

INSTALLATION & OWNER'S MANUAL



WARNING

DO NOT INSTALL, 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.

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1. ABOUT the U-SERIES AIR CYLINDER DOCK LEVELER with BLUE GENIUS™ CONTROLS

The **U-Series Air Cylinder dock leveler** harnesses the power of air to deliver the same heavy-duty, proven performance that makes Blue Giant dock levelers a standard at loading docks worldwide. Powered by a tankless, oil-free compressor, the air cylinder dock leveler is one of a kind in the industry. It effectively meets the demands of a busy loading bay while remaining environmentally friendly.

The **Blue Genius™ Touch Control Panel** with advanced microprocessor technology controls the operation of the restraint and alerts both the driver and dock attendants of safe/unsafe conditions. Its onboard diagnostics and communications feature a user-friendly, multi-language LCD intelligent text display and keypad with supervisory override.

1.1 OWNER'S PURCHASE RECORD

OWNER'S PURCHASE RECORD Please record information for future inquiries	
Dealer:	Date in Service:
Serial Number(s):	Number of Units:
	Door # :

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

2.

INTRODUCTION

The following is a quick reference to important procedures that must be followed while using the Dock Leveler System. 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 Dock Leveler System. These laws and regulations include but are not limited to:

- The Occupational Safety and Health Act (USA)
- Occupational Safety and Health Acts for Individual States (USA)
- Canadian Material Handling Regulations

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
(212) 642-4900



ALSO MEMBERS 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 Fax: (704) 676-1199

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 Warranty Center 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.

For more information about Blue Giant's Warranty Support, please contact your local Blue Giant Equipment dealer, representative or authorized partner near you. You may also visit www.BlueGiant.com or phone 1-905-457-3900.

* Note that failure to validate warranty at the time of receipt can seriously affect the outcome of any claim.

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 Dock Leveler System. 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 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 Leveler 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.

3. OPERATOR'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	IMPORTANT
Serious injury or death will likely occur if the instructions are not followed.	Procedures marked IMPORTANT must be followed in order to prevent damage to machinery.
 WARNING	 CAUTION
Serious injury or death may occur if the instructions are not followed.	Instructions marked CAUTION concern safe operating procedure. Failure to comply may result in personal injury.

3.1 OPERATIONAL SAFETY WARNINGS

 **DANGER**

- DO NOT** operate leveler with anyone standing in the path of operation.
- BEFORE BEGINNING ANY SERVICE PROCEDURES:**
 - Disconnect the power and follow all LOCKOUT / TAGOUT procedures.
- DO NOT** operate leveler without filling the cylinder if the unit has not been in service for an extended period of time.
- Procedure for filling cylinder:**
 - Press and hold the 'Deck' button (Run Pump). Operate for **(25) seconds**.
- Exercise caution when touching or handling the cooling tube, as tube is hot and edges may be sharp.**
- Compressor is hot when in use. Do not touch.**

 WARNING	IMPORTANT
<ul style="list-style-type: none"> Keep away from hinge when operating leveler. Post safety warnings and barricade working area at dock level and at ground level to prevent unauthorized use of the leveler during maintenance/service. During installation, anchors must be properly torqued to obtain the necessary anchoring strength. DO NOT USE IMPACT DRIVERS. DO NOT drive or walk onto the transport vehicle until it is parked against the dock bumpers and the wheels are chocked, or the vehicle restraint has been fully engaged and the lights have changed to GREEN inside and RED outside. NEVER attempt to lift or hold the lip out by hand. Serious personal injury could occur. ALWAYS check the rigging to make sure that it is secure before proceeding to lift the unit. Never stand under any unit being lifted. NEVER remove the wheel chocks until loading/ unloading is finished and the truck driver has been given permission to depart, or the Vehicle Restraint has been released and the lights have changed to RED inside and GREEN outside. 	<ul style="list-style-type: none"> DO NOT ground welding equipment to any air cylinder or electrical components. DO NOT attach welder as ground to leveler platform when welding on base frame assembly. Attach welder ground to base frame assembly only. DO NOT allow the drill to go too deeply when drilling holes in the control box. Damage to the control systems may occur. NEVER use air to blow debris from control box. Use a vacuum to remove debris from control box. DO NOT connect green ground lead into control box or junction box until all welding has been completed. NOTE - check motor rotation. Jog the motor until rotation has been determined. DO NOT allow the motor to run in reverse for more than a couple of seconds, otherwise the power unit may become damaged. DO NOT force valve adjustment screws against internal stops. Damage will occur to the valve/seat. If a procedure is not clearly defined in this manual, contact your authorized Service Representative.

 **CAUTION**

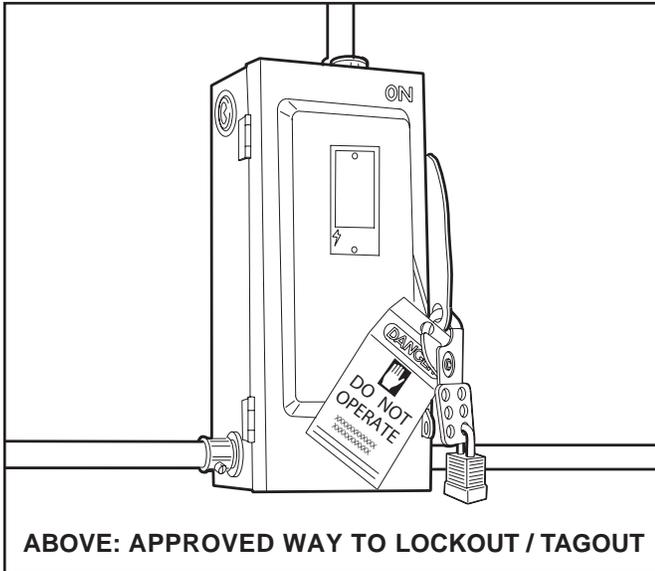
- ONLY TRAINED PERSONNEL** should operate or service this equipment.
- DO NOT** operate leveler until freight carrier is parked against the dock bumpers and has been secured by a vehicle restraint and/or chocks.
- ALWAYS** return the leveler platform to the proper stored position.
- ALWAYS** conduct routine inspections and maintenance. Failure to conduct could cause personal injury or damage to equipment.

4. LOCKOUT / TAGOUT PROCEDURE and RULES

⚠ 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.

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 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.

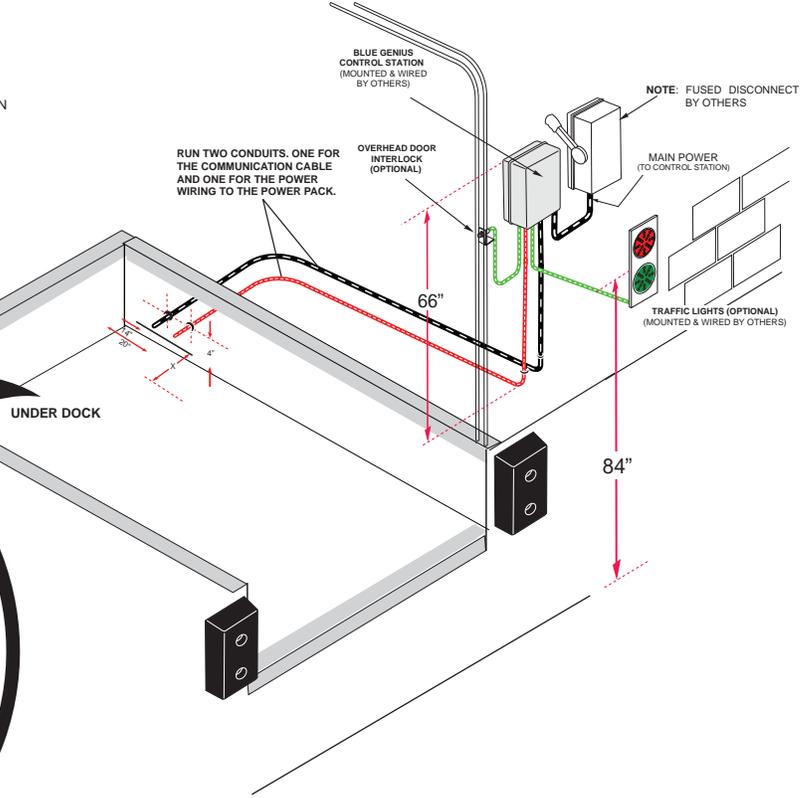
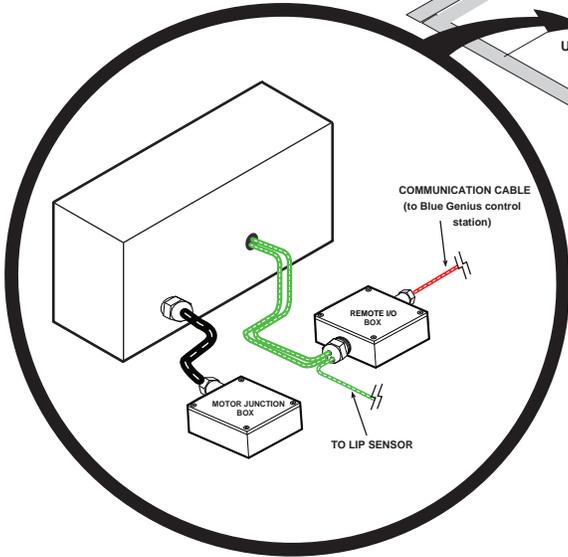
5. STANDALONE DOCK ARRANGEMENT

NEW CONSTRUCTION:

1. DRILL ONE HOLE THROUGH THE WALL TO THE OUTSIDE FOR THE L.E.D COMMUNICATION LIGHTS (OPTIONAL).
2. RUN ONE 1/2" I.D. CONDUIT FROM CONTROL STATION TO THE REMOTE I/O BOX FOR COMMUNICATION CABLES.
3. RUN ONE 1/2" I.D. CONDUIT FROM THE CONTROL STATION POWER LINE CONNECTION TO THE DOCK'S POWER PACK MOTOR JUNCTION BOX.

MINIMUM CONCRETE STRENGTH 3,000 P.S.I.

-  CABLES
-  POWER WIRING
-  HYDRAULIC HOSE LINES
-  COMMUNICATION CABLES

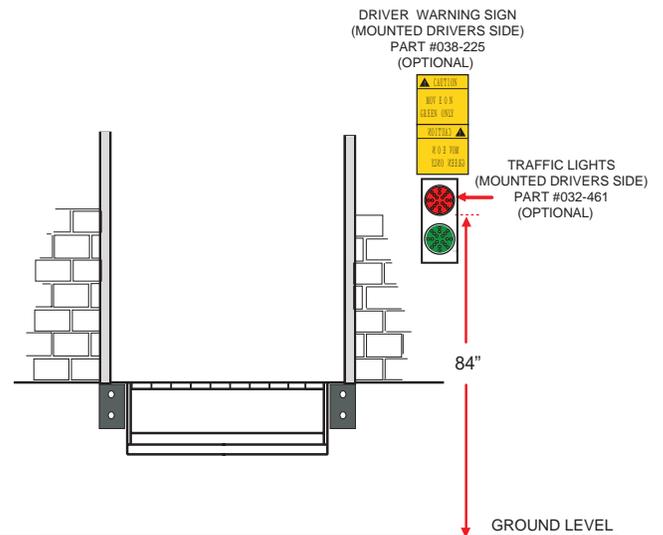
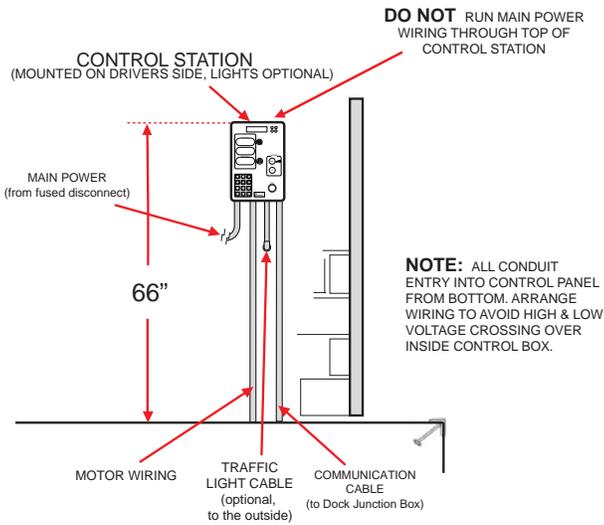


WARNING

DO NOT WIRE HIGH AND LOW VOLTAGES IN THE SAME CONDUIT. High voltage range is 115V and up. Lower voltages include the communication and solenoid wiring as well as the I/O.

ELECTRICAL REQUIREMENTS-

- MOUNT CONTROL BOX STATION TO WALL, SIGNAL LIGHTS AND DRIVER WARNING SIGNS
- FUSED DISCONNECT PROVIDED BY OTHERS AND WIRING BY OTHERS
- INSTALL CABLE FROM CONTROL BOX STATION TO POWER PACK
- INSTALL CABLE FROM CONTROL BOX STATION TO POWER SUPPLY



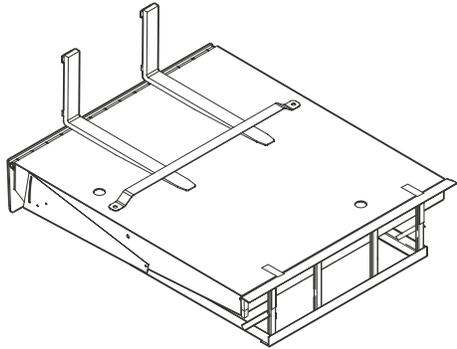
NOTE: *DRAWINGS NOT TO SCALE

6.

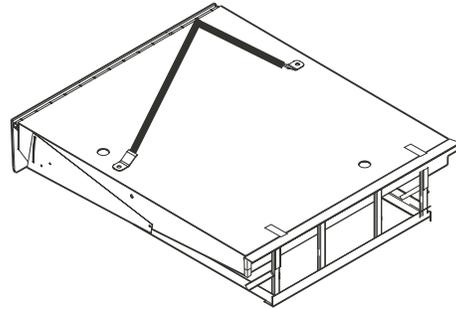
WELD INSTALLATION PICTORIAL

WELD INSTALLATION PICTORIAL

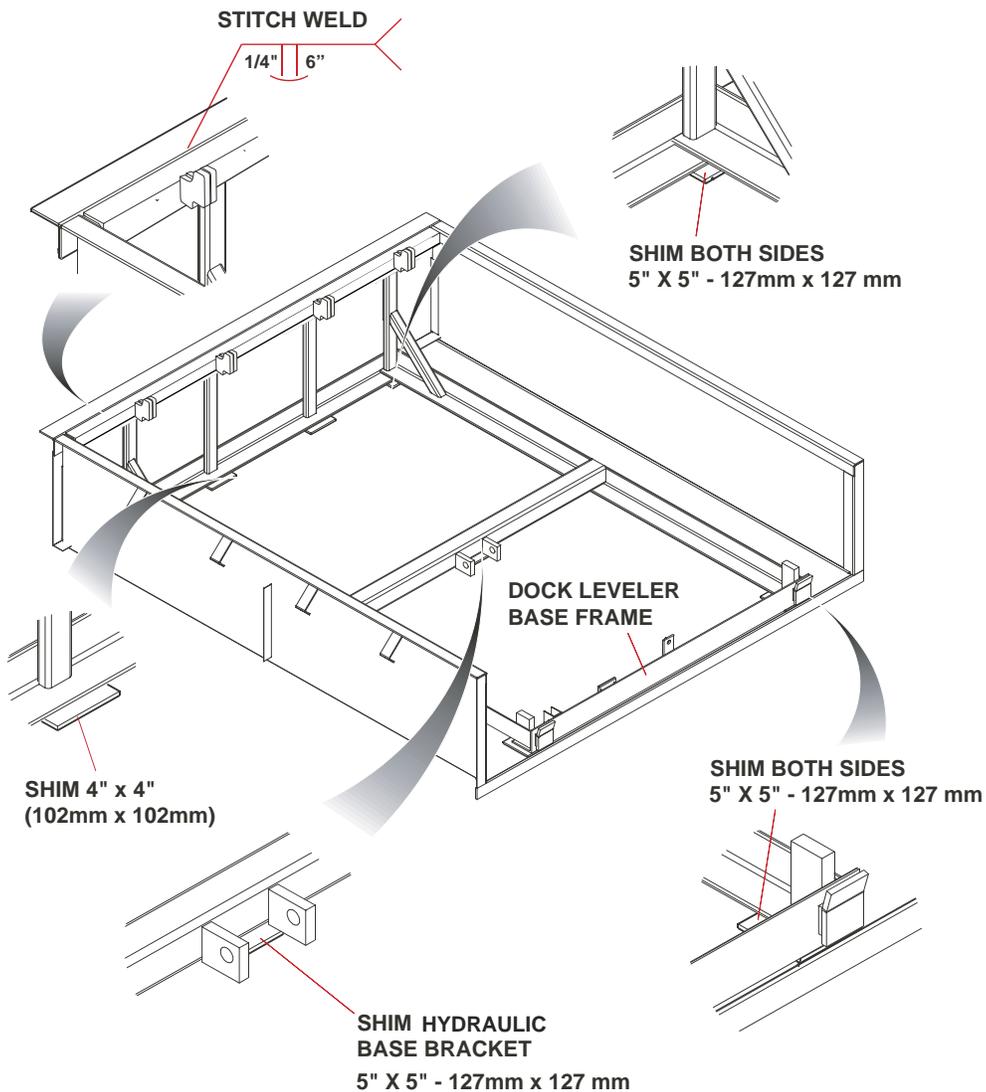
(Shim placement guidance only- dock depicted may not be same model covered in this manual)



FORK LIFT TRUCK HANDLING



SLING HANDLING



7. DOCK LEVELER INSTALLATION INSTRUCTIONS

WARNING

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

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

Keep hands and feet clear of dock leveler pinch points.

IMPORTANT

The information below is crucial to proper installation:

Pit Curb Angles

- Must be level side-to-side and front-to-back.
- Must be square at both rear corners.
- Side curb angles must be parallel to each other.
- Finished floor to be flush with top surface of curb angle.

The leveler must be welded to a firmly embedded steel or other dock steel as described in the installation instructions. Do not attempt to use only bolts or anchors, to attach the dock leveler to the concrete.

- Prior to installation, clean pit thoroughly and verify that all dimensions are in accordance with manufacturer specifications.
- Measure height of rear corners of dock leveler, bottom of frame to top of deck plate, typically 19" or 23"(485 or 585mm). Measure depth of pit at both rear corners where rear bottom corners of frame will be positioned. Locate and place suitable shims (not supplied) in pit corners to produce a depth to match frame height.
- Measure height of dock leveler front corners, bottom of frame to top of deck plate, typically 19-1/2" or 23-1/2" (495 or 595mm). Measure depth of pit at both front corners where front bottom corners of frame will be positioned. Locate and place suitable shims (not supplied) at both front corners to produce a depth to match frame height. See Figure 1.

WARNING

All electrical work must be performed by trained and authorized personnel.

WARNING

Use caution when lifting or moving the leveler. Do not attempt to lift without suitable hoisting equipment capable of lifting as much as 3500 lbs. Do not work beneath a raised object. Follow all hoisting safety requirements.

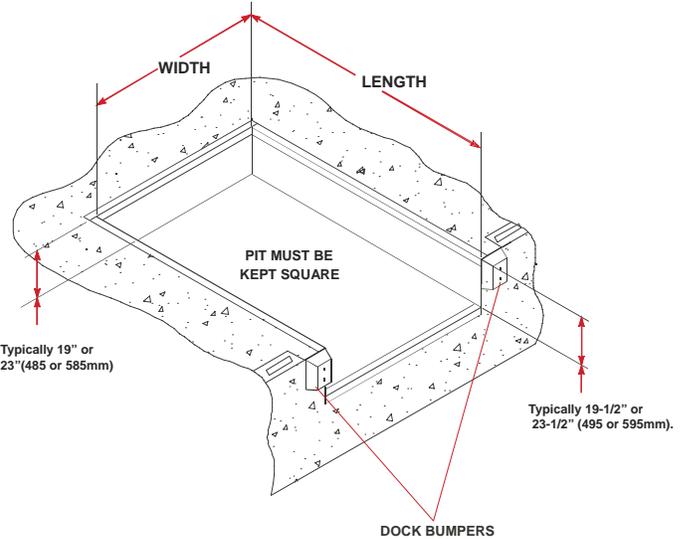


Figure 1 : Pit Layout - Typical (Four piece curb angle shown)

- Using extreme caution, sling dock leveler into place squarely above pit and lower gently onto pre-located shims. Locate and square dock leveler to best suit pit and dock face. Space between sides of deck and sides of pit should be equal. Line up the bottom clevis holes to the pivot edges of the rear frame.

IMPORTANT

It is important that the shims fill the space between the bottom edge of the back beam and face of the curb angle, as well as behind each hinge lug on the top edge. Confirm that the top of the back beam is flush with the top surface of the rear curb angle, and then finish weld back beam to curb angle.

- If the rear beam does not line up squarely with the rear curb angle, use 3" x 6" (75mm x 150mm) shims of suitable thickness to fully support top rear and bottom rear of rear beam at weld areas. Weld rear beam to curb steel with 1/4" x 6" (6mm x 150mm) welds, on 9-5/8" (250mm) centers.
- Remove sling brackets, chains, etc. from the deck. Remove and discard the shipping bolts from the front of the dock leveler lip plate and the rear tilt bar.
- Check the deck height to confirm that it is flush with the top of the side curb angles and tack-weld all front shims to the front curb angle and front frame.
- Adjust the lip proximity sensor by loosening the holding nuts and setting the gap. Once the desired adjustment has been achieved, re-tighten the holding nuts.

7.

DOCK LEVELER INSTALLATION INSTRUCTIONS

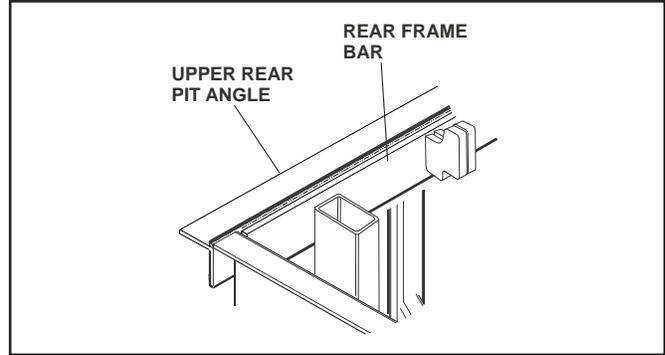


WARNING

Do not work beneath the dock leveler without engaging the maintenance strut.

Do not work beneath the dock leveler without following proper lockout procedures. Disconnect and lockout the electrical power supply, and confirm that there is no power to the dock leveler control panel. Also confirm that it cannot be turned on again accidentally.

9. Mount Blue Genius Control Station assembly in a suitable location. Mount power unit in a suitable location if applicable (remote power pack).
10. Mechanically raise the deck high enough to engage the maintenance strut.
11. Remove the pin from telescopic maintenance strut, and extend the maintenance strut to the desired height. Then reinsert pin to engage the strut to the head board.
12. Rear frame on most models has one or more vertical frame members in addition to rear corner vertical members. Place adequate shims directly under each vertical member to fill space between bottom frame and floor of pit. Finish weld all rear shims.
13. Measure thickness of shims that were installed under middle of front frame and place same thickness of 6" x 6" (150mm x 150mm) shims under base of deck cylinder. Finish weld to cylinder mounting plate.
14. Finish weld all shims securely to the front curb angle and front frame.
15. Install specified dock bumpers as required. Do not use the dock leveler to be used without bumpers, as damage to both building and leveler may result.
16. Release bottom safety skirts by removing and discarding shipping bolts, one bolt from each side.
17. Make permanent electrical connections as required.
18. Mount the operations placard on the wall in plain view of dock leveler operations.



7.1

Installation Inspection

1. Clean up the entire work area and apply touch-up paint to all welds, scratches and burns.
2. Test operate the unit through several full cycles of operation. Refer to the Operating Procedures section. If problems are noted, consult the TROUBLESHOOTING section of this manual.
3. Leave these Instructions with the dock leveler for use by owner.

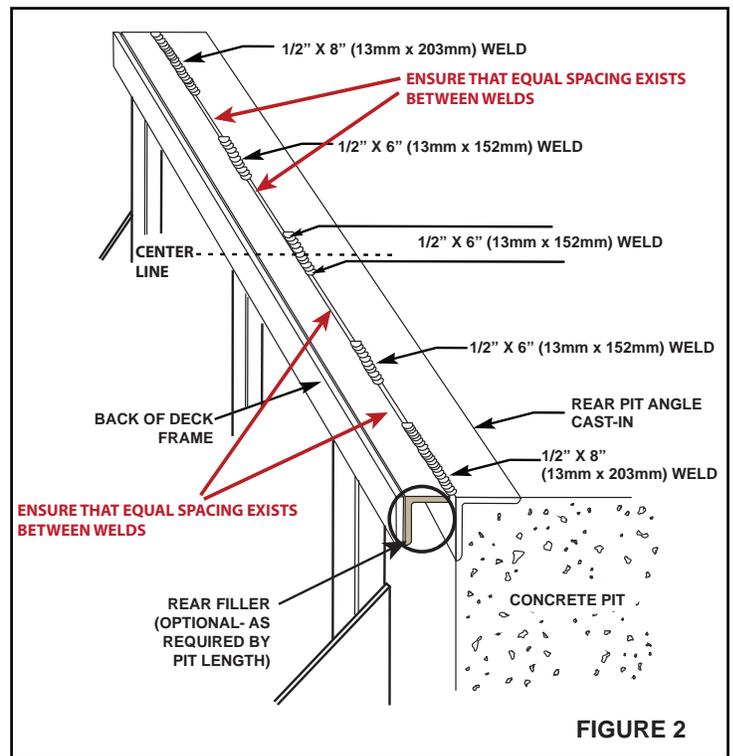


FIGURE 2

8.

ELECTRICAL INSTALLATION

WARNING

DO NOT WIRE HIGH AND LOW VOLTAGES IN THE SAME CONDUIT. High voltage range is 115V and up. Lower voltages include the communication and solenoid wiring as well as the I/O.

During installation, place adequate barriers to prevent vehicle traffic from entering the work area, and follow proper lockout / tagout procedures.

8.1 Electrical Dock Installation

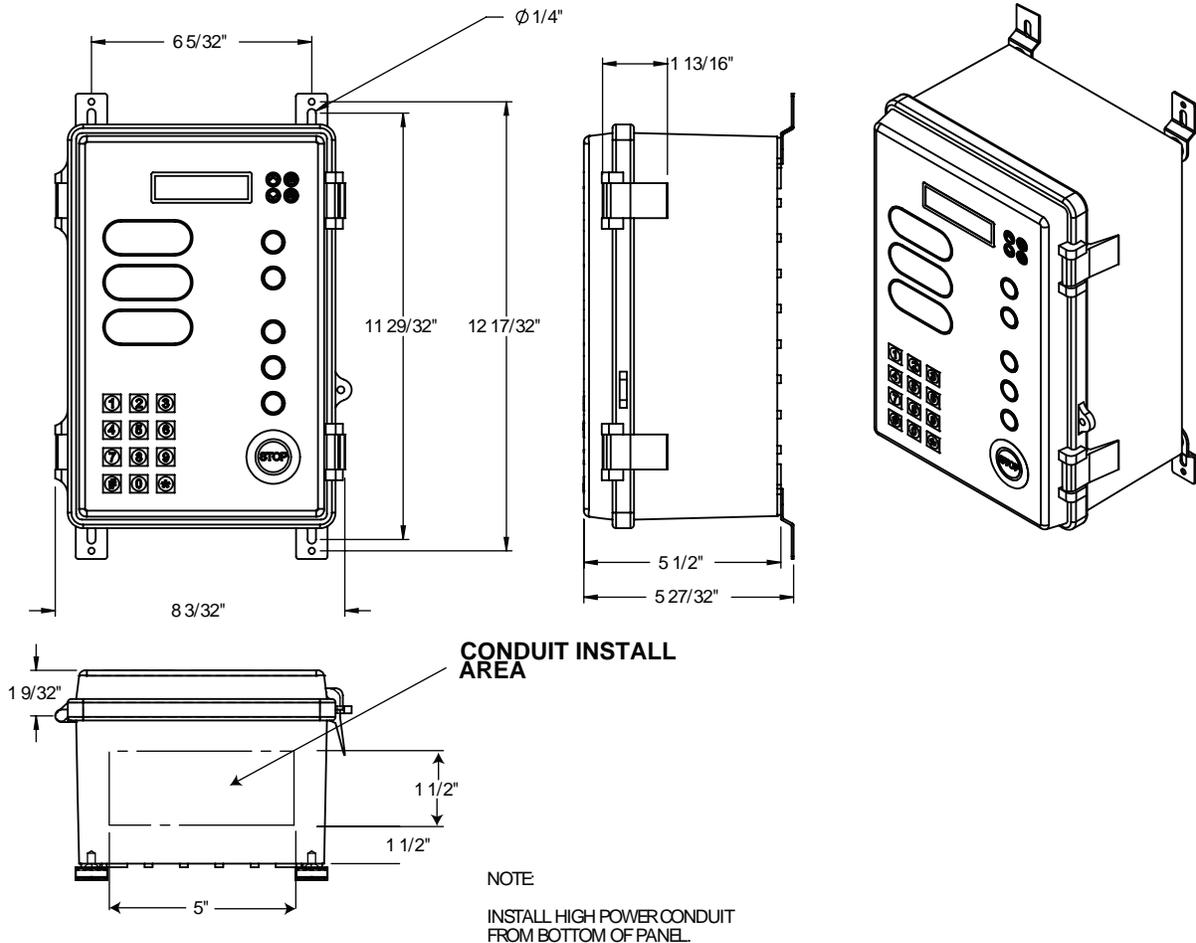
1. Securely mount the exterior traffic lights (optional) and signs on the exterior wall adjacent to the doorway (on the driver's side), at approximately 8 feet (2438mm) above floor level.
2. Drill one hole through the wall to the outside for the L.E.D communication lights cable. Run cable through to the control box. Install cable gland, run cable through, and tighten it.
3. Run one 1/2" I.D. conduit from control station to the dock junction box for the communication cable.
4. Run one 1/2" I.D. conduit from the control station to the dock's motor junction box.
5. Complete the electrical hookup between the exterior traffic lights (optional) and control panel.

For a pictorial of this installation procedure, see Section 5.

8.2 Final Inspection

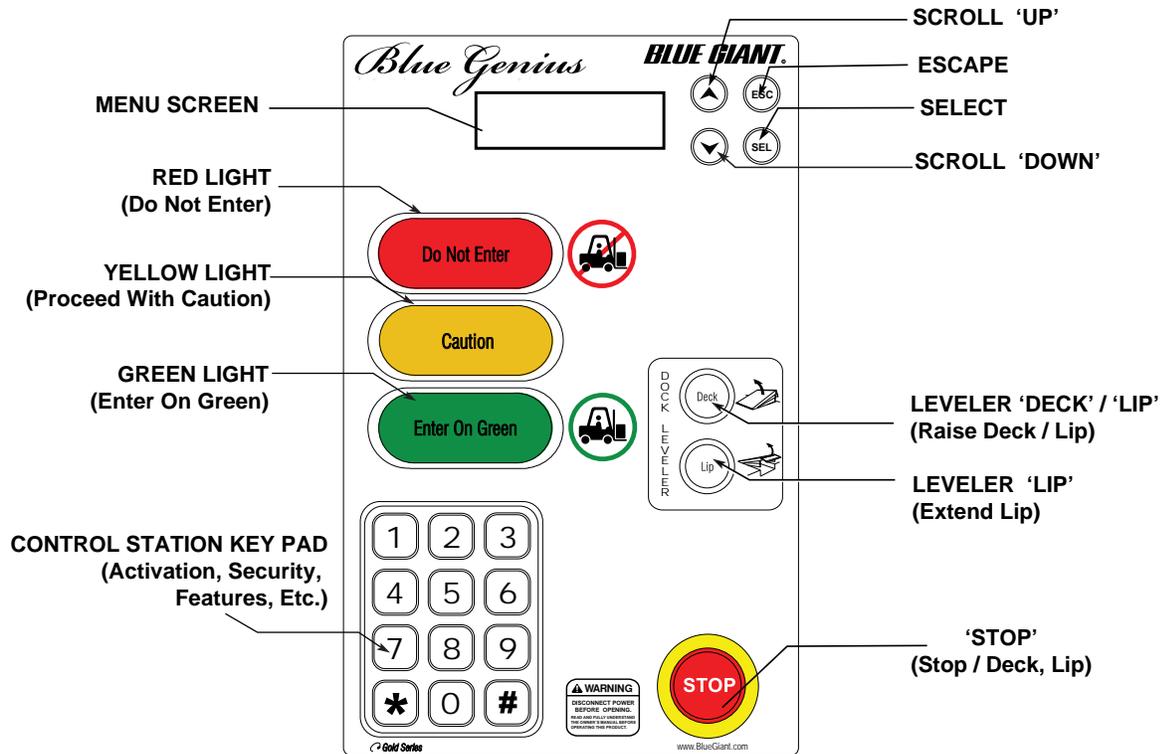
1. Check all connections and tighten as required.
2. Check that all electrical conduits and wires are mechanically protected against damage and are adequately secured.
3. Return all wiring diagrams to the Blue Genius™ Control Panel.
4. Mount warning placard next to the Blue Genius™ Control Panel.
5. Leave these instructions near the dock leveler for easy future access.

Figure 1: Blue Genius™ control station dimensions and conduit install area.



9. CONTROL STATION OPERATION

CONTROL STATION TYPE - Independent Hydraulic or Air Cylinder Dock Leveler



10.

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" (100mm) 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).

⚠ WARNING

Secure the transport vehicle with a vehicle restraint, wheel chocks or other method before commencing traffic across the dock leveler.

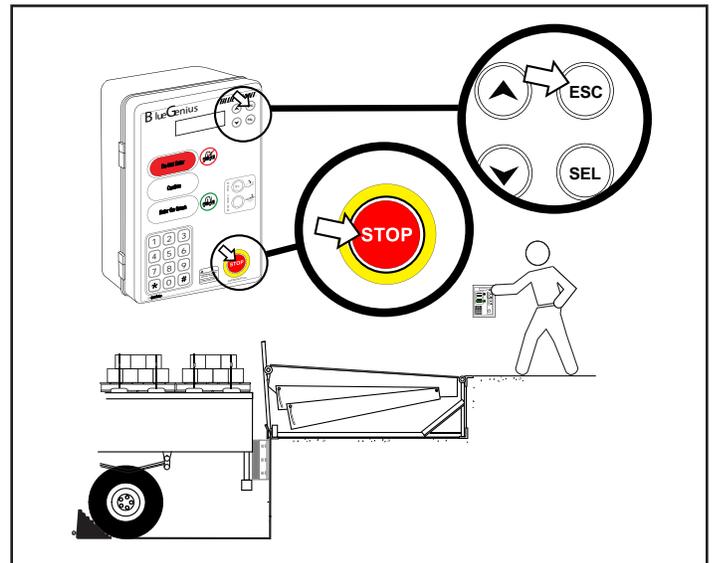
10.2

Stop Button Function

The Blue Genius™ Control Station has a temporary 'STOP' button for situations where the dock leveler might need to be stopped immediately or left in a certain position because of an unexpected interference or a potentially dangerous situation.

Touching the 'STOP' button during operation will cut the power to the motor.

To exit the 'STOP' mode touch 'ESC'.



10.1

Functional Description

The **U-Series Air Cylinder 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. It is operated via the **Blue Genius™ Control Station**.

After the door has been opened, 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 leveler is then operated by maintaining pressure on a touch button to raise the front of the deck. The hinged lip plate raises with the deck, its leading edge swinging out horizontally over the rear of the transporter vehicle once the deck reaches its fully raised position. The dock attendant releases the touch button, causing the deck and extended lip to lower together until the lip's underside comes to rest on the load bed of the transporter vehicle. A solid bridge is now formed between the dock and the truck.

During loading/unloading operations, both deck and lip automatically follow the raising and lowering movement of the transporter vehicle.

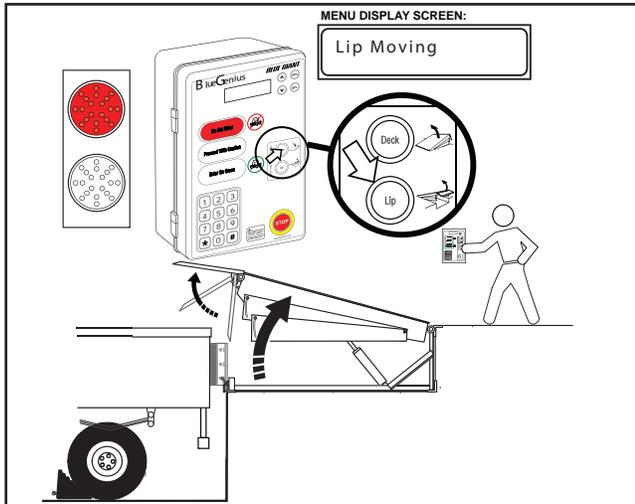
Once all work is completed, the dock attendant returns the leveler to its original stored position.

10.3

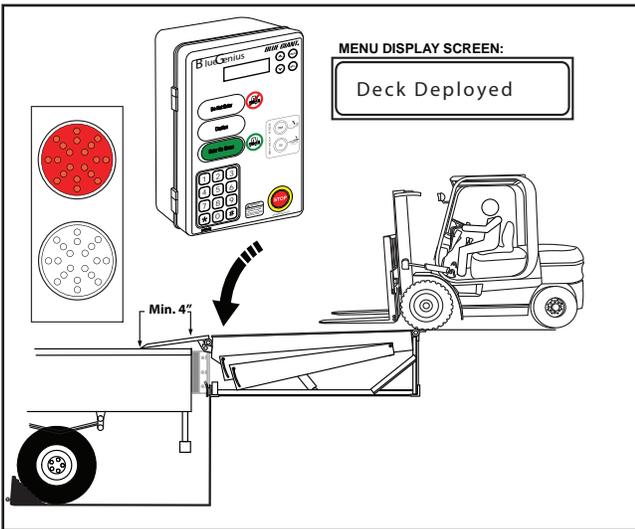
Deploying the Deck and Lip

1. After the truck has been secured, raise the dock leveler by touching and holding the 'Deck' button. The control station light (optional) instantly changes to RED and the outside traffic light remains RED (optional). The LCD message will read 'Deck Raising'. Release the 'Deck' button once the leveler has reached a height where the lip can be deployed.
2. Deploy the lip by touching and holding the 'Lip' button. Both the outside traffic light and control station lights (optional) remain RED. The LCD message will change to 'Lip Moving'. **NOTE:** The 'Lip' button should only be touched after the lip has cleared the keepers.

10. OPERATING INSTRUCTIONS

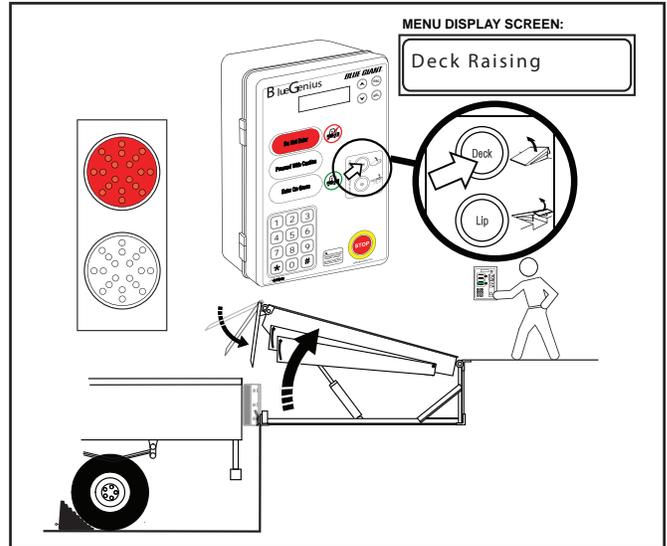


3. Once the lip has deployed, release the 'Lip' button. Both dock leveler and extended lip will descend onto the vehicle load bed. The LCD message will change to 'Deck Moving'. The outside traffic light (optional) remains RED and the control station light (optional) turns GREEN, advising dock staff that loading / unloading operations may begin. **NOTE:** Ensure that the full width of the lip overlaps the vehicle load bed by a minimum of 4" (102mm).



10.4 Storing the Dock Leveler

1. To return the dock leveler to the stored position, touch and hold the 'Deck' button. The outside traffic light (optional) remains RED and the control station light (optional) immediately turns from GREEN to RED. The dock will raise and the lip will retract. The LCD screen will read 'Deck Raising'.



2. When the lip has fully retracted, release the 'Deck' button. The LCD screen will read 'Deck Moving' and the dock will fall back to the stored position with the lip resting in the lip keepers. The LCD message will change to 'Dock Leveler Restored'. The control station light (optional) will change from GREEN to RED, and the outside traffic light (optional) turns GREEN.

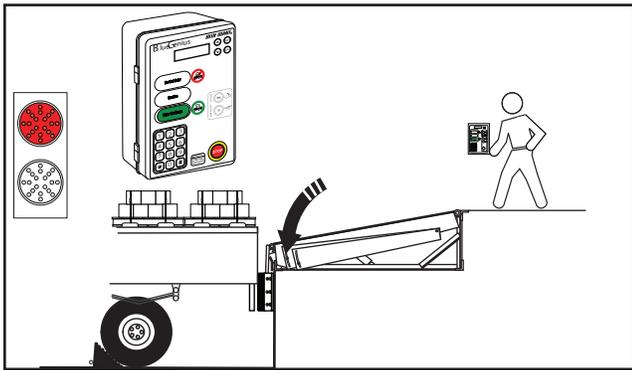
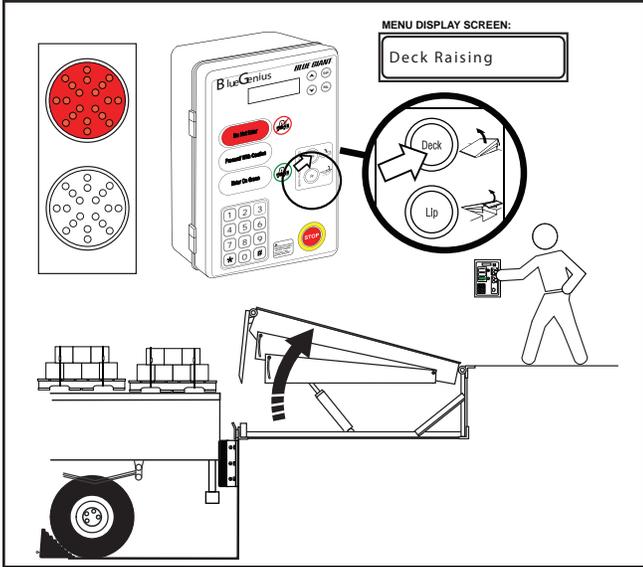
10.5 Below Level / End Loading

This section outlines dock leveler operation in situations where the lip plate cannot make contact with the transport vehicle load bed (e.g. loading / unloading the first skid or pallet from the load bed when there is insufficient surface area to extend the dock leveler lip plate).

1. Chock the vehicle wheels. Below level / end loading can take place **ONLY** after the truck has been properly restrained.
2. Hold the 'Deck' button to raise the deck. Both the control station light and the outside traffic light (optional) are RED.
3. When the dock is fully raised, touch the 'Lip' button. When the lip is partially extended (approximately 2" [50mm]), release the button. Since the lip is out and clear of the lip keepers, the dock will descend past the floor level so that below level / end loading can be accomplished. The outside traffic light (optional) is RED and the control station light is GREEN (optional).

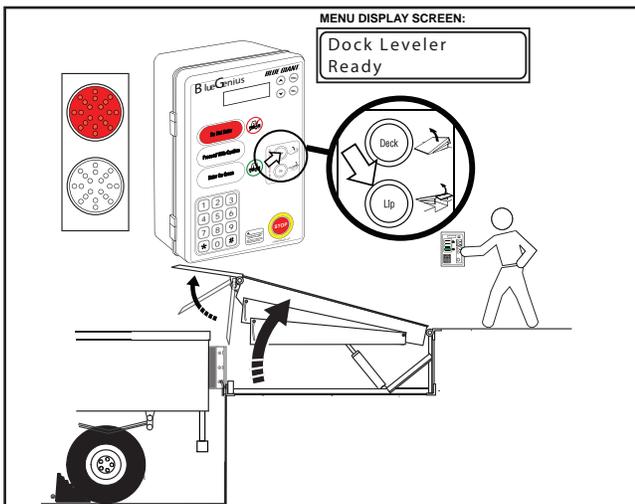
NOTE: Dock personnel must exercise caution when walking on or around the leveler while it is in the below level position, as a gap exists between the leveler edge and the truck bed.

10. OPERATING INSTRUCTIONS



10.6 Returning to Normal Lip on Load Bed Operation

1. After below level / end loading or unloading has been completed, touch and hold the 'Deck' button until the dock is high enough to safely deploy onto the vehicle load bed. The control station light and outside traffic light (optional) will both be RED. Touch the 'Lip' button to sufficiently extend the lip. Then release. The deck and lip will descend onto the load bed, and the control station light will turn GREEN.



11.

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 - glasses, gloves and work boots.

⚠ WARNING

The Maintenance strut must be in place before commencing maintenance procedures.

11.3 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 capacity can void the manufacturer warranty.

11.1 Planned Maintenance

In addition to the daily operator inspection, the manufacturer recommends (and local government regulations may require) that a planned maintenance (PM) and safety inspection program be performed by a trained and authorized service technician on a regular basis to maintain the equipment in safe operating condition. The PM 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 PM, 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 this manual. 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.

11.4 Planned Maintenance Intervals

Arrange for a qualified dock leveler repair technician to perform regularly scheduled planned maintenance on your dock leveler every 3 months for single shift operations or monthly for multi-shift operations.

Call your authorized manufacturer/ dealer for further details.

11.5 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.

11.2 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.

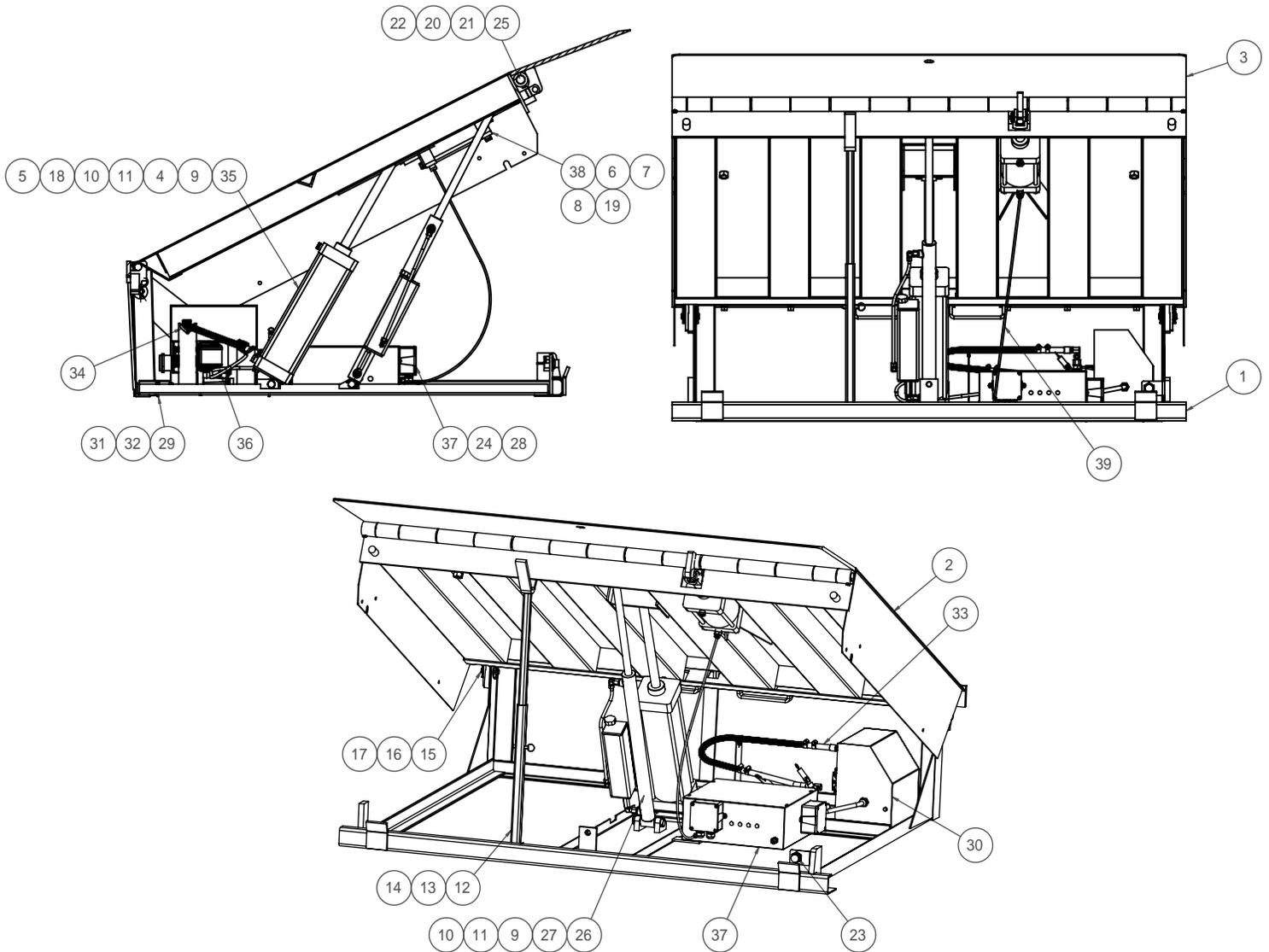
The manufacturer recommends making multiple photocopies of the Operator's Daily Checklist. The operator should fill out this form to keep a daily record of operation and maintenance issues.

MAINTENANCE & SERVICE TIME INTERVALS FOR SPECIFIC DOCK COMPONENTS CHART

	DECK CYLINDER	DECK ASSEMBLY	MAINTENANCE STAND	LIP HINGE ASSEMBLY	LIP CYLINDER	
INSPECT	ALL THE ABOVE EVERY 90 DAYS (for multi-shift operations every 30 days is required)					
CLEAN	ALL THE ABOVE EVERY 90 DAYS Clean Lip As Required (for multi-shift operations every 30 days is required)					
LUBRICATE	Not Required	Every 90 Days Pivot Points (Light Oil)	Not Required	Every 90 Days (Grease)	Not Required	
ADJUST	As Needed	Not Required	Not Required	Not Required	As Needed	

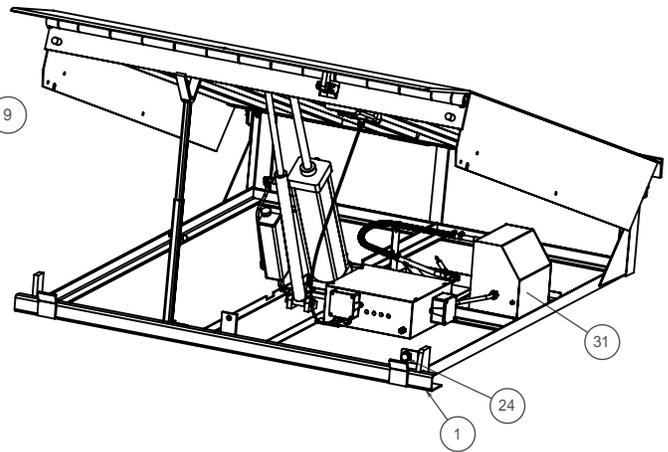
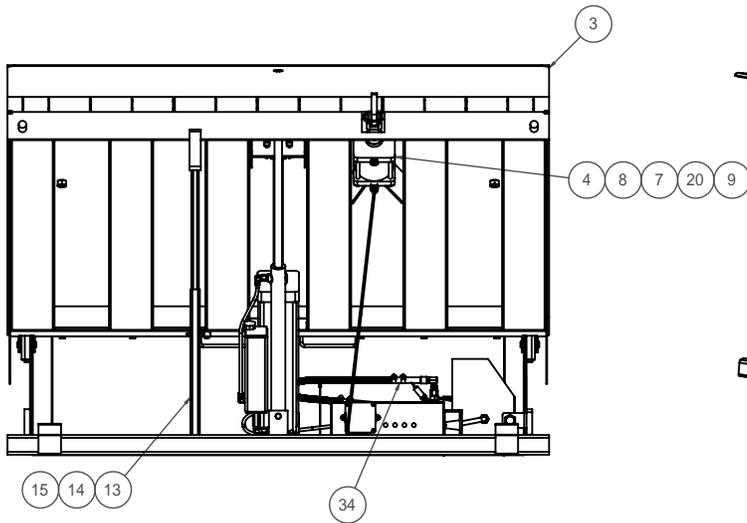
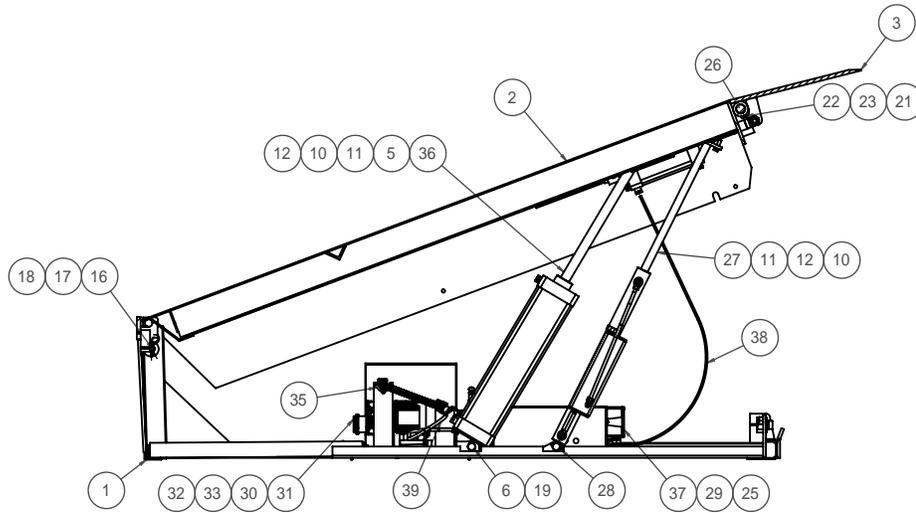
Note : In many localities, all lifting devices must be inspected a minimum once per year.

12A. GENERAL DOCK ASSEMBLY COMPONENTS- 6' DOCKS



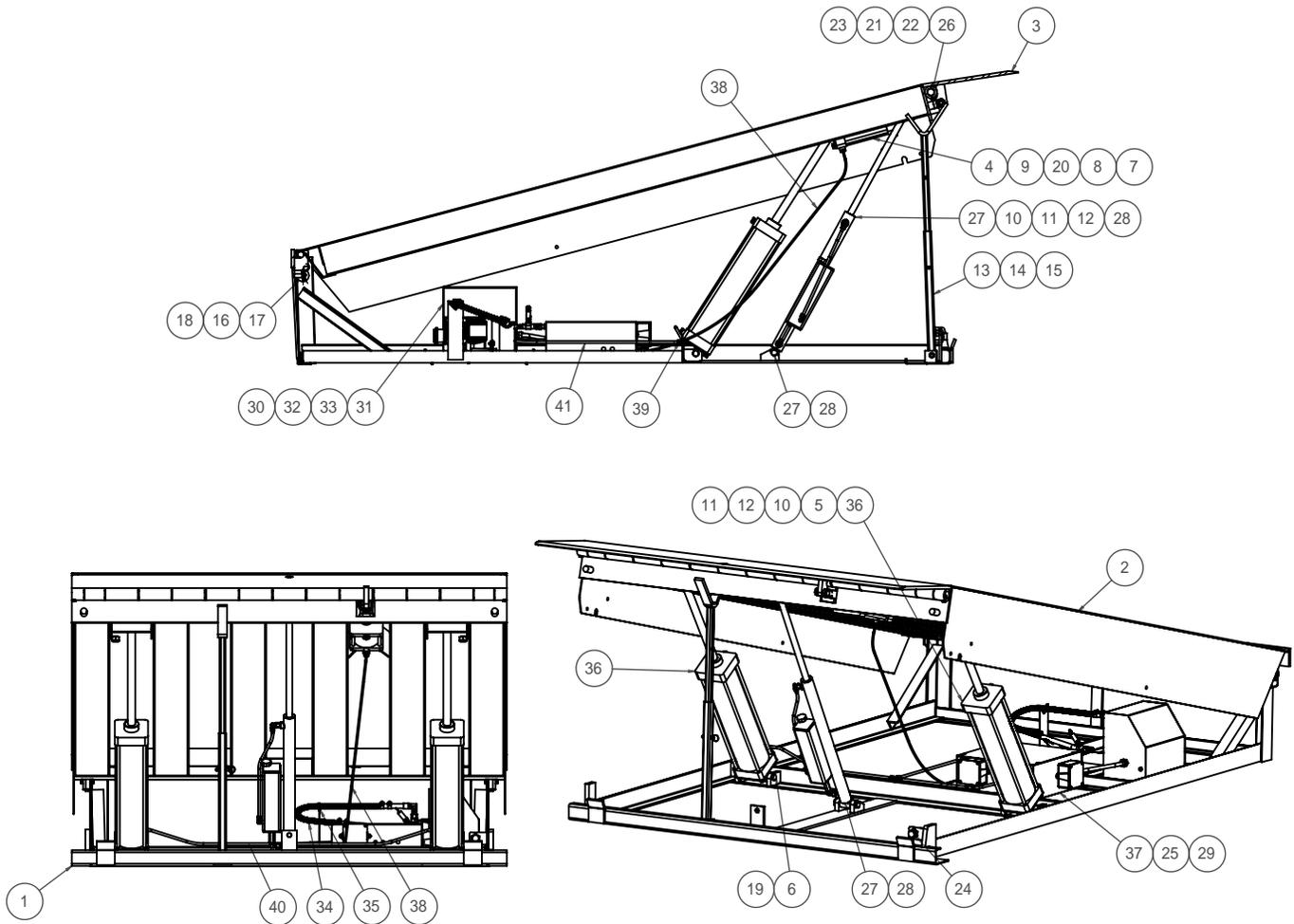
Item No.	Qty.	Part No.	Description	Item No.	Qty.	Part No.	Description
1	1	26-011067	FRAME WELD 72"	22	2	012-200	REGULAR SPRING LOCK WASHERS
2	1	26-003947	DECK WELD	23	1	028-199	SENSOR XS2 30BLPAL2-TELEMEC
3	1	26-003950-1	LIP WELD 72" WIDE	24	4	011-545	NYLON INSERT LOCKNUTS 3/8"-20
4	1	23-003569	PIN	25	1	109-699	SHAFT
5	1	26-004729	CLEVIS PIN	26	1	26-009097	FALL-SAFE ASSEMBLY
6	1	112-740	CLEVIS PIN	27	2	013-127	3/16 DIA. SPRING PIN X 1.50
7	1	011-530	3/4" HEX JAM NUTS	28	2	012-210	WASHER 1/4" FLAT
8	1	107-196	CLEVIS PIN	29	4	26-005773	VIBRATION DAMPING MOUNT
9	4	113-096	PIVOT BLOCK TOP PLATE	30	1	26-009173	COMPRESSOR ASSEMBLY
10	8	010-077	CAP SCREW 3/8-16 X 1-1/4 HH	31	4	012-202	REGULAR SPRING LOCK WASHERS
11	8	012-201	LOCK WASHERS 3/8" HELICAL	32	4	011-506	NUTS HEX 3/8"-20 PLTD
12	1	200-5001	SAFETY STRUT ASSEMBLY	33	1	26-009638	COOLER ASSEMBLY
13	1	010-027	HHCS 1/2-13 UNC X 2 1/2	34	1	26-009160	EDGE GUARD
14	1	011-554	NYLON INSERT LOCKNUTS 1/2-13 (US)	35	1	26-007671	DECK CYLINDER
15	2	26-005610	PIN (FIXED REAR HINGE)	36	1	091-955-0450	3/8" OD TUBE, 45" L
16	4	012-214	FLAT WASHERS (U.S.) 3/4"	37	1	26-009981-1	VALVE ENCLOSURE
17	4	013-029	HAIRPIN COTTER	38	1	26-007672	LIP CYLINDER
18	1	013-622	5/16 DIA. SPRING PIN 1.0 LG	39	1	091-954-0450	1/4" TUBE
19	1	013-090	1/4 DIA. SPRING PIN 1.5 LG				
20	2	011-502	HEX NUTS (U.S.)				
21	2	010-006	CAP SCREW 5/16-18 X 1 HH GR. 5 ZC				

12B. GENERAL DOCK ASSEMBLY COMPONENTS- 8' DOCKS



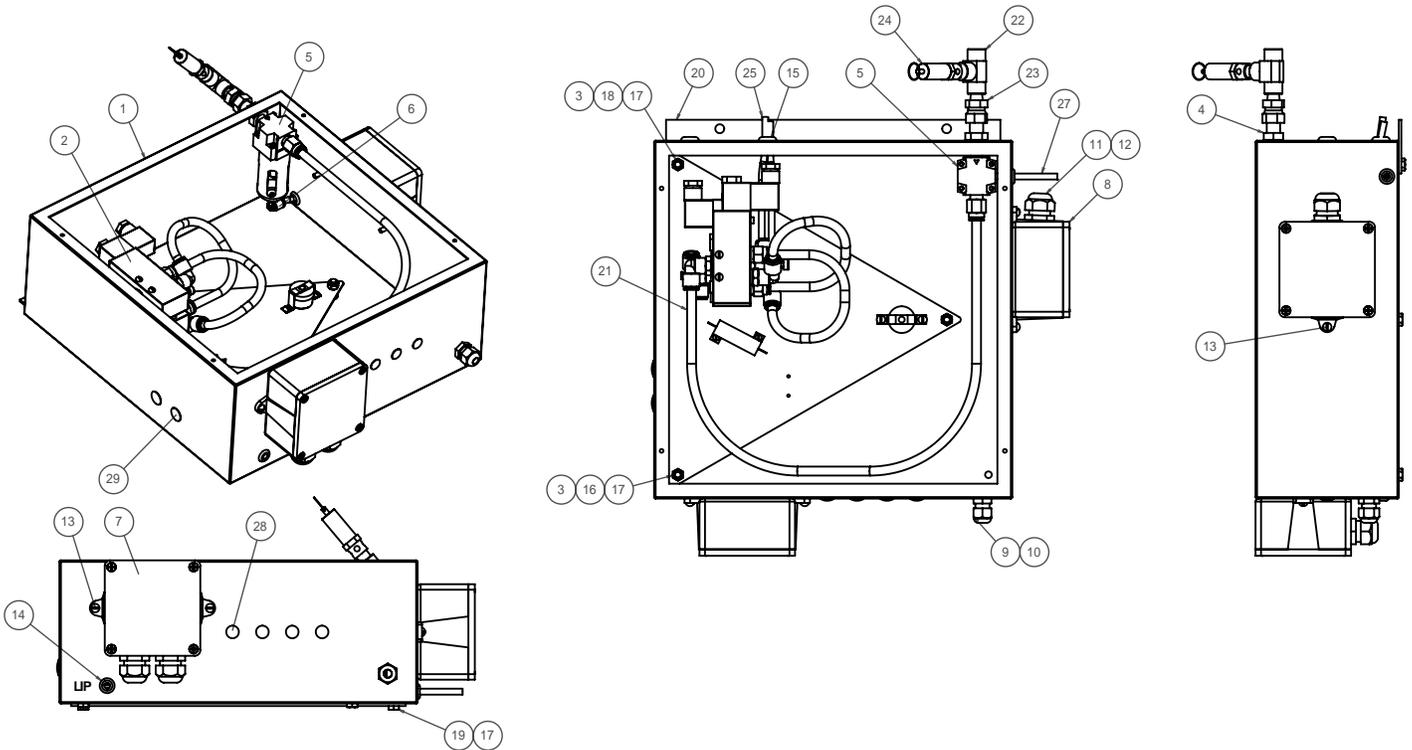
Item No.	Qty.	Part No.	Description	Item No.	Qty.	Part No.	Description
1	1	26-011070	FRAME WELD 72"	21	2	011-502	HEX NUTS (U.S.)
2	1	26-005761	DECK WELD	22	2	010-006	CAP SCREW 5/16-18 X 1 HH GR. 5 ZC
3	1	26-003950-1	LIP WELD 72" WIDE	23	2	012-200	REGULAR SPRING LOCK WASHERS
4	1	26-007672	LIP CYLINDER	24	1	028-199	SENSOR XS2 30BLPAL2-TELEMEC
5	1	23-003569	PIN	25	4	011-545	NYLON INSERT LOCKNUTS 1/4"-20
6	1	26-004729	CLEVIS PIN	26	1	109-699	SHAFT
7	1	112-740	CLEVIS PIN	27	1	26-009097	FALL-SAFE ASSEMBLY
8	1	011-530	3/4" HEX JAM NUTS	28	2	013-127	3/16 DIA. SPRING PIN X 1.50
9	1	107-196	CLEVIS PIN	29	2	012-210	WASHER 1/2" FLAT
10	4	113-096	PIVOT BLOCK TOP PLATE	30	4	26-005773	VIBRATION DAMPING MOUNT
11	8	010-077	CAP SCREW 3/8-16 X 1-1/4 HH	31	1	26-009173	COMPRESSOR ASSEMBLY
12	8	012-201	LOCK WASHERS 3/8' HELICAL	32	4	012-202	REGULAR SPRING LOCK WASHERS
13	1	200-5001	SAFETY STRUT ASSEMBLY	33	4	011-506	NUTS HEX 1/4-20 PLTD
14	1	010-027	HHCS 1/2-13 UNC X 2 1/2	34	1	26-009638	COOLER ASSEMBLY
15	1	011-554	NYLON INSERT LOCKNUTS 1/2-13 (US)	35	1	26-009160	EDGE GUARD
16	2	26-005610	PIN (FIXED REAR HINGE)	36	1	26-008673	CYLINDER ASS'Y (125MM BORE)
17	4	012-214	FLAT WASHERS (U.S.) 3/4"	37	1	26-009981-1	VALVE ENCLOSURE
18	4	013-029	HAIRPIN COTTER	38	1	091-954-0450	3/8" TUBE
19	1	013-622	5/16 DIA. SPRING PIN 1.0 LG	39	1	091-955-0450	3/8" OD TUBE, 45" L
20	1	013-090	1/4 DIA. SPRING PIN 1.5 LG				

12C. GENERAL DOCK ASSEMBLY COMPONENTS- 10' DOCKS

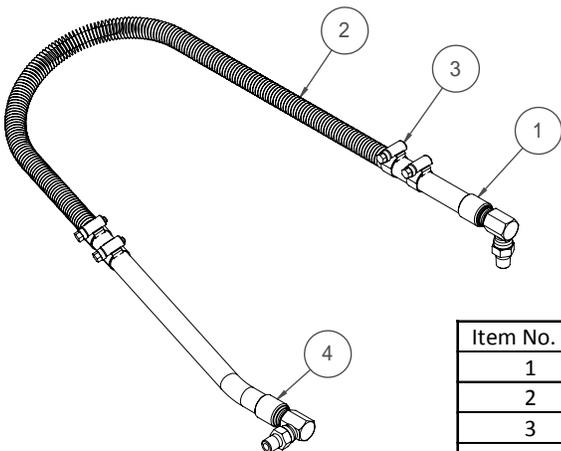


Item No.	Qty.	Part No.	Description	Item No.	Qty.	Part No.	Description
1	1	26-011074	FRAME WELD 72"	22	2	010-006	CAP SCREW 5/16-18 X 1 HH GR. 5 ZC
2	1	26-005805	DECK WELD	23	2	012-200	REGULAR SPRING LOCK WASHERS
3	1	26-003950	LIP WELD 72" WIDE	24	1	028-199	SENSOR XS2 30BLPAL2-TELEMEC
4	1	26-007672	LIP CYLINDER	25	2	011-545	NYLON INSERT LOCKNUTS ¼"-20
5	1	23-003569	PIN	26	1	109-699	SHAFT
6	1	26-004729	CLEVIS PIN	27	1	26-009934	FALL-SAFE ASSEMBLY
7	1	112-740	CLEVIS PIN	28	2	013-127	3/16 DIA. SPRING PIN X 1.50
8	1	011-530	¾" HEX JAM NUTS	29	2	012-210	WASHER ¼" FLAT
9	1	107-196	CLEVIS PIN	30	4	26-005773	VIBRATION DAMPING MOUNT
10	6	113-096	PIVOT BLOCK TOP PLATE	31	1	26-009173	COMPRESSOR ASSEMBLY
11	12	010-077	CAP SCREW 3/8-16 X 1-1/4 HH	32	4	012-202	REGULAR SPRING LOCK WASHERS
12	8	012-201	LOCK WASHERS 3/8' HELICAL	33	4	011-506	NUTS HEX ¼"-20 PLTD
13	1	200-5001	SAFETY STRUT ASSEMBLY	34	1	26-009638-1	COOLER ASSEMBLY
14	1	010-027	HHCS ½-13 UNC X 2 1/2	35	1	26-009160	EDGE GUARD
15	1	011-554	NYLON INSERT LOCKNUTS ½-13 (US)	36	1	26-008673	CYLINDER ASS'Y (125MM BORE)
16	2	26-005610	PIN (FIXED REAR HINGE)	37	1	26-009981-1	VALVE ENCLOSURE
17	4	012-214	FLAT WASHERS (U.S.) ¼"	38	1	091-954-0450	¼" TUBE
18	4	013-029	HAIRPIN COTTER	39	1	26-009929	UNION TEE
19	2	013-622	5/16 DIA. SPRING PIN 1.0 LG	40	2	091-955-0270	3/8" TUBE, 27" L
20	1	013-090	¼ DIA. SPRING PIN 1.5 LG	41	1	091-955-0450	3/8" OD TUBE, 42" L
21	2	011-502	HEX NUTS (U.S.)				

13. AIR CYLINDER MOTOR ASSEMBLY

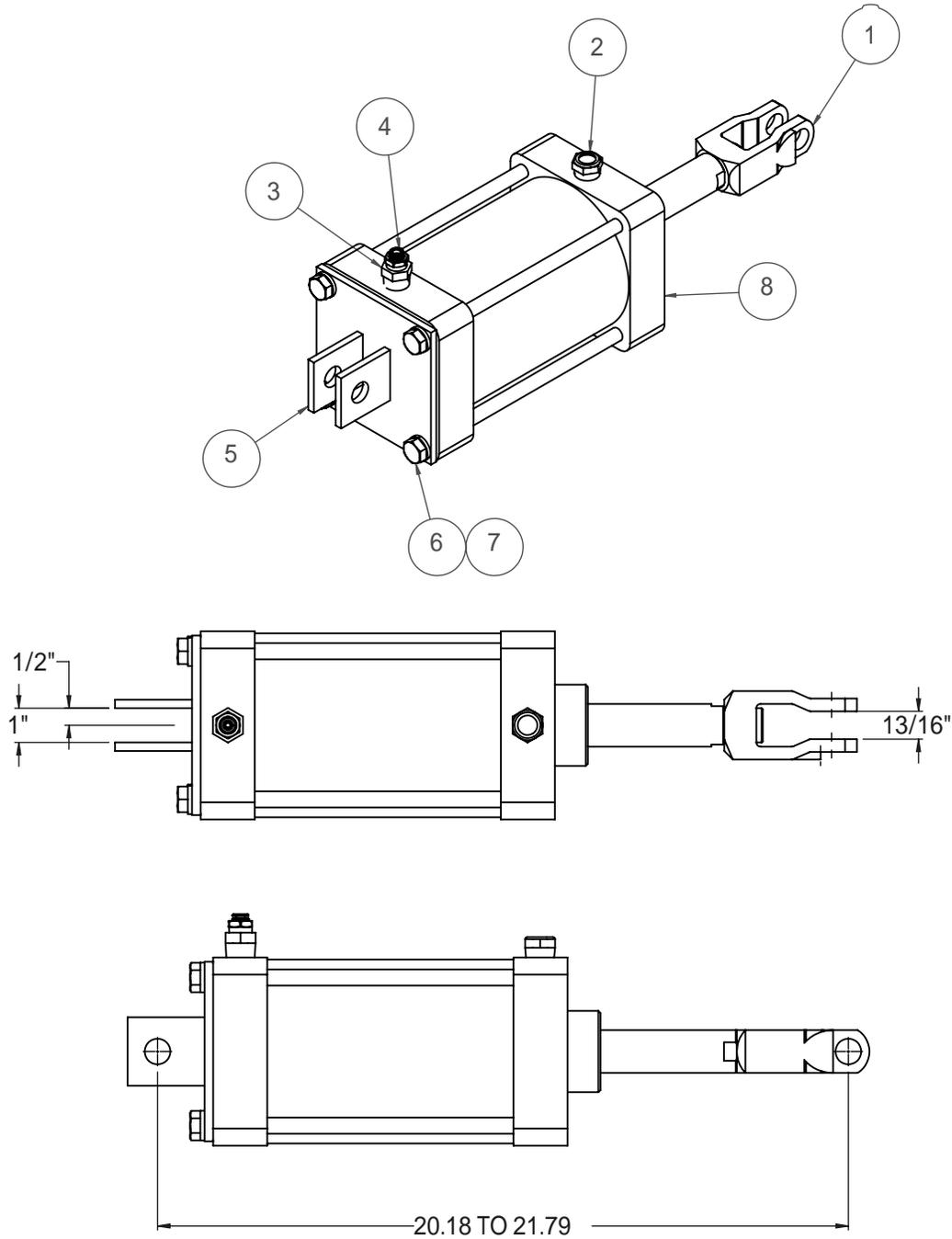


Item No.	Qty.	Part No.	Description	Item No.	Qty.	Part No.	Description
1	1	26-009937	MASTER ENCLOSURE BOX	16	2	010-001	CAP SCREW ¼-20 X 1 HH
2	1	009980-1	VALVES ASSEMBLY	17	4	011-545	NYLON INSERT LOCKNUTS ¼"-20 (U.S.)
3	3	26-008427	NYLON SPACER	18	1	010-154	CAP SCREW ¼ X 20 X 1-1/4 HH (FULL THREAD)
4	1	034-650	BULKHEAD #4NPT-6 JIC	19	1	010-072	CAP SCREW ¼-20 X ½ HH
5	1	26-006178	AIR FILTER	20	1	26-008672-1	MTG PLATE (MASTER)
6	1	26-010356	MALE ELBOW CONNECTOR	21	1	26-010358	3/8" TUBE X 27" L
7	1	025-G020-M	JUNCTION BOX 4X4	22	1	034-794	FEMALE TEE ¼ NPT
8	1	025-G020-1G	JUNCTION BOX 4X4	23	1	034-795	FEMALE JIC TO MALE NPT
9	1	025-173	PG69 CABLE GLAND	24	1	26-006219	POP SAFETY VALVE
10	1	025-176	PG69 METAL LOCKNUT	25	2	091-965-0060	¼" TUBE
11	3	025-174	PG16 CABLE GLAND	26	1	26-005730	CONNECTOR FITTING
12	3	025-177	PGMETAL LOCKNUT	27	1	091-965-0060	¼" TUBE
13	4	011-011	ROUND HEAD SLOTTED SCREWS	28	4	037-094	LOCKING HOLE PLUG
14	2	037-091	RUBBER GROMMET	29	2	037-098	LOCKING HOLE PLUG
15	2	037-092	RUBBER GROMMET				



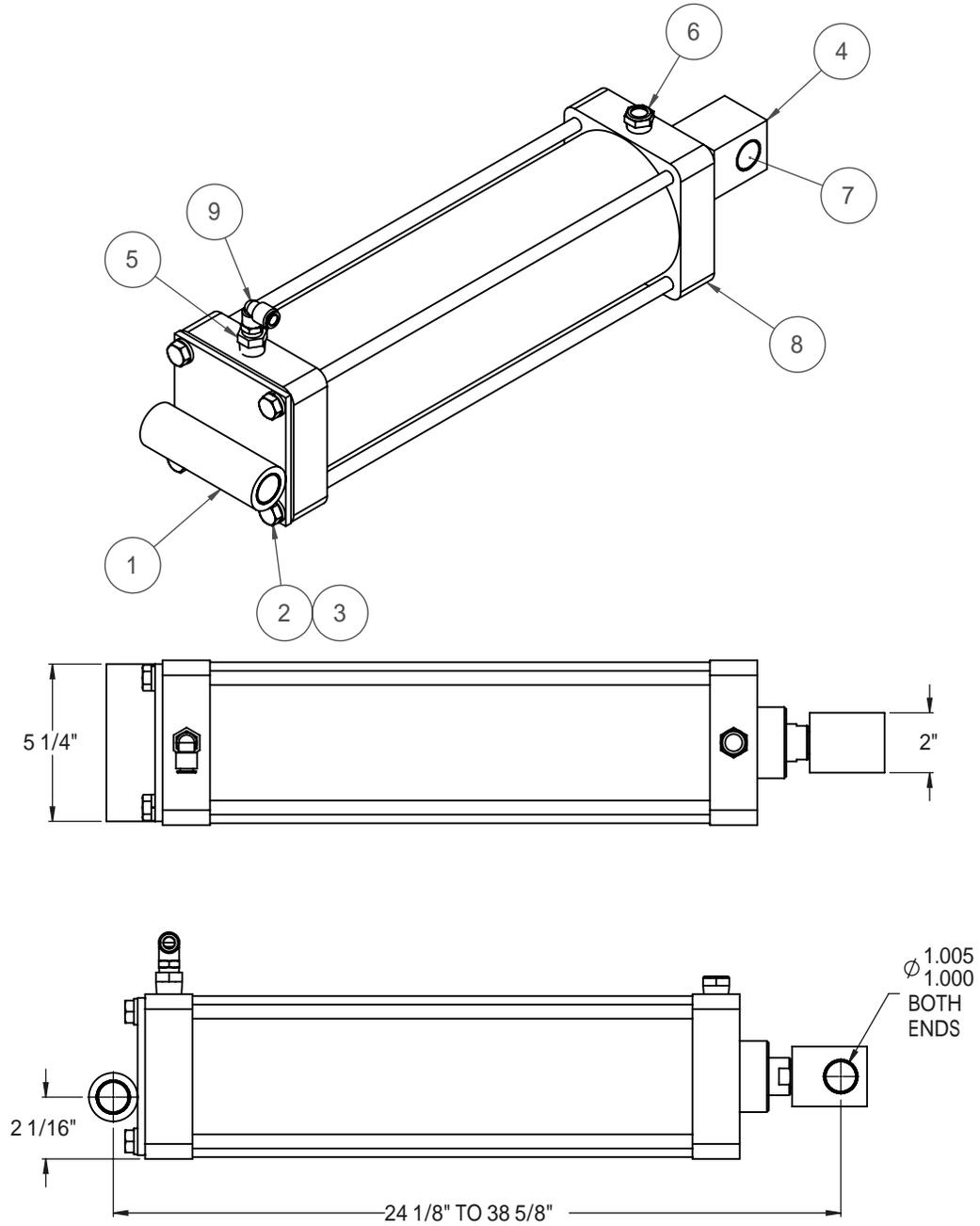
Item No.	Qty.	Part No.	Description
1	1	26-009367	HOSE ASSEMBLY #1
2	1	26-009157	FIN TUBE
3	4	035-310	HOSE CLAMP ½" - 1 ¼"
4	1	26-009637-3	HOSE ASSEMBLY #3

14. LIP CYLINDER ASSEMBLY



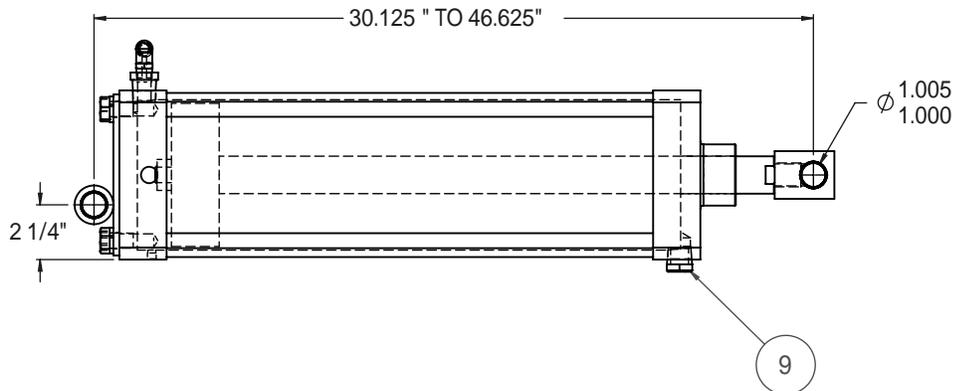
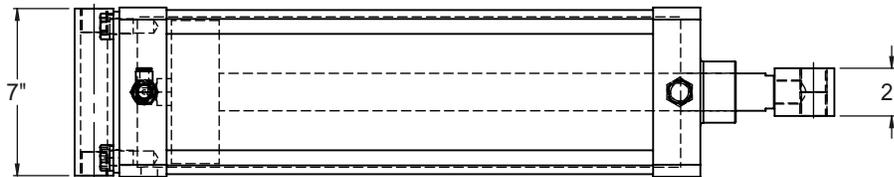
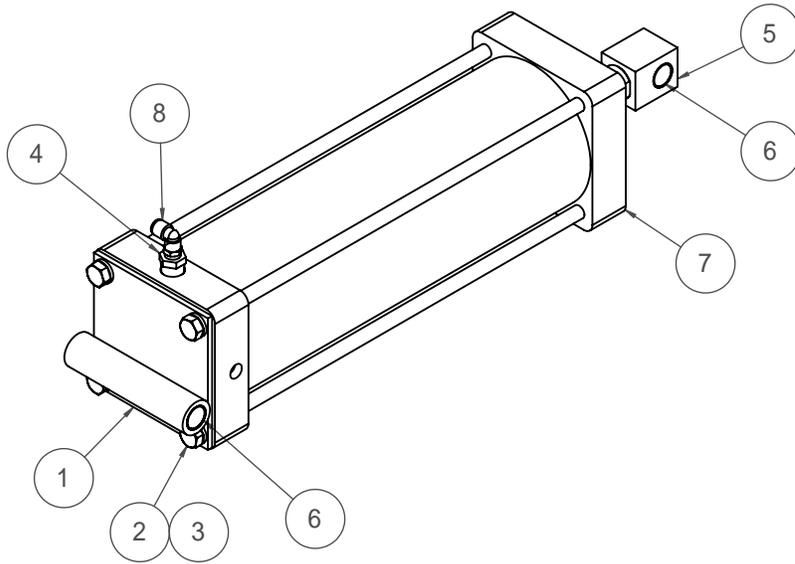
Item No.	Qty.	Part No.	Description
1	1	114-663	CLEVIS
2	1	26-005734	MUFFLER 1/2" NPT
3	1	034-509	REDUCER
4	1	26-007667	MALE CONNECTOR
5	1	26-003945-2	CLEVIS WELDMENT
6	4	010-227	H.H.C.S. 12MM X 20MM
7	4	012-220	REGULAR SPRING LOCK WASHERS
8	1	26-007672-1	LIP CYLINDER

15. DECK CYLINDER ASSEMBLY- 6' and 7' DOCKS



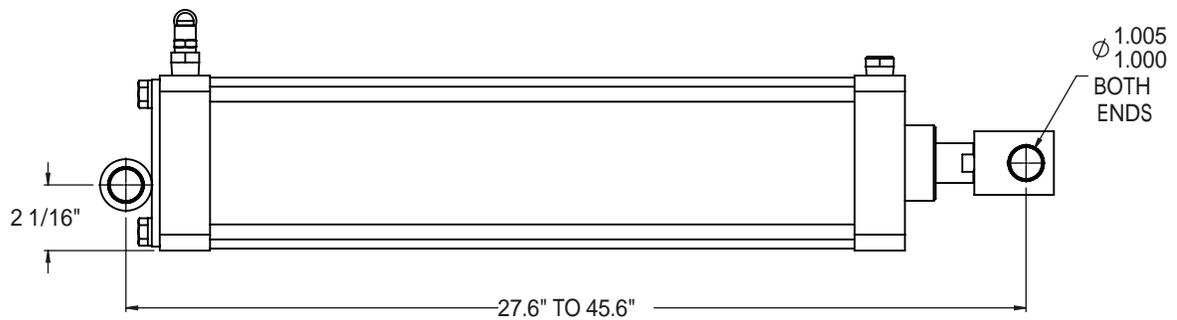
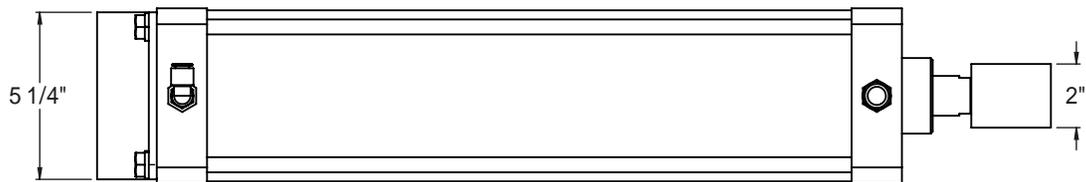
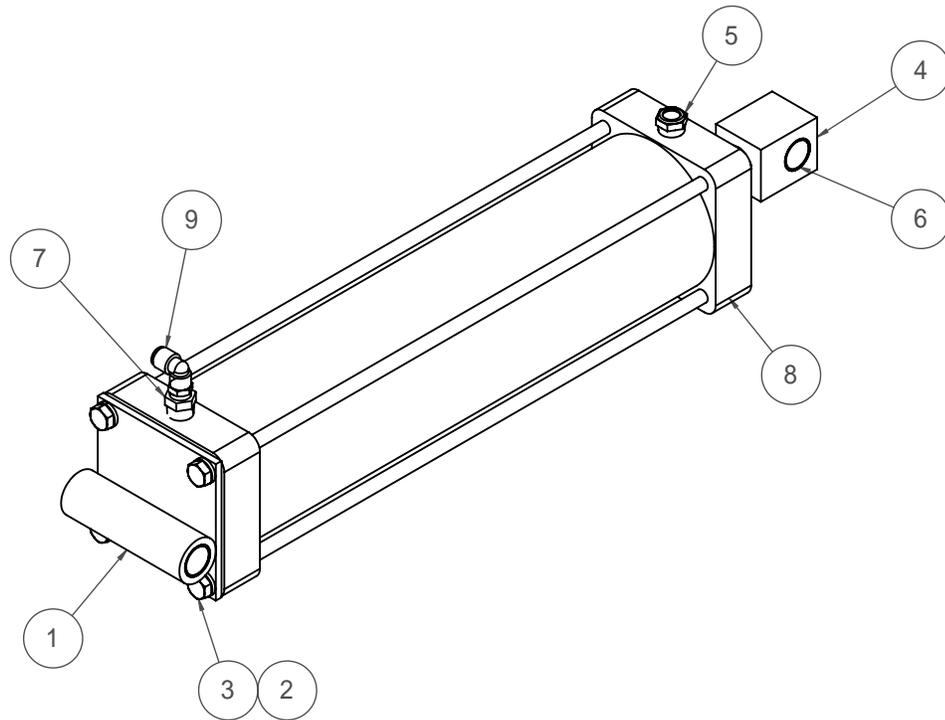
Item No.	Qty.	Part No.	Description
1	1	26-005847-1	REAR CLEVIS WELDMENT
2	4	010-227	H.H.C.S. 12MM X 20MM
3	4	012-220	REGULAR SPRING LOCK WASHERS
4	1	26-003956	ROD END CLEVIS
5	1	034-509	REDUCER
6	1	26-005734	MUFFLER 1/2" NPT
7	4	018-017	BUSHING
8	1	26-007671-1	DECK CYLINDER
9	1	26-008704	MALE ELBOW CONNECTOR

16. DECK CYLINDER ASSEMBLY- 8' DOCKS



Item No.	Qty.	Part No.	Description
1	1	26-005847-6	REAR CLEVIS WELDMENT
2	4	010-230	HEX HEAD CAP SCREWS
3	4	012-221	REGULAR SPRING LOCK WASHERS
4	1	034-778	REDUCER
5	1	26-003956-2	ROD END CLEVIS
6	4	018-017	BUSHING
7	1	26-008674-1	DECK CYLINDER
8	1	26-008704	MALE ELBOW CONNECTOR
9	1	26-009645	MUFFLER 3/4" NPT

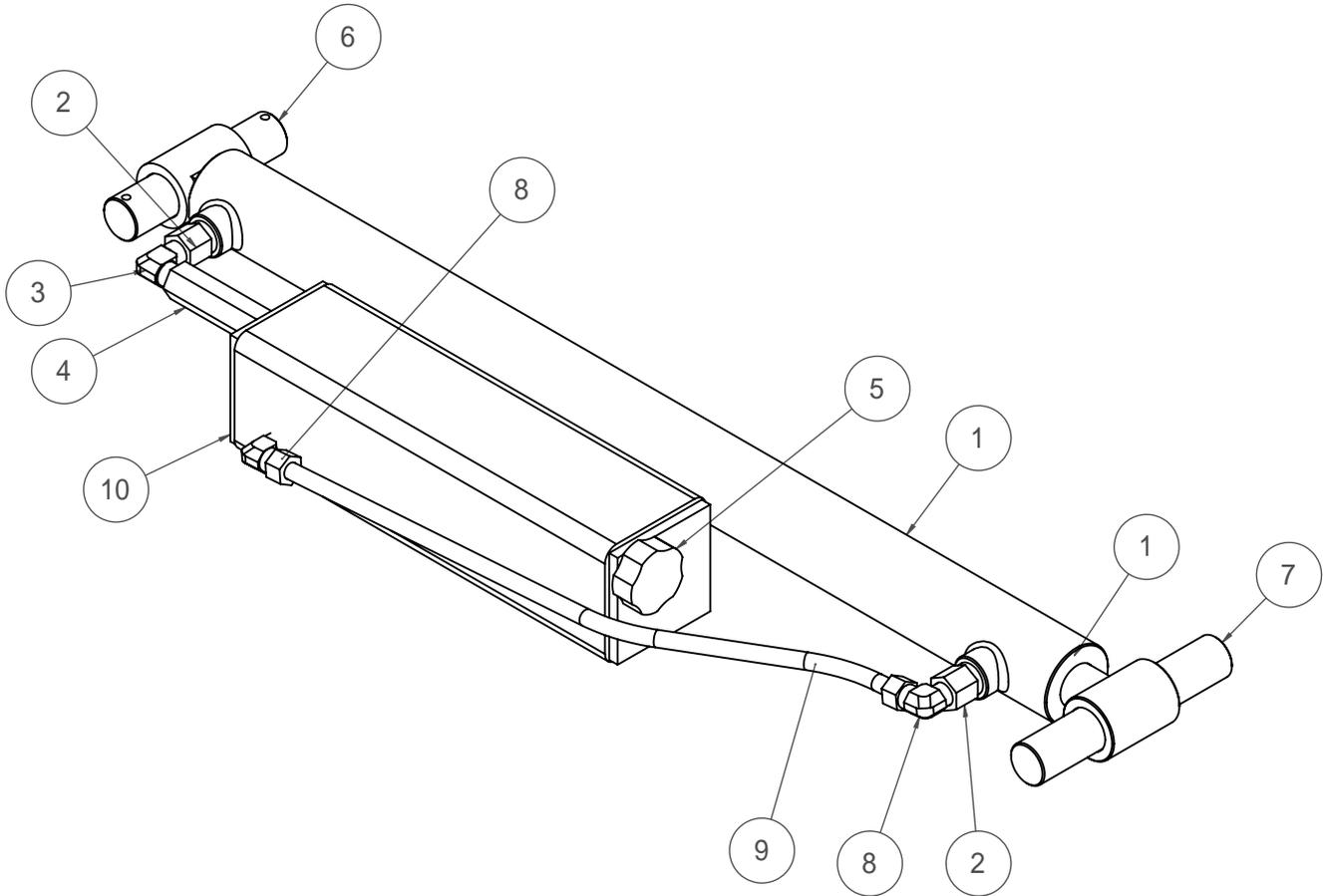
17. DECK CYLINDER ASSEMBLY- 10' DOCKS



Item No.	Qty.	Part No.	Description
1	1	26-005847-1	REAR CLEVIS WELDMENT
2	4	012-220	REGULAR SPRING LOCK WASHERS
3	4	010-227	H.H.C.S. 12MM X 20MM
4	1	26-003956	ROD END CLEVIS
5	1	26-005734	MUFFLER 1/2" NPT
6	4	018-017	BUSHING
7	1	034-778	REDUCER
8	1	26-008673-1	CYLINDER ASSY 9125MM BORE)
9	1	26-008704	MALE ELBOW CONNECTOR

18.

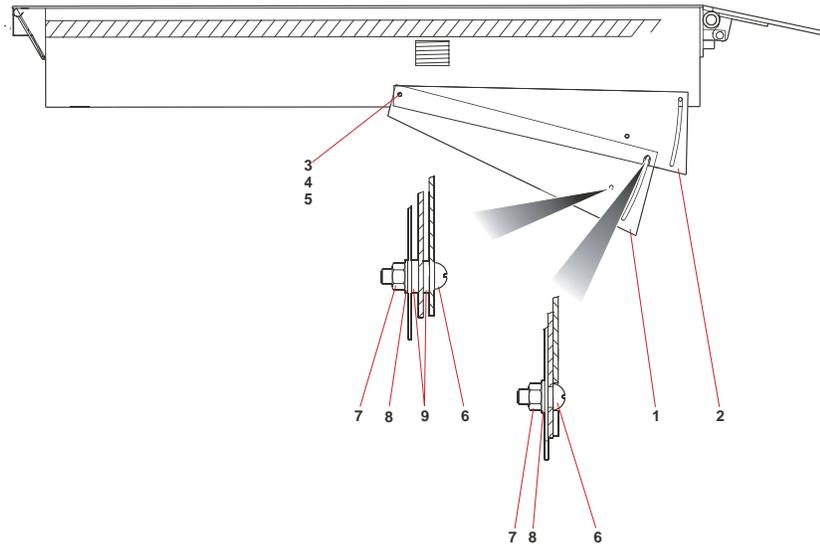
FALL-SAFE ASSEMBLY



Item No.	Qty.	Part No.	Description
1	1	26-008709	CYLINDER ASSEMBLY
2	2	034-580	3/8 MALE ORING TO FEMALE PIPE
3	1	034-515	FITTING
4	1	034-793	VELOCITY FUSE
5	1	035-231	CAP
6	1	28-008964	PIN
7	1	23-003569	PIN
8	2	034-674	FITTING
9	1	26-010153	TUBE
10	1	26-009935	FALL-SAFE RESERVOIR

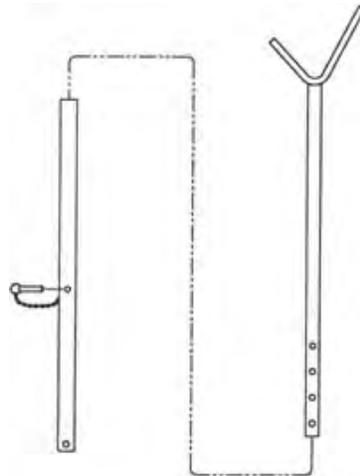
19.

SAFETY SIDE SKIRTS



SIDE SAFETY SKIRTS

ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
-----	-----	202-5024	Safety Skirt Package - 6' & 8' Long	6	4	011-135	Capscrew, Sckt Butn/Hd 5/16"-18x3/4
1	2	202-0036	Safety Skirt, Lower - 6' & 8' Long	7	4	011-543	Nut, Hex - 5/16"-18 Nylon Insert
2	2	202-5037	Middle Safety Skirt - 6' & 8' Long	8	4	012-211	Washer, Zinc 5/16" Bs Flat
3	2	010-039	Cap Screw, Hex Hd. - 3/8"-16x1"	9	4	012-312	Washer Nylon Fender 5/16"IDx 7/8"ODx1/16"TH
4	2	012-252	Washer, Flat -3/8"ID BS Washer	10	2GA	039-059	Paint, Safety Yellow
5	2	011-552	Nut, Hex 3/8"-16 Nylon Insert				



20. SAFETY STRUT ASSEMBLY

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	200-5001	Safety Strut Assembly

RECOMMENDED SPARE PARTS

* Complements for Fall Safe Cylinder*

Part #	Description	Qty Req'd
HARDWARE REQ'D: Qty: 1, Part # 26-008709 Pin & Qty: 1, Part # 23-003569 Pin	26-008709 CYLINDER ASS'Y 1 1/2" BORE X 22" STR.	1
	034-786-1 RESERVOIR (POLY)	1
HARDWARE REQ'D: Qty: 1, Part # 034-580 Adapter, Qty: 1, Part # 034-515 Fitting (90DG)	033-785 VALVE, FLOW CONTROL 2.75 GPM	1

* Complements for Air (Lip) Cylinder * All Model

Part #	Description	Qty Req'd
HARDWARE REQ'D: Qty: 1, Part # 011-511 Nut, Qty: 1, Part # 114-663 Clevis, Qty: 1, Part # 112-740 Clevis Pin (Rod End) & Qty: 1, Part # 011-530 Nut / Qty: 1, Part # 107-196 Pin & Qty: 1, Part # 013-090 Spring Pin	26-007672-1 LIP AIR CYLINDER (125MM BORE 5" STROKE)	1
	26-006147 PILOT CHECK VALVE	1
	26-005734 BREATHER VENT (MUFFLER)	1
HARDWARE REQ'D: QTY: X 2, Part # 011-850 Screws (U.S.) & QTY: X 2, Part # 012-223 Lock Washer	26-006150 VALVE ASSEMBLY, LIP	1
	26-005136 TUBE # 5 (45" L 1/4" OD)	1
	26-005137 TUBE # 6 (40" L 1/4" OD)	1

* Complements for Air (Main) Cylinder * All Model

Part #	Description	Qty Req'd
HARDWARE REQ'D: Qty: 1, Part # 011-511 Nut, Qty: 1, Part # 26-003956-1 Clevis, Qty: 2, Part # 018-017 Bushing, Qty: 1 Ea. Part # 23-003569 Rod End C. Pin & Part # 23-004729 Pin (Qty: 2, Part # 013-622 Spring Pin)	26-008673-1 DECK AIR CYLINDER (125MM BORE 18" STROKE)	1
HARDWARE REQ'D: QTY: X 4, Part # 010-077 Bolt & QTY: X 4, Part # 012-201 Lock Washer	113-096 CYLINDER PIVOT TOP PLATE	2
	26-006147 PILOT CHECK VALVE	1
	26-005734 BREATHER VENT (MUFFLER)	1
	26-006151 VALVE ASSEMBLY, DECK	1
	26-005961 TUBE # 3 (32" L 3/8" OD)	1
	26-005962 TUBE # 4 (30" L 3/8" OD)	1

* Complements for # 26-005850 Air Compressor Ass'Y * All Model

Part #	Description	Qty Req'd
HARDWARE REQ'D: Qty: X 1, Part # 011-506 Nut & QTY: X 2, Part # 012-210 Washer	26-005511 PUMP ASSEMBLY	1
	26-005773 VIBRATION DAMPING MOUNT	1
	26-006794 AIR COMPRESSOR FILTER	1
	26-005186 GROMMET	1

* Complements for Cooler Ass'Y * All Model

Part #	Description	Qty Req'd
	26-009638 COOLER ASSY; ACU DOCK	1
	26-006178 AIR FILTER AUTODRAIN	1
	26-006219 POP SAFETY VALVE	1
	26-005728 MALE BRANCH "Y"	1

21. RECOMMENDED SPARE PARTS- BLUE GENIUS GOLD SERIES I

Single Phase:

Part #	Description	Qty Req'd
026-PB1115-FH	POWER BOARD SUBASSY (1PH 115V 50-60HZ)	1
026-PB1230-FH	POWER BOARD SUBASSY (1PH 230V 50-60HZ)	1

Three Phase:

Part #	Description	Qty Req'd
026-PB3230-FH	POWER BOARD SUBASSY (3PH 230V 50-60HZ)	1
026-PB3400-FH	POWER BOARD SUBASSY (3PH 400V 50-60HZ)	1
026-PB3460-FH	POWER BOARD SUBASSY (3PH 460V 50-60HZ)	1
026-PB3575-FH	POWER BOARD SUBASSY (3PH 575V 50-60HZ)	1

Touch Boards: Screen (S/N Required)

Requires Software version (Must also purchase the cover & decal)

Part #	Description	Qty Req'd
026-G020	CONTROL/TOUCH BOARD/W LED&LCD MODULES	1
025-G014	TRANSPARENT COVER DOOR	1
	DECAL, PART NO. IS BASED ON S/N	1

Part #	Description	Qty Req'd
026-G025M	REMOTE I/O-A BOARD	1
026-G025-99	REMOTE I/O-B BOARD WITH DOOR CONTROL	1
026-G030	RIBBON CABLE, 16 WIRE /PIN /W CONNECTORS	1

Fuses: Time Delay

Part #	Description	Qty Req'd
026-G100	FUSE, 15A, 250V, TIME DELAY FOR 1PH, 110-130V	5
026-G101	FUSE, 8A, 250V, TIME DELAY FOR 1 PH,208-240V	5
026-G102	FUSE, 0.5A, 208-240V, TIME DELAY FOR 1&3PH	5
026-G103	FUSE, .25A, 250V, TIME DELAY FOR 1PH,208-240V	5
026-G104	FUSE,0.75A, 250V, 10-130V,TIME DELAY FOR 1PH	5
026-G105	FUSE, 500mA, 700V, FAST ACTING FOR 3 PH,380-415V	5
026-G106	FUSE, 400mA, 700V, FAST ACTING FOR 3PH,440-480V	5
026-G107	FUSE,315mA, 700V, FAST ACTING FOR 3PH,575-600V	5
026-G107	FUSE,315mA, 700V,	5

NOTES

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