

## Vestil Manufacturing Corp.

2999 North Wayne Street, P.O. Box 507, Angola, IN 46703 Telephone: (260) 665-7586 Toll Free (800) 348-0868 Fax: (260) 665-1339

Web: www.vestilmfg.com e-mail: info@vestil.com

# DCS-1000-I & DCS-1000-B Below-the-Hook Drum Lifters Use and Maintenance 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.

#### <u>NOTE</u>

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.

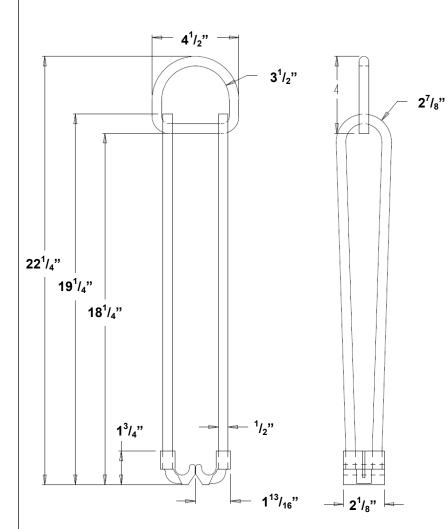
#### Technical Service and Replacement Parts

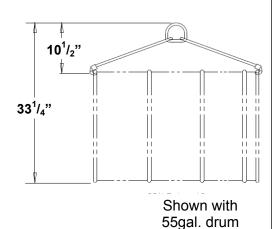
For answers to questions not addressed in these instructions and to order replacement parts, labels, and accessories, call our Technical Service and Parts Department at (260) 665-7586. The department can also be contacted online at <a href="http://www.vestilmfg.com/parts\_info.htm">http://www.vestilmfg.com/parts\_info.htm</a>.

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## **Specifications**

Dimensions, net weight, and capacity information appears in the following diagrams and table.





Capacity = 1,000 lb. (454.5kg) \*Net weight =  $\sim$ 7 lb. (3.2kg)

Compatible drum types: Steel; 30gal. and 55gal.

Construction material:

DCS-1000-I is fabricated from iron.

DCS-1000-B is made of brass.

\*Net weight might differ from the figure provided (above).Determine net weight with a scale before putting the unit into service.

## Signal Words

This manual classifies personal injury risks and situations that might cause property damage with signal words. Signal words indicate the seriousness of injuries that might result if a particular act does, or does not, occur.

**A** 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.

**AWARNING** 

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.



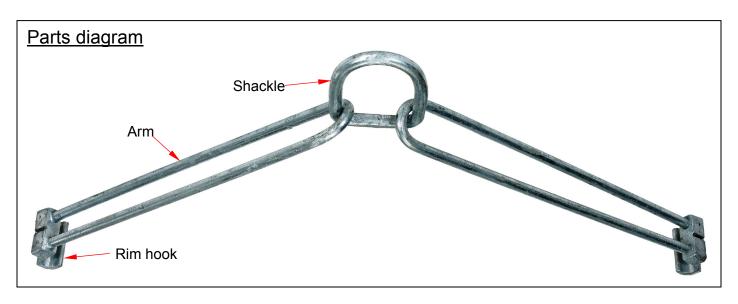
Identifies practices likely to result in product/property damage, such as operation that might damage the product.

## Hazards

We strive to identify all hazards associated with the use of our 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.

**AWARNING** Improper or careless use might result in serious personal injuries.

- Review the safety messages included in the manuals for your crane, trolley, hoist, and any other device used in conjunction with this drum lifter.
- Inspect the lifter before each use as described in Inspection & Maintenance on p. 5.
- Regular maintenance is necessary to keep the lifter in *satisfactory condition* for as long as possible. Properly maintain the device according to the maintenance instructions on p. 5.
- ALWAYS attach the drum lifter to hoist having a <u>safety hook</u> or to a connection that includes safety mechanisms to prevent accidental/unintended detachment. DO NOT connect this device to a malfunctioning/damaged safety hook.
- Remove all dirt and debris from the drum lid, before attaching the rim clamps to the rim of a drum.
- Verify the placement and legibility of all labels and/or tags shown in the *Labeling Diagram* on p. 6. Replace all damaged or unreadable labels and tags. DO NOT use the lifter until replacements are applied.
- ONLY attach the rim clamps to the top and bottom rims of a drum.
- DO NOT attempt to lift a drum if either the top or bottom rim is damaged, e.g. significantly rusted or dented. The rim hooks might not securely attach to a damaged rim, or the rim might break when the drum is lifted.
- DO NOT lift more than 1 drum at a time.
- DO NOT sit, or ride, on a drum.
- <u>DO NOT attempt to lift a drum that weighs more than the capacity of the lifter</u>. Capacity information is provided on tag 993 which is attached to the shackle. See *Labeling Diagram* on p. 6. ALWAYS make sure that the net weight of the drum and its contents does not exceed the capacity of the lifter.
- DO NOT lift a load higher than necessary. See *Using the Lifter* on p. 4. Keep the drum as low as possible while moving it.
- Keep clear of suspended drums.
- DO NOT lift drums over people. DO NOT walk beneath a raised drum.
- Only lift 30 and 55 gallon steel drums with intact top and bottom rims.
- DO NOT leave a suspended drum unattended. Complete the lift before leaving the drum.
- Disconnect the lifter from the hoist hook BEFORE leaving the work area.

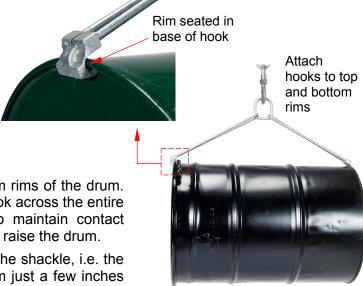


## Using the lifter

This device should only be used to lift 30 and 55 gallon steel drums. US customers should acquire a copy of the latest version of (US) national standard ASME B30.20. Read the entire standard *before* putting this lifter into service. Use instructions in this manual <u>supplement</u> recommendations in ASME B30.20. Customers outside the United States should follow the recommendations of equivalent national standards.

Only trained, designated persons should use this device. "Designated person" means someone selected by his or her employer, or by a representative of the employer, as competent to use the device. Trainees under the direct supervision of a designated person may use the lifter.

- Inspect the lifter as described in Inspections & Maintenance on p.5.
   Proceed to the next step ONLY IF the lifter is in normal operating condition. Connect the shackle to the safety hook of your hoist.
- Move the hoist directly above the center of the drum. Lower the hoist hook sufficiently to allow the rim hooks to engage the top and bottom rims of the drum.
- 3. Attach the rim hooks to the top and bottom rims of the drum. Each rim should seat into the base of a hook across the entire width of the hook. Raise the shackle to maintain contact between the hooks and the rims but do not raise the drum.
- 4. Make sure that the hoist is directly above the shackle, i.e. the hoist chain/rope is vertical. Raise the drum just a few inches above the ground. Watch the drum and lifter. The rim hooks should not shift or slide. If the connection is stable, move the drum to the desired location. Keep the drum as low as possible while moving it.



**AWARNING** DO NOT attempt to lift or transport a drum with this lifter if stable connections to the rims cannot be achieved. Use a different lifting device. Inadequate connections could occur if, for instance, either rim is so damaged that a hook cannot make proper contact with it.

5. Make sure that the drum is not swinging; then lower the drum until it rests on the ground. Lower the hoist until the hooks can be taken off of the rims.

## **Record of Satisfactory Condition**

Before putting the lifter into service, make a record of its condition. Thoroughly photograph all parts of the unit as well as any labels or tags applied to it. Make 1 arm and its hook, for instance with a magic marker. This will allow you to differentiate between the 2 sets of arms and hooks. Use the lifter to engage and lift a drum. Describe how the hooks engage the drum rims. Also describe how the lifter reacts under a load with the drum raised a few inches above the ground. Collate all writings and photographs into a file. Mark the file as necessary to identify it. This file is a record of the unit in satisfactory condition. Compare the results of every inspection to this record to determine whether the lifter is in satisfactory condition. Do not use the lifter unless it is in satisfactory condition. Purely cosmetic changes, like damaged surface coating (paint, powder coat, galvanizing coating), are not changes from satisfactory condition. However, touchup paint should be applied to all affected areas as soon as damage occurs.

## <u>Inspections & Maintenance</u>

Regular inspections and maintenance are necessary to keep the lifter in satisfactory, usable condition for as long as possible. Compare all inspection results to the *Record of Satisfactory Condition* to determine whether the lifter should be used. Contact *Technical Service* if you are uncertain whether the lifter should be used based on your inspection results.

#### Inspections:

**AWARNING** DO NOT use a damaged lifting device. Examples of damage include bends, warps, cracks, etc. of any part (shackle, rim hooks, or arms). Restore the lifter to satisfactory condition BEFORE using it again. If the lifter cannot be restored, it should be removed from service and destroyed.

<u>Before & During EVERY lift</u> the *operator* should visually inspect all parts of the lifter. Remove dirt and debris from around the rim of the drum. Debris might interfere with the connections between the rim hooks and the rims.

<u>Frequent Inspections</u>: Frequent means daily to monthly depending on the service classification (normal, heavy, severe, and special/infrequent) of the clamp. Definitions of the service classifications appear in ASME B30.20. Following the guidelines for heavy service is recommended, which requires inspecting the lifter on a weekly basis for deformations, cracks, or excessive wear of the shackle, arms, and rim hooks.

<u>Periodic Inspections</u>: complete visual inspections performed twice per year AND recorded by a *qualified* person. Look for excessive wear, distortion, cracking of hooks, arms, and/or shackle.

**Maintenance:** This lifter is classified as BTH-1 Design Category B and Service Class 1. Design category B means that lifting conditions are not always defined or predictable, or that load conditions could be severe. Service class 1 provides the fatigue lift of the lifter. Class 1 means that the lifter is rated for 20,001 – 100,000 load cycles. Regularly maintaining the lifter is essential to ensure that it remains in *satisfactory condition*. A qualified person may establish a program that is applied instead of the following maintenance procedures. However, the alternative program must be at least as rigorous as the maintenance procedure outlined in ASME B30.20-1.

**AWARNING** ONLY qualified persons may perform maintenance on this device. 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 [drum lifter] and work [using the lifter]." See ASME B30.20-0.2-2003.

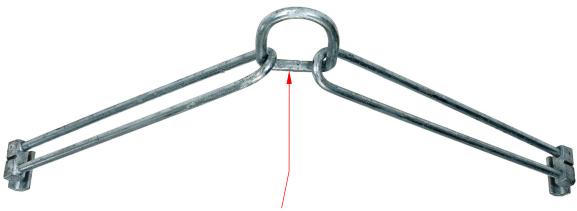
Step 1: Tag the lifter "Out of Service."

<u>Step 2</u>: Perform a *Periodic Inspection* of the unit; then perform all adjustments found to be necessary during the inspection. <u>Deformities, corrosion or rust, or excessive wear of any part warrants immediate</u> replacement of that part.

Step 3: Make a dated record of the repairs, adjustments and/or replacements made.

## Labeling diagram

The unit should be labeled as shown in the diagram. However, label content and location are subject to change so your product might not be labeled exactly as shown. Compare this diagram to your *Record of Satisfactory Condition*. Replace all labels that are damaged, missing, or not easily readable (e.g. faded). Order replacement labels by contacting the *Replacement Parts Department* online at <a href="http://www.vestilmfg.com/parts\_info.htm">http://www.vestilmfg.com/parts\_info.htm</a>. Alternatively, you may request replacement parts and/or service by calling (260) 665-7586 and asking the operator to connect you to the Parts Department.



Tag 993 (attached to shackle with zip tie) Obverse side

Read Owners Manual Lea Manual de Propie			ad de producto
BHT-1 Design Category: B BHT-1 Categoría de Diseño B	BHT-1 Service ( BHT-1 Categoria		$\bigcirc$
Capacidad	kgs.	Peso del Elevador	kgs.
Model No No. Modelo Capacity		Serial No No. Serie Lifter Weight	

#### Reverse side

<b>▲</b> WARNING	
Do NOT exceed rated capacity Do NOT use if damaged, malfunctioning, or missing parts Do NOT lift people OR lift loads over people Do NOT riase load higher than necessary Do NOT leave a suspended load unattended DO NOT use lifter unless you read and understand the owner's manual DO NOT alter OR modify lifter DO NOT remove OR obscure any label STAY CLEAR of suspended loads Secure load before using this device	

#### 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 <u>Customer Invoice</u> that displays the shipping date; AND 2) a <u>written request</u> for warranty service including your name and phone number. Send requests by one of the following methods:

US MailFaxEmailVestil Manufacturing Corporation(260) 665-1339info@vestil.com2999 North Wayne Street, PO Box 507PhoneEnter "Warranty service request"Angola, IN 46703(260) 665-7586in the 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 <u>30 days</u>. For wearing parts, the warranty period is <u>90 days</u>. 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) is 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;
- <u>Unauthorized modifications</u>: 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.

