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FHA-series Fixed Height Aluminum Gantry Crane 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.

<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.

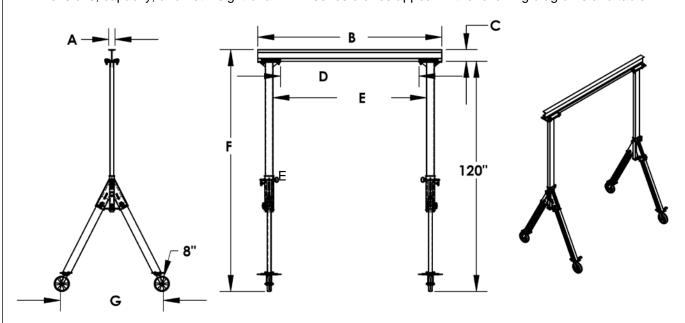
Replacement Parts and Technical Assistance:

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 http://www.vestilmfg.com/parts_info.htm.

TABLE OF CONTENTS	
Specifications	2
Signal Words	3
Hazards of Improper Use	.3
Exploded View: FHA-2 & FHA-4	. 4
Bill of Materials: FHA-2 & FHA-4 (Exploded View on p. 4)	. 5
Bill of Materials: FHA-6 (Exploded View on p. 6)	
Exploded View: FHA-6	6
Assembly Instructions7 -	10
Using the Crane	11
Loading the Crane	11
Inspections & Maintenance	12
Labeling Diagram	13
Limited Warranty	14

Specifications:

Dimensions, capacity, and net weight of all FHA-series cranes appear in the following diagrams and table.



Model	A	В	С	D	E	F	G	Capacity	Net Weight
FHA-2-8-10	3 ⁵ / ₁₆ "	96"	6"	72 ¹ / ₄ "	80 ¹ / ₈ "	126"	53 ³ / ₄ "	2,000 lb.	277 lb.
	8.4cm	244cm	15.2cm	184cm	204cm	320cm	136.5cm	909 kg	126 kg
FHA-2-10-10	3 ⁵ / ₁₆ "	120"	6"	96 ¹ / ₄ "	104 ¹ / ₈ "	126"	53 ³ / ₄ "	2,000 lb.	293 lb.
	8.4cm	304.8cm	15.2cm	244.5cm	264.4cm	320cm	136.5cm	909 kg	133.2 kg
FHA-2-12-10	4"	144"	8"	120 ¹ / ₄ "	128 ¹ / ₈ "	128"	53 ³ / ₄ "	2,000 lb.	315 lb.
111A-2-12-10	10.2cm	365.8cm	20.3cm	305.4	325.4cm	325.1cm	136.5cm	909 kg	143.2 kg
FHA-2-15-10	4 ³ / ₁₆ "	180"	8"	156 ¹ / ₄ "	164 ¹ / ₈ "	128"	53 ³ / ₄ "	2,000 lb.	405 lb.
FHA-2-15-10	10.6cm	457.2cm	20.3cm	396.9cm	417.9cm	325.1cm	136.5cm	909 kg	184.1 kg
EUA 4 0 40	4"	96"	8"	$72^{1}/_{4}$ "	79 ⁵ / ₈ "	128"	53 ¹⁵ / ₁₆ "	4,000 lb.	346 lb.
FHA-4-8-10	10.2cm	244cm	20.3cm	184cm	202.2	325.1cm	137.0cm	1,818 kg	157.3 kg
FHA-4-10-10	4 ³ / ₁₆ "	120"	8"	96 ¹ / ₄ "	103 ⁵ / ₈ "	128"	53 ¹⁵ / ₁₆ "	4,000 lb.	348 lb.
FHA-4-10-10	10.6cm	304.8cm	20.3cm	244.5cm	263.2cm	325.1cm	137.0cm	1,818 kg	158.2 kg
FHA-4-12-10	4 ³ / ₁₆ "	144"	8"	120 ¹ / ₄ "	127 ⁵ / ₈ "	128"	53 ¹⁵ / ₁₆ "	4,000 lb.	366 lb.
FHA-4-12-10	10.6cm	365.8cm	20.3cm	305.4	324.2cm	325.1cm	137.0cm	1,818 kg	166.4 kg
TUA 4 45 40	4 ¹¹ / ₁₆ "	180"	10"	156 ¹ / ₄ "	163 ⁵ / ₈ "	130"	53 ¹⁵ / ₁₆ "	4,000 lb.	411 lb.
FHA-4-15-10	11.9cm	457.2cm	25.4cm	396.9cm	415.6cm	330.2cm	137.0cm	1,818 kg	186.8 kg
FUA 0 0 40	4 ¹¹ / ₁₆ "	96"	10"	72 ¹ / ₄ "	79 ¹ / ₈ ""	130"	64 ¹¹ / ₁₆ "	6,000 lb.	476 lb.
FHA-6-8-10	11.9cm	244cm	25.4cm	184cm	201.0cm	330.2cm	164.3cm	2,727 kg	216.4 kg
EUA 6 40 40	4 ¹¹ / ₁₆ "	120"	10"	96 ¹ / ₄ "	103 ¹ / ₈ "	130"	64 ¹¹ / ₁₆ "	6,000 lb.	494 lb.
FHA-6-10-10	11.9cm	304.8cm	25.4cm	244.5cm	261.9cm	330.2cm	164.3cm	2,727 kg	224.5 kg
EUA 6 12 10	7"	144"	12"	120 ¹ / ₄ "	127 ¹ / ₈ "	132"	64 ¹¹ / ₁₆ "	6,000 lb.	775 lb.
FHA-6-12-10	17.8cm	365.8cm	30.5cm	305.4	322.9cm	335.3cm	164.3cm	2,727 kg	352.3 kg
TUA C 45 40	7"	180"	12"	156 ¹ / ₄ "	163 ¹ / ₈ "	132"	64 ¹¹ / ₁₆ "	6,000 lb.	874 lb.
FHA-6-15-10	17.8cm	457.2cm	30.5cm	396.9cm	414.3cm	335.3cm	164.3cm	2,727 kg	397.3 kg

Optional equipment	Description	
FHA-STLO	Stationary leg option, set of 4 (factory installed)	
FHA-STLO-RF	Stationary leg option, set of 4 (field installation)	

Signal words:

This manual uses SIGNAL WORDS to indicate the likelihood that a particular action will cause personal injuries or property damage. Signal words also specify the level of seriousness of injury if the product is misused in the ways described. The following signal words are used in this manual.

A DANGER

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.

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.

<u>Hazards of Improper Use</u>:

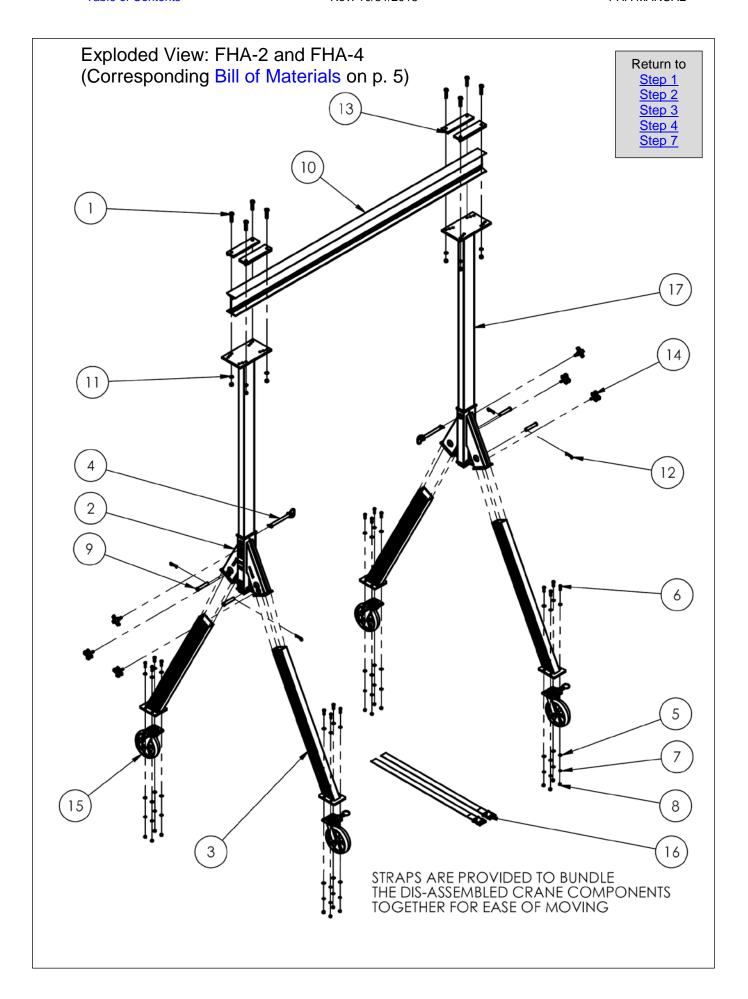
VESTIL strives to identify foreseeable hazards associated with the use of its products. However, material handling is inherently dangerous and no manual can address every conceivable risk. The enduser ultimately is responsible for exercising sound judgment at all times.

ADANGER Electrocution might result if the crane contacts electrified wires. Reduce the likelihood that an operator or bystander might be electrocuted by applying the following:

DO NOT assemble or use the crane in an area where it might contact electrified wires.

AWARNING Material handling is dangerous. Improper or careless operation might result in serious personal injuries. To reduce the risk of injury:

- Before using the crane, always inspect the usage area for conditions that might require special precautions.
- DO NOT use a structurally damaged/malfunctioning crane. ALWAYS inspect the crane before each use according to the *Inspection & Maintenance* instructions on p. 12. DO NOT use the crane unless it passes every part of the prescribed inspection, i.e. do not use the crane if it is damaged.
- DO NOT try to lift a load that weighs more than the rated load of your crane model (see *Specifications* on p. 2; capacity labels on product; and *Labeling Diagram* on p. 13).
- DO NOT stand beneath or pass under the crane, especially while a load is suspended.
- Inform all persons in the area that you are going to use the crane; instruct them to stay clear of the crane and load.
- DO NOT allow people to sit, or ride, on the load or to climb on the crane.
- ALWAYS load the crane properly. Instructions are provided in *Loading the Crane* on p. 11. If the crane is improperly loaded, the load might swing as it lifts off of the ground. A swinging load might cause serious injury.
- DO NOT use the crane if any label (see *Labeling Diagram* on p. 13) is unreadable, damaged, or missing. Contact Vestil for replacement label(s) as needed.
- DO NOT use the crane to transport loads. ONLY use the crane to lift loads!

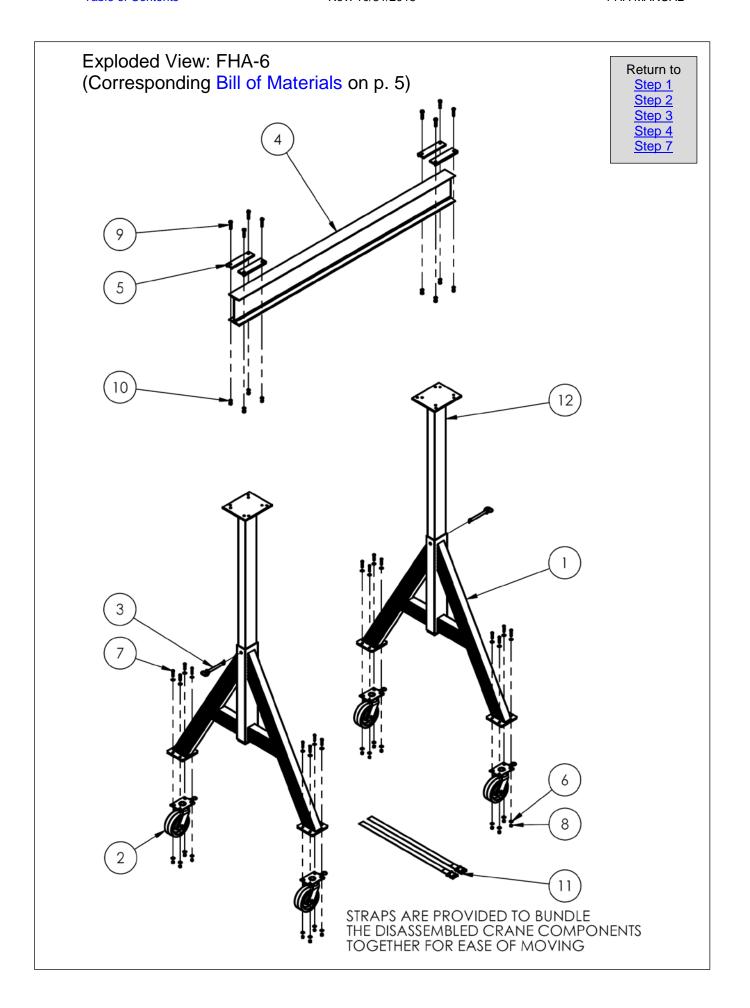


FHA-2 and FHA-4 Bill of Materials (Exploded View on p. 4)

Item	Part no.	Description	Qty.
1	1134585	¹ / ₂ "-13 x 2 ¹ / ₂ " A325 galvanized structural bolt and nut combo.	8
2	28-014-190 28-014-272	Yoke, casting, aluminum: 2k gantry: FHA-2-8-10; FHA-2-10-10; FHA-2-12-10; FHA-2-15-10 4k gantry: FHA-4-8-10; FHA-4-10-10; FHA-4-12-10; FHA-4-15-10	2 2
3	28-514-220 28-514-221	Weldment, leg tube 2k capacity: FHA-2-8-10; FHA-2-10-10; FHA-2-12-10; FHA-2-15-10 4k capacity: FHA-4-8-10; FHA-4-10-10; FHA-4-12-10; FHA-4-15-10	4 4
4	28-112-007	Hardware, retaining pin, ³ / ₄ " x 6 ⁵ / ₈ "	2
5	33082	Washer, ³ / ₈ " zinc plated SAE flat washer	32
6	11107	Hex bolt, grade A, zinc finish, $\frac{3}{8}$ "-16 x $1^{1}/_{4}$ "	16
7	33622	Split lock washer, carbon steel, medium zinc finish, 3/8"	16
8	36106	Hex nut, grade A, zinc plated, 3/8"-16	16
9	33-112-034 28-112-031	Clevis pin, zinc plated: 3/4"x 3 ³ /4": FHA-2-8-10; FHA-2-10-10; FHA-2-12-10; FHA-2-15-10 3/4"x 4 ¹ / ₂ ": FHA-4-8-10; FHA-4-10-10; FHA-4-12-10; FHA-4-15-10	4 4
10	28-014-986-001 28-014-986-002 28-014-987-002 28-014-988-004 28-014-987-001 28-014-988-001 28-014-988-002 28-014-236	Frame, I-beam extrusion: FHA-2-8-10 FHA-2-10-10 FHA-2-12-10 FHA-2-15-10 FHA-4-8-10 FHA-4-10-10 FHA-4-10-10 FHA-4-12-10	1 1 1 1
11	33626	Lock washer, zinc plated, ¹ / ₂ "	8
12	45286	#11 hitch pin clip, ¹ / ₈ " x 2 ⁵ / ₈ "	4
13	28-516-054	Weldment, I-beam clamp	4
14	08-028-007	Knob, ³ / ₈ "-16 UNC thread x 1 ¹ / ₄ "	6
15	16-132-249	Caster, locking	4
16	28-025-003	Strap	2
17	28-514-291 28-514-292	Weldment, frame, upright: 2k capacity: FHA-2-8-10; FHA-2-10-10; FHA-2-12-10; FHA-2-15-10 4k capacity: FHA-4-8-10; FHA-4-10-10; FHA-4-12-10; FHA-4-15-10	2 2

FHA-6 Bill of Materials (Exploded View on p. 6)

Item	Part no.	Description	Qty.
1	28-514-89	Frame, leg set, weldment	2
2	16-132-064	8" x 3" phenolic 4-way swivel locking caster	4
3	28-112-007	Hardware, retaining pin, ³ / ₄ " x 6 ⁵ / ₈ "	2
4	28-014-355 28-014-356 28-014-357 28-014-358	Frame, I-beam extrusion: FHA-6-8-10 (10" aluminum) FHA-6-10-10 (10" aluminum) FHA-6-12-10 (12" heavy duty aluminum) FHA-6-15-10 (12" heavy duty aluminum)	1 1 1
5	28-516-054 28-516-061	Weldment, I-beam clamp FHA-6-8-10 & FHA-6-10-10 FHA-6-12-10 & FHA-6-15-10	4 4
6	33008	Flat washer, low carbon, USS, zinc plated, 3/8"	32
7	11111	Hex bolt, grade A, zinc plated, ³ / ₄ "-16 x 2"	16
8	37024	Nylon insert lock nut, grade 2, zinc finish, 3/4"-16	16
9	1134685	¹ / ₂ "-13 x 2 ¹ / ₂ " A325 galvanized structural bolt and nut combo.	8
10	33626	Lock washer, zinc plated, 1/2"	8
11	28-025-003	Strap	2
12	28-514-293	Weldment, frame, upright	2



Assembly instructions:

NOTE: Numbers in parentheses () correspond to parts numbers in the Exploded Views on pages 4 & 6.

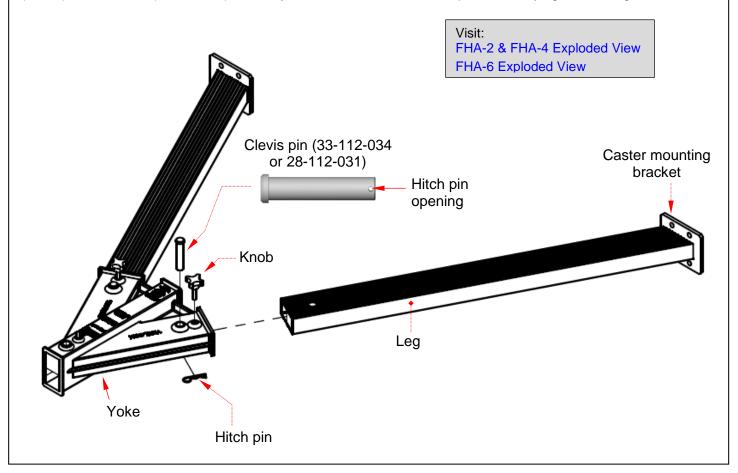
AWARNING If the crane is improperly assembled, it might malfunction and result in serious personal injuries. Read this instruction manual in its entirety before assembling the crane.

- 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* (see p. 14).
- **DO NOT** use the crane if you notice that the beam, uprights, casters or any part of the leg assemblies are damaged. Damage might weaken the crane and result in crane collapse.
- **DO NOT** use the crane if any of the hardware (bolts, nuts, clamps, etc.) is damaged or missing. Contact our Technical Service and Parts Department at (260) 665-7586 to order replacement parts.
- **DO NOT** use the crane if any of the casters are damaged. A damaged caster may cause the crane to tip over while loaded or unloaded. The crane is more likely to tip while it supports a load.

NOTICE

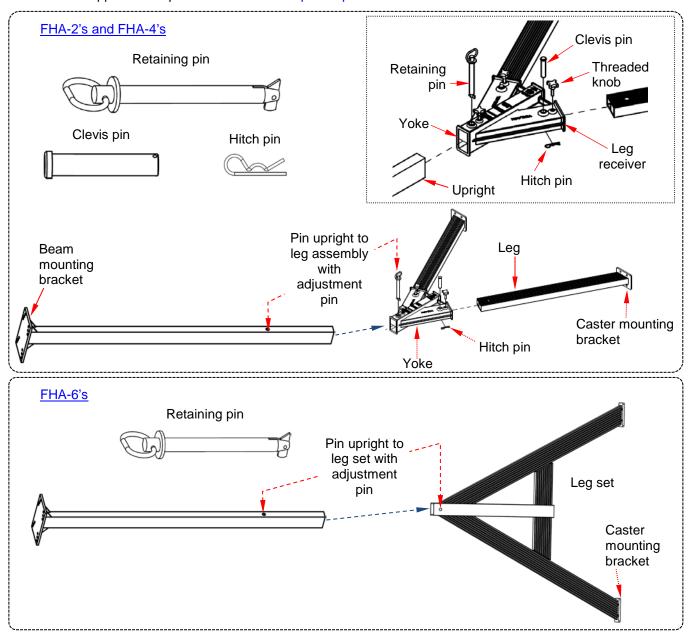
- Modifying the crane in any way automatically voids the *Limited Warranty*.
- This crane can be used outdoors. However, it should be sheltered from the weather when not in use.
- Inspect the crane for damage before each use as described in *Inspections & Maintenance*.

<u>Step 1</u>: [This step only applies to FHA-2-#-10 and FHA-4-#-10 model cranes] Attach the leg weldments and yokes Insert the end of each leg into one of the leg openings in the yoke as shown below. Fasten the legs to the yoke with clevis pins (33-112-034 for all FHA-2's OR 28-112-031 for all FHA-4's) and secure the clevis pins with hitch clips (45286). Wind a knob (08-025-007) into the yoke until the end of the knob presses firmly against the leg.

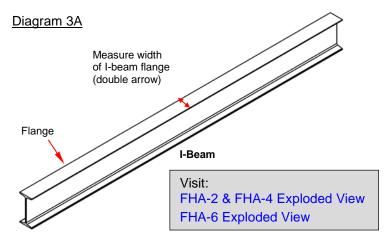


Step 2: Fasten uprights to leg assemblies (FHA-6-#-# models) or yokes (FHA-2-#-10 and FHA-4-#-10 models).

Insert an upright into the receivers of each yoke (FHA-2 & FHA-4) or leg set (FHA-6). Align the pinhole in the upright with the pinhole in the leg receiver. Pin the components together with adjustment pins. See the diagrams below and the applicable *Exploded View* on either p. 4 or p. 6.

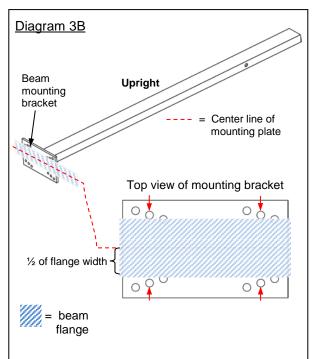


Step 3: Attach the uprights to the I-beam



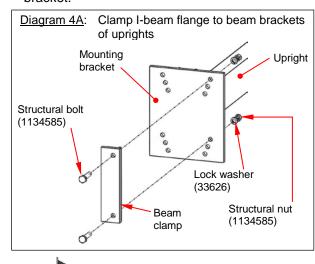
- 1. Measure the width of the I-beam flange. See Diagram 3A.
- 2. Mark the centerline of the mounting bracket (of an upright) and measure half the width of the flange on either side of the centerline. (See Diagram 3B).
- 3. Identify the 4 bolt holes in the bracket that lie just outside the width of the beam flange.

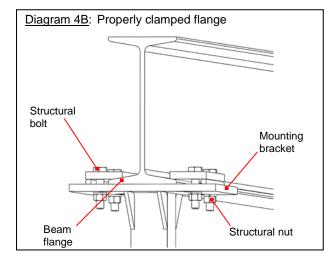
NOTE: The mounting brackets FHA-2's and FHA-4's have 3 sets of 3 holes. Mounting brackets of FHA-6's have 3 sets of 2 holes.

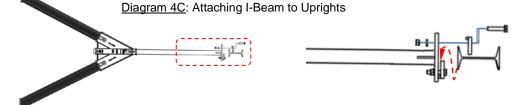


Step 4: Fasten the uprights to the I-beam. [Refer to FHA-2 & FHA-4 Exploded View or FHA-6 Exploded View]

- a. As shown in Diagram 4A, attach 1 beam clamp to an upright. Insert bolts (1134585) through the beam clamp bolt holes and through the selected bolt holes in the mounting bracket. Put a lock washer on each bolt. Secure the bolts with nuts (1134585). Do not fully tighten the nuts at this point. Fasten another beam clamp to the other upright in the same manner.
- b. Insert the flange of the I-beam into the gap between the beam clamp and the mounting bracket. See dashed red arrow in Diagram 4C.
- c. Install another beam clamp on the other side of the beam to secure the flange on both sides. See blue line in Diagram 4C. Diagram 4B shows the spatial relationships of the beam clamp, beam flange, and mounting bracket.







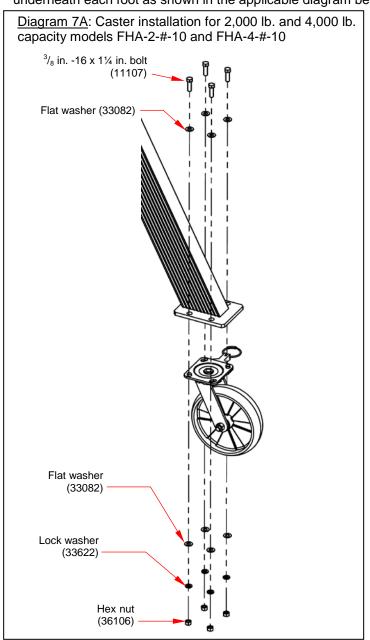
<u>Step 5</u>: Make sure that the I-beam is centered on the mounting plate of each upright. Beam clamps should significantly overlap the flange on both sides. Tighten the nuts to 50 - 52 ft·lb of torque.

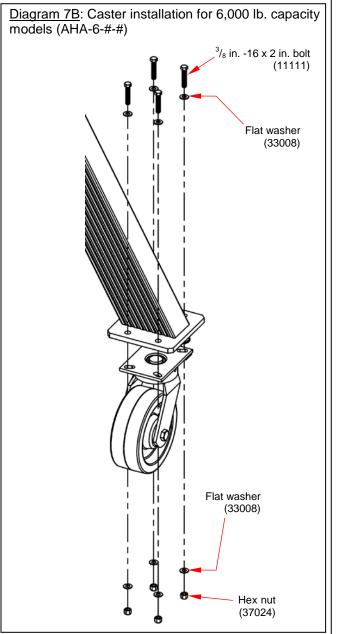
Step 6: Stand the crane on its feet.

Rotate the crane onto its feet in a controlled manner. [E.g. 1) Attach a hoist chain to the I-beam and slowly raise the beam until the crane rotates onto its feet. 2) Raise the crane with a fork truck. Drive the forks under the middle of the beam. Slowly raise the forks and drive forward until the crane rotates onto its feet.]

Step 7: Connect casters to the legs. [Refer to FHA-2 & FHA-4 Exploded View or FHA-6 Exploded View]

Attach a caster to the caster brackets of each leg using the hardware shown in Diagrams 7A & 7B (diagrams show standard casters). Raise the crane 8 to 10 inches from the ground with a fork lift or hoist. Position a caster underneath each foot as shown in the applicable diagram below. Fasten it to the caster mount bracket.





Using the crane:

Before using the crane for the first time, perform the *Initial Inspection* described on p. 12.

Improper use of this crane could result in serious personal injuries or death.

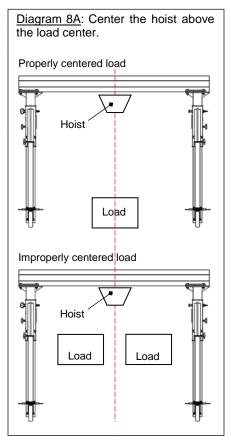
- Only use this crane if you are qualified and trained to use it. The operating instructions in this manual *supplement* safe crane and hoist operation practices learned during your training program.
- Always apply the procedures learned from your crane training program.
- Instruct all other persons to remain at a safe distance while the crane is in use.
- Always follow the instructions provided with your rigging, hoist, trolley, etc. The net weight applied to the crane must be less than or equal to your crane's capacity. Add the combined weight of all equipment attached to the crane, NOT JUST THE LOAD, to determine net weight.
- BEFORE a load is connected to the hoist, lock or immobilize the casters.
- Only use this crane on intact, level, concrete surfaces.
- Remove the crane from service 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 beam or beam flange, uprights, legs, yokes, load hook or chain/cable.

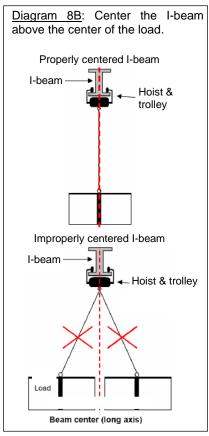
Loading the crane:

Position the trolley and hoist directly above the load. Adjust position so that the centers of the trolley and hoist are directly above the load center. Proper positioning is illustrated in Diagrams 8A & 8B.

Connect the load to the hoist chain/cable. Raise the load only as high as is necessary to position it. Once the load is positioned over the work location as desired, lower the load until it is fully supported by the ground or work surface. Disconnect the load from the hoist.

If you must move the load to a different location, move the crane and load separately. Only use the crane to lift loads.





<u>Inspections & Maintenance</u>:

Apply Occupational Safety and Health Administration (OSHA) crane inspection procedures in 29 CFR 1910.179. Visit the OSHA website at https://www.osha.gov/ and navigate to "Regulations"; then to "General Industry" standard 1910.179 ("Rule 179"). Contact the occupational safety and health authority in your state to determine if state laws and/or regulations apply additional requirements. 29 CFR 1910.179(j) ("Rule 179, subpart j") describes the inspections the end user is responsible for performing on this crane. Rule 179, subpart j is summarized below. However, you should obtain a complete copy of Rule 179.

1. <u>Initial inspection</u> — before a new or modified crane may be used for the first time, it must be inspected to insure normal condition. Conduct a "Frequent inspection" as described next.

After the first use, the crane end-user/owner must conduct the following 2 types of inspection:

2. <u>Frequent inspection</u> [29 CFR 1910.179(j)(1)(ii)(a)] — Daily to monthly intervals.

The following items shall be inspected for defects at the intervals specifically indicated, including observation during operation for any defects which might appear between inspections. All deficiencies such as those listed shall be carefully examined to determine whether they constitute a safety hazard:

- [Inspect daily] All functional operating mechanisms (wheels/casters, adjustable uprights, leg tubes, pins, and yokes) for maladjustment interfering with proper operation. Verify that the wheels/casters roll smoothly by pushing/pulling the crane 4-6 feet in one direction.
- [Inspect daily] Look for deterioration or leakage in lines, tanks, valves, drain pumps, and other parts of air or hydraulic systems. [not applicable]
- [Inspect daily (visually); inspect monthly and make a certification record, which includes the date of inspection, the signature of the person who performed the inspection and the serial number (or other identifier) of the hook inspected] Hooks with deformation or cracks. Immediately discard hooks with cracks or that have a throat opening that is more than 15 percent in excess of normal throat opening, or that are twisted more than 10° from the plane of the unbent hook.
- [Inspect daily (visually); monthly inspection with a certification record which includes the date of inspection, the signature of the person who performed the inspection and an identifier of the chain which was inspected] Hoist chains, including end connections, for excessive wear, twist, distorted links interfering with proper function, or stretch beyond hoist manufacturer's recommendations.
- [Inspect weekly] All functional operating mechanisms (wheels/casters, adjustable uprights, leg tubes, pins, and yokes, bolts and nuts, including anchor bolts and nuts) for excessive wear.
- [Inspect weekly] Rope reeving for noncompliance with hoist manufacturer's recommendations.
- 3. **Periodic inspection** [29 CFR 1910.179(j)(1)(ii)(b)] 1 to 12-month intervals.

Complete inspections of the crane shall be performed at intervals depending upon its activity, severity of service, and environment, or as specifically indicated below. Perform all of the requirements described for frequent inspections and the following bulleted items. Carefully examine the crane for any problems such as those listed below to determine whether they constitute a safety hazard:

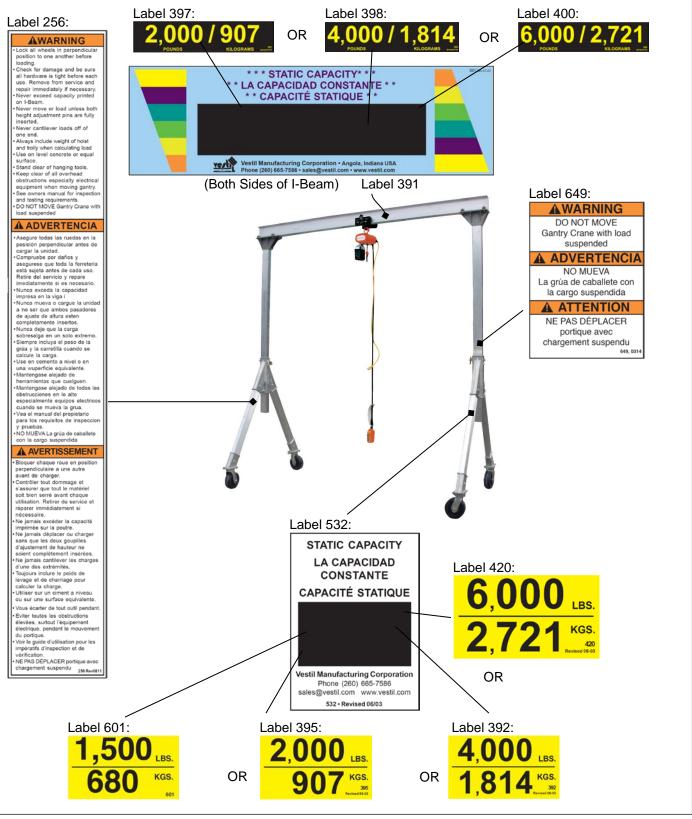
- Deformed, cracked, or corroded members.
- Loose bolts or rivets.
- · Cracked or worn sheaves and drums.
- Worn, cracked or distorted parts such as pins, bearings, shafts, gears, rollers, locking and clamping devices.
- Excessive wear on brake system parts, linings, pawls, and ratchets.
- Load, wind, and other indicators over their full range, for any significant inaccuracies.
- Gasoline, diesel, electric, or other power plants for improper performance or noncompliance with applicable safety requirements.
- Excessive wear of chain drive sprockets and excessive chain stretch.
- Electrical apparatus, for signs of pitting or any deterioration of controller contactors, limit switches and pushbutton stations.

Cranes not in regular use: for each of the 3 bullet points below, in addition to the *crane* inspection <u>all rope</u> which has been idle for a period of a month or more due to shutdown or storage of a crane on which it is installed must be given a thorough inspection before it is used. An appointed person, whose approval is required before the rope may be used, must inspect the rope for all types of deterioration. A certification record must be available for inspection. The record must include at least the date of inspection, the signature of the person who performed the inspection and an identifier for the rope inspected.

- A crane which has been idle for a period of 1 month or more, but less than 6 months, shall undergo a "Frequent inspection" before being returned to service.
- A crane which has been idle for a period of over 6 months shall be given a "Complete inspection" before placing in service.
- Standby cranes shall be given a "Frequent inspection" at least semi-annually (twice per year; 1 inspection each 6 months).

Labeling diagram:

The crane 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. Replace all labels that are 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 request replacement parts and/or service by calling (260) 665-7586 and asking the operator to connect you to the Parts Department



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.

