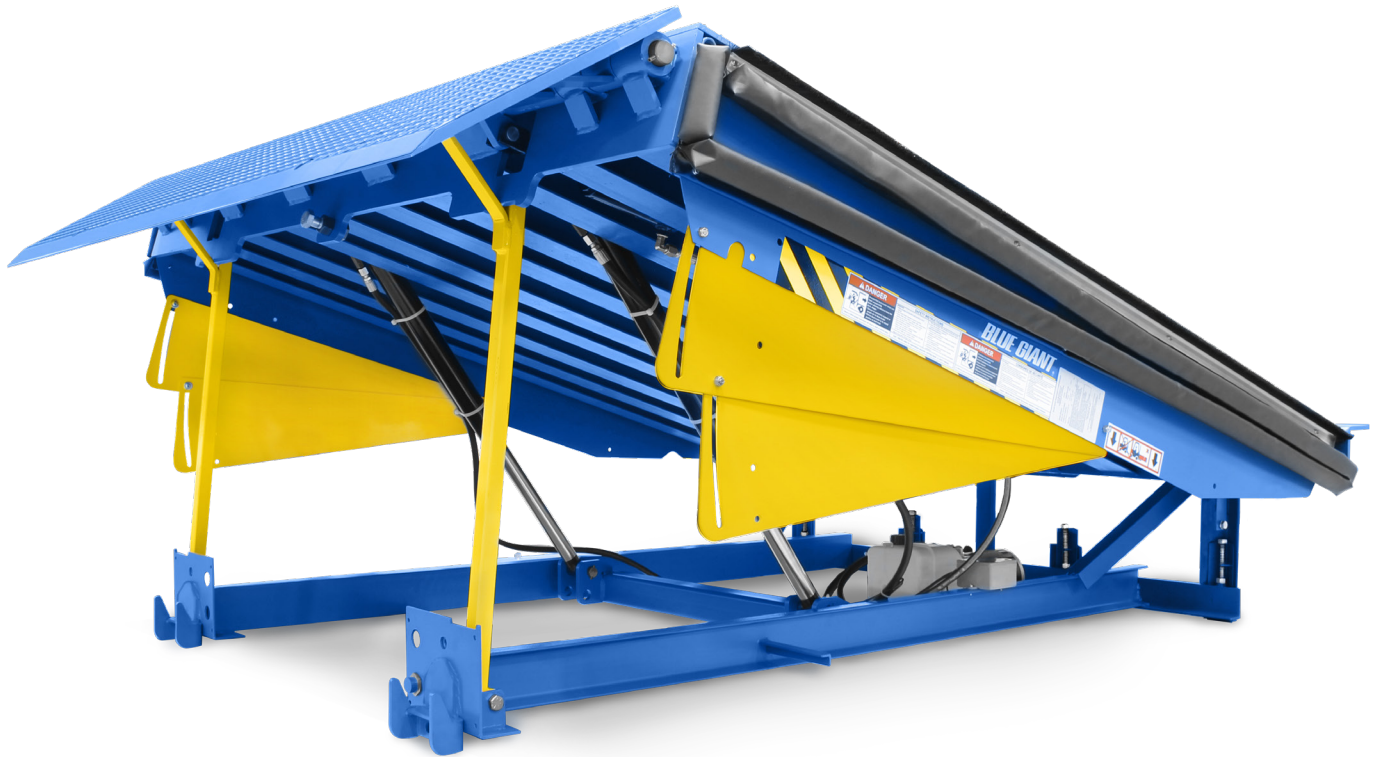


# OWNER'S MANUAL

## HYDRAULIC DOCK LEVELER



ACTUAL PRODUCT MAY NOT APPEAR EXACTLY AS SHOWN



### WARNING

Do not operate or service this product unless you have read and fully understand the entire contents of this manual. Failure to do so may result in property damage, bodily injury or death.

**BLUE GIANT®**

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1.0 ABOUT THE HYDRAULIC DOCK LEVELER

The Blue Giant Hydraulic Dock Leveler is a high performance system. High tensile enhanced J-beams are welded at dynamic impact points on the underside of the deck, preventing “dishing” and providing structural integrity. Hydraulic components increase operating efficiency and reduce maintenance requirements.

High tensile enhanced J-Beams are welded at dynamic impact points on the underside of the deck, preventing "dishing" and providing structural integrity.

1.1 OWNER’S PURCHASE RECORD

OWNER’S PURCHASE RECORD	
Please record information for future inquiries and to validate warranty. (See Section 2.1 "Warranty Information" for warranty validation)	
Dealer:	Date in Service:
	Number of Units:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:
Serial Number:	Door #:

The manufacturer offers a full line of dock levelers, dock safety equipment, accessories, ergonomic and scissor lift equipment, seals and shelters, and industrial trucks. Concurrent with a continuing product improvement program, specifications are subject to change without notice (See Section 2.2 "Exclusion of Liability" of this manual). Please contact the manufacturer for latest information. Some features illustrated may be optional in certain market areas.

NOTICE

See Section 9.0 "Decal Identification and Location" item #5 for serial number location.

## 2.0 INTRODUCTION

The following is a quick reference to important procedures that must be followed while using the Loading Dock Equipment. It is not intended to cover, or suggest that it does cover, all procedures necessary to ensure safe operation. All operators should be aware of and abide by all workplace safety regulations applicable to the operation of the Loading Dock. These laws and regulations include but are not limited to:

- The Occupational Safety and Health Act
- Canada Occupational Health and Safety Regulations
- Occupational Safety and Health Acts for Individual States (USA)

For additional information on these regulations as well as industry standards that may apply to this product, please contact:



American National Standards Institute (ANSI)  
1430 Broadway  
New York, NY 10018  
Telephone: 212.642.4900  
[www.ansi.org](http://www.ansi.org)

Also a member of:



Loading Dock Equipment Manufacturers  
A Product Section of Material Handling Industry of America  
A Division of Material Handling Industry  
8720 Red Oak Blvd, Suite 201  
Charlotte, NC, 28217-3992  
Telephone: 704.676.1190  
[www.mhi.org/lodem](http://www.mhi.org/lodem)

## 2.1 WARRANTY INFORMATION

Thank you for purchasing Blue Giant products. We appreciate your business, and are confident that our product will serve you for many years to come. In the event that you experience a problem with our product, our Customer Support Team is here to support the Blue Giant Product(s) that you have purchased.

To validate warranty on recently purchased equipment, please complete and submit your information with our on-line Warranty Registration at [www.BlueGiant.com](http://www.BlueGiant.com).

For more information about Blue Giant Customer Support, please contact your local Blue Giant Equipment dealer, representative or authorized partner near you. You may also visit [www.BlueGiant.com](http://www.BlueGiant.com) or phone 1.905.457.3900.

### DEALER INFORMATION

Name:

Contact:

Telephone:

**NOTE: All products must be registered to qualify for warranty.**

## 2.2 EXCLUSION OF LIABILITY

The manufacturer assumes no liability for damage or injury to persons or property which occur as a result of defects or faults in or incorrect use of the Loading Dock Equipment. The manufacturer also assumes no liability for lost profits, operating downtimes, or similar indirect losses incurred by the purchaser. Injury to third parties, irrespective of its nature, is not subject to compensation.

The manufacturer reserves the right to make changes at any time to the modules, components, and accessories, concurrent with its continuing product improvements and development program. Specifications, operating instructions, and illustrations included in this manual are subject to change without notice. Please contact manufacturer for the latest information.

## 2.3 MANUFACTURER'S NOTE

The dock equipment has been carefully inspected and tested at the manufacturer's plant prior to shipment, but should be checked upon receipt for transport damage. Any observed transport damage is to be listed on the signed copy of the freight document. Notify the freight forwarder of any damage WITHIN 48 HOURS.

## 2.4 OWNER'S RESPONSIBILITY

1. The owner should recognize the inherent danger of the interface between the dock and the freight carrier. The owner should, therefore, train and instruct operators in the safe use of the dock equipment and accessories in accordance with the manufacturer's recommendations.
2. The owner should thoroughly familiarize themselves with the following procedures and specifications, and request immediate replacement of all manufacturer-supplied documents that are missing, damaged, or otherwise illegible. Below is a list of Best Practices for dock equipment usage and maintenance.
  - Commissioning instructions
  - Operating instructions
  - Daily maintenance procedures checklist
  - Inspections procedures
  - Recommended spare parts lists

Upon receipt of any newly purchased dock equipment, the owner shall verify the presence of owner's manuals, operating placards, and any other documentation necessary for training dock personnel how to use the equipment safely and effectively.
3. All Blue Giant dock equipment should undergo regularly scheduled planned maintenance. Maintenance requirements will vary according to usage frequency and application, so the owner shall consult with their authorized Blue Giant distributor for schedule recommendation. Written records of the performance of these procedures should be kept as per warranty requirements.
4. Dock equipment that is structurally damaged, experiencing performance irregularities, or has been potentially compromised shall be removed from service until a trained and authorized manufacturer's representative can conduct an inspection and perform any necessary repairs.
5. As with any piece of machinery, dock equipment requires routine maintenance, lubrication, and adjustments. Recommended procedures are itemized in the Planned Maintenance Program (PMP) checklist included in installation and technical manuals. It is recommended that for anything other than the basic maintenance procedures outlined in this manual, you contact your local Blue Giant representative.
6. The owner shall ensure that all name plates and safety labels are in place and legible, and that the appropriate manuals are provided to authorized users. Replacement name plates, safety labels, and manuals are available through the Blue Giant Aftermarket Department. See "Decal Identification and Location" section in this manual for more information.
7. The owner or a trained and authorized representative shall verify that all freight carrier brakes have been applied and a vehicle restraint and/or wheel chocks properly engaged before cross-docking procedures begin. For safety reasons trailers must be held securely in place to avoid accidental separation from the loading dock.
8. Unless specifically agreed to in writing by Blue Giant Equipment Corporation at the time of order (and prior to manufacture), all Blue Giant Dock equipment is sold as a complete offering and must not be altered or added to in any manner (which includes configuration and function) without written permission from an authorized manufacturer's representative. These changes shall also satisfy all safety recommendations of the original equipment manufacturer for the particular application of the dock equipment.
9. If, at the request of the owner, Blue Giant does not supply all or some of the dock equipment power unit and/or control panel components, the owner shall assume responsibility for any and all operational and safety issues associated with the resulting configuration.
10. The owner must adhere to the load classification information provided on the product serial plate. Failure to do so will void product warranty.

### 3.0 OWNER'S MANUAL SAFETY MESSAGE COLOR IDENTIFICATION

This manual includes color-coded safety messages that clarify instructions and specify areas where potential hazard exists. To prevent the possibility of equipment damage and serious injury or death, please observe strictly the instructions and warnings contained in the messages. If warning decals become damaged or missing, replace them immediately. Avoid accidents by recognizing dangerous procedures or situations before they occur.

#### **DANGER**

Serious injury or death will likely occur if the instructions are not followed.

#### **NOTICE**

Procedures marked important must be followed in order to prevent damage to machinery.

#### **WARNING**

Serious injury or death may occur if the instructions are not followed.

#### **CAUTION**

Instructions marked caution concern safe operating procedure. Failure to comply may result in personal injury.

### 3.1 OPERATIONAL SAFETY WARNINGS

#### **DANGER**

1. Do not enter the pit area below the dock leveler.
2. BEFORE BEGINNING ANY SERVICE PROCEDURES:  
– Follow all lockout / tagout procedures.
3. Never operate a broken or damaged dock leveler. Have repairs done immediately by a qualified service technician.
4. Always secure and center loads on the forklifts. Loose or unbalanced loads are dangerous.

#### **NOTICE**

1. Do not ground welding equipment to any electrical components.
2. Do not attach welder as ground to leveler platform when welding on base frame assembly. Attach welder ground to base frame assembly only.
3. Always keep the work area clean and free of litter.
4. Always clean all side openings of dirt and debris.
5. Always clean all dirt and debris from the lip hinge.
6. Always clean up dry and liquid spills immediately after they occur.
7. Always maintain proper lighting in the work area.
8. If a procedure is not clearly defined in this manual, contact your authorized Service Representative.

#### **WARNING**

1. The upper hinge point is a hazardous pinch point. Do not use fingers or hands to remove foreign materials.
2. Post safety warnings and barricade working area at dock level and at ground level to prevent unauthorized use of the leveler during maintenance/service.
3. Never leave the dock leveler unattended in the raised position.
4. Always make sure that the lip is seated inside the night lock after putting the dock in the parked position.
5. Never leave loads sitting on the dock leveler.
6. Do not attempt to raise the dock leveler if someone is standing on it.
7. Do not use the dock leveler if the lip's full width is not fully supported by the vehicle load bed.
8. Do not operate the dock leveler beyond its rated capacity.
9. Do not drive or walk onto the truck until it is parked against the dock bumpers and the wheels are chocked, or the vehicle restraint has been fully engaged.
10. Never attempt to lift or hold the lip out by hand. Serious personal injury could occur.
11. Never remove the wheel chocks until loading/ unloading is finished and the truck driver has been given permission to depart.

#### **CAUTION**

1. Only trained personnel should operate or service this equipment.
2. Do not operate the dock equipment until the transport vehicle is parked against the dock bumpers.
3. Always park the dock equipment after use.
4. Conduct routine inspections and maintenance. Failure to do so could cause equipment damage and or personal injury.
5. Always call your authorized service representative or manufacturer immediately if a malfunction occurs.

#### 4.0 LOCKOUT / TAGOUT PROCEDURE AND RULES

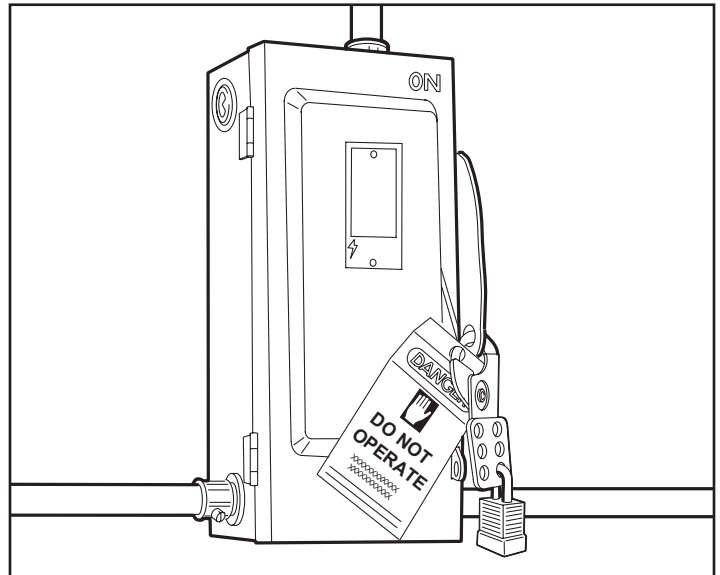
In accordance with the rules and regulations of the Occupational Safety and Health Administration (OSHA), all affected employees must be notified that the machine or equipment will be shut down and locked out to perform repair or maintenance work. The work area must be checked to ensure that all personnel have been removed or safely repositioned. The machine or equipment power supply shall be locked in the OFF position or disconnected from the energy source. Blue Giant strongly recommends that only OSHA-approved lockout devices and procedures be utilized.

The energy isolating device must bear a prominent warning tag indicating that work is being done on the equipment and the name of the authorized employee responsible for the lockout. It is mandatory that tagout notices not be susceptible to deterioration or illegibility due to weather conditions or exposure to chemicals and moisture.



### WARNING

Always lockout and tagout any power source before performing any work on any electrical devices or electrical controls according to OSHA regulations and approved local electrical codes.



Approved way to lockout / tagout.

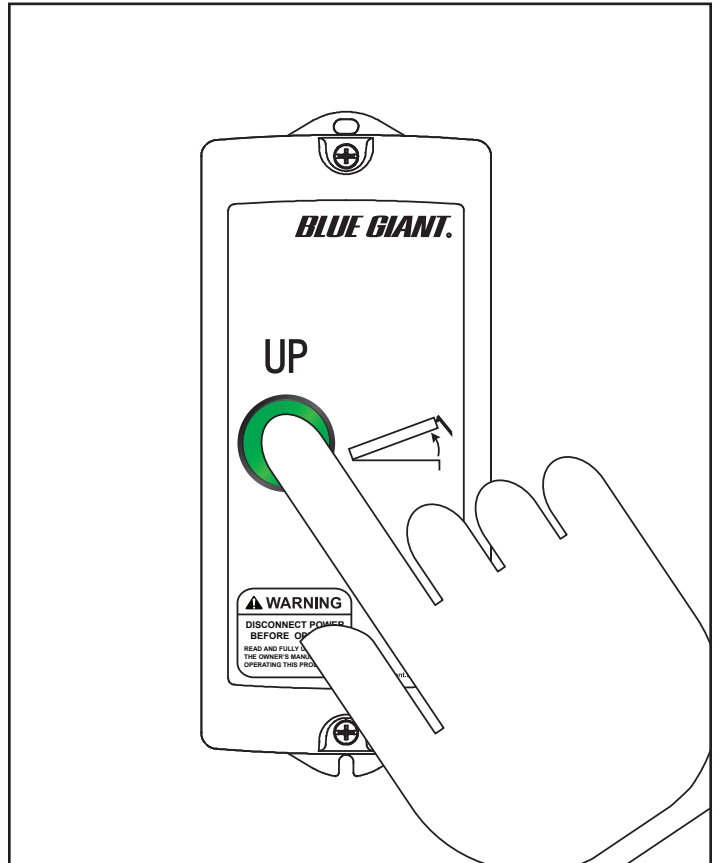
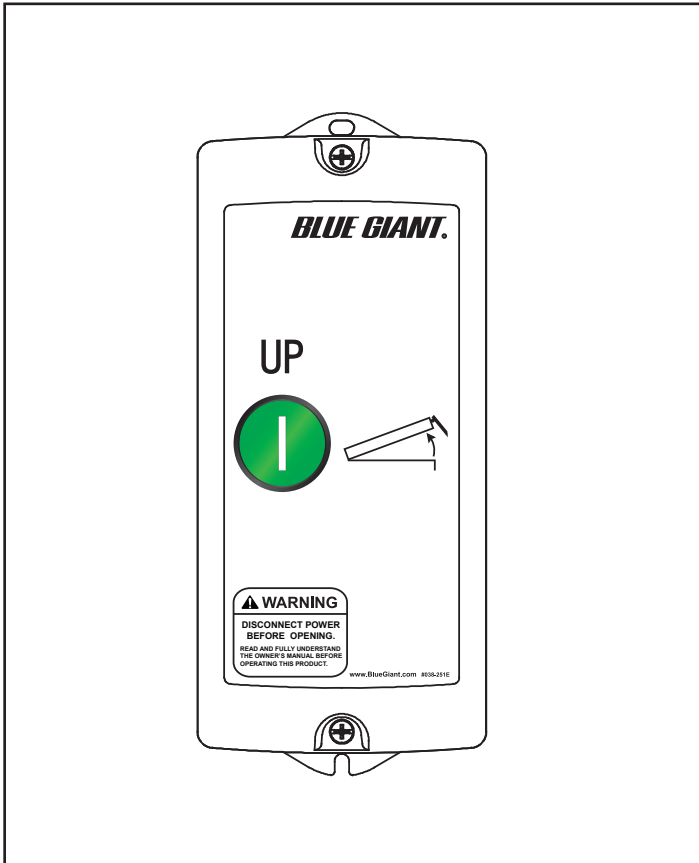
## 5.0 CONTROL STATION OPERATION

### INDEPENDENT TYPE CONTROL STATION

Controls one individual dock leveler only, equipped with a constant-pressure 'UP' button.

### 5.1 BUTTON FUNCTION

'UP' button activates the dock leveler when pressed and held.



## 5.0 CONTROL STATION OPERATION

### INDEPENDENT TYPE CONTROL STATION


Controls one individual dock leveler only, equipped with a constant-pressure 'UP' button.

## ⚠ CAUTION


For safety reasons, the operator's view of the moving dock leveler must not be obstructed at any time.

Potential obstructions include but are not limited to the dock wall, curtains, and stacked cargo. Ensure that the operator's field of vision is clear throughout the dock leveler operating cycle.

6.0 DOCK STRUT SET-UP

**DANGER**

Failure to properly secure the dock leveler deck prior to working underneath it may result in property damage, bodily injury, or death. Engage the Dock Strut AND Service Stand first. If the device cannot be successfully engaged, contact your authorized service representative.


**WARNING**

Post safety warnings and barricade work area at dock and ground level. Notify all affected personnel that work is being performed on the unit and follow proper lock-out procedure. Ensure that power to the unit has been completely cut off and cannot be turned back on accidentally.


6.1 ENGAGING THE DOCK STRUT

**WARNING**


Head protection and other applicable PPE is recommended when working under or around the raised deck.

**WARNING**

Install dock strut and secondary service stand only when the unit is fully raised and deployed.

**CAUTION**

Use of a service stand and hard hat while performing this step is required.

**WARNING**

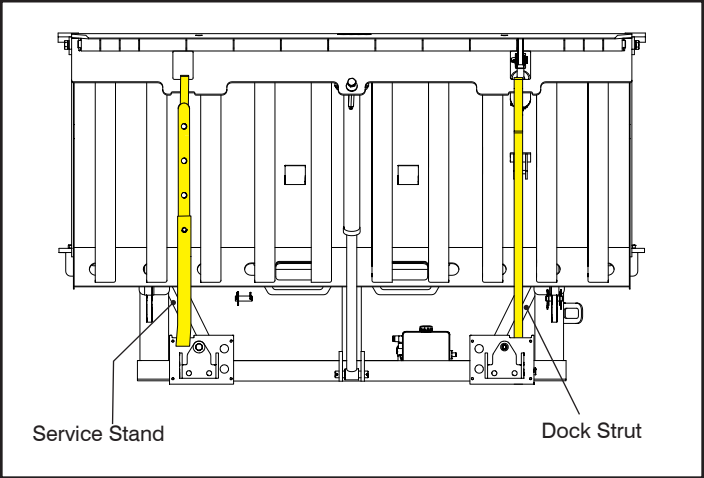
Use of a service stand (Part #796-710) in conjunction with the dock strut is required when working under the leveler.

This dock is equipped with a one piece dock strut that must be used, in conjunction with a service stand, during under-dock inspections or repairs / maintenance. The V-shape ensures safe headboard and lip support.

To apply the dock strut, one person raises the deck while another puts the strut in place.


It is recommended that a retrieval tool be used when retrieving the dock strut from its storage position beneath the dock.

**NOTE:** It is recommended that this step be performed with assistance.



Engaged Service Stand (part # 26-011895) and Dock Strut (part # 796-710).

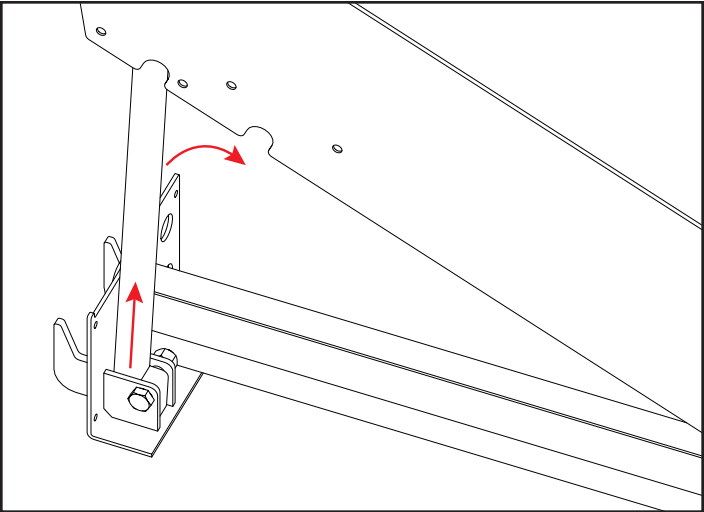
6.2 DISENGAGING THE DOCK STRUT

**CAUTION**

Remove the service stand only AFTER disengaging the dock strut (or equivalent)

After verifying that it is safe to disengage the dock strut, pull upwards on the dock strut and lower gently into the storage position.

Do not stand in the pathway of the dock leveler during the disengagement process in case the dock falls unexpectedly.



## 7.0 MAINTENANCE



### WARNING

Do not operate and/or service this dock leveler until you have read and understood all of the safety information and instructions contained herein and on the dock leveler.

Do not work under or around dock leveler without first placing adequate barriers to positively prevent vehicle traffic from entering the work area.

Follow proper lock-out/tag-out procedures.

Keep hands and feet clear of dock leveler pinch points and wear appropriate safety attire – safety glasses, gloves and work boots.

The dock strut and service stand must be in place before commencing maintenance procedures.

### 7.1 PLANNED MAINTENANCE PROGRAM (PMP)

In addition to the Daily Maintenance Procedures (DMP), the manufacturer recommends (and local government regulations may require) that a Planned Maintenance Program (PMP) and safety inspection program be performed by a trained and authorized service technician on a regular basis to ensure the equipment is in safe operating condition. The PMP will provide an opportunity to make a thorough inspection of the safety and operating condition of the dock leveler. Necessary adjustments and repairs can be done during the PMP, which will increase the life of components and reduce unscheduled downtime.

Recommended procedures for a periodic planned maintenance program that covers inspections, operational checks, cleaning, lubrication, and minor adjustments are outlined in the Installation and Technical manual for this product.

An authorized dealer or distributor is prepared to assist with a planned maintenance program by offering trained service personnel with expertise in dock leveler maintenance requirements.

### 7.2 OPERATOR DAILY INSPECTION

The dock leveler should always be examined by the operator PRIOR TO ANY USE to verify that it is safe to operate.

The manufacturer recommends making multiple photocopies of the DMP Checklist (See Section 6.6). The operator should fill out this form to keep a daily record of operation and maintenance issues.

### 7.3 ROUTINE SERVICING AND MAINTENANCE

Regular maintenance and care of the dock leveler is very important for cost and operation efficiency and more importantly; operator safety. A faulty dock leveler is a potential source of danger to the operator, and to other personnel working near it. As with all quality equipment, keep the dock leveler in good operating condition by following the recommended schedule of maintenance. Failure to properly maintain or operate the dock leveler within its rated load classification can void the manufacturer warranty.

### 7.4 PLANNED MAINTENANCE PROGRAM INTERVALS

Arrange for a qualified dock leveler repair technician to perform regularly scheduled planned maintenance on your dock leveler every three months for single shift operations or monthly for multi-shift operations. Call your authorized manufacturer / dealer for further details.

### 7.5 MAINTENANCE SEQUENCE

1. Cleaning, including pit area
2. Visual inspection of all components
3. Lubrication, as required (by a trained service technician only)
4. Test operate all functions
5. Adjustments, if required (by a trained service technician only)
6. Check for missing or damaged dock bumpers
7. Record inspection details and findings for owners' files

### 7.6 RECOMMENDED HYDRAULIC FLUIDS

Blue Giant has the following hydraulic oils available:

PART NO.	DESCRIPTION
091-031	Standard hydraulic oil, MV22
090-624	Hydraulic arctic oil, MV15
091-286	Hydraulic biodegradable oil, BIO 40

### NOTICE

Use of other oil products may damage equipment

Transportation laws classify these oils as hazardous material, so they cannot be shipped to customers. Pick-up purchases only. If assistance is needed to locate a source of hydraulic oil for Blue Giant dock equipment, contact a local Blue Giant dealer.

7.7 DAILY MAINTENANCE PROCEDURES (DMP) CHECKLIST - HYDRAULIC DOCK LEVELER

INSPECTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

SERIAL #: \_\_\_\_\_ DOOR #: \_\_\_\_\_

Forward this checklist to the person responsible for dock equipment maintenance. See Section 1.1 "Owner's Purchase Record" for Date in Service.

**INSTRUCTIONS:** Indicate "OK for USE" with a check mark ✓ in the appropriate box of each inspection point. Indicate "NOT OK for USE" with an x in the appropriate box of each inspection point.

EVERY DAY (MAY BE PERFORMED BY OWNER OR ATTENDANT):

- ☐ Remove any debris that may have accumulated around the dock equipment
- ☐ Verify complication-free operation of the dock equipment and the interior and exterior lights system (if installed)
- ☐ Verify that outside signage is present and legible (if equipped)
- ☐ Remove any potential trip hazards from around the dock area
- ☐ Verify that dock bumpers/risers/extensions are in working condition (if equipped)
- ☐ Check curb angles for irregularities (e.g. concrete cracks)
- ☐ Verify that the overhead door is functioning correctly (if equipped)
- ☐ Verify that instructional caution and danger labels are present and legible on the product. Replace if necessary
- ☐ Verify that vehicle restraint or wheel chocks at minimum are present and in working condition

PHOTOCOPY THIS CHECKLIST AND FILL OUT REGULARLY FOR YOUR RECORDS.

Explain faults briefly in the space provided below:


\_\_\_\_\_

\_\_\_\_\_


\_\_\_\_\_

\_\_\_\_\_


\_\_\_\_\_

 **DANGER**

When repairing or conducting maintenance procedures on electrical components, perform lockout / tagout steps according to OSHA regulations and approved electrical codes.

 **DANGER**

Prior to installation, place adequate barriers to prevent unauthorized personnel and vehicle traffic from entering the work area.

 **WARNING**

All repairs and maintenance work are to be conducted by trained and authorized personnel ONLY.

## 8.0 OPERATING INSTRUCTIONS



### WARNING

Do not operate this leveler unless you have been trained and authorized to do so, and have read and understood all of the safety information and instructions contained herein.

Do not operate the dock leveler beyond its rated capacity.

Do not operate this leveler until you have checked its condition. Report the need for repairs to your supervisor immediately and do not operate the unit until repairs are made. Neglect may cause a minor repair to become a major service problem and cause the leveler to become unsafe.

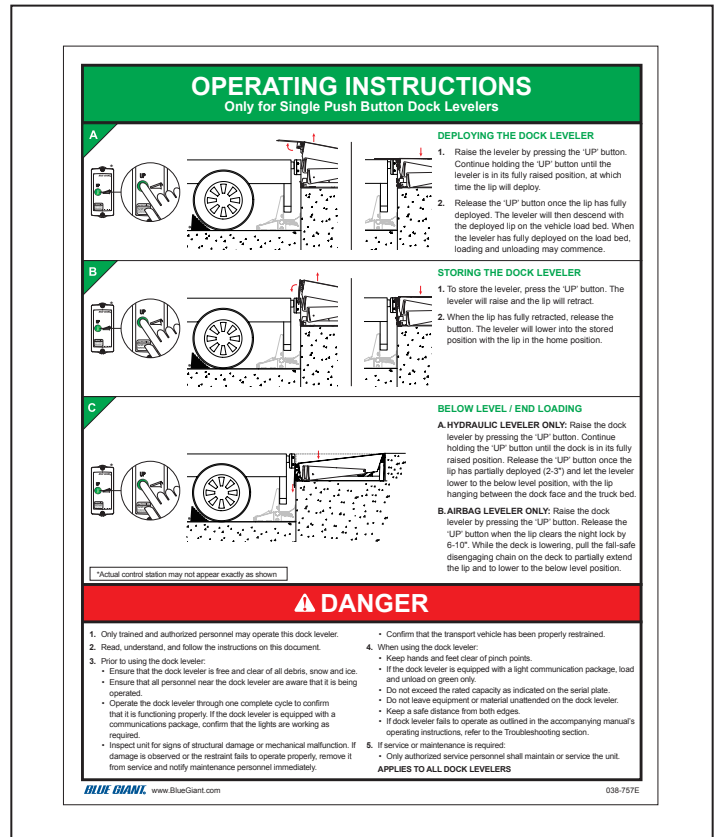
Never try to lift or move any part of the dock leveler manually.

Do not drive on the leveler unless the lip is securely on the truck bed and has a minimum of 4" (102mm) overlap on its surface.

Do not exceed 4 mph when driving over the dock leveler.

Do not drive over edges of the leveler and / or dock bumper blocks (bumpers blocks are not structural).

Confirm brakes have been set and air has been removed from the air-ride suspension (if applicable).



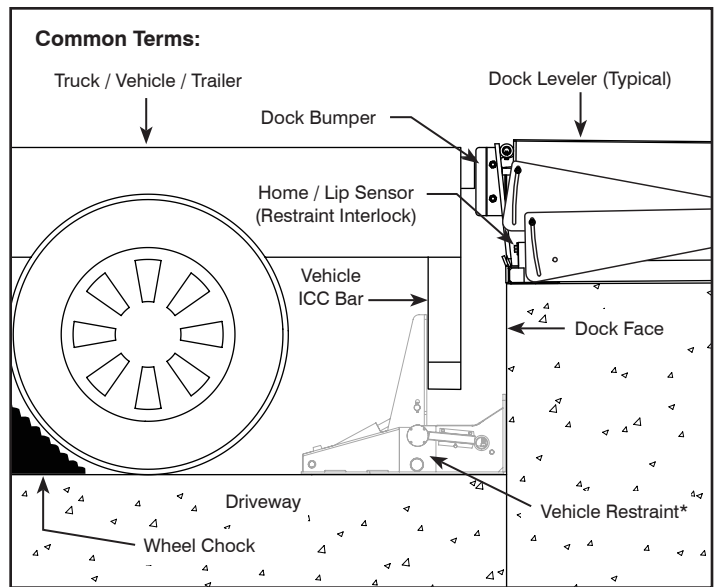
Single Push Button Dock Leveler operation placard—part # 038-757E.

## 8.1 FUNCTIONAL DESCRIPTION

The U-Series hydraulic dock leveler serves as a bridge between a loading dock floor and the load bed of a transport vehicle. The leveler's upper deck plate, complete with a hinged, vertically hanging lip, is in a shallow pit at the edge of the dock, flush with the dock's edge and the floor surface.

The rear of a transport vehicle is parked and restrained in place against the outer wall of the loading dock, in working alignment with the dock leveler. The dock attendant maintains pressure on a touch button to raise the front of the deck. The hinged lip plate raises at the same time, its leading edge swinging out horizontally over the rear of the transport vehicle once the deck reaches its fully raised position. The dock attendant releases the push button, causing the deck and extended lip to lower together until the lip's underside comes to rest on the load bed. A solid bridge is now formed between the dock and the truck.

Once all work is completed, the dock attendant returns the leveler to its original stored position.

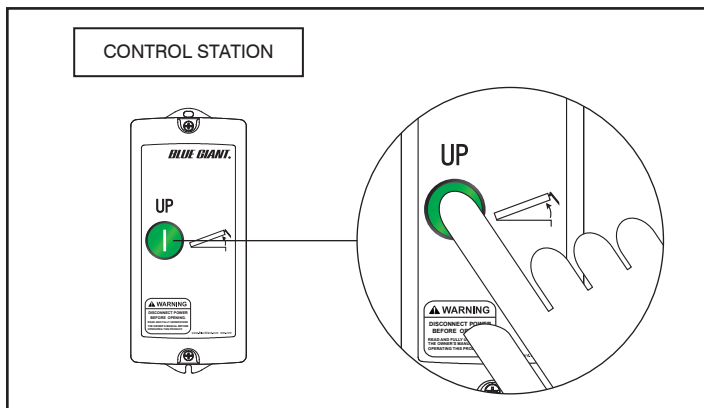
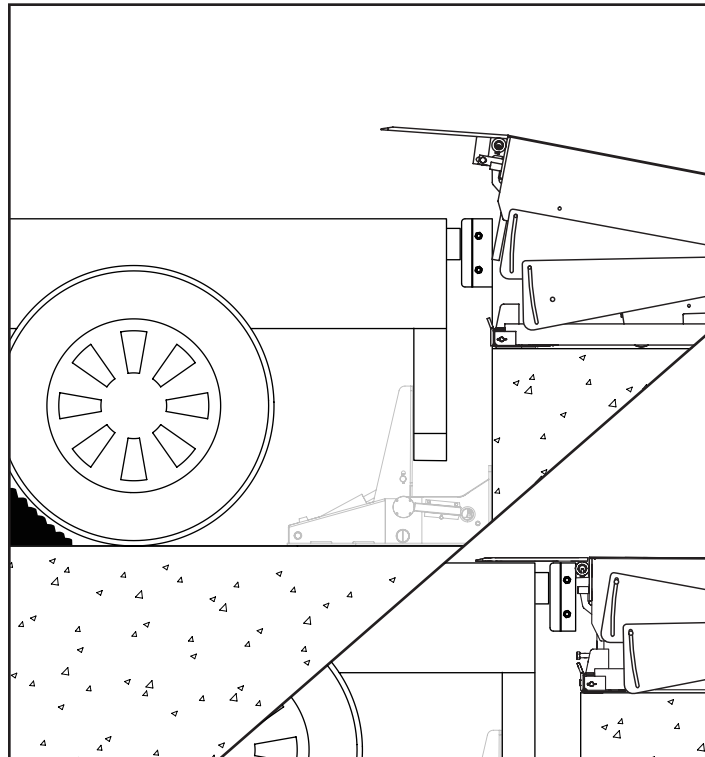


\* For Reference

## STANDARD OPERATION PROCEDURES

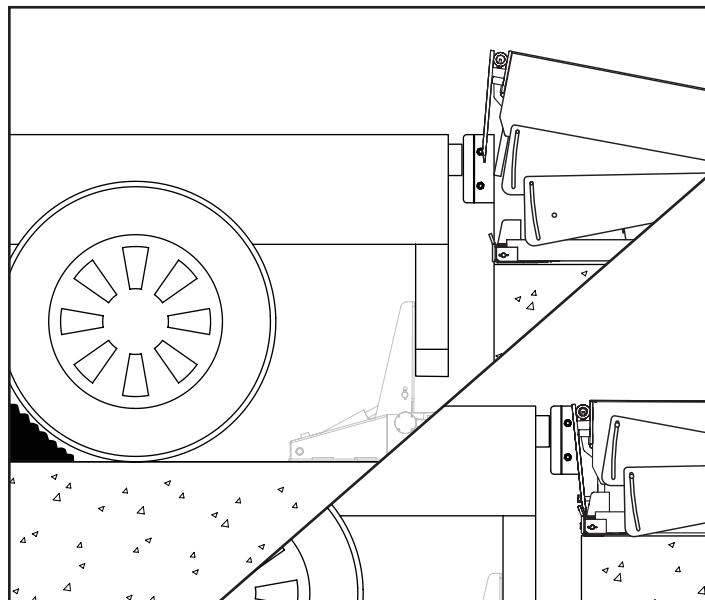
### 8.2 DEPLOYING THE DOCK LEVELER

1. Raise the dock leveler by pushing the 'UP' button. If the button is still being pressed while the dock is in its fully raised position, the lip will then deploy.
2. When the lip has fully extended, release the button and the dock leveller will descend. The dock will stop when the lip rests on the vehicle load bed.
3. After ensuring that there is a minimum overlap of 4" (102 mm) between the dock leveler lip and the truck bed, begin loading or unloading.



### 8.3 STORING THE DOCK LEVELER

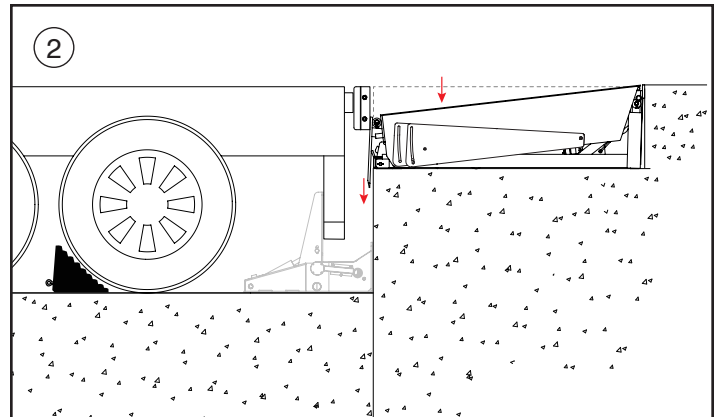
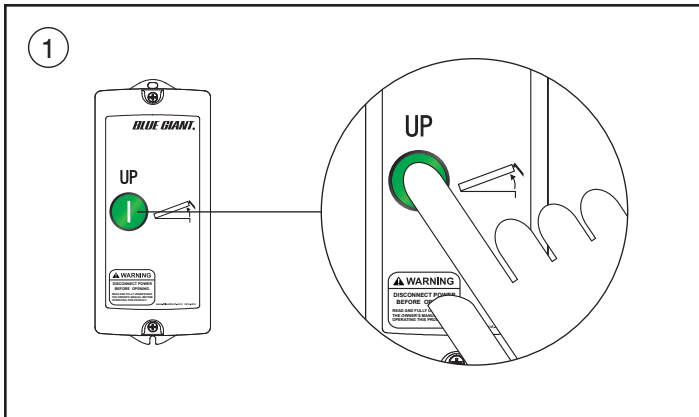
1. To store the dock leveler, press the 'UP' button. The dock will raise and the lip will retract.
2. When the lip has fully retracted, release the button. The dock will resume the stored position with the lip in the night lock.



## 8.4 BELOW LEVEL / END LOADING

This section outlines dock leveler operation in situations where the lip cannot make contact with the vehicle load bed (i.e. loading or unloading the first skid or pallet from the truck when there is not enough room to extend the lip) or the truck height is below dock level.

1. Raise the leveler by pressing the 'UP' button. Continue holding the 'UP' button until the dock is in its fully raised position.
2. Release the 'UP' button once the lip has partially deployed 2 - 3" and let the leveler lower to the below level position, with the lip hanging between the dock face and the truck bed.

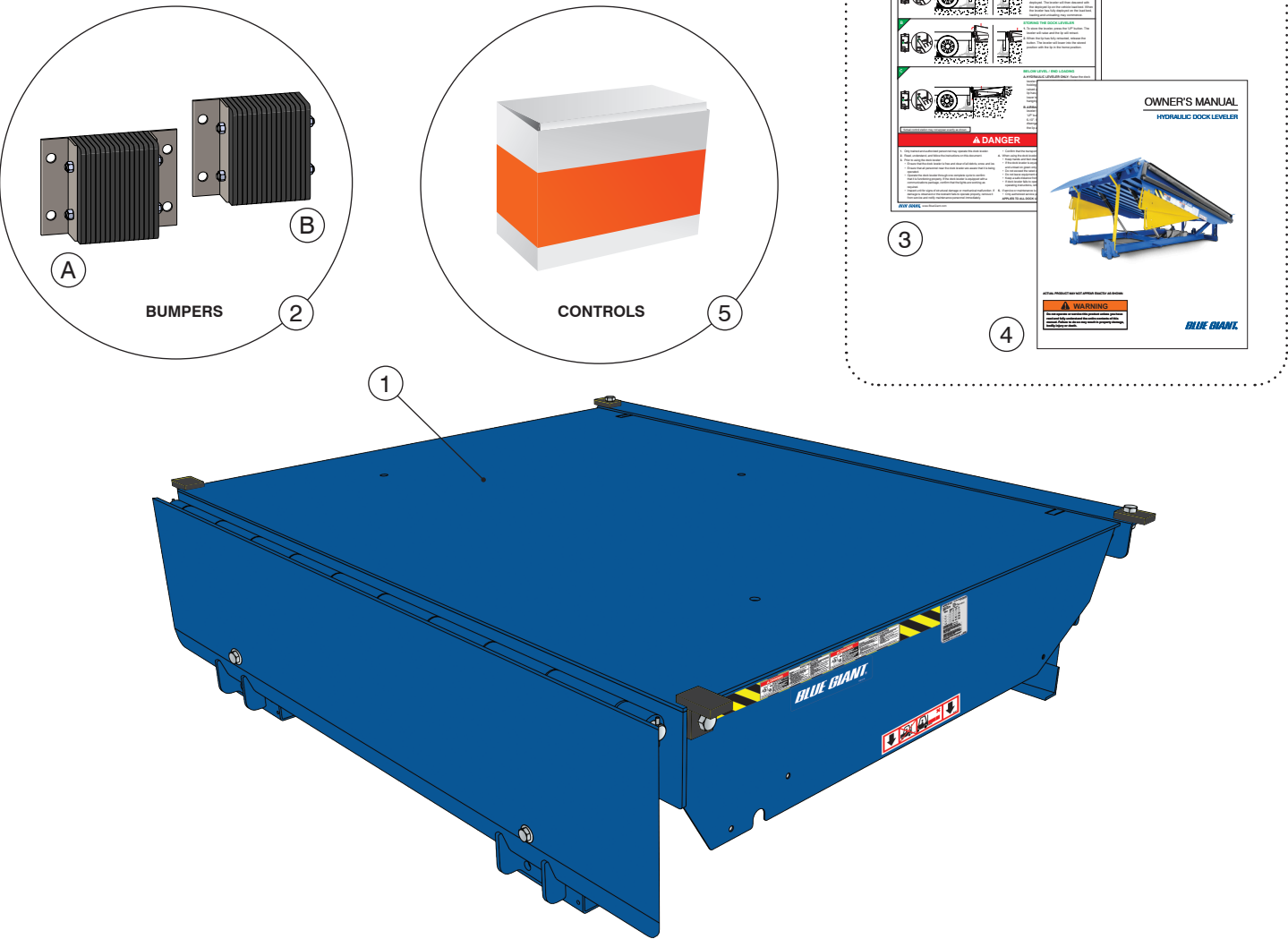


## 9.0 DECAL IDENTIFICATION AND LOCATION



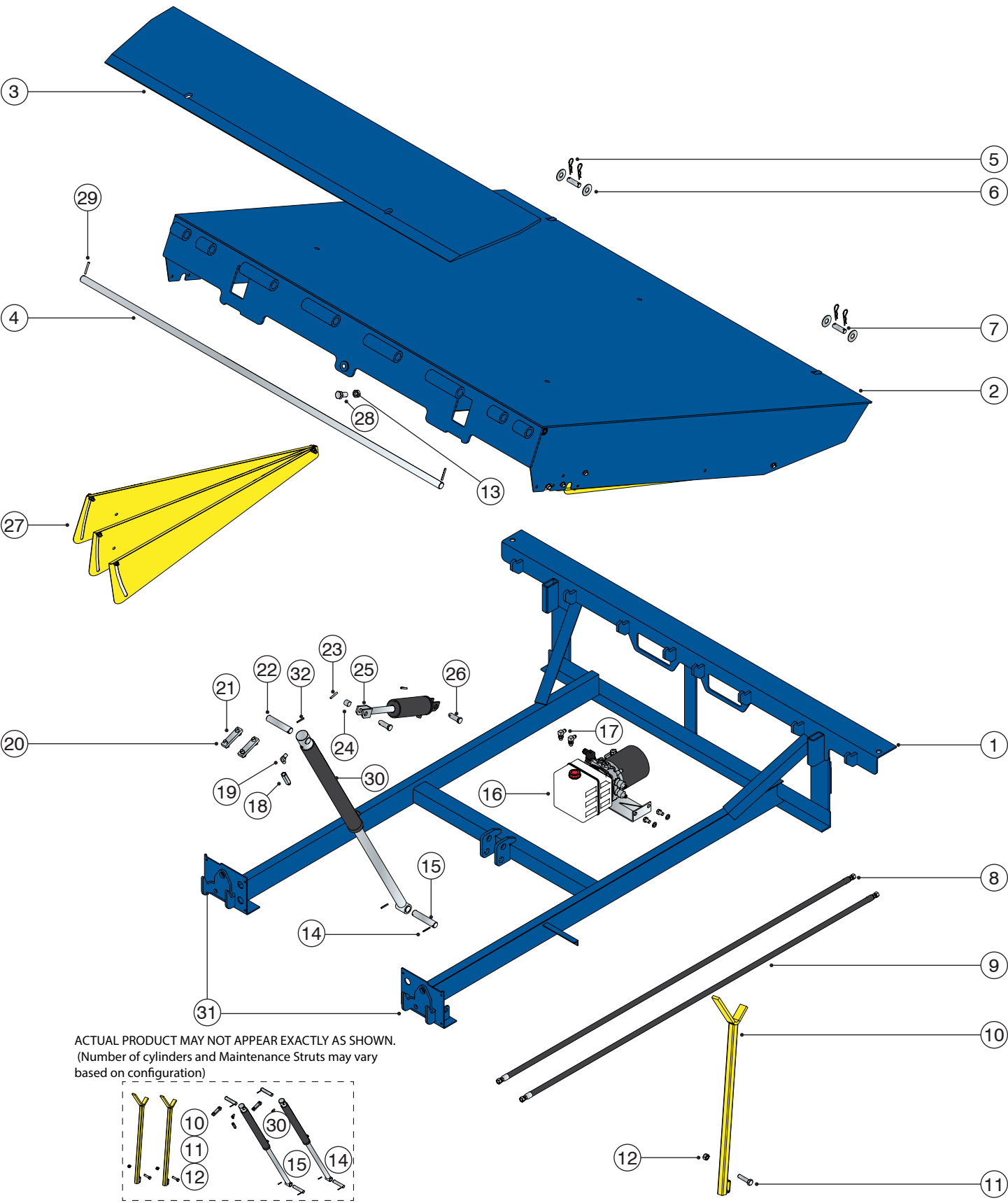
10.0 EQUIPMENT COMPONENT ILLUSTRATIONS

10.1 COMPONENTS AS SHIPPED CHECKLIST



✓	ITEM	QTY	PART NO.	DESCRIPTION	APPROX. WEIGHT	
	1	1	HXXXX-XX	Hydraulic Dock Leveler - See Section 10.5 for more information	Varies by Model	
	2	2	DB411	Laminated Bumper, Dual Flange	50 lb	23 kg
			DB511	Laminated Bumper, Dual Flange (Extreme and Ultra)	50 lb	23 kg
		2	DB411WB	Laminated Bumper, Single Flange	48 lb	22 kg
			DB511WB	Laminated Bumper, Single Flange (Extreme and Ultra)	48 lb	22 kg
	3	1	038-757E	Operation Placard	—	—
	4	1	038-1084E	Owner's Manual (this one)	—	—
	5	1	027-006-L	SP1 110–130V / 1PH	1 lb	.45 kg

10.2 MECHANICAL ASSEMBLY - HYDRAULIC DOCK LEVELER



## 10.3 MECHANICAL ASSEMBLY - HYDRAULIC DOCK LEVELER

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	See Section 10.8	Frame
2	1	See Section 10.5	Deck
3	1	See Section 10.6	Lip
4	1	See Section 10.7	Lip Shaft
5	4	013-029	Cotter Pin 7/8 x 3 1/4
6	4	012-214	Flat Washer 3/4"
7	2	26-005610	Pin
8	4	034-636	Fitting
9	2	090-838-0780 (may vary based on configuration)	Hose 78" LG (may vary based on configuration)
10	1 or 2	2000659-1	Dock Strut (Number may vary based on configuration)
11	3	010-184	Hex Head Cap Screw 5/8-11x2.5x1.5
12	1	011-501	Lock Nut
13	1	011-530	Hex Jam Nut 3/4"
14	2 or 4	013-127 (may vary based on configuration) onfiguration)	Spring Pin 3/6" x 1 1/2" (Number may vary based on configuration)
15	1 or 2	2000263 (may vary based on configuration)	Pivot Pin (Number may vary based on configuration)
16	1	See Section 11.0	Hydraulic Powerpack
17	2	034-585	90 Deg. Elbow Fitting
18	1 or 2	033-661 (may vary based on configuration)	Velocity Fuse (Number may vary based on configuration)
19	2 or 4	034-515	Fitting (Number may vary based on configuration)
20	4 or 8	010-246 (may vary based on configuration)	Hex Head Cap Screw (Number may vary based on configuration)
21	2 or 4	2002286 (may vary based on configuration)	Cover Plate (Number may vary based on configuration)
22	1 or 2	2024931 (may vary based on configuration)	DECK PIVOT PIN - 5" L (Number may vary based on configuration)
23	2 or 4	013-625 (may vary based on configuration)	Spring Pin 1/4" x 1/2" (may vary based on configuration)
24	1 or 2	018-001 (may vary based on configuration)	3/4" Bushing (may vary based on configuration)
25	1 or 2	788-599-1K (may vary based on configuration)	Hydraulic Lip Cylinder (may vary based on configuration)
		211-7002-K (may vary based on configuration)	Double Acting Hydraulic Lip Cylinder (may vary based on configuration)
26	2 or 4	107-196 (may vary based on configuration)	Cylinder Pins 3/4" x 1 5/8" (may vary based on configuration)
27	2	202-5024	Toe Guards 6'
			Toe Guards 8'
	2	202-5024-1	Toe Guards 10'
	2	202-5024-2	Toe Guards 12'
	2	202-5024-3	Toe Guards 14'
28	1	010-059	Hex Cap Screw 3/4" x 2"
29	2	013-012	Spring Pin Slotted 1/4 x 2
30	1 or 2	788-635-1K (may vary based on configuration)	Hydraulic Deck Cylinder (Number may vary based on configuration)
31	2	2000402	Lip Keeper
32	1 or 2	013-127 (may vary based on configuration)	PIN, SPRING, SLOTTED, 3/16X1 1/2, NP

**10.4 DECK****By size and load class**

DECK SIZE (NOMINAL)	LOAD CLASS	MODEL	PART NO.
6' x 6'	Workhorse (W)	H6006W	DECK-W-H-STD-72W-57L
	Heavy (H)	H6006H	DECK-H-H-STD-72W-57L
	Super (S)	H6006S	DECK-S-H-STD-72W-57L
	Extreme (E)	H6006E	DECK-E-H-STD-72W-57L
	Ultra (U)	H6006U	DECK-U-H-STD-72W-57L
6' x 8'	Workhorse (W)	H6008W	DECK-W-H-STD-72W-81L
	Heavy (H)	H6008H	DECK-H-H-STD-72W-81L
	Super (S)	H6008S	DECK-S-H-STD-72W-81L
	Extreme (E)	H6008E	DECK-E-H-STD-72W-81L
	Ultra (U)	H6008U	DECK-U-H-STD-72W-81L
6' x 10'	Workhorse (W)	H6010W	DECK-W-H-STD-72W-105L
	Heavy (H)	H6010H	DECK-H-H-STD-72W-105L
	Super (S)	H6010S	DECK-S-H-STD-72W-105L
	Extreme (E)	H6010E	DECK-E-H-STD-72W-105L
	Ultra (U)	H6010U	DECK-U-H-STD-72W-105L
6' 6" x 6'	Workhorse (W)	H6606W	DECK-W-M-STD-78W-57L
	Heavy (H)	H6606H	DECK-H-M-STD-78W-57L
	Super (S)	H6606S	DECK-S-M-STD-78W-57L
	Extreme (E)	H6606E	DECK-E-H-STD-78W-57L
	Ultra (U)	H6606U	DECK-U-H-STD-78W-57L
6' 6" x 8'	Workhorse (W)	H6608W	DECK-W-H-STD-78W-81L
	Heavy (H)	H6608H	DECK-H-H-STD-78W-81L
	Super (S)	H6608S	DECK-S-H-STD-78W-81L
	Extreme (E)	H6608E	DECK-E-H-STD-78W-81L
	Ultra (U)	H6608U	DECK-U-H-STD-78W-81L
6' 6" x 10'	Workhorse (W)	H6610W	DECK-W-H-STD-78W-105L
	Heavy (H)	H6610H	DECK-H-H-STD-78W-105L
	Super (S)	H6610S	DECK-S-H-STD-78W-105L
	Extreme (E)	H6610E	DECK-E-H-STD-78W-105L
	Ultra (U)	H6610U	DECK-U-H-STD-78W-105L

DECK SIZE (NOMINAL)	LOAD CLASS	MODEL	PART NO.
7' x 6'	Workhorse (W)	H7006W	DECK-W-H-STD-83W-57L
	Heavy (H)	H7006H	DECK-H-H-STD-83W-57L
	Super (S)	H7006S	DECK-S-H-STD-83W-57L
	Extreme (E)	H7006E	DECK-E-H-STD-83W-57L
	Ultra (U)	H7006U	DECK-U-H-STD-83W-57L
7' x 8'	Workhorse (W)	H7008W	DECK-W-H-STD-83W-81L
	Heavy (H)	H7008H	DECK-H-H-STD-83W-81L
	Super (S)	H7008S	DECK-S-H-STD-83W-81L
	Extreme (E)	H7008E	DECK-E-H-STD-83W-81L
	Ultra (U)	H7008U	DECK-U-H-STD-83W-81L
7' x 10'	Workhorse (W)	H7010W	DECK-W-H-STD-83W-105L
	Heavy (H)	H7010H	DECK-H-H-STD-83W-105L
	Super (S)	H7010S	DECK-S-H-STD-83W-105L
	Extreme (E)	H7010E	DECK-E-H-STD-83W-105L
	Ultra (U)	H7010U	DECK-U-H-STD-83W-105L

## 10.4 (CONT.) LIP BARRIER DECK

### By size and load class

DECK SIZE (NOMINAL)	LOAD CLASS	MODEL	PART NO.
6' x 6'	Workhorse (W)	H6006W	DECK-W-H-DLB-72W-57L
	Heavy (H)	H6006H	DECK-H-H-DLB-72W-57L
	Super (S)	H6006S	DECK-S-H-DLB-72W-57L
	Extreme (E)	H6006E	DECK-E-H-DLB-72W-57L
	Ultra (U)	H6006U	DECK-U-H-DLB-72W-57L
6' x 8'	Workhorse (W)	H6008W	DECK-W-H-DLB-72W-81L
	Heavy (H)	H6008H	DECK-H-H-DLB-72W-81L
	Super (S)	H6008S	DECK-S-H-DLB-72W-81L
	Extreme (E)	H6008E	DECK-E-H-DLB-72W-81L
	Ultra (U)	H6008U	DECK-U-H-DLB-72W-81L
6' x 10'	Workhorse (W)	H6010W	DECK-W-H-DLB-72W-105L
	Heavy (H)	H6010H	DECK-H-H-DLB-72W-105L
	Super (S)	H6010S	DECK-S-H-DLB-72W-105L
	Extreme (E)	H6010E	DECK-E-H-DLB-72W-105L
	Ultra (U)	H6010U	DECK-U-H-DLB-72W-105L
6' 6" x 6'	Workhorse (W)	H6606W	DECK-W-M-DLB-78W-57L
	Heavy (H)	H6606H	DECK-H-M-DLB-78W-57L
	Super (S)	H6606S	DECK-S-M-DLB-78W-57L
	Extreme (E)	H6606E	DECK-E-H-DLB-78W-57L
	Ultra (U)	H6606U	DECK-U-H-DLB-78W-57L
6' 6" x 8'	Workhorse (W)	H6608W	DECK-W-H-DLB-78W-81L
	Heavy (H)	H6608H	DECK-H-H-DLB-78W-81L
	Super (S)	H6608S	DECK-S-H-DLB-78W-81L
	Extreme (E)	H6608E	DECK-E-H-DLB-78W-81L
	Ultra (U)	H6608U	DECK-U-H-DLB-78W-81L
6' 6" x 10'	Workhorse (W)	H6610W	DECK-W-H-DLB-78W-105L
	Heavy (H)	H6610H	DECK-H-H-DLB-78W-105L
	Super (S)	H6610S	DECK-S-H-DLB-78W-105L
	Extreme (E)	H6610E	DECK-E-H-DLB-78W-105L
	Ultra (U)	H6610U	DECK-U-H-DLB-78W-105L

DECK SIZE (NOMINAL)	LOAD CLASS	MODEL	PART NO.
7' x 6'	Workhorse (W)	H7006W	DECK-W-H-DLB-83W-57L
	Heavy (H)	H7006H	DECK-H-H-DLB-83W-57L
	Super (S)	H7006S	DECK-S-H-DLB-83W-57L
	Extreme (E)	H7006E	DECK-E-H-DLB-83W-57L
	Ultra (U)	H7006U	DECK-U-H-DLB-83W-57L
7' x 8'	Workhorse (W)	H7008W	DECK-W-H-DLB-83W-81L
	Heavy (H)	H7008H	DECK-H-H-DLB-83W-81L
	Super (S)	H7008S	DECK-S-H-DLB-83W-81L
	Extreme (E)	H7008E	DECK-E-H-DLB-83W-81L
	Ultra (U)	H7008U	DECK-U-H-DLB-83W-81L
7' x 10'	Workhorse (W)	H7010W	DECK-W-H-DLB-83W-105L
	Heavy (H)	H7010H	DECK-H-H-DLB-83W-105L
	Super (S)	H7010S	DECK-S-H-DLB-83W-105L
	Extreme (E)	H7010E	DECK-E-H-DLB-83W-105L
	Ultra (U)	H7010U	DECK-U-H-DLB-83W-105L

## 10.5 LIP SHAFT

### By size and load class

DECK WIDTH (NOMINAL)	LOAD CLASS	PART NO.
6'	Workhorse (W)	2000456-00
	Heavy (H)	
	Super (S)	2000456-03
	Extreme (E)	
	Ultra (U)	
6' 6"	Workhorse (W)	2000456-01
	Heavy (H)	
	Super (S)	2000456-04
	Extreme (E)	
	Ultra (U)	
7'	Workhorse (W)	2000456-02
	Heavy (H)	
	Super (S)	2000456-05
	Extreme (E)	
	Ultra (U)	

10.6 LIP  
By size and capacity

DECK WIDTH	CAPACITY	LENGTH		PART NO.
6'	Workhorse (W)	16"	406 mm	LIP-W-H-STD-FW-72W-16L
		18"	457 mm	LIP-W-H-STD-FW-72W-18L
		20"	508 mm	LIP-W-H-STD-FW-72W-20L
	Heavy (H)	16"	406 mm	LIP-H-H-STD-FW-72W-16L
		18"	457 mm	LIP-H-H-STD-FW-72W-18L
		20"	508 mm	LIP-H-H-STD-FW-72W-20L
	Super (S)	16"	406 mm	LIP-S-H-STD-FW-72W-16L
		18"	457 mm	LIP-S-H-STD-FW-72W-18L
		20"	508 mm	LIP-S-H-STD-FW-72W-20L
	Extreme (E)	18"	457 mm	LIP-E-H-STD-FW-72W-18L
		20"	508 mm	LIP-E-H-STD-FW-72W-20L
	Ultra (U)	18"	457 mm	LIP-U-H-STD-FW-72W-18L
		20"	508 mm	LIP-U-H-STD-FW-72W-20L
6' 6"	Workhorse (W)	16"	406 mm	LIP-W-H-STD-FW-78W-16L
		18"	457 mm	LIP-W-H-STD-FW-78W-18L
		20"	508 mm	LIP-W-H-STD-FW-78W-20L
	Heavy (H)	16"	406 mm	LIP-H-H-STD-FW-78W-16L
		18"	457 mm	LIP-H-H-STD-FW-78W-18L
		20"	508 mm	LIP-H-H-STD-FW-78W-20L
	Super (S)	16"	406 mm	LIP-S-H-STD-FW-78W-16L
		18"	457 mm	LIP-S-H-STD-FW-78W-18L
		20"	508 mm	LIP-S-H-STD-FW-78W-20L
	Extreme (E)	18"	457 mm	LIP-E-H-STD-FW-78W-18L
		20"	508 mm	LIP-E-H-STD-FW-78W-20L
	Ultra (U)	18"	457 mm	LIP-U-H-STD-FW-78W-18L
		20"	508 mm	LIP-U-H-STD-FW-78W-20L

DECK WIDTH	CAPACITY	LENGTH		PART NO.
7'	Workhorse (W)	16"	406 mm	LIP-W-H-STD-TP-83W-16L
		18"	457 mm	LIP-W-H-STD-TP-83W-18L
		20"	508 mm	LIP-W-H-STD-TP-83W-20L
	Heavy (H)	16"	406 mm	LIP-H-H-STD-TP-83W-16L
		18"	457 mm	LIP-H-H-STD-TP-83W-18L
		20"	508 mm	LIP-H-H-STD-TP-83W-20L
	Super (S)	16"	406 mm	LIP-S-H-STD-TP-83W-16L
		18"	457 mm	LIP-S-H-STD-TP-83W-18L
		20"	508 mm	LIP-S-H-STD-TP-83W-20L
	Extreme (E)	18"	457 mm	LIP-E-H-STD-TP-83W-18L
		20"	508 mm	LIP-E-H-STD-TP-83W-20L
	Ultra (U)	18"	457 mm	LIP-U-H-STD-TP-83W-18L
		20"	508 mm	LIP-U-H-STD-TP-83W-20L

**10.7 LIP - DOCK LIP BARRIER****By size and capacity**

DECK WIDTH	CAPACITY	LENGTH		PART NO.
6'	Workhorse (W)	16"	406 mm	LIP-W-H-DLB-FW-72W-16L
		18"	457 mm	LIP-W-H-DLB-FW-72W-18L
		20"	508 mm	LIP-W-H-DLB-FW-72W-20L
	Heavy (H)	16"	406 mm	LIP-H-H-DLB-FW-72W-16L
		18"	457 mm	LIP-H-H-DLB-FW-72W-18L
		20"	508 mm	LIP-H-H-DLB-FW-72W-20L
	Super (S)	16"	406 mm	LIP-S-H-DLB-FW-72W-16L
		18"	457 mm	LIP-S-H-DLB-FW-72W-18L
		20"	508 mm	LIP-S-H-DLB-FW-72W-20L
	Extreme (E)	18"	457 mm	LIP-E-H-DLB-FW-72W-18L
		20"	508 mm	LIP-E-H-DLB-FW-72W-20L
	Ultra (U)	18"	457 mm	LIP-U-H-DLB-FW-72W-18L
		20"	508 mm	LIP-U-H-DLB-FW-72W-20L
6' 6"	Workhorse (W)	16"	406 mm	LIP-W-H-DLB-FW-78W-16L
		18"	457 mm	LIP-W-H-DLB-FW-78W-18L
		20"	508 mm	LIP-W-H-DLB-FW-78W-20L
	Heavy (H)	16"	406 mm	LIP-H-H-DLB-FW-78W-16L
		18"	457 mm	LIP-H-H-DLB-FW-78W-18L
		20"	508 mm	LIP-H-H-DLB-FW-78W-20L
	Super (S)	16"	406 mm	LIP-S-H-DLB-FW-78W-16L
		18"	457 mm	LIP-S-H-DLB-FW-78W-18L
		20"	508 mm	LIP-S-H-DLB-FW-78W-20L
	Extreme (E)	18"	457 mm	LIP-E-H-DLB-FW-78W-18L
		20"	508 mm	LIP-E-H-DLB-FW-78W-20L
	Ultra (U)	18"	457 mm	LIP-U-H-DLB-FW-78W-18L
		20"	508 mm	LIP-U-H-DLB-FW-78W-20L

DECK WIDTH	CAPACITY	LENGTH		PART NO.
7'	Workhorse (W)	16"	406 mm	LIP-W-H-DLB-TP-83W-16L
		18"	457 mm	LIP-W-H-DLB-TP-83W-18L
		20"	508 mm	LIP-W-H-DLB-TP-83W-20L
	Heavy (H)	16"	406 mm	LIP-H-H-DLB-TP-83W-16L
		18"	457 mm	LIP-H-H-DLB-TP-83W-18L
		20"	508 mm	LIP-H-H-DLB-TP-83W-20L
	Super (S)	16"	406 mm	LIP-S-H-DLB-TP-83W-16L
		18"	457 mm	LIP-S-H-DLB-TP-83W-18L
		20"	508 mm	LIP-S-H-DLB-TP-83W-20L
	Extreme (E)	18"	457 mm	LIP-E-H-DLB-TP-83W-18L
		20"	508 mm	LIP-E-H-DLB-TP-83W-20L
	Ultra (U)	18"	457 mm	LIP-U-H-DLB-TP-83W-18L
		20"	508 mm	LIP-U-H-DLB-TP-83W-20L

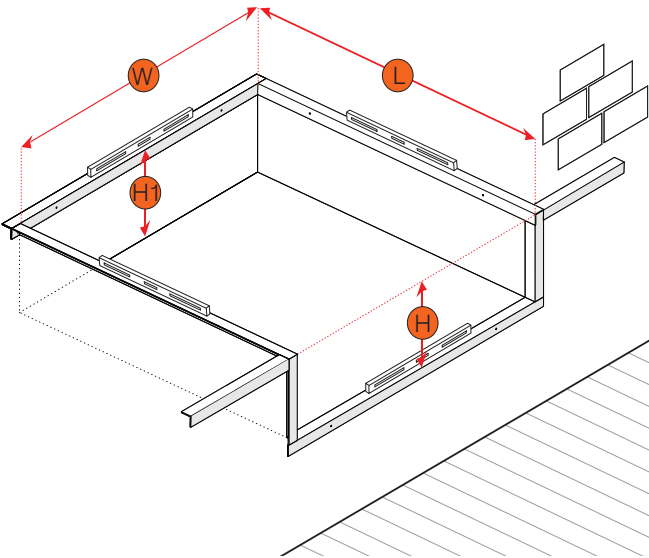
**10.8 FRAME****By size**

DECK SIZE (NOMINAL)	LOAD CLASS	PART NO.
6' x 6'	Workhorse (W)	FRAME-L-H-72W-20D-63L
	Heavy (H)	FRAME-H-H-72W-20D-63L
	Super (S)	FRAME-H-H-72W-20D-63L
	Extreme (E)	FRAME-E-H-72W-20D-63L
	Ultra (U)	FRAME-U-H-72W-20D-63L
6' x 8'	Workhorse (W)	FRAME-L-H-72W-20D-87L
	Heavy (H)	FRAME-H-H-72W-20D-87L
	Super (S)	FRAME-H-H-72W-20D-87L
	Extreme (E)	FRAME-E-H-72W-20D-87L
	Ultra (U)	FRAME-U-H-72W-20D-87L
6' x 10'	Workhorse (W)	FRAME-L-H-72W-20D-111L
	Heavy (H)	FRAME-H-H-72W-20D-111L
	Super (S)	FRAME-H-H-72W-20D-111L
	Extreme (E)	FRAME-E-H-72W-20D-111L
	Ultra (U)	FRAME-U-H-72W-20D-111L
6' x 12'	Super (S)	FRAME-H-H-72W-20D-135L
	Extreme (E)	FRAME-E-H-72W-20D-135L
	Ultra (U)	FRAME-U-H-72W-20D-135L
6' x 14'	Super (S)	FRAME-H-H-72W-20D-159L
	Extreme (E)	FRAME-E-H-72W-20D-159L
	Ultra (U)	FRAME-U-H-72W-20D-159L
6' 6" x 6'	Workhorse (W)	FRAME-L-H-78W-20D-63L
	Heavy (H)	FRAME-H-H-78W-20D-63L
	Super (S)	FRAME-H-H-78W-20D-63L
	Extreme (E)	FRAME-E-H-78W-20D-63L
	Ultra (U)	FRAME-U-H-78W-20D-63L
6' 6" x 8'	Workhorse (W)	FRAME-L-H-78W-20D-87L
	Heavy (H)	FRAME-H-H-78W-20D-87L
	Super (S)	FRAME-H-H-78W-20D-87L
	Extreme (E)	FRAME-E-H-78W-20D-87L
	Ultra (U)	FRAME-U-H-78W-20D-87L
6' 6" x 10'	Workhorse (W)	FRAME-L-H-78W-20D-111L
	Heavy (H)	FRAME-H-H-78W-20D-111L
	Super (S)	FRAME-H-H-78W-20D-111L
	Extreme (E)	FRAME-E-H-78W-20D-111L
	Ultra (U)	FRAME-U-H-78W-20D-111L

DECK SIZE (NOMINAL)	LOAD CLASS	PART NO.
6' 6" x 12'	Super (S)	FRAME-H-H-78W-20D-135L
	Extreme (E)	FRAME-E-H-78W-20D-135L
	Ultra (U)	FRAME-U-H-78W-20D-135L
6' 6" x 14'	Super (S)	FRAME-H-H-78W-20D-159L
	Extreme (E)	FRAME-E-H-78W-20D-159L
	Ultra (U)	FRAME-U-H-78W-20D-159L
7' x 6'	Workhorse (W)	FRAME-L-H-83W-20D-63L
	Heavy (H)	FRAME-H-H-83W-20D-63L
	Super (S)	FRAME-H-H-83W-20D-63L
	Extreme (E)	FRAME-E-H-83W-20D-63L
	Ultra (U)	FRAME-U-H-83W-20D-63L
7' x 8'	Workhorse (W)	FRAME-L-H-83W-20D-87L
	Heavy (H)	FRAME-H-H-83W-20D-87L
	Super (S)	FRAME-H-H-83W-20D-87L
	Extreme (E)	FRAME-E-H-83W-20D-87L
	Ultra (U)	FRAME-U-H-83W-20D-87L
7' x 10'	Workhorse (W)	FRAME-L-H-83W-20D-111L
	Heavy (H)	FRAME-H-H-83W-20D-111L
	Super (S)	FRAME-H-H-83W-20D-111L
	Extreme (E)	FRAME-E-H-83W-20D-111L
	Ultra (U)	FRAME-U-H-83W-20D-111L
7' x 12'	Super (S)	FRAME-H-H-83W-20D-135L
	Extreme (E)	FRAME-E-H-83W-20D-135L
	Ultra (U)	FRAME-U-H-83W-20D-135L
7' x 14'	Super (S)	FRAME-H-H-83W-20D-159L
	Extreme (E)	FRAME-E-H-83W-20D-159L
	Ultra (U)	FRAME-U-H-83W-20D-159L

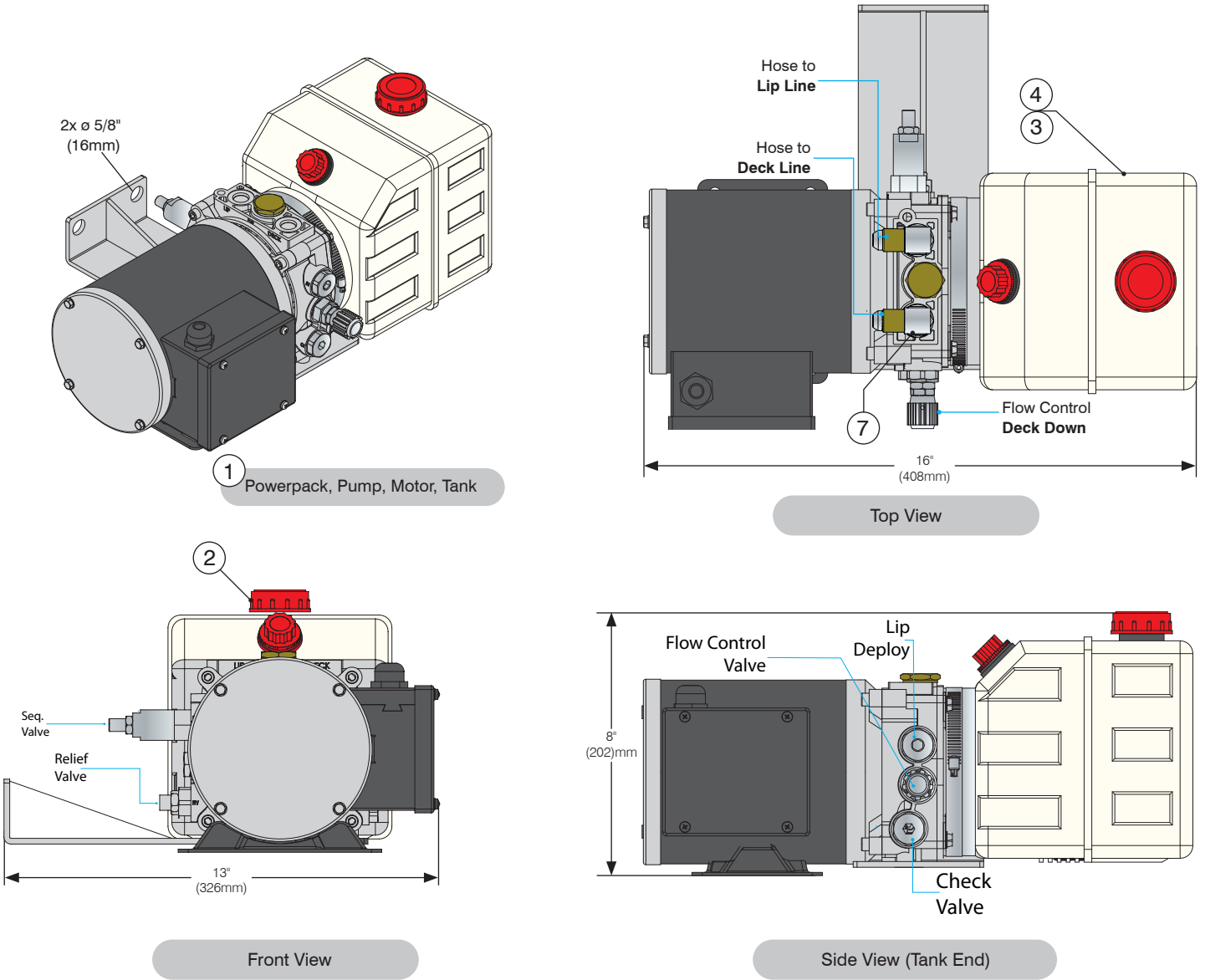
10.9 STANDARD PIT DIMENSIONS

NOMINAL SIZE		PIT WIDTH (W)		PIT LENGTH (L)	
		in	mm	in	mm
6' x 6'	1829 x 1829mm	74	1880	63	1600
6' x 8'	1829 x 2438mm			87	2210
6' x 10'	1829 x 3048mm			111	2819
6' x 12'	1829 x 3658mm			135	3429
6' x 14'	1829 x 4267mm			159	4039
6' 6" x 6'	1981 x 1829mm	80	2032	63	1600
6' 6" x 8'	1981 x 2438mm			87	2210
6' 6" x 10'	1981 x 3048mm			111	2819
6' 6" x 12'	1981 x 3658mm			135	3429
6' 6" x 14'	1981 x 4267mm			159	4039
7' x 6'	2133 x 1829mm	85	2159	63	1600
7' x 8'	2133 x 2438mm			87	2210
7' x 10'	2133 x 3048mm			111	2819
7' x 12'	2133 x 3658mm			135	3429
7' x 14'	2133 x 4267mm			159	4039
Lip Length:		16", 18", 20" (406, 457, 508 mm)			
Standard Frame Depth:		Front: 19.5" (495 mm)		Rear: 19" (483 mm)	
Standard Pit Depth:		Front (H): 20" (508 mm)		Rear (H1): 19.5" (495 mm)	



- Alternatives available:
- Longer filler
  - Deeper pits
  - Other options – consult factory

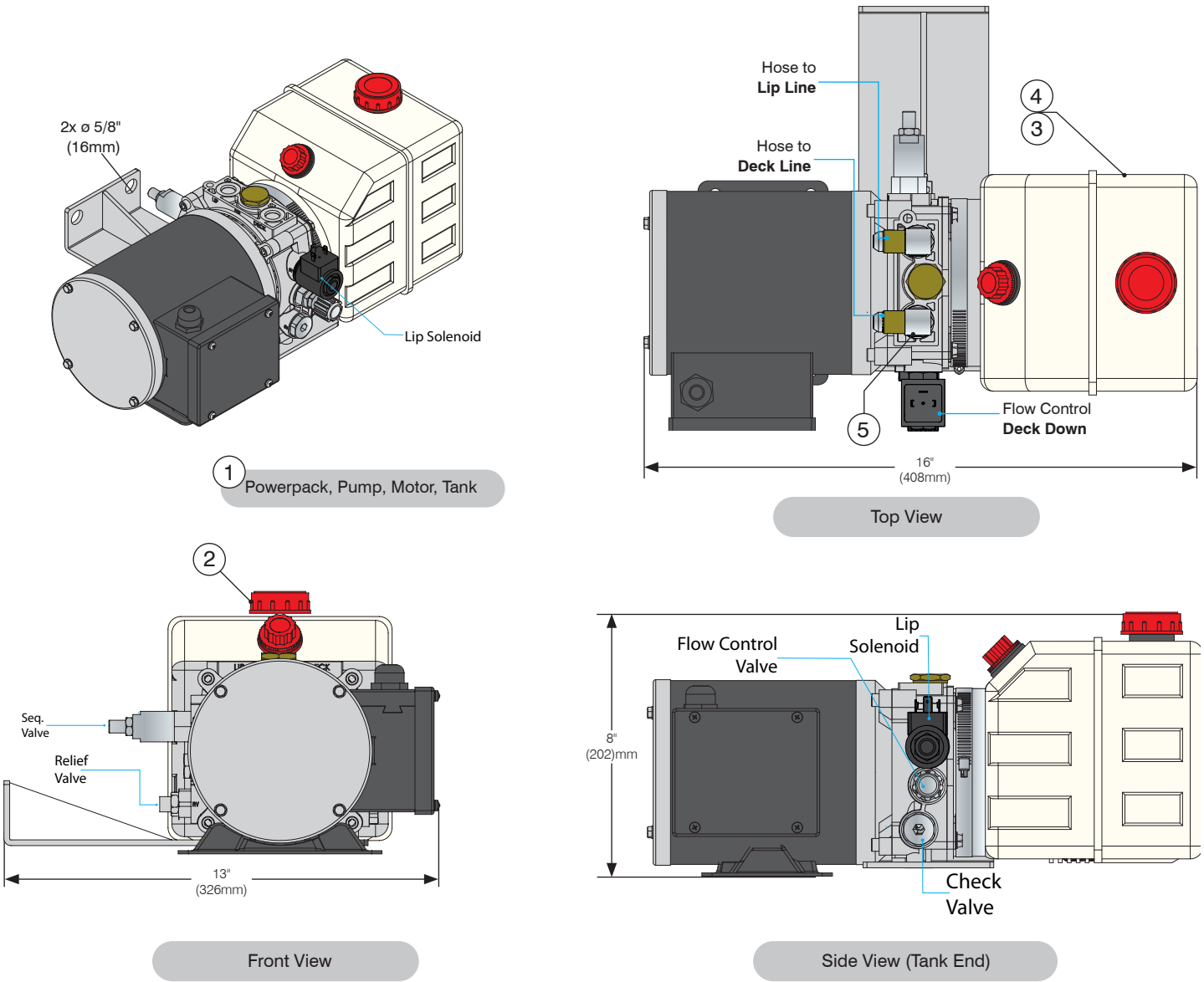
11.0 POWERPACK PART IDENTIFICATION  
(PIT OR REMOTE)



POWERPACK ASSEMBLY			
ITEM	QTY	DESCRIPTION	ITEM#1
1	1	POWER PACK 1PH-115V-230V-60HZ	033-403-1K
		POWER PACK 3PH-230/460V-60HZ	033-404-1K
		POWER PACK 3PH-575V-60HZ	033-405-1K

POWERPACK ASSEMBLY			
ITEM	QTY	PART NO.	DESCRIPTION
2	1	080-527	Powerpack Tank Breather Cap
3	1	-	Hydraulic Oil
4	1	080-510	Tank (Reservoir Oil) Kit
5	2	034-585	Elbow Fitting #6 SAE 37° / #6 O-Ring


11.1 POWERPACK PART IDENTIFICATION WITH LIP CONTROL  
(PIT OR REMOTE)



POWERPACK ASSEMBLY			
ITEM	QTY	DESCRIPTION	ITEM#1
1	1	POWER PACK 1PH-115V-230V-60HZ	033-401-24-K
		POWER PACK 3PH-230/460V-60HZ	033-402-24-K
		POWER PACK 3PH-575V-60HZ	033-400-24-K

POWERPACK ASSEMBLY			
ITEM	QTY	PART NO.	DESCRIPTION
2	1	080-527	Powerpack Tank Breather Cap
3	1	-	Hydraulic Oil
4	1	080-510	Tank (Reservoir Oil) Kit
5	2	034-585	Elbow Fitting #6 SAE 37° / #6 O-Ring


12.0 DOCK LEVELER TROUBLESHOOTING

**WARNING**

Do not attempt to install, make repairs or adjustments. Only a trained and authorized service technician should perform the installation process. Contact your local dealer or distributor for assistance.

PROBLEM	PROBLEM CAUSE
Deck will not raise when touch button is operated. Motor DOES start and run.	<div>1. Foreign materials may be lodged between the side of the deck and the pit wall.</div> <div>2. The bumpers may be damaged or missing, allowing the truck to contact and hold the lip.</div> <div>3. Equipment or goods may be parked on the dock leveler.</div> <div>4. Low hydraulic oil in power unit.</div> <div>5. Incorrect motor rotation (three phase power supply only).</div> <div>6. Relief valve is bypassing</div> <div>7. Pilot operated to close Check Valve (9) will not close.</div>
Deck will not begin to raise immediately when motor begins to run. Usually occurs only after the deck cylinder hose has been replaced with a new hose that was not pre-filled with oil.	<div>1. Air is trapped in the deck lifting cylinder. Bleed.</div>
Deck will not raise when touch button is operated. Motor does not attempt to run, no sound is heard from motor/powerpack/control box	<div>1. No power supply to control box.</div> <div>2. Thermal overload tripped open.</div> <div>3. Faulty control box component (e.g. fuse, touch button, contactor, transformer)</div>
Deck will not raise when touch button is operated. Motor attempts to run, but power supply breaker switch trips to off position	<div>1. Power supply circuit is overloaded by other equipment or components being used on a branch circuit controlled by the same breaker switch. The power supply line circuit must be upgraded to meet the requirements of the power unit</div>
Lip does not extend fully. Oil level in reservoir is not low.	<div>1. Lip plate bent causing hinge to bind.</div> <div>2. Foreign material lodged in the lip hinge area.</div> <div>3. Relief valve is bypassing.</div>
Lip lowers slowly in normal temperatures and very slowly in extremely cold weather. Deck lowering speed is correct.	<div>1. A valve adjustment will not correct this problem. Opening the needle valve will cause the deck to lower too quickly, which will in turn cause the fail-safe velocity fuse to lock.</div> <div>2. The lip lowers by gravity and must pivot freely on its full length hinge.</div>
Deck lowering speed is too slow or too fast.	<div>1. Lowering speed adjustment required</div>

12.0 DOCK LEVELER TROUBLESHOOTING CONT'D.

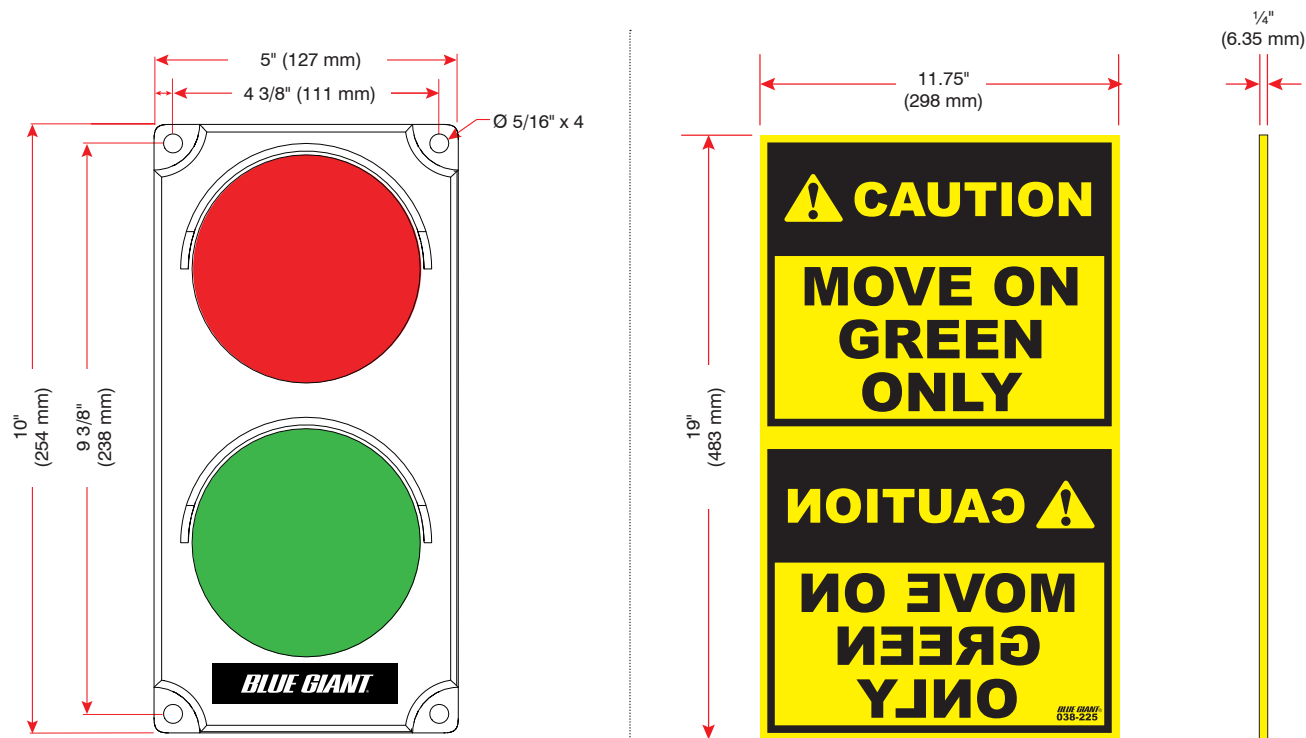
**WARNING**

Do not attempt to install, make repairs or adjustments. Only a trained and authorized service technician should perform the installation process. Contact your local dealer or distributor for assistance.

PROBLEM	PROBLEM CAUSE
Deck raises partially and stops. Motor continues to run and power unit makes more noise than normal	<div>1. Oil level in reservoir is low.</div>
Deck raises more slowly than normal and level in reservoir is normal	<div><div>1. Deck or damaged skirts dragging on side of pit.</div><div>2. Pilot operated to close Check Valve (9) will not close.</div><div>3. Faulty powerpack.</div></div>
Deck will not lower from fully raised position. Lip does lower	<div>1. The fall-safe velocity fuse located at the bottom of the deck cylinder is in the locked or closed position.</div>
Deck will not lower from fully raised, lip extended position. Lip does lower.	<div>1. The fall-safe velocity fuse located at the bottom of the deck cylinder is in the locked or closed position.</div>

13.0 OPTIONAL EXTERIOR TRAFFIC LIGHT / MIRROR IMAGE SIGN

The LED traffic lights and mirror image drive warning sign improve loading dock safety.



Exterior driver traffic light, part # 032-806.

NOTICE

Mount to a flat surface. DO NOT deform light housing with irregular wall surface.

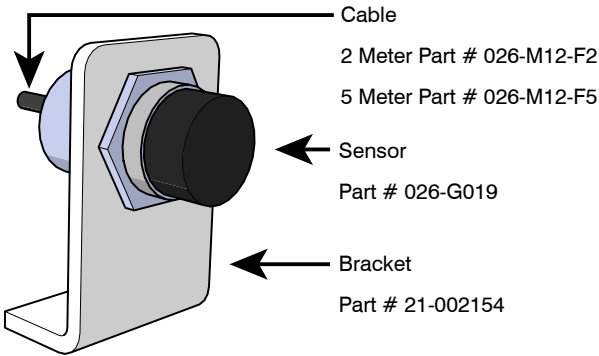
Exterior driver warning sign, part # 038-225.  
(French 038-225F / Spanish 038-225S / Portuguese 038-225P)

NOTICE

Mount to a flat surface. DO NOT deform sign or drill mounting holes too close to edges.

13.1 OPTIONAL HOME INTERLOCK SENSOR

- Ties sequence of vehicle restraint to dock leveler operation
- Loading dock safety is improved with accurate operation sequence
- Interior traffic light and vehicle restraint release operation relies on interlock capability
- Mounted at parked position of any leveler

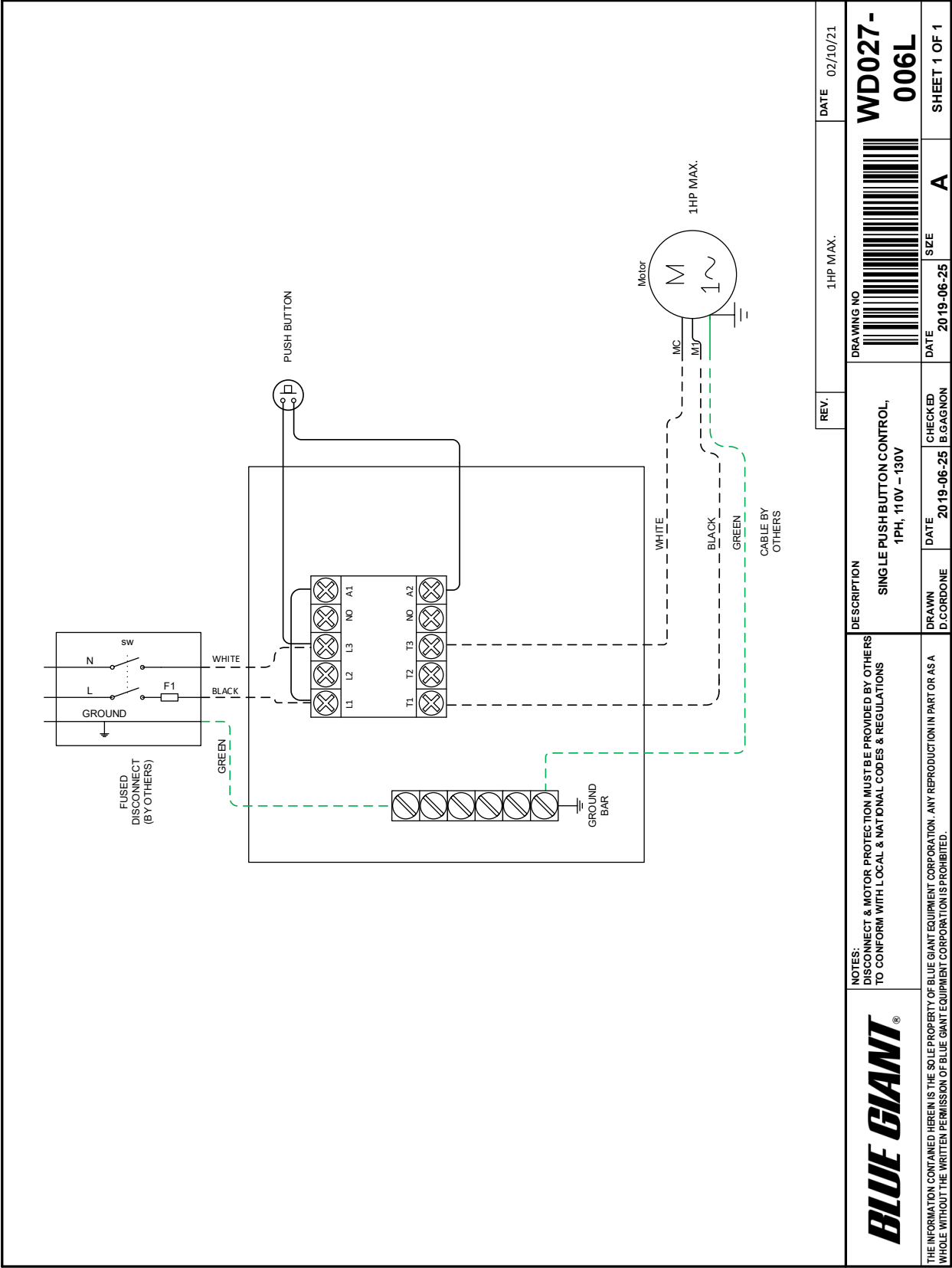


14.0 WIRING DIAGRAMS

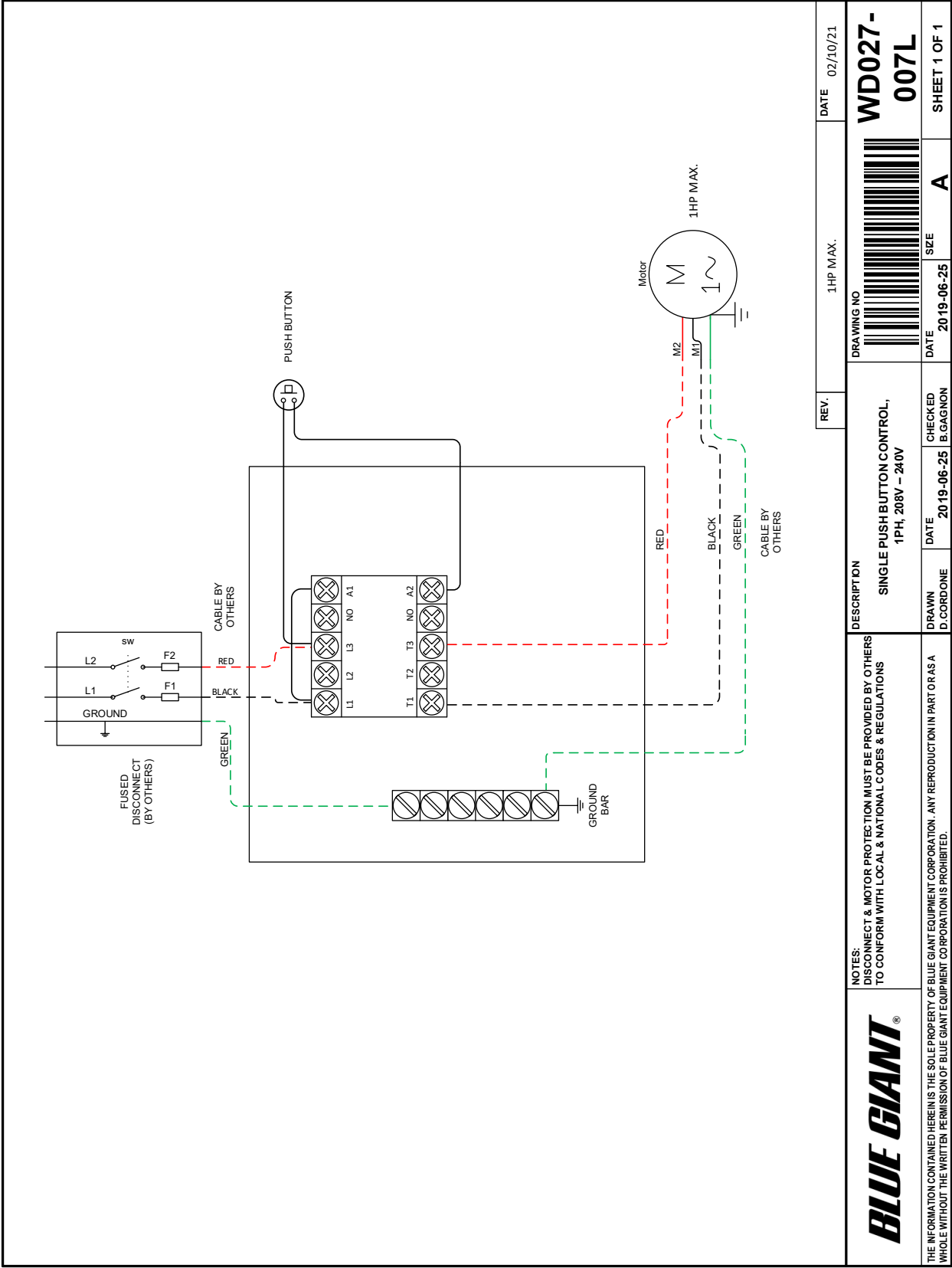
NOTICE

The following wiring diagrams are sample configurations only. Wiring diagrams specific to your needs will be provided inside the control panel and/or as part of your submittal package.

14.1 SP1 WIRING DIAGRAM—110-130V SINGLE PHASE



14.2 SP1 WIRING DIAGRAM—208-240V SINGLE PHASE







**NOTES**



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