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# LIFTOMATIC "PARROT-BEAK®" DRUM HANDLING EQUIPMENT

PORTABLE UNIT SERIES THE "ERGO-MATIC®" DRUM TRANSPORT FOR SINGLE DRUM MOVEMENT

WARNING: Do not install, operate or service this product unless you have read and understand the safety practices, warnings, and operation and service instructions contained in this manual. Failure to follow these guidelines may result in less than efficient drum handling routines. Please consult Liftomatic if you require additional information or if you have questions. (PH: 800.837.6540 or FAX: 847.325.2959 or email: info@liftomatic.com). Thank you very much for your business.

# INTRODUCTION

The Ergo-Matic® drum transport is designed for lifting and moving drums in a wide variety of industrial settings. It can be used for loading and unloading of drums from conventional wood pallets, containment or "spill" pallets and platform scales. The Ergo-Matic series contains more than 12 models with capacities up to 1500 pounds. An assortment of options and modifications to suit varying needs are available. All models will work to reduce operator strain, fatigue, and potential injury associated with rolling or moving drums by hand.

This manual contains information to acquaint you with the safe and proper use and upkeep of an Ergo-Matic® drum transport unit. The manual should be made available to all personnel that will work with the unit. Before operating the Ergo-Matic, read and understand this entire manual to become familiar with its function and general use. Please contact Liftomatic if you have any questions or if we can assist further with your drum handling application. PH: 800.837.6540 or email: info@liftomatic.com.

# **INITIAL RECEIPT & SAFETY PRACTICES**

- 1. Be certain that the drum's maximum weight(s) are no more than the unit's maximum rated capacity.
- 2. Do not transport the drum at the maximum lifting height when moving the Ergo-Matic under load. See that mast is lowered so the drum has <u>only</u> the necessary floor clearance to move the drum from place to place.
- 3. Keep hands or feet away from "V" area in front of the unit and/or under bottom of the drum during operation. Never stand or lay underneath the drum when it is engaged by the "Parrot-Beak®" clamping system.
- 4. Do not use the unit on inclined floors with a slope of more than 5 (five) degrees. Consult your supervisor if you are unsure of this requirement. Never leave the unit on an incline – leave the Ergo-Matic 'idle' only on level surfaces.
- 5. Keep hands or other objects clear of lifting chain, "Parrot-Beak®" clamping head and inner/outer frame during operation.
- 6. Be certain that the chain anchor (figure #29 on parts list [p/n 2198]) is securely in place before lifting any drum. Also be sure the "Parrot-Beak" clamping head is pinned within one of the adjustment holes within the inner frame before use.
- 7. Never lay the unit down horizontally. If this is required for any kind of service or part replacement, lock the inner mast and outer mast together before servicing.

# **OPERATING INSTRUCTIONS**

The Ergo-Matic® employs Liftomatic's patented Parrot-Beak® clamping mechanism. Clamping jaws will grab or release the drum automatically when raising or lowering the clamping head on a drum. Single and optional double "Parrot-Beak" clamping heads are available. Fibre and removable top drums should be handled with Liftomatic's double "Parrot-Beak" clamping mechanism for a more secure clamp on the drum.

The Ergo-Matic® is designed to handle a wide variety of rimmed drums with different heights. The clamping head is pin-mounted within the inner mast. There are several adjustment holes on the inner mast. The height of the clamping head can be adjusted by positioning in different adjustment holes based on the height of drums. Units shipped from the factory are set to pick up 35" high standard 55 gallon drums.

- 1. Remove all packing materials, protective strapping and wood blocks used for shipping. For a compact shipping footprint, the straddle legs are set in the 600 pound capacity hole position. To adjust for 800 or 1000 lbs. maximum capacity, loosen the bolts (figure #36 [p/n 6301]) and take them out of the mounting holes on the frame. Pull the straddle legs outward until the second or third hole on the legs align with the mounting holes on the frame (the second "middle" hole is for 800 pounds maximum capacity and the outer hole is for 1000 pounds maximum capacity. Replace the bolts and tighten with the supplied lock washers and nuts.
- 2. Before using the lift or lower foot pedals, open the breather (filler) screw on the hydraulic cylinder (Figure 13 on hydraulic jack parts list) to prevent air-lock. Open the filler screw one complete turn and pump the large lifting pedal several times to remove any air in the cylinder. When cylinder responds fully to each pump on the large pump pedal, turn breather (filler) screw back to 'gently' tight.
- 3. To lift a drum, push Ergo-Matic toward the drum until the "Parrot-Beak®" clamp gently contacts the drum sidewall. Secure the unit in this position by engaging (stepping down on) the floor lock before lifting the drum. Raise the Parrot-Beak by depressing the pump pedal in repetition. The jaws will then grab the top chime of the drum when raising the clamping head. The drum will lift off the ground with additional pumps. WARNING: Do not attempt to overload the unit beyond its rated capacity, or raise drum beyond its maximum lifting height. For handling fibre drums, approach the drum with the lower jaw positioned just above the top chime, then lower the "Parrot-Beak®" slowly until the lower jaws "snap" under the chime. Then depress the pump pedal to further lift the drum. The supplied fibre drum guards (located at the top of each jaw housing) should also force the clamping jaws to engage in the correct location on the drum chime. This will allow the operator to start with the jaws above OR below the chime and create a lifting sequence that is appropriate based on each operator's technique.

- 4. To transport a drum adjust the height of the drum to approximately 2 3 inches above the floor by pumping the foot pump, and then disengage the floor lock. As a standard practice, <u>never move the drum at its maximum lifting height</u>. Then push or pull the unit to the desired location. When not in use, be sure to apply the floor lock to prevent rolling. The Ergo-Matic should also be restricted to use on slopes (grades) less than five degrees. <u>WARNING: Never leave the Ergo-Matic® unit on an inclined floor</u>.
- 5. To pick up a drum from a pallet, push the Ergo-Matic forward and approach the drum from any available corner until the clamping head firmly contacts the sidewall of the drum. Then follow Step 3.
- 6. To disengage the drum, gently depress the small lowering release valve pedal on the left back side of the unit's hydraulic foot pump. The clamping jaws will retract automatically when the drum sits on the floor or a pallet. Having the floor lock disengaged prior to lowering a drum to the floor or pallet will simplify this process. The operator can then back the unit away from the drum. <u>NOTE: The</u> <u>lowering "release" valve pedal is pressure sensitive, thus do not stand on or put</u> <u>too much pressure on the lowering pedal until familiar with the unit's operation</u>.
- 7. To adjust the clamping head to a different adjustment hole (to handle larger or shorter drums), raise up the inner mast so that the extra adjustment holes are clearly visible above the outer mast. Use one hand to hold the adjustment pin and use another hand to remove the circular-shaped cotter pin. Then the operator can hold the Parrot-Beak with one hand and remove the adjusting pin. Slide the head up or down to the desired height and put each pin back securely in place (be sure to return the circular cotter pin to lock the beak/pin in place).

# **MAINTENANCE INSTRUCTIONS**

- 1. Before every usage, check that all springs, pins, casters, lift chain and its anchors are in good working order. Further, the hydraulic jack must work properly without leakage. <u>WARNING:</u> Do not operate the unit if any part is missing or in poor condition, as this will directly affect the performance of the Ergo-Matic® unit.
- 2. On a monthly basis, lubricate casters, wheels and chain sheave with grease through grease fittings. Spray light grade oil on moving parts in the clamping mechanism to ensure smooth operation. It is recommended to keep the clamping mechanism well oiled and free from foreign materials which may impede proper operation of jaws and springs. <u>WARNING: Do not leave the Ergo-Matic® outside in rain, snow, or other elements for any length of time</u>.
- 3. For heavy usage of the unit, it is recommended to replace all springs, hydraulic oil and sealing components of the hydraulic cylinder once each year to ensure additional product longevity and operator efficiency. Liftomatic can also further assist in maintenance programs. Feel free to contact us regarding our "Service-Plus" maintenance 'PM' program as required.
- 4. For any further technical assistance, please contact the Customer Service Department of Liftomatic Material Handling, Inc. Our factory technicians will be happy to assist you.

Telephone: 847-325-2930 Toll Free: 800-837-6540 Fax: 847-325-2959 Email : info@liftomatic.com Website : www.liftomatic.com

Thank you very much for your patronage. Liftomatic looks forward to working with you again in the future and assisting with your drum handling product needs.

CHOOSE LIFTOMATIC..."TOUGH JOBS DEMAND TOUGH EQUIPMENT!"

## LIFTOMATIC "Parrot-Beak ®" DRUM HANDLING PORTABLE PRODUCTS CHECKLIST & POINTERS GUIDE

Similar to any mechanical piece of equipment, Liftomatic drum handling attachments will require periodic review, analysis, and service. The following "checklist" should be followed as indicated in order for the equipment to perform at its fullest potential, as well as to elevate operator and technician(s) awareness per the status of the products.

### PRIOR TO EQUIPMENT USE:

Each operator should review status of the "Parrot-Beak®" drum handlers prior to the start of each daily shift. Review of the Ergo-Matic drum transport (or other Liftomatic models) should include the following points.

- A. Verify that each unit steel chassis (base welded structure) is in-tact with no signs of steel fatigue, broken or stressed welds, missing supports, bolts, fasteners, etc.
- B. Check that the vertical belt-cradle frame is positioned properly within the Ergo base chassis and is not bent out of shape or appears to show signs of damage.
- C. Verify that the belting on the belt cradle is not worn, ripped, or missing. If the belting is in poor condition, this can affect the use of the drum handler.
- D. Belting on the Ergo-Matic series should be static (and not loose). If the belting is not attached correctly to the framework (attached on both ends and in the center), consult your maintenance department or contact Liftomatic. Note that belts can loosen slightly after usage, thus should be inspected periodically throughout each shift. Clean belts periodically to eliminate dirt transfer to the drums being moved.
- E. The Parrot-Beak® clamps also require a visual inspection which should be done prior to each shift. Verify all fasteners (cotter pins, snap rings, hair pin clips, etc.) are in place. A spot-check should be done to ensure the unit is not missing any parts (springs, pins, etc.), as well as verifying that no components have broken. This can be accomplished by rotating each "Parrot-Beak®" clamp in all directions, as well as depressing the lower jaws downward to be sure that they move properly with the upper jaws and spring back into resting position without difficulty or obstruction. If the jaws (or other components) "stick" or do not move smoothly, there may be a problem with the clamp and thus should be investigated further.
- F. A great assistance for all Liftomatic "Parrot-Beak®" clamping assemblies is regular lubrication once a week is an excellent frequency; however, the environment the equipment works within should dictate. In heavy usage, high humidity, caustic, or similar environments, lubricate the equipment more frequently than once a week. Daily lubrication will not harm the equipment.
- G. Verify that the floor lock (located between the rear two swivel casters) is in good working order. The Ergo-Matic should not be left on any inclined surface when not in use. Further, when the Ergo-Matic is idle, step down on the floor lock to keep the unit in place until it is needed or used again.
- H. Wherever possible, all operators should engage and disengage the "Parrot-Beak®" units on test drums (filled with water or other non-hazardous material). Pick up and release the drums several times prior to using the equipment during each shift to verify proper working order.

### LIFTOMATIC "*Parrot-Beak*®" DRUM HANDLING PORTABLE PRODUCTS POINTERS CHECKLIST (continued)

#### Equipment Service & Usage Pointers:

\*\* All Ergo-Matic portable models come standard with protective belt cradles. These belts should be inspected to ensure the belt cushion is in place and properly tightened. Please note that belts can loosen with each use and should be checked periodically throughout each daily shift. Further inspection should be made to each side of the belt where it wraps around the belt cradle frame. As belting begins to wear at the edges, they should be replaced to avoid any contact between the frame and the drum(s). A badly worn, or tearing belt, will not provide adequate support for the drum. For sensitive product belts should also be cleaned daily to eliminate dirt or foreign material transfer.

\*\* Liftomatic attachments are completely mechanical, and require LUBRICATION ON A WEEKLY BASIS. Standard WD-40 or light grade oil is recommended. Simply spray down the entire head assembly, specifically the jaws, links, connecting pins, linkages, etc. within the clamping systems. Lubricate the Parrot-Beak heads more often than once a week in heavy usage, high humidity, outdoor environments, caustic rooms, etc. Lubrication should also be an active part of all service and or disassembly routines.

\*\* To ensure that inner components do not collect large amounts of dirt, dust, chemical particles, etc., the clamping heads should be removed a minimum of once a quarter (more often in heavy dust/dirt environments), and soaked/scrubbed in a non-acidic (and non-hazardous) based cleaning solution. After cleaning, the unit should be thoroughly lubricated as mentioned in the previous paragraph.

\*\* On a quarterly rotating basis, Liftomatic drum handling products should be taken out of service and thoroughly inspected for part wear/breakage. This will entail removing the "Parrot-Beak®" clamp from the frame, and complete disassembly of the clamp. 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 spring wear.

Feel free to contact Liftomatic for additional assistance, or if your facility is interested in Liftomatic's "Service-Plus<sup>™</sup>" designed service program. We would be happy to discuss additional options for your equipment service needs.

Should these items be followed on a regular basis, your Liftomatic drum handling products should lead a long and productive lifetime. It is strongly suggested to use only Liftomatic factory certified components. Please consult your nearest Liftomatic office and representative for further assistance (In the USA, *PH: 800.837.6540 or email: <u>sales@liftomatic.com</u> or on the web: <u>www.liftomatic.com</u>). Thank you very much for your continued patronage to our "Parrot-Beak®" drum handling products.* 

Sincerely,

LIFTOMATIC MATERIAL HANDLING, INC.

## PREVENTATIVE MAINTENANCE PROGRAM BULLETPOINTS FOR LIFTOMATIC "<u>PARROT-BEAK</u>®" DRUM HANDLING EQUIPMENT

SERVICE-PLUS™

Liftomatic would like to take a moment and outline our cost saving preventative maintenance program for you. This program has been established to maintain the safety, longevity, and productive characteristics of our "*Parrot-Beak®*" drum handling products while directly reducing your overhead expenditures. Establishing a continuous program with Liftomatic is simple--just give us a call! We will outline the number of products in use, determine the highest usage areas within your plant, and tailor a plan specific to your needs on an annual or semi-annual basis.

### Liftomatic's "PM" Program will Include:

- Designating which units and plant areas offer the highest use and drum handling volume.
- Providing (if needed) one complimentary loaner "Parrot-Beak®" product (or just "Beaks") for the client. This eliminates equipment down-time during the repair process. No "rental" fees apply. The customer is responsible for shipping only.
- Upgrading each unit to 2014 quality standards including padded belt cradles, heavy-duty belts, and "<u>Weather-Beak™</u>" (*heavy duty coated*) components where possible.
- Repainting framework for high visibility and protection from chemical corrosion. Unit "numbering" also available if desired (see below).
- Establishing new I.D. tags (or a numbering system) for simple product identification in the field.
- A detailed breakdown and analysis of the entire "Parrot-Beak®" clamping system, belts, frames, etc. This information is put in writing and sent to your company's designated employee for review.
- Suggestions will be made to repair or replace parts/assemblies where needed and or cost effective.
- Equipment trade-in allowances also available in the majority of cases.

Additional information will be exchanged between your company and Liftomatic before, during, and after the PM program. Many of the important "highlights" are simply outlined above.

Liftomatic looks forward to working with you and increasing your levels of safety and productivity. Feel free to contact us at (PH): **800-837-6540** or **info@liftomatic.com**.

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#### FIBER-DRUM HANDLING INSTRUCTIONS FOR THE ERGO-MATIC® DRUM TRANSPORTER

To properly operate the Ergo-Matic® unit when moving fiber (cardboard) drums with metal chimes, begin with the lower jaw positioned just above (over) the top of lip/chimes of the fiber drum (as shown Figure 1)







To pick up the drum, slowly lower the "Parrot-Beak®" head unit the lower jaw "SNAPS" under the top chime/lip of the drum. \*\* Note: the operator will hear a 'snap' or 'pop' sound of the lower jaw making contact with the underside of chime and locking band. With the lower jaw properly positioned at the chime, raise the clamping head up with the pump foot pedal, and the upper jaw will come out and properly grab the top chime/locking band of the drum. Continue pump up to a desired height by stepping on the pump pedal.

To release the drum, lower the drum from its raised position by pressing the release pedal until the drum reaches a sound resting place such as on the floor, over a pallet, and etc. The clamping jaws automatically release the drum when the drum rests on the floor. Should any binding occur on the clamping mechanism, roll the Ergo-Matic® unit backward one or two inches as the drum touches the floor.



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ErgoMatic® Drum Transporter ERGO-1000 Schematic

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NO.	Part Number	QTY	Descriptions
1	2192	1	Main Frame W/M
2	2194-L	1	Leg W/M Left
3	2194-R	1	Leg W/M Right
4	6175	2	Front Wheel
5	6176	1	Floor Lock
6	6174	2	Swivel Caster
7	6995	2	Hand Grasp
8	6301	2	Hex HD Bolt, Leg connection
9	6307	2	Hex HD Bolt, Wheel Axle
10	6303	12	Flat HD Screw, Casters
11	6304	4	Flat HD Screw, Top Cover
12	6094	2	Hex Nut, Leg connection
13	6077	2	Thin Lock Nut, Wheel Axle
14	6092	12	Thin Lock Nut, Casters
15	6078	2	Lock Washer, Leg Connection
16	6079	12	Flat Washer, Casters



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NO.	Part Number	QTY	Descriptions
1	2193	1	Inner Frame W/M
2	4009	1	Clamp Mechanism
3	2198	1	Chain Anchor
4	8004	4	Roller
5	6701	4	Side Guide
6	6178	1	Protective Belt
7	8007	1	Cover Plate
8	37212	2	Belt Clamp
9	6123	2	Socket HD Screw, Lower Anchor
10	6304	2	Flat HD Screw, Belt Center
11	6316	4	Hex HD Screw, Belt Clamp
12	6097	2	Lock Nut, Lower Anchor
13	6072	4	Lock Nut, Side Guide
14	6077	2	Lock Washer, Lower Anchor
15	6015	8	Shim #1
16	6016	4	Shim #2
17	6003	4	Cotter Pin, Roller



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NO.	Part Number	QTY	Descriptions
1	6270	1	Hydraulic Jack
2	2197	1	Jack Clevis W/M
3	16055	1	Chain Sheave
4	6180	1	Sheave Bearing
5	16054	1	Sheave Axle
6	2203	1	Chain Guard
7	6271	1	Lift Chain
8	2204	1	Anchor Pin
9	19053	1	Jack Clamp
10	6302	2	Socket HD Screw, Jack Clamp
11	6303	2	Flat HD Screw, Jack Mount
12	6314	1	Shoulder Screw, Lower Anchor
13	6313	1	Shoulder Screw, Upper Anchor
14	6305	4	Round HD Screw, Chain Guard
15	6306	1	Set Screw, Jack Clevis
16	6094	2	Hex Nut, Upper Anchor
17	6092	2	Lock Nut, Jack Mount
18	6315	2	Lock Nut, Anchor
19	6078	2	Lock Washer, Jack Clamp
20	6079	2	Flat Washer, Jack Mount
21	6197	1	Grease Fitting