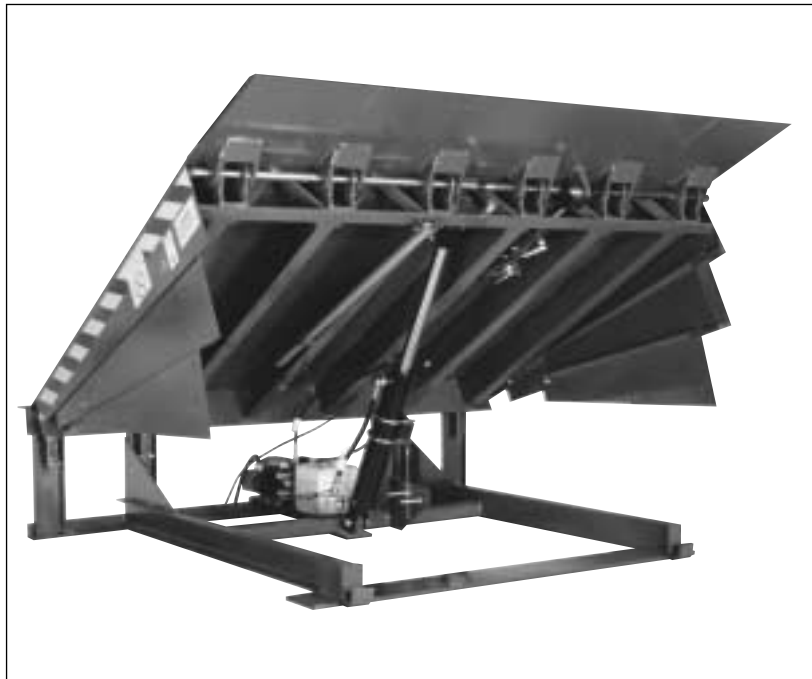


McGUIRE HTH Series

HYDRAULIC TRUSS
HEAD DOCK LEVELER



OWNER'S MANUAL & INSTALLATION GUIDE

IMPORTANT: Thoroughly read and understand entire contents of this manual prior to installation and/or operation of this equipment.

CAUTION: Be sure that installation and maintenance are performed by authorized personnel.

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INTRODUCTION

Do not install, operate or service this W.B. McGuire Hydraulic Truss Head (HTH) Series Hydraulic Dock Leveler until you have read and understand the entire contents of this manual.

Congratulations! You have purchased one of the industry's finest hydraulically operated and safety oriented dock levelers, the HTH Series from W.B. McGuire Company. When properly installed, serviced and operated, this leveler can offer substantially improved dock safety conditions. The HTH Series is the result of the efforts of many skilled workers and its design, manufacture, safety aspects and full hydraulic operation are regarded with pride by the W.B. McGuire Co.

The HTH Series by W.B. McGuire is a different concept in dock safety equipment, designed to provide a safer work place for personnel involved at shipping and receiving dock areas. All safety considerations should be observed by all those who install, operate and service this equipment. Even well-built products can be installed, operated and/or serviced in a less than safe manner. Read this manual completely through to understand all installation, operation and maintenance instructions and functions before attempting to install, operate or service this hydraulic dock leveler. Pay special attention to all warnings and/or caution statements.

Important Note: W.B. McGuire recommends the use of minimum 4" -thick bumpers with this equipment.

Contact your authorized McGuire distributor (or a Technical Support Representative at 1-800-624-8473) for the answer to any questions.

DEFINITION AND FUNCTION

The W.B. McGuire Hydraulic Truss Head (HTH) Series dock leveler has a patented truss head bridge style construction, transfers weight at the front hinge along entire header and back into the deck rather than concentrated on any one area. It's function is to distribute and carry gross weight loads in a full spread manner rather than concentrated on one or two smaller areas thus increasing leveler life span and durability. A velocity fuse in the hydraulics system locks all motion of the platform, within 1" to 3" if a truck prematurely departs with a load on the platform. Other safety features include full-range toe guards that are safety marked, a built-in service leg support and an automatic night lock feature to aid in the prevention of possible building break-in attempts at the dock.

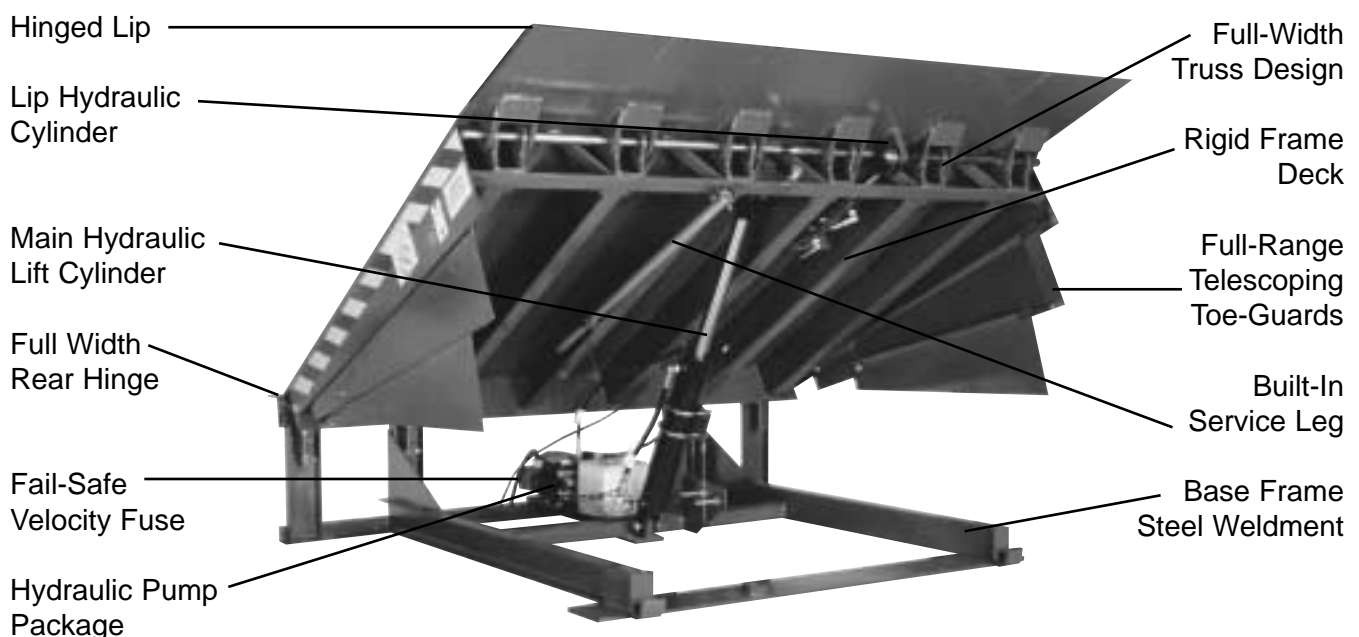
The leveler is push button operated from a wall mount control panel and is fully electro-hydraulic operated. A selector switch on the control panel allows automatic lip positioning for a below-dock, end-load cycle. The automatic return-to-dock feature (if equipped) ensures safe cross-traffic positioning at the end of a loading cycle.

The unit is powered by a 1 HIP single or 3 phase electric motor with manifold block and a reservoir that is directly coupled to the motor via the manifold block. The main lift cylinder raises and lowers the platform. The lip cylinder extends, supports and retracts the lip. Flexible hosing connects both cylinders to the power unit.

Electrical leads from motor/pump and integral control switches are factory wired, ready to hook to leads in the junction box at the rear of the pit. The control panel is factory wired to work in conjunction with the motor/pump.

Important Note: Connections between terminals in the control panel and the pit junction box are not furnished by W.B. McGuire. This must be done prior to installation of the HTH series hydraulic leveler. Connections between terminals in the control panel and the main power line are also not furnished by W.B. McGuire.

COMPONENT IDENTIFICATION



SAFETY PRACTICES



WARNING: Read and understand all safety practices and operating instructions before installing, operating or servicing the dock leveler. Failure to follow the safety practices may result in property damage, serious bodily injury or death.

It you do not understand the safety practices or the instructions, ask your supervisor to explain the safety practices and/or teach you how to use the dock leveler.



CAUTION: The installer and/or operator MUST be very familiar with the operation, function and various parts of the W.B. McGuire HTH series hydraulic leveler PRIOR to installation and/or operation. If this is not the case, it is IMPERATIVE that the installer and/or operator read, and fully understand, the entire contents of this manual. **Be certain to read and understand all warning and caution statements contained in this manual prior to any installation, operation or servicing of this unit.**

1. Do not operate this equipment while under the influence of drugs or alcohol.
2. Do not stand in the driveway between the dock leveler and a truck backing or pulling away.
3. Be sure the truck wheels are chocked, or the truck is held in place by a restraining device, before attempting to load or unload the truck.
4. Do not use the dock leveler if it looks broken or does not seem to work right. Tell your supervisor immediately.
5. Do not operate the leveler with equipment, material or people on the platform and/or lip or in front of the leveler.
6. Be certain that equipment, material or people are not on the dock leveler before allowing a truck to pull out.
7. Keep clear of the dock leveler when it is moving. Never place your hands, arms, feet or legs in a position where a moving dock leveler or a moving load could cause injury. **If in doubt, do not do it !**
8. Do not attempt to manually lift the dock leveler platform or lip, with personnel or other equipment. If the dock leveler is not working properly using the operation instructions in this manual, **do not use the dock leveler.** Contact your authorized W.B. McGuire representative.
9. Check to be sure the dock leveler automatic return to dock level feature (if equipped) has returned the dock leveler to its level, stored position after loading or unloading is completed and the truck has pulled away.
10. Never attempt to work under the dock leveler, for service or repair, without proper placement of the attached service leg or other safety bracing.
11. If power disconnect is provided, by others, place in the OFF position and tag control panel OUT OF SERVICE prior to doing any work under the dock leveler. If no power disconnect is provided, a second person should be stationed by the control panel to insure no unauthorized use.
12. Damage to the dock leveler, personal injury or death can result from abuse and/or negligent use of this equipment.
13. If you have any questions, or if a malfunction occurs which is not understood, ask your supervisor to contact your authorized W.B. McGuire representative for assistance PRIOR to attempting any corrective measures.

INSTALLATION INSTRUCTIONS



CAUTION: Installation to be performed by authorized, experienced installation personnel ONLY.



WARNING: Always Use Safe Work Habits. Read and understand entire contents of this manual, paying particular attention to all warning, caution and important statements before attempting to install or operate this dock leveler. Always support the dock leveler using the attached service leg, or other safe support means, before attempting to work under the leveler. Failure to observe these and other safe work habits may result in property damage, personal injury or death.

Equipment Check

1. Check the dock leveler for any possible damage that may have occurred in transit. If any damage, contact your supervisor for proper handling. **DO NOT INSTALL A DAMAGED DOCK LEVELER.**
NOTE: Make sure the dock leveler control panel and dock bumpers are present.

Pit Check

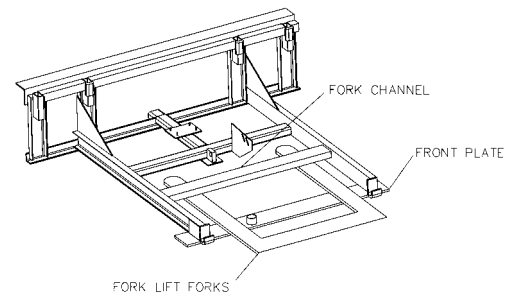
1. Check the pit for proper construction. Clean out any debris. Check the pit walls to be sure they are square and plumb.
2. Measure the pit dimensions per certified pit drawings or from the pit dimensions on page 6. Any parts of the pit that do not conform should be changed before the dock leveler is installed.

Control Panel

1. Install the control panel at this point. W.B. McGuire recommends either a wall mount or on a stand, by others.
2. A certified electrician can now connect the control panel to the main power lead in and pull the proper leads, from wiring diagram, through conduit and into junction box at rear of pit. Check proper wiring diagrams in this manual for proper connection.
NOTE: Factory recommendation is for motor leads to extend from junction box for temporary power source.

Installation of Leveler and Bumpers

1. Move the leveler into the pit using a fork truck. Insert the forks at the front of the leveler over the front flat and under the fork channel. See diagram. Position the dock leveler so that the rear of the frame is approximately 36" from the rear of the pit.
2. A certified electrician can now connect the temporary extended motor leads from the junction box to leads in rubber covered cable from the dock leveler motor. See Proper wiring diagram.
3. Leaving the rear of the leveler approximately 36" from the rear of the pit, back the fork truck out approximately 24" but maintain forks in fork slots.
4. At this point the wiring and operation of the dock leveler can be checked. See operating instructions on page 11.
NOTE: On three (3) phase current, check for proper motor rotation per appropriate wiring diagram. If leveler does not raise when pump is energized the rotation is wrong, Correct by reversing two power leads to motor.
5. Once proper operation is obtained, the leveler can now be moved to within approximately 12" from the rear of the pit. A certified electrician can now complete the permanent wiring of the dock leveler, per the appropriate wiring diagram, and close the junction box.
6. Position the dock leveler to allow 1" clearance between each side of leveler and pit side walls. Put leveler rear frame angle tight against the rear pit curb angle.



INSTALLATION INSTRUCTIONS (CONTINUED)

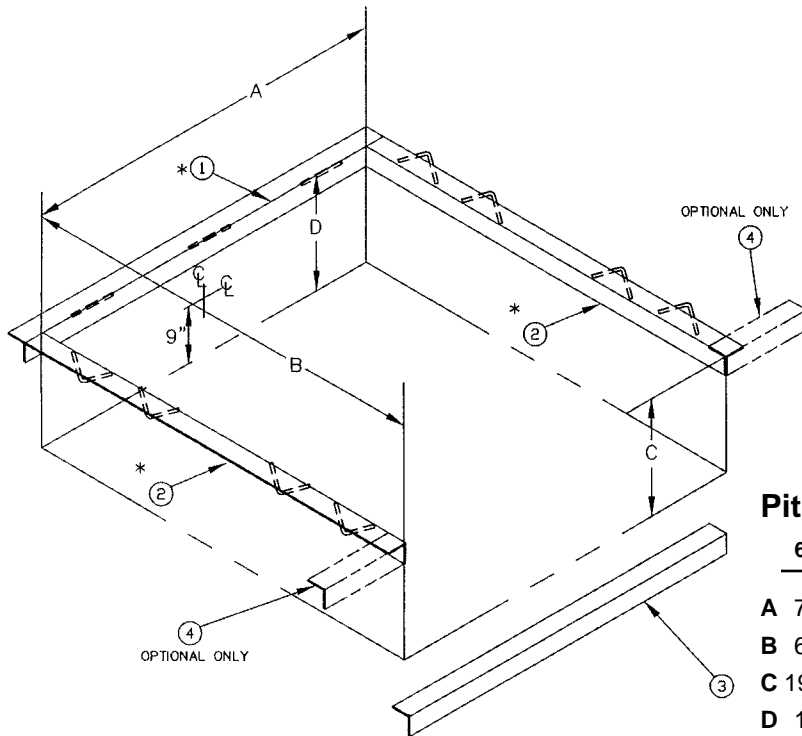
7. Installers can now tack weld the rear angle of the leveler to the rear curb angle of the pit at both sides.
8. Once tack weld at rear is complete the front of the leveler can be shimmed to the proper height, flush with the dock. See shim locations on page 7.
9. At this point the fork truck can be taken out of the way.
10. Operate the dock leveler, using the operate button on the control panel, raise it to its full up position and allow the lip to extend.
11. Use attached service leg, or other safe support means, to support leveler platform in the raised position. Refer to component identification section for placement.
12. Shim all remaining weight transfer points to the proper height. See shim locations on page 7. The leveler may have to be stored and checked for proper height. If not level with dock, add or remove shims as required.
13. Once leveler is shimmed to proper height and platform is again safely supported in the raised position, you can proceed to final weld of shims and of leveler to rear curb angle.
14. At each rear frame support weld shims together and weld them to the leveler base frame. At the main cylinder clevis weld shims together and weld to leveler base frame. At front curb angle, weld shims together and weld to leveler base frame and to the front curb angle of the pit.
15. Final weld the upper rear frame angle of the leveler to the rear curb angle of the pit. 6" weld on 12" centers or 8" weld on 16" centers is recommended. Weld pattern must start at outside edge each side and will vary by leveler width.
16. Spot paint the front curb angle shim weld area. Spot paint the rear curb angle weld area.
17. At this time check all hydraulic hoses for integrity and check all hydraulic fittings for tightness.
18. Operate leveler to store service leg and allow leveler to automatically return to stored, dock level position, if equipped.
19. Mount the bumpers to the dock face, locating the top of the bumpers flush with the top of the dock or a minimum of 48" above grade line of driveway.



CAUTION: If the dock line is lower than this dimension, adequate bracing behind the bumpers will be required to maintain the 48" dimension. If unsure contact the factory. Mount inside edge of bumper flush with pit side wall. See drawing on page 6.

20. Operate leveler through several complete cycles after installation to check for consistent operation. Check operation of below dock cycle. Check operation of independent lip feature and emergency stop feature if equipped. **IF ANY OF THE ABOVE CYCLES DO NOT WORK AS DESCRIBED UNDER DOCK LEVELER OPERATION, CONTACT A W.B. MCGUIRE TECHNICAL SUPPORT REPRESENTATIVE AT 1-800-624-8473.**
21. As a final step in the installation cycle get an official at the site to review the proper operation and installation of the dock leveler.

PIT DETAILS AND DIMENSIONS



NOTE: Junction box & conduit to control panel is by others. Recommended location is on centerline of pit and 9" from pit floor to centerline of box. Must be in place before pouring concrete. (By others).

Pit Dimensions

	6x6	6x8	6x10	6.5x6	6.5x8	6.5x10	7x6	7x8	7x10
A	74"	74"	74"	80"	80"	80"	85"	85"	85"
B	65"	89"	113"	65"	89"	113"	65"	89"	113"
C	19.5"	19.5"	19.5"	19.5"	19.5"	19.5"	19.5"	19.5"	19.5"
D	19"	19"	19"	19"	19"	19"	19"	19"	19"

STANDARD APPLICATIONS

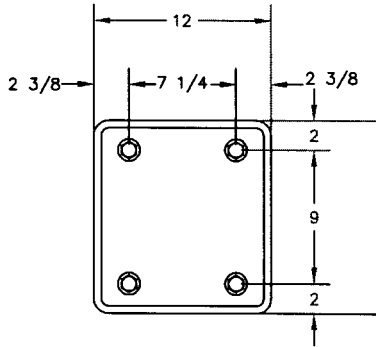
Item #	ASM #	Lgth.	6'X6'	6'X8'	6'X10'	6'6"X6'	6'6"X8'	6'6"X10'	7"X6'	7"X8'	7"X10'
			PIT SET 531-545	PIT SET 531-546	PIT SET 531-547	PIT SET 531-548	PIT SET 531-549	PIT SET 531-550	PIT SET 531-551	PIT SET 531-552	PIT SET 531-553
4	511-840	18"	STD	STD	STD	STD	STD	STD	STD	STD	STD
2	511-841	62"									
2	511-842	65"	2			2			2		
3	511-843	74"	1	1	1						
1	511-844	80"	1	1	1	1	1	1			
3	511-845	85"							1	1	1
2	511-846	86"				1	1	1			
2	511-847	89"		2			2			2	
1	511-848	91"							1	1	1
2	511-849	110"									
2	511-850	113"			2			2			2

FOR APPLICATIONS USING OPTIONAL FRONT 18" CURB ANGLE

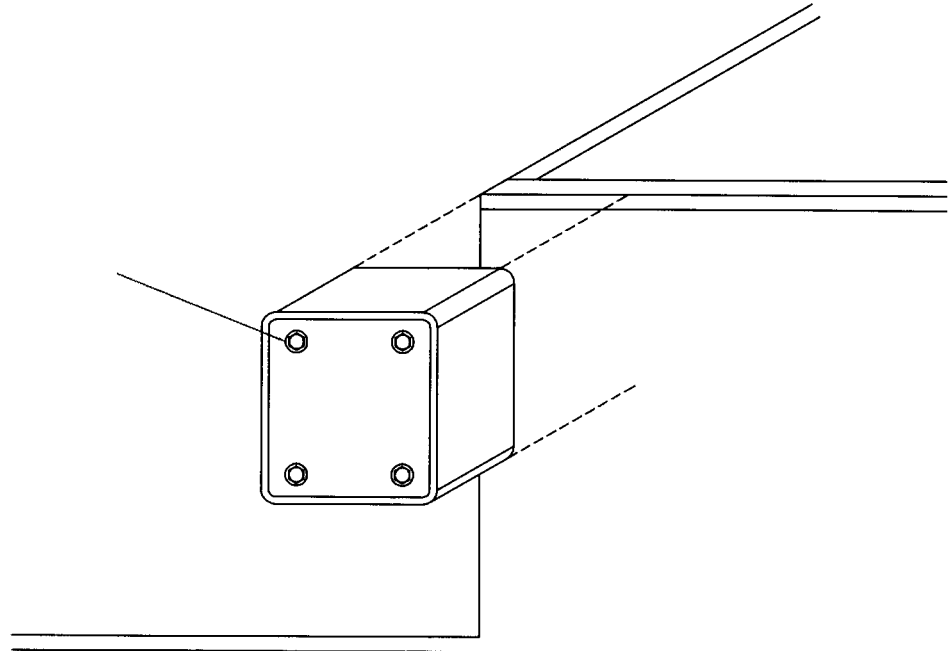
Item #	ASM #	Lgth.	6'X6'	6'X8'	6'X10'	6'6"X6'	6'6"X8'	6'6"X10'	7"X6'	7"X8'	7"X10'
			PIT SET 531-554	PIT SET 531-555	PIT SET 531-556	PIT SET 531-557	PIT SET 531-558	PIT SET 531-559	PIT SET 531-560	PIT SET 531-561	PIT SET 531-562
4	511-840	18"	2	2	2	2	2	2	2	2	2
2	511-841	62"	2			2			2		
2	511-842	65"									
3	511-843	74"	1	1	1						
1	511-844	80"	1	1	1	1	1	1			
3	511-845	85"							1	1	1
2	511-846	86"		2		1	3*	1		2	
2	511-847	89"									
1	511-848	91"							1	1	1
2	511-849	110"			2			2			2
2	511-850	113"									

BUMPER MOUNTING DETAILS & DIMENSIONS

4" thick, 4-holed bumpers are standard.

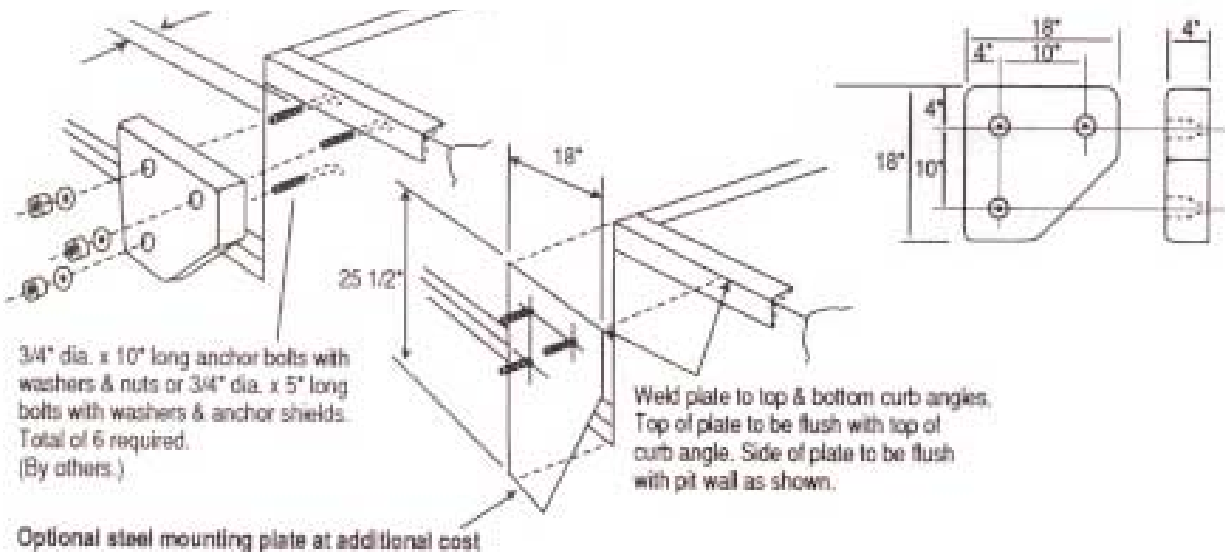


Bumpers are to be mounted flush and tight against the side and top of the pit wall,



3/4" x 10" long anchor with washers & nuts, or 3/4" x 5" long bolts with washers and anchor shields
Total of 8 required (4 per bumper).
(By others)

"AD" Bumper. Two supply as optional equipment to the standard above.

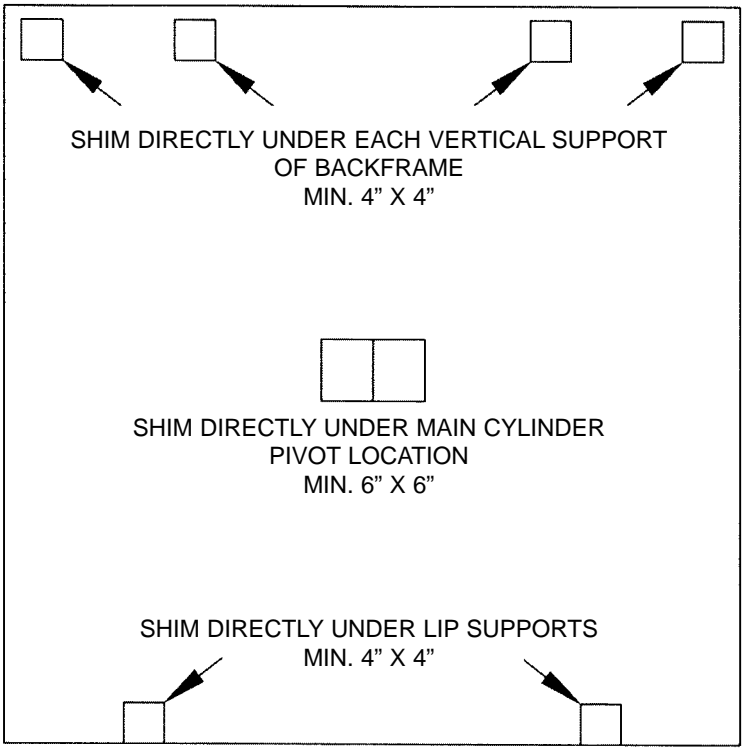


SHIM LOCATIONS

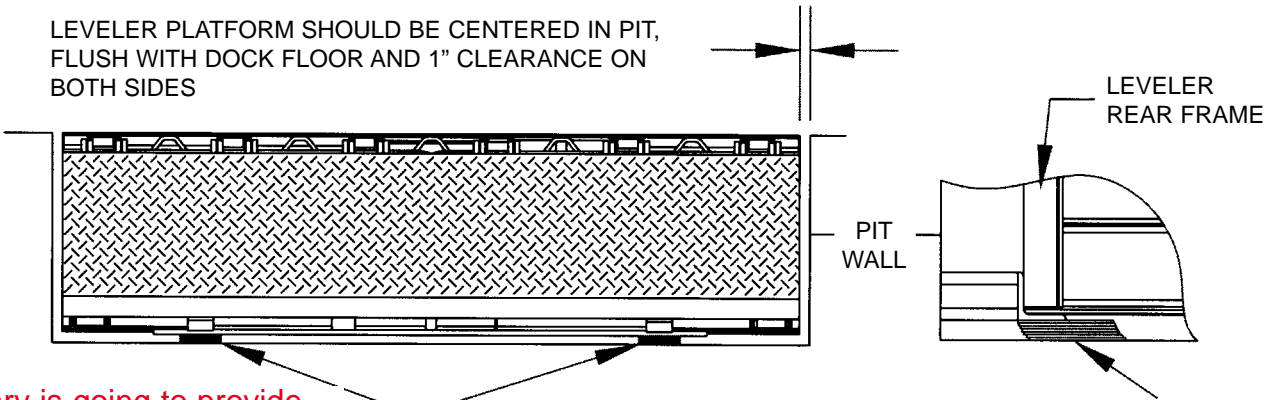
Installation Information: Diagram below shows required shim positions to provide proper weight transfer to pit floor. (Shims to be various thicknesses of mild, hot rolled steel, supplied by others.)

Notes: All shims must be tight under frame. Weld shims in place to assure against frame shim movement. Weld to bottom frame & pit steel as indicated under "**Installation Instructions.**"

TOP VIEW



LEVELER PLATFORM SHOULD BE CENTERED IN PIT, FLUSH WITH DOCK FLOOR AND 1" CLEARANCE ON BOTH SIDES



SHIM IN FRONT AS REQUIRED

FRONT VIEW

STAGGER SHIMS FOR BETTER WELD

(SHIM SIZE / HEIGHT EXAGGERATED TO SHOW POSITION)

CLOSE-UP VIEW

Gary is going to provide an additional side view drawing of this equipment.. This means I will have to reduce this drawing to accomodate new drawing.

HYDRAULIC & ELECTRICAL SPECIFICATIONS

Component Specifications

Motor: 1 HP, TENV, No. 56 frame, 15 minute duty cycle

Return Switch: Maintain-contact type oil-tight enclosure, spring-arm actuation with adjustable tripper arrangement.

Lip Control Switch: Momentary contact, oil-tight enclosure. Actuated by lip cylinder

Fluid Content: Aircraft hydraulic fluid type BB, pour point -75 degrees F.

Replacement Hydraulic Fluid: Aircraft hydraulic fluid type BB (available from the factory).

Acceptable substitutes:** Automobile automatic transmission fluid Type F (Ford Motor Company cars) or Dextron.

"Adding transmission fluid to aircraft fluid is acceptable.



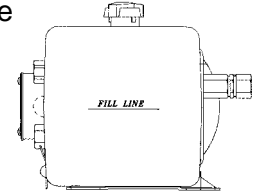
CAUTION: Do not use any hydraulic fluids not mentioned above.

Tank Capacity

35, 45, 60 & 75,000 lb. levelers 4 quarts

Tank-full Line (deck up)

Clear plastic reservoir for easy site reference



Motor Electrical Specifications

Motor Voltage (AC)	RPM	Hz	Phase	Amp. Draw Motor Running	Elect. Serv. Amperage Req.
115	3450	60	1	19	30*
230	3450	60	1	10	20
208-220-240	3450	60	3	8	10
440-460-480	3450	60	3	3.6	10
380	2850	50	3	3.6	10

Caution: Sufficient voltage must reach the Leveler Control Panel to operate the 1 HP motor. Voltage drop caused by a long wire run or undersize wire will increase the amperage draw and trip the breaker. Consult electrical conductor selection chart below and Trouble Shooting section on page 17.

Electrical Conductor Reference Chart

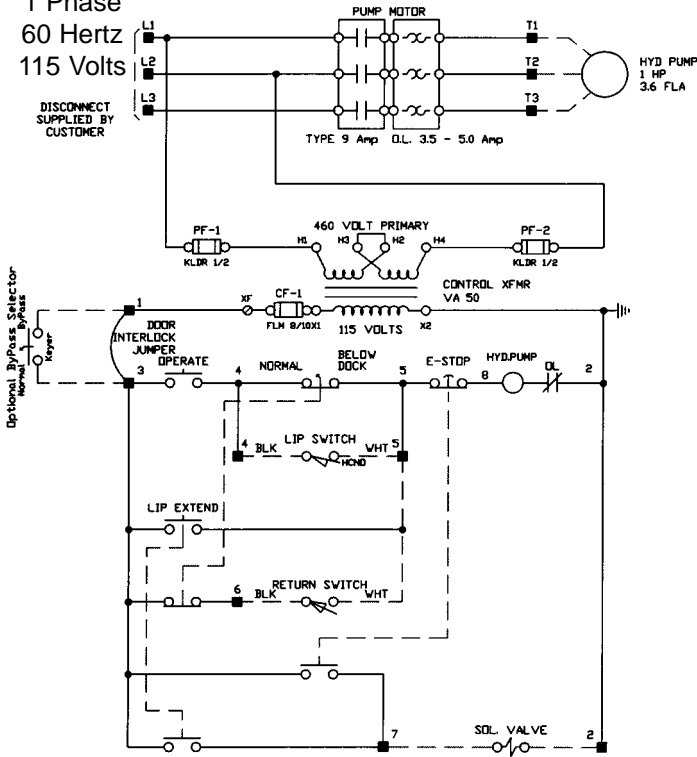
Warning: The values given are intended to be a rough guide only. Be sure to check all local electrical codes before wiring. Chart indicates the length of branch circuit which will have a 2% voltage drop at full load current (copper wire) feet/meters.

Wire AGW#	Volts/Phase/Hz		240/3/60		380/3/50		480/3/60		575/3/60	
	115/1/60	240/1/60	240/3/60	380/3/50	480/3/60	575/3/60				
14	30 ft. 9.1 m	135 ft. 41.1 m	265 ft. 80.8 m	765 ft. 233.2 m	1120 ft. 341.4 m	1675 ft. 510.5 m				
12	55 ft. 16.8 m	220 ft. 67 m	425 ft. 129.6 m	1225 ft. 373.4 m						
10	85 ft. 25.9 m	350 ft. 106.6 m	675 ft. 205.7 m							
8	140 ft. 42.7 m	560 ft. 170.7 m	1075 ft. 327.7 m							
6	225 ft. 68.6 m	890 ft. 271.3 m								

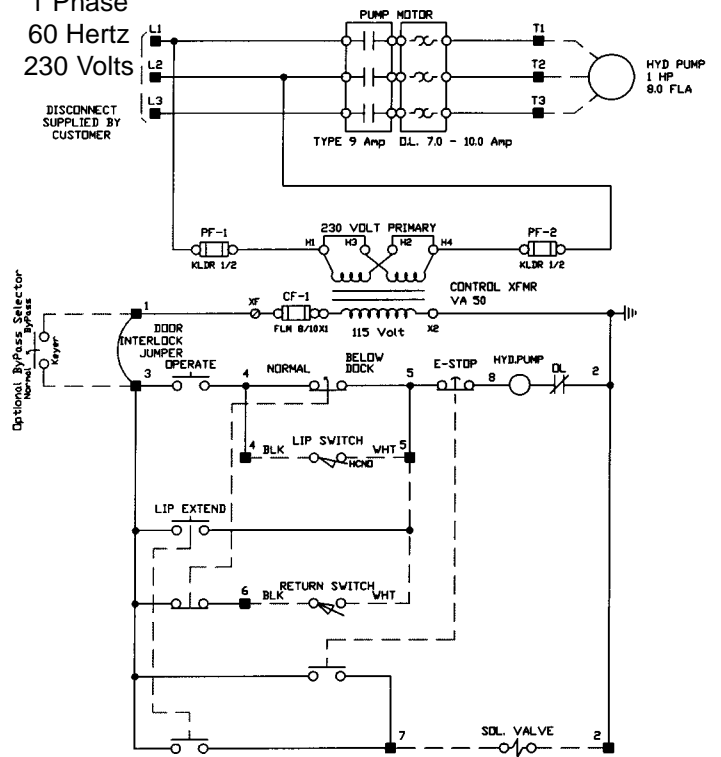


ELECTRICAL SCHEMATICS

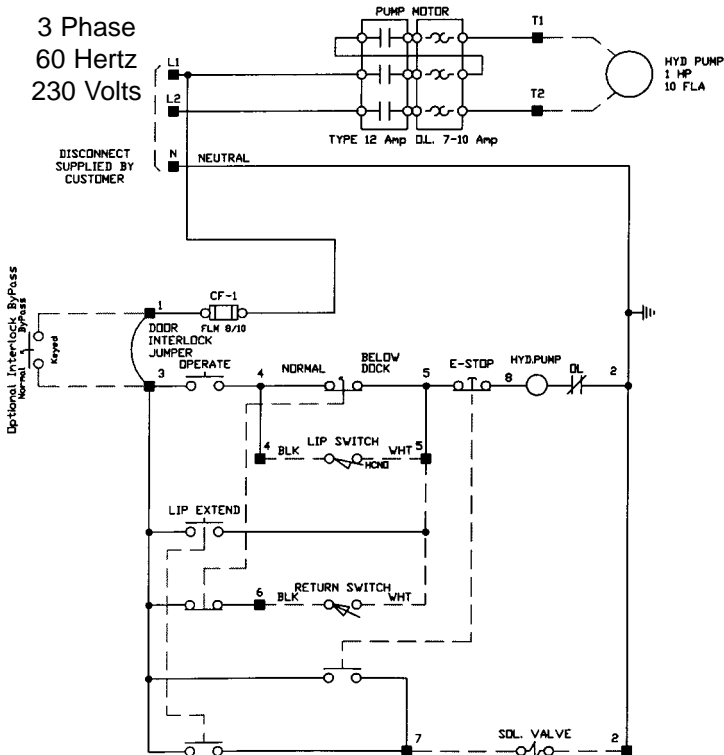
1 Phase
60 Hertz
115 Volts



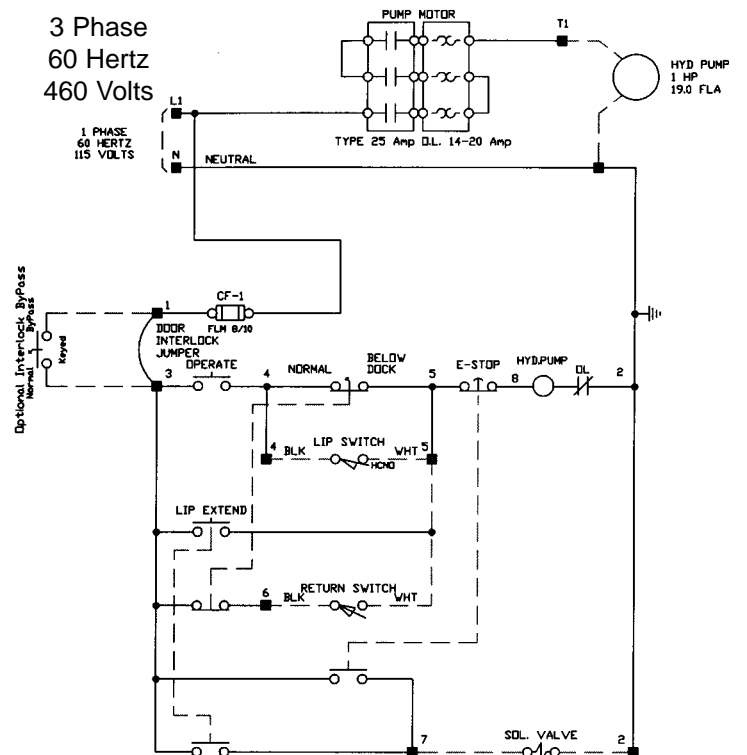
1 Phase
60 Hertz
230 Volts



3 Phase
60 Hertz
230 Volts

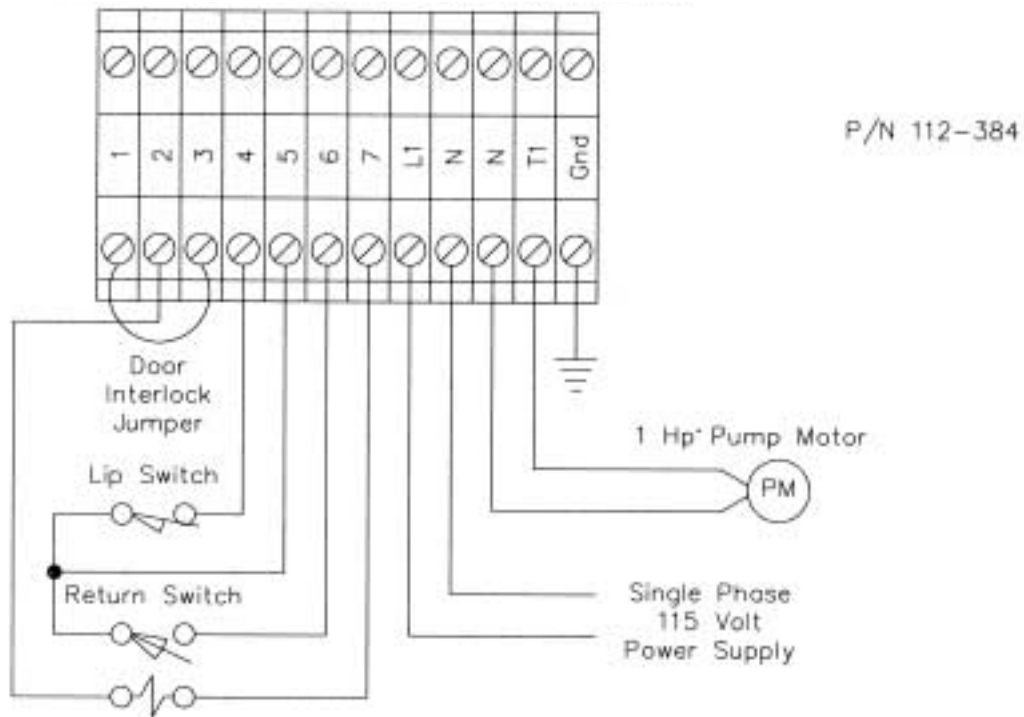


3 Phase
60 Hertz
460 Volts

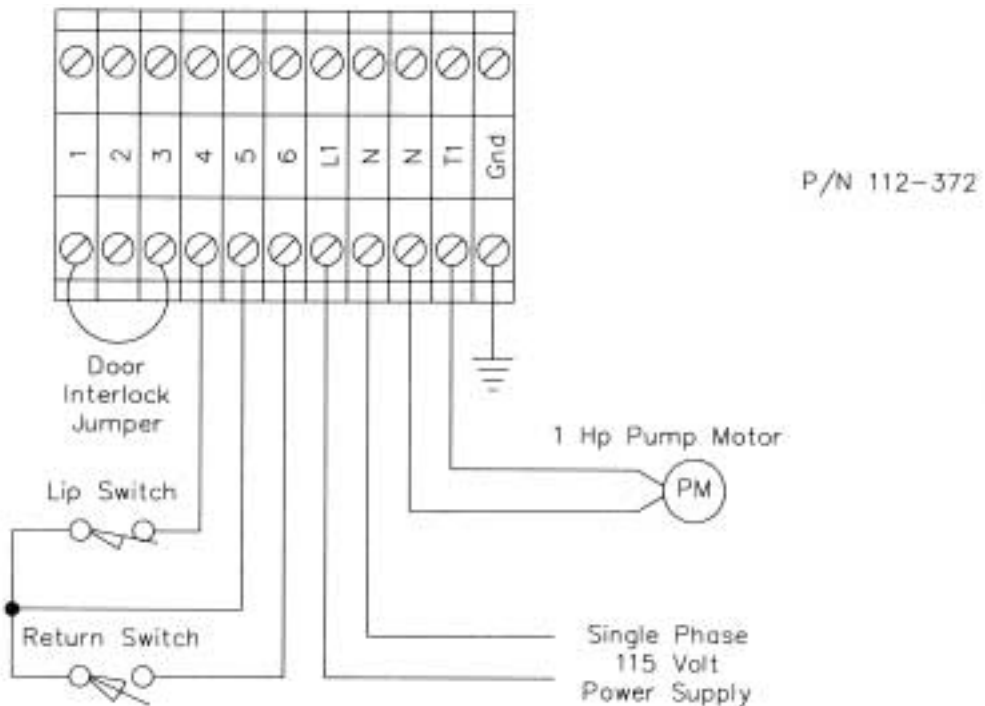


CONTROL PANEL & FIELD WIRING DIAGRAMS

Single Phase 115 Volt Field Connection Diagram

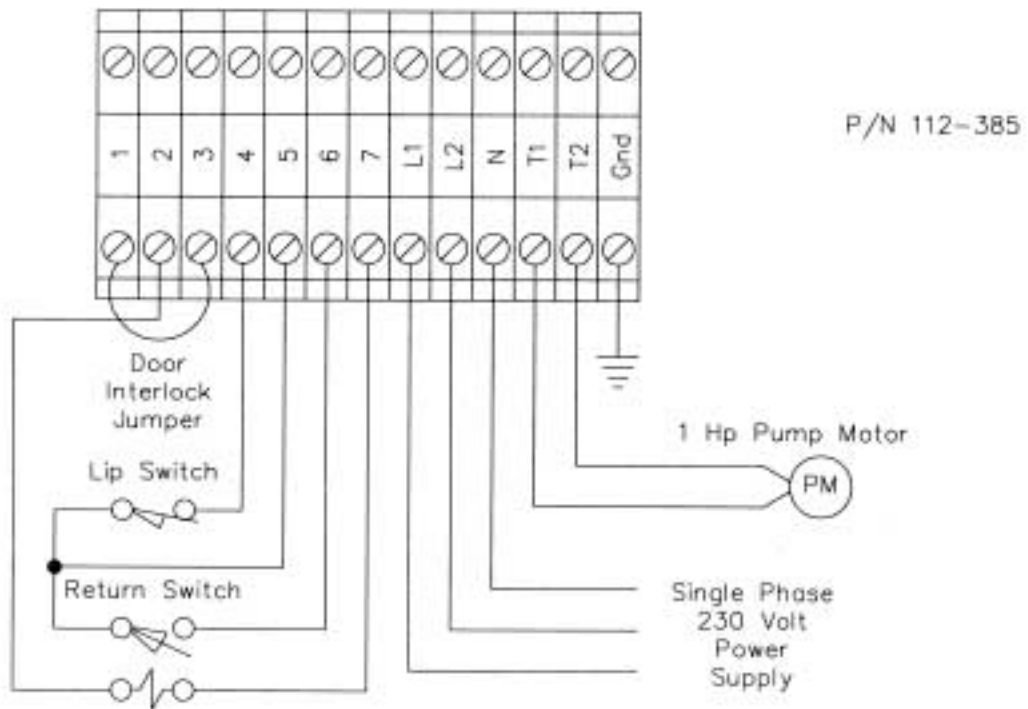


Single Phase 115 Volt Field Connection Diagram

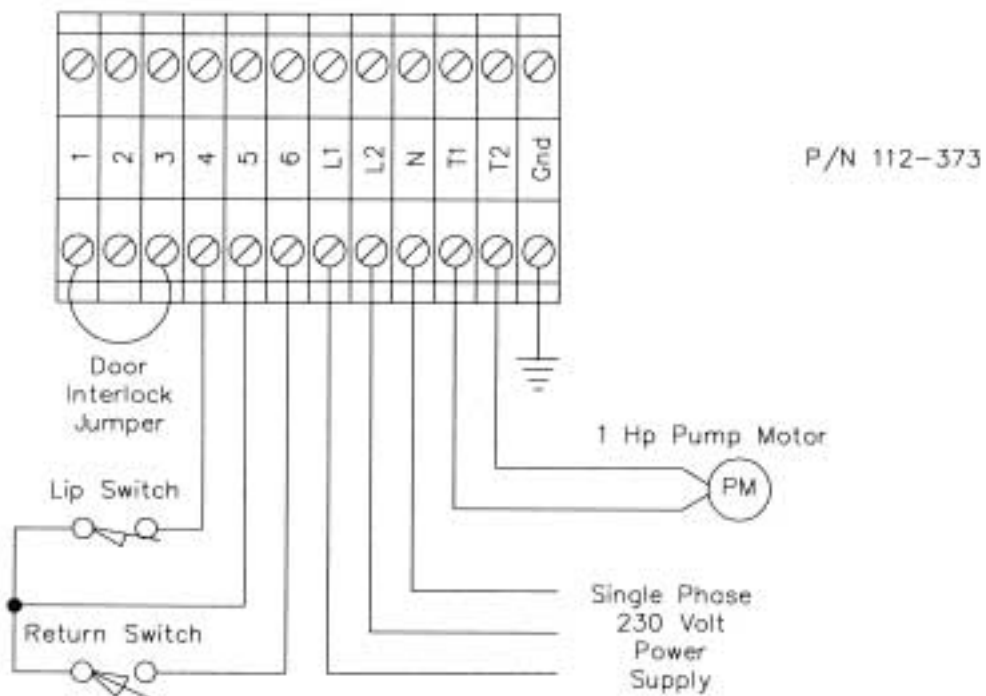


CONTROL PANEL & FIELD WIRING DIAGRAMS

Single Phase 230 Volt Field Connection Diagram

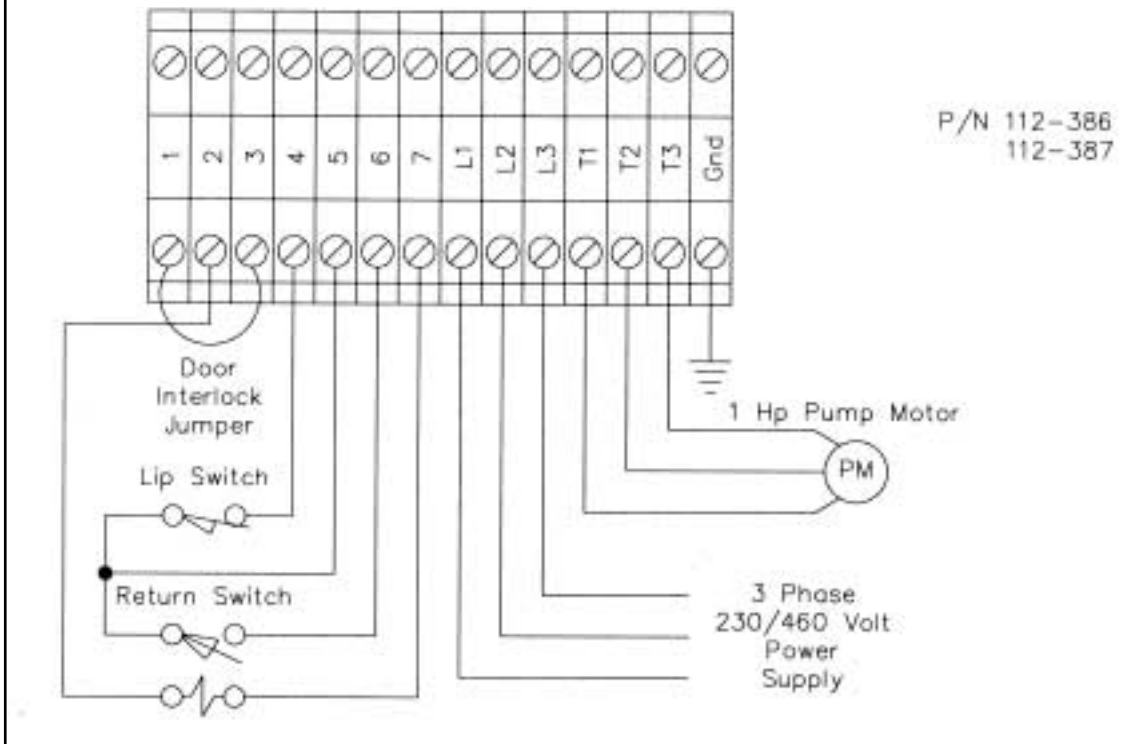


Single Phase 230 Volt Field Connection Diagram

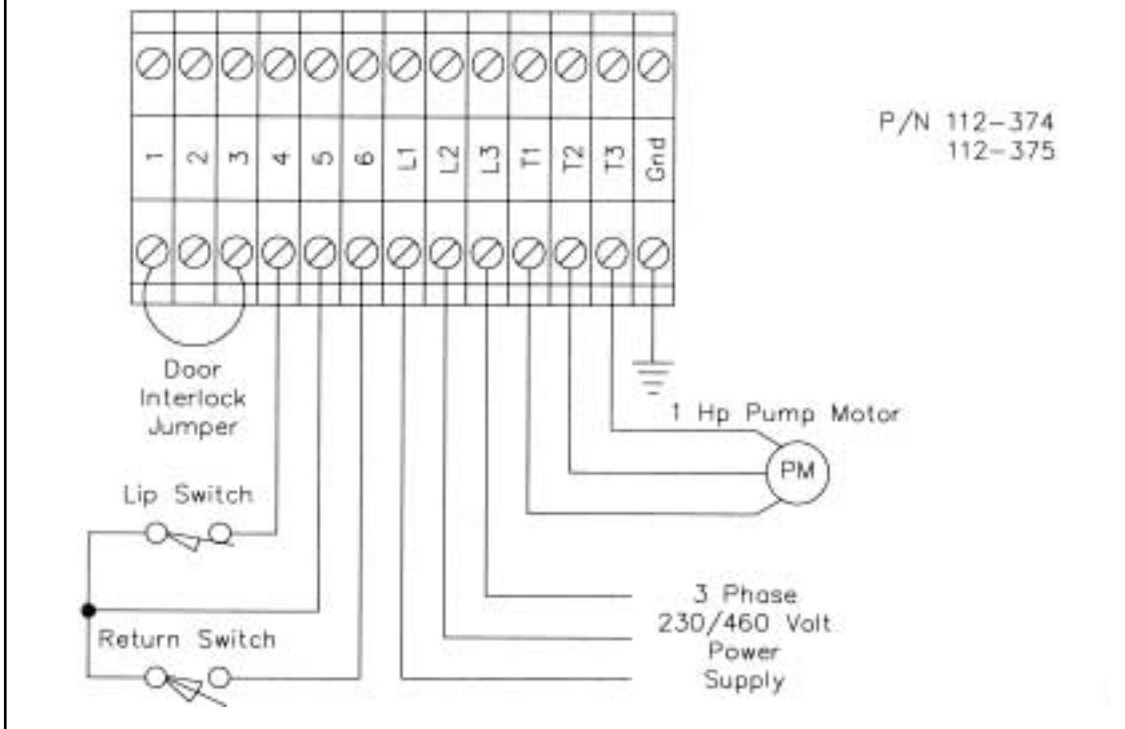


CONTROL PANEL & FIELD WIRING DIAGRAMS

3 Phase 230/460 Volt Field Connection Diagram



3 Phase 230/460 Volt Field Connection Diagram

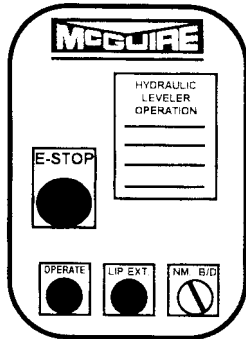


OPERATION INSTRUCTIONS

WARNING: Before operating the dock leveler, read and understand all Safety Practices found on page 3. Use by untrained personnel can result in property damage, serious bodily injury or death. Read and understand complete Operation Instructions before attempting to operate this dock leveler. Follow all OSHA regulations regarding the use of this equipment. **Do not use the dock leveler if it appears broken or does not seem to function properly.** Contact your authorized McGuire Service Representative

WARNING: Trucks must be secured at the dock. Trucks unexpectedly pulling away from the dock can cause property damage, serious bodily injury or death. ALWAYS be certain that truck wheels are chocked, or that the truck is held in place by a restraining device before attempting to load or unload the truck.

CAUTION: *Be sure that truck wheels are chocked or a restraint device is intact.*



NOTE: This example control panel is equipped with Emergency Stop and Independent Lip buttons. This is optional equipment, not standard. Standard control panels have only the Operate button and Normal/Below Dock selector switch. The HTH 25,000# capacity leveler control panels have an operate button only.

Emergency Stop and Independent Lip operations are covered at the end of this section.

Example W.B. McGuire control panel.

NORMAL SETTING ON SELECTOR SWITCH

Loading or unloading with no end load situation:

1. Do not attempt to operate the dock leveler until the truck is backed into position against the dock bumpers and either wheel chocks or a restraining device are in place.
2. With selector switch set in the "NORMAL" position, press and hold "OPERATE" push button on control panel until the platform has raised to the top of its cycle and the lip has been extended.
3. When the lip has fully extended, release the OPERATE button. The platform will lower smoothly until the lip rests on the truck bed.
4. The leveler will automatically float freely with the rise and fall of the truck bed in either the loading or unloading cycle.
5. When the truck departs, and the lip becomes unsupported, the leveler will settle to its fully lowered position. The motor will automatically restart, the leveler will raise just enough to let the lip fall pendant, and the motor will then automatically shut off. The leveler will settle into its stored cross traffic position in lip keepers.

BELOW DOCK SETTING ON SELECTOR SWITCH

Loading or unloading with an end load situation.

1. Do not attempt to operate the dock leveler until the truck is backed into position against the dock bumpers and either wheel chocks, or a restraining device, are in place.

OPERATION INSTRUCTIONS (continued)

2. With selector switch set in the "BELOW DOCK" position press, and hold the "OPERATE" push button on control panel until the platform has raised to the top of its cycle. At this point the lip will extend far enough to clear the lip keeper, the motor will automatically shut off and the leveler will smoothly settle into its fully lowered position. This positions the lip against the dock face, rather than fully extended, and allows for loading or unloading an end load on the truck.
3. If this is a loading situation, once the end load has been loaded return the selector switch to the "NORMAL" position. The dock leveler will then automatically restore itself as per item #5 shown under the "NORMAL" setting.
4. If this is an unloading situation, once the end load has been unloaded you return the selector switch to the "NORMAL" position. Then follow steps #2 through #5 as shown under the "NORMAL" setting.



WARNING: Stay Clear when leveler or truck is in motion. Do Not stand between truck and leveler when truck is entering or leaving.

OPERATION WITH EXTREMELY LOW TRUCK BEDS

These instructions are intended to be followed when it is necessary to service extremely low trucks with no end load and the lip must be extended.

1. Once the truck has backed against the bumpers, and the wheels have been chocked or a restraint activated, set the selector switch to NORMAL, press and hold the OPERATE button until the platform rises to the top of its cycle and the lip has extended.
2. When the leveler lip has fully extended, release the OPERATE button. The deck will start to lower with lip extended. Turn the selector switch to BELOW DOCK. The leveler will settle to its fully lowered position with the lip fully extended.
3. Once loading or unloading is completed, return the selector switch to the "NORMAL" setting. The leveler will then automatically return to the stored, cross-traffic position as per item #5 under the "NORMAL" setting.

STORING THE LEVELER WITH A TRUCK AT THE DOCK

1. The leveler lip will be positioned on the bed of the truck.
2. With the selector switch in the NORMAL position, press and hold the OPERATE button.
3. The leveler lip will automatically be withdrawn from the truck bed as the leveler platform starts to raise. Once the lip is fully withdrawn, release the "OPERATE" button and the leveler will settle to its stored, cross-traffic position.

INDEPENDENT LIP OPERATION (IF EQUIPPED)

1. Once the truck has backed against the bumpers, and the wheels have been chocked or a restraint activated, set selector switch to NORMAL. Press and hold the OPERATE button. When the leveler has reached the desired position, release the OPERATE button and immediately press and hold the LIP EXTEND button.
2. Once the lip has fully extended, release the LIP EXTEND button and deck will settle on to truck bed with lip extended.

OPERATION INSTRUCTIONS (continued)

EMERGENCY STOP (IF EQUIPPED)

1. "EMERGENCY STOP" button can be used at any point in the leveler cycle. It is a red "mushroom" type push/pull button.
2. Pushing in on the "EMERGENCY STOP" button will immediately stop all motion of the dock leveler. The platform is locked in place and all other functions are disabled.
3. To restore normal leveler operation after "EMERGENCY STOP" button has been used, pull red "EMERGENCY STOP" button out. Leveler will then be back in "NORMAL" mode and all functions are restored.
4. This type "EMERGENCY STOP" button will lock in place once it is pushed in. Once pushed, it must be manually pulled out as outlined in item #3 to deactivate the emergency stop function.

Note: A routine daily operational check of the Emergency Stop System should be done to insure its proper operation.

SETTING THE BUILT-IN INSPECTION LEG

The inspection leg is a built-in piece which, when set in place properly, will support the platform in an upright position. For qualified personnel to perform maintenance or service, the deck should be supported with adequate bracing. Setting the inspection leg requires two people.

CAUTION: The inspection leg is meant to support the weight of the deck and lip only,

1. Tag the control panel "Out of Service" to prevent accidental operation of the leveler.
2. Place barriers on grade level in front of the leveler to prevent trucks from backing to the dock.
3. Have one attendant raise the leveler platform using the OPERATE button. Keep the button depressed until the second attendant gives the "OK" to release.
4. The second attendant can unhook the inspection leg and set it in its vertical position. Once set, the second attendant can give the "OK" and the first attendant can release the OPERATE button. As an additional safety measure, press the EMERGENCY STOP button (if equipped) to cut all power to the leveler.
5. To store the inspection leg, pull the EMERGENCY STOP button (if equipped), press and hold the OPERATE button until the platform rises to the top of its cycle and the lip is fully extended. Keep the button depressed until the second attendant gives the "OK" to release.
6. The second attendant can re-hook the inspection leg to its stored position. Once set, the second attendant can give the "OK" and the first attendant can release the OPERATE button. The leveler will return to the stored, cross traffic position.

NOTE: NEVER WORK UNDER THE LEVELER WITHOUT PROPERLY SUPPORTING THE PLATFORM WITH ADEQUATE BRACES.

DO NOT PUT ANYTHING ON THE LEVELER PLATFORM WHILE THE INSPECTION LEG IS SUPPORTING THE PLATFORM.

MAKE SURE CO-WORKERS KNOW NOT TO OPERATE THE LEVELER WHILE MAINTENANCE OR SERVICE IS BEING PERFORMED.

WARNING: DO NOT enter pit area until leveler has been braced open with jack stands.

WARNING: If any of the operational features of this dock leveler do not function as previously stated DO NOT USE THE DOCK LEVELER. Contact your authorized McGuire Service Representative or McGuire Technical Support at 1-800-624-8473

INITIAL RUN-IN PROCEDURE

IMPORTANT: There could be a considerable time lapse between the installation and initial use of your W. B. McGuire HTH series hydraulic leveler. It is recommended that you follow this "Initial Run-in" procedure to insure that your dock leveler is operating properly.



CAUTION: Completely read and understand all Safety Practices as outlined in the beginning of this manual. read and understand entire manual before beginning the Initial Run-in procedure.

1. Follow procedure under **Operation** segment for "Setting the Service Leg". Then proceed with the following.
2. Check the fluid level in the motor/pump reservoir. (See "Specifications", Page 8 for proper level. If necessary, add fluid per the specification page.
3. Check the integrity of all hydraulic hoses and tightness of all hydraulic fittings.
4. Clean any debris from the pit.
5. Follow procedure under the Operation segment for "Storing the Service Support Leg and Restoring Leveler to Dock Level."
6. With the dock leveler in the stored position, go to the Operation Instructions segment and repeat all operations found in this segment four (4) to five (5) times.
7. Follow all WARNING and/or CAUTION statements.
8. **DO NOT USE** the dock leveler if it appears broken, or does not seem to work right or any of the functions under Operation Instructions do not function properly. Contact your authorized W. B. McGuire Representative.

MAINTENANCE AND SERVICE

On-site maintenance personnel can observe the following procedures or you can arrange for professional service through your authorized W. B. McGuire representative.



WARNING: Before operating the dock leveler, read and understand all Safety Practices found on Page 3.

Use by untrained personnel can result in property damage, serious bodily injury or death. Read and understand complete Operation Instructions before attempting to operate this dock leveler. Follow all OSHA regulations regarding the use of this equipment. **Do not use the dock leveler if it appears broken or does not seem to function properly.** Contact your authorized McGuire Representative.

Do not install, operate or service this W. B. McGuire HTH series hydraulic dock leveler until you have read and understand the entire contents of this manual.

IMPORTANT: The frequency of maintenance and service required will vary do to the amount and type of usage. Contact you authorized W. B. McGuire representative or the factory for information.

Note: Authorization to repair, replace or otherwise adjust any portion of the dock leveler should always be secured in advance of any work taking place. Failure to do so may affect the dock leveler warranty.

MAINTENANCE AND SERVICE (continued)

1. Follow procedure as described in this manual's **Operation** section for "Setting the Service Leg." then proceed with the following.
2. If power disconnect is provided, by others, place in the OFF position and tag control panel OUT OF SERVICE prior to doing any work under the dock leveler. If no power disconnect is provided, a second person should be stationed by the control panel to insure no unauthorized use.
3. Place service truck, or other obstruction, in the driveway in front of the unit being worked on to insure that no incoming truck can unexpectedly back into the opening.
4. Clean any debris from the pit. Clear the hinge area of any collected debris. During winter months in cold climate, any ice formed on moving parts should be removed.
5. Inspect condition of lip, platform, subframe, and all welds for wear and/or damage. Report any deficiencies to person in charge. **If in doubt, report it!**
6. Check condition of front and rear hinges. report any deficiencies to person in charge. **If in doubt, report it!**
7. Check the fluid level in the motor/pump reservoir. (See specifications on page 8 for proper level.) If necessary, add fluid per the specification page.
8. Check the integrity of all hydraulic hoses and tightness of all hydraulic fittings. Replace or tighten as required.
9. Inspect all hydraulic cylinders and all switches attached to same for damage or wear. Replace as required.
10. Inspect and lubricate all cylinder pivots.
11. Check weatherseal on leveler sides for any signs of deterioration. Replace as required.
12. Inspect toe guards for integrity. Repair or replace as required.
13. Inspect all electrical connections, wiring and control panel for signs of wear or damage. Report any deficiencies found for an authorized electrician to repair.
14. Check safety tape marking on leveler sides and lip face inside building for deterioration. Replace as required.
15. Check all labels on dock leveler. Replace if required.
16. Inspect bumpers and bumper fasteners for wear, damage and tightness. Tighten, repair or replace as required.
17. Follow procedure in the **Operation** section for "Storing the Service Support Leg and Restoring Leveler to Dock Level."
18. With the dock leveler in the stored position, go to the **Operation Instructions** section and repeat all operations found in this section four (4) or five (5) times to assure that the leveler is operating properly. **If not, contact person in charge.**

TROUBLESHOOTING GUIDE

Use the troubleshooting guide if ever the leveler fails to perform properly. Find the condition that most closely matches Your situation and make the recommended adjustments. Observe all safety warnings before attempting any maintenance procedure.



CAUTION: If any of the procedures under "**Trouble Shooting**" are not understood, or if any symptom occurs that is not covered, contact your authorized McGuire representative or McGuire Technical Support at 1-800-624-8473. **Do not attempt any procedure you do not understand.**

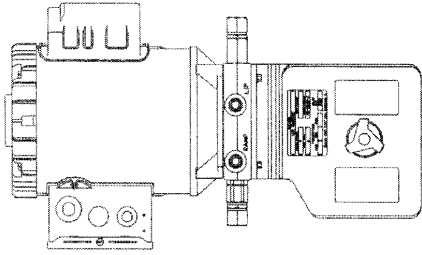
Problem	Possible Cause	Solution
1. Leveler will not raise. Motor is silent.	A. No electrical power to control panel.	A. Check that voltage is present at the terminal connections to the control panel.
	B. Electrical connections incorrect or broken.	B. Check that wiring matches the wiring diagram.
2. Leveler does not raise; Motor starts then stops; Motor starter relay Chatters.	A. Overload relay, main circuit breaker or leveler control circuit breaker tripping out	A. Check overload setting and current draw.
	B. Voltage drop due to long wiring distance from power source.	B. Check voltage when motor is started. Voltage drop is more often a problem on single phase motors. Make sure proper conductor size is used for current draw and length of run.
3. Leveler does not raise. Motor hums.	A. Voltage drop.	A. See #2 B. above.
	B. Loss of 1 phase. (Three phase only.)	B. Check for voltage at all three motor connections (T1,T2,T3) in control panel.
4. Leveler does not raise. Motor runs.	A. Low fluid level in reservoir.	A. Check fluid level in reservoir. Add fluid is required and check for leaks.
	B. Pump not running or pressure insufficient.	B. Remove the hose from the main lift cylinder and place free end into reservoir opening. Start unit and check if oil is being pumped. If no oil is being pumped, check drive shaft coupler or replace pump.
	C. Pump running in reserve. (Three phase only.)	C. Check motor rotation and switch any two leads.
	D. System Relief valve setting too low.	D. Set system relief to 2000 PSI.
5. Overload relay tripping.	A. Overload relay set too low.	A. Check full load amperage and relay setting.
	B. Loss of one phase. (Three phase only.)	B. Check for voltage at all three motor connections (T1,T2,T3) in control panel.
6. Leveler will not lower.	A. Automatic safety stop (velocity fuse) is locked.	A. If a load was on the leveler, remove load and jog the raise button to unlock the leveler. If no load was on leveler, adjust shuttle valve (remove cap, loosen lock nut and turn adjusting screw out (counter clockwise) to reduce ramp drop speed. Tighten lock nut and replace cap making sure o-ring is present.)

TROUBLESHOOTING GUIDE (continued)

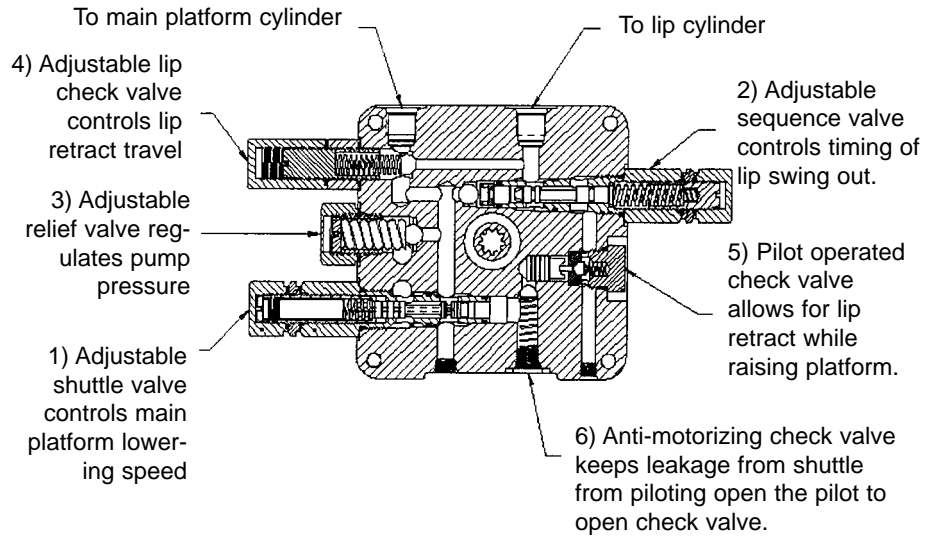
Problem	Possible Cause	Solution
7. Leveler comes down too slow.	A. Shuttle valve requires adjustment.	A. Adjust shuttle valve (remove cap, loosen lock nut and turn adjusting screw in (clockwise) to increase ramp drop speed. Tighten lock nut and replace cap making sure o-ring is present.)
8. Leveler comes down too fast.	A. Shuttle valve requires adjustment.	A. Adjust shuttle valve (remove cap, loosen lock nut and turn adjusting screw out (counter clockwise) to decrease ramp drop speed. Tighten lock nut and replace cap making sure o-ring is present.)
9. Leveler continues to "lockup" after each actuation of OPERATE button.	A. Ramp lowering speed is too high.	A. Adjust shuttle valve on motor/pump to reduce ramp lowering speed. B. Refer to Hydraulic Adjustment
10. Lip will not extend, or extends too slowly.	A. Low fluid level in reservoir. B. Sequence valve set too high. C. Lip hinge binding. D. System relief valve set too low.	A. Check fluid level in reservoir. Add fluid if required and check for leaks. B. Remove cap, loosen lock nut and turn adjusting screw out (counter clockwise) to decrease sequence valve pressure. Tighten lock nut and replace cap making sure o-rings are present. C. Inspect hinge area for damage or trapped debris. Lubricate hinge. D. Set primary relief valve to 2000 PSI.
11. Lip extends too soon.	A. Sequence valve set too low.	A. Remove cap, loosen nut and turn adjusting screw in (clockwise) to increase sequence valve pressure. Tighten lock nut and replace cap making sure o-ring is present.
12. Lip will not stay out (falls as leveler is lowering.)	A. Pilot to open check valve not closing. B. Adjustable lip check valve requires adjustment. C. Anti-cavitation check not closing. D. Lip cylinder damaged.	A. Remove the inspect for foreign matter. Clean as required. Inspect spring & ball and seat for damage. Replace if necessary. Check that piston moves freely under seat. If not moving freely replace power unit. B. Remove cap, loosen nut and turn adjusting screw (clockwise) to increase lip check valve pressure. Tighten lock nut and replace cap making sure o-ring is present. C. Remove and inspect for foreign matter. Clean as required. Inspect spring & ball and seat for damage. If seat is damaged replace power unit. D. Replace lip cylinder piston seal, or replace cylinder.

MOTOR PUMP ADJUSTMENTS

VIEW FROM TOP



CROSS SECTION



Description	Purpose	Adjustment
Shuttle	Controls the lowering speed of the main platform.	Remove the cap and loosen lock nut. Turn screw "out" (counterclockwise) to decrease the rate of descent. Turning adjusting screw "in" (clockwise) will increase the rate of descent. Tighten lock nut and replace cap making sure o-ring is present. Torque to 7-12 pound-feet.
Sequence Valve	Controls the timing of lip out-swing.	Remove cap and loosen lock nut. Turn adjusting screw "out" (counterclockwise) to cause swing to begin sooner. Turning adjusting screw "in" (clockwise) will delay the beginning of lip swing out. Tighten lock nut and cap making sure o-ring is present. Torque to 7-12 pound-feet.
Relief Valve	Controls maximum pressure in the hydraulic system and protects the other components from excessive force.	Remove cap and turn adjusting screw "in" (clockwise) to increase pump pressure. Turn adjusting screw "out" (counterclockwise) to decrease pump pressure. Replace cap making sure o-ring is present. Torque to 7-12 pound-feet. This valve should not require adjustment in the field. Contact factory before attempting to make pressure adjustment.
Lip Check Valve	Allows the lip to retract when the main platform reaches the keepers (truck pulls out).	Remove cap and loosen lock nut. Turn adjusting screw "in" (clockwise) to decrease lip retract travel. Turn adjusting screw "out" (counterclockwise) to increase lip retract travel. Tighten lock nut and cap making sure o-ring is present. Torque to 7-12 pound-feet.
Pilot Operated Check Valve	Allows the lip to retract while the main platform is being raised.	There is no adjustment on this valve.
Anti-Cavitation Valve	Keeps leakage from shuttle valve from piloting open the pilot to open check valve.	There is no adjustment on this valve.

TROUBLE SHOOTING PROCEDURES

If the corrective action does not solve the problem, consult the W. B. McGuire Technical Support Team immediately. DO NOT USE THE LEVELER.

If you encounter a problem that is not covered under this section, consult the McGuire Technical Support Team immediately at 1-800-624-8473.

Symptom	Possible Cause	Corrective Action
1. Leveler will not rise. Motor not running.	A. Incorrect or disconnected electrical hookup.	A. Review wiring diagram and check connections.
	B. Blown fuses or open circuit breakers in building.	B. Check fuses and replace or reset circuit breakers. Determine and correct cause of electrical problems.
	C. Loss of line voltage.	C. Check line and repair as necessary.
	D. Open overload relays on leveler motor starter.	D. Allow to cool and reset by pushing in reset button at the thermal overload in control panel.
	E. Burned out motor in leveler motor/pump.	E. Replace power unit (contact factory) or have electrical shop repair motor.
2. Leveler will not rise. Motor running or humming. Motor starts then stops.	A. If motor humming (1 phase current), voltage drop. May be due to insufficient line capacity.	A. Test voltage at motor starter with motor running. Also test for amperage draw. Low voltage/high amperage indicates wire gauge is too light for distance of run. Replace feed line with adequate wire size.
	B. Wrong rotation of 3-phase motor.	B. Reverse T1 & T3 hookup at starter terminal.
	C. Motor is single phasing on 3-phase current.	C. Check line fuse or other loss of power in one line. (Loose connection or tripped overload at starter.)

TROUBLE SHOOTING PROCEDURES (continued)

Symptom	Possible Cause	Corrective Action
	D. Load on leveler.	D. Remove load to operate leveler. Leveler is not designed to lift more than its own weight .
	E. Low fluid or no fluid.	E. Check fluid level and fill as required. Determine and correct cause of fluid loss.
	F. Motor pump is physically or electrically damaged.	F. Replace motor/pump.
	G. Overloaded main circuit.	G. Check current draw.
3. Leveler will not lower. Lip is extended.	A. Physical obstruction.	A. Remove obstruction.
	B. In "Fail-Safe" lockup.	B. Actuate the OPERATE button momentarily to unlock the "Fail-Safe" system.
	C. Refer to Hydraulic Adjustment	
4. Leveler continues to "lockup" after each actuation of OPERATE button.	A. Ramp lowering speed is too high.	A. Adjust shuttle valve on motor/pump to reduce ramp lowering speed.
		B. Refer to Hydraulic Adjustment
5. Leveler will not automatically return from below dock position. (Not automatic on MKA 1500 series levelers.)	A. Selector switch is in BELOW DOCK mode.	A. Change selector switch to NORMAL mode.
	B. Return switch arm has not engaged the tripper bolt.	B. Adjust tripper bolt to correct adjustment to trip return switch.
	C. Return switch arm may be out of adjustment or damaged.	C. Properly position return switch arm or replace if required.
	D. Incorrect wiring or loose wire.	D. Check wiring/connections.
6. Leveler will not rise. Selector switch in BELOW DOCK position.	A. Lip switch arm may be out of adjustment or damaged.	A. Adjust arm or replace.
	B. Incorrect wiring or loose wire.	B. Check wiring/connections.

SWITCH ARRANGEMENTS

Return Switch Arrangement

Normal Cycle

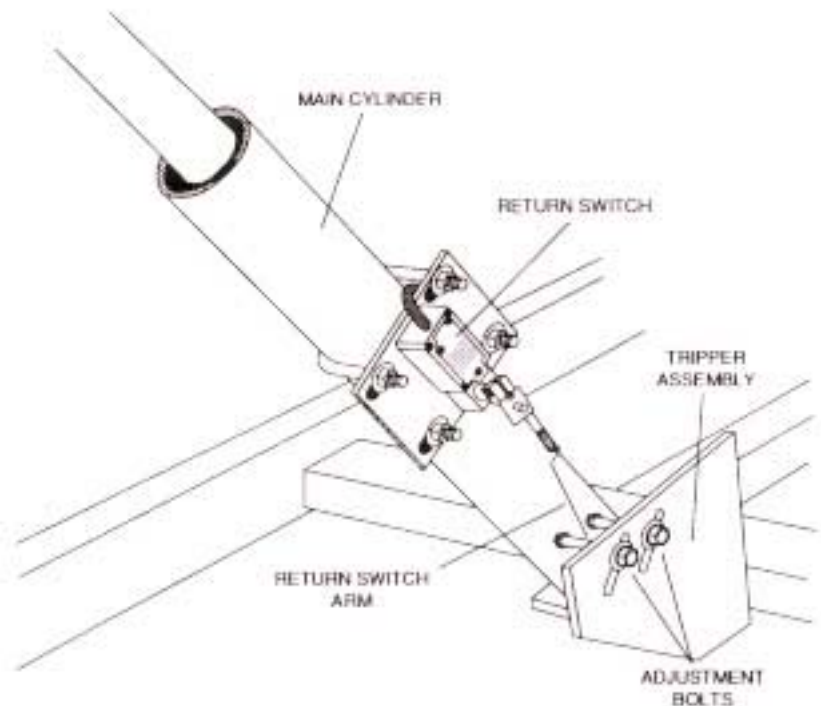
The return switch assembly has been factory positioned and adjusted for proper operation of the leveler.

The limit switch, mounted on the main cylinder, is a maintained-contact type switch in a sealed enclosure. Its function is to start and stop the motor pump in the return-to-cross-traffic cycle. The rear adjustment bolt is set to trip the limit switch spring arm and stop the motor when up-travel is sufficient to withdraw the lip and clear the base frame for storage at dock level. The front adjustment bolt is set to start the motor when platform reaches its lowest position.

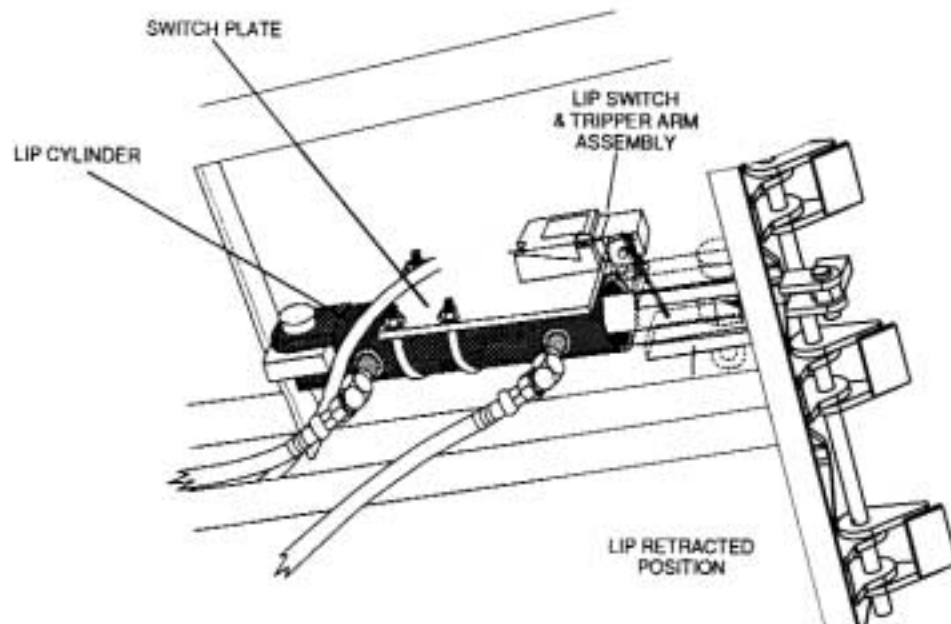
Below-Dock Cycle

When the selector switch on the operator's control panel is switched to "BELOW DOCK LIP" position, the return action of the limit switch is bypassed.

When the selector switch on the control panel is switched to "NORMAL" position, the normal control circuit is completed and the return-to-cross-traffic cycle is reinstated.

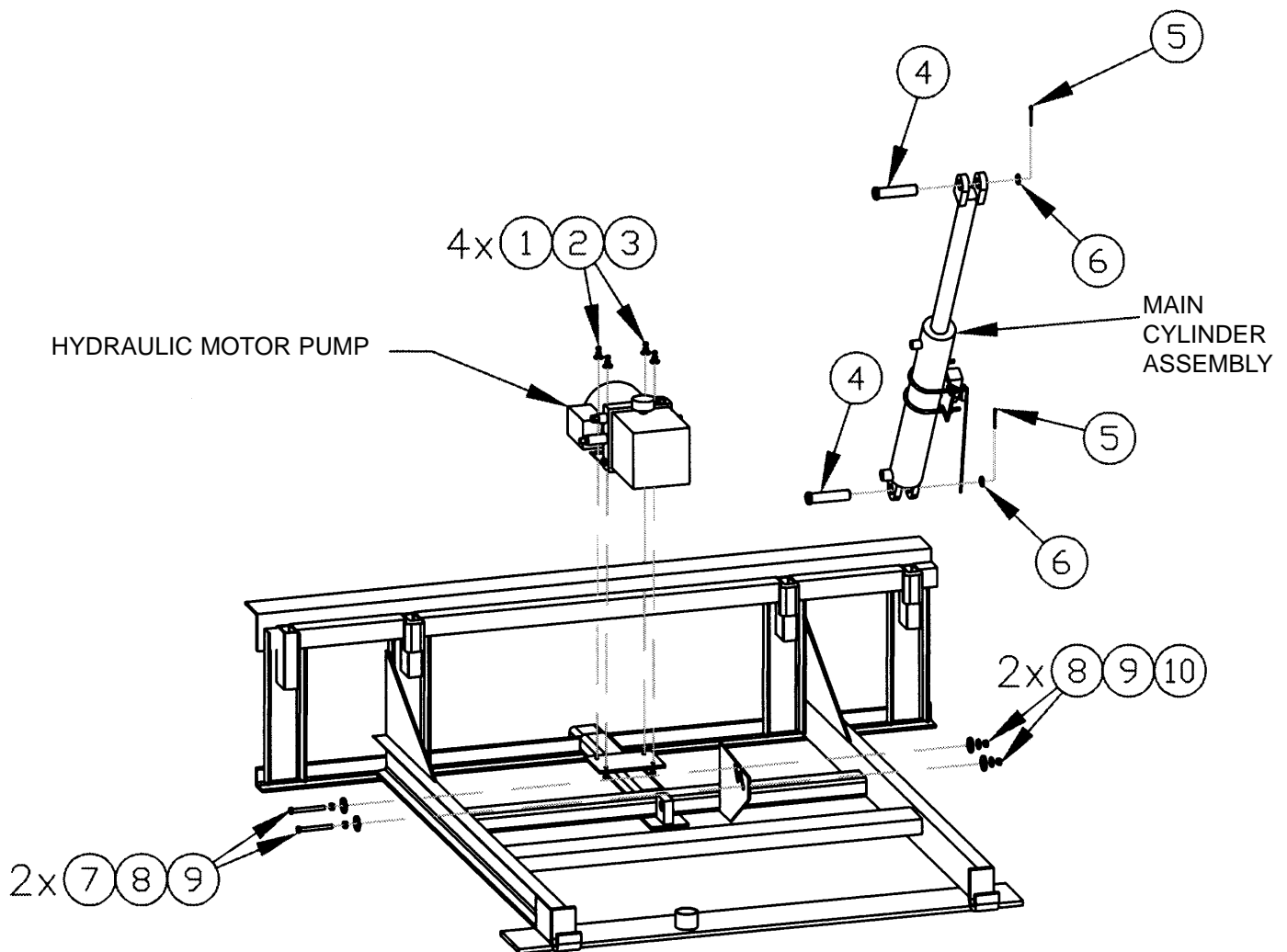


Lip Switch Arrangement

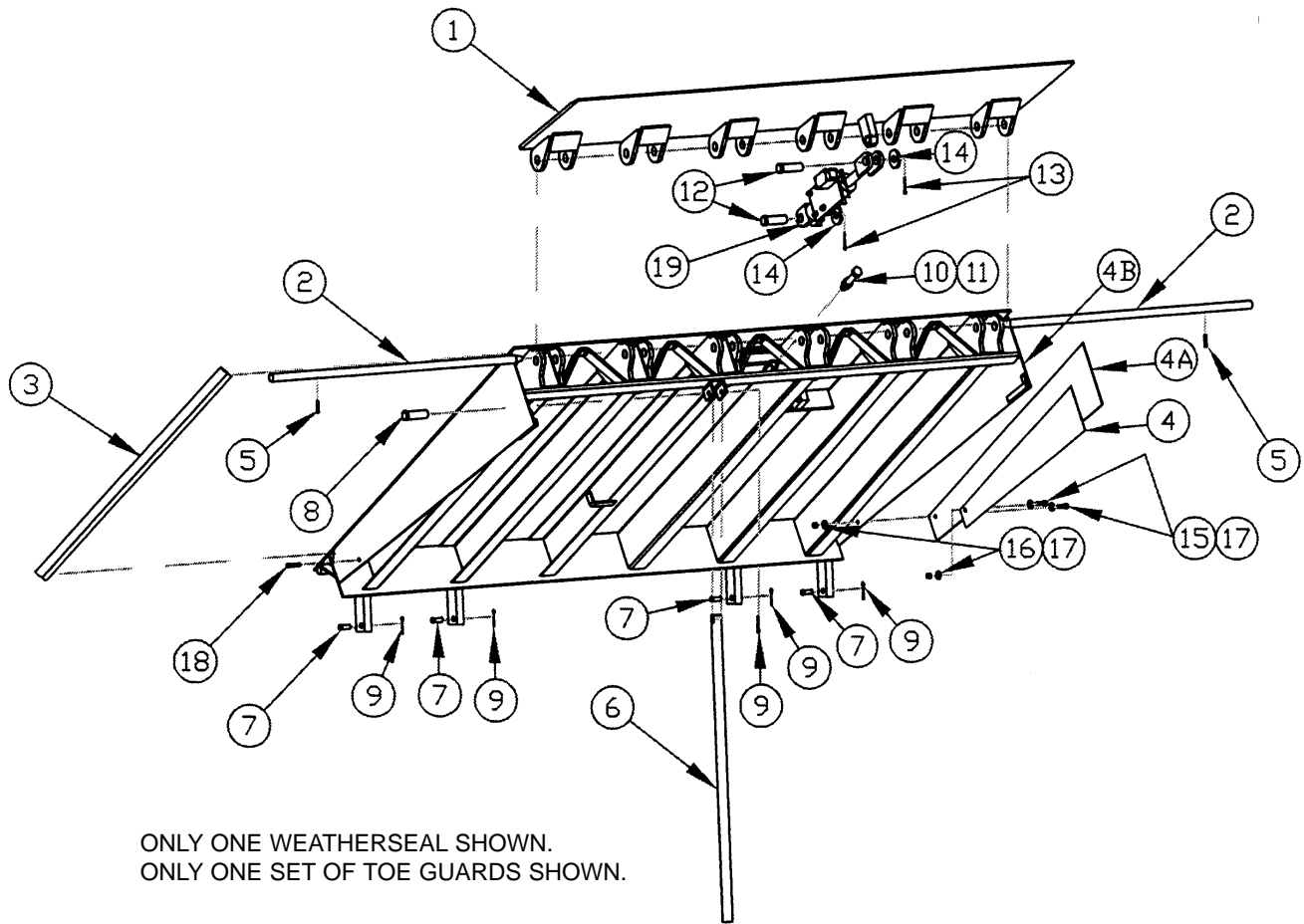


LOWER FRAME COMPONENTS

ITEM	PART NO.	PART NAME	QTY
1	121-055	WASHER, FL/PLD .25 S.A.E.	4
2	121-056	WASHER LOCK/PLD .25"	4
3	121-006	NUT, HEX PLATED .25 -20	4
4	521-375	PIN, CLEVIS 1" X 4.625"	2
5	113-075	PIN, COTTER .188" X 1.50" L	2
6	121-071	WASH, FLAT 2" OD X .062" ID	2
7	122-183	3/8 X 16NC HH CAP SCREW	2
8	121-010	3/8" -16NC HEX NUT	4
9	121-062	3/8" FLAT WASHER	4
10	121-061	3/8" LOCK WASHER	2



LEVELER DECK COMPONENTS



ONLY ONE WEATHERSEAL SHOWN.
ONLY ONE SET OF TOE GUARDS SHOWN.

ITEM	PART NAME	CAPACITY / PART NUMBER			QTY
		25K	30K	35K	
1	LIP ASSY 6FT X 16"	811-037	811-056	811-108	1
1	LIP ASSY 6 FT X 18"	811-040	811-059	811-111	1
1	LIP ASSY 6 FT X 20"	811-043	811-062	811-114	1
1	LIP ASSY 6.5 FT X 16"	811-038	811-057	811-109	1
1	LIP ASSY 6.5 FT X 18"	811-041	811-060	811-112	1
1	LIP ASSY 6.5 FT X 20"	811-044	811-063	811-115	1
1	LIP ASSY 7 FT X 16"	811-039	811-058	811-110	1
1	LIP ASSY 7 FT X 18"	811-042	811-061	811-113	1
1	LIP ASSY 7 FT X 20"	811-045	811-064	811-116	1
2	LIP SHAFT 6 FT	821-006	821-006	821-006	2
2	LIP SHAFT 6.5 FT	821-013	821-013	821-013	2
2	LIP SHAFT 7 FT	821-014	821-014	821-014	2
3	WEATHERSEAL SET 6'	531-452	531-452	531-452	2
3	WEATHERSEAL SET 8'	531-453	531-453	531-453	2
3	WEATHERSEAL SET 10'	531-454	531-454	531-454	2

LEVELER DECK COMPONENTS (continued)

ITEM	PART NAME	PART NO.	QTY.
4	1ST STAGE TOEGUARD 6' LG. (RH)	811-075	1
4A	1ST STAGE TOEGUARD 6' LG. (LH)	811-076	1
4B	2ND STAGE TOEGUARD 6' LG. (RH)	811-077	1
4C	2ND STAGE TOEGUARD 6' LG. (LH)	811-078	1
4D	3RD STAGE TOEGUARD 6' LG. (RH)	821-027	1
4E	3RD STAGE TOEGUARD 6' LG. (LH)	821-029	1

ITEM	PART NAME	PART NO.	QTY.
4	1ST STAGE TOEGUARD 8' LG. (RH)	811-079	1
4A	1ST STAGE TOEGUARD 8' LG. (LH)	811-080	1
4B	2ND STAGE TOEGUARD 8' LG. (RH)	811-081	1
4C	2ND STAGE TOEGUARD 8' LG. (LH)	811-082	1
4D	3RD STAGE TOEGUARD 8' LG. (RH)	821-082	1
4E	3RD STAGE TOEGUARD 8' LG. (LH)	821-032	1
4	1ST STAGE TOEGUARD 10' LG. (RH)	XXX-XXX	1
4A	1ST STAGE TOEGUARD 10' LG. (LH)	XXX-XXX	1
4B	2ND STAGE TOEGUARD 10' LG. (RH)	XXX-XXX	1
4C	2ND STAGE TOEGUARD 10' LG. (LH)	XXX-XXX	1
4D	3RD STAGE TOEGUARD 10' LG. (RH)	XXX-XXX	1
4E	3RD STAGE TOEGUARD 10' LG. (LH)	XXX-XXX	1
5	PIN, ROLL SST .25 X 1.50	113-271	2
6	SERVICE LEG 38"	522-149	1
7	PIN CLEVIS .50" X 1.75" L	113-071	4
8	PIN CLEVIS .5 DIA. X 2.5 L	113-068	1
9	PIN, COTTER .125 X 1.50 L	113-073	5
10	BOT, HEX/F-THD GR #5	122-157	1
11	NUT, HEX PLATED .75 -10	121-035	1
12	PIN, CLEVIS 1" X 3.25"	113-266	2
13	PIN, COTTER .188" X 1.50" L	113-075	2
14	WASH, FLAT 2"OD X .062" ID	121-071	2
15	BOLT, HEX PL. .375-16 X .75	122-021	4
16	NUT, HEX .375 -16 X 1"	121-022	4
17	WASH/FL 1"OD X .375 ID	121-062	8
18	TEK SCREW	122-188	2
19	LIP SWITCH	See Details	1

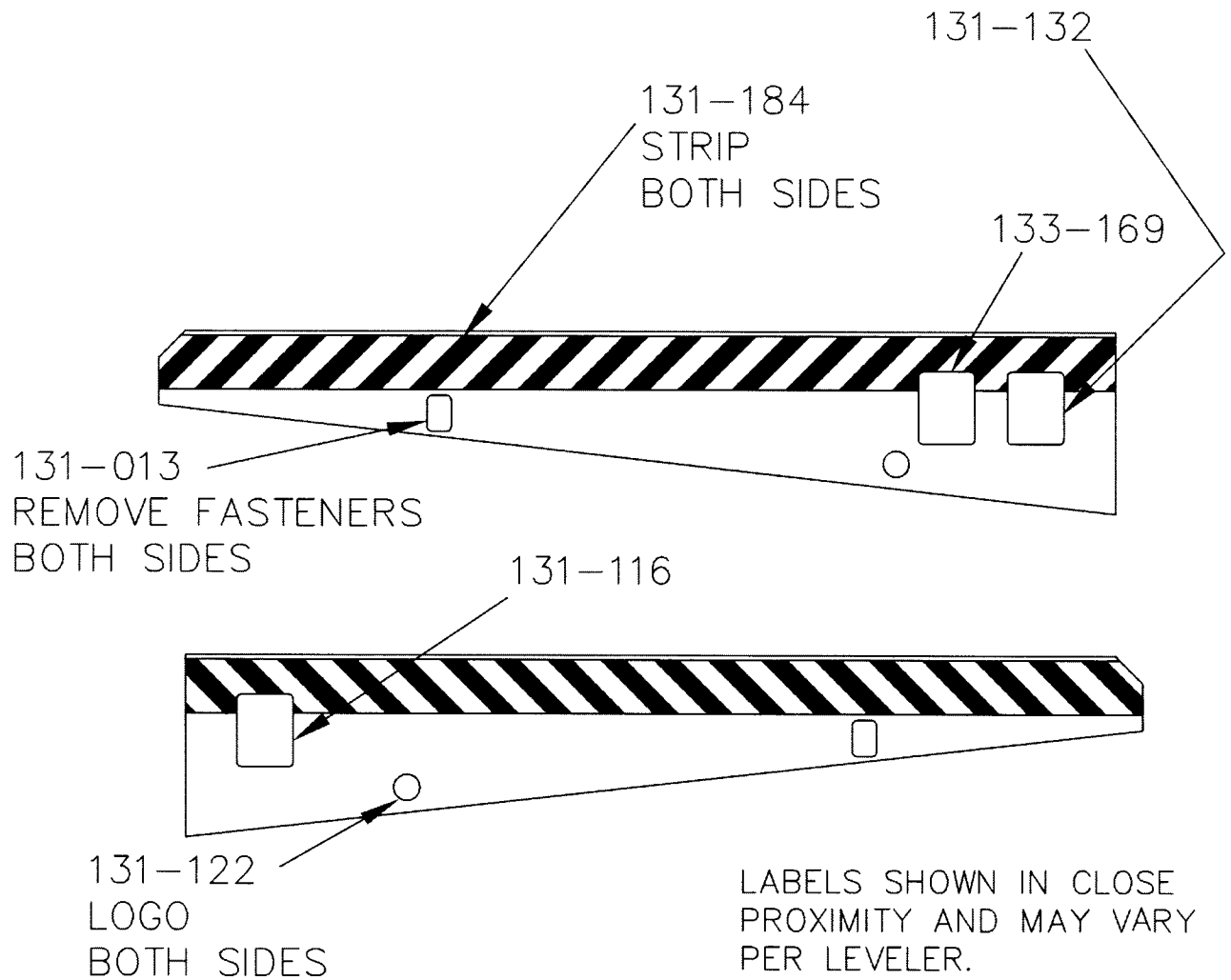
FOLLOWING ITEMS NOT SHOWN FOR CLARITY

24	LABEL, PRODUCT	131-005	1
25	LABEL, LEVELER WARNING	131-116	1
26	LABEL, LOGO MADE IN USA	131-122	1
27	LABEL, WARNING DO NOT . . .	131-132	1
28	TAPE, HAZARD	131-154	.15
29	LABEL, MCGUIRE CERTIFIED . . .	131-167	1
30	LABEL, STAY CLEAR . . .	131-169	1
31	LABEL, TOE GUARD	131-013	1

LABEL PLACEMENT

NOTE: The following labels shall be applied to structural toe guard as required.

131-132	DO NOT STAND IN FRONT . . .
131-122	McGUIRE LOGO
131-116	WARNING . . .
131-013	REMOVE FASTENERS
133-169	WARNING STAY CLEAR . . .
131-184	YELLOW / BLACK STRIPE

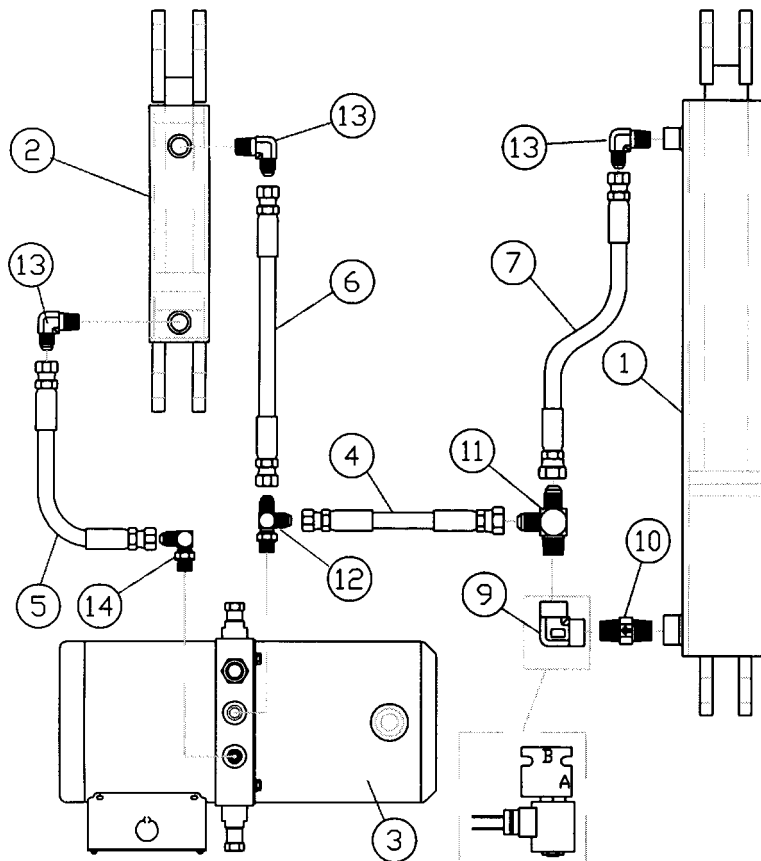


HYDRAULIC SYSTEM PARTS

ITEM NO.	DESCRIPTION	PART NUMBER	QTY	REMARKS
1	MAIN CYLINDER	111-308	1	3" BORE
	LIP CLYINDER	111-022	1	2" BORE
3	MOTOR	OPTIONS	1	SEE NOTE 1
4	HOSE ASSEMBLY	111-314	1	
5	HOSE ASSEMBLY	111-313	1	
6	HOSE ASSEMBLY	111-312	1	
7	HOSE ASSEMBLY	111-212	1	
8	SOLENOID VALVE	OPTION	1	SEE NOTE 2
9	ELBOW FITTING	111-071	1	SEE NOTE 2
10	VELOCITY FUSE	111-220	1	
11	T-FITTING	111-208	1	
12	T-FITTING	111-310	1	
13	ELBOW FITTING	111-070	3	
14	ELBOW FITTING	111-167	1	
15	MOTOR LEAD ASSEMBLY	OPTIONS	1	SEE NOTE 1

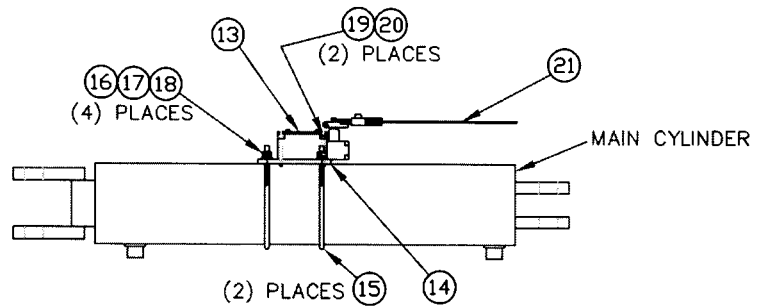
NOTES:

- Motor power supply option, use of the following:
 For 1 phase power use 111-218 with motor lead 511-201 (Item 15).
 For 3 phase power use 111-219 with motor lead 511-202 (Item 15)
- If unit is equipped with emergency stop/independent lip system replace item 9 with item 8.



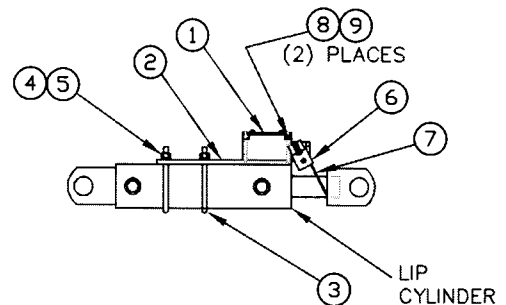
SWITCH ASSEMBLY PARTS

RETURN SWITCH ASSEMBLY



ITEM	PART NAME	PART NO.	QTY.
13	RETURN SWITCH	112-253	1
14	RETURN SWITCH MOUNT PLATE	521-389	1
15	"U"-BOLT	122-059	2
16	FLAT WASHER	121-062	4
17	LOCK WASHER	121-061	4
18	HEX NUT	121-010	4
19	SWITCH MOUNT SCREW	122-074	2
20	LOCK WASHER	121-052	2
21	LEVER ARM	112-176	1
22			
23			
24	RETURN SWITCH ASSEMBLY INCLUDES ITEMS 13-21	511-213	1

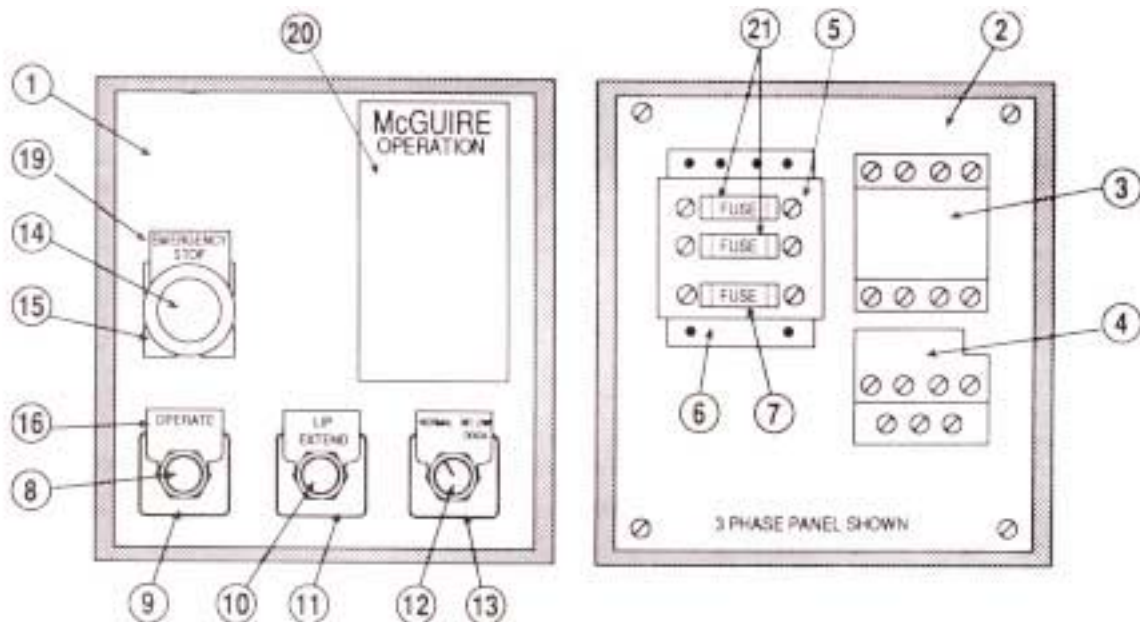
LIP SWITCH ASSEMBLY



ITEM	PART NAME	PART NO.	QTY.
1	LIP SWITCH	112-356	1
2	LIP SWITCH MOUNT PLATE	521-613	1
3	"U"-BOLT	122-102	2
4	LOCK WASHER	121-057	4
5	HEX NUT	121-007	4
6	ROD LEVEL	112-015	1
7	ROD	521-264	1
8	SWITCH MOUNT SCREW	122-103	2
9	LOCK WASHER	121-052	2
10			
11			
12	LIP SWITCH ASSEMBLY INCLUDES ITEMS 1-9	511-292	1

CONTROL PANEL PARTS

Item	Description	Part No.	110/1/60	220/1160	220/3/60	440/3/60
1	Enclosure Only	112-182	1	1	1	1
2	Panel base Plate	112-327 112-	1	1	1	1
3	Motor Contactor	302 112-280	1			
		112-301 112-		1		
		300 112-299			1	1
4	Thermal Overload	112-298 112-	1			
		279 112-330		1		
		112-329 112-			1	
		328 112-304				1
5	Transformer	112-340 112-			1	1
6	Fuse Holder	304 112-340	1	1		
7	Secondary Circuit Fuse (.75 AMP)	112-305 112-	1	1	1	1
8	Black Pushbutton	325 112-344	1	1	1	1
9	N.O. Contacts for Item 8	112-332 112-	1	1	1	1
10	Lip Extend Pushbutton	345 112-347	1	1	1	1
11	N.O. Contacts for Item 10	112-346 112-	1	1	1	1
12	Norm a]/Below- Dock Lip Selector Switch	353 131-135	1	1	1	1
13	N.O./N.C. Contacts for Item 12	112-331 112-	1	1	1	1
14	Emergency Stop Mushroom Pushbutton	221 112-222	1	1	1	1
15	N.O./N.C. Contacts for Item 14	112-223 112-	1	1	1	1
16	Legend Plate / Operate	224	1	1	1	1
17	Legend Plate / Lip Extend		1	1	1	1
18	Legend Plate / Normal/Below Dock Lip		1	1	1	1
19	Legend Plate / Emergency Stop		1	1	1	1
20	Logo/Operating Instructions Decal		1	1	1	1
21	Primary Fuse (.5 AMP)				2	2
22	Complete HTH Leveler Control with emergency stop and independent lip option. Includes items 1-21 plus all panel wiring and terminal strip.		1	1	1	1



W. B. McGUIRE CO. WARRANTY

HTH Series Levelers

The W. B. McGuire Company warrants that its HTH Series Hydraulic Dock Leveler will be free from defects in materials and workmanship for a period of ten (10) years from date of installation acceptance on all structural and five (5) years on all hydraulic components. A life time warranty is available on front and rear hinge assemblies. Labor for repair or replacement, done by W. B. McGuire authorized personnel, is included for a period of one (1) year from the date of installation acceptance. After one (1) year, all labor charges will be the responsibility of the owner.

W. B. McGuire's sole obligation under this warranty is limited to repairing or replacing any part, which shall be determined by W. B. McGuire to be defective, and is conditioned upon the buyer giving written notice of any such defect within the warranty period. If W. B. McGuire concludes that repair, or replacement, is necessary, work will commence within a reasonable time period after the decision to repair to replace is made.

This warranty will not apply to any product which has been altered, modified, damaged or which has deteriorated due to abuse, neglect, misuse or by accident. Warranty will be VOID if any repairs are made or attempted to be made by any person not authorized by W. B. McGuire. Proper application, installation, maintenance and operation are required to keep warranty in force.

Hydraulic systems are factory set. Periodic maintenance and adjustment is the sole responsibility of the owner.

This warranty is W. B. McGuire's exclusive expressed warranty. Warranty is limited to value of components only. W. B. McGuire assumes no liability for loss of the use of any equipment and expressly disclaims any liability for incidental or consequential damages. Warranties implied by law are limited in duration to the time periods established above.



Represented in This Area By:



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The specifications described herein were in effect at the time of printing. However, W.B. McGuire Company reserves the right to change specifications and designs or to discontinue models at any time without incurring obligation.