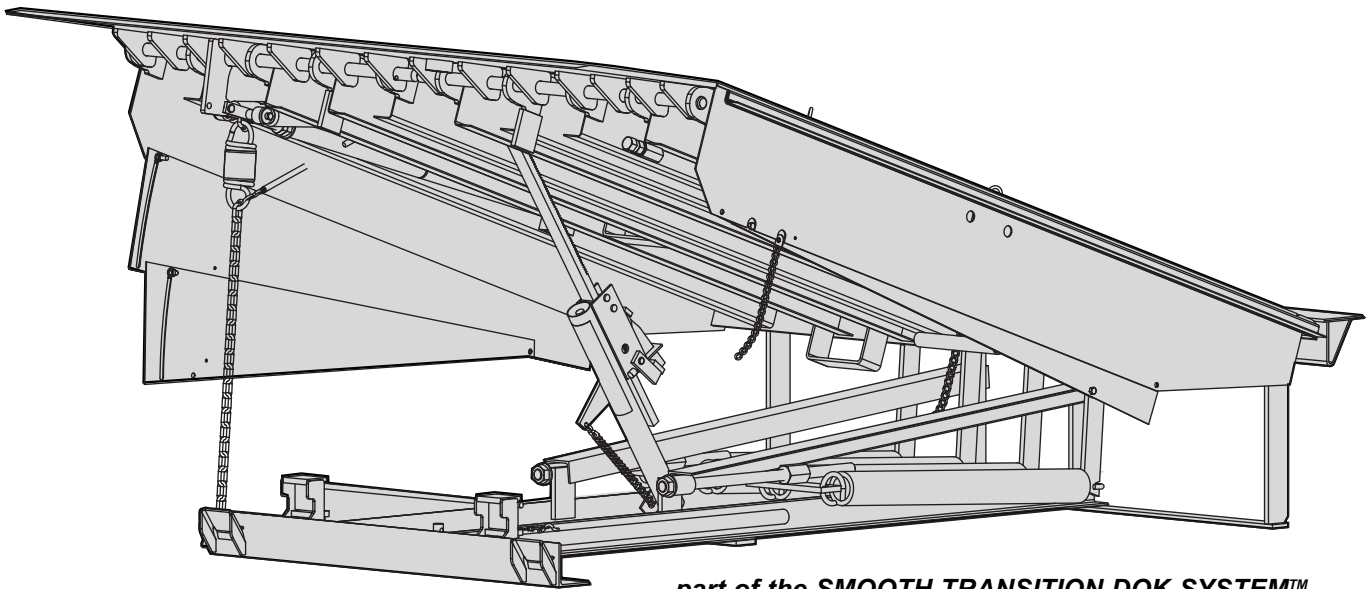


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# ML-900

## Dock Leveler

## Owners Manual



*part of the SMOOTH TRANSITION DOK SYSTEM™*



**This Manual Covers Dock Levelers Built After Serial Numbers:**  
04CD100001M and up

## NOTES

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## PRODUCT SPECIFIC WARRANTY

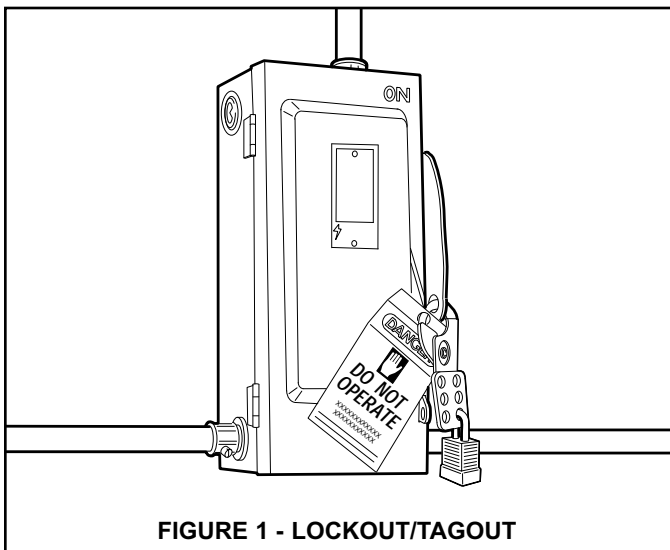
Rite-Hite warrants the ML9 Dock Leveler for one-year parts and labor from date of shipment in accordance with Rite-Hite's Standard Warranty Policy.

## NOTICE TO USER

Your local Rite-Hite<sup>®</sup> representative provides a Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. Call your local representative or Rite-Hite<sup>®</sup> at 414-355-2600.

The Rite-Hite products in this manual are covered by one or more of the following U.S. patents: 5,546,623; 5,553,987; 5,582,498; 5,664,930; 5,702,223; 5,762,459 (RE: 37,570); 5,882,167; 6,065,172; 6,070,283; 6,085,375; 6,089,544; 6,092,970; 6,106,212; 6,116,839; 6,190,109; 6,276,016; 6,311,352; 6,318,947; 6,322,310; 6,360,394; 6,368,043; 6,431,819; 6,488,464; 6,499,169; 6,505,713; 6,520,472; 6,524,053; 6,634,049; 6,726,432; 6,773,221; 6,832,403; 6,880,301; 7,032,267; 7,062,814; 7,134,159; 7,213,285; 7,216,391; 7,363,670; 7,380,305; 7,503,089; 7,533,431; 7,546,655; 7,584,517; 7,681,271; 7,823,239; 7,841,823; 7,877,831; 7,914,042; 8,006,811; 8,065,770; 8,141,189; 8,191,194; 8,286,757; 8,287,223; 8,303,235; 8,307,956; 8,443,474; 8,464,384; 8,464,846; 8,465,245 and pending U.S and foreign patent applications. RITE-HITE<sup>®</sup>, THINMAN<sup>™</sup>, SAFE-T-LIP<sup>®</sup>, HYDRACHEK<sup>®</sup>, WHEEL-LOK<sup>™</sup>, DOK-LOK<sup>®</sup>, DUAL-DOK<sup>®</sup>, SAFE-T-STRUT<sup>™</sup>, DOK-COMMANDER<sup>®</sup>, JUMBO<sup>™</sup>, HYDRA-RITE<sup>™</sup>, SAFE-T-GATE<sup>®</sup>, RITE-VU<sup>™</sup> LIGHT COMMUNICATION SYSTEM and SMOOTH TRANSITION DOK SYSTEM<sup>™</sup>, are trademarks of Rite-Hite<sup>®</sup>.

## SAFETY WARNING



### WARNING

When working with electrical or electronic controls, make sure that the power source has been locked out and tagged out according to OSHA regulations and approved local electrical codes.

## LOCKOUT/TAGOUT PROCEDURES

The Occupational Safety and Health Administration (OSHA) requires, in addition to posting safety warnings and barricading the work area (including, but not limited to, trucking office and loading docks), that the power supply has been locked in the OFF position or disconnected. It is mandatory that an approved lockout device is utilized. An example of a lockout device is illustrated. The proper lockout procedure requires that the person responsible for the repairs is the only person who has the ability to remove the lockout device.

In addition to the lockout device, it is also a requirement to tag the power control in a manner that will clearly note that repairs are under way and state who is responsible for the lockout condition. Tagout devices have to be constructed and printed so that exposure to weather conditions, or wet and damp locations, will not cause the tag to deteriorate or become unreadable.

Rite-Hite does not recommend any particular lockout device, but recommends the utilization of an OSHA approved device (refer to OSHA regulation 1910.147). Rite-Hite also recommends the review and implementation of an entire safety program for the Control of Hazardous Energy (Lockout/Tagout). These regulations are available through OSHA publication 3120.

### DANGER

This is the highest level statement. Failure to follow the listed instructions will most likely result in severe injury or death.

### CAUTION

The statements used with this level of warning deal with a safe operating procedure. If the procedure is ignored the possibility of personal injury may exist.

### WARNING

This is a statement of serious hazard. Failure to follow the listed instructions could place the individual at risk of serious injury or death.

### IMPORTANT

IMPORTANT is used to draw attention to a procedure that needs to be followed to prevent machine damage.

## OTHER IMPORTANT OPERATIONAL SAFETY WARNINGS

### **DANGER**

Never be under the dock leveler platform or lip without:

- Installing the Safe-T-Strut™ or other supporting device.
- If lip needs to be extended, follow procedures shown under Safety Devices on the following page.
- Turning off power to the control box.
- Locking out and tagging out the main power source, as shown under Safety Warnings on preceding page.

### **WARNING**

Always barricade the dock leveler at ground level and dock level from any form of traffic when maintenance is required.

### **CAUTION**

Inspect the dock leveler monthly to ensure that there are no broken or worn parts which could cause injury to personnel or damage to the equipment.

### **WARNING**

- Before starting installation or maintenance, check and follow the safety procedures of the facility where the dock leveler is being installed.
- Never enter a truck/trailer until its brakes are set, air has been dumped from air ride suspension (if applicable), and you have visually inspected to be sure truck/trailer is securely held in place by a vehicle restraint or wheel chock per OSHA regulations.
- Never operate the leveler with you, anyone, or anything on, or in front of the leveler, or without a truck/trailer parked in position, or from on the truck/trailer bed.
- DO NOT operate with anyone under platform or in front of the lip.
- When leveler is not in use, always store it so that it is supported by the lip supports and that it is level with the surrounding dock floor.
- If a malfunction does occur, always call your authorized Rite-Hite service representative immediately.

## SAFETY DEVICES

### **DANGER**

Never be under the dock leveler platform or lip without:

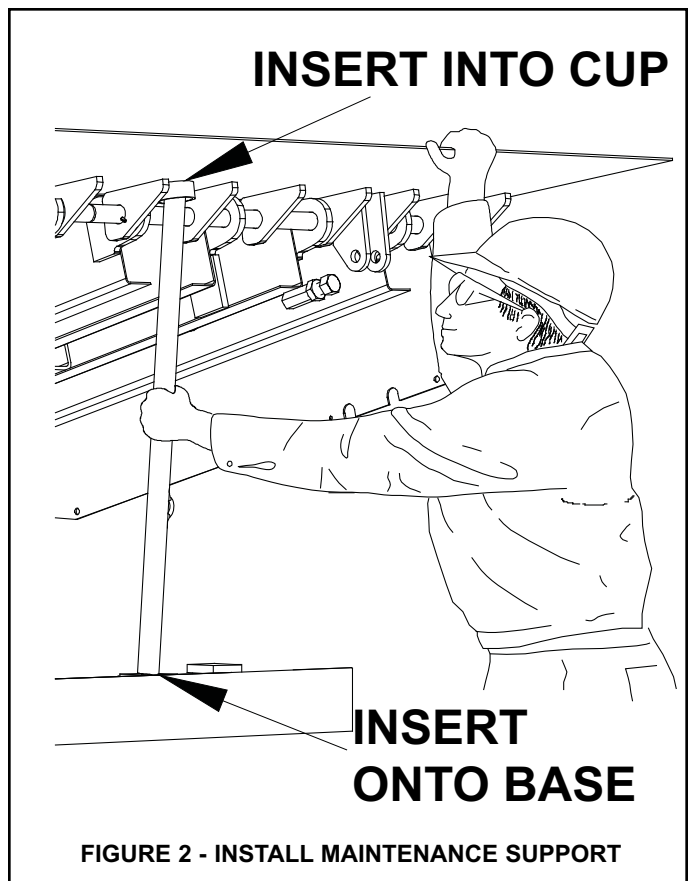
- Installing the Maintenance Support. See below right. This can be done with the assistance of another person by:
  - Raise leveler until platform reaches its highest position and lip extends. Continue to maintain this position.
  - Then have assistant insert the Maintenance Support over the base located on the leveler's front frame.
  - Release the pushbutton on powered levelers allowing the support to rest inside the lip cup on the underside of the lip.
- Lockout/Tagout power supply.
  - Turn off the power to the control box.
  - Lockout/tagout the main power source, as shown under Safety Warnings on the inside front cover of this manual.
  - Always barricade the leveler at dock level and drive level to prevent any unauthorized use of the leveler.

Remove the Maintenance Support.

- For Maintenance Support removal, have an assistant raise the leveler to its highest position with lip fully extended. Lift the support off base. Return the Maintenance Support to the proper storage position.
- If you are unable to install the Maintenance Support properly, contact your authorized Rite-Hite Service Representative or Rite-Hite Customer Service at 1-414-355-2600.

### **CAUTION**

- Post warnings and barricades at dock level and at drive level to indicate that work is being done around and under the leveler platform.
- Lockout/Tagout power to the leveler and post warnings when work is being performed on the leveler.



## OWNER RESPONSIBILITY

1. The owner should recognize the inherent danger of the interface between dock and transport vehicle. The owner should, therefore, train and instruct operators in the safe use of dock equipment in accordance with the information provided below. The manufacturer shall publish, provide to the initial purchaser, and make the following information readily available to owners:
  - Installation instructions
  - Recommended initial and periodic inspections procedures
  - Maintenance procedures
  - Operating instructions
  - Descriptions or specifications for replaceable or repairable parts
  - Tables identifying the grade (slope) for all variations of length or configuration of the dock equipment, and
  - Information identifying the maximum uncontrolled drop encountered upon sudden removal of support while within the working range of the equipment.

It shall be the responsibility of the owner to verify that the material listed in this section has been received and that it is made available for the instruction and training of personnel entrusted with the use or maintenance of the dock equipment.
2. When a transport vehicle is parked at a loading dock, it is important that the vehicle is relatively perpendicular to the dock face and in close contact with at least one of the dock bumpers.
3. Nameplates, cautions, instructions, and posted warnings shall not be obscured from the view of operating or maintenance personnel for whom such warnings are intended.
4. Manufacturer's recommended periodic maintenance and inspection procedures in effect at date of shipment shall be followed, and written records of the performance of these procedures should be kept.
5. As with any piece of machinery, dock equipment requires routine maintenance, lubrication, and adjustments. Your local Rite-Hite representative offers owners the option of a Planned Maintenance Program (P.M.P.). As part of this service, your local Rite-Hite representative will do all routine maintenance, lubrication, and adjustments.
6. Dock equipment that is structurally damaged shall be removed from service, inspected by a manufacturer's authorized representative, and repaired as needed before being placed back in service.
7. The manufacturer shall make available replacement nameplates, caution/instruction labels, and operating/maintenance manuals upon request of the owner. The owner shall see that all nameplates, caution/instruction markings or labels are in place and legible, and that the appropriate operating/maintenance manuals are provided to users.
8. Modifications or alterations of dock equipment shall be made only with written permission of the original manufacturer. These changes shall also satisfy all safety recommendations of the original equipment manufacturer for the particular application of the dock equipment.
9. In order to be entitled to the benefits of the standard product warranty, the dock equipment must have been properly installed, maintained and operated within its rated capacities and/or specific design parameters, and not otherwise abused.
10. It is recommended that trailers equipped with air ride suspensions should remove the air from the suspension to minimize trailer bed drop, prior to loading or unloading.
11. When industrial trucks are driven on and off transport vehicles during the loading and unloading operation, the brakes on the transport vehicle shall be applied and wheel chocks or a positive restraining device shall be engaged.
12. In selecting dock equipment, it is important to consider not only present requirements but also future plans or adverse environments.

# OPERATION INSTRUCTIONS

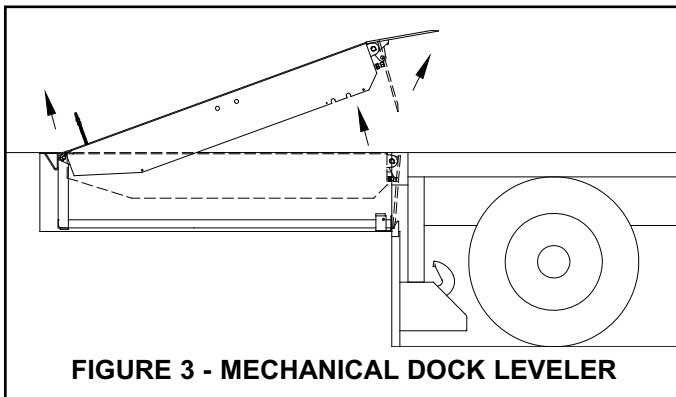
## NOTE:

End loads at dock level and above can be handled with the leveler in its stored position.

Be sure the lip is in full contact with the truck/trailer bed before loading or unloading truck/trailer.

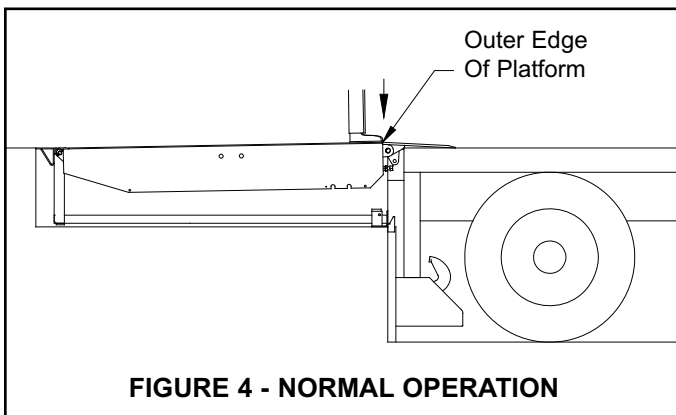
## NORMAL OPERATION

1. Activate the leveler by pulling and holding the ramp control release chain until the platform is at the highest position and the lip is fully extended. See figure 3.



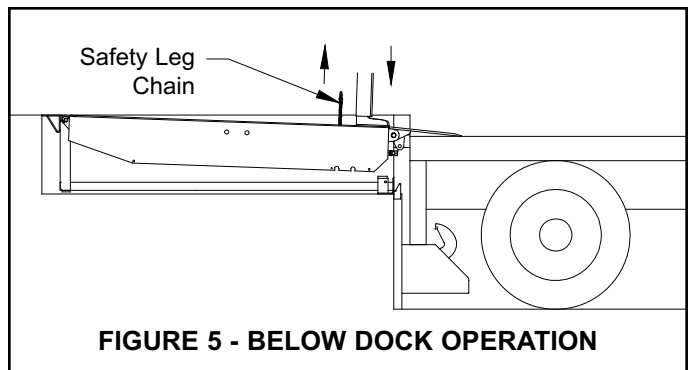
2. Walk on platform to the front edge (DO NOT walk on lip). The platform will lower until the lip contacts the truck/trailer bed. Be sure the lip is in full contact with the truck/trailer bed. See figure 4.
3. See *Storing Leveler*.

**NOTE:** If the truck/trailer departs, the lip will fall to the pendant position inside the dock bumpers. See *Storing Leveler*.



## BELOW DOCK LOADING OPERATION

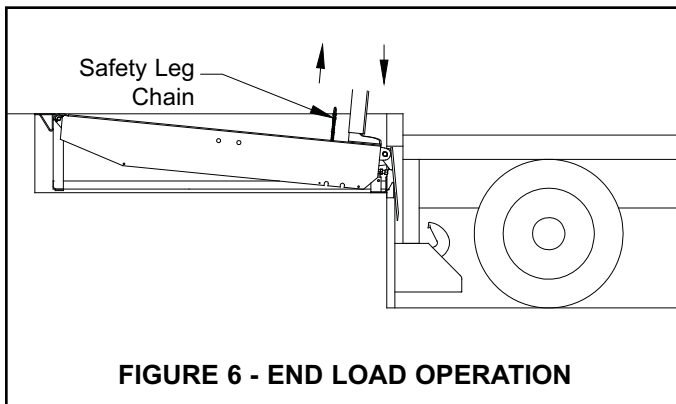
1. To service truck/trailers with beds lower than the dock level, activate the leveler by pulling and holding the ramp control release chain until platform is at the highest position and the lip is fully extended. Release the chain. See figure 3.
2. Walk on platform to the front edge (DO NOT walk on lip). While the platform is lowering pull and hold the safety leg release chain until the lip contacts the truck/trailer bed. Be sure the lip is in full contact with the truck/trailer bed. See figure 5.



3. When loading/unloading is complete, continue with normal operation or return the leveler to stored position. See *Storing Leveler*.

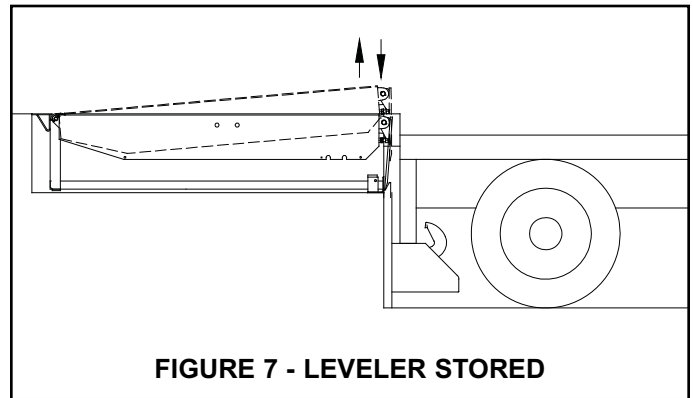


## OPERATION INSTRUCTIONS



### BELOW DOCK END LOADING OPERATION

1. To service truck/trailers with end loads, activate the leveler by jogging the ramp control release chain (short, quick pulls of chain) until the platform has risen 12 to 14 inches and the lip is pendant. Release the ramp control release chain.
2. Walk on platform to the front edge (DO NOT walk on lip). While the platform is lowering pull and hold the safety leg chain. Walk the leveler down until the platform is in the fully below dock position with the lip positioned between the face of the loading dock and the truck/trailer bed. Release safety leg chain. See figure 6.
3. When loading/unloading is complete, continue with normal operation or return the leveler to stored position. See *Storing Leveler*.



### STORING LEVELER

1. To store the leveler if platform is lower than dock level, jog the ramp control release chain until platform is 2 to 3 inches above dock level and lip is fully pendant, then walk on platform to lower to dock level with lip resting in the lip supports.
- If platform is higher than dock level and lip is fully pendant, walk on the platform to lower to dock level with lip resting in the lip supports. See figure 7.

## MAINTENANCE PROCEDURES



### WARNING

Read and obey these instructions to prevent personal injury.

- Post safety warnings and barricade work area, at dock level and at ground level, to prevent unauthorized use of the dock position before maintenance has been completed.
- Make sure to install the maintenance support strut before proceeding with any repair work.

### SUGGESTED LEVELER MAINTENANCE

**NOTE:** Follow maintenance procedures below as outlined. Include the specific steps for your leveler model.

**NOTE:** Your local Rite-Hite representative provides a Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. Call your local representative.

#### Daily

1. Remove debris on and around leveler. Be sure the hinge section of the lip and the platform is clean.
2. Check unit for proper operation.

#### 90 Days

1. Perform all Daily Maintenance.
2. Clean pit.
3. Inspect lip out mechanism (pins, lip crank, links, chains and shackles). Replace if worn.
4. Lubricate the leveler with the proper lubricants. See figure 8.
5. Inspect all weather seals (if installed) and replace if worn or damaged.
6. Inspect dock bumpers. Four inches (4") of bumper protection is required. Worn, torn, loose or missing bumpers must be replaced.
7. Check conditions of concrete, angles and welds. Repair or replace if necessary.
8. Inspect structure, hinge pins, clevis pins and cotter pins for abnormal wear.

#### 360 Days

1. Perform Daily and 90-Day Maintenance.

## MAINTENANCE PROCEDURES

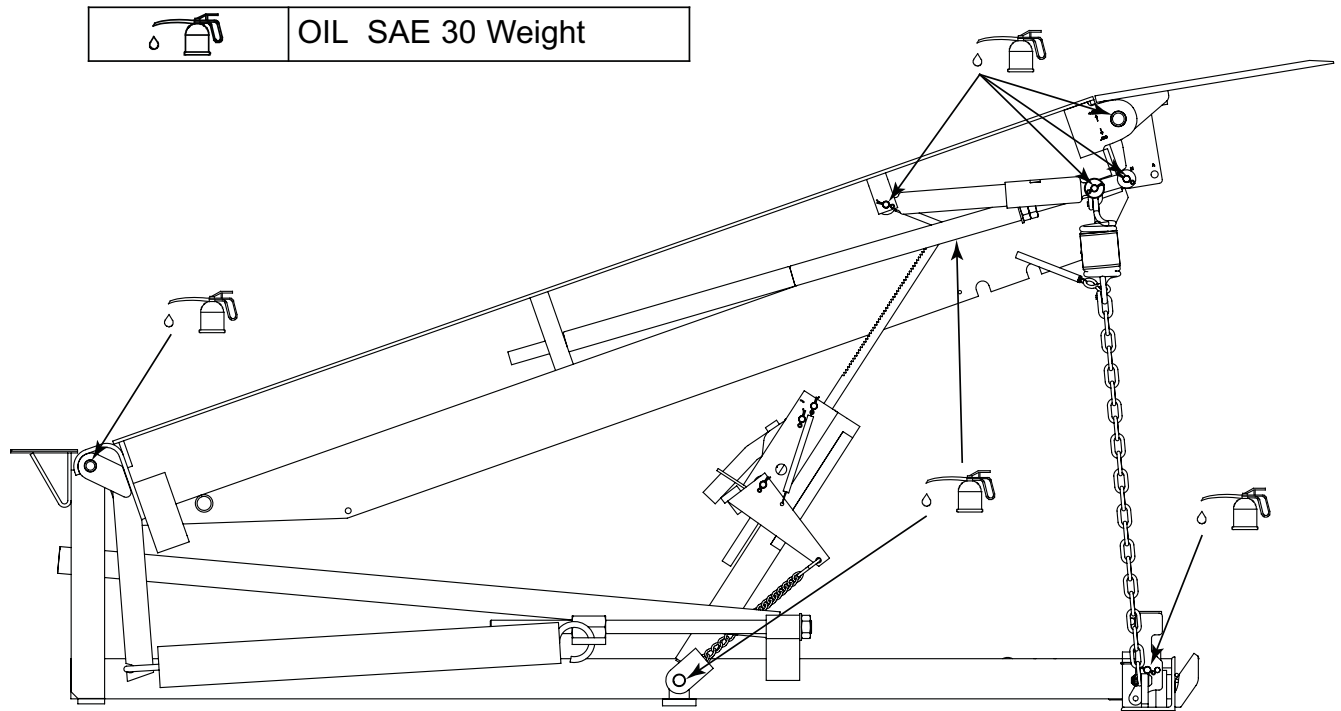


FIGURE 8 - MECHANICAL LEVELER LUBRICATION

### DANGER

- DO NOT operate leveler with anyone standing on or in front of the lip.
- NEVER go under the leveler platform or lip without installing the Maintenance Support.

#### LIP STOP BOLT:

The lip stop bolt adjusts the position of the lip when the leveler is stored to allow the lip to be centered on lip supports when stored.

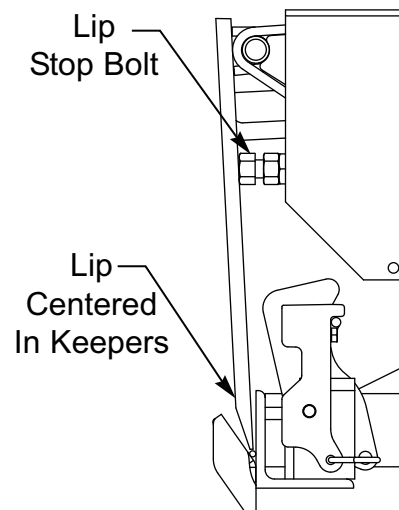


FIGURE 9 - LIP STOP BOLT

## LEVELER ADJUSTMENTS CONT.

### WARNING

Make sure to position the maintenance support when making the lip assist spring adjustment.

### DANGER

NEVER REMOVE adjustment nuts from main spring adjustment rod. Serious injury or death will occur.

### WARNING

- Make sure to insert the maintenance support when making the main extension spring adjustment.
- Refer to operating instructions - follow all CAUTIONS and WARNINGS prior to activating your dock leveler.

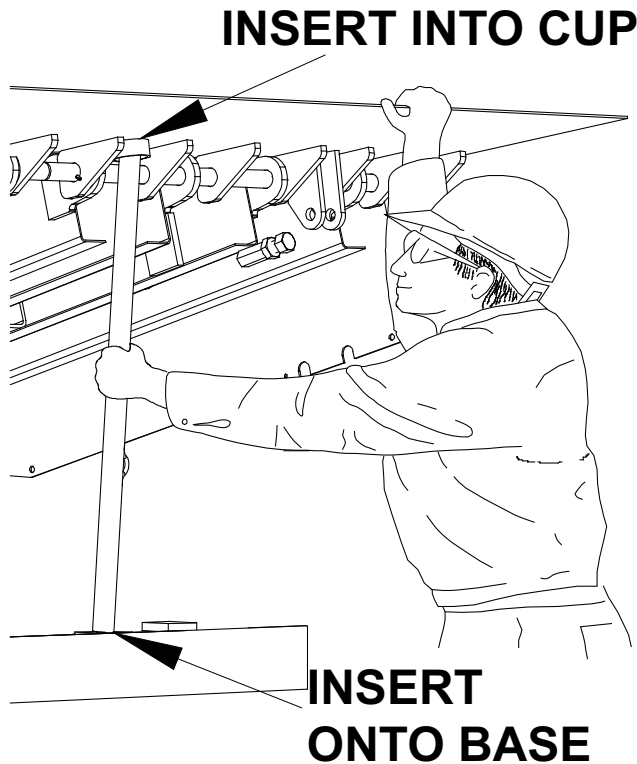


FIGURE 10 - INSTALL MAINTENANCE SUPPORT

## MECHANICAL LEVELER ADJUSTMENTS

### LIP ASSIST SPRING ADJUSTMENT

1. Proper adjustment of the lip assist spring is defined as "the condition of maximum spring compression that permits the lip to fall of its own weight to the fully pendant position."
2. To adjust the lip assist spring, release the lock nut and advance the adjustment nut clockwise to produce maximum compression on the spring while still allowing the lip to fall.
3. Back off the adjustment nut until the lip, when dropped from the fully extended position, barely overcomes the spring tension and falls to the pendant position. Tighten the lock nut to secure the adjustment.

### MAIN LIFT SPRING ADJUSTMENT

**GOAL** - To MINIMIZE the spring force (and ultimately the walkdown) while still reliably latching the lip and raising from below dock.

**Note:** Adjustments should be made in small increments equally to each adjustment nut. (i.e. 1/2 turn at a time on both adjustment nuts)

With the leveler positioned approximately 2" above the stored position, raise the platform and allow the lip to extend and latch. If the lip does NOT latch:

- Due to a lack of spring energy - Increase the spring tension on the lift springs by turning each of the nuts on the spring pull bar weldment(s) clockwise in equal, full turn increments.
- Due to the platform raising violently - Decrease the spring tension on the lift springs by turning each of the nuts on the spring pull bar weldment(s) counter-clockwise in equal, full turn increments.

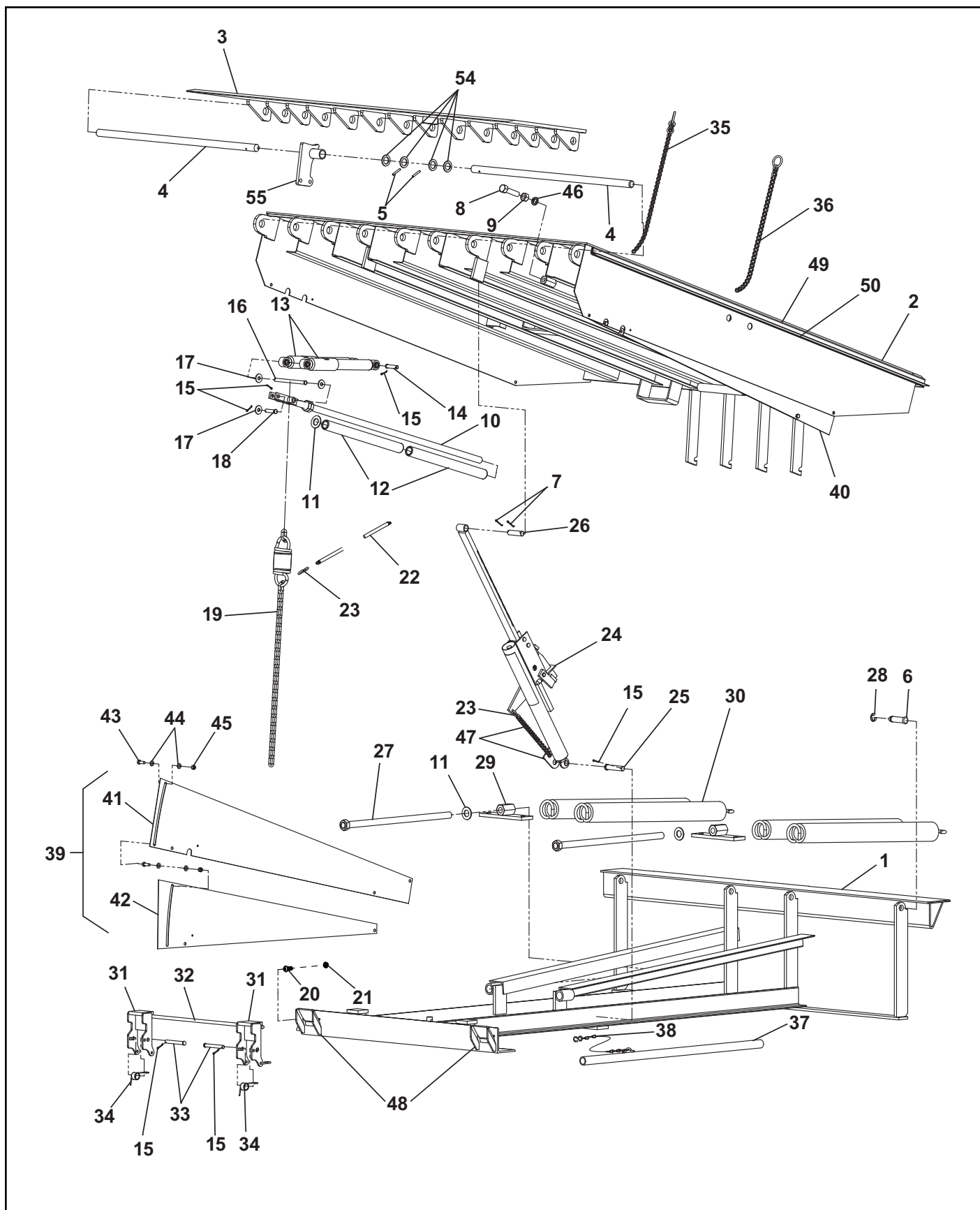
Verify that the platform will raise from the fully below dock position. Do NOT allow the lip to extend! If the platform does NOT raise:

- Increase the spring tension on the lift springs by turning each of the nuts on the spring pull bar weldment(s) clockwise in equal, full turn increments.

## LEVELER TROUBLESHOOTING

Problem	Probable Cause	Solution
1. Lip will not extend	a. Snubber chain assembly is disconnected or broken. b. Lip assist spring out of adjustment or broken. c. Platform did not raise fully. d. Debris	a. Replace or reconnect chain assembly. b. Adjust lip assist spring. See adjustment procedures or replace. c. Adjust main springs. See adjustment procedures or replace damaged springs. d. See maintenance procedures.
2. Lip is partially extended.	a. Platform did not raise fully. b. Lip assist spring out of adjustment. c. Debris	a. Adjust main springs. See adjustment procedures or replace damaged springs. Consult local representative or Rite-Hite. b. Adjust lip assist spring. See adjustment procedures. c. See maintenance procedures.
3. Lip remains fully extended (after serving trailer).	a. Lip assist spring out of adjustment. b. Lip assist rod binding. c. Debris	a. Reduce lip assist spring. See adjustment procedures. b. Check for obstruction. c. See maintenance procedures.
4. Platform does not raise when ramp control release chain (rear release ring) is pulled and held.	a. Broken or unhooked ramp control release chain. b. Debris c. Main springs broken or out of adjustment.	a. Repair or replace. Consult Local representative or Rite-Hite. b. See maintenance procedures. c. Adjust main springs. See adjustment procedures or replace damaged springs. Consult local representative or Rite-Hite.
5. Leveler is hard to walk down.	a. Excessive main spring tension. b. Pit wall interference.	a. Adjust main springs. See adjustment procedures. b. Check for equal clearance, remove debris. See maintenance procedures.
6. Ramp control release chain is hard to pull. (rear release chain)	a. Bent ratchet bar. b. Release crank binding.	a. Repair or Replace if necessary. b. Check for proper chain routing, remove debris, lubricate. See maintenance procedures.
7. Leveler will not go below dock.	a. Endload leg assembly will not retract. b. Pit wall interference.	a. Repair or replace damaged linkage. b. See Item #5.

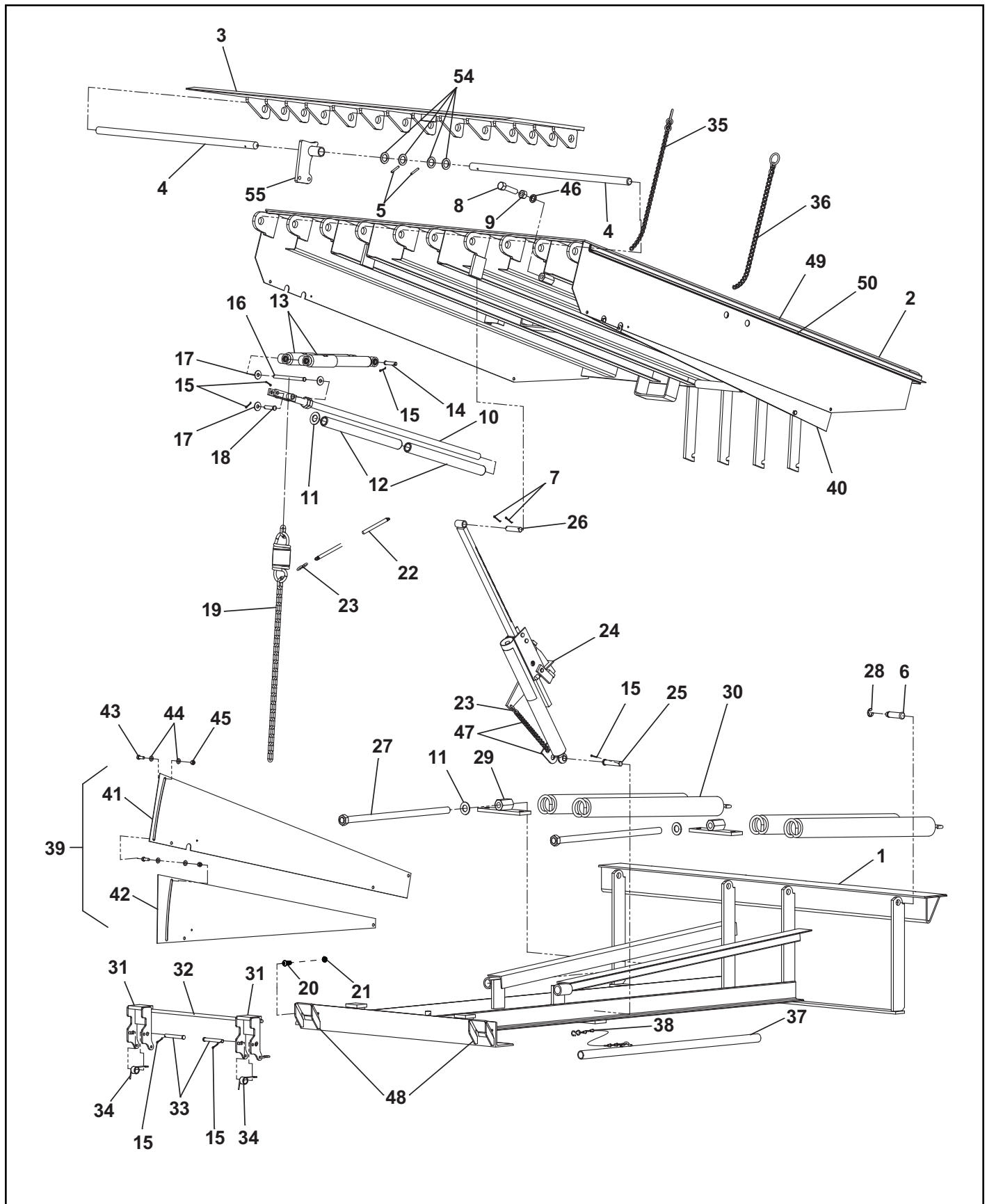
## REPLACEMENT PARTS



**REPLACEMENT PARTS LIST**

Item	Qty.	Description	Leveler Length and Capacity			
			6' Long	8' Long	8' Long	10' Long
			(30-50K Cap.)	(30-40K Cap.)	(50k Cap.)	(30-50K Cap.)
1	1	Frame Weldment	363.xxx	363.xxx	362.xxxx	362.xxx
2	1	Platform Weldment	437.xxx	437.xxx	437.xxx	437.xxx
3	1	Lip Weldment	421.xxx	421.xxx	421.xxx	421.xxx
4	2	Lip Hinge Pin 6' Wide	562.101	562.101	562.101	562.101
	2	Lip Hinge Pin 6.5' Wide	562.102	562.102	562.102	562.102
4	2	Lip Hinge Pin 7' Wide	562.100	562.100	562.100	562.100
	2	Lip Hinge Pin 6' Wide (Stainless Steel)	490.101	490.101	490.101	490.101
	2	Lip Hinge Pin 6.5' Wide (Stainless Steel)	490.102	490.102	490.102	490.102
	2	Lip Hinge Pin 7' Wide (Stainless Steel)	490.103	490.103	490.103	490.103
5	2	Pin Tension .25 Dia X 1.75L	123960	123960	123960	123960
6	4	Clevis Pin Headed .875 X 3.25L Groove ZP	129307	129307	129307	129307
	4	Clevis Pin Headed .875 X 3.25L Gr (Stainless Steel)	129309	129309	129309	129309
7	2	Cotter Pin .125 Dia X 1.5L ZP	51903	51903	51903	51903
8	1	Bolt Hex .75-10 UNC X 3.00L ZP	51186	51186	51186	51186
9	1	Nut .75-10 Hex Gr5 ZP	51517	51517	51517	51517
10	1	Rod Lip Assist 1 Dia 48L	01551	01551	01551	01551
11	3	Flat Washer	51721	51721	51721	51721
12	2	Lip Assist Compression Spring	See Chart - Page 18			
13	2	Hydrachek 1" Bore	See Chart - Page 18			
14	2	Clevis Pin Headed .5 X 2.25L Hole ZP	52418	52418	52418	52418
15	7	Cotter Pin .125 X 1L ZP	51901	51901	51901	51901
16	1	Clevis Pin Headed .5 X 6.75L 2Hole	130014	130014	130014	130014
17	3	Flat Washer .5 Dia ZP	51705	51705	51705	51705
18	1	Clevis Pin Headed .5 X 2L Hole ZP	52409	52409	52409	52409
19	1	Snubbing Chain Assembly	511.100	511.100	511.100	511.100
20	1	Bolt .500-13 X 1.5 CAP Hex Gr5 ZP	146887	146887	146887	146887
21	1	Nut .500-13 Nylock Jam ZP	112965	112965	112965	112965
22	1	Extension Spring .5OD .39ID 5L 2.07Lb/Inch	52047	52047	52047	52047
23	3	S-Hook .219 Wire	51102	51102	51102	51102
24	1	Ramp Control Assembly	00505	00505	00505	00506
25	1	Clevis Pin .75 Dia X 3.5L HD ZP	130015	130015	130015	130015
26	1	Clevis Pin .75 Dia X 3L ZP	102247	102247	102247	102247
27	2	Bolt 1.000-8 UNC X 24L Hex G2	116869	116869	116869	116869
28	4	Ring Ext Retaining .875OD	129308	129308	129308	129308
29	2	Spring Pull Bar 2Hole Thrd (Units with 4 Springs)	118296	118296	-	-
	2	Spring Pull Bar 3Hole Thrd (Units with 6 Springs)	-	-	116863	116863
30	-	Main Ramp Lift Extension Spring	See Chart - Page 19			
31	2	Safety Leg 3.06 x 7L	142583	142583	142583	142583
32	1	Round .5 Dia 28.25L HR M1020	493.100	493.100	493.100	493.100
33	2	Clevis Pin Headed .5 Dia X 4L Hole ZP	117066	117066	117066	117066
34	2	Torsion Spring 180° .901ID	120461	120461	120461	120461
35	1	Chain Assembly Lanyard Twist #1/0	510.100	510.100	510.100	510.100

## REPLACEMENT PARTS





**REPLACEMENT PARTS LIST CONT.**

Item	Qty.	Description	Leveler Length and Capacity			
			6' Long	8' Long	8' Long	10' Long
			(30-50K Cap.)	(30-40K Cap.)	(50k Cap.)	(30-50K Cap.)
36	1	Chain Assembly Lanyard Twist #1/0	510.101	510.102	510.102	510.109
37	1	Maintenance Support	413.121	413.122	413.122	413.122
38	1	Maintenance Support Chain Assembly	117395	117395	117395	117395
39	1	Toeguard Assembly Full Range LH (2 Fan)	417.102	417.103	417.103	417.104
40	1	Toeguard Assembly Full Range RH (2 Fan)	418.102	418.103	418.103	418.104
41	1	Toeguard Fan 14Ga x 11 4Hole LH	411.100	411.101	411.101	563.100
	1	Toeguard Fan 14Ga x 11 4Hole RH	411.100	411.101	411.101	564.100
42	1	Toeguard Fan 14Ga x 11 3Hole LH	416.100	416.101	416.101	565.109
	1	Toeguard Fan 14Ga x 11 3Hole RH	416.100	416.101	416.101	566.109
43	8	Bolt .375-16 x 1L Hex Gr5 ZP	51600	51600	51600	51600
44	16	Flat Washer .38 ZP	51700	51700	51700	51700
45	8	Nut .375-16 Nylock ZP	51501	51501	51501	51501
46	1	Lock Washer Split .75 Heavy ZP	51814	51814	51814	51814
47	1	Ramp Control Relief Chain	143327	143327	143327	143327
48	2	Lip Keeper Weldment	129201	129201	129201	129201
49	2	Channel Formed Weatherseal 12GA	111550	111551	111551	114030
50	2	Insert Weatherseal PT2-1	513.105	513.104	513.104	513.106
	2	Insert Weatherseal NB1-1 (Not Shown)	514.105	514.104	514.104	514.106
51	1	Operation Sign (Not Shown)	128111	128111	128111	128111
52	1	Decal Sheet Manufacturing (Not Shown)	128116	128116	128116	128116
53	1	Decal Sheet Field (Not Shown)	128121	128121	128121	128121
54	4	Washer Flat 1.125 ID 1.75 OD .1406Thk ZP	139809	139809	139809	139809
55	1	Lip Out Lug / Lever	142586	142586	142586	142586

# LIP ASSIST SPRING CHARTS

## ML9 LIP ASSIST SPRING CHART (Item # 12)

Capacity	Lip Thickness (in)	Nominal Width (ft)	Lip Length (in)	6', 8' & 10' Long	
				Spring Quantity	Spring Part No.
30K	1/2	6W	16	2	52011
			18		52011
			20		52014
		6.5W	16		52011
			18		52011
			20		52014
		7W	16		52011
			18		52014
			20		52014
		6W	16		52011
			18		52014
			20		52041
35K & 40K	5/8	6W	16	2	52011
			18		52014
			20		52041
		6.5W	16		52011
			18		52014
			20		52041
		7W	16		52011
			18		52014
			20		52041
		6W	16		52011
			18		52014
			20		52041
50K	11/16	6W	16	2	52011
			18		52014
			20		52041
		6.5W	16		52014
			18		52041
			20		52041
		7W	16		52014
			18		52041
			20		52041
		6W	16		52011
			18		52014
			20		52041

## HYDRACHEK CHART (Item # 13)

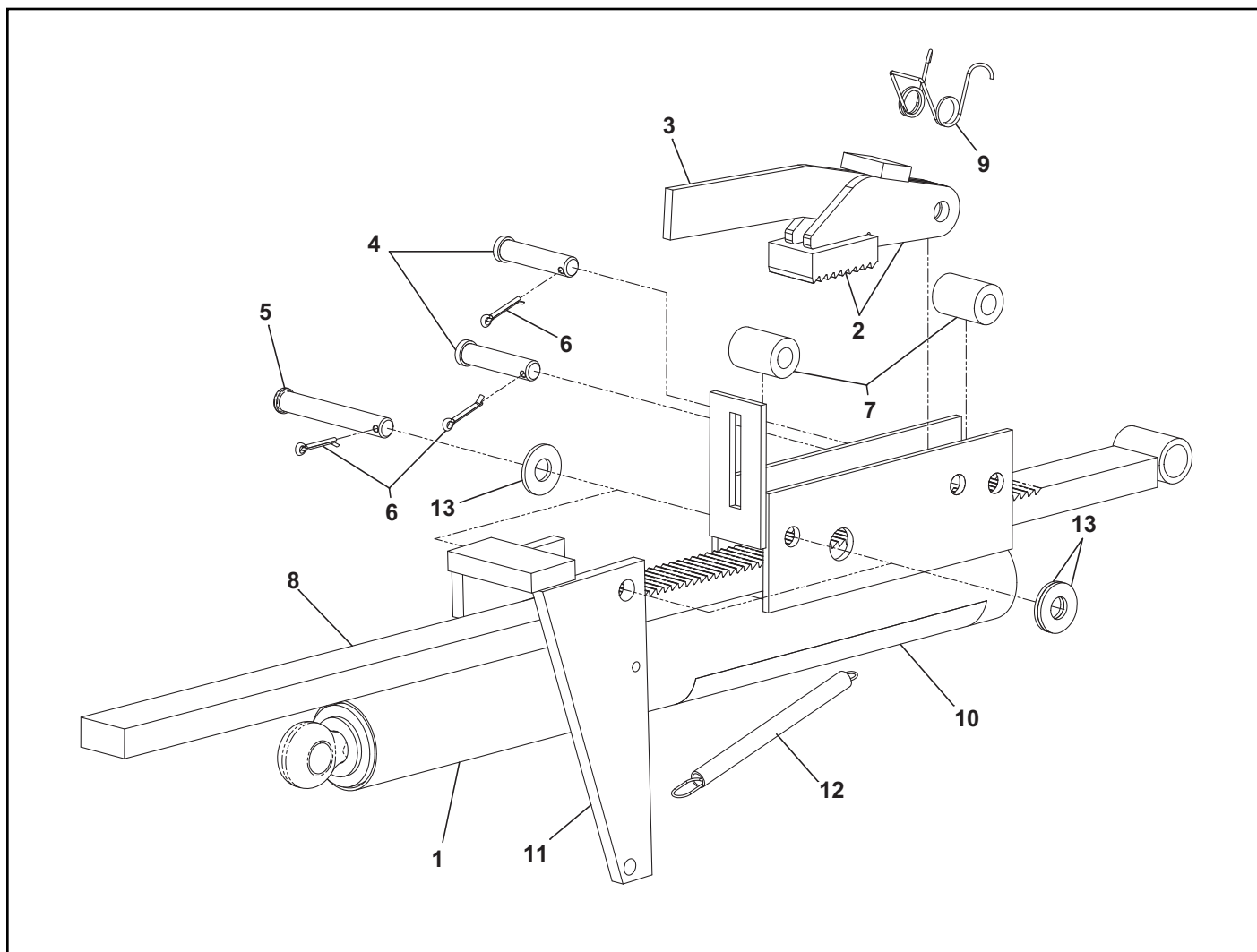
Lip Thickness (in)	Lip Length (in)	Lip Width (in)	Hydrachek Part No.	Quantity
1/2	16-20	72-83	51147-1	2
5/8	16	72-83	51147-1	2
5/8	18-20	72-83	51147-1	1
			51147-2	1
11/16	16	72-83	51147-1	1
			51147-2	1
11/16	18-20	72-83	51147-2	2

# MAIN SPRINGS CHART

## ML9 MAIN SPRING CHART (Item # 30)

Capacity	Lip Thickness (in)	Nominal Width (ft)	Lip Length (in)	6' Long			8' Long						10' Long		
				Spring Quantity	Spring Part No.	Spring Color	Spring Quantity	Spring Part No.	Spring Color	Spring Quantity	Spring Part No.	Spring Color	Spring Quantity	Spring Part No.	Spring Color
30K	1/2	6W	16	4	116957	Blue	2	116951	Red	2	116951	Red	6	126374	Beige
			18		116957	Blue		116951	Red		116951	Red		126374	Beige
			20		116957	Blue		116951	Red		116951	Red		126374	Beige
		6.5W	16		116957	Blue		116951	Red		116951	Red		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116957	Blue		126374	Beige		126374	Beige		126374	Beige
		7W	16		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			16		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116957	Blue		126374	Beige		126374	Beige		126374	Beige
35K	5/8	6W	16	4	116957	Blue	2	116951	Red	2	116951	Red	6	126374	Beige
			18		116957	Blue		116951	Red		116951	Red		126374	Beige
			20		116957	Blue		126374	Beige		126374	Beige		126374	Beige
		6.5W	16		116957	Blue		116951	Red		116951	Red		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116954	Yellow		126374	Beige		126374	Beige		126374	Beige
		7W	16		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116954	Yellow		126374	Beige		126374	Beige		126374	Beige
			16		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116954	Yellow		126374	Beige		126374	Beige		126374	Beige
40K	5/8	6W	16	4	116957	Blue	2	116951	Red	2	116951	Red	6	126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116954	Yellow		126374	Beige		126374	Beige		126374	Beige
		6.5W	16		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116954	Yellow		126374	Beige		126374	Beige		126374	Beige
		7W	16		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116954	Yellow		126374	Beige		126374	Beige		126374	Beige
			16		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			18		116957	Blue		126374	Beige		126374	Beige		126374	Beige
			20		116954	Yellow		126374	Beige		126374	Beige		126374	Beige
50K	11/16	6W	16	4	116957	Blue	3	116954	Yellow	3	116954	Yellow	6	126374	Beige
			18		116957	Blue		116954	Yellow		116954	Yellow		126374	Beige
			20		116957	Blue		116954	Yellow		116954	Yellow		126374	Beige
		6.5W	16		116957	Blue	4	116951	Red	2	116954	Yellow		126374	Beige
			18		116954	Yellow		116951	Red		116954	Yellow		126374	Beige
			20		116954	Yellow		116951	Red		116954	Yellow		126374	Beige
		7W	16		116957	Blue		116951	Red		116954	Yellow		126374	Beige
			18		116954	Yellow		116951	Red		116954	Yellow		126374	Beige
			20		116954	Yellow		116951	Red		116954	Yellow		126374	Beige

# RHM RAMP CONTROL REPLACEMENT PARTS



Item	Qty.	Description	Leveler Length and Capacity			
			6' Long	8' Long	8' Long	10' Long
			(B - F Cap.)	(B - D Cap.)	(F Cap.)	(B - F Cap.)
1	1	Ramp Control Weldment	0005018	0005018	0005018	0005018
2	1	Pawl Ratchet 4.75L	0005014	0005014	0005014	0005014
3	1	Ramp Control Lever	0050854	0050854	0050854	0050854
4	2	Clevis Pin .5 X 2.25L Hole ZP	0052418	0052418	0052418	0052418
5	1	Clevis Pin .5 X 3.5L Hole	0052417	0052417	0052417	0052417
6	3	Cotter Pin .125 X 1L ZP	0051901	0051901	0051901	0051901
7	2	Round Tube 1 OD .516 ID 1.438L ZP	0052702	0052702	0052702	0052702
8	1	Ratchet Bar 36.063L	05015	05015	05015	05019
9	1	Torsion Spring .63 ID	0052200	0052200	0052200	0052200
10	1	Decal Warning	0064123	0064123	0064123	0064123
11	1	Trip Lever Weldment 2.38 X 8L	0005020	0005020	0005020	0005020
12	1	Extension Spring	0052111	0052111	0052111	0052111
13	3	Flat Washer .500 Med ZP	0051709	0051709	0051709	0051709

## NOTES

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# WARRANTY

Genisys Dock Leveler by Rite-Hite  
Standard Warranty Policy

Rite-Hite warrants to and for the sole benefit of the original purchaser that Genisys by Rite-Hite (hereinafter "Genisys") Dock Levelers shall be free from defects in material and workmanship subject to the following:

**Length of Time:** All products are warranted for a one year period commencing on the earlier date of approved installation or the (30th) day after the date of shipment. This warranty covers the repair or replacement of the defective product or component at Rite-Hite's sole election and expense, including reasonable labor, reasonable travel and freight.

**Component Scope:** The structural components protected by this warranty include the rear frame, deck, lip, front and rear hinge area and working range toe guards on all Genisys Dock Levelers.

- On HL Series dock levelers, all cylinders, pumps, hoses, fittings, electrical motors and control panels are covered.
- On ML Series mechanical levelers, springs, chains, lip extension mechanism, main counterbalance and ramp control are covered.
- On AL Series dock levelers, air tower, blower motor, hoses, lip extension mechanism, chains and control panels are covered. 5 year warranty on the air tower, blower motor, and hoses.

Repair part freight costs will be borne by Rite-Hite via standard shipping terms. Charges for overnight or special freight requirements will be billed to the end user, General Contractor or Genisys Representative and must be approved at time of shipment.

Warranty claims will not be accepted if the parts and/or assemblies have not been installed on Genisys products or the installation has not been carried out in accordance with Genisys installation instructions.

If a part is replaced during the standard warranty period, it will be covered for the remainder of the warranty period for the dock leveler.

The above warranties are in lieu of any other warranties, either expressed or implied, including but not limited to any warranty of merchantability or implied warranty of fitness for a particular application.

In no event shall Rite-Hite or any of its subsidiaries be responsible for or liable to anyone, including third parties, for special, indirect, punitive, incidental or consequential damages, even if Rite-Hite Representative has been advised of the possibility of such damages. Such excluded damages include, but are not limited to, loss of goodwill, loss of profits, loss of use, interruption of business, or other similar indirect financial loss.

This limited warranty shall be void and of no effect:

- if product is altered or modified from its original condition as installed or as delivered at or from the factory
- to the extent that the product defect is the direct result of improper installation, operation beyond capacity, or other than in accordance with Genisys instructions, careless or negligent use, or failure to maintain the product as recommended by the Genisys owner's manual.
- if Rite-Hite or the Genisys Representative is not notified of the defect and such notification failure creates additional component or product stress which compounds the cost for defect correction.
- if the product is not adjusted and lubricated on the intervals and to the extent required in the Genisys Owner's Manual.
- if the product is moved and reinstalled from its original installation point without advising Rite-Hite or a Rite-Hite Representative.



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