

# 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

Web: <u>www.vestilmfg.com</u> e-mail: <u>info@vestil.com</u>

## TJIB-SERIES THREE POST JIB CRANES



#### **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.

#### **Technical Service & 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 https://www.vestil.com/page-parts-request.php.

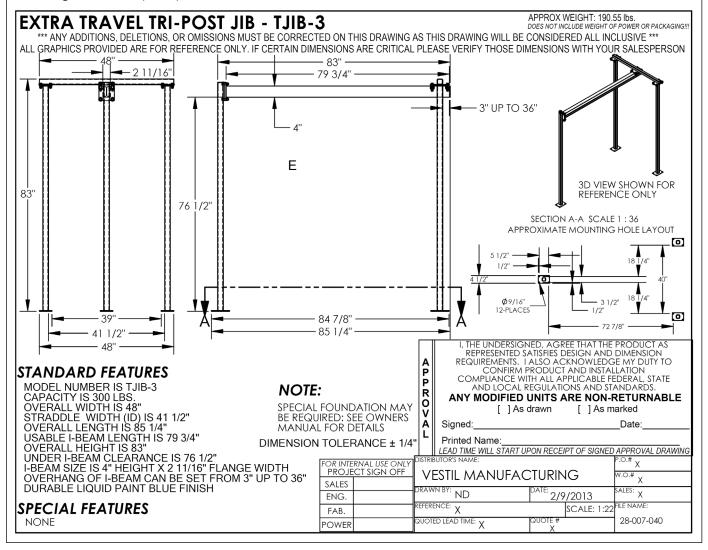
## **Electronic Copies of Instruction Manuals**

Additional copies of this instruction manual may be downloaded from <a href="https://www.vestil.com/page-manuals.php">https://www.vestil.com/page-manuals.php</a>

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### **SPECIFICATIONS**

Specifications for all TJIB-series cranes, including dimensions, net weight, and capacity information, are subject to change from time to time. To acquire the most up-to-date specifications for your unit, download the appropriate specifications document from Vestil's website as soon as you receive your crane. To access the specifications document, navigate to this webpage: <a href="https://www.vestil.com/product.php?FID=528">https://www.vestil.com/product.php?FID=528</a>. Click the "Product Specifications Table" drop-down menu bar partway down the page. Scroll down to the entry for the model you purchased and click the button in the column titled "PDF's" that looks like a pencil inside a box. A PDF file will open. This file is the specifications document. Print a copy of the document and keep it with your copy of this manual. The following is an exemplar specifications document for model TJIB-3



#### SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage. The following are signal words used in this manual and their definitions.



Identifies a hazardous situation which, if not avoided, <u>WILL</u> 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.

#### SAFETY INSTRUCTIONS

Vestil strives to identify foreseeable hazards associated with the use of its products. However, no manual can address every conceivable risk. The most effective way to avoid injury is to exercise sound judgment when assembling, using, inspecting, and maintaining this crane.

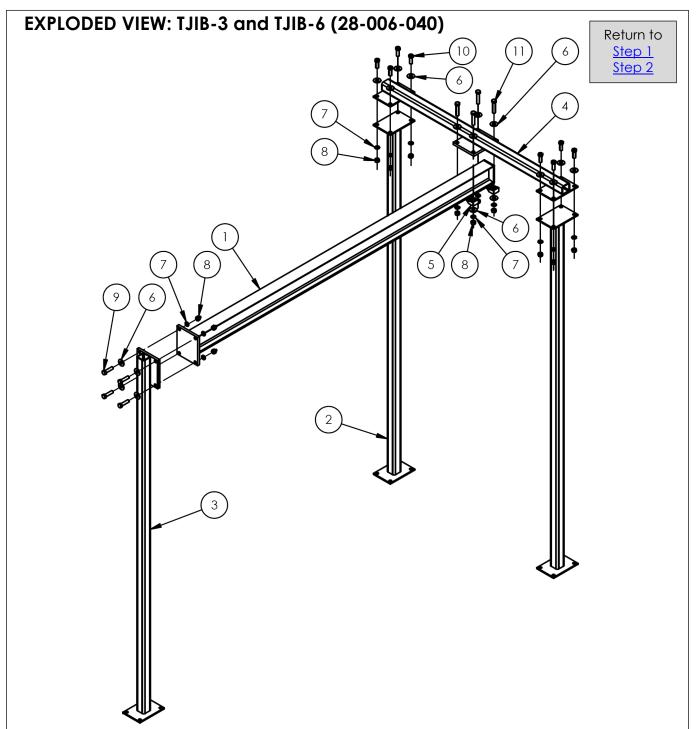
## **▲** DANGER

Electrocution might result if the crane contacts electrified wires. DO NOT assemble or use the crane in an area where contact with electrified wires could occur.

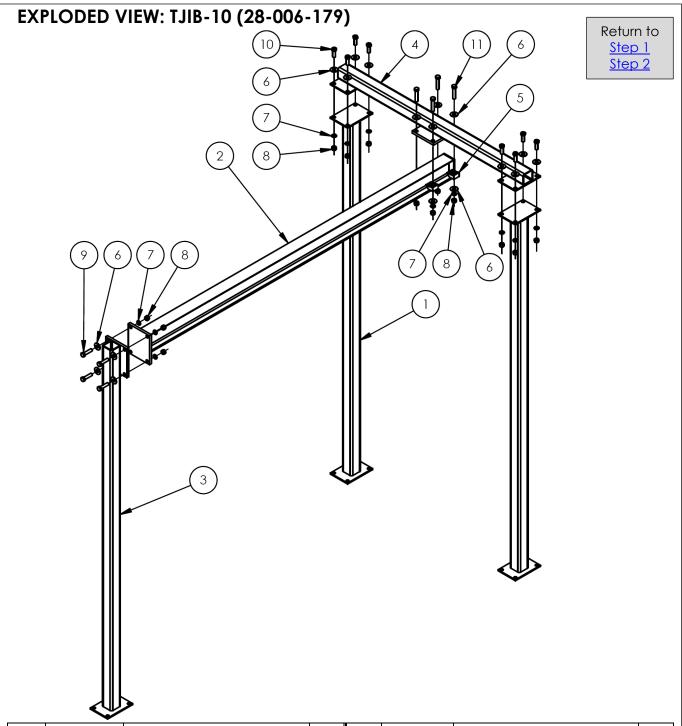
## **WARNING**

Material handling is dangerous. Improper or careless operation might result in serious personal injuries.

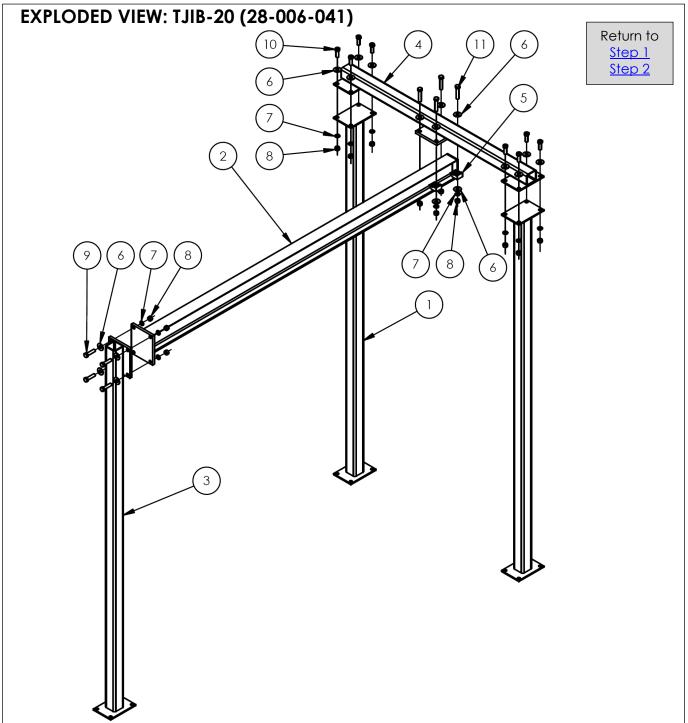
- Inspect the usage area each time the crane is used. Make sure that all debris on the ground is removed.
- DO NOT use a damaged or malfunctioning crane. ALWAYS inspect the crane before each use by following the <u>INSPECTIONS</u> instructions on p. 10. DO NOT use the crane unless it passes every part of the appropriate inspection. DO NOT use the crane unless it is in <u>SATISFACTORY CONDITION</u>. See <u>RECORD</u> on page 11.
- DO NOT attempt to lift a load that weighs more than the capacity of your crane. Capacity for each AHA model crane is provided in the <u>SPECIFICATIONS</u> section on page 2. Capacity also appears in the <u>LABELING DIAGRAM</u> section of this manual on p. 11, as well as on capacity labels applied to the product.
- Keep clear of the suspended load. DO NOT put any part of your body under a suspended load.
- Inform all persons in the usage area that you are going to use the crane; instruct them to stay clear of the crane and the load during operation.
- DO NOT lift people with the crane. DO NOT lift loads over people. **ONLY use the crane to lift stable loads!**
- DO NOT allow people to climb on the load or the crane.
- DO NOT operate manual motions with other than manual power.
- DO NOT install the crane on a sloped surface. Only install the crane on even, level ground.
- ALWAYS load the crane in accordance with LOADING THE CRANE recommendations on p. 9.
- DO NOT lift a load unless it is centered under your hoist. A swinging load might cause serious injury.
- DO NOT remove or obscure any label on the crane. DO NOT use the crane if any label is damaged, missing, or not easily readable. See <u>LABELING DIAGRAM</u> on p. 11. Contact Vestil for replacement labels.
- DO NOT modify the crane in any way without the express approval of Vestil in writing. Unapproved modifications automatically void the <u>LIMITED WARRANTY</u> on p. 12 and might make the crane unsafe to use.



ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	28-514-063	FRAME, WELDMENT, I-BEAM, T- JIB	1	7	33626	LOCK WASHER Z PLATED, Ø 1/2	16
2	28-514-061	WELDMENT, FRONT POST FRAME	2	8	36310	1/2"-13 UNC GR. 5 HEX NUT Z PLATED	16
3	28-514-064	WELDMENT, REAR POST FRAME	1	9	13211	HHCS #5 Z PLATED, GRADE 5, 1/2"-13x2"	4
4	17X-517L067	WELDMENT, HORIZONTAL FRAME	1	10	13209	Hex Cap Screw, Grade 5, Zinc Plated,1/2-13x1.5	8
5	28-145-002	CLAMP, I-BEAM MOUNT	4	11	13213	HEX BOLT, GRADE 5, ZINC FINISH, 1/2"-13 X 2 1/2"	4
6	33012	FLAT WASHER, LOW CARBON, ZINC FINISH, 1/2"	20				



ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	78-514-176	WELDMENT, FRONT POST FRAME	2	7	33626	LOCK WASHER Z PLATED, Ø 1/2	16
2	28-514-063	FRAME, WELDMENT, I-BEAM, T- JIB	1	8	36310	1/2"-13 UNC GR. 5 HEX NUT Z PLATED	16
3	28-514-127	WELDMENT, REAR POST FRAME	1	9	13211	HHCS #5 Z PLATED, GRADE 5, 1/2"-13x2"	4
4	28-514-128	WELDMENT, HORIZONTAL BRACE	1	10	13209	Hex Cap Screw, Grade 5, Zinc Plated,1/2-13x1.5	8
5	28-145-002	CLAMP, I-BEAM MOUNT	4	11	13213	HEX BOLT, GRADE 5, ZINC FINISH, 1/2"-13 X 2 1/2"	4
6	33012	FLAT WASHER, LOW CARBON, ZINC FINISH, 1/2"	20				



ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	28-514-072	WELDMENT, FRONT POST FRAME	2	7	33626	LOCK WASHER Z PLATED, Ø 1/2"	16
2	1 /8-5 1 /1-1 1 / /1	WELDMENT, REAR POST FRAME	1	8	36310	1/2"-13 UNC GR. 5 HEX NUT Z PLATED	16
	28-514-0/3	IFKAME	1	9	13211	HHCS #5 Z PLATED, GRADE 5, 1/2"-13x2"	4
4	28-514-063	FRAME, WELDMENT, HORIZONTAL BRACE	1	10	13209	Hex Cap Screw, Grade 5, Zinc Plated,1/2-13x1.5	8
5	28-145-002	CLAMP, I-BEAM MOUNT	4	11	13213	HEX BOLT, GRADE 5, ZINC FINISH, 1/2"-13 X 2 1/2"	4
6	33012	FLAT WASHER, LOW CARBON, ZINC FINISH, 1/2"	20				

## **ASSEMBLY INSTRUCTIONS**

Numbers in parentheses () correspond to parts numbers in the <u>EXPLODED VIEWS</u> on pages  $\underline{4}$ ,  $\underline{5}$ , and  $\underline{6}$ . Tighten the beam clamp bolt-and-nut connections (<u>STEP 2A</u>) to 50-52ft-lb with a torque wrench.

**Unit conversions:** 1" = 2.54cm 2.2 lb. = 1kg

## **AWARNING**

If the crane is improperly assembled, it might malfunction and result in serious personal injuries.

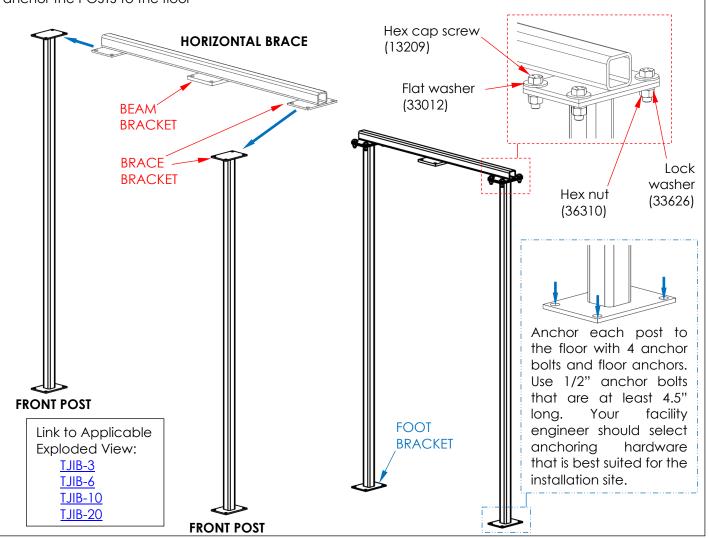
- Read this instruction manual in its entirety before assembling the crane.
- ONLY qualified personnel should assemble the crane.
- **DO NOT** modify the crane in any way. Unapproved modifications might make the crane unsafe to use and automatically void the *LIMITED WARRANTY* on p. 12.
- **DO NOT** use the crane if you notice that the beam, upright, tie rod, and/or base frame are damaged. Damage might weaken the crane and result in crane collapse.
- **DO NOT** use the crane if any of the hardware (bolts, nuts, yokes, etc.) is damaged or missing. Contact our <u>TECHNICAL SERVICE AND PARTS DEPARTMENT</u> at (260) 665-7586 to order replacement parts.

## NOTICE

- Modifying the crane in any way automatically voids the LIMITED WARRANTY.
- This crane must be sheltered from weather. DO NOT install the crane where it is exposed to the elements.
- Inspect the crane for damage before each use as described in Inspections & Maintenance.

**<u>Step 1</u>**: Choose the installation site for your crane.

Attach the BRACE BRACKETS of the HORIZONTAL BRACE to the BRACE BRACKETS of the FRONT POSTS with 1/2"-13 hardware as shown in the following diagrams. Mark the floor with the locations of the anchor bolt holes in the FOOT BRACKETS. Apply the installation instructions of the anchoring hardware manufacturer to anchor the POSTS to the floor



Step 2: A) Fasten the I-BEAM to the REAR POST with bolts (13211); flat washers (33012); lock washers (33626); and hex nuts (36310). Tighten the connection to 50-52ft·lb with a torque wrench. Move the Beam + POST assembly into position so that the free end of the I-BEAM aligns with the BEAM BRACKET of the HORIZONTAL BRACE. B) Fasten the end of the BEAM to the BEAM BRACKET as shown in the following diagrams. C) Anchor the REAR POST to the floor Flat washer Bolt Bolt (13213) (33012)(13211)Washer (33012)Hex nut Beam clamp (36310) (28-145-002)Lock washer Hex nut (33626)(36310)Beam brackets Washer Lock (33012)Link to Applicable washer Exploded View: (33626)TJIB-3 TJIB-6 **REAR** TJIB-10 **POST** TJIB-20 Tighten the bolt-and-nut connection to 50-52ft·lb with a torque wrench Anchor the post to the floor with 4 anchor bolts and floor Floor anchors. Use 1/2" anchor bracket bolts that are at least 4.5" long. Your facility engineer should select anchoring hardware that is best suited

## NATIONAL STANDARDS

for the installation site.

This product is a fixed jib crane. <u>ASME STANDARD B30.17</u> (the "Standard") applies to jib cranes. You <u>should</u> acquire a copy of the latest version of the Standard. Follow all use and maintenance/care instructions provided in the Standard as well as all other provisions for jib crane owners and users. If any content in this manual is inconsistent with any recommendations or mandatory provision(s) in the Standard, apply the provision(s) from the Standard. Vestil requests that you immediately contact <u>TECHNICAL SERVICE</u> if you discover any inconsistencies.

#### **USING THE CRANE**

Before using the crane, perform a <u>BEFORE & AFTER EACH USE</u> inspection described on p. 10.

## **AWARNING**

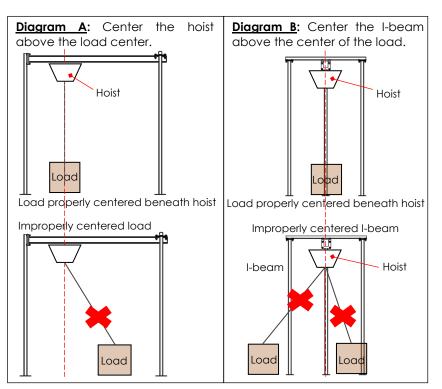
Risk of serious personal injuries or death.

- Only use this crane if you are qualified and trained to use it. The operating instructions in this manual supplement safe crane and hoist operation practices applied at your work site. Acquire a copy of the most recent edition of ASME B30.17 and apply all operation, inspection, maintenance, and care recommendations.
- ALWAYS apply the material handling practices learned from your training program.
- All personnel not participating in the use of the crane must stay out of the usage area while the crane and hoist are used. Be certain no part of any person or object is under any part of the boom (I-beam) or the suspended load at any time and particularly before lowering it. Instruct all persons in the vicinity of the crane to remain at a safe distance from it and the load during crane/hoist operation.
- Always carefully watch the boom and any load hanging from it while using the crane.
- Always follow the hoist and trolley manufacturers' instructions regarding proper use of their products.
- Only use this crane on level concrete surface.
- DO NOT use the crane and notify your supervisor and authorized maintenance personnel if: 1) you observe any damage or hear unusual noise during operation; or 2) you observe any warping or deformation of the I-beam, the upright, base frame, fastened connection points, especially anchorages, the load hook or hoist chain/cable.
- DO NOT operate a hoist with a twisted, kinked, or damaged chain or rope. DO NOT operate a rope hoist unless the rope is properly seated in its groove.

#### LOADING THE CRANE

Center the hoist above the center of the load. The long axis of the I-beam should align with the center of the load. Proper positioning is illustrated in Diagrams A & B.

Connect a load to the hoist according to the instructions supplied with your hoist as well as the lifting methods applied at your work site; then raise the load only as high as is necessary. Once the load is properly centered above the work location, lower the load until it is fully supported by the ground or work surface and disconnect the load from the hoist.



# RECORD OF SATISFACTORY CONDITION (THE "RECORD")

Thoroughly inspect the crane after installing and assembling it and before putting it into service. Record the condition and appearance of each of the frame members (I-beam, posts, horizontal brace), and all fasteners (anchor bolts, bolts, nuts, washers, etc.). Thoroughly photograph the crane from multiple angles. Include close range photographs of the anchoring hardware, all labeling, and all fastened connections (I-beam to rear post; posts to horizontal brace; I-Beam to horizontal brace, i.e. beam clamp connections). Add the photographs to the RECORD. Collect all photographs and writings in a file. This file is a record of the crane in satisfactory condition. Compare the results of all <u>INSPECTIONS</u> to this RECORD to determine whether the crane is in satisfactory condition.

#### INSPECTIONS AND MAINTENANCE

<u>NOTE</u>: Inspection procedures are included in the most current revision of ASME B30.17. As stated above in the <u>NATIONAL STANDARDS</u> section (p. 8), Vestil recommends that you acquire a copy of the most recent revision of this standard. Apply all use and maintenance/care instructions in the standard. Vestil also recommends that you contact your local occupational health and safety authority to determine if any laws, regulations, codes, ordinances, etc. apply inspection requirements where the crane is used.

Inspections and all necessary repairs should be performed by qualified persons. Compare the results of each inspection to the <u>RECORD OF SATISFACTORY CONDITION</u>. Do not use the crane unless every part is in satisfactory condition. Purely cosmetic changes, like damaged paint/powdercoat, are not changes from satisfactory condition. However, touchup paint must be applied as soon as damage occurs to prevent rust from forming. Rusting could cause the affected part to become unsound, which could also make the crane unsafe to use.

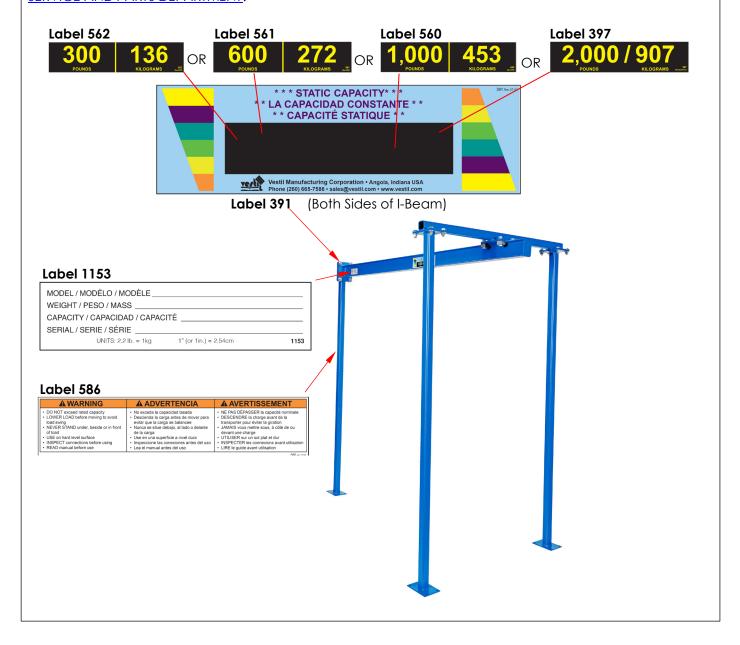
DON'T GUESS! If you have any questions about the condition of your crane, contact the <u>TECHNICAL</u> <u>SERVICE</u> department. The phone number is provided on the cover page of this manual. <u>Never make temporary repairs of damaged or missing parts</u>. Only use manufacturer-approved replacement parts to restore the crane to satisfactory condition.

- A. Before and after each use, including first use, unload the crane and inspect the following components:
  - 1) I-Beam Examine the beam, especially the lower flanges, for bends, cracks, and other damage.
  - 2) **Beam clamp fasteners (I-Beam to horizontal brace connection)** Clamp connections are shown in <u>STEP 2</u> on p. 8. Verify that all lock washers are fully compressed.
  - 3) **Post-to-beam and posts-to-brace connections** Check all of the fasteners that attach the front posts and rear post to the horizontal brace and I-Beam. Make sure that all connections are securely tightened. If a lock nut is removed, it must be replaced with a new lock nut.
  - 4) Front posts and rear post Check each post, especially floor brackets and beam/brace brackets. Look for damage, e.g. cracks, warps, bends, elongations, or significant rusting/corrosion, around bolt holes. Inspect the brackets for damage. Look for damage such as cracks, bends, and warps. Pay particular attention to anchor bolt holes & bolt holes in the brackets. Look for rust, metal rot, corrosion where the metal frame contacts the floor.
- B. Monthly inspections Unload the crane and inspect the following:
  - 1) **Beam bracket and fasteners** Use a torque wrench to tighten each beam clamp bolt and nut to 50-52ft·lb. Examine all of the brackets for damage such as deformations and cracks. If you must remove a lock nut, replace it with an unused nut.
- C. **Once per year**: Perform a load test of the crane. Lift a load equal to 125% of its rated load (capacity). Only lift the load high enough to ensure that it is entirely supported by the crane. Transport the load by means of your hoist (or hoist & trolley) the full usable length of the I-beam. Return the test load to the ground. Perform inspections A (Before and after each use) and B (Monthly).

**NOTE:** Perform this part C (Load test and a Before & After Use inspection) whenever the crane is partially or fully disassembled and reassembled, e.g. after installing replacement parts.

## LABELING DIAGRAM

Label content and location are subject to change so your product might not be labeled exactly as shown. Compare the diagram below to your <u>RECORD OF SATISFACTORY CONDITION</u>. If there are any differences between actual labeling and this diagram, contact <u>TECHNICAL SERVICE</u>. Replace all labels that are damaged, missing, or not easily readable (e.g. faded). To order replacement labels or to inquire whether your unit is properly labeled, contact the technical service and parts department online at <a href="http://www.vestilmfg.com/parts info.htm">http://www.vestilmfg.com/parts info.htm</a> or by calling (260)665-7586 and asking for the <u>TECHNICAL SERVICE AND PARTS DEPARTMENT.</u>



#### 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 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>1 year</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.