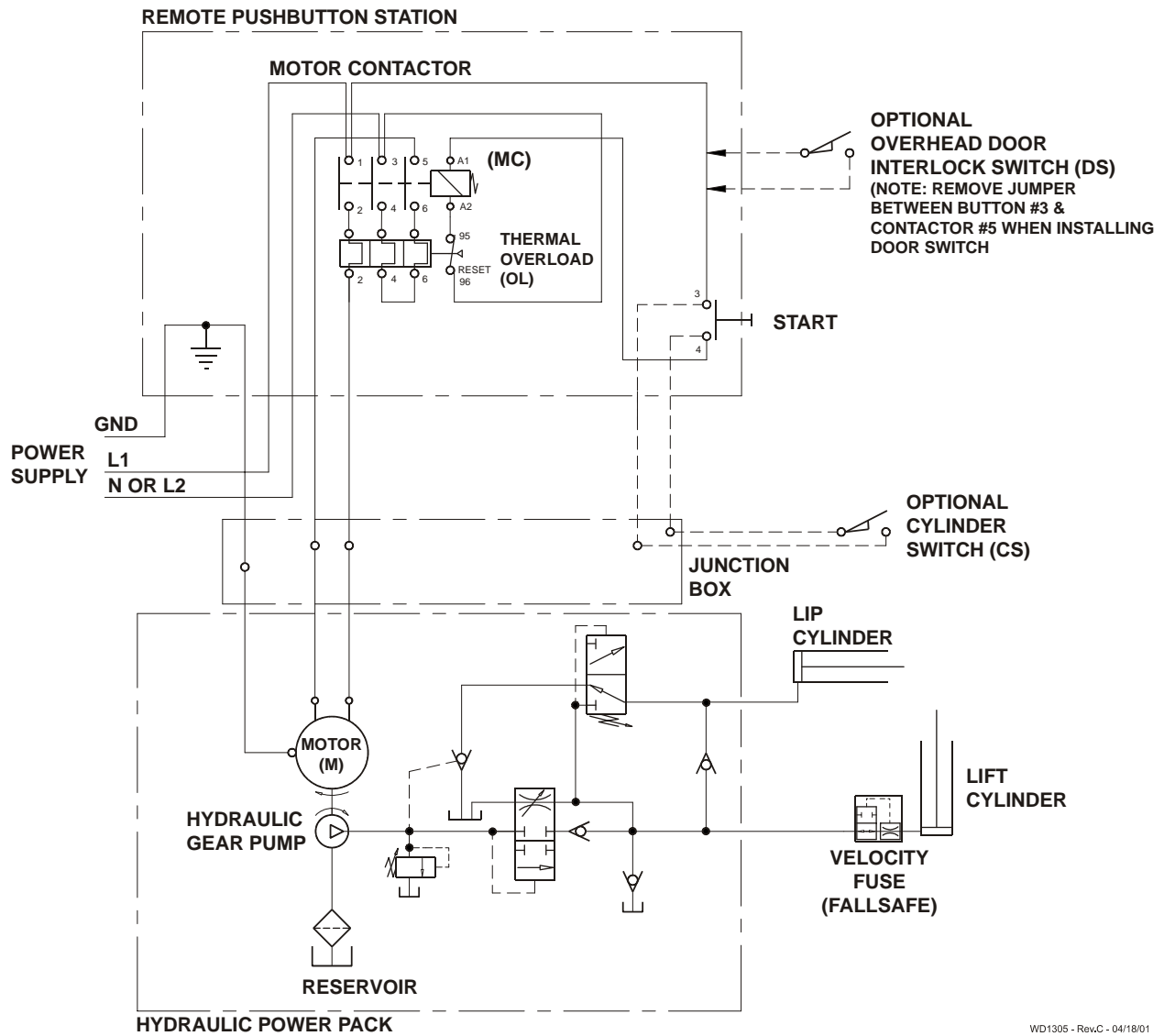
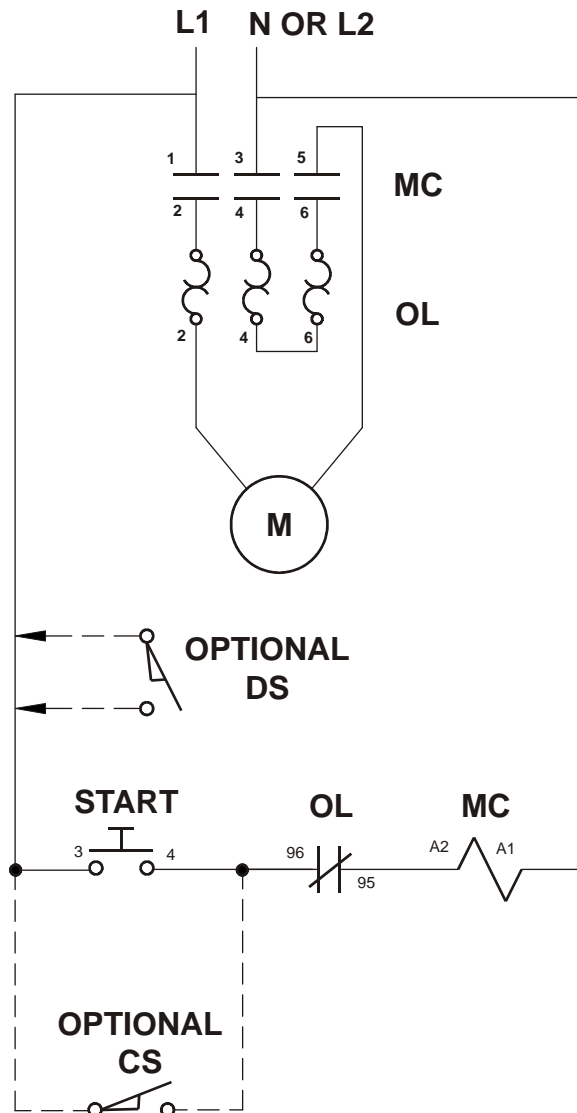


Figure 9 : Electrical/hydraulic Schematic



WD1305 - Rev.C - 04/18/01

Figure 10 : Wiring Diagram

16. Service / Maintenance History

Date	Work Performed	Comments / Notes

To Order Parts

For prompt service when ordering parts, please provide the following information to your local distributor.

1. Model and serial number of the vehicle.
2. Part number, description and quantity.
3. Shipping instructions.

When in doubt as to part required, provide a sketch or the used part as a sample.

Record Here For Future Reference

Date into Service: _____

Model Number: _____

Serial Number: _____

Distributor: _____

FOR RECOMMENDED SPARE PARTS CONTACT THE MANUFACTURER

TEL: 800 668 7078 / 905 457-3900

Fax: 888 378 5781 / 905 450-6555

Warranty Policy

The manufacturer warrants to the original purchaser its loading dock equipment to be free from defective factory material and workmanship. All warranties begin on the date of delivery to the first user or the sixtieth (60) day after date of shipment, whichever comes first.

Parts or components which fall under normal usage within the following specified time periods and are proven to be defective will be repaired or replaced by the manufacturer without charge for parts or labor unless stated otherwise herein. Replacement parts will be supplied F.O.B. factory.

WARRANTY TIME PERIODS:

- 1.) **ONE (1) YEAR - PARTS, LABOUR and COMPONENTS.**

WARRANTY IS VOID IF:

- 1.) Warranty validation form is not completed and returned to the manufacturer.
- 2.) Equipment has been modified or repaired in any manner not approved by the manufacturer.
- 3.) Equipment is overloaded beyond rated capacity.
- 4.) Equipment is used in abrasive conditions, corrosive conditions, freezers or excessive moisture.

THE FOLLOWING ARE NOT COVERED UNDER WARRANTY:

- 1.) Adjustments, including initial field set-up. Adjustments are considered part of normal maintenance procedures.
- 2.) Repairs required as a result of:
 - Failure to follow maintenance and/or lubrication procedures specified in the owner's manual.
 - Abuse, willful damage, accident, neglect or wear items.
 - Shipping damage. (Claim must be made with freight carrier.)

THE MANUFACTURER DOES NOT ASSUME RESPONSIBILITY OR LIABILITY FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, OR FOR LOSS OF PROFIT OR DAMAGE TO TRADE OR BUSINESS WHICH RESULTS FROM THE EQUIPMENT.

THE ABOVE WARRANTIES ARE IN LIEU OF ANY OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN.



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B L U E G I A N T E Q U I P M E N T C O R P O R A T I O N

BLUE GIANT offers a full line of Dock Levelers, Dock Safety Equipment, Accessories, Ergonomic and Scissor Lift Equipment, and Industrial Trucks. Concurrent with our continuing product improvement program, specifications are subject to change without notice. Please contact BLUE GIANT for latest information. Some features illustrated may be optional in certain market areas.

If calling from outside North America: Tel 905 457 3900 Fax 905 450 6555

Warning: This manual may not be copied, quoted or transferred in any form or medium to any individual or company, in whole or in part without written consent from Blue Giant.

Issue Date : 01/19/06 (Part # 411-254)