



Vestil Manufacturing Corp.
 2999 North Wayne Street, P.O. Box 507, Angola, IN 46703
 Telephone: (260) 665-7586 -or- Toll Free (800) 348-0868
 Fax: (260) 665-1339
<http://www.vestilmfg.com/> e-mail: info@vestil.com

**Carriage-Mounted Drum Mover: DLH-CL2-1
 Instruction Manual**



Receiving instructions:

After delivery, remove the packaging from the product. Inspect the product closely to determine whether it sustained damage during transport. If damage is discovered, record a complete description of it on the bill of lading. If the product is undamaged, discard the packaging.

NOTE:

The end-user is solely responsible for confirming that product design, use, and maintenance comply with laws, regulations, codes, and mandatory standards applied where the product is used.

Replacement Parts and Technical Service:

If you have questions that are not addressed in these instructions and to order replacement parts, labels, and accessories, call (260) 665-7586 and ask for the Service and Parts Department. The department can also be contacted online at http://www.vestilmfg.com/parts_info.htm.

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SIGNAL WORDS

This manual uses SIGNAL WORDS to direct the reader's attention to important safety-related messages. These messages describe uses of the product that could result in personal injury or property damage. Each signal word corresponds to a specific hazard level. The following are definitions of signal words that might appear in this manual.



Identifies a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.



Identifies a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.



Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.



Identifies practices likely to result in product/property damage, such as operation that might damage the product.

HAZARDS

Vestil strives to identify all foreseeable hazards associated with the use of its products. However, material handling is dangerous and no manual can address every risk. The most effective way to avoid injury is for the end-user to exercise sound judgment whenever using this product.



Improper or careless use of this device might result in serious personal injuries.

- **Read and understand this entire manual before installing, assembling, using or servicing this ladder.** Keep this manual in a location known to persons who use the ladder. Read the manual whenever necessary to refresh your understanding of proper use, inspection, and maintenance procedures.
- DO NOT exceed the maximum rated load of your lifter. See Label 287 on product and in [Labeling Diagram](#) on p. 6. Also see [Specifications](#) table on p. 6.
- Before using this fork attachment, US Federal regulation 29 CFR 1910.178 requires the manufacturer of your lift truck provide: 1) Written approval [29 CFR 1910.178(a)(4)] to use the attachment with the truck; 2) Markings for the lift truck that identify the attachment AND give approximate weight of truck and attachment at maximum evaluation with laterally-centered load. [29 CFR 1910.178(a)(5)]. DO NOT use UNTIL lift truck is marked with corrected capacity tags.
- Inspect the lifter as described in [Inspections & Maintenance](#) on p. 4. DO NOT use this drum lifter unless it is in [Satisfactory Condition](#).
- No part of your body should ever be beneath any part of the lifter or drum while it is elevated. DO NOT raise a drum over any person.
- DO NOT use the lifter to transport *anything* but drums matched to your lifter. See [Specifications](#) on p. 6.
- Transport drums slowly. Avoid rough terrain. Jostling might disrupt the grasp on the rim.
- DO NOT transport drums over rough terrain UNLESS they are secured to the lifter with a ratchet strap.
- DO NOT modify the drum lifter in any way without first obtaining written approval from Vestil. Unapproved modifications automatically void the [Limited Warranty](#) (p. 7) and could make the lifter unsafe to use.
- DO NOT use the lifter UNLESS all labels are easily readable and undamaged. See [Labeling Diagram](#), p. 6.
- For the drum gripper mechanism to work properly, the drum and contents must weigh at least 50lb. (~22.7kg).
- DO NOT use this product UNLESS every label shown in the [Labeling Diagram](#) on p. 6 is in place, undamaged, and easily readable.
- DO NOT modify the lifter in any way without express, written approval from Vestil. Unapproved modifications automatically void the [Limited Warranty](#) on p. 7 and might make the product unsafe to use.

APPLICABLE NATIONAL STANDARDS

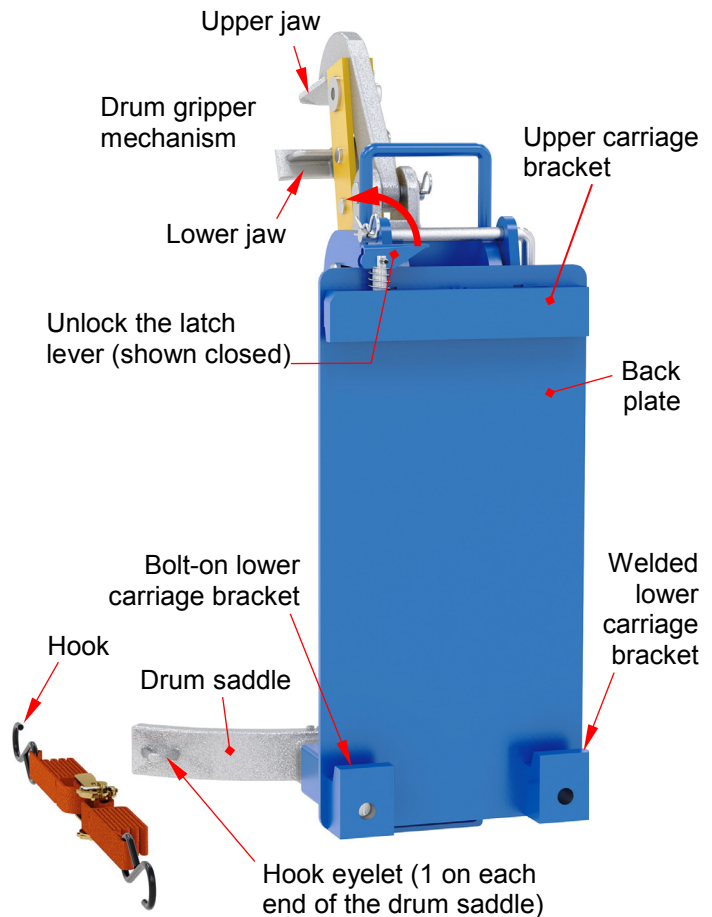
According to US Federal Occupational Safety and Health Administration (OSHA) Rule 1910.178 (29 CFR 1910.178; the "Rule"), this device is a front end attachment for a lift truck. The Rule incorporates American National Standard ANSI/ITSDF B56.1 (the "Standard") published by the Industrial Truck Standards Development Foundation (ITSDF) on its website (www.itsdf.org). The standard is freely downloadable at <http://www.itsdf.org/cue/b56-standards.html>. Before putting this drum mover into service, you must acquire a copy of the Standard. Apply all relevant parts of Part II: For the User. If instructions provided in this manual conflict with the Standard, then you should apply the instructions in the Standard. If you find any such disparities, we request that you share them with our *Technical Service* personnel. Contact information appears on the cover page of this manual.

USING THE DRUM MOVER

NOTE: The drum and its contents must weigh AT LEAST 50 lbs. (~22.7kg) for the Eagle Beak™ mechanism to work properly.

Step 1: Install the drum mover on the carriage of your fork truck.

- Remove the tines (forks) from the lift truck carriage.
- Rotate the latch lever to the unlocked position. [NOTE: There are 2 holes in the upper carriage bracket. The latch can be attached to either hole. In the diagram below, it is installed on left side.] The latch seats into slots in the upper carriage crossbar.
- Loosen the bolt-on lower carriage bracket.
- Set the left side of the upper carriage bracket on the upper carriage crossbar of your lift truck.
- The lower carriage crossbar (of the lift truck) should have a notch in it. The notch is probably located at the center of the crossbar. Slide the drum mover across the upper crossbar until the welded lower bracket seats into the notch. Push the back plate against the carriage. The bolt-on lower bracket should slide over the bottom edge of the carriage.
- Adjust the position of the drum mover to center it on the carriage.
- Lock the latch. The latch lever will only rotate back to the closed position if the latch aligns with a notch in the upper crossbar. The position of the drum mover might have to be adjusted to allow the latch to seat into a slot.
- Tighten the bolt-on lower bracket.



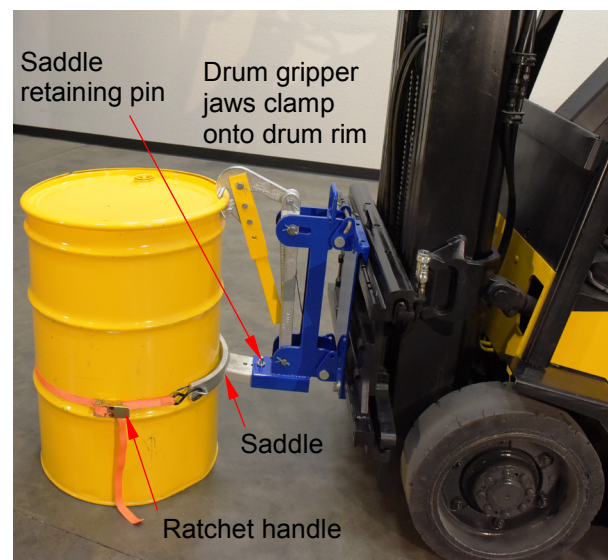
Step 2: Drive to the drum. Lightly tilt the mast forward. Adjust the height of the drum gripper to allow the lower jaw to contact the side of the drum directly beneath the drum lip.

Step 3: Slowly raise the carriage until the upper jaw engages the top of the drum lip. Do not lift the drum yet.

Step 4: Adjust the position of the drum saddle. Pull out the saddle retainer pin. Push the saddle against the side of the drum. Reinstall the pin.

Step 5: There is a hook eyelet at each end of the saddle. Attach one end/hook of the ratchet strap to a hook eyelet. Wrap the strap around the drum. Attach the other end of the ratchet strap to the hook eyelet on the other side of the saddle. Tighten the strap against the side of the drum by moving the ratchet handle back-and-forth until the strap is tight.

Step 6: Raise the carriage until the drum is elevated a few inches above the floor/ground. Transport the drum. Straighten the mast and transport the drum to the desired unloading location. Raise the forks when/as required by conditions along the travel path.



NOTICE Slowly raise and lower the carriage to avoid damaging the drum, the lifter, and/or the carriage.

Step 7: Lower the carriage so the drum is just a few inches above the floor. Release the ratchet strap by pulling up the spring-loaded release lever and opening the ratchet handle. Tilt the fork truck mast forward. Slowly lower the forks until the drum gripper disengages the lip of the drum. The drum should be fully supported by the floor/ground.

RECORD OF SATISFACTORY CONDITION (THE “RECORD”):

Before using the drum mover for the first time, make a record describing its appearance. Thoroughly photograph the unit from multiple angles so that all mechanisms and labeling are clearly visible. Compare the label numbers and locations to those shown in the *Labeling Diagram* on p. #. If your unit is labeled differently than the Labeling Diagram, mark the diagram to show actual label locations. Install the device on the carriage of your fork truck. The installation process is provided in *USING THE DRUM MOVER, Step 1* on p. 3. Photograph the unit again. Take close range photos of the carriage brackets. Lift a drum by following the instructions in *USING THE DRUM MOVER, Steps 2-7*. Describe how the drum gripper mechanism clamps the rim of the drum. Take close range photos of the jaws clamped to the rim. Collate all photographs and writings into a file. Mark the file appropriately to identify it. This record documents **satisfactory condition**. Compare the results of all inspections to this record to determine if the unit is in satisfactory condition. Do not use it unless it is in satisfactory condition. Purely cosmetic changes, like damaged paint/powder coat do not constitute changes from satisfactory condition. However, touchup paint should be applied to all affected areas as soon as damage occurs.

INSPECTIONS AND MAINTENANCE

Proper maintenance is essential for maximizing the service life of the unit. Compare the results of each inspection to the *RECORD* to determine whether a component is in satisfactory condition or requires repair or replacement. If an inspection reveals any changes in the condition of the unit, repair it before returning it to service. Only use manufacturer-approved replacement parts. Contact **Technical Service** if you have questions that are not addressed in these instructions or if you are uncertain how to address an issue discovered during an inspection. Technical Service can be contacted by calling (260) 665-7586 and asking for the Service and Parts Department or by submitting questions online at http://www.vestilmfg.com/parts_info.htm.

Apply the following general principles in addition to the specific inspection and maintenance procedures provided in this section:

- Periodically lubricate moving parts.
- Keep the product clean and dry.
- Only use manufacturer-approved replacement parts.

INSPECTIONS

Before inspecting the unit, tag it “Out of Service”. Compare the results of all inspections to the *Record*. If a part needs to be repaired or replaced, do not return the unit to service until it has been fully restored to satisfactory condition.

A. Before each use, inspect the following components:

- 1) **Latch mechanism**: confirm that the latch automatically locks and unlocks properly. It should seat into slots in the upper carriage crossbar.
- 2) **Labels**: all labels should be readable and located as shown in the *Labeling Diagram*. If a label is unreadable or missing, contact the *Parts Department* to order a replacement.

B. At least once per month, inspect:

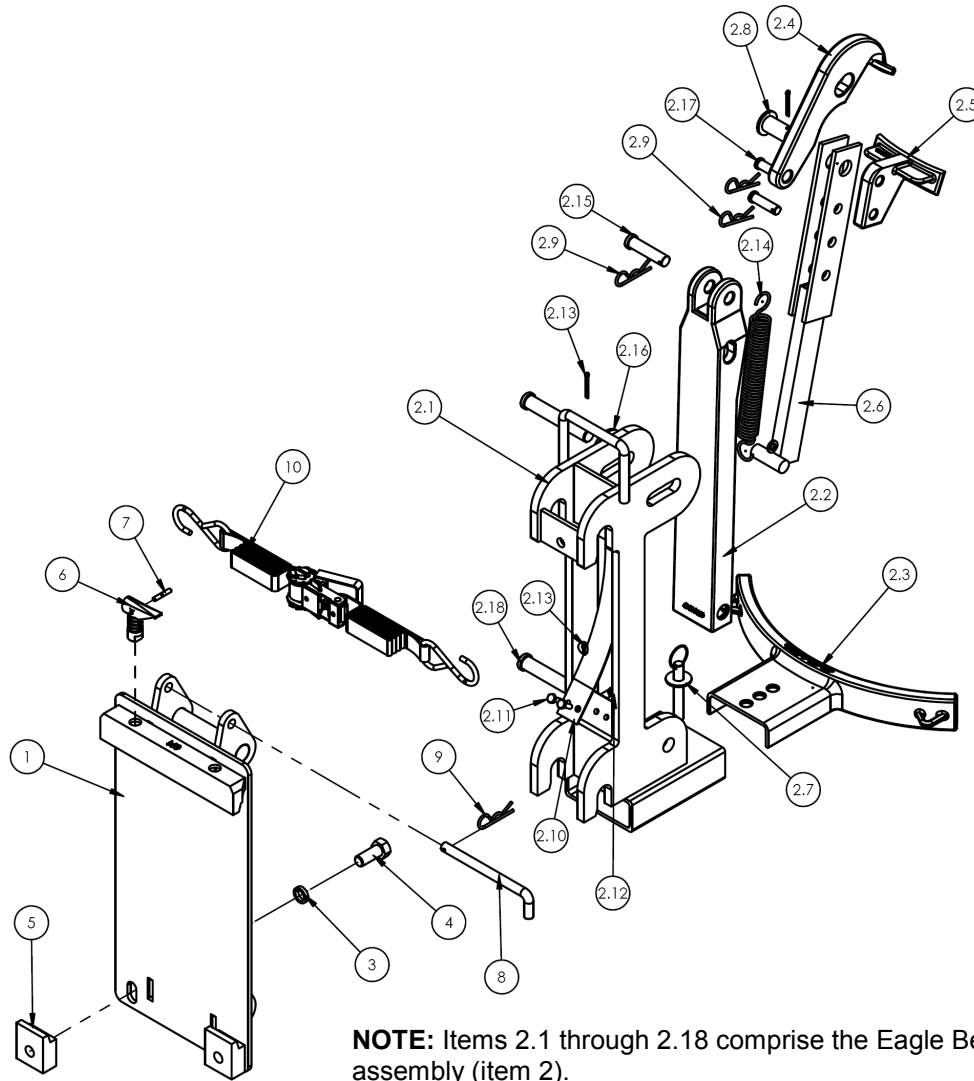
- 1) **Fasteners (hardware)**: Bolts, nuts, washers, clevis pins, cotter pins, etc.
- 2) **Frame**: Examine the back plate and carriage brackets. Check all welds. Look for damage such as cracks, severely worn areas, significant rusting/corrosion.
- 3) **Drum gripper mechanism** (items 2.1-2.18 on p. 5): Examine the components of the gripper mechanism for cracks, bends, and other damage. Confirm that the drum gripper operates correctly, i.e. downward pressure/weight applied to the lower jaw causes the upper jaw to pivot towards the lower jaw until a clamp is produced. The spring should cause the jaws to open automatically when pressure/weight is removed.
- 4) **Ratchet strap**: Check the strap for tears, thinning regions, etc. Confirm that the ratchet mechanism operates normally. The strap should tighten when you move the handle back-and-forth. Pulling the release handle and opening the handle should release the strap.
- 5) **Overall condition of drum lifter**: the structure should be clean, square and rigid, and free of rust and corrosion. Remove dirt and debris.

Maintenance

1. Remove dirt and other matter from all surfaces.
2. Compare the results of your most recent inspection to the *Record*. Restore the carrier to satisfactory condition by performing all indicated repairs and replacements. **DO NOT** use the product until it is restored to satisfactory condition.
3. Make a dated record of all repairs, adjustments, and replacements.

EXPLODED VIEW AND BILL OF MATERIALS

40-008-112



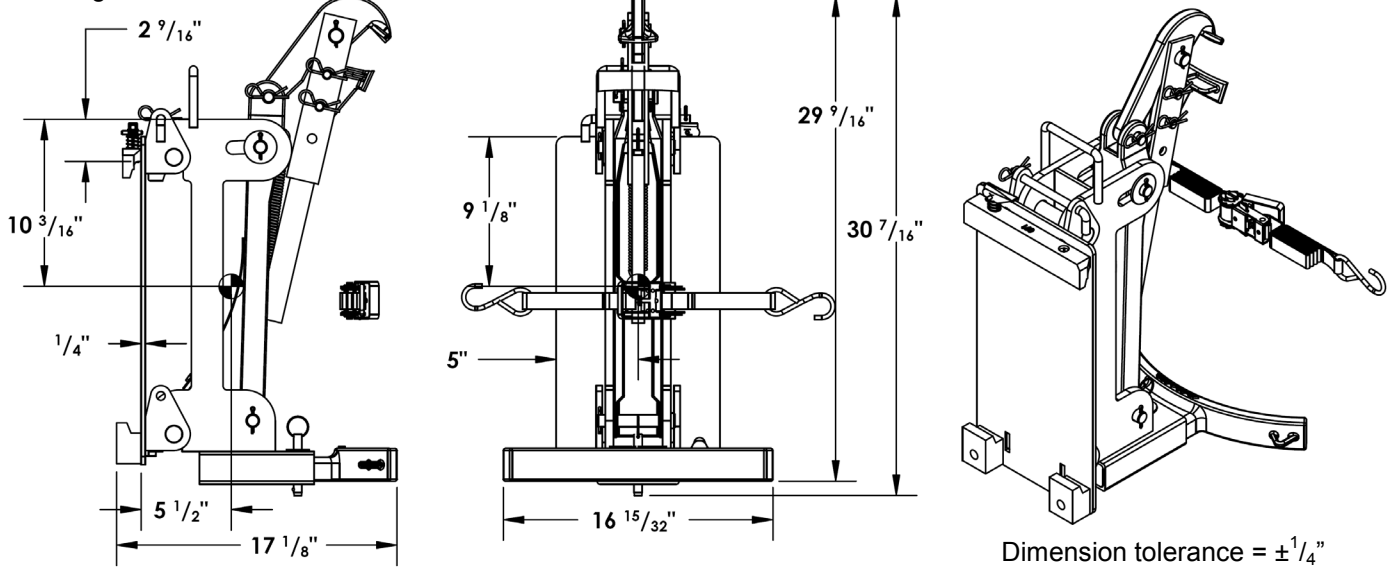
NOTE: Items 2.1 through 2.18 comprise the Eagle Beak drum gripper assembly (item 2).

Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	40-514-112	Weldment, frame, back plate	1	2.13	65078	Extended prong cotter pin, z-finish, $\frac{1}{8}$ "x $1\frac{1}{2}$ "	3
2	40-514-022	Assembly, drum gripper, Eagle Beak™	1	2.14	40-146-001	Spring, tension	1
2.1	40-514-006	Weldment, gripper frame	1	2.15	40-112-026	Pin, clevis, $\frac{5}{8}$ "x $2\frac{1}{2}$ "	1
2.2	40-014-054	Frame, channel casting	1	2.16	33018	Flat washer, USS, z-plated, $\frac{3}{4}$ "	1
2.3	40-014-093	Frame, drum grip, casting	1	2.17	21-112-003	Pin, clevis, $\frac{1}{2}$ " x $1\frac{15}{16}$ "	2
2.4	40-016-052	Bracket, upper jaw, casting	1	2.18	28-112-031	Pin, clevis, $\frac{3}{4}$ " x $4\frac{1}{2}$ "	2
2.5	40-016-053	Bracket, lower jaw, casting	1	3	33692	Washer, lock, high collar, $\frac{5}{8}$ "	1
2.6	40-514-011	Weldment, frame, tube	1	4	13309	Bolt, HHCS, #5, z-plated, $\frac{5}{8}$ "- 11 x $1\frac{1}{2}$ "	1
2.7	40-612-006	Weldment, pin, saddle retainer	1	5	08-016-056	Bracket, bolt-on, lower, CR-2	1
2.8	40-612-004	Pin, clevis	1	6	08-154-004	Kit, locking mechanism	1
2.9	45286	#11 hitch pin clip, $\frac{1}{8}$ " x $2\frac{5}{8}$ "	3	7	40580	Spring pin, heavy duty, plain finish, M5x32mm	1
2.10	40-014-029	Frame, bar, formed	1	8	40-130-001	Pin, formed	1
2.11	11003	Hex bolt, gr. A, z-plated, $\frac{1}{4}$ "- 20 x $\frac{3}{4}$ "	2	9	45286	Hitch pin clip, #11, $\frac{1}{8}$ "x $2\frac{5}{8}$ "	1
2.12	37018	Nylon lock nut, gr. 2, z-finish, $\frac{1}{4}$ "- 20	2	10	40-145-008	Strap, ratchet, 6'long	1

SPECIFICATIONS

Dimensions, capacity, net weight, and center of gravity figures are provided in the following diagrams and table.

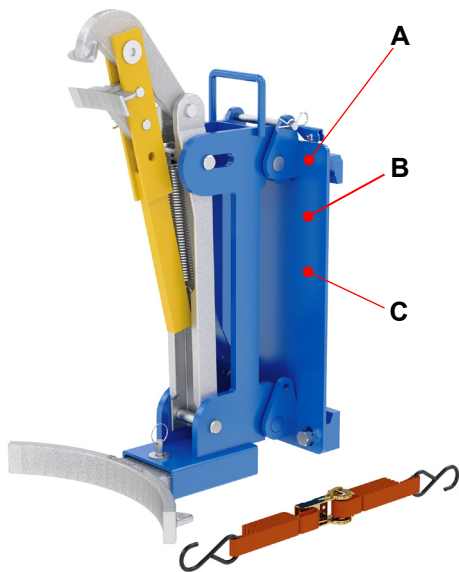
Drawing 40-007-112



Model	Overall width	Overall Length	Overall Height	Center of Gravity		Capacity	Net Weight
				Vertical	Horizontal		
DLH-CL2-1	16 ¹⁵ / ₃₂ " 41.8 cm	17 ¹ / ₈ " 43.5 cm	30 ⁷ / ₁₆ " 77.3 cm	10 ³ / ₁₆ " 25.9 cm	5 ¹ / ₂ " 14.0 cm	1,000 lb. 454.5 kg	92 lb. 41.8 kg

LABELING DIAGRAM

The unit should be labeled as shown in the diagrams. However, label content and location are subject to change so your product might not be labeled exactly as shown. Thoroughly photograph the unit when you first receive it as discussed in the *Record of Satisfactory Condition* section on p. 4. Make sure that your record includes a photograph of each label. Replace all labels that are, or later become, damaged, missing, or not easily readable (e.g. faded). To order replacement labels, contact the technical service and parts department online at http://www.vestilmfg.com/parts_info.htm. Alternatively, you may call (260) 665-7586 and ask the operator to connect you to the *Parts Department*.



A: Label 287 – Applied to front of back plate

MODEL/MODÉLO/MODELE _____
 STATIC CAPACITY (evenly distributed) _____ lbs.
 LA CAPACIDAD CONSTANTE (distribuida uniformemente) _____ kgs.
 CAPACITÉ STATIQUE (distribuée régulièrement) _____ kgs.
 SERIAL/SERIE/SÉRIE _____

287 REV 0812

B: Label 485 – Applied to front of back plate

⚠ CAUTION

Side of drum must maintain contact with drum cradle whenever drum is elevated. Secure drum to cradle with ratchet strap when necessary -- while traveling over rough terrain, for example.

485
REV 1118

C: Label 1049 – Applied to front of back plate

⚠ WARNING

Improper use of this fork attachment might result in death or serious injury.

- Using this front end attachment affects lift truck center of gravity.
- Before using this fork attachment, US Federal regulation 29 CFR 1910.178 requires you to contact the manufacturer of your lift truck and request:
 - Written approval [29 CFR 1910.178(a)(4)]
 - Markings for (fork) lift truck that:
 - Identify the attachment;
 - Give approximate weight of truck and attachment at maximum elevation with laterally-centered load. [29 CFR 1910.178(a)(5)].
- DO NOT** use UNTIL lift truck is marked with corrected capacity tags.

1049
REV 1118

LIMITED WARRANTY

Vestil Manufacturing Corporation (“Vestil”) warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective, original part covered by the warranty after we receive a proper request from the Warrantee (you) for warranty service.

Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

Definition of “original part”?

An original part is a part used to make the product as shipped to the Warrantee.

What is a “proper request”?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by one of the following methods:

<u>US Mail</u>	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation 2999 North Wayne Street, PO Box 507 Angola, IN 46703	(260) 665-1339 <u>Phone</u> (260) 665-7586	info@vestil.com Enter “Warranty service request” in subject field.

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, motor controllers, and cylinders. It also covers defects in original parts that wear under normal usage conditions (“wearing parts”), such as bearings, hoses, wheels, seals, brushes, and batteries.

How long is the warranty period?

The warranty period for original dynamic components is 90 days. For wearing parts, the warranty period is 90 days. Both warranty periods begin on the date Vestil ships the product to the Warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend a warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

What is not covered by the warranty?

The Warrantee (you) are responsible for paying labor costs and freight costs to return the product to Vestil for warranty service.

Events that automatically void this Limited Warranty.

- Misuse;
- Negligent assembly, installation, operation or repair;
- Installation/use in corrosive environments;
- Inadequate or improper maintenance;
- Damage sustained during shipping;
- Collisions or other accidents that damage the product;
- Unauthorized modifications: Do not modify the product IN ANY WAY without first receiving written authorization from Vestil.

Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty. Vestil makes no warranty or representation that this product complies with any state or local design, performance, or safety code or standard. Noncompliance with any such code or standard is not a defect in material or workmanship.

