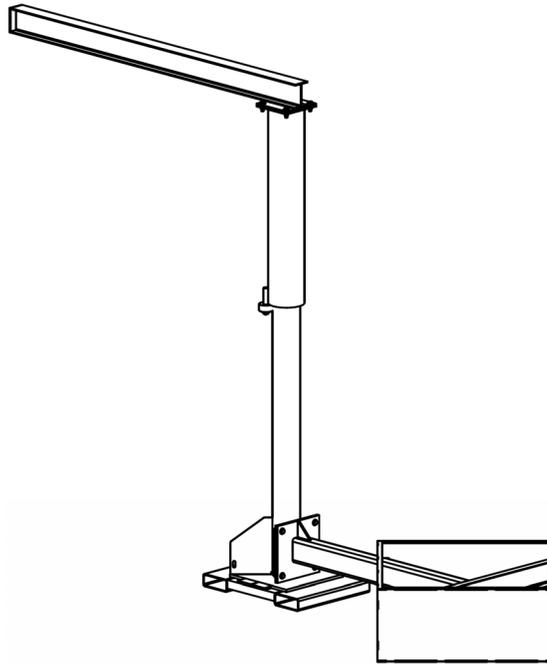




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JIB-CBX Counterbalanced Jib Cranes Instruction Manual



Receiving instructions:

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

NOTICES:

- 1) Compliance with laws, regulations, codes, and non-voluntary standards enforced in the location where the product is *used* is exclusively the responsibility of the end-user.
- 2) VESTIL is **not liable** for any injury or property damage that occurs as a consequence of failing to apply either:
 - a) Instructions in this manual; or
 - b) Information provided on labels affixed to the product.

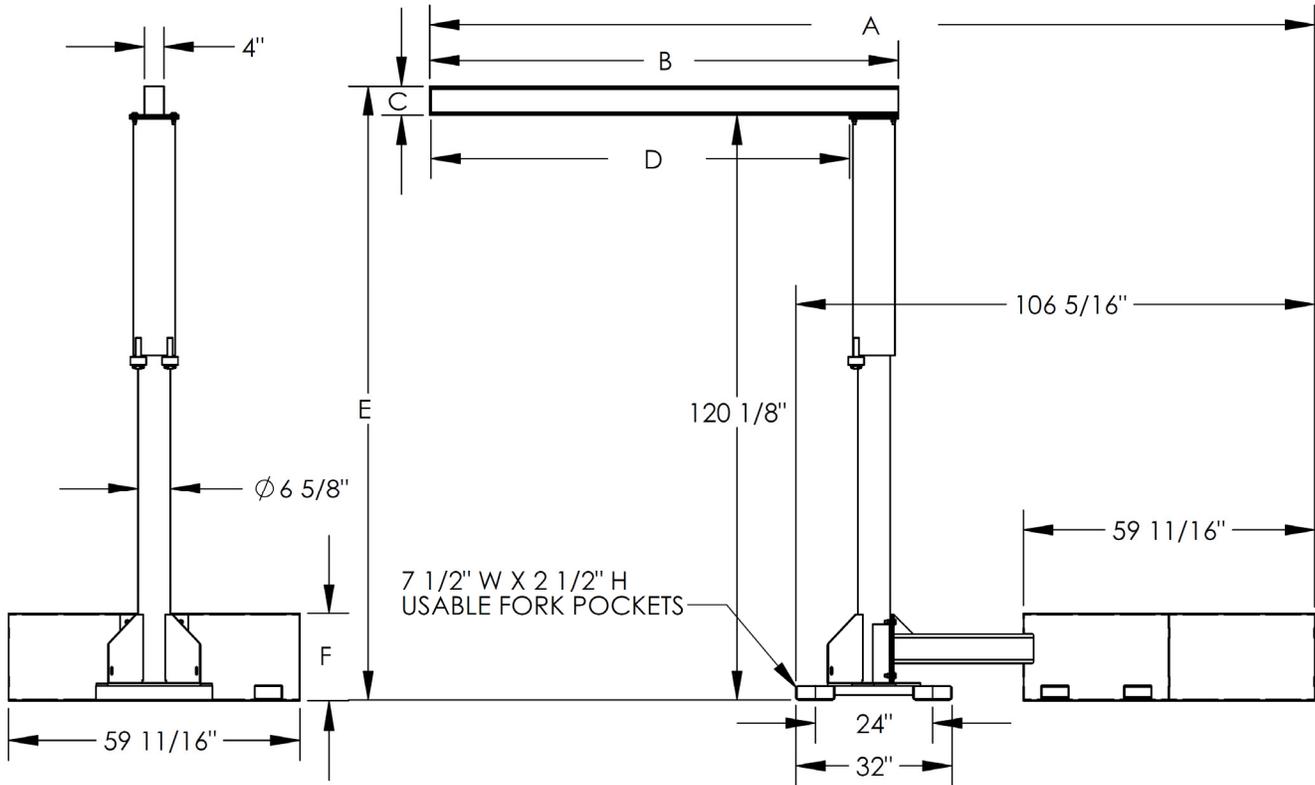
Vestil is not responsible for *any* consequential damages sustained while assembling, using, or maintaining this product.

Table of Contents

Product specifications.....	2
Signal words.....	2
Safe use recommendations.....	3
Function tests.....	3
FIGS. 1-5: Exploded parts diagram and bill of materials.....	4 - 6
Assembly instructions.....	6 - 7
Operation instructions.....	8
Inspections & Maintenance.....	9
Labeling diagram.....	10
Limited warranty.....	11

Product Specifications:

Crane specifications appear in the diagrams and table below.



Model	A	B	C	D	E	F	Capacity	Net wt.
JIB-CBX-25-8-10	181 ⁵ / ₁₆ "	96"	6"	85 ³ / ₄ "	126 ¹ / ₈ "	18"	250 lb.	1,168 lb.
JIB-CBX-25-10-10	205 ⁵ / ₁₆ "	120"	6"	109 ³ / ₄ "	126 ¹ / ₈ "	18"	250 lb.	1193 lb.
JIB-CBX-50-8-10	181 ⁵ / ₁₆ "	96"	6"	85 ³ / ₄ "	126 ¹ / ₈ "	18"	500 lb.	1168 lb.
JIB-CBX-50-10-10	205 ⁵ / ₁₆ "	120"	10 ¹ / ₈ "	109 ³ / ₄ "	130 ³ / ₁₆ "	36"	500 lb.	1366 lb.
JIB-CBX-100-8-10	181 ⁵ / ₁₆ "	96"	10 ¹ / ₈ "	85 ³ / ₄ "	130 ³ / ₁₆ "	36"	1,000 lb.	1332 lb.

SIGNAL WORDS:

This manual uses SIGNAL WORDS to direct readers' attention to activities likely to result in personal injuries or property damage. Each signal word that might appear in this manual, as well as its definition, appears below.



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



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



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



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

Safe Use Recommendations:

Study the entire manual before using the crane. Store a copy of the manual with the crane so it is available to users whenever necessary. Periodically read the manual to refresh your understanding of recommended operation, inspection, and maintenance procedures.

- ⚠ WARNING** Improper or careless operation might result in serious personal injuries.
- ALWAYS apply the recommendations of 29 CFR 1910.179 (Federal OSHA “General Industry” standard for overhead and gantry cranes) concerning use, inspection and maintenance of cranes. Contact the occupational safety and health institution of the state where the crane is used to learn about regulatory requirements, etc. applied to jib cranes.
 - DO NOT use a damaged or malfunctioning crane! Restore the crane to normal operating condition before returning it to service.
 - DO NOT exceed the capacity of your crane (see “Product specifications” on p. 2). The weights of the load, hoist, trolley, rigging, and all other equipment attached to the crane must be added together to determine the total weight applied to the crane. The total weight must never exceed the capacity.
 - Always perform the “Function Tests” described below before each use.
 - Instruct all persons in the area to stay clear of the crane and the supported load during operation.
 - DO NOT stand beneath or travel under the crane when a load is suspended from the crane. DO NOT permit anyone to stand beneath or travel under the load.
 - DO NOT lift people with the crane.
 - ALWAYS load the crane as instructed on pages 8-9. Failure to properly load the crane might result in load swing, which might cause serious injury.
 - DO NOT use the crane if any label is unreadable, damaged, or missing (see “Labeling diagram” on p. 10). Contact Vestil for replacement label(s).
 - DO NOT modify this crane! Modifications automatically void the limited warranty (see p. 11) and might make the crane unsafe to use.

NOTICE This product must be properly maintained to function properly. Follow the maintenance recommendations provided in “Inspections & Maintenance” on p. 9.

Function Tests:

Before using the crane, verify that all mechanisms operate normally by conducting tests 1-3 below. If an issue is discovered, tag the crane “Out of Service” and report the problem to maintenance personnel.

1. Test the inner bearing (inside the socket): rotate the boom in one complete clockwise rotation followed by a complete counterclockwise rotation. If you installed the crane in a confined location that restricts rotation to less than a full circle, test the bearing by rotating the boom through its full range. The boom should rotate smoothly in both directions.
2. Test the rollers. The crane should rotate smoothly, i.e. without wobbling.
3. Test the hoist and trolley as recommended by their manufacturers.

FIG. 1: JIB-CBX-25-8-10 Exploded Parts Diagram and Bill of Materials

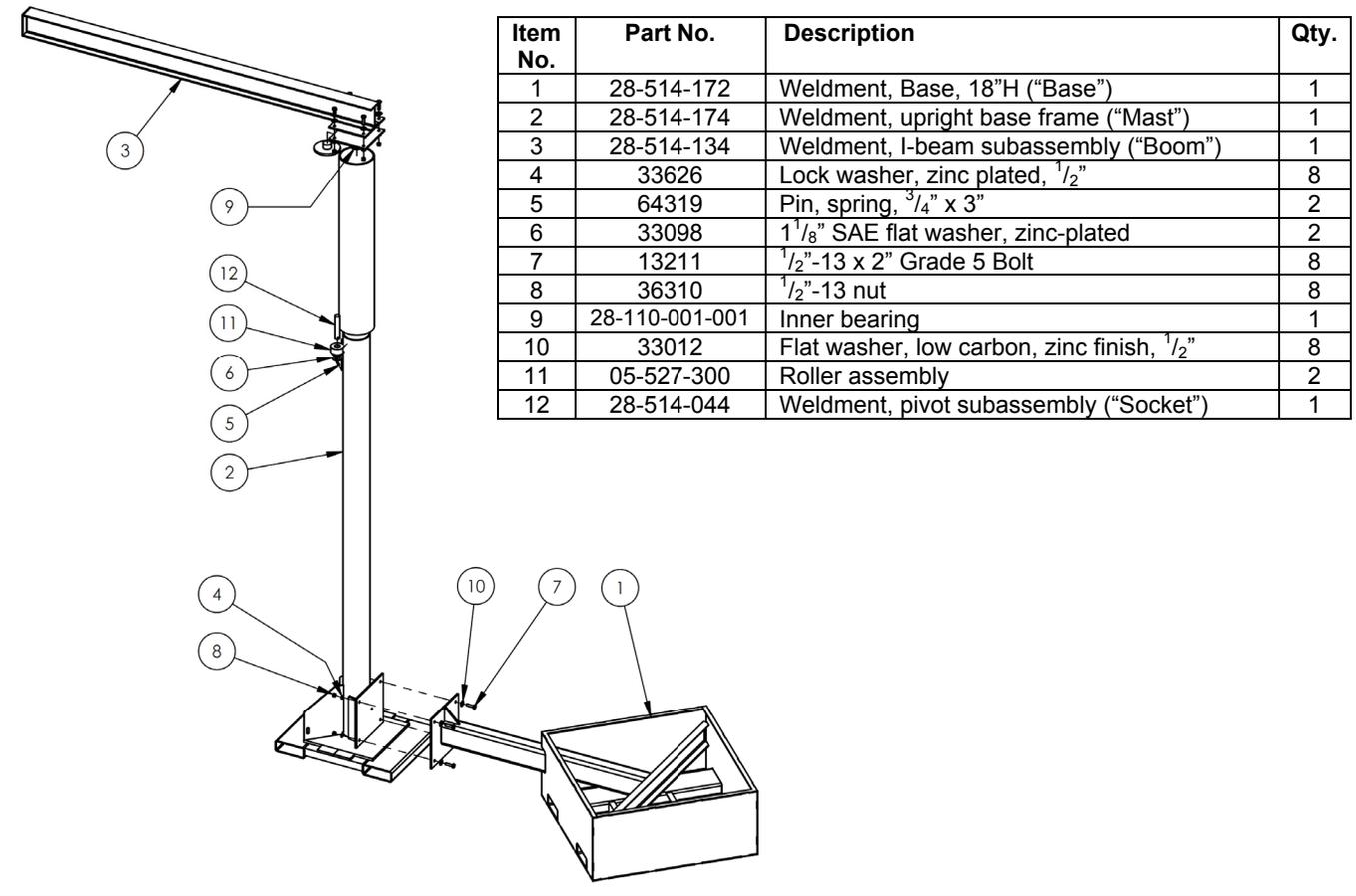


FIG. 2: JIB-CBX-25-10-10 Exploded Parts Diagram and Bill of Materials

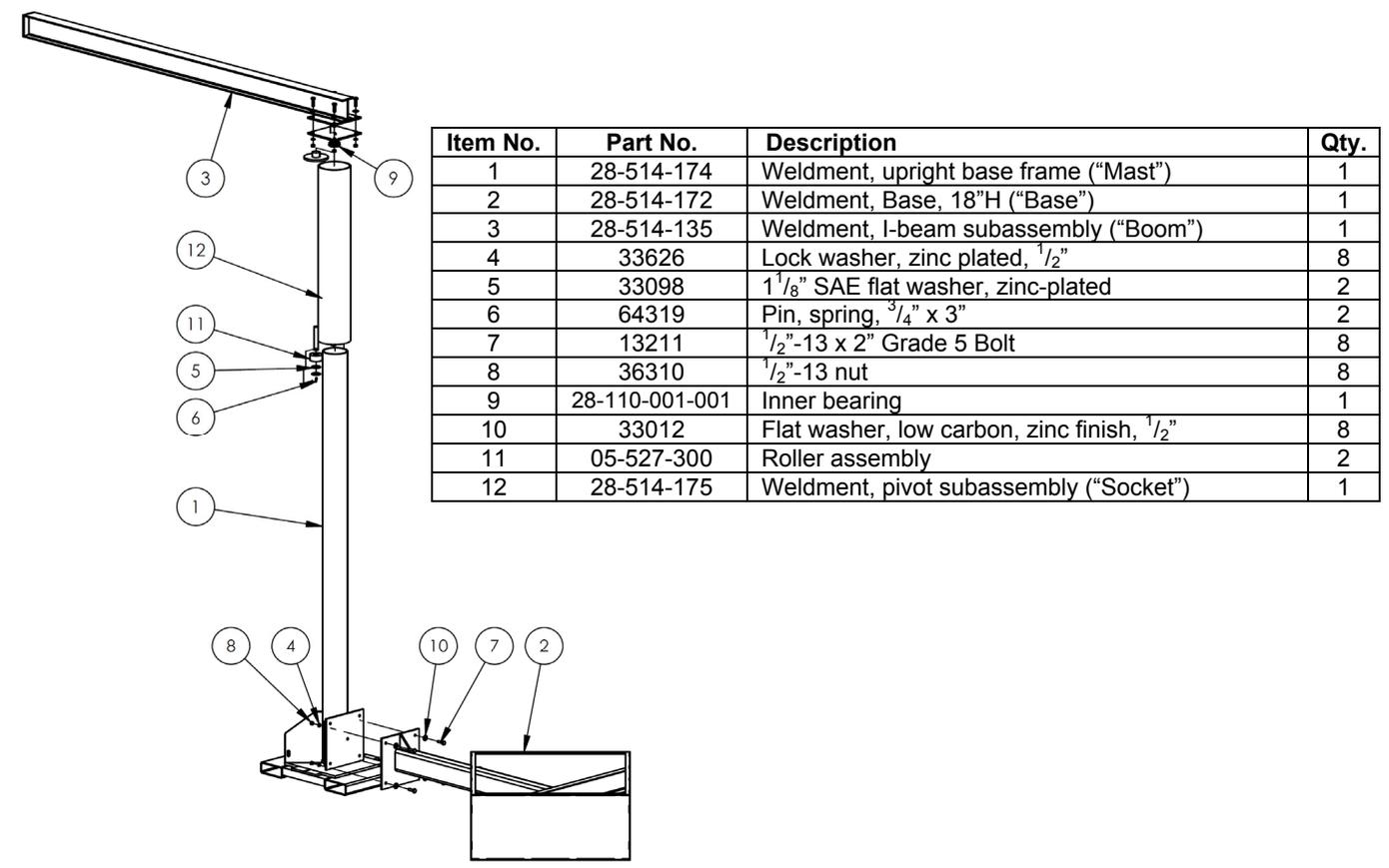
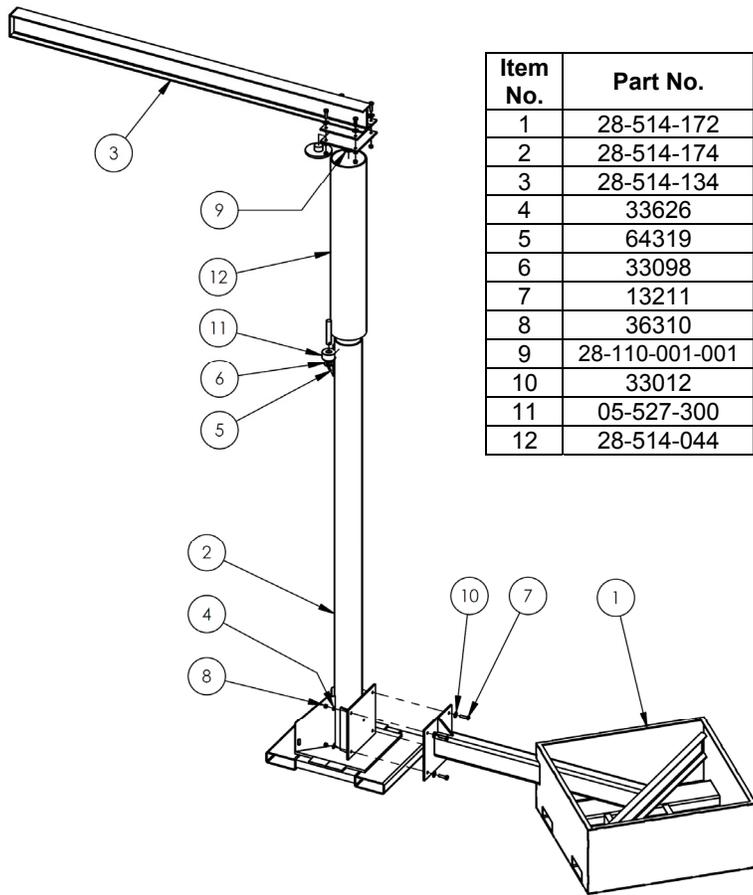
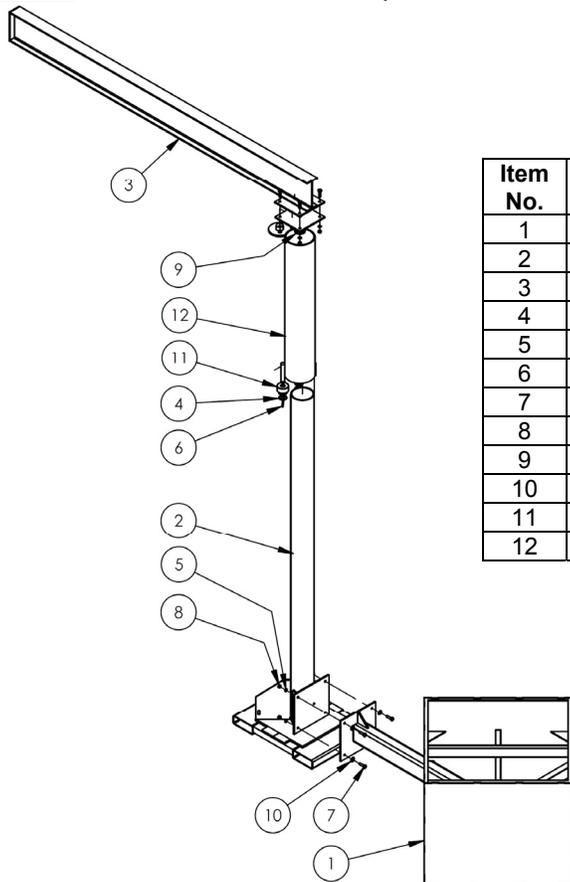


FIG. 3: JIB-CBX-50-8-10 Exploded Parts Diagram and Bill of Materials



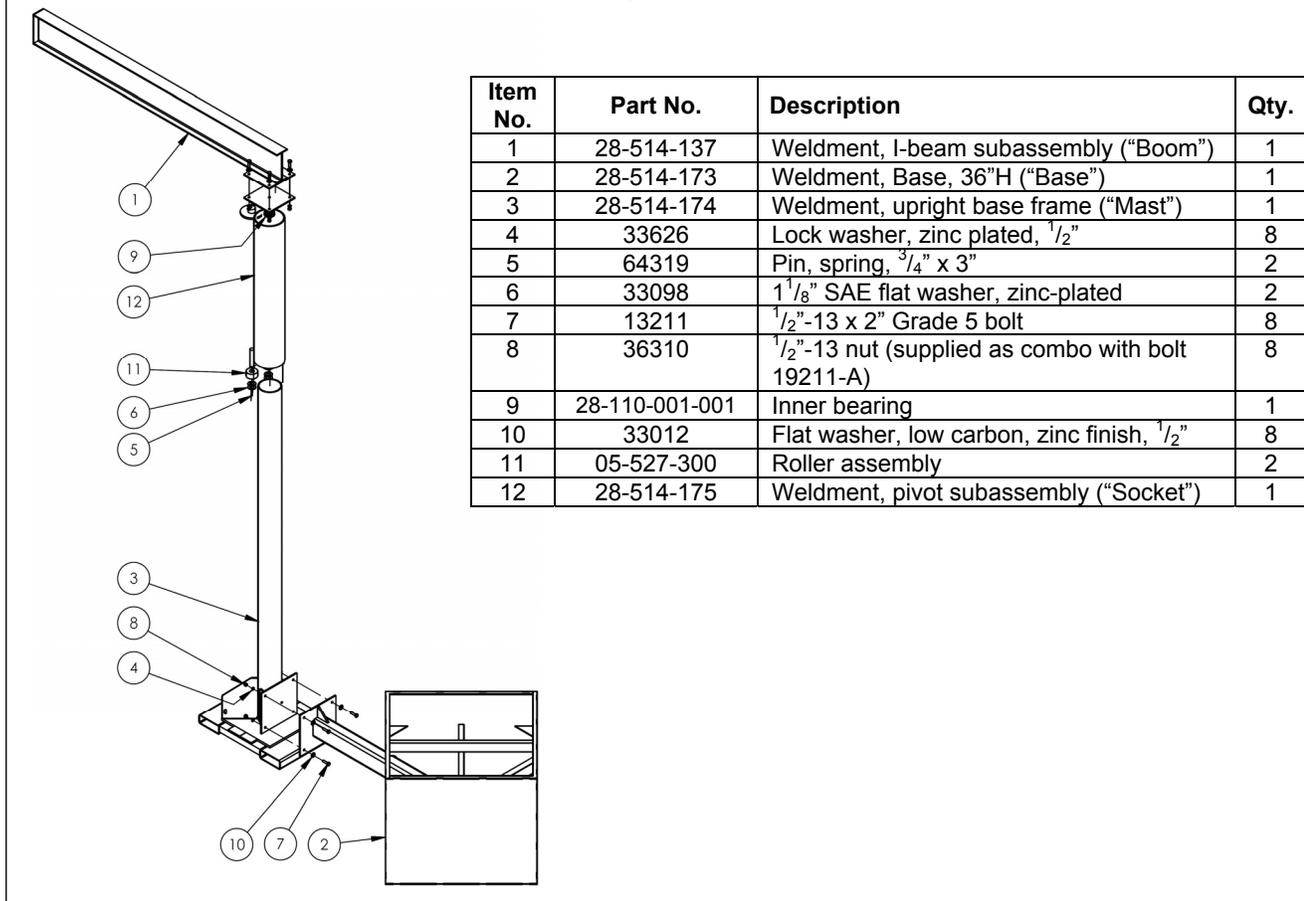
Item No.	Part No.	Description	Qty.
1	28-514-172	Weldment, Base, 18"H ("Base")	1
2	28-514-174	Weldment, upright base frame ("Mast")	1
3	28-514-134	Weldment, I-beam subassembly ("Boom")	1
4	33626	Lock washer, zinc plated, 1/2"	8
5	64319	Pin, spring, 3/4" x 3"	2
6	33098	1 1/8" SAE flat washer, zinc-plated	2
7	13211	1/2"-13 x 2" Grade 5 bolt	8
8	36310	1/2"-13 nut	8
9	28-110-001-001	Inner bearing	1
10	33012	Flat washer, low carbon, zinc finish, 1/2"	8
11	05-527-300	Roller assembly	2
12	28-514-044	Weldment, pivot subassembly ("Socket")	1

FIG. 4: JIB-CBX-50-10-10 Exploded Parts Diagram and Bill of Materials



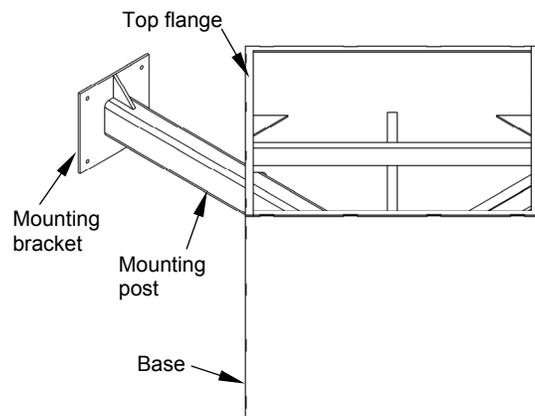
Item No.	Part No.	Description	Qty.
1	28-514-173	Weldment, Base, 36"H ("Base")	1
2	28-514-174	Weldment, upright base frame ("Mast")	1
3	28-514-136	Weldment, I-beam subassembly ("Boom")	1
4	33098	1 1/8" SAE flat washer, zinc-plated	2
5	33626	Lock washer, zinc plated, 1/2"	8
6	64319	Pin, spring, 3/4" x 3"	2
7	13211	1/2"-13 x 2" Grade 5 bolt	8
8	36310	1/2"-13 nut	8
9	28-110-001-001	Inner bearing	1
10	33012	Flat washer, low carbon, zinc finish, 1/2"	8
11	05-527-300	Roller assembly	2
12	28-514-175	Weldment, pivot subassembly ("Socket")	1

FIG. 5: JIB-CBX-100-8-10 Exploded Parts Diagram and Bill of Materials

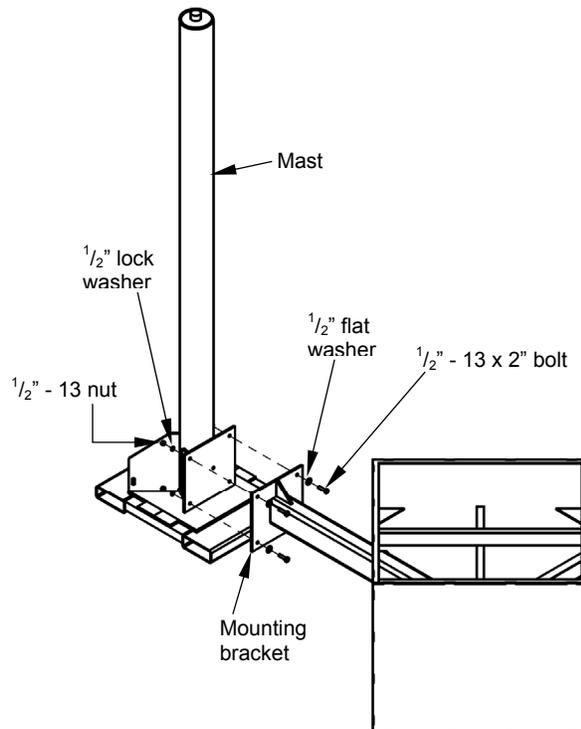


Assembly Instructions:

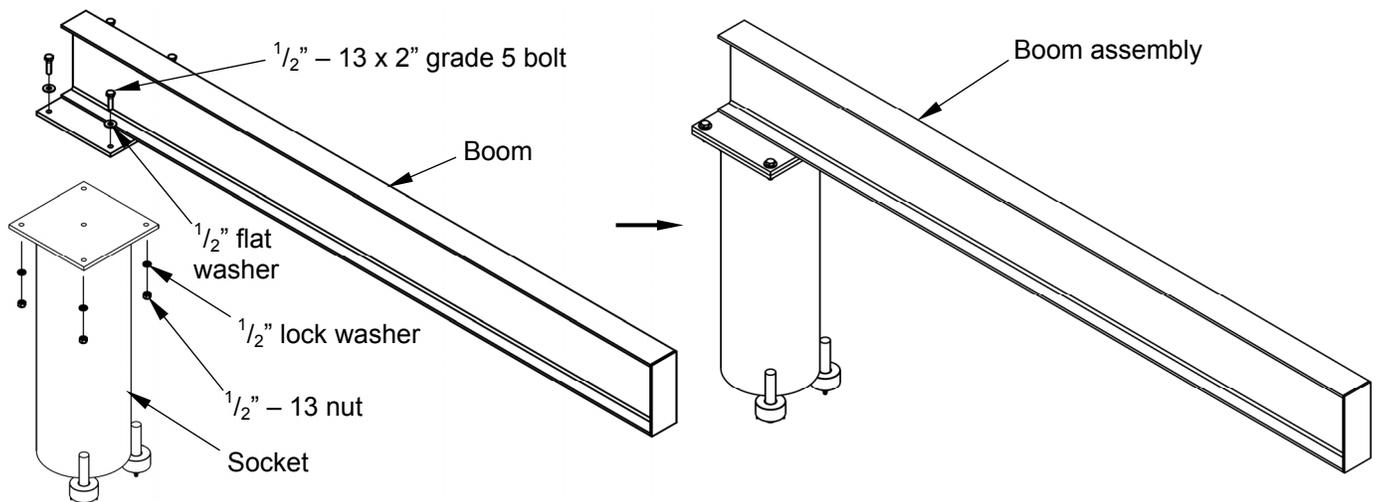
Step 1: Fill the base to the top flange with concrete. For models JIB-CBX-25-8-10, JIB-CBX-25-10-10, and JIB-CBX-50-8-10, filling the base requires approximately forty-one (41) 60 pound bags of concrete mix. Models JIB-CBX-50-10-10 and JIB-CBX-100-8-10 require approximately eighty-two (82) 60 pound bags of concrete mix. The top of the mounting post and mounting bracket will project above the surface of the concrete. Allow the concrete to cure completely according to the instructions provided with the concrete mixture before proceeding to the next step.



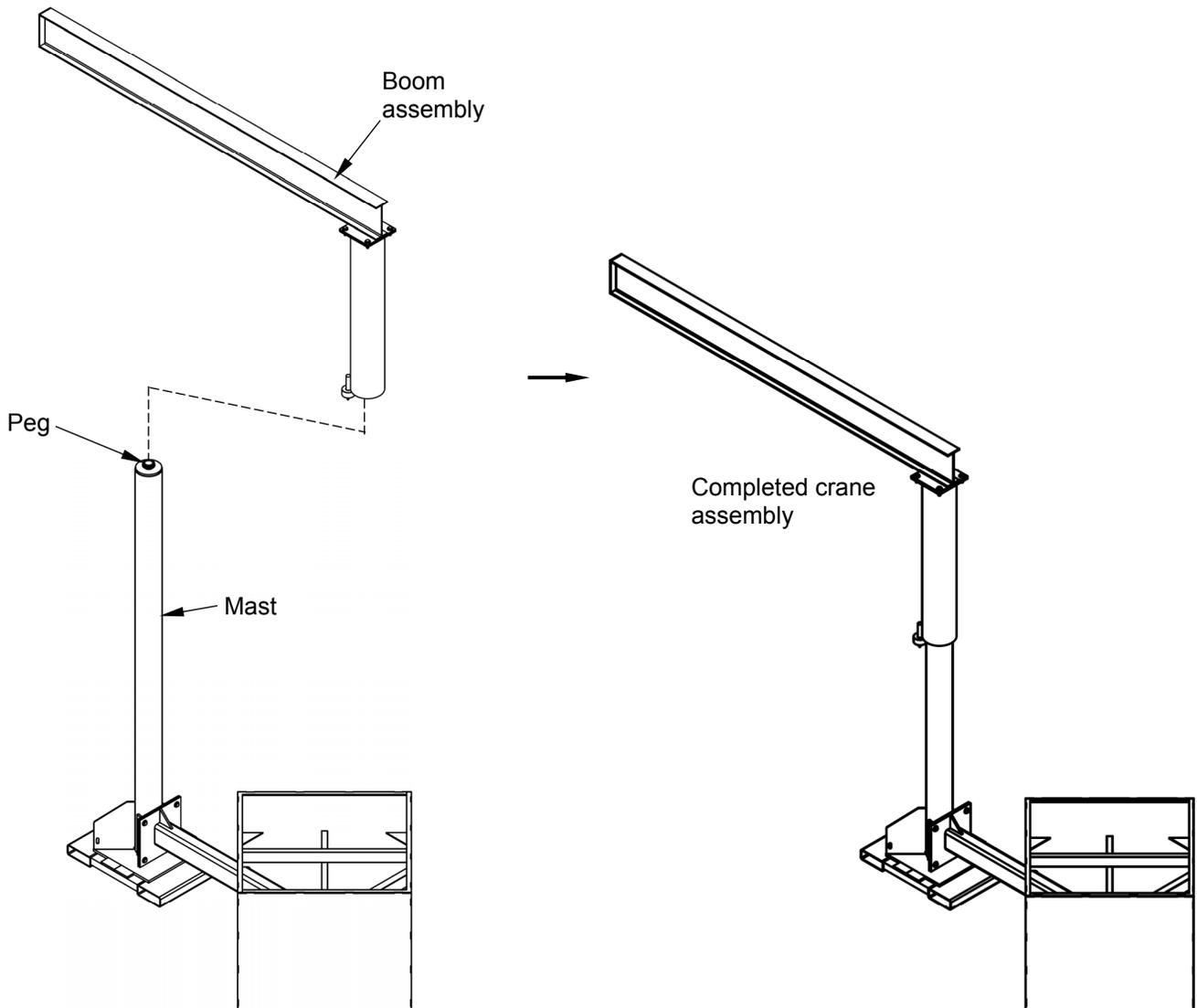
Step 2: After the concrete hardens, attach the mast to the mounting bracket. To make the connection, use 1/2" hardware as shown in the diagram below.



Step 3: Attach the socket to the boom with $\frac{1}{2}$ " hardware.



Step 4: Liberally grease the peg at the top of the mast. Then, lift the boom assembly with a fork truck (or hoist) and slide the socket over the top end of the mast. Make sure that the socket seats properly on the mast peg by rotating the boom clockwise and counterclockwise. The socket should not wobble as the boom rotates.



Operation Instructions:

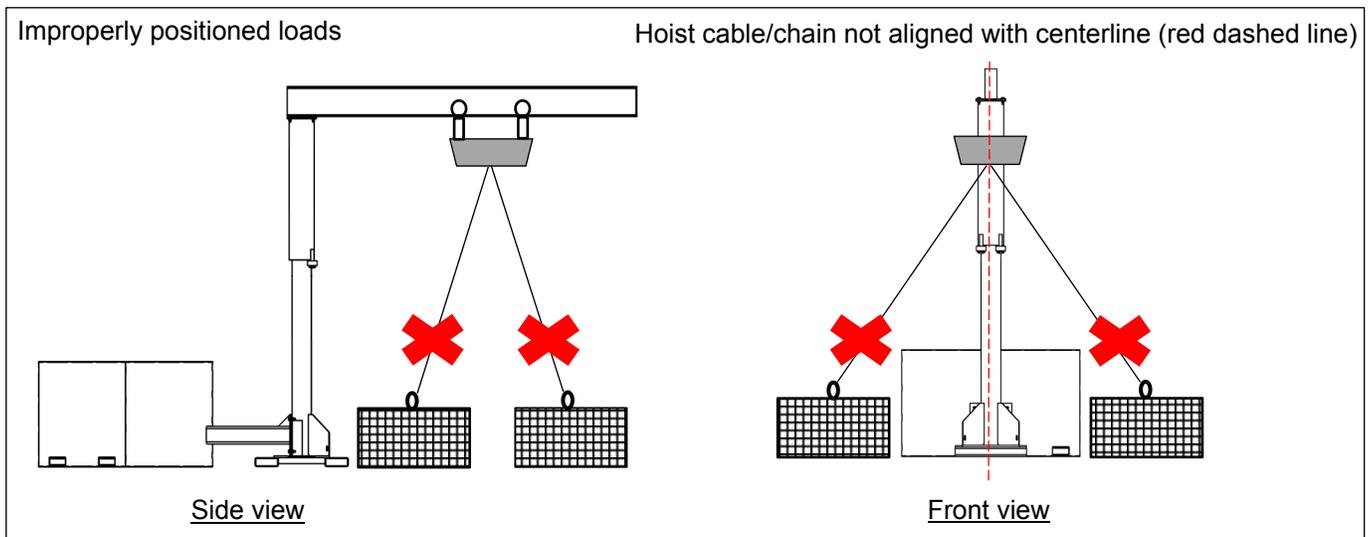
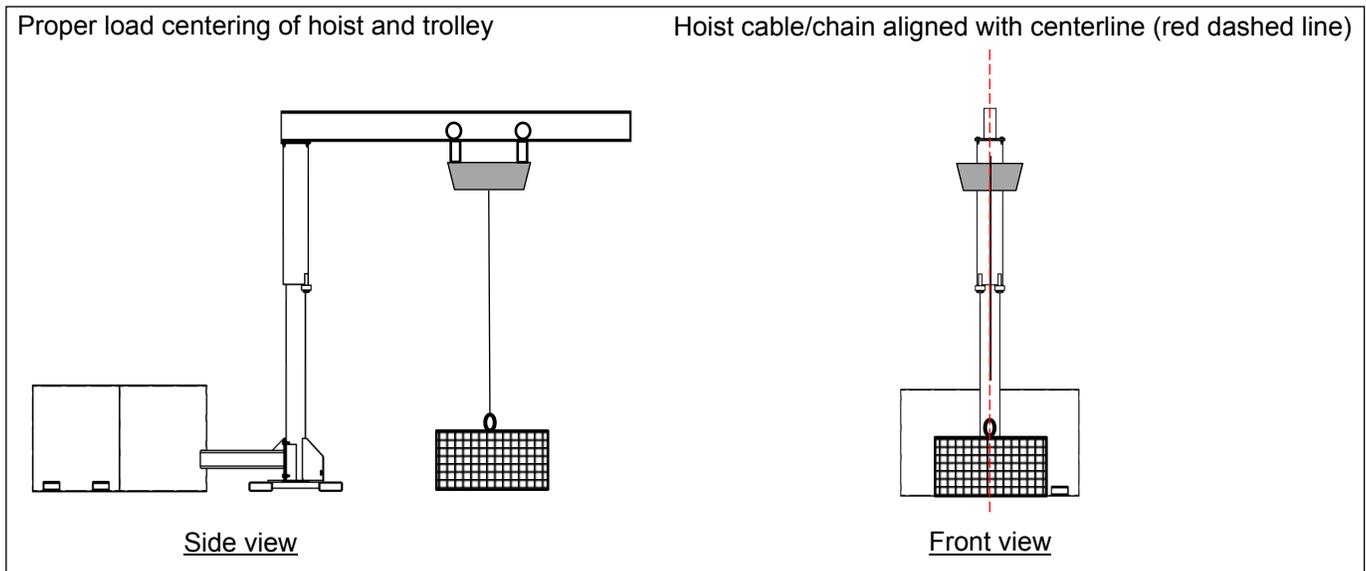
NOTE: Before using the crane for the first time, conduct the "Initial Inspection" described on p. 9.

⚠ WARNING Crane operators are responsible for safely operating this crane.

- **ALWAYS** conduct the "Function Tests" described on p. 3 before using the crane.
- The operating instructions in this manual *supplement* safe crane and hoist operation practices learned during your training program. ALWAYS apply the material handling techniques learned from your training program and conform to OSHA crane operation standards (see 29 CFR 1910.179).
- Watch the boom and load whenever the crane is in use.
- **DO NOT** use the crane if: 1) you observe any damage to the socket or hear unusual noise during operation; or 2) if you observe any warping or deformation of the boom, the mast, or any part of the hoist or trolley.

Proper load lifting:

Position the trolley and hoist directly above the load center. If the hoist and trolley are not centered above the load, the load will swing as it is lifted off of the ground. Proper positioning is diagrammed below.



Connect the load to the hoist chain/cable following the hoist manufacturer's instructions. Then, raise the load only as high as necessary. Slowly rotate the boom to the desired location. Once the boom and hoist are properly centered above the work location, lower the load until it is fully supported by the ground and disconnect it from the hoist.

Inspections & Maintenance:

Apply Occupational Safety and Health Administration (OSHA) crane inspection procedures (see 29 CFR 1910.179). Inspections are classified according to the intervals at which inspection should be performed. The identity of the components to be inspected and the degree to which those components wear, deteriorate, or malfunction determine how frequently you must inspect the crane. 29 CFR 1910.179(j) describes the various inspections the end user is responsible for performing on this crane:

1. **Initial inspection** — 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. **Frequent inspection** [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 (mast, beam, socket, bearings, tie rod, rollers, and mast clamp) for maladjustment interfering with proper operation. Verify that the rollers operate smoothly by turning the crane 4-6 feet in one direction.
- **[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 (mast, beam, socket, tie rod, rollers, mast clamp, 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:

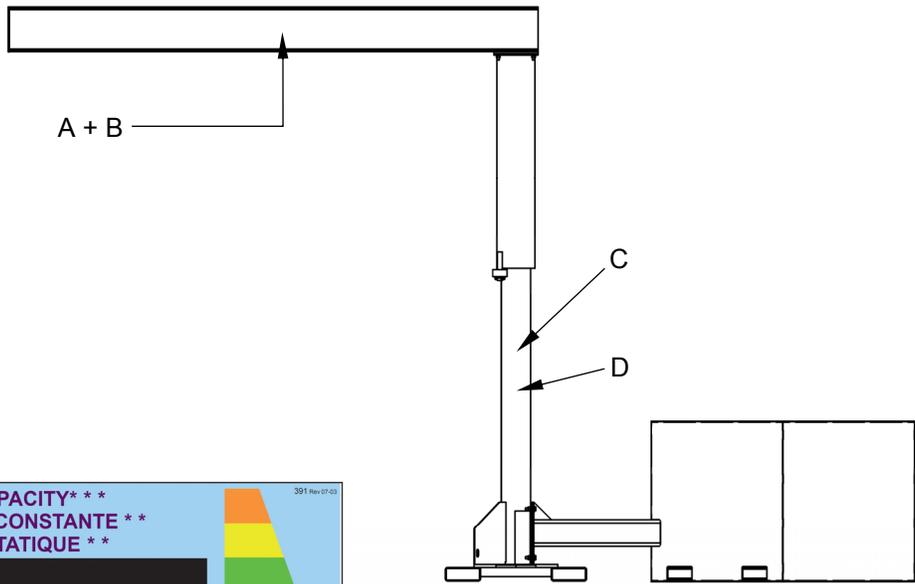
- Deformed, cracked, or corroded members.
- Loose bolts or rivets.
- Cracked or worn sheaves and drums.
- Worn, cracked or distorted parts such as pins, bearings, rollers, locking and clamping devices.
- Excessive wear on brake system parts, linings, pawls, and ratchets.
- Load, wind, and other indicators 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 all rope 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 both a “Frequent inspection” and “Periodic 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:

Only use the crane if it is labeled as diagrammed below. ALL labels must be readable and undamaged. Replace all damaged/unreadable labels.



A: Label 391 – Crane capacity



B: Label 560 (applied to black field of label 391)



or

Label 598 (applied to black field of label 391)



or

Label 781 (applied to black field of label 391)



C: Label 586: Improper uses

▲ WARNING	▲ ADVERTENCIA	▲ AVERTISSEMENT
<ul style="list-style-type: none"> • DO NOT exceed rated capacity • LOWER LOAD before moving to avoid load swing • NEVER STAND under, beside or in front of load • USE on hard level surface • INSPECT connections before using • READ manual before use 	<ul style="list-style-type: none"> • No exceda la capacidad tasada • Descienda la carga antes de mover para evitar que la carga se balancee • Nunca se situe debajo, al lado o delante de la carga • Use en una superficie a nivel dura • Inspeccione las conexiones antes del uso • Lea el manual antes del uso 	<ul style="list-style-type: none"> • NE PAS DÉPASSER la capacité nominale • DESCENDRE la charge avant de la transporter pour éviter la giration • JAMAIS vous mettre sous, à côté de ou devant une charge • UTILISER sur un sol plat et dur • INSPECTER les connexions avant utilisation • LIRE le guide avant utilisation

586 rev 12/10

D: Label 287: Product data label

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

287 REV 0812

LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants 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:

<u>Mail</u>	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation 2999 North Wayne Street, PO Box 507 Angola, IN 46703	(260) 665-1339 <u>Phone</u> (260) 665-7586	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"), such as bearings, hoses, wheels, seals, brushes, and batteries.

How long is the warranty period?

The warranty period for original dynamic components is 90 days. For wearing parts, the warranty period is 90 days. The warranty periods begin on the date when 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 the warranty periods 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 conditions;
 - Inadequate or improper maintenance;
 - Damage sustained during shipping;
 - Accidents involving 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.

