

700 Dartmouth Lane Buffalo Grove, IL 60089 Phone 847 325-2930 Fax 847 325-2959 Toll Free 800 837-6540

## OPERATING & MAINTENANCE INSTRUCTIONS FOR THE LIFTOMATIC MODEL DCM DRUM HANDLING ATTACHMENT

#### **Operating Instructions**

To operate the Liftomatic DCM unit, simply slide the forks of the lift-truck into the fork pockets of the DCM attachment. (If the operator is using carriage mounted units, remove the forks of the lift-truck, and slide the CM-DCM units into place on the carriage). For all fork-mounted units, the safety chain should be attached to the lift-truck prior to using the attachment(s). If units are equipped with Liftomatic's exclusive Quick-Claw® safety restraint system, slide your forks into the fork pockets and pick the unit off the ground to secure the attachment to the lift-truck.

To operate the DCM, raise the unit slightly off the floor (one or two inches). Center the black (or gold zinc coated) clamping heads on the drums to be picked up, tilt the carriage of the lift-truck slightly forward (approximately two to three degrees), and gently make contact between the clamping heads and the drums. While maintaining contact on the drums with the attachment, raise the carriage of the lift-truck straight up (DO NOT TILT THE FORKS/CARRIAGE BACK).

As the drums are lifted off the ground (or pallet), the operator (from his/her seat on the lift-truck) should verify that all clamping heads have securely engaged each drum (both clamping heads should be parallel with the tops of the drums). If one or both heads are sitting at a severe angle, the drums should be set back down, repositioned, and picked up again. This will provide the operator with a positive, secure clamp on each drum. The drums can then be <u>tilted back</u> for transport.

In order to release the drums, the operator should bring the attachment(s) back to parallel with the ground, and simply reverse the procedures stated above.



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#### **Maintenance Instructions**

- 1. On a <u>daily</u> basis, each operator should check the Liftomatic DCM attachment to verify all fasteners (cotter pins, snap rings, hair pin clips, etc.) are in place. Also, a spot check to be sure the unit does not have any missing or broken parts (pins, springs, fasteners, etc.) should be performed. This can be accomplished by spending a minute or two to rotate each head in all directions, as well as depressing the lower jaws to be sure that all parts move properly and spring back into resting position without difficulty.
- 2. Liftomatic attachments are completely mechanical, and require LUBRICATION ON A <u>WEEKLY</u> <u>BASIS</u>. Standard WD-40 or a "light grade oil" are recommended. Spray down the entire head assembly, <u>specifically the jaws, links, and connecting pins inside the inner housings (part number #2097)</u>. Clevises and connecting components (universal body, etc.) should also be lubricated.
  - To ensure that inner components do not collect large amounts of dirt, dust, or chemical particles, the clamping heads should be removed at least once a month (more often in heavy dust/dirt environments), and soaked/scrubbed in a non-acidic based cleaning solution. After cleaning, the unit should be thoroughly lubricated per above directions.
- 3. All DCM's (which come standard with belt cradles) should be inspected to ensure the belt (pad) is in place and properly tightened. Please note that belts loosen during daily use and should be checked prior to each shift. If belts are torn or tearing, they should be replaced immediately. A broken or badly torn belt provides little or no support to the drum sidewall.
- 4. On a <u>monthly</u> rotating basis, Liftomatic drum handling attachments should be taken out of service for thorough analysis. This will entail removing the clamping head (Part Number 4006 on enclosed parts list) from the frame, and completely disassembling the head. Each part should be inspected for cracks, breaks, elongating holes (in the links, clevises, etc.), pin and spring wear, as well as missing parts. This process should be performed for each of the clamping heads in use. Any "questionable" parts (as it relates to their integrity) should be replaced as soon as possible.

Liftomatic drum handling attachments do require periodic preventative maintenance. The above schedule should be followed as indicated for the equipment to perform at its fullest potential. A preventative maintenance program will allow your Liftomatic drum handling attachment(s) to lead a long and productive life, ensuring high levels of safety and productivity in all of your daily drum handling routines. Please consult your nearest Liftomatic office or representative to enroll in our "Service-Plus<sup>TM</sup>" preventative maintenance program today. We look forward to assisting you further. Liftomatic's main headquarters phone is: 800-837-6540. You may visit us on the web as well at: <a href="www.liftomatic.com">www.liftomatic.com</a>. Email to: <a href="mailto:edberg@liftomatic.com">edberg@liftomatic.com</a>.



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#### DISASSEMBLY PROCEDURE -- LIFTOMATIC MODEL DCM-BC

- I. To remove the clamping mechanism assembly (Part Number 4005, Figures 1-13) from the universal body (Figure 17):
  - A. Unfasten two cap screws (Figure 14), and slide out the spacer (Figure 16).
  - B. Unfasten the trunnion screw (Figure 18), and then lift out the clamping assembly from within the universal body (Figure 17).
- II. To remove the universal body (Part Number 2029, Figure 17) from the clamping assy.:
  - A. Unfasten the cotter pin (Figure 25) from its retaining pin (Figure 24).
  - B. Pull or drive the pin (Figure 24) out of the remaining assembly. This will free the universal body.
- III. To remove the universal carrier (Part Number 2027, Figure 22):
  - A. Unhook and remove the clevis spring (Figure 32) and hook (Figure 27).
  - B. Detach cotter pins/snap rings (Figure 31) from one end of the two remaining pins (Figure 30), and pull/drive the pins out. The universal carrier can then be removed.
- IV. To remove the slides (Part Number 7007-1, Figure 26), and the clevises (Part Number 2023, Figure 29) from the belt cradle frame:
  - A. Unfasten the hairpin clip (Figure 28) off the adjustment pin (Figure 23).
  - B. Pull the adjustment pin out and lift the slides/clevises up along the side channel framework until removed from the frame.
- V. To take apart the clamping assembly (Part Number 4005, Figure 1-13):
  - A. Remove the housing spring (Figure 11) off the inner and outer housings.
  - B. Detach cotter pin/snap ring (Figure 13) off pin (figure 12), and pull/drive the pin out. The inner and outer housings (Figures 1 and 2) can now be separated.
  - C. Drive out pins (Figures 6 & 9) to remove components inside the inner housing.
- VI. To remove the belt cradle frame (Part Number 4019, Figure 35) from the fork adapter slide-on-mounting (on adjustable models only):
  - A. Pull up and hold the roll pin (figure 34), then slide the belt cradle frame to either side of the slide-on-mounting until removed.

To assemble the above components/assemblies, utilize the reverse procedure.

If additional assistance is needed, please contact Liftomatic Material Handling, Inc.

PH: 800-837-6540 or FAX: 847-325-2959.



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### POINTERS FOR PROPER MAINTENANCE AND OPERATION OF LIFTOMATIC "Parrot-Beak®" ATTACHMENTS

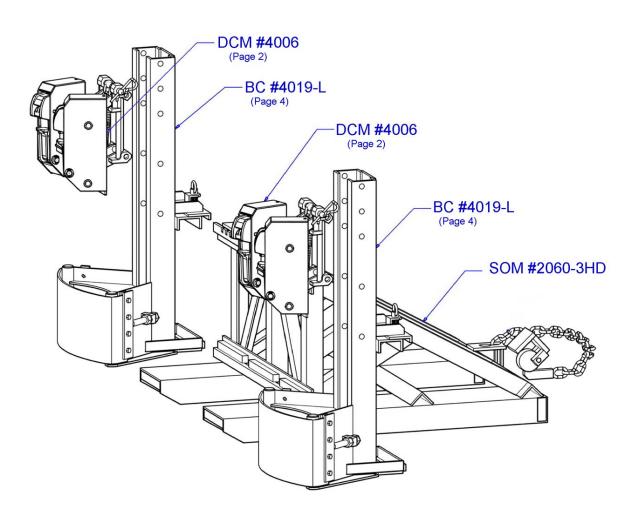
Similar to any mechanical piece of equipment, Liftomatic drum handling attachments will require periodic maintenance. The following "pointers" should be followed on a regular basis (as indicated) for the equipment to perform at its fullest potential.

- \*\* On a daily basis, each operator should check his/her drum-handling device to be sure all fasteners (cotter pins, snap rings, hair pin clips, etc.) are in place. Also, to be sure the unit is not missing any other pins or springs, or if any of the components have broken, a spot check should be done. This can be accomplished by rotating each head in all directions, and depressing the jaws downward to see that all parts move properly and spring back into resting position without difficulty.
- \*\* All DCM's (which do come standard with belt cradles) should be inspected to ensure the belt cushion is in place and properly tightened. Please note that belts will loosen during daily use and should be checked prior to each daily shift.
- \*\* Liftomatic attachments are completely mechanical, and require LUBRICATION ON A WEEKLY BASIS. Standard WD-40 or any light grade oil is recommended. Simply spray down the entire head assembly, specifically the jaws, links, and connecting pins inside the inner housings. Additional lubrication should be done in high volume or heavy usage areas.
- \*\* To ensure that inner components do not get "gunked up" with dirt, dust, chemical particles, etc., the clamping heads should be removed at least once a quarter (more often in heavy dust/dirt environments), and soaked/scrubbed in a non-acidic based cleaning solution. After cleaning, the unit(s) should be thoroughly lubricated.
- \*\* On a quarterly rotating basis, Liftomatic drum handling attachments should be taken out of service and thoroughly inspected for part wear/breakage. This will entail removing the clamping mechanisms from the frame, and complete disassembly. Each individual part should be inspected for welding cracks or breaks, missing or broken parts, elongating holes (in the links, inner housings, clevises, etc.), as well as pin and or spring wear. Liftomatic can provide this service should your facilities wish to enroll in our "Service Plus<sup>TM</sup>" maintenance program.

Should these items be followed on a regular basis, your Liftomatic drum handling attachments should lead a long and productive lifetime. Please consult your nearest Liftomatic office and account manager for further assistance (PH: 800-837-6540) or email: **edberg@liftomatic.com** 



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### PART LIST FOR 2-DCM-BC-ADJ-SOM

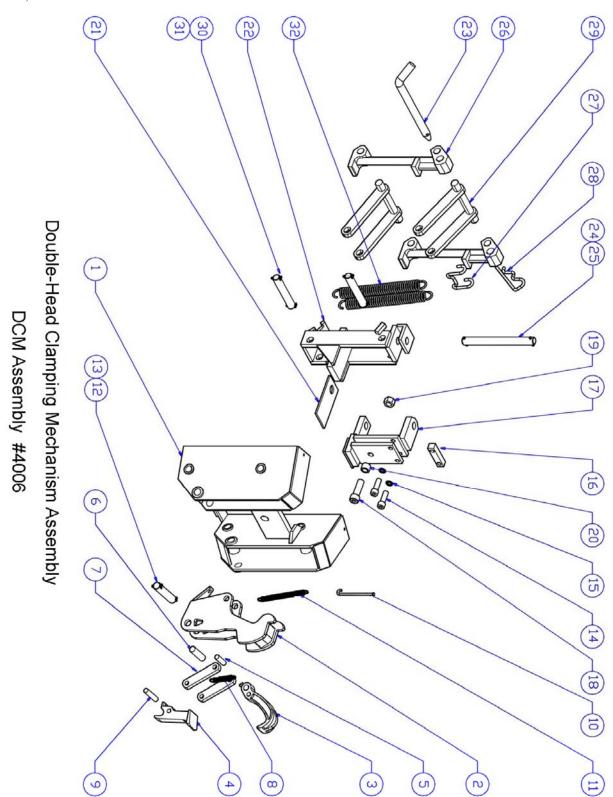
Part Number	Qty	Description
4006	2	Double Clamping Mechanism Assembly
4019-L	2	Belt Cradle Assembly
2060-3HD	1	Slide-On Mounting Frame
	4019-L	4006 2 4019-L 2



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## PART LIST for DOUBLE CLAMPING MECHANISM DCM #4006

No.	Part Number	Quantity	Description
1	2026	1	OUTER HOUSING (DOUBLE)
2	2097	2	INNER HOUSING `
3	7001	2	UPPER JAW, CLAMP
4	7015	2	LOWER JAW, CLAMP
5	14027	2	PIN, LINK TO UPPER JAW
6	16001	2	PIN, UPPER JAW TO HOUSING
7	19007	4	LINK, JAW TO JAW
8	6034	2	SPRING, JAW TO JAW
9	14026	2	PIN, LINK TO LOWER JAW
10	6999	2	HOOK, HOUSING SPRING
11	6022	2	SPRING, HOUSING TO HOUSING
12	16008-1	2	PIN, HOUSING TO HOUSING
13	6006-CP	4	COTTER PIN
14	6101	2	CAP SCREW
15	6077	2	LOCK WASHER
16	43020-1	1	SPACER, UNIVERSAL BODY
17	2029	1	UNIVERSAL BODY
18	6102	1	TRUNNION BOLT
19	6091	1	LOCK NUT (or NUT & WASHER)
20	10001	1	BUSHING, HOUSING YOKE
21	19006-1	1	WEAR PLATE, UNIVERSAL CARRIER
22	2027	1	UNIVERSAL CARRIER
23	16019-1	1	ADJUSTMENT PIN
24	16015-1	1	PIN, UNIVERSAL BODY TO CARRIER
25	6006-CP	1	COTTER PIN
26 27	7007-1	2 1	ADJUSTMENT SLIDE
2 <i>1</i> 28	6998	1	HOOK, CLEVIS SPRING HAIR PIN CLIP, ADJUSTMENT PIN
	6107 2023	2	CLEVIS
29		2	
30 31	16007-1 6006-CP	4	PIN, CLEVIS TO UNIVERSAL CARRIER COTTER PIN
32	6024	2	SPRING, CLEVIS
JZ	0024	2	OF ININO, OLL VIO



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### PART LIST FOR BELT CRADLE ASSEMBLY #4019-L

Part Number	Quantity	Description
2094	1	BELT CRADLE FRAME
6152	1	ALL PURPOSE COTTON NYLON BELT
6153		RUBBER BELT
6158		HEAVY DUTY PVC BELT
6159-SRJ		SPARK RESISTANT BELT
2096	3	CLAMP-ADJUSTING ROD
40022-1	2	BELT CLAMP
6106	8	HEX HEAD SCREW
6092	8	HEX NUT, 5/16-18
6093	2	HEX NUT, 5/8-11
4081	1	CARRIER LOCK PIN ASSEMBLY
	2094 6152 6153 6158 6159-SRJ 2096 40022-1 6106 6092 6093	2094 1 6152 1 6153 6158 6159-SRJ 2096 3 40022-1 2 6106 8 6092 8 6093 2

