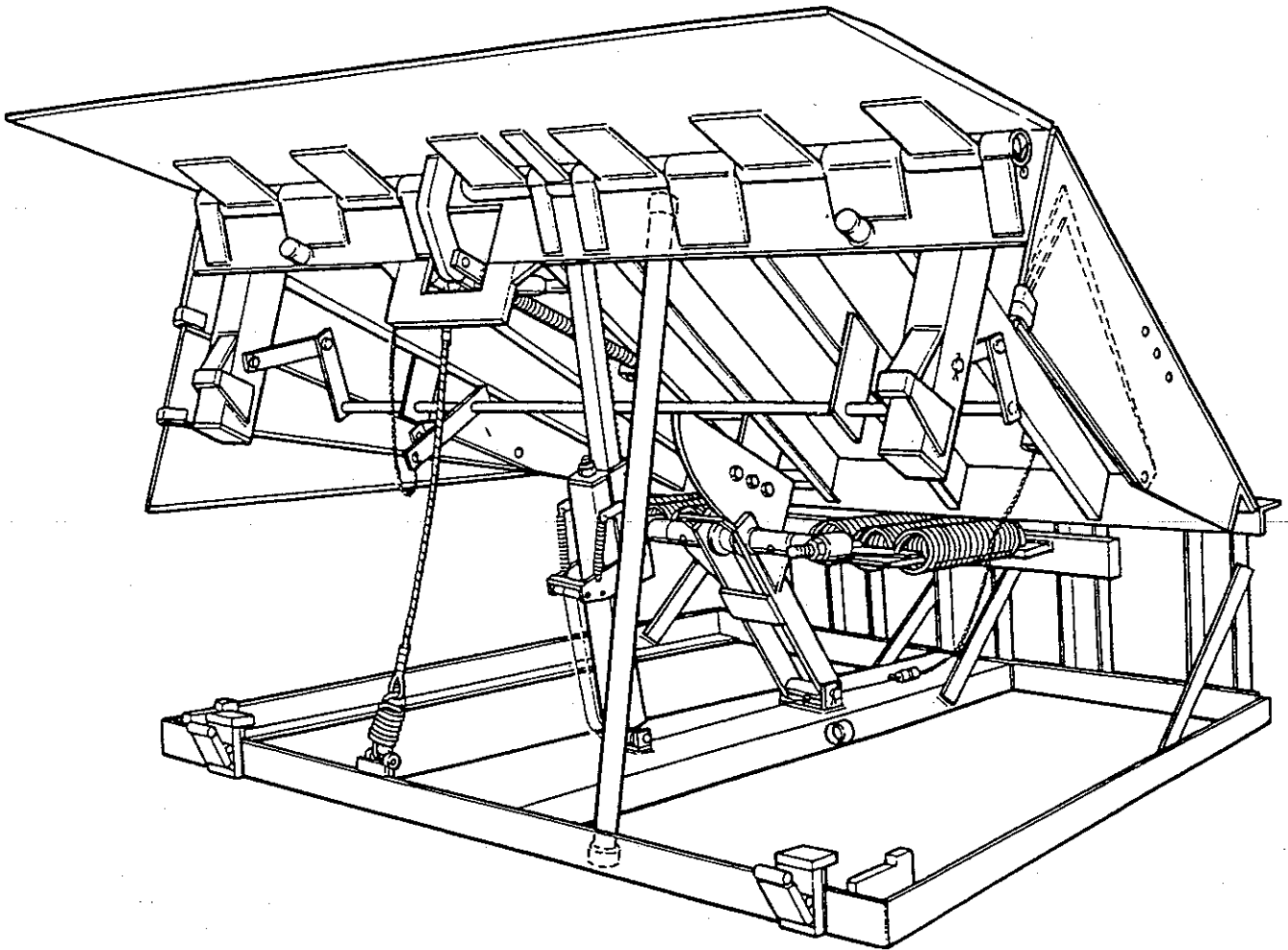


POWERAMP

MC AND MP SERIES MECHANICAL DOCK LEVELER INSTRUCTIONAL MANUAL



POWERAMP[®]

Systems, Inc.
W194 N11481 McCormick Dr.
P.O. Box 309
Germantown, Wisconsin 53022
(414) 255-1510
FAX 414-255-4199

Manufacturing facilities in the Netherlands
with sales offices throughout Europe.

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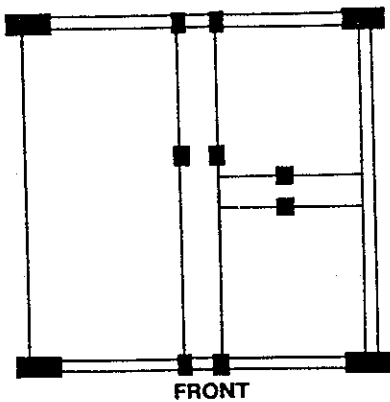
WARNING

Read and understand the contents of this manual prior to installation or operation of the dock leveler. Failure to observe and follow the instructions and warnings in this manual and other safe working habits may result in injury to personnel and/or damage of property.

IMPORTANT: CONCRETE BEHIND PIT STEEL MUST BE WELL VIBRATED, 8" RECOMMENDED MINIMUM THICKNESS FOR PIT WALLS, PIT FLOOR AND DOCK FACE.

IMPORTANT: SIDE CURB ANGLES MUST BE 90° TO DOCK FACE.

NOTE: SIX FOOT LONG LEVELERS HAVE SHIM POINTS IN LOCATIONS SHOWN HERE.

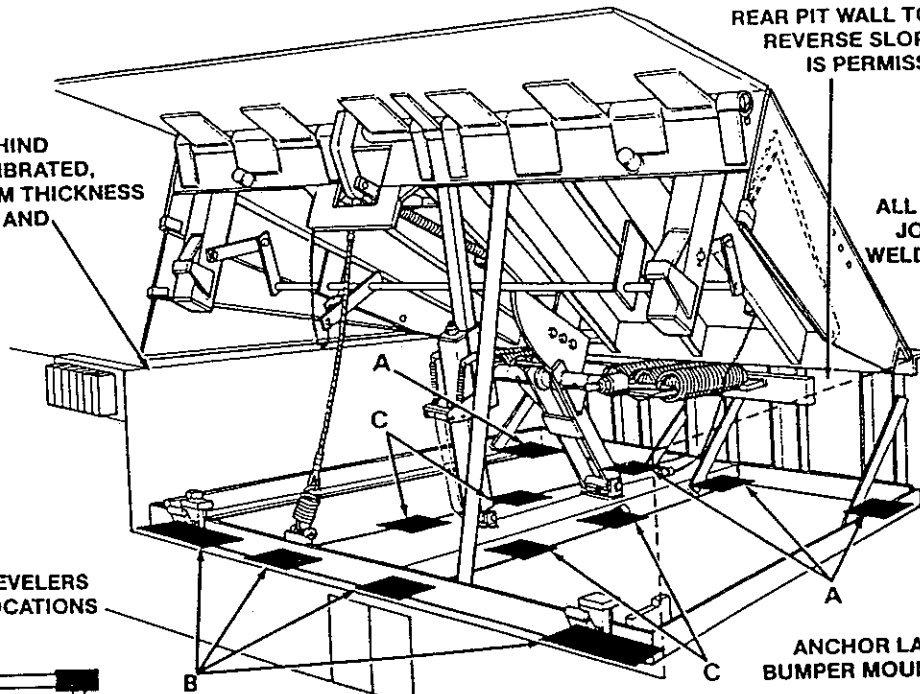


NOTE: PIT STEEL FURNISHED BY GENERAL CONTRACTOR OR AVAILABLE FROM SYSTEMS INC. AT ADDITIONAL COST.

NOTE: SHIM STOCK SIZES —
1/4" THICK X 3" WIDE X 4" LONG
AND
1/2" THICK X 3" WIDE X 4" LONG

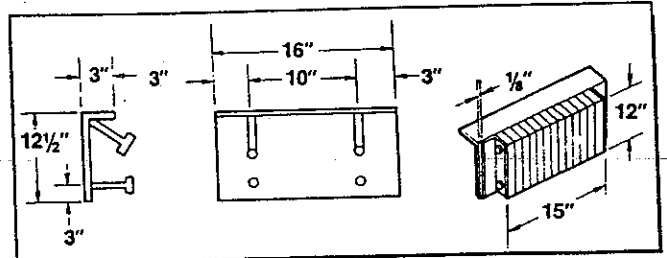
REAR PIT WALL TO BE PLUMB. REVERSE SLOPE OF 1/4" IS PERMISSIBLE.

ALL CURB ANGLE JOINTS TO BE WELDED SECURELY

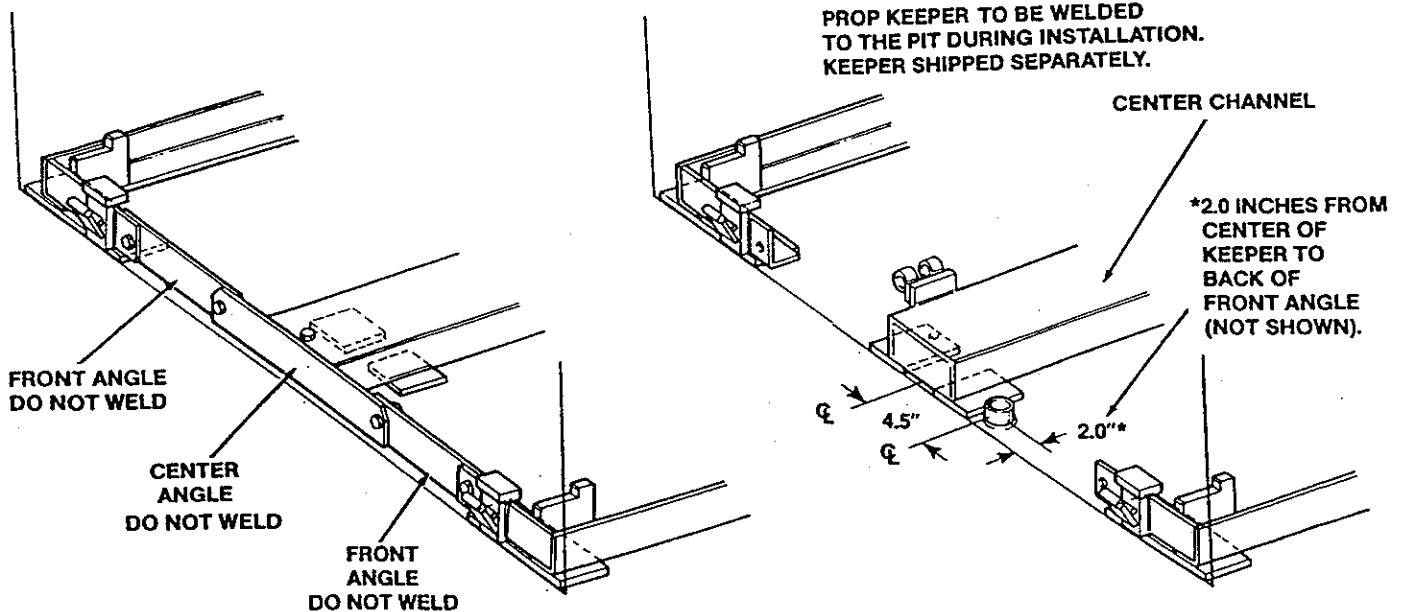


ANCHOR LAYOUT FOR BUMPER MOUNTING ANGLE

TWO 12" x 15" x 4" BUMPERS FURNISHED BY SYSTEMS INC. FIELD WELDED AS SHOWN.



POWERAMP MC AND MP SERIES MOUNTING REQUIREMENTS



CLEAN PIT INSTALLATION

INSTALLATION



WARNING

Have qualified personnel perform installation. Do not operate the leveler while any personnel or equipment are standing on or in front of the leveler. Always use maintenance prop when working under the leveler. Do not walk on unsupported lip.

GENERAL PROCEDURES

For installation other than "clean pit" installations, refer to the illustration on page 2 and proceed as follows:

1. Remove all debris from pit.
 2. Check pit dimensions with certified pit drawing. Make sure that walls of pit are plumb and square.
 3. Hoist leveler into pit with chain/sling using lifting plates located on the side of the leveler. The top rear frame angle of the leveler should butt tight against the rear curb angle. Maintain equal clearance between the sides of the leveler platform and the sides of the pit wall.
 4. Remove shipping band from leveler.
 5. Pull and hold the release lanyard to raise leveler and fully extend the lip.
- NOTE:** For "clean pit" installation, weld the lower maintenance prop keeper to the pit curb angle at this time.
6. Let lip of leveler drift to a vertical (folded) position. Place one end of maintenance prop in the prop keeper located on the front frame angle of leveler. Lift up on platform and place the other end of the prop in the prop keeper located behind the front header plate of leveler.

NOTE: A fork truck may be needed to lift platform.

7. To bring the top rear frame angle of leveler flush with the rear pit curb angle shim at points marked "A" on the illustration.
8. Weld "A" shims to bottom rear frame angle of leveler. Make sure there is firm contact between leveler and pit floor.
9. Lift up on leveler platform and remove the maintenance prop.

NOTE: A fork truck may be needed to lift platform.

10. With lip of leveler in a vertical (folded) position, walk on platform to the outer edge until platform is down and lip is in keepers.
11. Tackweld the top rear frame angle of the leveler to the rear pit curb angle.
12. Shim at points marked "B" under front frame of leveler to bring leveler flush with dock level.
13. Weld "B" shims to leveler front frame angle and to front pit angle.
14. Repeat steps 5 and 6.
15. Shim under the channel at points marked "C". These shim points are critical for proper operation. Always shim under the lifting arm and the hold down assembly.

IMPORTANT

Shim at pivot points so that channel is level.

16. Weld "C" shims to channel of leveler. Make sure there is firm contact between leveler and pit floor.
17. Finish welding leveler top rear frame angle to rear curb angle. Six foot wide levelers to be stitch welded with five, 6 inch welds. Seven foot wide levelers to be stitch welded with six, 6 inch welds.
18. Weld or bolt dock bumpers in place.
19. Installation is complete. Test operation to ensure leveler is operating properly. If minor adjustments are required, refer to maintenance section.

NOTE: Installation questions can be answered by contacting your local Poweramp representative or by contacting Poweramp at 414-255-1510.

CLEAN PIT INSTALLATION

Clean pit installations are the same as those described above except that the front and center angles are bolted to the frame for shipping and installation purposes only. Angles are to be removed after installation is complete.

The lower keeper for the maintenance prop is shipped separately for clean pit installations. This keeper must be welded to the curb angle (pit steel) in the pit prior to proceeding with step 6 of the "General Procedures". See NOTE under step 5.

OPERATION

WARNING

Do not operate the leveler until the truck is parked squarely against the dock bumpers and truck wheels are securely chocked.

Do not operate the leveler from the cross traffic position (lip in keepers) while any personnel or equipment are standing on or in front of the leveler.

Do not drive any equipment on the leveler until all motion has stopped and the lip rests securely on the bed of the truck.

Always return the leveler to the safe cross traffic position (lip in keepers) after loading/unloading operations are complete. Never leave dock unattended unless leveler is in safe cross traffic position.

Never allow untrained personnel to operate leveler.

Should the leveler malfunction, keep all personnel and equipment away from leveler and call your authorized Poweramp service representative immediately.

ABOVE DOCK LEVEL OPERATION

1. Actuate the leveler by pulling and holding the release lanyard until the platform is at the highest position and the lip extended.

WARNING

Do not operate leveler while any personnel or equipment are on or in front of leveler.

2. Walk on the platform of the leveler. The leveler will descend until the lip contacts the bed of the truck. Make sure lip is in full contact with the truck bed. You have approximately 15-30 seconds to accomplish this task.

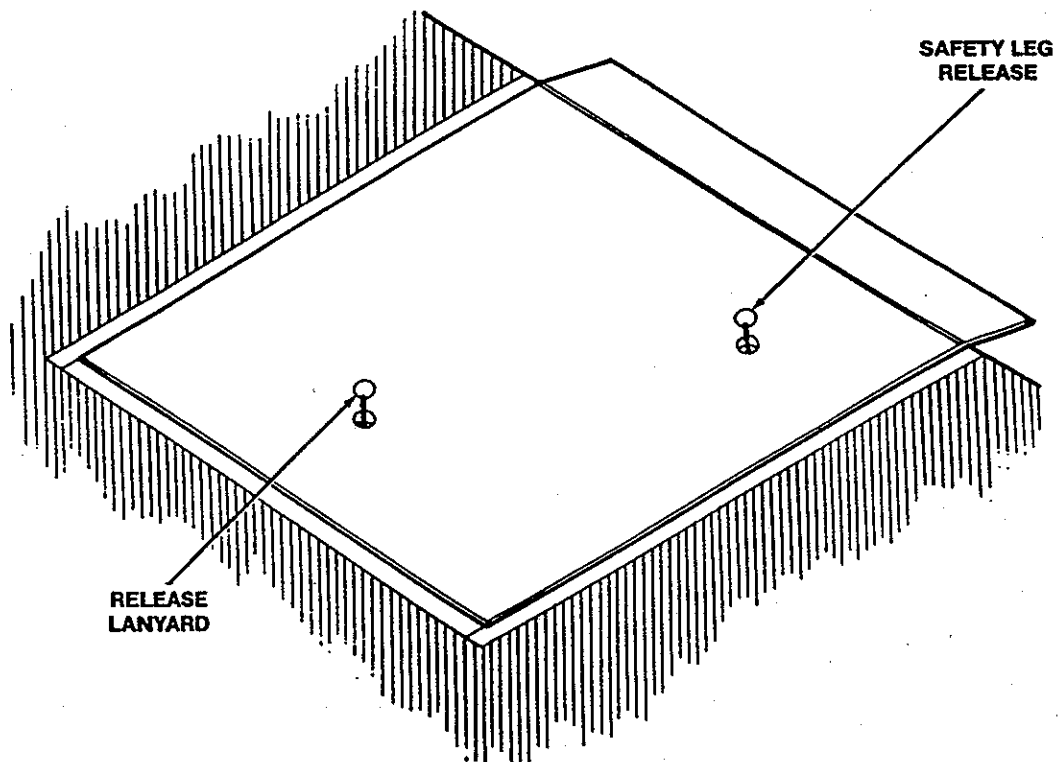
WARNING

Never walk on unsupported lip.

3. With the lip of the leveler resting securely on the bed of the truck, complete loading/unloading operations.

WARNING

Make sure truck wheels are chocked.



4. Storing the leveler in the safe cross traffic position can be accomplished in one of two ways:

a. When the truck departs, the lip will fall to a vertical (folded) position. Walk on the platform until the lip rests securely in the lip keepers (safe cross traffic position).

... OR ...

b. Actuate the leveler by pulling the release lanyard. After the lip falls to a vertical (folded) position, walk on the platform until the lip rests securely in the lip keepers (safe cross traffic position).

BELOW DOCK LEVEL OPERATION

5. Actuate the leveler as in step 1.

6. Walk on the platform of the leveler. Retract the safety legs by pulling and holding the safety leg release. The leveler will descend until the lip contacts the bed of the truck. Release the safety leg release when the lip is in full contact with the truck bed.



WARNING

Never walk on unsupported lip.

7. With the lip of the leveler resting securely on the bed of the truck, complete loading/unloading operations.



WARNING

Make sure truck wheels are chocked.

8. Storing the leveler in the safe cross traffic position can be accomplished in one of two ways:

a. When the truck departs, the lip of the leveler will fall to a vertical (folded) position. Pull and hold the release lanyard until the leveler is 2" or 3" above dock level. Walk on the platform until the lip rests securely in the keepers (safe cross traffic position).

... OR ...

b. Actuate the leveler by pulling the release lanyard. After the lip falls to a vertical (folded) position, walk on the platform until the lip rests securely in the lip keepers (safe cross traffic position).

IMPORTANT

When storing leveler in cross traffic position after below dock level operation, always make sure that the safety legs are in the safe (forward) position and that the lip is securely in the keepers before leaving dock unattended.

TROUBLESHOOTING

TROUBLESHOOTING GUIDE

Refer to the replacement parts list diagrams for location and identification of components and assemblies.

Solutions indicated with an asterisk (*) have detailed troubleshooting procedures at the end of the problem-cause-solution list.

Problem	Possible Cause	Solution
Platform does not raise.	<ol style="list-style-type: none"> 1. Broken or unhooked lanyard release chain. 2. Platform or weatherseal binding against pit wall. 3. Damaged main spring. 4. Damaged or worn hold down assembly. 	<ol style="list-style-type: none"> 1. Replace or rehook chain. 2a. Correct leveler installation (improper installation). 2b. Trim seal or chip concrete away (poorly formed pit). 3. Replace spring. 4. Clean and inspect assembly. Replace any damaged or worn parts. (See Note)
Platform raises slowly.	<ol style="list-style-type: none"> 1. Leveler needs lubrication. 2. Insufficient main spring tension. 3. Platform or weatherseal binding against pit wall. 4. Damaged or worn hold down assembly. 	<ol style="list-style-type: none"> 1. Lubricate leveler. See lubrication procedures. 2. Increase tension on main springs. See adjustment procedures. 3a. Correct leveler installation (improper installation). 3b. Trim seal or chip concrete away (poorly formed pit). 4. Clean and inspect assembly. Replace any damaged or worn parts. (See Note)
Difficult to walk platform down.	<ol style="list-style-type: none"> 1. Excessive main spring tension. 2. Damaged or worn hold down assembly. 	<ol style="list-style-type: none"> 1. Reduce tension on main springs. See adjustment procedures. 2. Clean and inspect assembly. Replace any damaged or worn parts. (See Note)
Platform does not stay down.	<ol style="list-style-type: none"> 1. Lanyard release chain stuck/caught. 2. Contaminants packed in ratchet bar teeth. 3. Damaged or worn teeth on ratchet bar and/or pawl. 4. Damaged or loose pivot pins on frame or hold down assembly. 5. Auto release out of adjustment. 	<ol style="list-style-type: none"> 1. Free chain. 2. Clean teeth with wire brush and solvent. DO NOT LUBRICATE BAR. 3. Replace ratchet bar and/or pawl.* 4. Replace pins. 5. Decrease tension on release lanyard cable.*

NOTE: SEE DISASSEMBLY WARNING ON ASSEMBLY.

Problem	Possible Cause	Solution
Platform raises violently.	1. Excessive main spring tension.	1. Reduce tension on main springs. See adjustment procedures.
Lip does not extend.	1. Snubber cable broke or stretched. 2. Contaminants in lip hinge. 3. Insufficient tension on lip spring. 4. Insufficient main spring tension.	1. Replace cable. 2. Clean and lubricate hinge. 3. Increase tension on lip spring. See adjustment procedures. 4. Increase tension on main springs. See adjustment procedures.
Lip falls too fast for normal walk down.	1. Insufficient tension on lip spring. 2. Loose, worn, or damaged shocks.	1. Increase tension on lip spring. See adjustment procedures. 2. Inspect shocks. Reconnect or replace as necessary.
Lip does not fall after truck departs.	1. Lip needs lubrication. 2. Excessive tension on lip spring. 3. Loose, worn, or damaged shocks.	1. Clean and lubricate lip hinges. 2. Reduce tension on lip spring. See adjustment procedures. 3. Inspect shocks. Reconnect or replace as necessary.

***DETAILED TROUBLESHOOTING PROCEDURES (SOLUTIONS WITH AN*)**

1. Ratchet bar replacement.
 - a. Place leveler on maintenance prop. See maintenance instructions.
 - b. Remove pin connecting bar to the underside of the leveler deck.
 - c. Slide bar down so that the hold down assembly can rest on the pit floor.
 - d. Lift up on pawl arm and remove bar.
 - e. Reassemble by following above steps in reverse order.
2. Pawl replacement.
 - a. Place leveler on maintenance prop. See maintenance instructions.
 - b. Remove pin connecting ratchet bar to the underside of the leveler deck.
 - c. Slide bar down so that the hold down assembly can rest on the pit floor.

- d. Remove pin connecting pawl to the hold down assembly.
 - e. Remove pawl arm.
 - f. Remove pawl — do not remove horseshoe spring.
 - g. Reassemble by following above steps in reverse order.
3. Decrease tension on release lanyard cable.
 - a. Place leveler on maintenance prop. See maintenance instructions.
 - b. Loosen setscrews on cable stop — do not over loosen.
 - c. Slide cable stop one-half (1/2) inch towards the rear of pit (towards the chain).
 - d. Tighten setscrews.
 - e. Test operation.

MAINTENANCE

WARNING

Always barricade the leveler off from any form of traffic when maintenance is required.

Always use maintenance prop when working under the leveler.

Always follow all procedures and warnings in the operating instructions.

Have qualified personnel perform maintenance.

USE MAINTENANCE PROP

Pull and hold the release lanyard to raise leveler and fully extend the lip.

WARNING

Do not operate leveler while any personnel or equipment are on or in front of the leveler.

Let lip of leveler drift to a vertical (folded) position. Place one end of maintenance prop in lower prop keeper. Lift up on platform and place the other end of the prop in upper prop keeper.

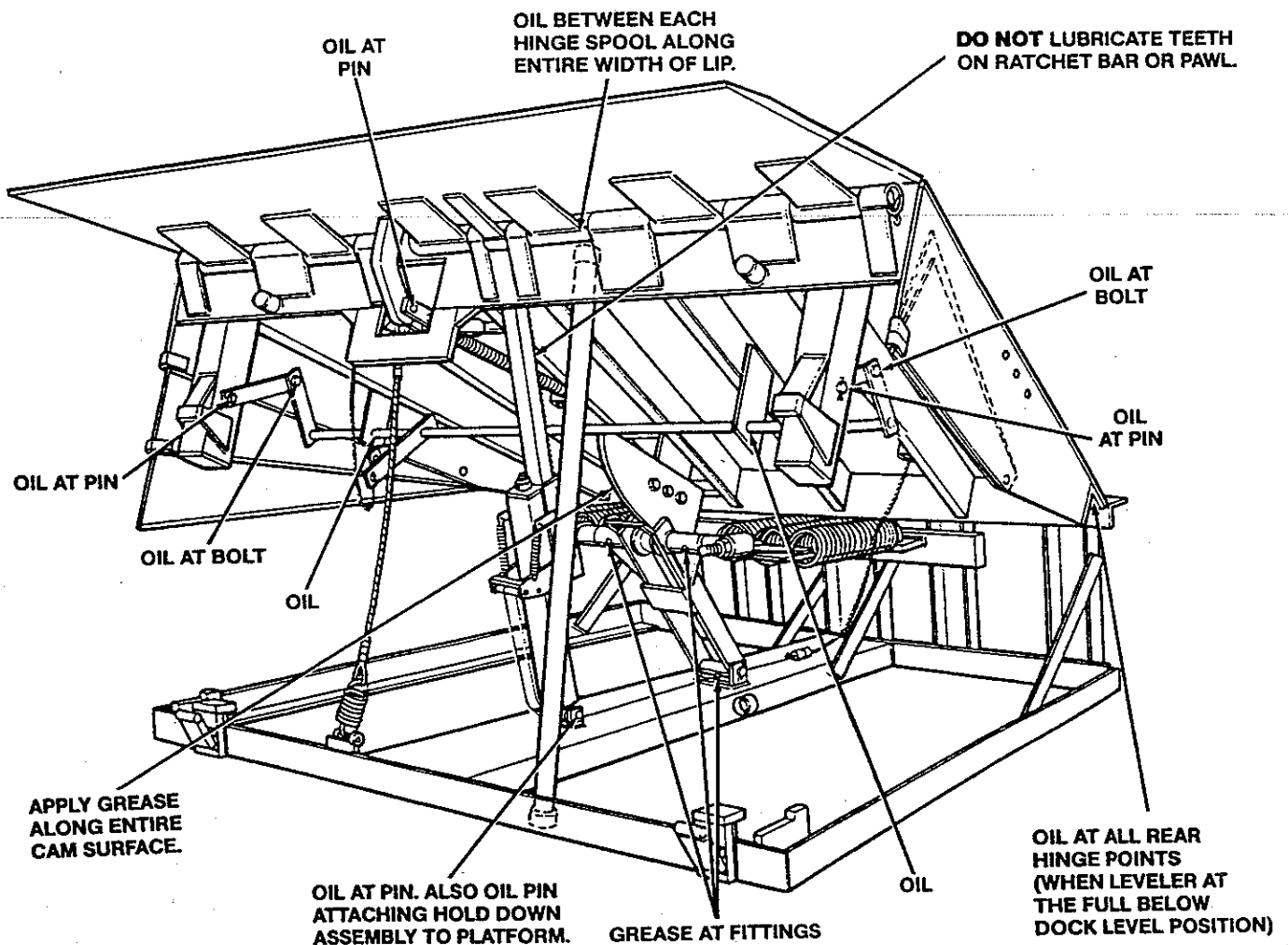
NOTE: A fork truck may be needed to lift platform.

LUBRICATION

For proper operation of the leveler, cleaning and lubrication is recommended every three months.

Lubricate the leveler as shown in the illustration below. We recommend Lubriplate No. 1200-2 multi-purpose grease and WD-40 penetrating oil be used.

DO NOT lubricate the ratchet bar or pawl on the hold down assembly.



LUBRICATION POINTS

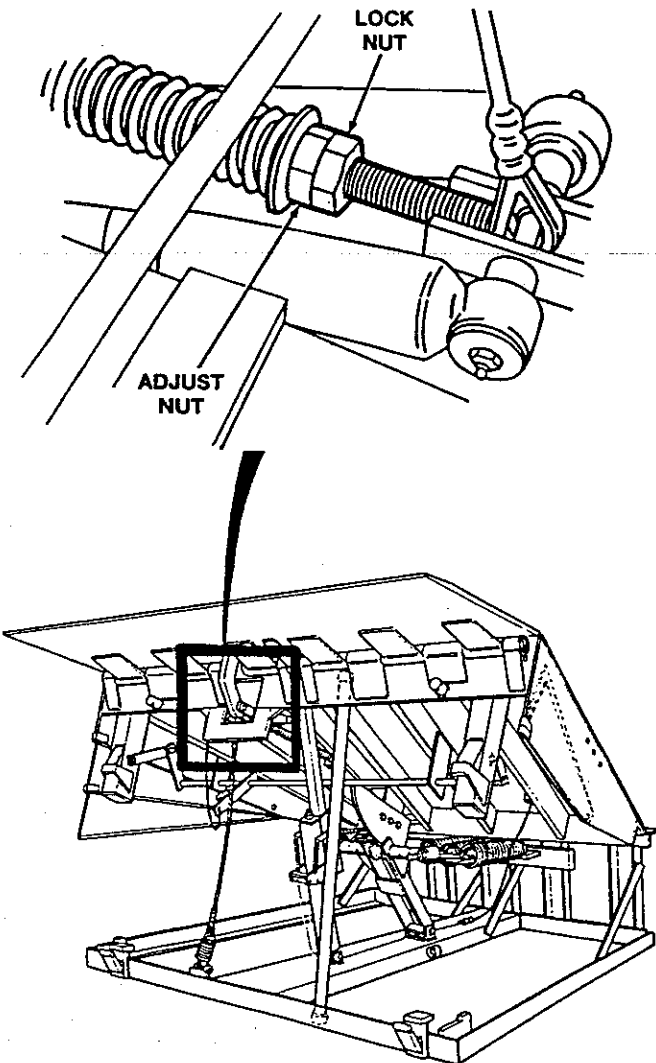
ADJUSTMENT

Your Poweramp leveler has been factory adjusted and tested to ensure proper and efficient operation. However, under normal wear and tear, the following adjustments may need to be performed. Refer to Troubleshooting for the problem that may require one of the following adjustments.

Lip Spring Adjustment

NOTE: All adjustments should be made in small (1/2 turn) increments.

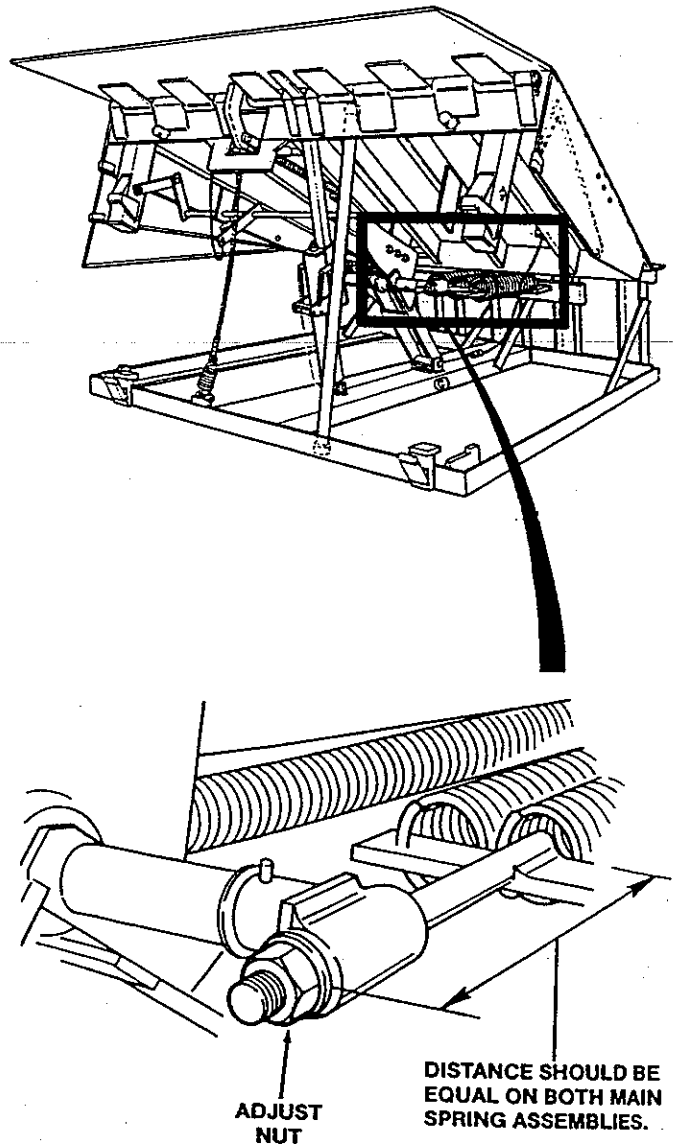
Loosen the lock nut and turn the adjustment nut on the lip spring adjustment rod clockwise to increase or counterclockwise to decrease the tension on the counterbalance spring. Increasing spring tension makes it less difficult for the lip to extend and decreases the speed at which the lip lowers.



Main Spring Adjustment

NOTE: Make sure the adjustments on the main springs are equal by measuring from the rear of the spring rod holder assembly (rear of bar) to washer on threaded rod. All adjustments should be made in small (1/2 turn) increments.

Turn the adjustment nut on the main spring adjustment rod clockwise to increase or counterclockwise to decrease the tension on the counterbalance springs. Increasing spring tension will make it more difficult to walk platform down and increases the speed at which the platform raises.



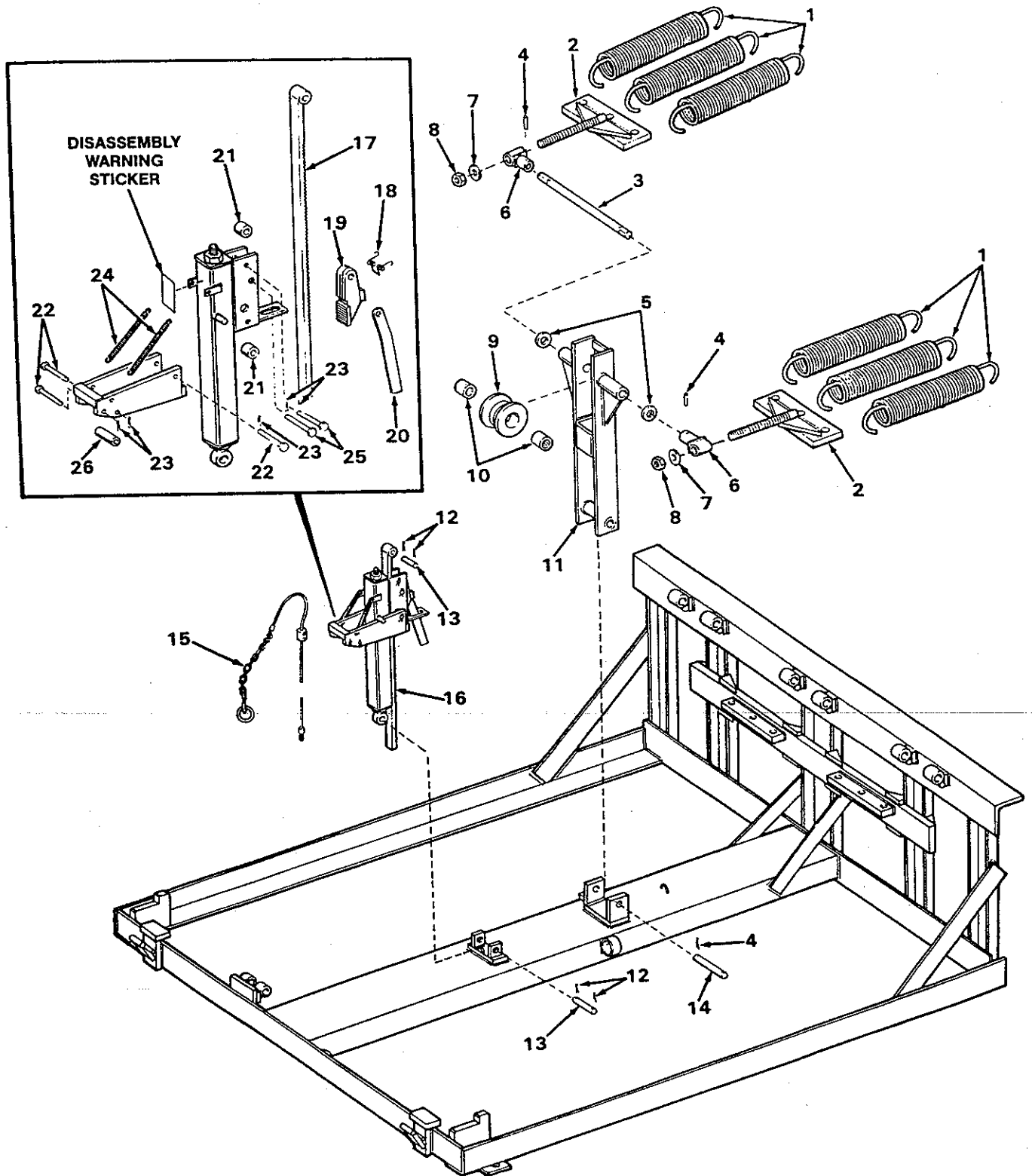


TABLE I

Color of Spring	Total Number of Coils	Part Number
Yellow	34	0941-0001
Gray	37	0941-0002

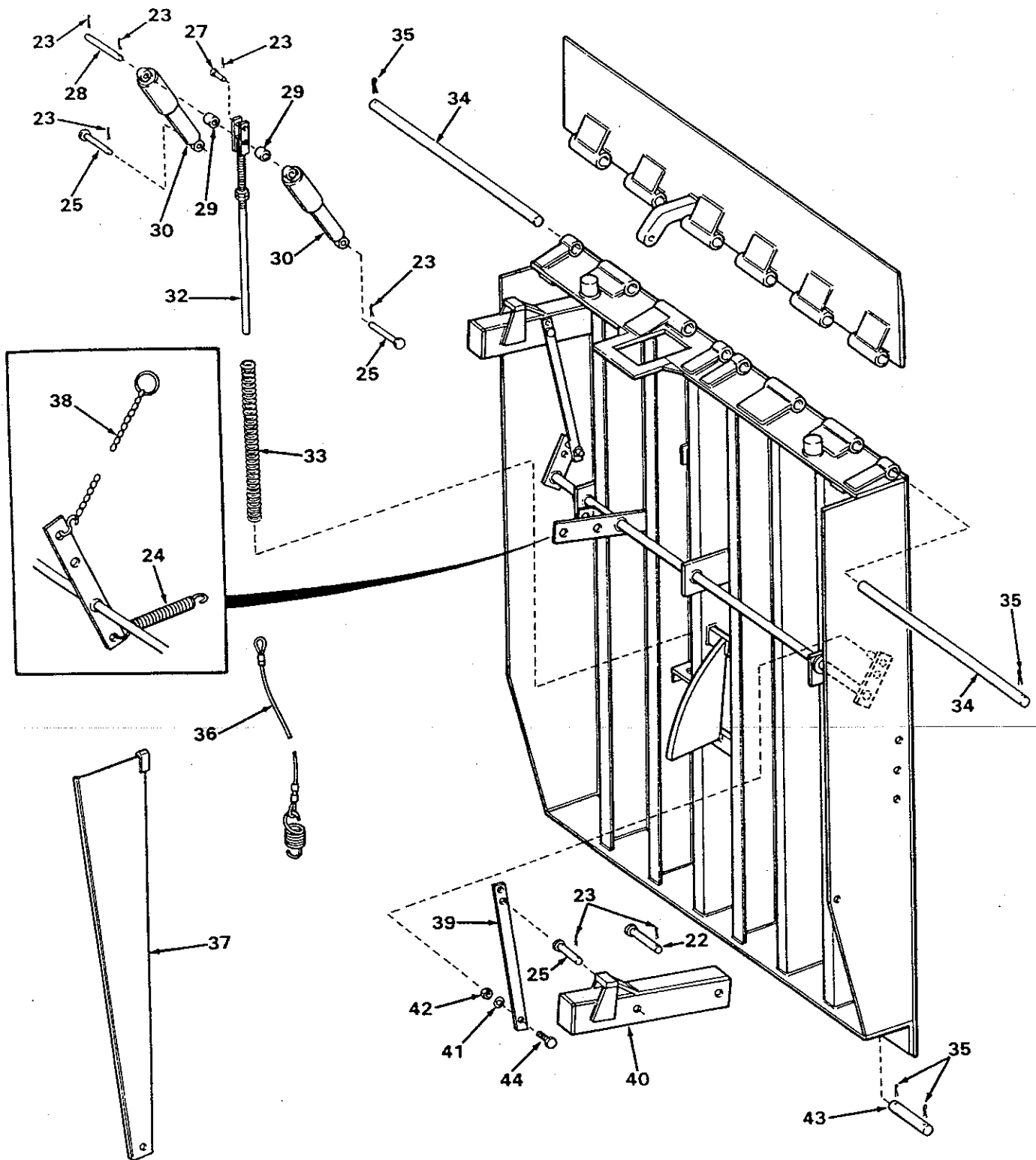


TABLE II

Length of Dock Leveler	Upper Toe Guard		Lower Toe Guard	
	RHS	LHS	RHS	LHS
6'	0014-0016	0014-0017	0012-0047	0012-0048
8'	0014-0018	0014-0019	0012-0043	0012-0044
10'	0014-0020	0014-0021	0012-0057	0012-0058

PARTS LIST MC / MP

Item	Qty	OLD NUMBER	NEW NUMBER	DESCRIPTION
1	(A)	See table		Main Springs
2	2	5814-0007		Spring Rod Assembly (3 Springs)
		5814-0008		spring Rod Assembly (4 Springs)
3	1	5812-0013		Lifting Arm Connecting Rod
4	3	0521-0005	0521-0061	1/4" Spring Pin
5	2	2101-0085		Washer
6	2	5814-0009		Spring Rod Guide
7	2	2101-0086		Washer-Main Spring
8	2	2101-0092	2101-0088	Nut-Main Spring
9	1	5811-0005		Cam Roller
10	2	5811-0007		Caged Roller Bearing
11	1	(B)		Lifting Arm
12	6	2101-0049		Hairpin Clip
13	4	9202-0004		Pin-Hold Down 3/4" OD x 4-3/8"
14	1	9202-0023	8432-0371	Pin-Lifting Arm
15	1	5265-0004		Lanyard Assembly-Hold Down 8' Only
16	1	5775-0001	5775-0003	Hold Down Assembly
17	1	5774-0004		Ratchet Weldment Assembly
18	1	0941-0005		Pawl Spring
19	1	5774-0003		Pawl Assembly
20	1	5772-0012		Pawl Lever
21	2	5772-0021		ratchet Bar Roller
22	3	9202-0018	2101-0096	3.5" Pin, Clevis
23	14	2101-0045		1/8" Cotter Pin
24	3	5772-0027	0941-0009	Spring
25	6	9202-0019	2101-0095	2.5" Pin, Clevis
26	1	5772-0024	5772-0029	Roller
27	1	2101-0094		2" Pin-Clevis
28	1	9202-0022	9512-0620	Pin-Hydra Shock
29	2	5812-0040		Lip Shocks
30	2	5811-0001		Lip Shock Spacer
31		N/A		
32	1	5774-0009		Lip Assist Rod Assembly
33	1	0941-0004		Lip Spring
34	1	9202-0028	9202-0003	Lip Hinge Pin
35	8	2101-0046		Cotter Pins
36	1	(C)		Snubber Assembly
37	4	See Table II		Toe Guards
38	1	6265-0005	5265-0005	Lanyard Assembly-Safty leg
39	2	9512-0632		Main Push Lever
40	2	8433-0071		Safty Leg Assembly
41	2	None	2101-0079	Washer-Main Push Lever, 1/2" Flat
42	2	None	2101-0103	Nut-Main Push Lever, 1/2"-13unc Nylon Lock
43	3	9202-0020		Rear Hinge Pins
44	2	None	2101-0019	Bolt-Main Push Lever
45	1	None	9202-0031	Pin Cable Guide
46	4	None	9201-0003	E-Ring Clip

(A) Total number of springs will be either 6 or 8 depending upon the size and capacity of the dock leveler.

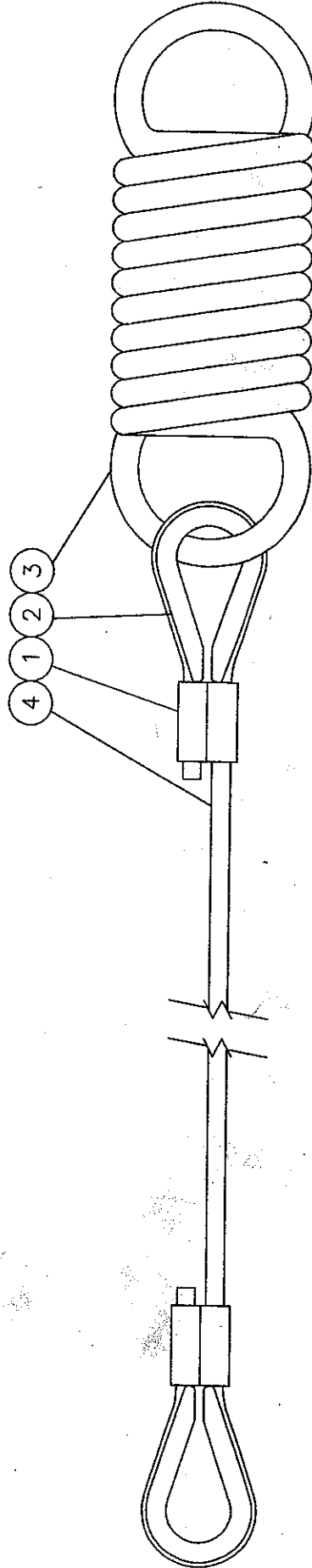
(B) Order by description and model number of dock leveler. Example: Lifting Arm side plate for dock leveler model number MP25-68

(C) Consult factory

SNUBBER ASSY. PN	CABLE NUMBER	CABLE LENGTH	LOOP TO LOOP
5265-0003	7952-0027	37	28 ± 1/4
5265-0008	7952-0028	39	30 ± 1/4
5265-0009	7952-0029	40	31 ± 1/4
5265-0010	7952-0030	41	32 ± 1/4
5265-0011	7952-0031	42	33 ± 1/4

BILL OF MATERIAL

ITEM	QTY	PART NUMBER	DESCRIPTION	SIZE
1	2	7951-0012	COPPER COMPRESSION SLEEVE	1/4
2	2	7951-0013	HEAVY DUTY THIMBLE	1/4
3	1	0941-0006	SNUBBER SPRING	A CAD
4	1	SEE CHART	AIR CRAFT CABLE	1/4



JUN 1 1997

POWERAMP
DIVISION OF SYSTEMS INC., GERMANTOWN, WI

SNUBBER CABLE ASSY - MECH.

MATERIAL _____ DRAWN BY T.G.

DATE 1/19/95 CHK'D

DRAWING NO.

5265-0003

5265-0008-11

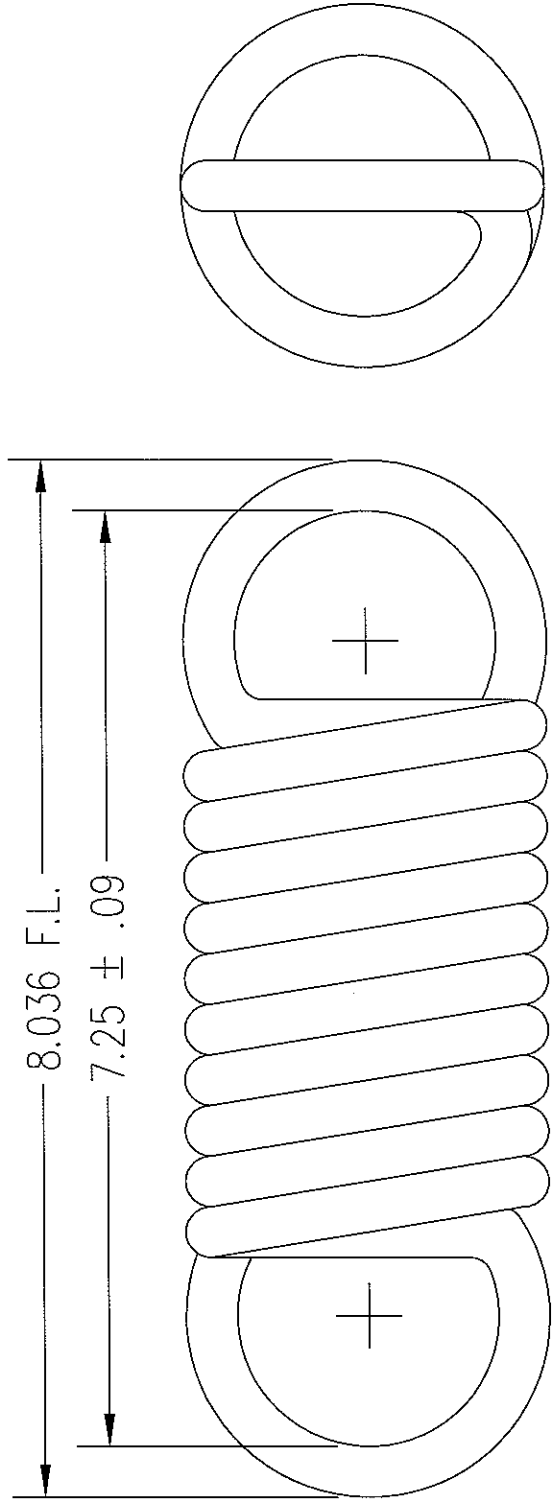
ALL TOLERANCES UNLESS SPECIFIED ARE TO BE:

FRACTIONAL = ±1/32

.00 = ±.01

.000 = ±.005

ANGULAR = ±1'



NOTE: MATERIAL: OIL TEMPERED
 WIRE SIZE: .393 ϕ
 RATE: 244 LBS./IN. \pm 24 LBS.
 FINISH: PAINTED GRAY
 TOTAL COILS: 10 \pm 1/8 COILS
 ENDS: FULL LOOPS
 INITIAL TENSION: 230 LBS. \pm 30 LBS.
 WIND: RIGHT HAND
 OUTSIDE DIAMETER: 2.8 \pm .04

POWERAMP[®]
 DIVISION OF SYSTEMS INC., GERMANTOWN, WI

SPRING, SNUBBER
 DLM, DOTH-2555

MATERIAL SEE NOTE | DRAWN BY T.G.

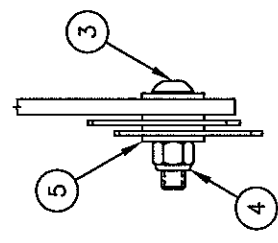
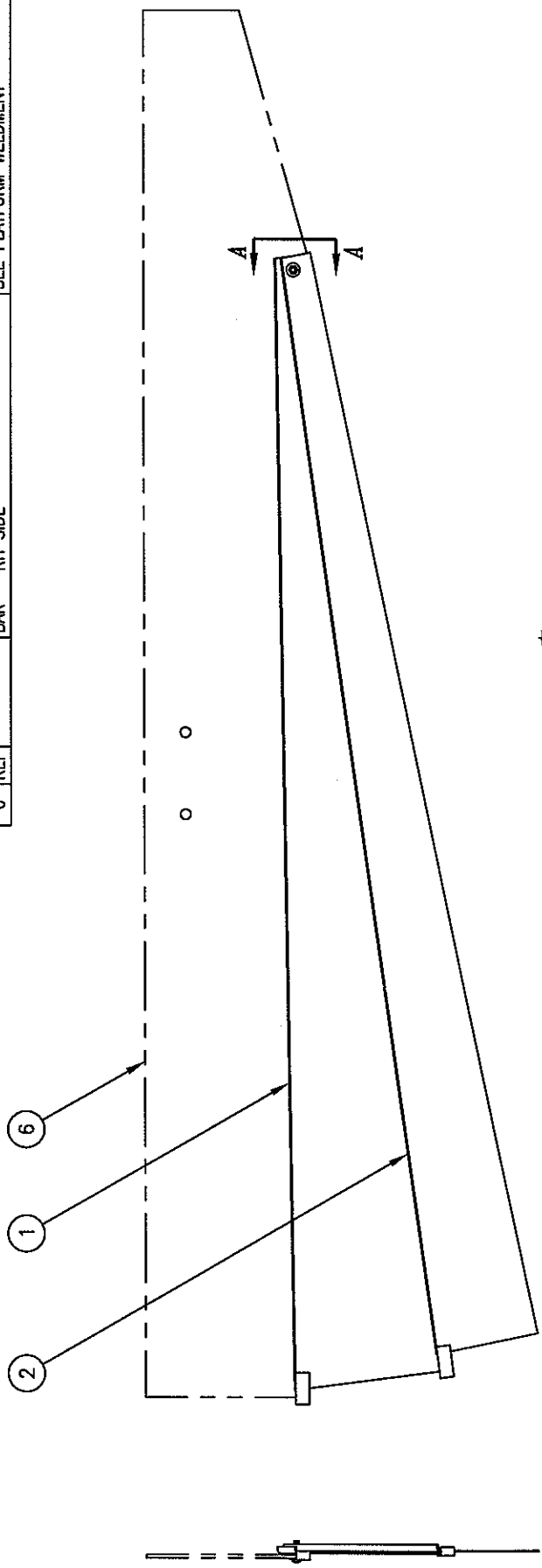
ALL TOLERANCES UNLESS SPECIFIED ARE TO BE:
 DATE 1/13/95 | CHK'D

FRACTIONAL = \pm 1/32
 .00 = \pm .01
 .000 = \pm .005
 ANGULAR = \pm 1'

DRAWING NO.
0941-0006

BILL OF MATERIAL

ITEM QTY	PART NO.	DESCRIPTION	SIZE
1	0014-0020	TOE GUARD WELDMENT - RH UPPER	B CAD
2	0012-0057	TOE GUARD - RH LOWER	B CAD
3	2101-0115	BUTTON HEAD CAP SCREW	3/8-16 UNC X 1-1/4
4	2101-0040	HEX NUT - NYLON LOCK	3/8-16 UNC
5	2101-0060	WASHER - FLAT	3/8 SAE
6	REF	BAR - RH SIDE	SEE PLATFORM WELDMENT



SECTION "A-A"

POWERAMP®
 DIVISION OF SYSTEMS INC., GERMANTOWN, WI

TOE GUARD ASSEMBLY - CH/MC/MP SERIES
 RH - 10' LONG

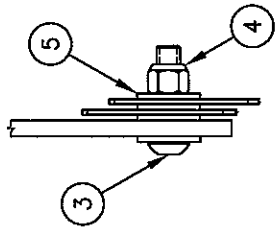
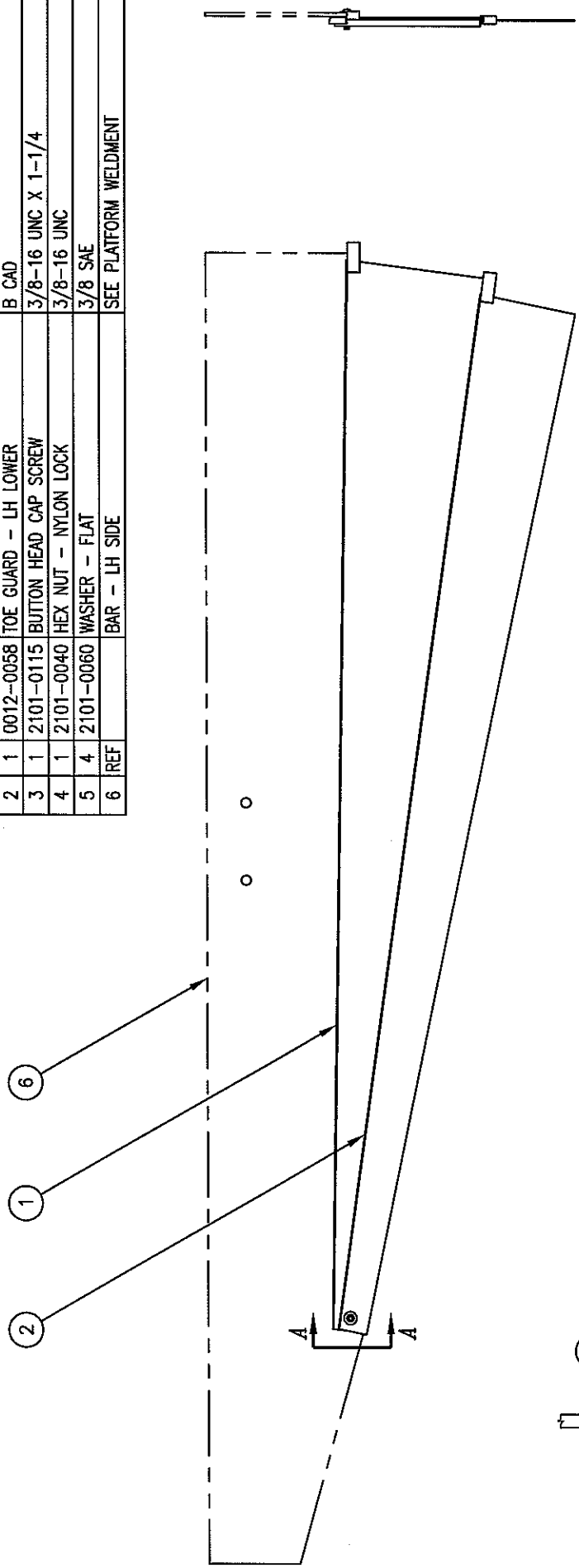
MATERIAL: _____ DRAWN BY: JTH

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH THE FOLLOWING TOLERANCES:
 DECIMAL: .00 = ±.01"
 .000 = ±.005"
 ANGULAR: ±1'

DATE: 10/8/99 CHK'D: _____
 DRAWING NO.: 0015-0022

BILL OF MATERIAL

ITEM QTY	PART NO.	DESCRIPTION	SIZE
1	0014-0021	TOE GUARD WLEDMENT - LH UPPER	B CAD
2	0012-0058	TOE GUARD - LH LOWER	B CAD
3	2101-0115	BUITON HEAD CAP SCREW	3/8-16 UNC X 1-1/4
4	2101-0040	HEX NUT - NYLON LOCK	3/8-16 UNC
5	2101-0060	WASHER - FLAT	3/8 SAE
6	REF	BAR - LH SIDE	SEE PLATFORM WELDMENT



SECTION "A-A"

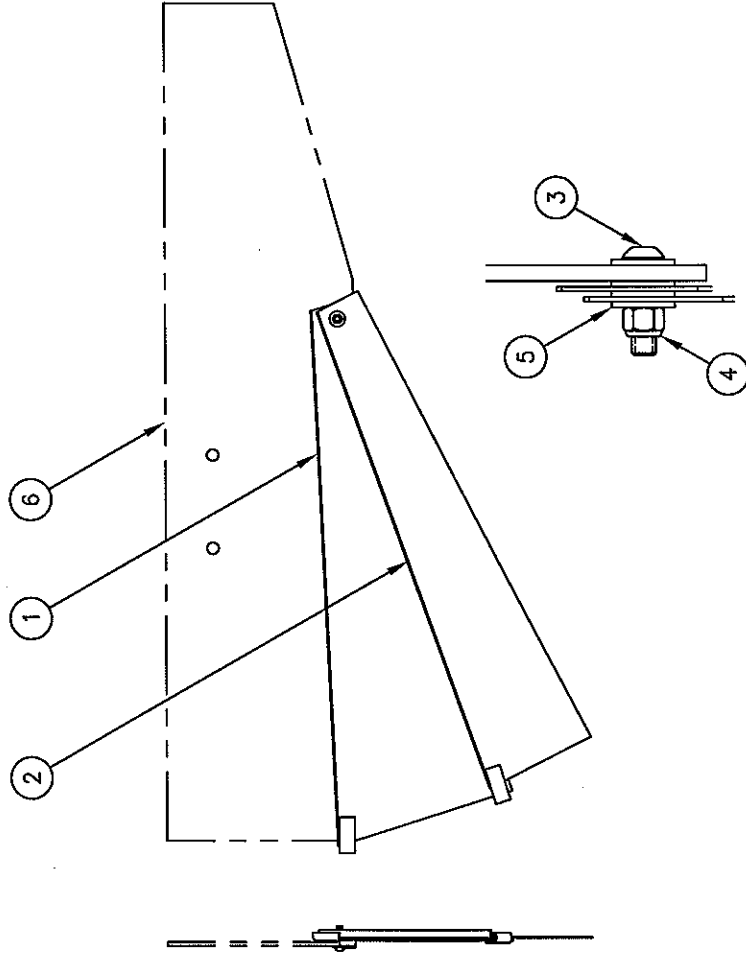
POWERAMP®
 DIVISION OF SYSTEMS INC., GERMANTOWN, WI

TOE GUARD ASSEMBLY - CH/MC/MP SERIES
 LH - 10' LONG

MATERIAL	DRAWN BY	JTH
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH THE FOLLOWING TOLERANCES:	DATE	10/8/99
FRACTIONAL: 3/128	CHK'D	
DECIMAL: .00 - ±.01	DRAWING NO.	0015-0023
.000 - ±.005		
ANGULAR: ±1°		

BILL OF MATERIAL

ITEM QTY	PART NO.	DESCRIPTION	SIZE
1	0014-0016	TOE GUARD WELDMENT - RH UPPER	B CAD
2	0012-0047	TOE GUARD - RH LOWER	B CAD
3	2101-0115	BUTTON HEAD CAP SCREW	3/8-16 UNC X 1-1/4
4	2101-0040	HEX NUT - NYLON LOCK	3/8-16 UNC
5	2101-0060	WASHER - FLAT	3/8 SAE
6	REF	BAR - RH SIDE	SEE PLATFORM WELDMENT



A 01-012 B/17/01 UPDATED ITEMS 1 & 2

POWERAMP®

DIVISION OF SYSTEMS INC., GERMANTOWN, WI

TOE GUARD ASSEMBLY - CH/MC/MP SERIES

RH - 6' LONG

MATERIAL

DRAWN BY JTH

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH THE FOLLOWING TOLERANCES:
 FRACTIONAL: 31/32"
 DECIMAL:
 .00 = ±.01"
 .000 = ±.005"
 ANGULAR: ±1°

DATE 10/13/99

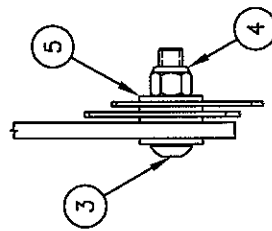
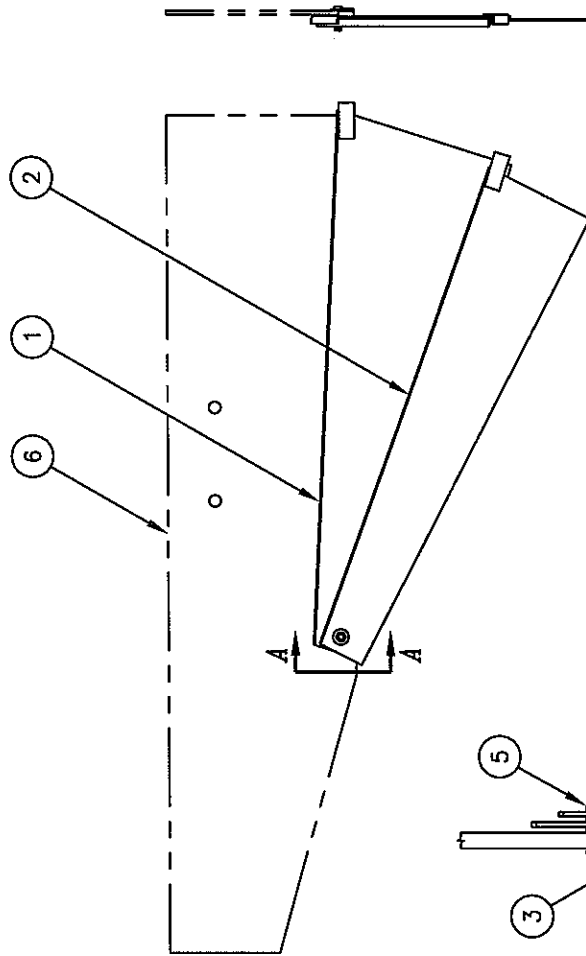
CHK'D

DRAWING NO.

0015-0024

BILL OF MATERIAL

ITEM QTY	PART NO.	DESCRIPTION	SIZE
1	0014-0017	TOE GUARD WELDMENT - LH UPPER	B CAD
2	0012-0048	TOE GUARD - LH LOWER	B CAD
3	2101-0115	BUTTON HEAD CAP SCREW	3/8-16 UNC X 1-1/4
4	2101-0040	HEX NUT - NYLON LOCK	3/8-16 UNC
5	2101-0060	WASHER - FLAT	3/8 SAE
6	REF	BAR - LH SIDE	SEE PLATFORM WELDMENT



SECTION "A-A"

A 01-012 8/17/01 UPDATED ITEMS 1 & 2

POWERAMP®

DIVISION OF SYSTEMS INC., GERMANTOWN, WI

TOE GUARD ASSEMBLY - CH/MC/MP SERIES

LH - 6' LONG

MATERIAL

DRAWN BY JTH

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH THE FOLLOWING TOLERANCES:
 FRACTIONAL: 3/128
 DECIMAL
 .00 = ±.01
 .000 = ±.005
 ANGULAR: ±1°

DATE 10/13/99

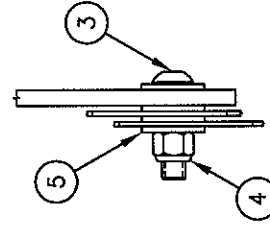
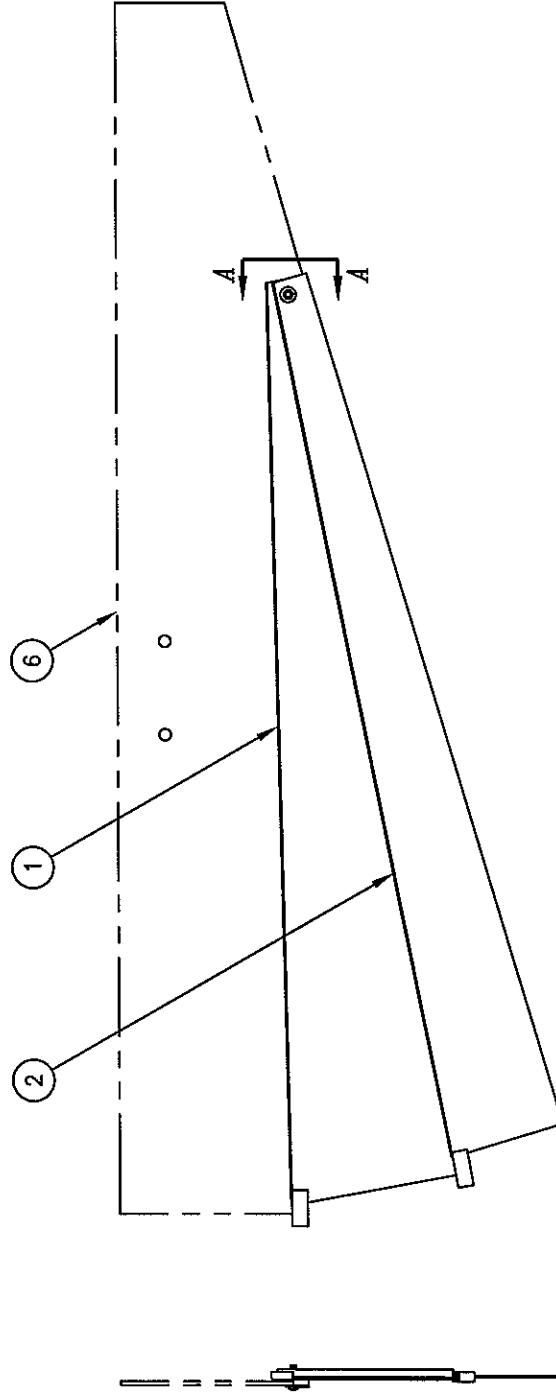
CHK'D

DRAWING NO.

0015-0025

BILL OF MATERIAL

ITEM QTY	PART NO.	DESCRIPTION	SIZE
1	0014-0018	TOE GUARD WELDMENT - RH UPPER	B CAD
2	0012-0043	TOE GUARD - RH LOWER	B CAD
3	2101-0115	BUTTON HEAD CAP SCREW	3/8-16 UNC X 1-1/4
4	2101-0040	HEX NUT - NYLON LOCK	3/8-16 UNC
5	2101-0060	WASHER - FLAT	3/8 SAE
6	REF	BAR - RH SIDE	SEE PLATFORM WELDMENT



SECTION "A-A"

POWERAMP®

DIVISION OF SYSTEMS INC., GERMANTOWN, WI

TOE GUARD ASSEMBLY - CH/MC/MP SERIES
RH - 8' LONG

MATERIAL

DRAWN BY JTH

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH THE FOLLOWING TOLERANCES:
FRACTIONAL ±1/32"
DECIMAL
.00 = ±.01"
.000 = ±.005"
ANGULAR ±1°

DATE 10/13/99

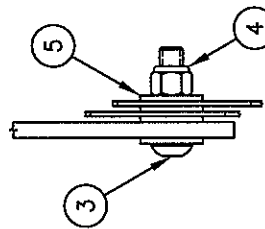
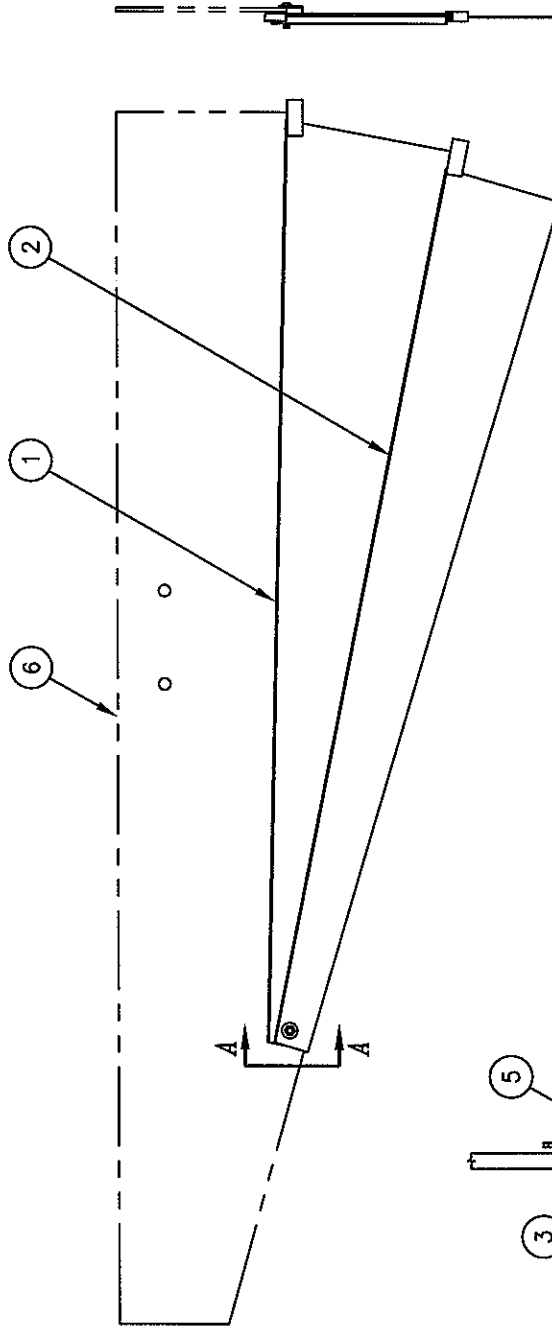
CHK'D

DRAWING NO.

0015-0026

BILL OF MATERIAL

ITEM QTY	PART NO.	DESCRIPTION	SIZE
1	0014-0019	TOE GUARD WLEDMENT - LH UPPER	B CAD
2	0012-0044	TOE GUARD - LH LOWER	B CAD
3	2101-0115	BUTTON HEAD CAP SCREW	3/8-16 UNC X 1-1/4
4	2101-0040	HEX NUT - NYLON LOCK	3/8-16 UNC
5	2101-0060	WASHER - FLAT	3/8 SAE
6	REF	BAR - LH SIDE	SEE PLATFORM WELDMENT



SECTION "A-A"

POWERAMP®
 DIVISION OF SYSTEMS INC., GERMANTOWN, WI

TOE GUARD ASSEMBLY - CH/MC/MP SERIES
 LH - 8' LONG

MATERIAL: _____ DRAWN BY: JTH

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES WITH THE FOLLOWING TOLERANCES:
 FRACTIONAL: 3/16"
 DECIMAL: .00 = ±.01"
 .000 = ±.005"
 ANGULAR: 3/16"

DATE 10/13/99 CHK'D

DRAWING NO.

0015-0027