

INSTRUCTION MANUAL

HEAVY-DUTY DIE LIFTING TONGS

MODEL DLT (20, 25, & 30)



MODEL No. _____
SERIAL No. _____



MaterialHandling.com

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We produce several models of heavy-duty die lifting tongs so that our customers may select a product that satisfies specific requirements. Each unit conforms to the generalized specifications disclosed in this manual and fulfills our demanding standards for quality, safety and durability.

SAFETY PRINCIPLES

Vestil Manufacturing Corp. recognizes the critical importance of workplace safety. Each person who **might** participate in the assembly, use, operation, or maintenance of the product must read this manual. **Read the entire manual and fully understand the directions BEFORE assembling, using or maintaining the tongs. If you do not understand an instruction, contact Vestil for clarification. Failure to adhere to the directions in this manual might lead to serious personal injury or even death.**

Vestil is **not liable** for any injury or property damage that occurs as a consequence of failing to apply the safe operation and maintenance procedures explained in this manual or that appear on labels attached to the product. Failure to exercise good judgment and common sense may result in property damage, serious personal injury, or death, and are **not the responsibility of Vestil.**

This manual applies the hazard identification methods suggested for instruction manuals by the American National Standards Institute (ANSI) in ANSI standard Z535.6-2006. In accordance with ANSI guidelines for hazard warning language, this manual identifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. These signal words announce an associated safety message. The reader must understand that the signal word chosen to identify a particular safety hazard categorizes the seriousness of that hazard according to the following convention:

These symbols identify hazards that may result in personal injury

DANGER

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.

WARNING

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

CAUTION

Indicates a hazardous situation which, if not avoided, **COULD** result in **MINOR** or **MODERATE** injury. Although Z535.6-2006 approves the use of "CAUTION" without an accompanying safety alert symbol (black equilateral triangle with yellow exclamation point) as an alternative to "NOTICE", this manual differentiates between hazards that pose a risk of personal injury and those that create mere property damage situations. **CAUTION appears exclusively in conjunction with the safety alert symbol to identify injury risks.**

NOTICE

Identifies practices not related to personal injury, such as operation that could damage the die tongs. No safety alert symbol (equilateral triangle enclosing an exclamation point) accompanies this signal word.

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PRODUCT INTRODUCTION



Thank you for purchasing Heavy-Duty Die Lifting Tongs (“die tongs” or simply “tongs”) made by Vestil Manufacturing Corporation (“Vestil”). Our die tongs are durable, high-quality products that combine safety features and superior lifting capabilities. Despite ease of use, all personnel must familiarize themselves with the safe operation instructions provided in this manual.

We produce 3 types of tongs, the DLT-20, DLT-25, and DLT-30. All tongs are constructed from steel and have a powder coat finish. The three models are distinguishable by lifting capacity: 20’s are rated for loads of up to 2,000 pounds, 25’s are rated for loads that do not exceed 2,500 pounds, and 30’s can handle loads weighing as much as 3,000 pounds. All models incorporate a formed clevis bracket for easy use with overhead hoists.

Vestil Manufacturing Corp. created this manual to acquaint owners and users of our tongs with safe use and maintenance procedures. **Employers are responsible for instructing employees to use the product properly. Employees and any other person(s), who might foreseeably use, install, or perform maintenance on the tongs, must read and understand every instruction before using the device. Persons who use the tongs should have access to the manual at all times, and in particular should consult the directions before each use. Contact Vestil for answers to any question(s) you have after reading the manual.**

Although Vestil strives to identify the hazardous situations that could arise during use, this manual cannot address every conceivable danger. The end-user is responsible for exercising sound judgment at all times.

SAFETY GUIDELINES

Read the entire manual before attaching the tongs to a lifting device or using them for the first time. Refer to the manual for safe use and maintenance procedures (p. 7-11). If questions remain after you finish reading the manual, contact Vestil for answers. DO NOT attempt to resolve any problems with the tongs unless you are certain that they will be safe to use afterwards. NEVER modify the product in any way without the express, written approval of Vestil.

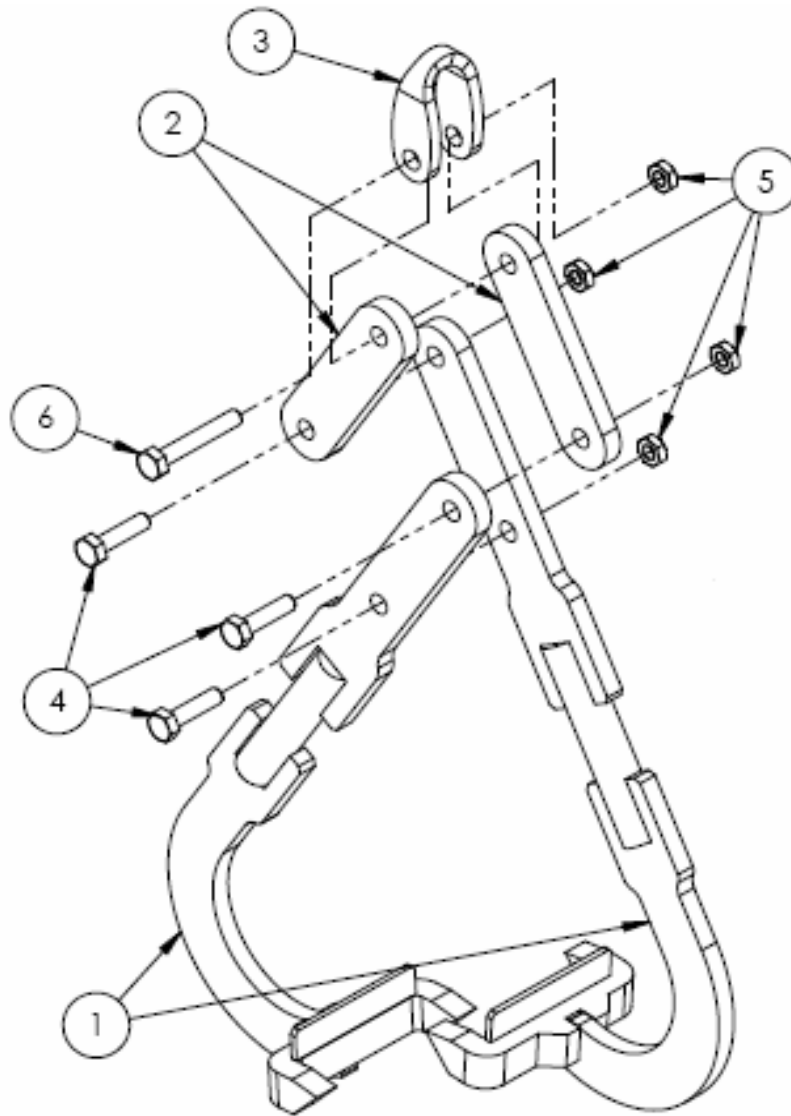
DANGER

- **Electrocution Risk: DO NOT contact live electrical wires with the tongs or the load!**

WARNING

- Review the safety messages included in the manual(s) for your crane, trolley, hoist, and any other device used in conjunction with the tongs.
- BEFORE opening the tongs, be certain that the die ("load") is completely supported by the ground or other surface, and is fully immobilized (can't fall over, roll, slide, etc.). If a second person is needed to ensure load immobility, find someone to help you. To open the tongs, push/pull the hook weldments (see FIG. 1 on p. 6) away from each other. DO NOT open the tongs while using them to lift and/or move material.
- ALWAYS inspect the die tongs before each use according to the inspection procedures described in the most recent revision of ASME B30.20. B30.20 also recommends frequent and periodic inspections.
- Properly maintain the die tongs according to the maintenance procedures on p. 10-11. Vestil developed these procedures to supplement the suggested maintenance practices of B30.20.
- ONLY attach the die tongs to a safety hook (e.g. a hoist that has a safety hook connected to the end of the chain or rope), or to a connection that includes safety features to prevent accidental/unintended detachment from the hoist. DO NOT attach the tongs to a hoist hook that might accidentally/unintentionally release the tongs. DO NOT connect the tongs to a safety hook that does not function properly or that is damaged.
- DO NOT grip a load that has any debris or surface contamination on it that might affect the quality of the connection between the tongs and the load. Remove all debris, such as oil, grease, water and dirt.
- Clear all debris, including fluids, from the path of travel (if the job requires moving the load to a new location) BEFORE picking up the load. If moisture is present in the path of travel, absorb it before using the tongs. **Make sure that no person is in the travel path.**
- DO NOT remove or obscure any label. Verify the placement and legibility of all labels as shown in FIG. 2, on p. 11. If any label becomes damaged or unreadable, immediately contact Vestil for a replacement. DO NOT use the tongs UNLESS all labels are attached and readable.
- DO NOT attempt an unbalanced lift. Always use enough tongs to properly balance the load before lifting and/or moving the material. (See "Use Instructions," Step 5 on p. 8).
- DO NOT sit on or apply any weight/pressure to a load held by the die tongs.
- DO NOT attempt to lift material that exceeds the load rating. ALWAYS make sure that the load weighs no more than the rated load of the tongs.
- DO NOT lift a load higher than necessary. (See "Use Instructions" on p. 7-9).
- DO NOT raise the load over your feet or any other part of your body.
- DO NOT use the tongs to lift material over people, or to lift any apparatus that is used to support people, such as a work platform. The tongs are designed to ONLY lift dies.
- Always orient yourself so that the load is visible to you. You are less likely to be injured if the load remains within sight at all times. Standing to one side of the load and next to the die tongs will allow you to stabilize the load as you move it to the desired location.
- DO NOT leave a suspended load unattended. An unattended, suspended load creates a risk of injury to yourself and others. Always move a load to its desired location, set the load down and properly immobilize it, and then disengage the tongs from the load. Disconnect the tongs from the hoist BEFORE you leave the work area.

FIG. 1: Exploded Parts Diagram



Item No.	Part No.	Description	Quantity
1	49-514-001	Frame Hook Weldment:	2
1	49-514-002	DLT-20	2
1	49-514-003	DLT-30	2
2	49-016-001	Link Bracket	2
3	49-016-003	Formed Clevis Bracket	1
4	15363	$\frac{3}{4}$ -10 x 2-1/2 LG, Grade 8	3
5	37190	$\frac{3}{4}$ -10 Nylock Nut, Grade 8	4
6	15369	$\frac{3}{4}$ -10 x 4 LG, Grade 8 Bolt	1

Use Instructions:

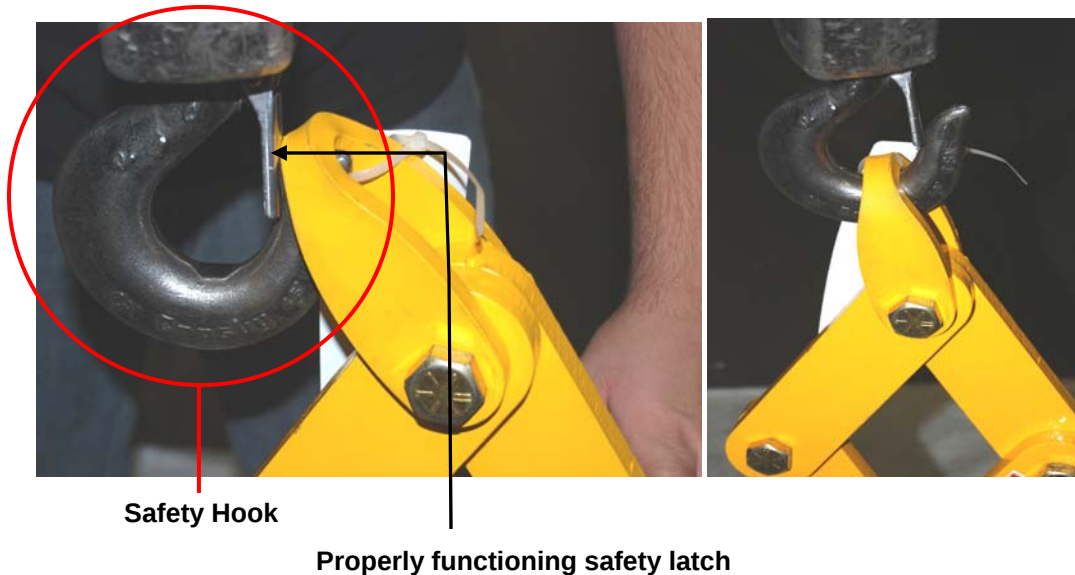
NOTICE

The operating instructions in this manual are meant to **supplement** the operation recommendations of ASME standard B30.20.

Only trained, designated persons should use the die tongs. “Designated person” means someone selected by his or her employer, or by a representative of the employer, as competent to use the die tongs. Trainees under the direct supervision of a designated person may use the device. Maintenance persons and personnel who perform tests also may use the die tongs when necessary for the performance of their employment duties.

Step 1: Perform a proper “Every Lift” inspection as described in the most recent revision of ASME B30.20, **BEFORE** you connect the tongs to a hoisting device. Proceed to the next step ONLY IF the tongs pass the inspection and are deemed safe to use by designated inspection personnel.

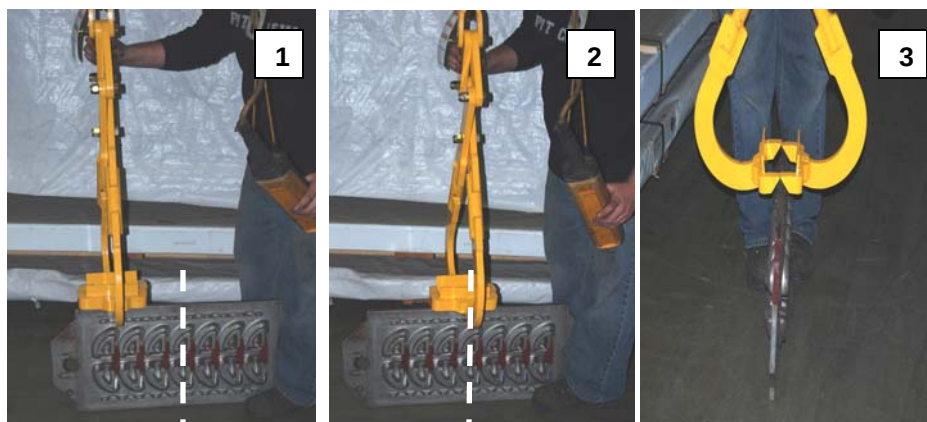
Step 2: Connect the tongs to the hoisting device. The tongs must only be connected to the hoist via a safety hook to prevent accidental detachment from the hoist.



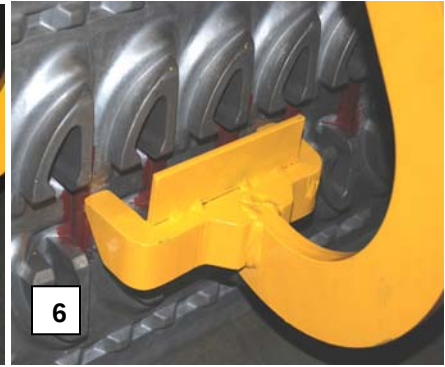
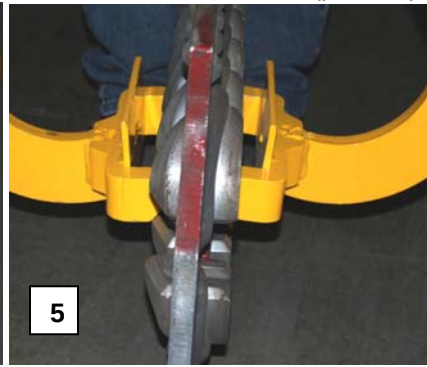
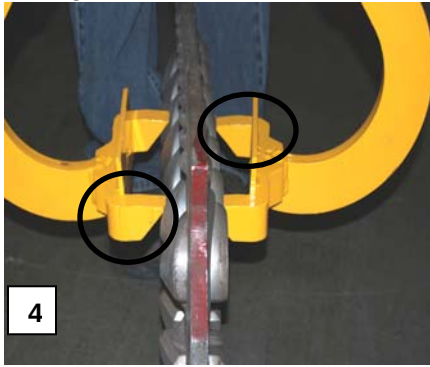
Step 3: Position the tongs above the load as shown in photos 1-3. The load must balance when lifted. As a first approximation of the balance point, move the tongs to a position above the center of the die (side views shown in photos 1 & 2). The center is identified by a dashed line. Photo 3 shows the same orientation of tongs and die from a front view.

⚠ WARNING

DO NOT push or pull the tongs so that the hoist chain/rope is not vertical. All horizontal adjustments to the position of the tongs must be accomplished by moving the trolley. This is important because any deflection of the chain/rope from straight up-and-down will cause the load to swing when lifted. A swinging load may cause serious personal injuries.



Step 4: Engage the die with the tongs. Lower the tongs around the die (photos 4-6). The angled teeth (circled in photo 4) will follow the surface of the die as the hoist lowers the tongs. Adjust the position of the tongs to allow ALL 4 teeth to make solid contact with the die (photo 7).



Step 5: Test the balance of the die in the tongs. Grasp the hoist hook to add stability (see photo 8) and raise the die just a few inches from the ground (or other supporting surface). If the die slides or hangs lower on one side of the tongs, it is improperly balanced. Return it to the ground/supporting surface and immobilize it. Reposition the tongs to improve the contact with the die: move the tongs slightly towards the side that hung lower when you tested the balance; then raise the object again to see if the die is now balanced. DO NOT proceed to the next step until the load is properly balanced. If you cannot achieve a stable hold of the die with the tongs, DO NOT use the tongs. Use a different device to lift and move the die.



Step 6: Raise the die. Steady the tongs and load by grasping the hoist hook. Lift the load to approximately waist height, while maintaining a grip on the hook.

⚠ WARNING

Review all hazard safety messages (p.5) and always follow these rules when using the tongs:

1. NEVER lift material over yourself or other persons. Inform persons in the area that you will be using the tongs and make sure that no one is in the starting point, path of travel, or end point.
2. DO NOT press down on the die. Grasp ONLY the hoist hook to stabilize the load while raising, lowering and/or moving it to a new location.
3. **Always stand at arm's length to the side of the load** and hold onto the hook as shown in photos 9-12. Make sure that your clothing, feet, and body generally DO NOT get underneath the load. This stance allows the operator to exercise some control of the die while maximizing operator safety.

(Continued on next page)

4. If the object has to be removed from a container or be lifted over an obstacle, continue to grasp the hoist hook. You MUST use a different device if you will not be able to maintain the safe stance described in Rule 3.

If you are using a motorized trolley:

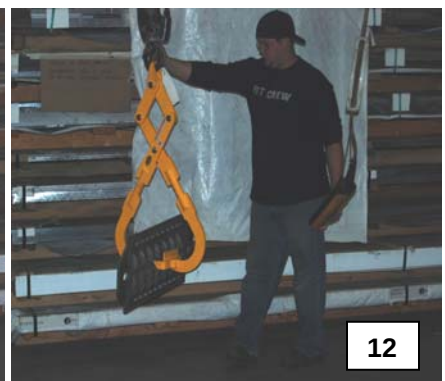
- DO NOT push or pull either the tongs or the die. Allow the trolley to supply all movement. Your hold on the hook is a means ONLY for stabilizing the load.

If you are using a manual trolley,

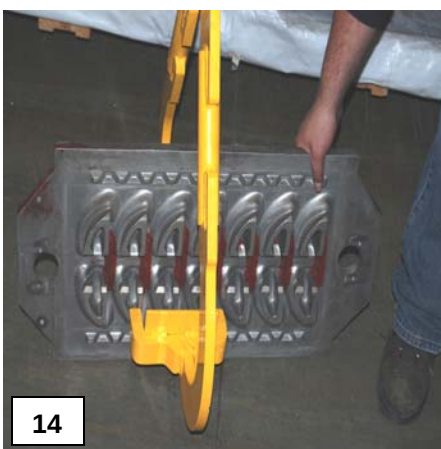
- Grasp the hoist hook with one hand. DO NOT push/pull the die in the direction of travel. Use the hand that grasps the hoist hook to move the trolley and to steer the load in the intended direction.



Step 7: Move the load to the desired location. Refer to the “Warning” messages and the included lifting rules on p. 8-9. Position the die above the intended location.



Step 8: Lower the die to the ground/supporting surface (photo 13). Make sure that the tongs are not swinging or rotating, and then slowly lower the die until it contacts the ground/surface. Cease lowering the load as soon as contact is made. DO NOT remove the die from the tongs until you appropriately immobilize it so that it cannot roll, fall over, or move in an uncontrolled manner. Lower the tongs until the hook weldments contact the ground/surface; then open the tongs to release the die. [NOTE: In the following photographs, the die weighs little and lacks dangerous projections that could cause injury, and thus is easily controlled by the operator.] If you cannot easily control BOTH the tongs and die, find someone to help you. However, despite these suggestions you should always use the procedure(s) developed by your employer for safely handling dies.



Step 9: Disconnect the die tongs from the hoist.

Maintenance and Inspections:

A designated person must verify that the device complies with all regulations, codes, and standards that apply to “Under-the-Hook Lifting Devices” in the location where the tongs are *used*. The person(s) designated to conduct inspections must do so before the tongs are used for the first time, and EACH time the hook is installed for use.

Inspections:

NOTICE The end-user is responsible for performing inspections as recommended in ASME B30.20, which categorizes examinations based on regularity of performance. *Highlights* of the recommended inspection procedures appear below. However, the full procedures in the published standard must be followed.

⚠ WARNING DO NOT use tongs that are structurally damaged. Structural damage might include, but is not limited to, bending, warping, cracking or other deformation of the link arm(s), hook weldment(s), or formed clevis bracket (see FIG. 1 on p.6). Restore the tongs to normal operating condition **BEFORE** using them again.

Inspections Before & During EVERY lift: visual examination must be performed by the operator prior to AND during each lift. In particular, the *operator* should inspect for:

1. Debris on the load surfaces; AND
2. Condition and operation of the controls.

Frequent Inspections: the specific meaning of “frequent” varies from daily to monthly depending on the service classification (normal, heavy, severe, and special/infrequent) of the tongs. Definitions of the service classifications appear in ASME B30.20. The *operator* or other *designated person(s)* should visually inspect the tongs for:

1. Deformation, cracking, or excessive wear of any part of the tongs;
2. Operating mechanisms for conditions that interfere with proper function; AND/OR
3. Loose or missing fasteners, stops or nameplates.

Periodic Inspections: complete visual inspections performed AND recorded by a *qualified* person. The inspection should specifically look for:

1. Loose bolts or fasteners;
2. Excessive wear of friction pads, linkages, and other mechanical parts; AND/OR
3. Excessive wear at the points where the tongs connect to the hoist hook, and load support clevises or pins.

Maintenance: the end-user must implement a maintenance program to ensure the proper function and safety of the tongs. A qualified person may establish a program that is used in preference to the maintenance procedures described below. However, if you apply the procedure below, complete EVERY step each time maintenance is performed.

⚠ WARNING ONLY qualified persons may perform maintenance on the tongs. A qualified person is someone “who, by possession of a recognized degree in an applicable field or certificate of professional training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.” See ASME B30.20-0.2-2003.

Step 1: All sources of power must be disconnected, locked out and tagged, “Out of Service.”

Step 2: Disconnect the tongs from the hoist hook, and tag them as, “Out of Service.”

Step 3: Perform all adjustments identified as necessary during any inspection (every lift, frequent, or periodic). Refer to ASME B30.20 for recommended inspection procedures.

Step 4: If other conditions exist which require new/replacement parts to repair, contact Vestil to order replacement parts. **Deformity, corrosion, rusting, or excessive wear of fasteners and/or the link arm(s), hook weldment(s), and/or formed clevis bracket warrants immediate replacement of the affected part(s).**

⚠ WARNING The reader should understand the significant difference between “Adjustments [and] repairs,” and modifications. An adjustment or repair refers to a simple correction that restores the tongs to normal operating condition, such as tightening loose fasteners, or removing debris. A modification is a change that alters the tongs from normal operating condition, like bending the structural members. **NEVER modify the tongs without the express, written approval of Vestil. Modifications may render the tongs unsafe to use.**

DO NOT use the tongs if adjustments and/or repairs are incomplete! Return the tongs to service ONLY after finishing all necessary repairs and/or adjustments.

Step 5: Install the replacement parts.

NOTICE ASME B30.20 requires special markings for all repaired or modified lifters (die tongs). Consult the standard and affix or attach the necessary marking(s).

Step 6: After the tongs have been repaired, conduct a periodic inspection. The tongs may be returned to service ONLY IF they pass the inspection. Repeat steps 3-5 if the inspection reveals additional issues.

Step 7: Make a dated record of the repairs, adjustments and/or replacements made.

Markings:

Only use the tongs if ALL of the labels are readable and undamaged. Contact Vestil for replacement labels.

FIG. 2: Product label placement



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 if the part is 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.

What is an "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 any of the following methods:

Mail
Vestil Manufacturing Corporation
2999 North Wayne Street, PO Box 507
Angola, IN 46703

Fax
(260) 665-1339
Phone
(260) 665-7586

Email
sales@vestil.com

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

What is covered under the warranty?

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 may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following *original* dynamic components: motors, hydraulic pumps, electronic controllers, switches and cylinders. It also covers defects in *original* parts that wear under normal usage conditions ("wearing parts"): bearings, hoses, wheels, seals, brushes, batteries, and the battery charger.

How long is the warranty period?

The warranty period for original components is 30 days. The warranty period begins on the date when Vestil ships the product to the warrantee. If the product was purchased from an authorized distributor, the period begins when the distributor ships the product. Vestil may extend the 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?

1. Labor;
2. Freight;
3. Occurrence of any of the following, which automatically voids the warranty:
 - Product misuse;
 - Negligent operation or repair;
 - Corrosion or use in corrosive environments;
 - Inadequate or improper maintenance;
 - Damage sustained during shipping;
 - Collisions or other incidental contacts causing damage to the product;
 - Unauthorized modifications: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification(s) might make the product unsafe to use or might cause excessive and/or abnormal wear.

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.

