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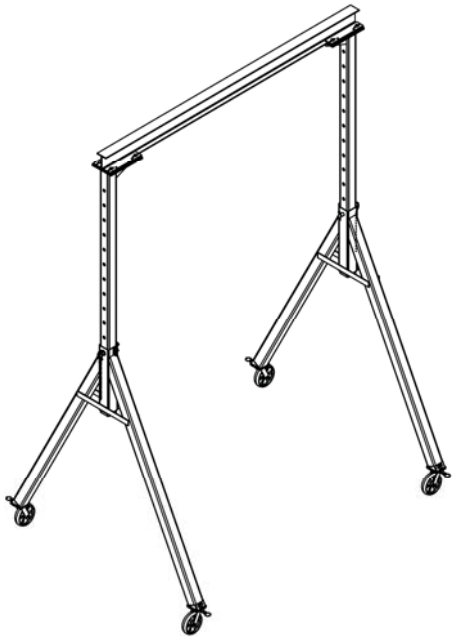
BAHS-Series Steel Adjustable-Height Gantry Cranes

Instruction Manual



Receiving instructions:
After delivery, IMMEDIATELY remove the packaging from the Hook-Base in a manner that preserves the packaging and maintains the orientation of the product in the packaging; then inspect the product closely to determine whether it sustained damage during transport. **If damage is discovered during the inspection, immediately record a complete description of the damage on the bill of lading**. If the product is undamaged, discard the packaging.

NOTES:
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 owner/end-user.

2) Beacon 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. Neither is Beacon responsible for *any* consequential damages sustained as a result of failing to exercise sound judgment while assembling, installing, using or maintaining this product.

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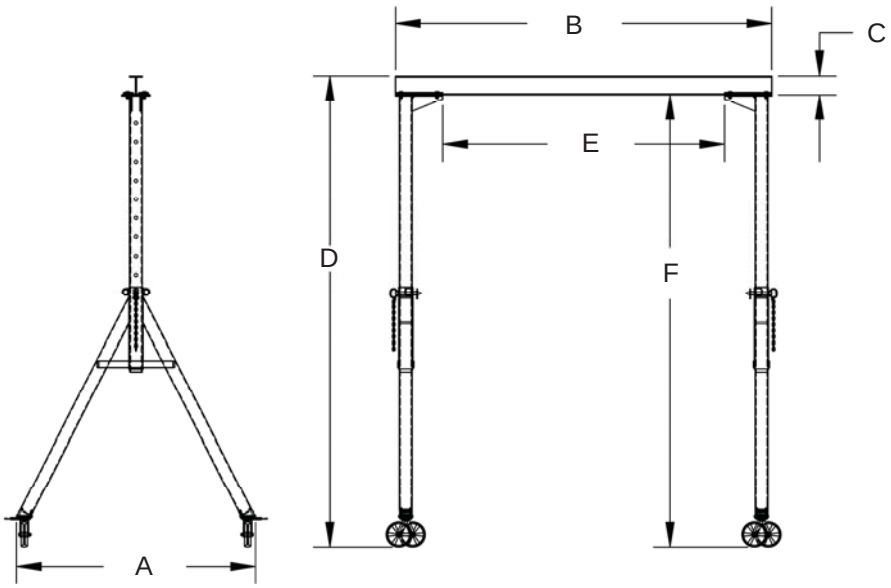
Product specifications:

Thank you for purchasing an adjustable height, steel, Bear Claw A-frame crane ("crane" or "BAHS") made by Beacon Industries, Inc. Each BAHS conforms to performance specifications disclosed in this manual and fulfills our demanding standards for quality, safety and durability. Although operation and assembly are relatively intuitive, all persons who might participate in assembly, use or maintenance of this crane should familiarize themselves with the instructions provided in this manual. Specifications for each BAHS model appear in the table below.



Model	A: Overall width	B: Overall Beam Length	C: Beam height	D: Overall height	E: Usable beam length	F: Height adjustment range	Capacity	Net Weight
BAHS-2-10-12	76 1/8 in. 193.4 cm	119 3/4 in. 304.2 cm	6 in. 15.2 cm	149 15/16 in. 380.8 cm	89 3/4 in. 228.0 cm	(90 – 144)in. (228.6 – 365.8)cm	2,000 lb. 909 kg	753.5 lb. 342.5kg
BAHS-2-10-14	88 1/2 in. 224.8 cm	119 3/4 in. 304.2 cm	6 in. 15.2 cm	174 1/16 in. 442.1 cm	89 3/4 in. 228.0 cm	(102 – 168)in. (259.1 – 426.7)cm	2,000 lb. 909 kg	832.4 lb. 378.4 kg
BAHS-2-10-16	88 1/2 in. 224.8 cm	119 3/4 in. 304 cm	6 in. 15.2 cm	198 1/16 in. 503.1 cm	89 3/4 in. 228.0 cm	(126 – 192)in. (320.0 – 487.7)cm	2,000 lb. 909 kg	881.0 lb. 400.4 kg
BAHS-2-15-7	46 3/8 in. 117.8 cm	179 3/4 in. 456.6 cm	6 in. 15.2 cm	90 3/16 in. 229.1 cm	149 3/4 in. 380.4 cm	(60 – 84)in. (152.4 – 213.4)cm	2,000 lb. 909 kg	620.9 lb. 282.2 kg
BAHS-2-15-9	58 3/8 in. 148.3 cm	179 3/4 in. 456.6 cm	6 in. 15.2 cm	114 1/4 in. 290.2 cm	149 3/4 in. 380.4 cm	(72 – 108)in. (183.0 – 274.3)cm	2,000 lb. 909 kg	698.7 lb. 317.6 kg
BAHS-2-15-10	64 1/4 in. 163.2 cm	179 3/4 in. 456.6 cm	6 in. 15.2 cm	126 in. 320.0 cm	149 3/4 in. 380.4 cm	(78 – 120)in. (198.1 – 304.8)kg	2,000 lb. 909 kg	737.2 lb. 335.1 kg
BAHS-2-15-12	76 1/8 in. 193.4 cm	179 3/4 in. 456.6 cm	6 in. 15.2 cm	149 15/16 in. 380.8 cm	149 3/4 in. 380.4 cm	(90 – 144)in. (228.6 – 365.8)cm	2,000 lb. 909 kg	814.0 lb. 370.0 kg
BAHS-2-15-14	88 1/2 in. 224.8 cm	179 3/4 in. 456.6 cm	6 in. 15.2 cm	174 1/16 in. 442.1 cm	149 3/4 in. 380.4 cm	(102 – 168)in. (259.1 – 426.7)cm	2,000 lb. 909 kg	892.9 lb. 405.8 kg
BAHS-2-15-16	88 1/2 in. 224.8 cm	179 3/4 in. 456.6 cm	6 in. 15.2 cm	198 1/16 in. 503.1 cm	149 3/4 in. 380.4 cm	(126 – 192)in. (320.0 – 487.7)cm	2,000 lb. 909 kg	941.4 lb. 427.9 kg
BAHS-2-20-12	76 1/8 in. 193.4 cm	239 3/4 in. 609.0 cm	10 1/8 in. 25.7 cm	154 in. 391.2 cm	209 3/4 in. 532.8 cm	(90 – 144)in. (228.6 – 365.8)cm	2,000 lb. 909 kg	972.3 lb. 442.0 kg
BAHS-2-20-14	88 1/2 in. 224.8 cm	239 3/4 in. 609.0 cm	10 1/8 in. 25.7 cm	178 1/8 in. 452.4 cm	209 3/4 in. 532.8 cm	(102 – 168)in. (259.1 – 426.7)cm	2,000 lb. 909 kg	1051.2 lb. 477.8 kg
BAHS-2-20-16	88 1/2 in. 224.8 cm	239 3/4 in. 609.0 cm	10 1/8 in. 25.7 cm	202 1/8 in. 513.4 cm	209 3/4 in. 532.8 cm	(126 – 192)in. (320.0 – 487.7)cm	2,000 lb. 909 kg	1099.8 lb. 499.9 kg
BAHS-4-10-12	76 1/8 in. 193.4 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	152 in. 386.1 cm	89 3/4 in. 228.0 cm	(90 – 144)in. (228.6 – 365.8)cm	4,000 lb. 1,818 kg	783.7 lb. 356.2 kg
BAHS-4-10-14	88 1/2 in. 224.8 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	176 1/8 in. 447.4 cm	89 3/4 in. 228.0 cm	(102 – 168)in. (259.1 – 426.7)cm	4,000 lb. 1,818 kg	862.6 lb. 392.1 kg
BAHS-4-10-16	88 1/2 in. 224.8 cm	119 3/4 in. 304 cm	8 1/8 in. 20.6 cm	200 1/8 in. 508.3 cm	89 3/4 in. 228.0 cm	(126 – 192)in. (320.0 – 487.7)cm	4,000 lb. 1,818 kg	911.1 lb. 414.1 kg
BAHS-4-15-7	46 3/8 in. 117.8 cm	179 3/4 in. 456.6 cm	8 1/8 in. 20.6 cm	92 1/4 in. 234.3 cm	149 3/4 in. 380.4 cm	(60 – 84)in. (152.4 – 213.4)cm	4,000 lb. 1,818 kg	666.1 lb. 302.8 kg
BAHS-4-15-9	58 3/8 in. 148.3 cm	179 3/4 in. 456.6 cm	8 1/8 in. 20.6 cm	116 5/16 in. 295.4 cm	149 3/4 in. 380.4 cm	(72 – 108)in. (183.0 – 274.3)cm	4,000 lb. 1,818 kg	743.9 lb. 338.1 kg

Model	A: Overall width	B: Overall beam length	C: Beam height	D: Overall height	E: Usable beam length	F: Height adjustment range	Capacity	Net weight
BAHS-4-15-10	64 1/4 in. 163.2 cm	179 3/4 in. 456.6 cm	8 1/8 in. 20.6 cm	128 5/16 in. 325.9 cm	149 3/4 in. 380.4 cm	(78 – 120)in. (198.1 – 304.8)kg	4,000 lb. 1,818 kg	782.5 lb. 355.7 kg
BAHS-4-15-12	76 1/8 in. 193.4 cm	179 3/4 in. 456.6 cm	8 1/8 in. 20.6 cm	152 in. 386.1 cm	149 3/4 in. 380.4 cm	(90 – 144)in. (228.6 – 365.8)cm	4,000 lb. 1,818 kg	859.2 lb. 390.5 kg
BAHS-4-15-14	88 1/2 in. 224.8 cm	179 3/4 in. 456.6 cm	8 1/8 in. 20.6 cm	176 1/8 in. 447.4 cm	149 3/4 in. 380.4 cm	(102 – 168)in. (259.1 – 426.7)cm	4,000 lb. 1,818 kg	938.1 lb. 426.4 kg
BAHS-4-15-16	88 1/2 in. 224.8 cm	179 3/4 in. 456.6 cm	8 1/8 in. 20.6 cm	200 1/8 in. 508.3 cm	149 3/4 in. 380.4 cm	(126 – 192)in. (320.0 – 487.7)cm	4,000 lb. 1,818 kg	986.6 lb. 448.5 kg
BAHS-4-20-12	76 1/8 in. 193.4 cm	239 3/4 in. 609.0 cm	12 3/16 in. 30.0 cm	156 in. 396.2 cm	209 3/4 in. 532.8 cm	(90 – 144)in. (228.6 – 365.8)cm	4,000 lb. 1,818 kg	1011.9 lb. 459.9 kg
BAHS-4-20-14	88 1/2 in. 224.8 cm	239 3/4 in. 609.0 cm	12 3/16 in. 30.0 cm	180 3/16 in. 457.7 cm	209 3/4 in. 532.8 cm	(102 – 168)in. (259.1 – 426.7)cm	4,000 lb. 1,818 kg	1090.8 lb. 495.8 kg
BAHS-4-20-16	88 1/2 in. 224.8 cm	239 3/4 in. 609.0 cm	12 3/16 in. 30.0 cm	204 3/16 in. 518.6 cm	209 3/4 in. 532.8 cm	(126 – 192)in. (320.0 – 487.7)cm	4,000 lb. 1,818 kg	1139.3 lb. 517.9 kg
BAHS-6-10-12	77 3/8 in. 196.5 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	153 lb. 388.6 kg	89 3/4 in. 228.0 cm	(91 – 145)in. (231.1 – 368.3)cm	6,000 lb. 2,727 kg	856.5 lb. 389.3 kg
BAHS-6-10-14	89 3/4 in. 228.0 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	177 1/8 in. 449.9 cm	89 3/4 in. 228.0 cm	(103 – 169)in. (261.6 – 429.3)kg	6,000 lb. 2,727 kg	959.1 lb. 436.0 kg
BAHS-6-10-16	89 3/4 in. 228.0 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	201 1/8 in. 510.9 cm	89 3/4 in. 228.0 cm	(127 – 193)in. (322.6 – 490.2)kg	6,000 lb. 2,727 kg	1007.7 lb. 458.0 kg
BAHS-6-15-7	47 5/8 in. 121.0 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	95 1/4 in. 241.9 cm	149 3/4 in. 380.4 cm	(61 – 85)in. (154.9 – 215.9)cm	6,000 lb. 2,727 kg	766.4 lb. 348.4 kg
BAHS-6-15-9	59 5/8 in. 151.4 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	119 5/16 in. 303.1 cm	149 3/4 in. 380.4 cm	(73 – 109)in. (185.4 – 276.9)kg	6,000 lb. 2,727 kg	844.1 lb. 383.7 kg
BAHS-6-15-10	65 1/2 in. 166.4 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	131 5/16 in. 333.5 cm	149 3/4 in. 380.4 cm	(79 – 121)in. (200.7 – 307.3)cm	6,000 lb. 2,727 kg	882.7 lb. 401.2 kg
BAHS-6-15-12	77 3/8 in. 196.5 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	155 in. 393.7 cm	149 3/4 in. 380.4 cm	(91 – 145)in. (231.1 – 368.3)cm	6,000 lb. 2,727 kg	960.2 lb. 436.5 kg
BAHS-6-15-14	89 3/4 in. 228.0 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	179 1/8 in. 455.0 cm	149 3/4 in. 380.4 cm	(103 – 169)in. (261.6 – 429.3)cm	6,000 lb. 2,727 kg	1062.8 lb. 483.1 kg
BAHS-6-15-16	89 3/4 in. 228.0 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	203 1/8 in. 515.9 cm	149 3/4 in. 380.4 cm	(127 – 193)in. (322.6 – 490.2)kg	6,000 lb. 2,727 kg	1111.4 lb. 505.2 kg
BAHS-6-20-12	77 3/8 in. 196.5 cm	239 3/4 in. 609.0 cm	12 5/16 in. 31.3 cm	157 1/4 in. 399.4 cm	209 3/4 in. 532.8 cm	(91 – 145)in. (231.1 – 368.3)cm	6,000 lb. 2,727 kg	1305.2 lb. 593.3 kg
BAHS-6-20-14	89 3/4 in. 228.0 cm	239 3/4 in. 609.0 cm	12 5/16 in. 31.3 cm	181 3/8 in. 460.7 cm	209 3/4 in. 532.8 cm	(103 – 169)in. (261.6 – 429.3)cm	6,000 lb. 2,727 kg	1407.8 lb. 639.9 kg
BAHS-6-20-16	89 3/4 in. 228.0 cm	239 3/4 in. 609.0 cm	12 5/16 in. 31.3 cm	205 3/8 in. 93.4 cm	209 3/4 in. 532.8 cm	(127 – 193)in. (322.6 – 490.2)kg	6,000 lb. 2,727 kg	1456.3 lb. 662.0 kg
BAHS-8-10-12	76 1/2 in. 194.3 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	152 7/8 in. 388.3 cm	89 3/4 in. 228.0 cm	(91 – 145)in. (231.1 – 368.3)cm	8,000 lb. 3,636 kg	1047.7 lb. 476.2 kg
BAHS-8-10-14	88 5/16 in. 224.3 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	176 7/16 in. 448.2 cm	89 3/4 in. 228.0 cm	(102 – 168)in. (259.1 – 426.7)cm	8,000 lb. 3,636 kg	979.7 lb. 445.3 kg
BAHS-8-10-16	88 1/4 in. 224.2 cm	119 3/4 in. 304.2 cm	8 1/8 in. 20.6 cm	200 7/16 in. 509.1 cm	89 3/4 in. 228.0 cm	(126 – 192)in. (320.0 – 487.7)cm	8,000 lb. 3,636 kg	1028.3 lb. 467.4 kg
BAHS-8-15-7	45 3/4 in. 116.2 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	94 3/16 in. 239.2 cm	149 3/4 in. 380.4 cm	(60 – 84)in. (152.4 – 213.4)cm	8,000 lb. 3,636 kg	757.8 lb. 344.4 kg
BAHS-8-15-9	57 3/4 in. 146.7 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	118 3/16 in. 300.2 cm	149 3/4 in. 380.4 cm	(72 – 108)in. (182.9 – 274.3)cm	8,000 lb. 3,636 kg	850.3 lb. 386.5 kg
BAHS-8-15-10	63 3/4 in. 161.9 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	130 1/4 in. 330.8 cm	149 3/4 in. 380.4 cm	(78 – 120)in. (198.1 – 304.8)kg	8,000 lb. 3,636 kg	896.7 lb. 407.6 kg
BAHS-8-15-12	76 1/2 in. 194.3 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	154 7/8 in. 393.4 cm	149 3/4 in. 380.4 cm	(91 – 145)in. (231.1 – 368.3)cm	8,000 lb. 3,636 kg	1043 lb. 474.1 kg
BAHS-8-15-14	88 5/16 in. 224.3 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	178 1/2 in. 453.4 cm	149 3/4 in. 380.4 cm	(102 – 168)in. (259.1 – 426.7)cm	8,000 lb. 3,636 kg	1083.4 lb. 492.5 kg
BAHS-8-15-16	88 1/4 in. 224.2 cm	179 3/4 in. 456.6 cm	10 1/8 in. 25.7 cm	207 7/16 in. 526.9 cm	149 3/4 in. 380.4 cm	(126 – 192)in. (320.0 – 487.7)cm	8,000 lb. 3,636 kg	1132.0 lb. 514.5 kg
BAHS-8-20-12	76 1/2 in. 194.3 cm	239 3/4 in. 609.0 cm	12 5/16 in. 31.3 cm	157 1/8 in. 399.1 cm	209 3/4 in. 532.8 cm	(91 – 145)in. (231.1 – 368.3)cm	8,000 lb. 3,636 kg	1496.7 lb. 680.3 kg
BAHS-8-20-14	88 5/16 in. 224.3 cm	239 3/4 in. 609.0 cm	12 5/16 in. 31.3 cm	180 11/16 in. 458.9 cm	209 3/4 in. 532.8 cm	(102 – 168)in. (259.1 – 426.7)kg	8,000 lb. 3,636 kg	1428.4 lb. 649.3 kg
BAHS-8-20-16	88 1/4 in. 224.2 cm	239 3/4 in. 609.0 cm	12 5/16 in. 31.3 cm	204 11/16 in. 519.9 cm	209 3/4 in. 532.8 cm	(126 – 192)in. (320.0 – 487.7)cm	8,000 lb. 3,636 kg	1476.9 lb. 671.3 kg
BAHS-10-15-10	64 1/2 in. 163.8 cm	179 3/4 in. 456.6 cm	12 1/8 in. 30.8 cm	132 1/4 in. 335.9 cm	148 3/4 in. 377.8 cm	(78 – 120)in. (198.1 – 304.8)cm	10,000 lb. 4,545 kg	1033.4 lb. 469.7 kg

SAFETY PRINCIPLES

Beacon Industries, Inc. recognizes the critical importance of workplace safety. **Employers are responsible for instructing employees to use the product properly. Employees and any other person, who might foreseeably assemble, use, repair, or perform maintenance on the crane must read and understand every instruction BEFORE it. Crane operators should have access to the manual at all times** and should review the directions as necessary. **If you do not understand an instruction, ask your supervisor or employer for clarification. Failure to adhere to the directions in this manual might lead to serious personal injury or even death.**

Although Beacon diligently strives to identify foreseeable hazardous situations, this manual cannot address every conceivable danger. The end-user is ultimately responsible for exercising sound judgment at all times. Beacon is **not liable** for any injury or property damage that occurs as a consequence of failing to apply the recommended maintenance and operation instructions that appear either in this manual or on labels affixed to the product.

This manual classifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. These signal words announce an associated safety message. The reader must understand that the signal word chosen indicates the seriousness of the described hazard.

DANGER	**Identifies a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.**
WARNING	**Identifies a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.**
CAUTION	**Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.**
NOTICE	Identifies practices likely to result in product/property damage, such as operation that might damage the crane.

SAFETY GUIDELINES

Failure to read and understand the instructions included in this manual before using or servicing the crane constitutes misuse of the product.

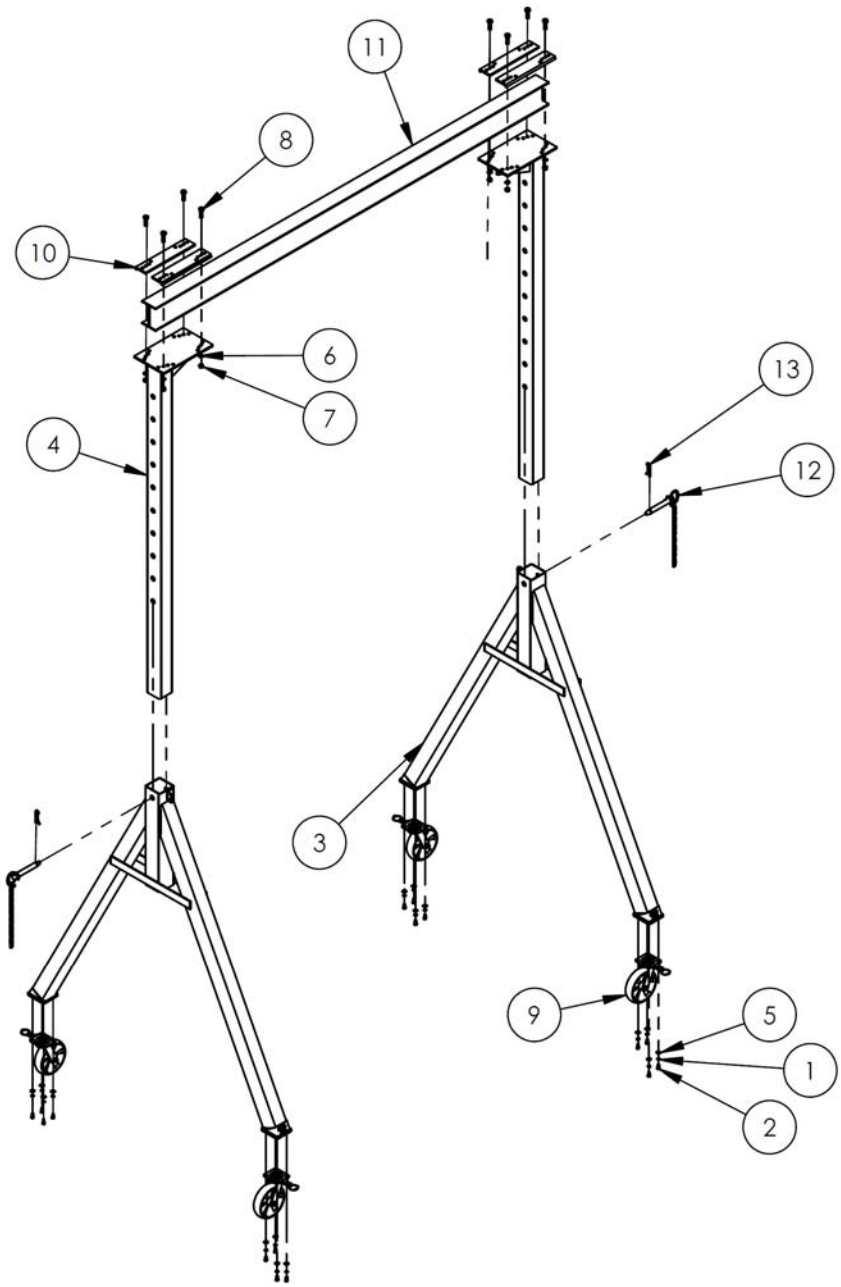
DANGER Electrocution might result if the crane contacts electrified wires. Reduce the likelihood that an operator or bystander might be electrocuted by applying **common sense**:

- DO not assemble or use the crane in an area where it might contact electrified wires;
- DO NOT *contact* electrified wires with the crane;
- Before using the crane, always inspect the usage area for conditions that might require special precautions.

WARNING Material handling is dangerous. Improper or careless operation might result in serious personal injuries sustained by the crane user(s) and bystanders. Always apply the following:

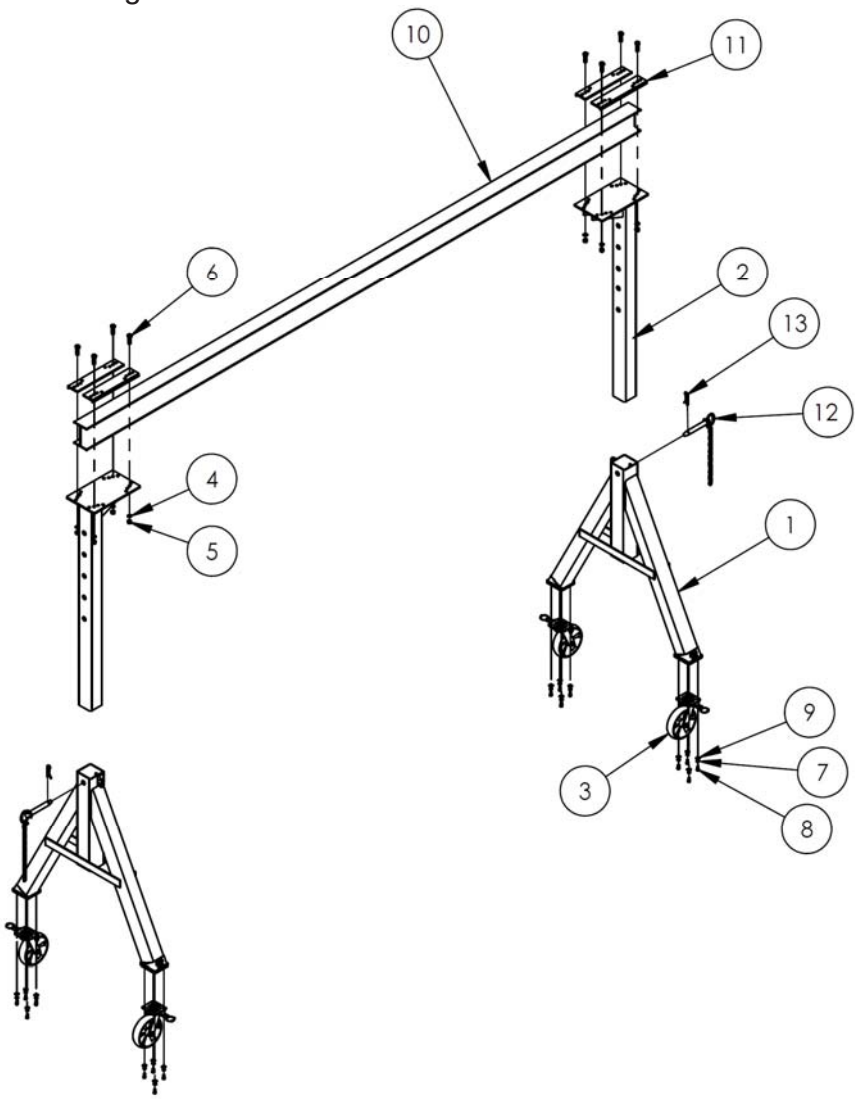
- DO NOT use a structurally damaged/malfunctioning crane. ALWAYS inspect the crane before each use according to the inspection instructions on p. 24-25. DO NOT use the crane unless it passes every part of the prescribed inspection, i.e. do not use the crane if it is damaged.
- DO NOT attempt to lift a load that weighs more than the maximum rated load of your crane model (see Specifications table on p. 2-3, capacity labels on product, and ”Product Markings and Labels” on p. 25).
- DO NOT stand beneath or travel under the crane if a load is suspended, and DO NOT permit any person to stand beneath or travel under the load.
- Inform all persons in the area that you are going to use the crane; instruct them to stay clear of the device and the supported load during operation.
- DO NOT allow people to ride on the load.
- ALWAYS load the crane according to the “Proper loading” recommendations on p. 22-23. Failure to properly position a load might cause the load to swing as it rises off of the ground, and a swinging load might and cause serious injury to the operator(s) or others as a consequence.
- DO NOT use the crane if any label (see p. 25) is unreadable, damaged, or absent. Contact Beacon for replacement label(s) as needed.
- **DO NOT use to crane to move (transport) loads; ONLY use the crane to lift loads!**

FIG. A: BAHS-2-10-12, BAHS-2-10-14, & BAHS-2-10-16 Exploded Parts Diagram & Parts List



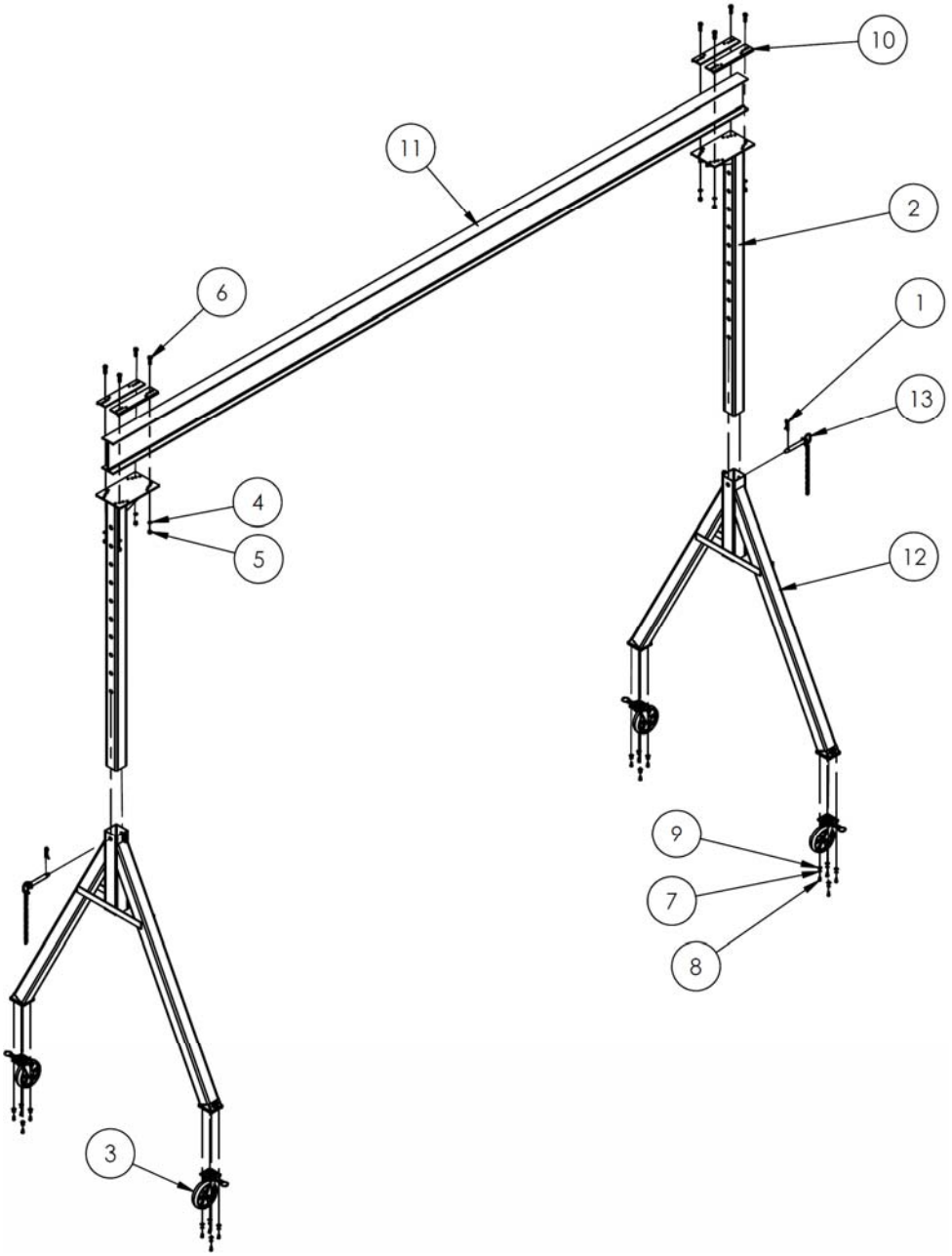
Item no.	Part no.	Description	Quantity
1	33620	$^{5}/_{16}$ in. zinc-plated lock washer	16
2	11053	$^{5}/_{16}$ in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
3		Frame, leg assembly:	
	28-514-016	BAHS-2-10-12	2
	28-514-017	BAHS-2-10-14	2
	28-514-017	BAHS-2-10-16	2
4		Assembly frame, upright:	
	28-514-009	BAHS-2-10-12	2
	28-514-010	BAHS-2-10-14	2
	28-514-124	BAHS-2-10-16	2
5	33006	$^{5}/_{16}$ in. zinc-plated USS flat washer	16
6	33626	½ in. zinc-plated lock washer	8
7	19211-A	½ in. – 13 A325 structural nut	8
8	19211-B	½ in. – 13 x 2 in. A325 structural bolt	8
9	16-132-249	GFN-8/2-S locking caster	4
10	28-516-053	Beam clamp (either spur clamp or welded beam clamp)	4
11	28-014-384	Frame, domestic steel I-beam	1
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. B: BAHS-2-15-7, BAHS-2-15-9, BAHS-2-15-10, BAHS-2-15-12, BAHS-2-15-14, BAHS-2-15-16
Exploded Parts Diagram & Parts List



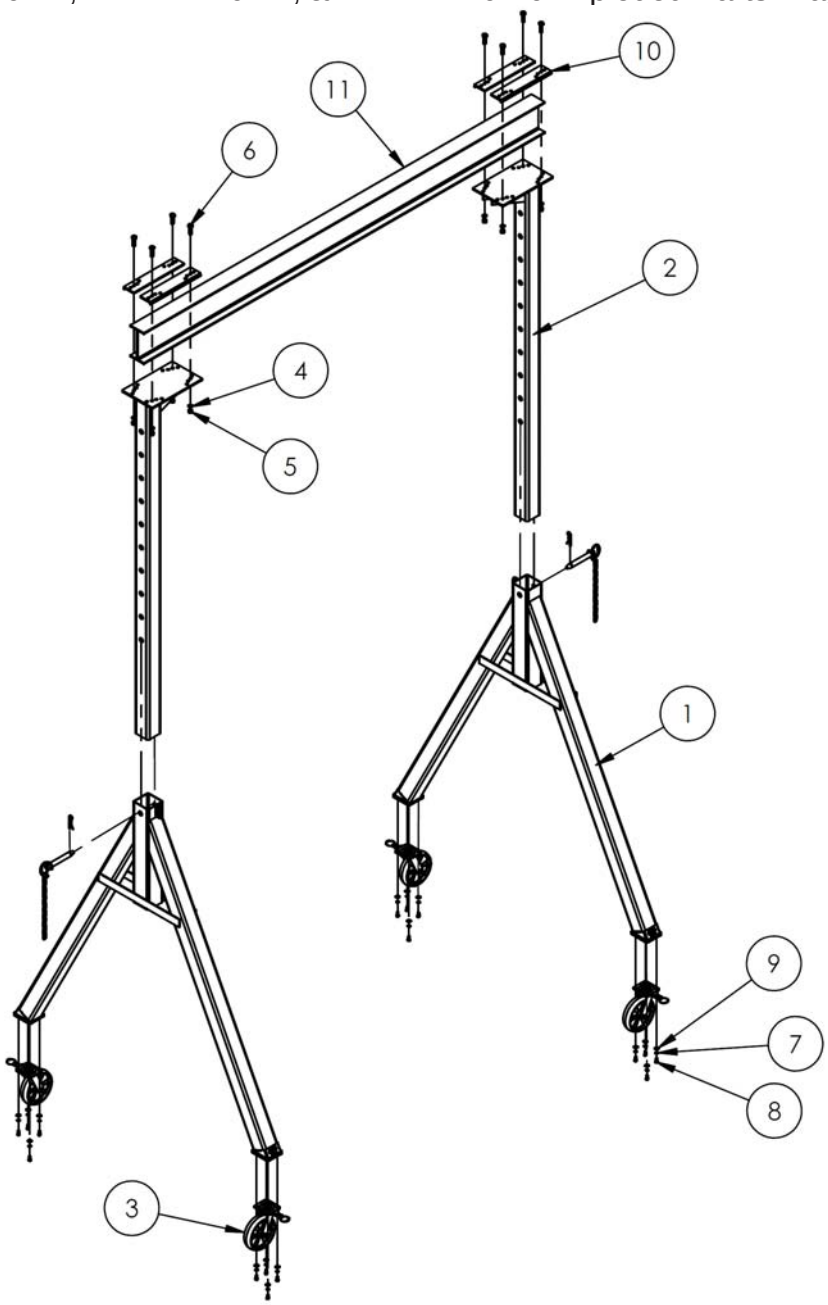
Item no.	Part no.	Description	Quantity
1		Frame, leg assembly:	
	28-514-145	BAHS-2-15-7	2
	28-514-144	BAHS-2-15-9	2
	28-514-143	BAHS-2-15-10	2
	28-514-016	BAHS-2-15-12	2
	28-514-017	BAHS-2-15-14	2
	28-514-017	BAHS-2-15-16	2
2		Assembly frame, upright:	
	28-514-151	BAHS-2-15-7	2
	28-514-150	BAHS-2-15-9	2
	28-514-149	BAHS-2-15-10	2
	28-514-009	BAHS-2-15-12	2
	28-514-010	BAHS-2-15-14	2
	28-514-124	BAHS-A-15-16	2
3	16-132-249	GFN-8/2-S locking caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. – 13 A325 structural nut	8
6	19211-B	½ in. – 13 x 2 in. A325 structural bolt	8
7	33620	$^5/_{16}$ in. zinc-plated lock washer	16
8	11053	$^5/_{16}$ in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
9	33006	$^5/_{16}$ in. zinc-plated USS flat washer	16
10	28-014-263	Frame, domestic steel I-beam	1
11	28-516-053	Weldment, I-beam clamp	4
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. C: BAHS-2-20-12, BAHS-2-20-14, & BAHS-2-20-16 Exploded Parts Diagram & Parts List



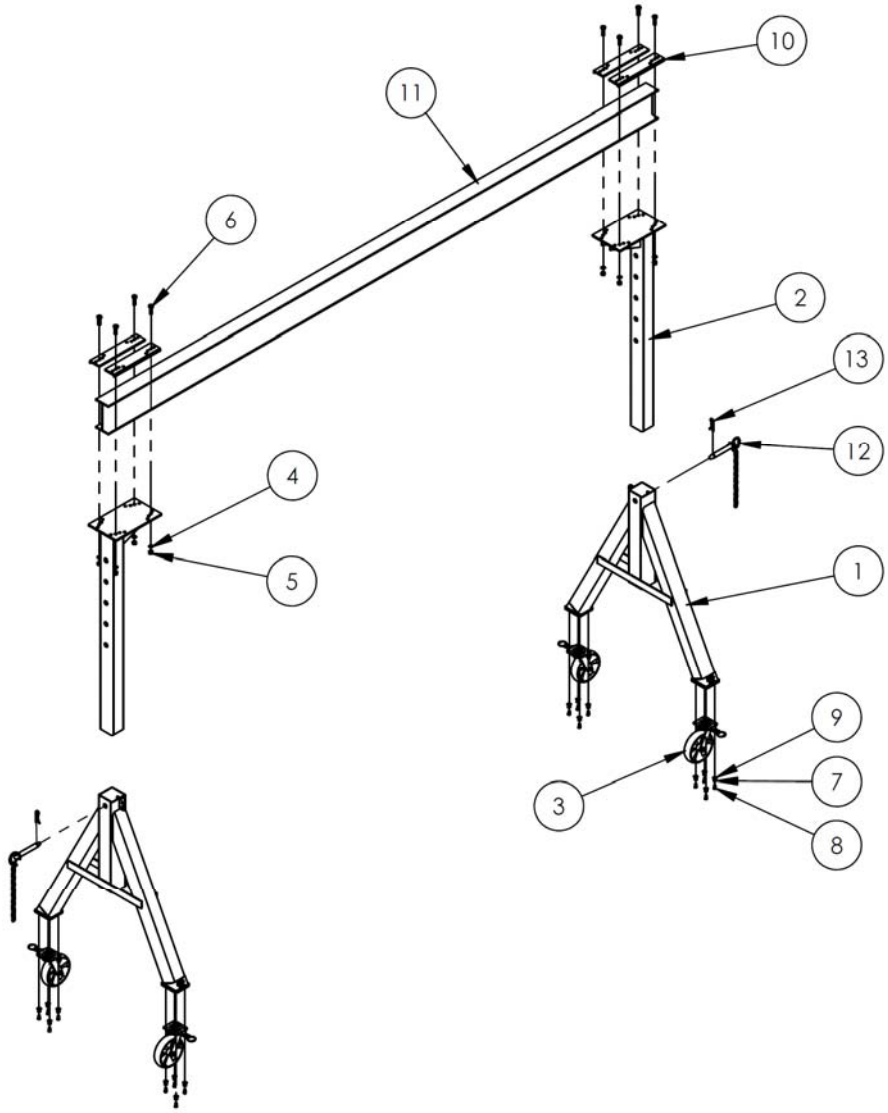
Item no.	Part no.	Description	Quantity
1		Frame, leg assembly:	
	28-514-016	BAHS-2-20-12	2
	28-514-017	BAHS-2-20-14	2
	28-514-017	BAHS-2-20-16	2
2		Assembly frame, upright:	
	28-514-009	BAHS-2-20-12	2
	28-514-010	BAHS-2-20-14	2
	28-514-124	BAHS-2-20-16	2
3	16-132-249	GFN-8/2-S locking caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. – 13 A325 structural nut	8
6	19211-B	½ in. – 13 x 2 in. A325 structural bolt	8
7	33620	$^{5}/_{16}$ in. zinc-plated lock washer	16
8	11053	$^{5}/_{16}$ in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
9	33006	$^{5}/_{16}$ in. zinc-plated USS flat washer	16
10	28-516-053	Weldment, I-beam clamp	4
11	28-014-392	Frame, domestic steel I-beam	1
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. D: BAHS-4-10-12, BAHS-4-10-14, & BAHS-4-10-16 Exploded Parts Diagram & Parts List



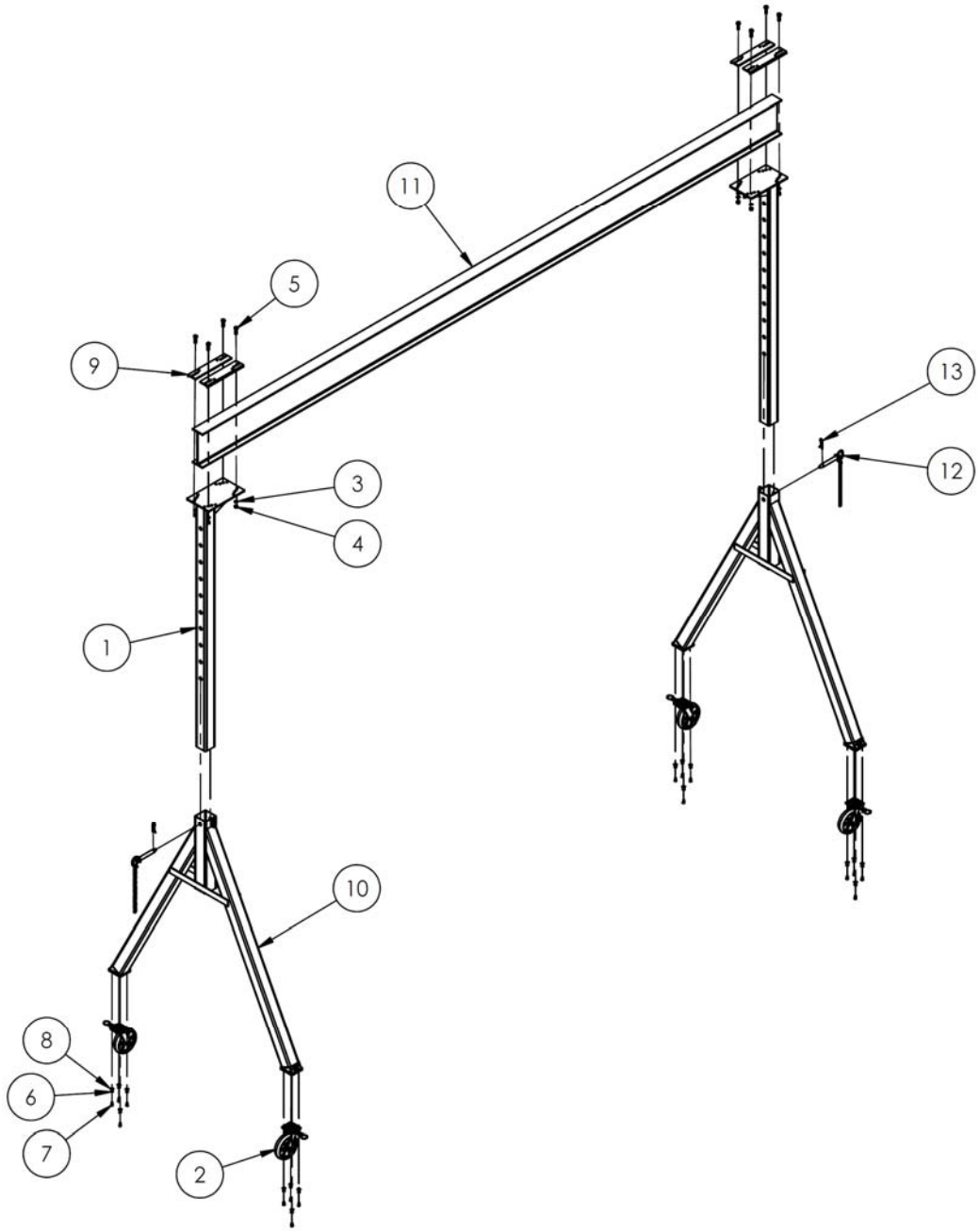
Item no.	Part no.	Description	Quantity
1		Frame, leg assembly:	
	28-514-016	BAHS-4-10-12	2
	28-514-017	BAHS-4-10-14	2
	28-514-017	BAHS-4-10-16	2
2		Assembly frame, upright:	
	28-514-009	BAHS-4-10-12	2
	28-514-010	BAHS-4-10-14	2
	28-514-124	BAHS-4-10-16	2
3	16-132-249	GFN-8/2-S locking caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. – 13 A325 structural nut	8
6	19211-B	½ in. – 13 x 2 in. A325 structural bolt	8
7	33620	$^{5}/_{16}$ in. zinc-plated lock washer	16
8	11053	$^{5}/_{16}$ in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
9	33006	$^{5}/_{16}$ in. zinc-plated USS flat washer	16
10	28-516-053	Beam clamp (either spur clamp or welded beam clamp)	4
11	28-014-387	Frame, domestic steel I-beam	1
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. E: BAHS-4-15-7, BAHS-4-15-9, BAHS-4-15-10, BAHS-4-15-12, BAHS-4-15-14, & BAHS-4-15-16
Exploded Parts Diagram & Parts List



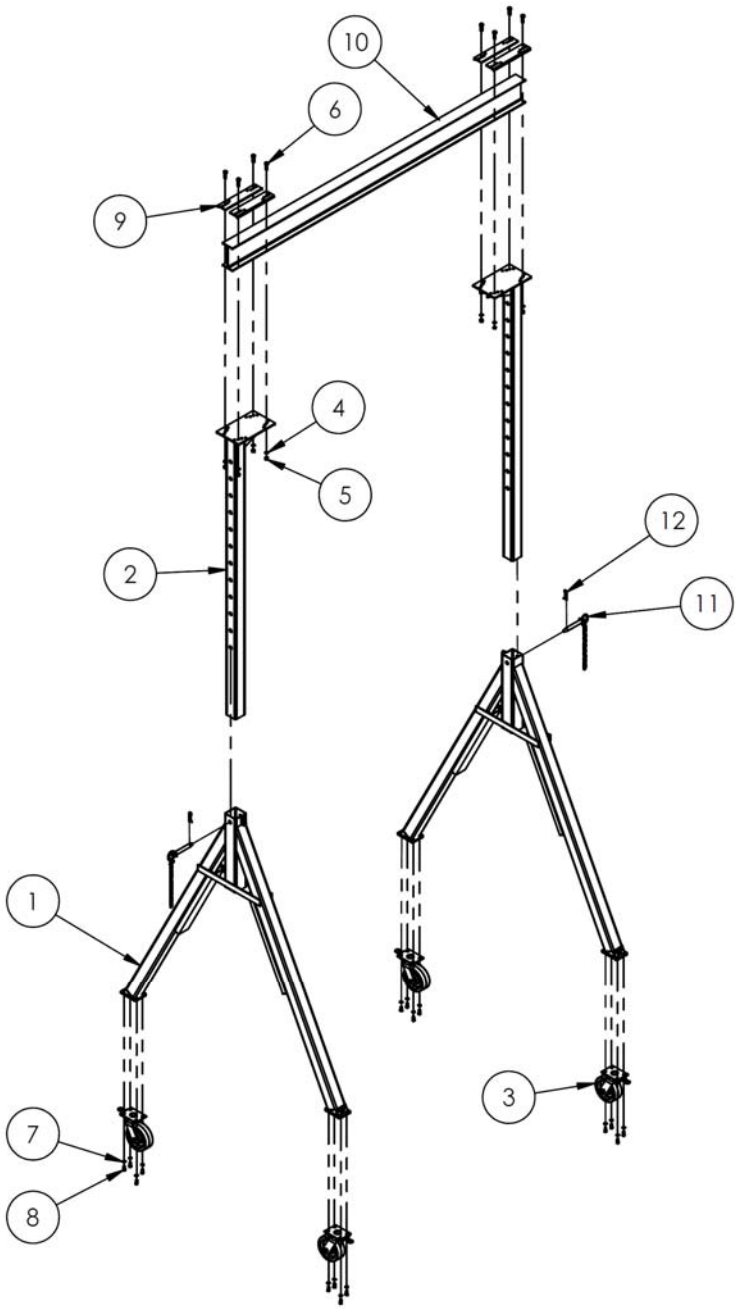
Item no.	Part no.	Description	Quantity
		Frame, leg assembly:	
	28-514-145	BAHS-4-15-7	2
	28-514-144	BAHS-4-15-9	2
1	28-514-143	BAHS-4-15-10	2
	28-514-016	BAHS-4-15-12	2
	28-514-017	BAHS-4-15-14	2
	28-514-017	BAHS-4-15-16	2
		Assembly frame, upright:	
	28-514-151	BAHS-4-15-7	2
	28-514-150	BAHS-4-15-9	2
2	28-514-149	BAHS-4-15-10	2
	28-514-009	BAHS-4-15-12	2
	28-514-010	BAHS-4-15-14	2
	28-514-124	BAHS-4-15-16	2
3	16-132-249	GFN-8/2-S locking caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. – 13 A325 structural nut	8
6	19211-B	½ in. – 13 x 2 in. A325 structural bolt	8
7	33620	$^5/_{16}$ in. zinc-plated lock washer	16
8	11053	$^5/_{16}$ in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
9	33006	$^5/_{16}$ in. zinc-plated USS flat washer	16
10	28-516-053	Beam clamp (either spur clamp or welded beam clamp)	4
11	28-014-388	Frame, domestic steel I-beam	1
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. F: BAHA-4-20-12, BAHA-4-20-14, & BAHA-4-20-16 Exploded Parts Diagram & Parts List



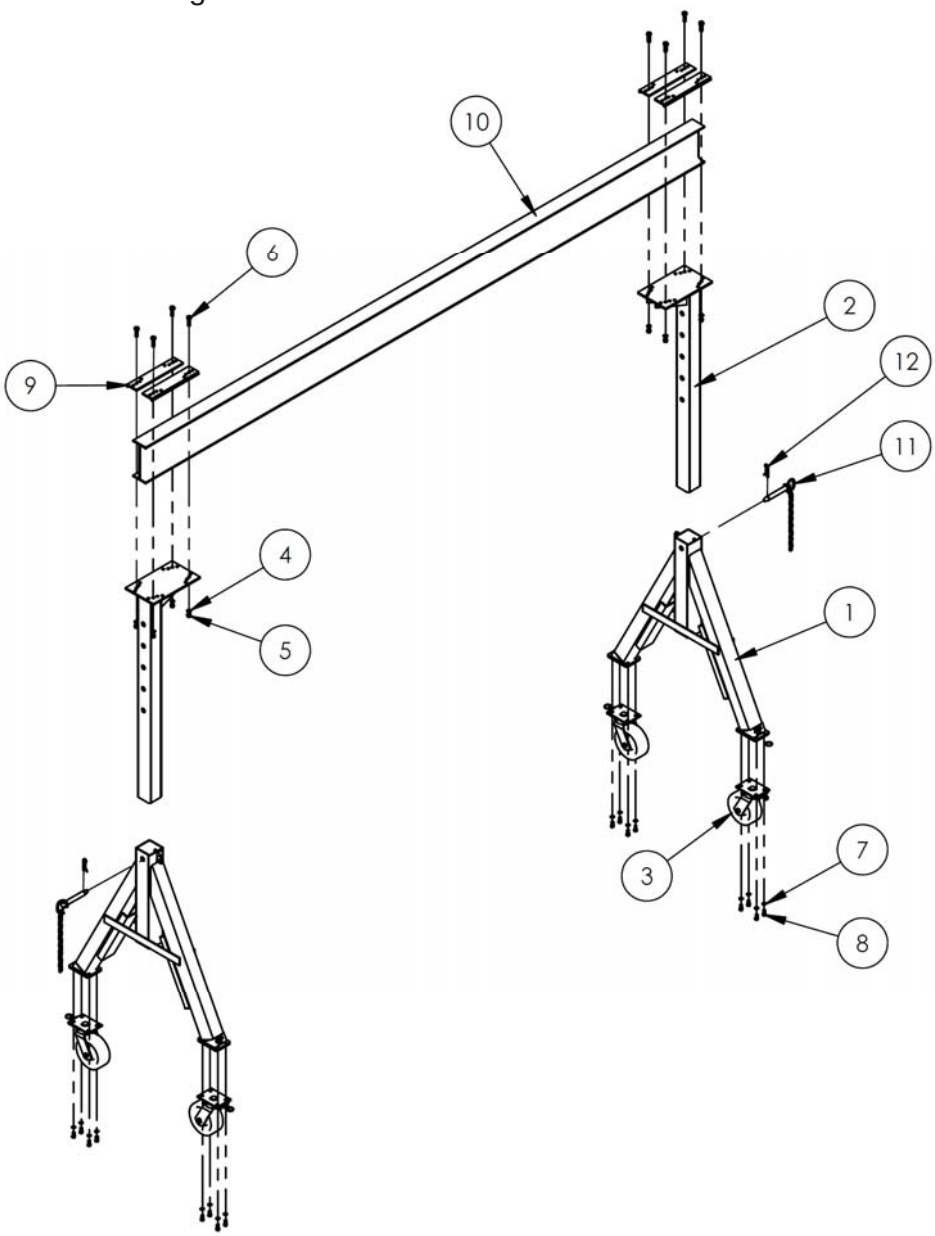
Item no.	Part no.	Description	Quantity
1	 28-514-009 28-514-010 28-514-124	Assembly frame, upright: BAHS-4-20-12 BAHS-4-20-14 BAHS-4-20-16	 2 2 2
2	16-132-249	GFN-8/2-S locking caster	4
3	33626	½ in. zinc-plated lock washer	8
4	19211-A	½ in. – 13 A325 structural nut	8
5	19211-B	½ in. – 13 x 2 in. A325 structural bolt	8
6	33620	$^{5}/_{16}$ in. zinc-plated lock washer	16
7	11053	$^{5}/_{16}$ in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
8	33006	$^{5}/_{16}$ in. zinc-plated USS flat washer	16
9	28-516-053	Weldment, I-beam clamp	4
10	 28-514-016 28-514-017 28-514-017	Frame, leg assembly: BAHS-4-20-12 BAHS-4-20-14 BAHS-4-20-16	 2 2 2
11	28-014-394	Frame, domestic steel I-beam	1
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. G: BAHS-6-10-12, BAHS-6-10-14, & AHA-6-10-16 Exploded Parts Diagram & Parts List



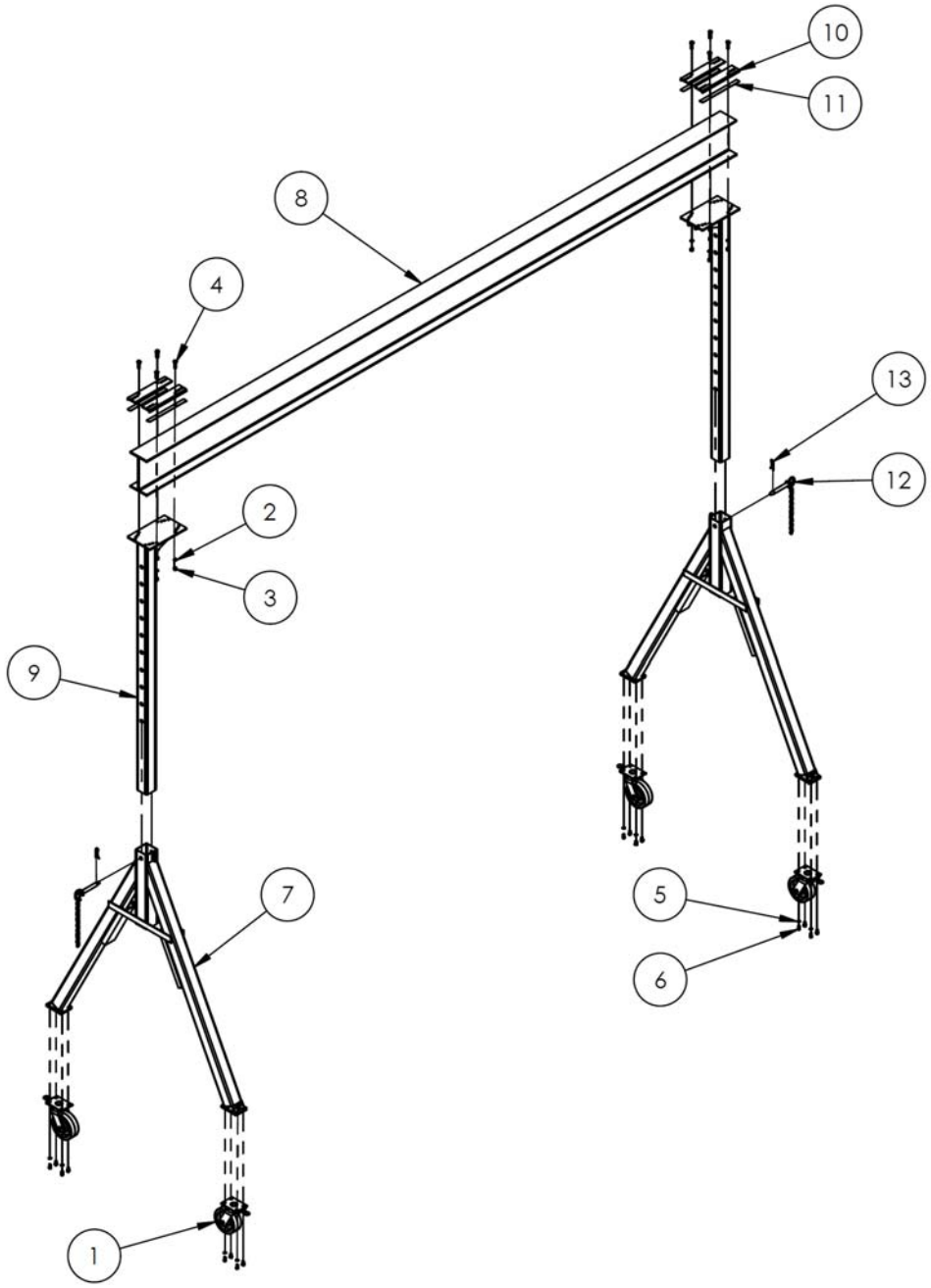
Item no.	Part no.	Description	Quantity
1		Frame, leg assembly:	
	28-514-019	BAHS-6-10-12	2
	28-514-020	BAHS-6-10-14	2
	28-514-020	BAHS-6-10-16	2
2		Assembly frame, upright	
	28-514-009	BAHS-6-10-12	2
	28-514-010	BAHS-6-10-14	2
	28-514-124	BAHS-6-10-16	2
3	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. -13 A325 structural nut	8
6	19211-B	½ in. -13 x 2in. A325 structural bolt	8
7	33624	$^{7}/_{16}$ in. – 14 zinc-plated lock washer	16
8	13155	$^{7}/_{16}$ in. – 14 UNC x 1 in. zinc-plated HHCS #5 bolt	16
9	28-516-053	Beam clamp (either spur clamp or welded beam clamp)	4
10	28-014-387	Frame, domestic steel I-beam	2
11	28-112-027	1 in. x 6 in. retaining pin	2
12	45282	#6 hitch pin	2

FIG. H: BAHS-6-15-7, BAHS-6-15-9, BAHS-6-15-10, BAHS-6-15-12, BAHS-6-15-14 & BAHS-6-15-16
Exploded Parts Diagram & Parts List



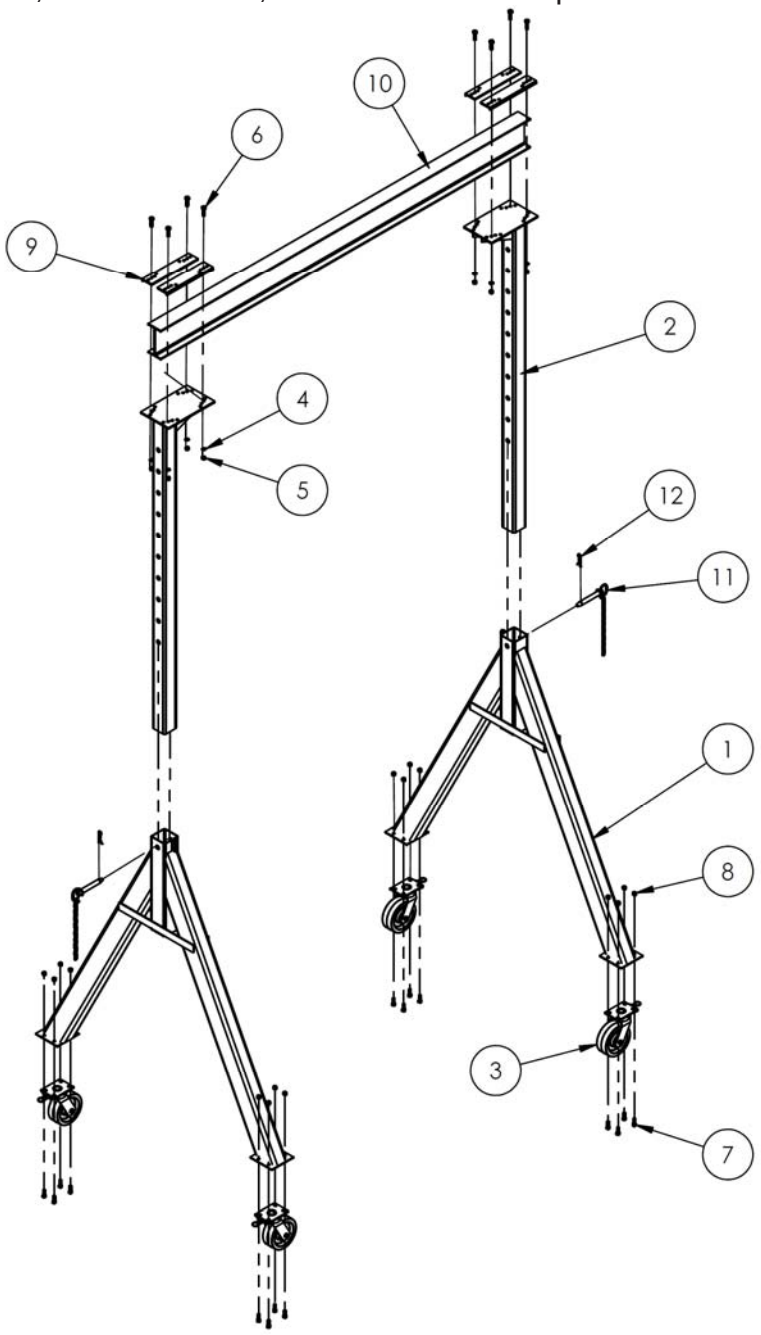
Item no.	Part no.	Description	Quantity
1		Frame, leg assembly:	
	28-514-148	BAHS-6-15-7	2
	28-514-147	BAHS-6-15-9	2
	28-514-146	BAHS-6-15-10	2
	28-514-019	BAHS-6-15-12	2
	28-514-020	BAHS-6-15-14	2
	28-514-020	BAHS-6-15-16	2
2		Assembly frame, upright:	
	28-514-151	BAHS-6-15-7	2
	28-514-150	BAHS-6-15-9	2
	28-514-149	BAHS-6-15-10	2
	28-514-009	BAHS-6-15-12	2
	28-514-010	BAHS-6-15-14	2
	28-514-124	BAHS-6-15-16	2
3	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. -13 A325 structural nut	8
6	19211-B	½ in. -13 x 2in. A325 structural bolt	8
7	33624	$^{7}/_{16}$ in. – 14 zinc-plated lock washer	16
8	13155	$^{7}/_{16}$ in. – 14 UNC x 1 in. zinc-plated HHCS #5 bolt	16
9	28-516-053	Beam clamp (either spur clamp or welded beam clamp)	4
10	28-014-391	Frame, domestic steel I-beam	1
11	28-112-027	1 in. x 6 in. retaining pin	2
12	45282	#6 hitch pin	2

FIG. I: BAHS-6-20-12, BAHS-6-20-14, & BAHS-6-20-12 Exploded Parts Diagram & Parts List



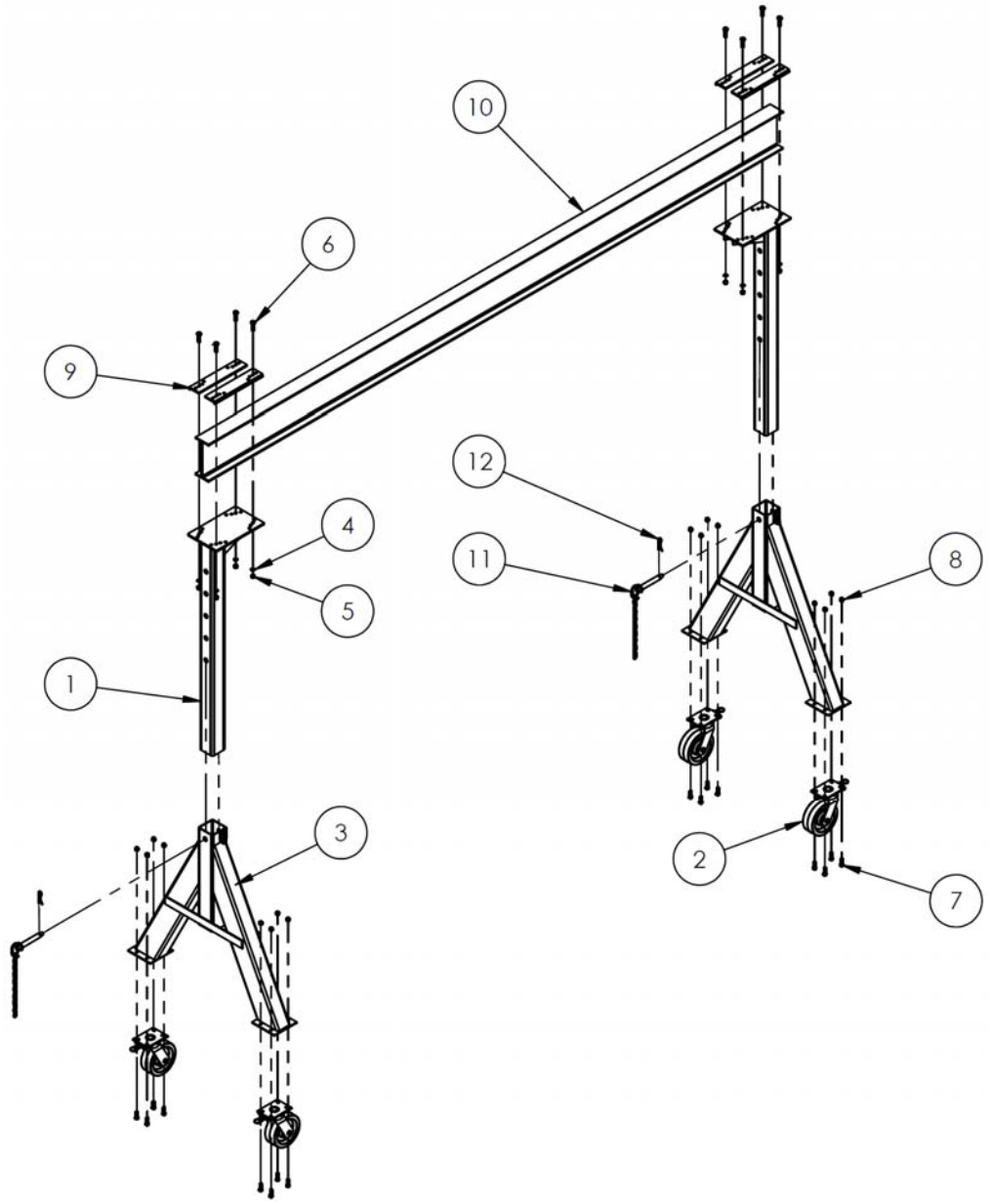
Item no.	Part no.	Description	Quantity
1	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
2	33626	1/2 in. zinc-plated lock washer	8
3	19211-A	1/2 in. – 13 A325 structural nut (part of nut and bolt combo.)	8
4	19211-B	1/2 in. – 13 x 2 in. structural bolt (part of nut and bolt combo.)	8
5	33624	7/16 in. zinc-plated lock washer	16
6	13155	7/16 in. – 14 UNC x 1 in. HHCS #5 zinc-plated bolt	16
7	 28-514-019 28-514-020	Frame, leg assembly, gantry crane: BAHS-6-20-12 BAHS-6-20-14 & BAHS-6-20-16	 2 2
8	28-014-417	Frame, domestic steel I-beam	1
9	 28-514-009 28-514-010 28-514-124	Assembly frame, upright: BAHS-6-20-12 BAHS-6-20-14 BAHS-6-20-16	 2 2 2
10	28-516-053	Weldment, I-beam clamp	4
11	28-113-022	Shim, top plate clamp shim	4
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. J: BAHS-8-10-12, BAHS-8-10-14, & BAHS-8-10-16 Exploded Parts Diagram & Parts List



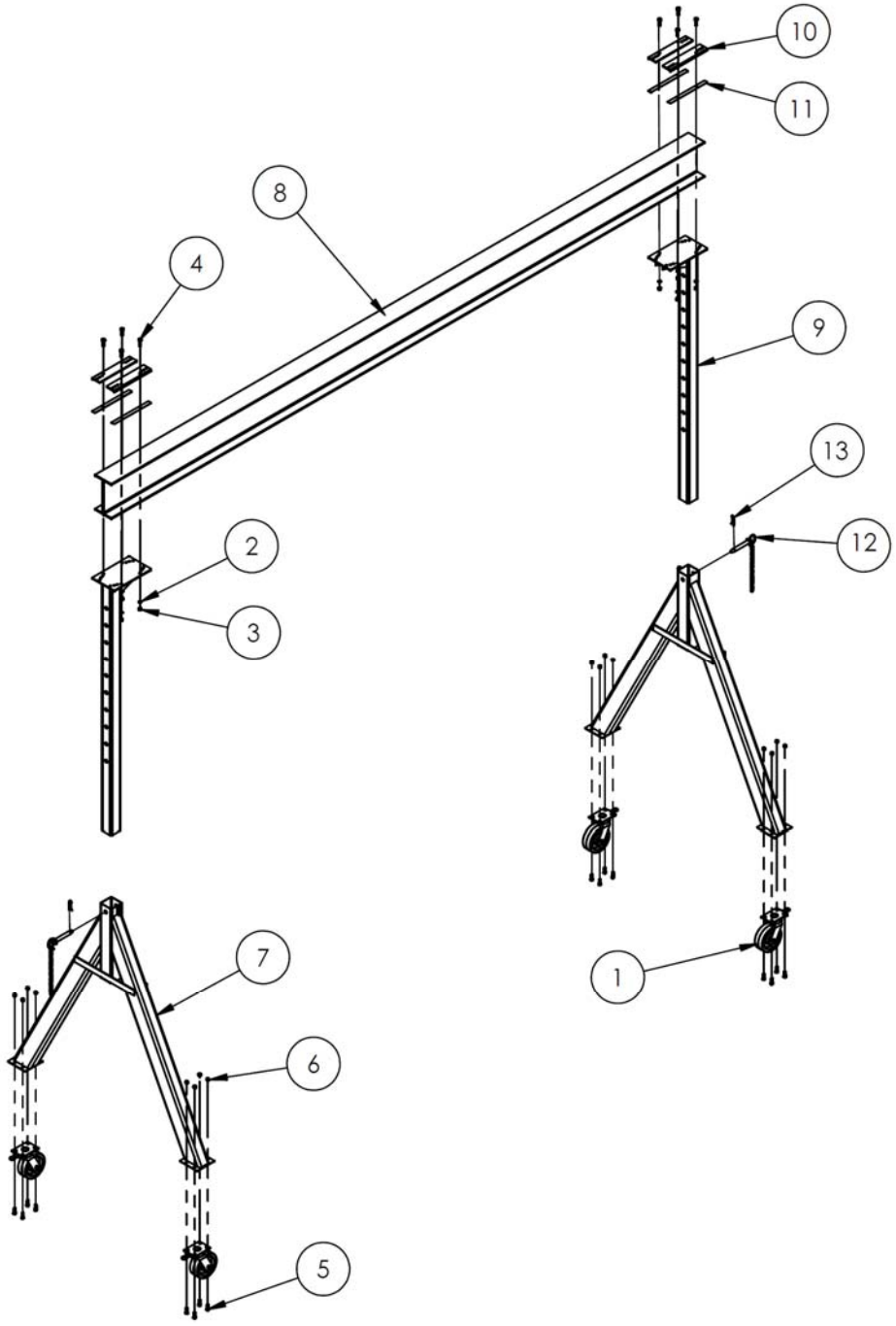
Item no.	Part no.	Description	Quantity
1		Frame, leg assembly:	
	28-514-122	BAHS-8-10-12	2
	28-514-123	BAHS-8-10-14	2
	28-514-123	BAHS-8-10-16	2
2		Assembly frame, upright:	
	28-514-009	BAHS-8-10-12	2
	28-514-010	BAHS-8-10-14	2
	28-514-124	BAHS-8-10-16	2
3	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. -13 A325 structural nut	8
6	19211-B	½ in. -13 x 2in. A325 structural bolt	8
7	11209	½ in. – 13 x 1½ in. zinc-plated HHCS #2 bolt	16
8	37030	½ in. – 13 nylon insert lock nut	16
9	28-516-053	Weldment, I-beam clamp	4
10	28-014-387	Frame, domestic steel I-beam	1
11	28-112-027	1 in. x 6 in. retaining pin	2
12	45282	#6 hitch pin	2

FIG. K: BAHS-8-15-7, BAHS-8-15-9, BAHS-8-15-10, BAHS-8-15-12, BAHS-8-15-14, & BAHS-8-15-16 Exploded Parts Diagram & Parts List



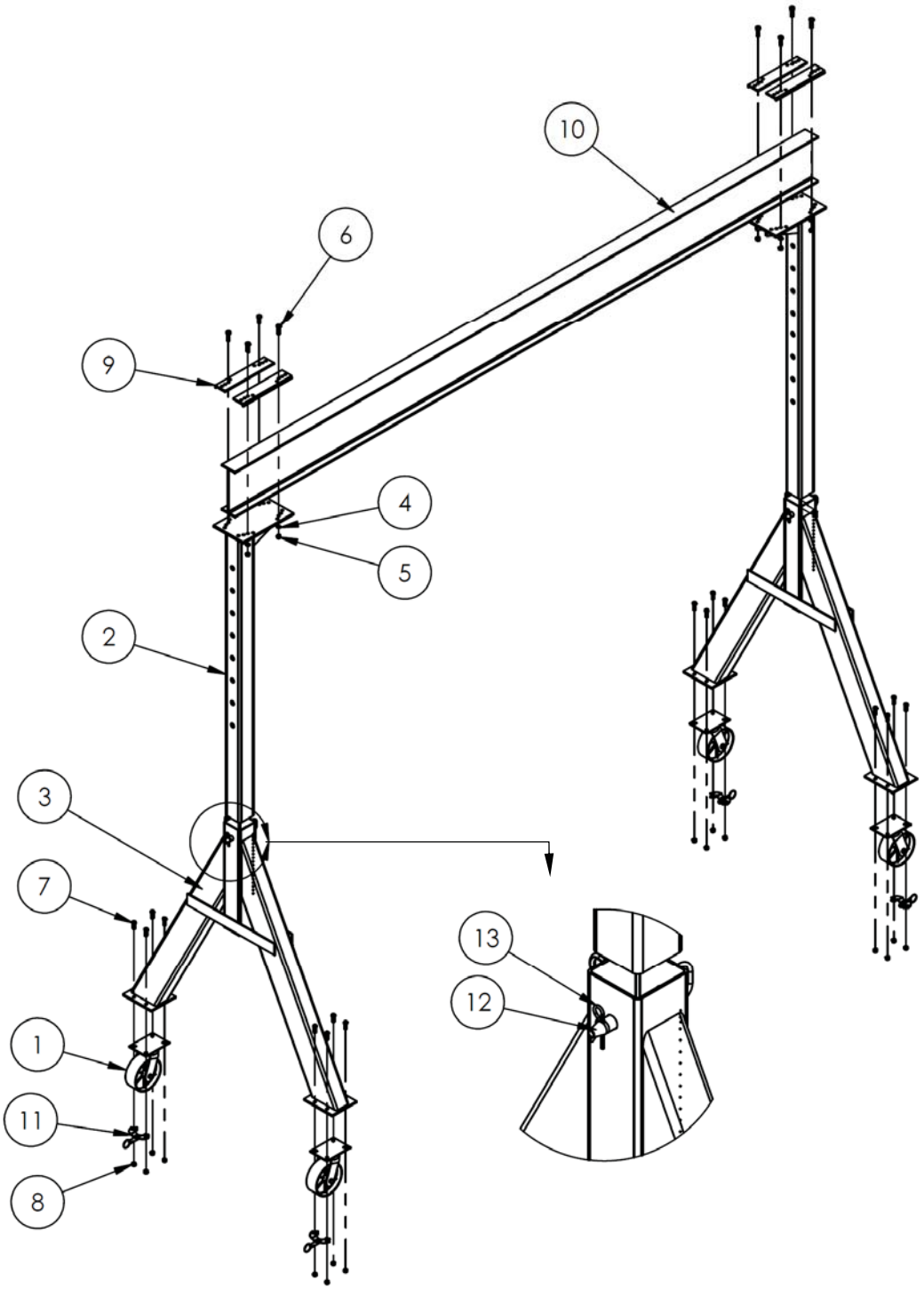
Item no.	Part no.	Description	Quantity
		Assembly frame, upright:	
	28-514-151	BAHS-8-15-7	2
	28-514-150	BAHS-8-15-9	2
1	28-514-149	BAHS-8-15-10	2
	28-514-009	BAHS-8-15-12	2
	28-514-010	BAHS-8-15-14	2
	28-514-124	BAHS-8-15-16	2
2	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
		Frame, leg assembly:	
	28-514-155	BAHS-8-15-7	2
	28-514-154	BAHS-8-15-9	2
3	28-514-153	BAHS-8-15-10	2
	28-514-122	BAHS-8-15-12	2
	28-514-123	BAHS-8-15-14	2
	28-514-123	BAHS-8-15-16	2
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. -13 A325 structural nut	8
6	19211-B	½ in. -13 x 2in. A325 structural bolt	8
7	11209	½ in. – 13 x 1½ in. zinc-plated HHCS #2 bolt	16
8	37030	½ in. – 13 nylon insert lock nut	16
9	28-516-053	Weldment, I-beam clamp	4
10	28-014-391	Frame, domestic steel I-beam	1
11	28-112-027	1 in. x 6 in. retaining pin	2
12	45282	#6 hitch pin	2

FIG. L: BAHS-8-20-12, BAHS-8-20-14, & BAHS-8-20-16 Exploded Parts Diagram & Parts List



Item no.	Part no.	Description	Quantity
1	16-132-064	8 in. x 3 in. phenolic 4-way swivel lock caster	4
2	33626	1/2 in. zinc-plated lock washer	8
3	19211-A	1/2 in. – 13 A325 structural nut (part of nut and bolt combo.)	8
4	19211-B	1/2 in. – 13 x 2in. A325 structural bolt (part of nut and bolt combo.)	8
5	11209	1/2 in. – 13 1 1/2 in. HHCS #2 zinc-plated bolt	16
6	37030	1/2 in. – 13 nylon insert lock nut	16
7	 28-514-122 28-514-123	Frame, leg assembly: BAHS-8-20-12 BAHS-8-20-14 & BAHS-8-20-16	 2 2
8	28-014-417	Frame, domestic steel I-beam	1
9	 28-514-009 28-514-010 28-514-124	Assembly frame, upright: BAHS-8-20-12 BAHS-8-20-14 BAHS-8-20-16	 2 2 2
10	28-516-053	Weldment, I-beam clamp	4
11	28-113-022	Shim, top plate clamp shim	5
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

FIG. M: BAHS-10-15-10 Exploded Parts Diagram & Parts List



Item no.	Part no.	Description	Quantity
1	16-132-243	8 x 3 ductile steel caster	4
2	28-514-157	Assembly frame, upright	2
3	28-514-156	Frame, leg assembly	2
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in. -13 A325 structural nut	8
6	19211-B	½ in. -13 x 2in. A325 structural bolt	8
7	11209	½ in. – 13 x 1½ in. zinc-plated HHCS #2 bolt	16
8	37030	½ in. – 13 nylon insert lock nut	16
9	28-516-053	Beam clamp (either spur clamp or welded beam clamp)	4
10	28-014-393	Frame, domestic steel I-beam	1
11	16-132-305	Batwing, caster position lock	4
12	28-112-027	1 in. x 6 in. retaining pin	2
13	45282	#6 hitch pin	2

Assembly Instructions:

WARNING 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 assemble the crane if you fully understand both the associated risks and the manufacturer-approved assembly procedure discussed below.

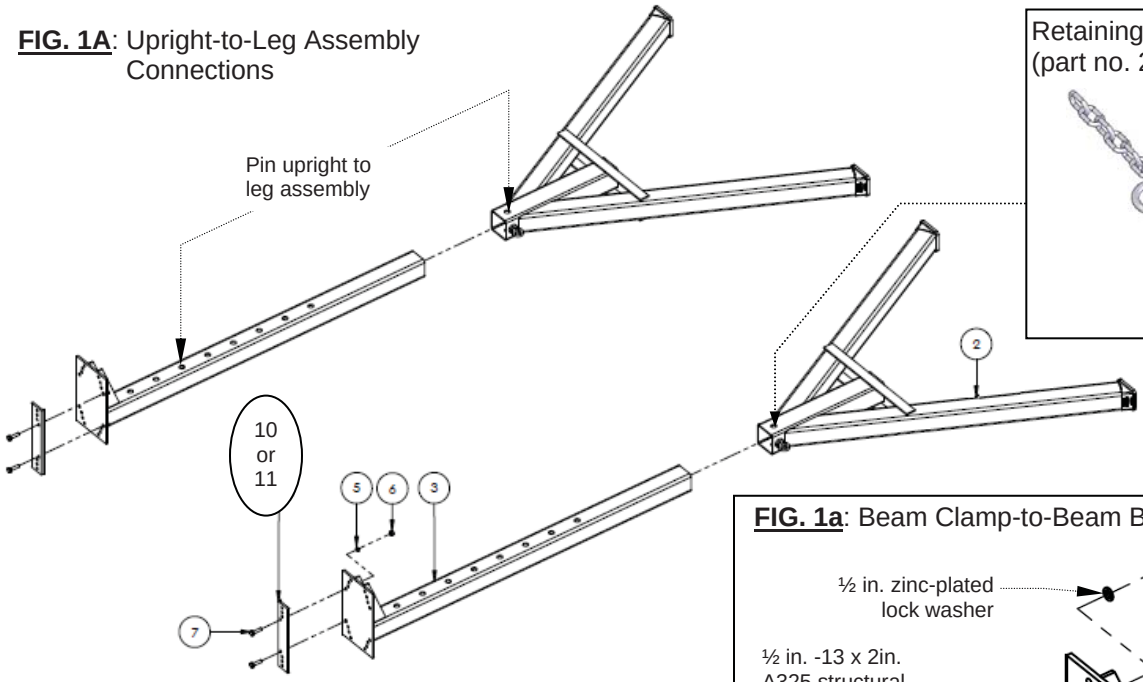
- Failure to apply the assembly procedure described in Steps 1-6 below constitutes misuse of the product.
- ONLY qualified personnel should assemble the crane.
- **DO NOT** modify the crane in any way unless and until you receive written approval from Beacon .
- **DO NOT** use the crane if you notice damage to or deformation of the beam, uprights, or any component of either of the leg assemblies. Using the crane despite weakness of a structural component could result in crane collapse.
- **DO NOT** use the crane if any of the hardware (bolts, nuts, clamps, etc.) is damaged; you could sustain serious injuries if the crane collapses. Contact Beacon to order replacement parts.
- **DO NOT** use the crane if any of the casters is damaged. A damaged caster may cause the crane to tip over while hoisting or supporting a load.

NOTICE

- Modifying the crane in any way without first receiving written approval of the modification from Beacon automatically voids the limited warranty.
- The crane is designed for both indoor and outdoor use. However, it should be sheltered from the weather when not in use.
- Inspect the crane for damage before each use.

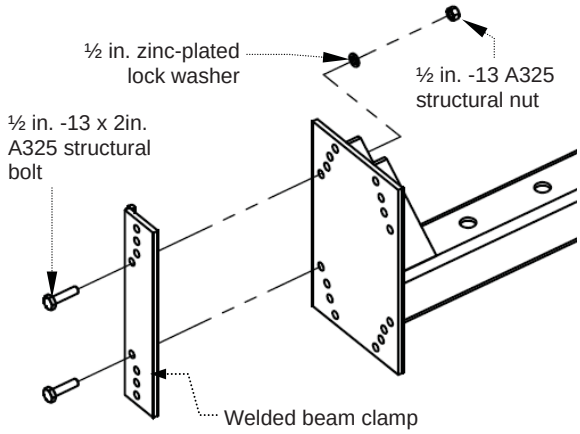
Step 1A: Fasten the uprights to the leg assemblies (FIG. 1A); then fasten two beam clamps to the beam bracket (FIG. 1a shows diagram for All BAHS models except those listed in Step 1B). Lay the leg assemblies (2) flat on the ground. Then, slide the uprights (3) into the corresponding sleeves of the leg assemblies. Insert the telescoping tubes (uprights) until the 3rd pinhole in the uprights aligns with the pinhole in the leg assemblies as indicated in Fig. 1A below. Each upright must be pinned to a leg assembly through the same pinhole (diagram below shows pinning through 3rd pinhole). To pin an upright to a leg assembly, use a 1 in. x 6 in. retaining pin (see exploded parts diagram that corresponds to your crane model).

FIG. 1A: Upright-to-Leg Assembly Connections



Retaining pin (part no. 28-112-027)

FIG. 1a: Beam Clamp-to-Beam Bracket Connection



Step 1B: [Models BAHS-6-20-12, BAHS-6-20-14, BAHS-6-20-16, BAHS-8-20-12, BAHS-8-20-14 & BAHS-8-2016] Fasten the uprights to the leg assemblies; then fasten two beam clamps to the beam bracket.
Lay the leg assemblies on the ground. Then, slide the uprights into the leg channels of the leg assemblies. Insert the telescoping tubes (uprights) until the 3rd pinhole in the uprights aligns with the pinhole in the leg assemblies as indicated in Fig. 1B below. Each upright must be pinned to a leg assembly through the same pinhole (diagram below shows pinning through 3rd pinhole). To pin an upright to a leg assembly, use a 1 in. x 6 in. retaining pin (see exploded parts diagram that corresponds to your crane model).

FIG. 1B: Upright-to-Leg Assembly Connections

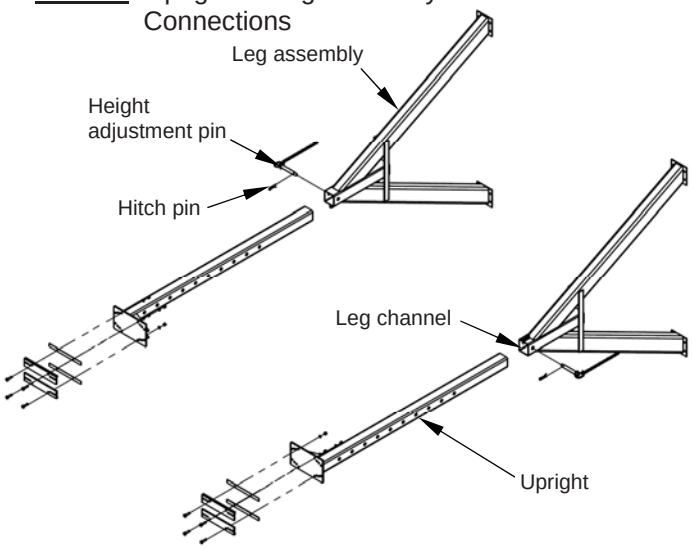
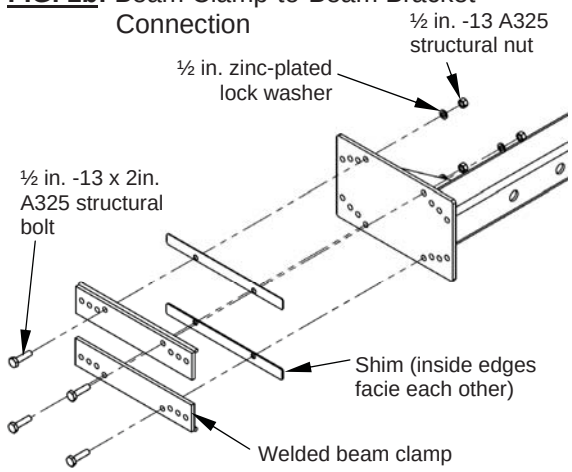
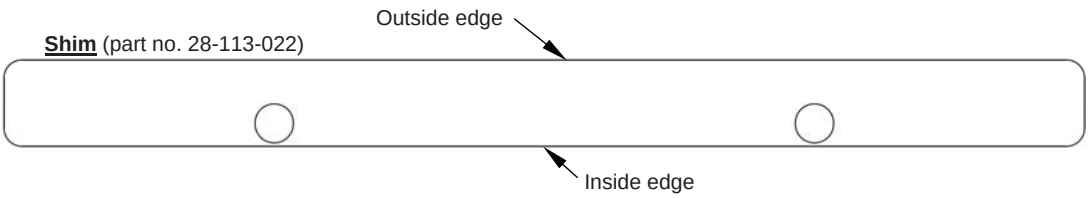


FIG. 1b: Beam Clamp-to-Beam Bracket Connection

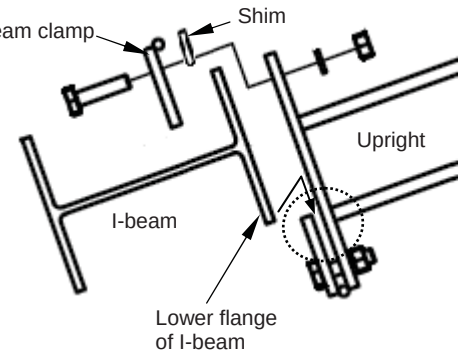




Step 2: Fasten I-beam to uprights. [NOTE: Shim only present in models BAHS-6-20-12, BAHS-6-20-14, BAHS-6-20- 16, BAHS-8-20-12, BAHS-8-20-14 & BAHS-8-2016.]
Insert the flange of the I-beam into the gap between the beam clamp and the top of the uprights (circled in FIG. 2B below); then clamp the flange on the opposite side of the beam to the beam bracket with the remaining beam clamps as shown in the diagram below.

FIG. 2A: End View of I-beam Connection to Beam Bracket of Upright

FIG. 2B: Clamp the I-beam to the tops of the uprights



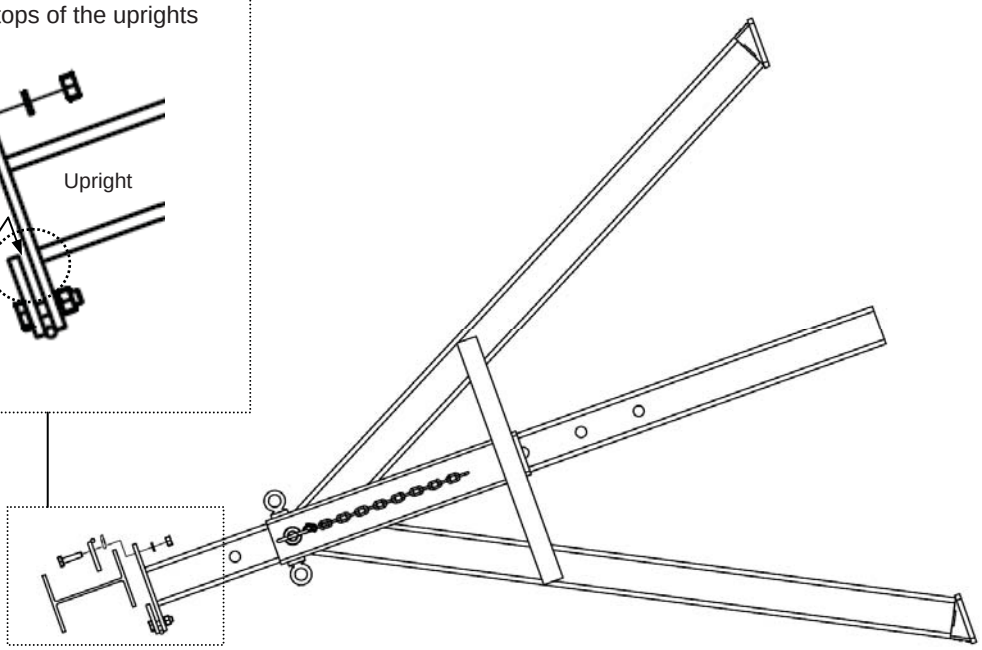


FIG. 2C: Exploded Parts View of Beam Clamp Connection to Beam Bracket

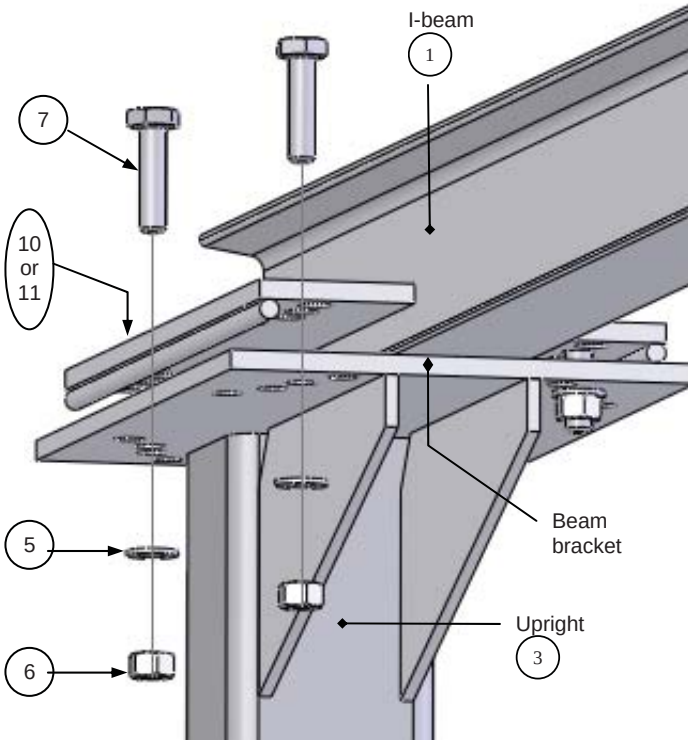
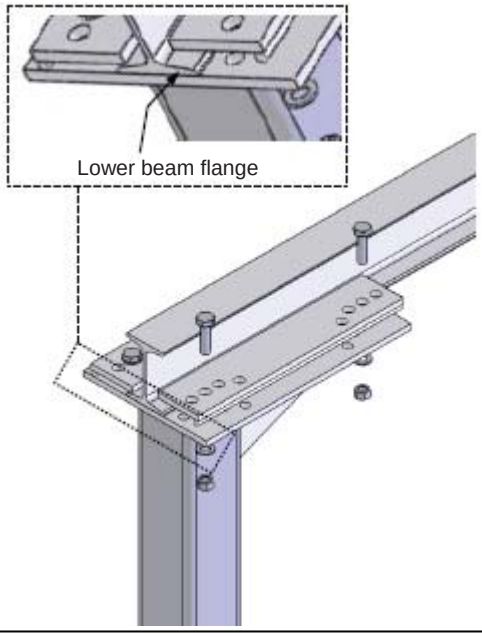


FIG. 2D: Top view of beam connection to upright



*Item no.	Part no.	Description	Quantity
5	33626	½ in. lock washer	8
6	19211-A	½ in. – 13 structural nut	8
7	19211-B	½ in. – 13 x 2 in. bolt	8
10 or 11	28-516-053	Welded beam clamp	4

*Item numbers match item numbers from exploded parts diagrams on p. 5 - 17.

FIG. 2E: Beam clamp connection to beam bracket [Models BAHS-6-20-12, BAHS-6-20-14, BAHS-6-20-16, BAHS-8-20- 12, BAHS-8-20-14 & BAHS-8-2016]

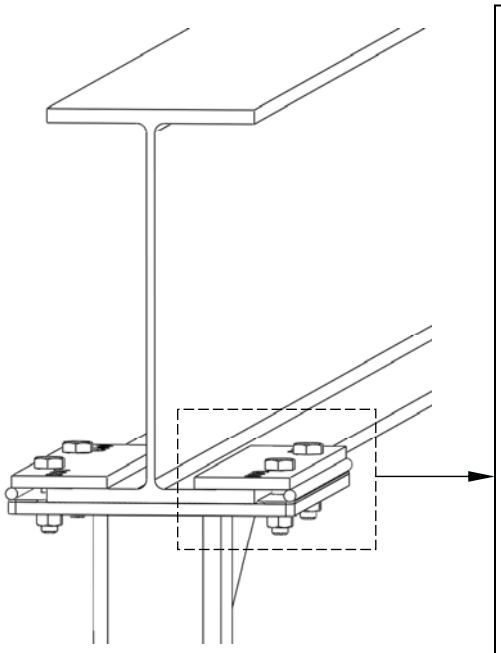
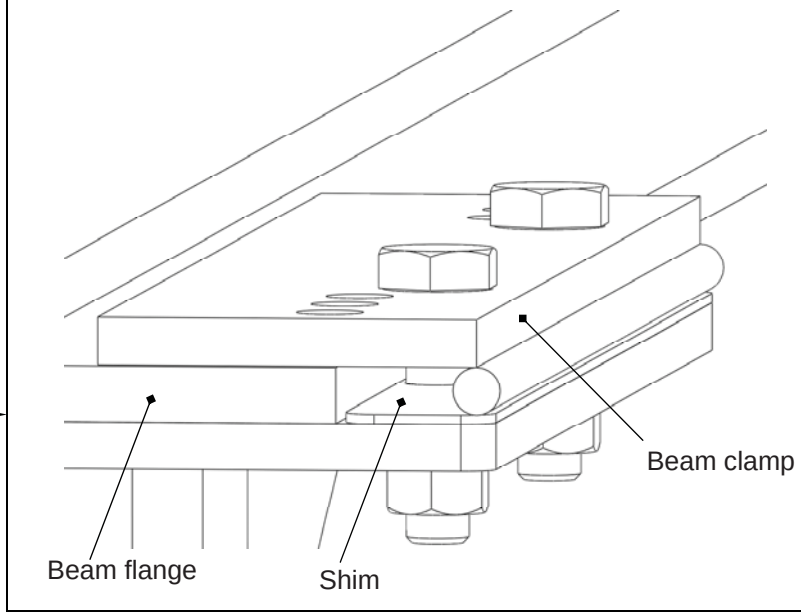


FIG. 2f: Close-up view of connection including shim



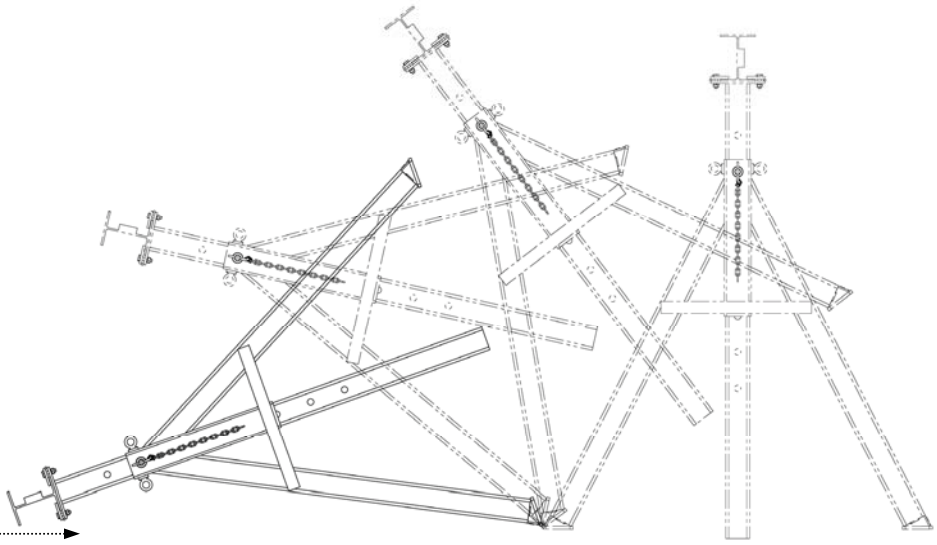
Step 3: Tighten the beam clamp fasteners to 50 - 52 ft·lb of torque.

Step 4: Stand the crane on its feet.
Rotate the crane onto its feet in a *controlled* manner. For instance, attach a hoist chain to the I-beam and then *slowly* raise the beam until the crane rotates to stand on its feet. Alternatively, raise the crane with a fork truck. Position the forks under the I-beam and slowly raise the beam until the crane rotates onto its feet in a controlled manner.

Approach the crane with a fork truck from this side, and slide the forks under the I-beam.

Slowly raise the beam and slowly drive forward until the crane stands on its feet.

WARNING DO NOT raise the beam unless all other persons have moved to a location away from and behind the fork truck.



Step 5: Connect the casters to the legs (instructions show standard casters).
Attach each caster to the foot of each leg using the hardware shown in Fig. 5B. Raise the crane 8 to 10 inches off of the ground with a fork lift or hoist. Position a caster underneath each foot as shown in Figures 5A & 5B below. Slide a lock washer (8) followed by a flat washer (10) onto a 1-1/4in. bolt (5), and feed the bolt up through the bolt holes in the caster and foot cap (photo D). Put a lock washer (8) onto the bolt and fasten a nut (7) to the end of the bolt.

Fig. 5A: Caster attachment

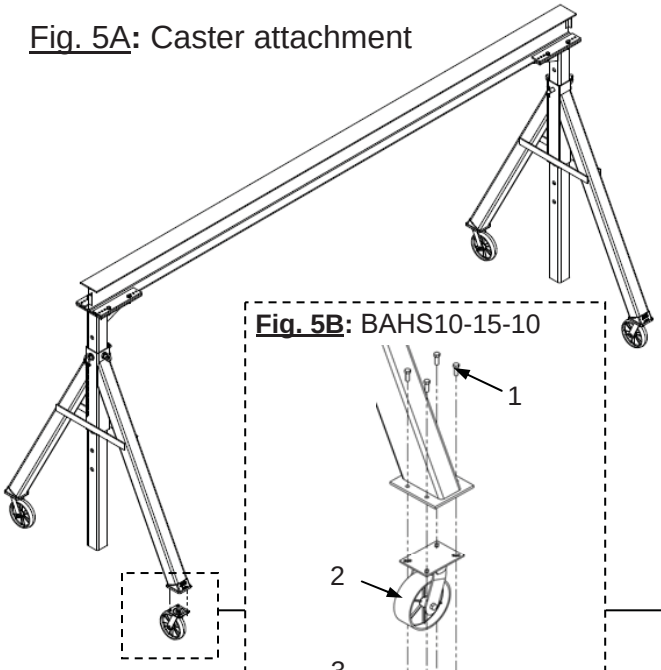
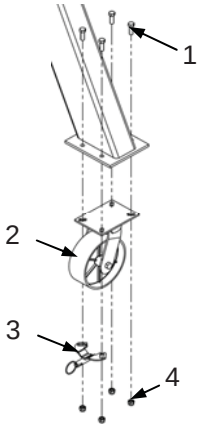
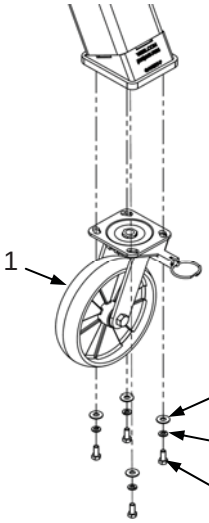


Fig. 5B: BAHS10-15-10



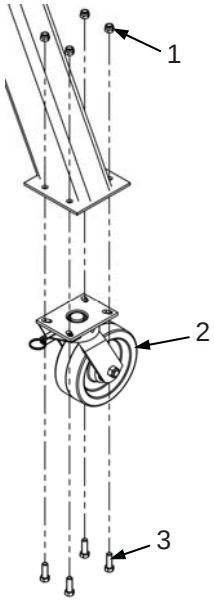
1 ½ in. – 13 x 2in. HHCS #5 zinc-plated bolt
2 Ø8in. x 3in. ductile steel caster
3 Batwing caster position lock
4 ½ in. – 13 lock nut

Fig. 5C: BAHS 2k and 4k models



2 Leg Assembly
4 GFN-8/2-S caster
8 5/16 in. zinc-plated lock washer
9 5/16 in. – 18 x ¾ in. HHCS #2 zinc-plated bolt
10 5/16 in. zinc-plated USS flat

Fig. 5D: BAHS 6k & 8k models



1 1/2in. -13 nylon insert lock nut
2 8in. x 3in. phenolic 4-way swivel lock caster
8 1/2in. -13 x 1 1/2in. HHCS #2 zinc-plated bolt

Use Instructions:

Before using the crane for the first time, perform the “Initial Inspection” described on p. 24.

⚠WARNING Crane operators are responsible for operating the crane in a safe manner. To reduce the likelihood of serious personal injuries or death resulting as a consequence of negligent operation:

- Only qualified, designated crane operators should use this device. The operating instructions in this manual *supplement* safe crane and hoist operation practices learned during your training program.
- ALWAYS apply the safe material handling practices learned during your training program (for example, practical operating examination).
- All personnel not participating in crane use must stay out of the crane operation area during use. 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 to remain at a safe distance during 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.
- BEFORE the load is connected to the hoist, lock or immobilize the casters (for instance with chocks).
- 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; 2) if you observe any warping or deformation of the beam, the uprights, the load hook or chain (or cable).

Height adjustment:

Support the I-beam so that the height adjustment pins can be removed, for instance with the tines of a fork truck or by attachment to an overhead hoist. Raise the beam to the desired height; then pin the uprights to the leg assemblies. Each pin must extend completely through the leg assemblies (see Fig. 6).

Proper loading:

Position the trolley and hoist directly above the load. Proper centering requires the operator to center the trolley and hoist above the center of the load as well as to position the long axis of the I-beam above the center of the load. Proper positioning is diagrammed below in Fig 7.

FIG. 7: Proper Load Lifting

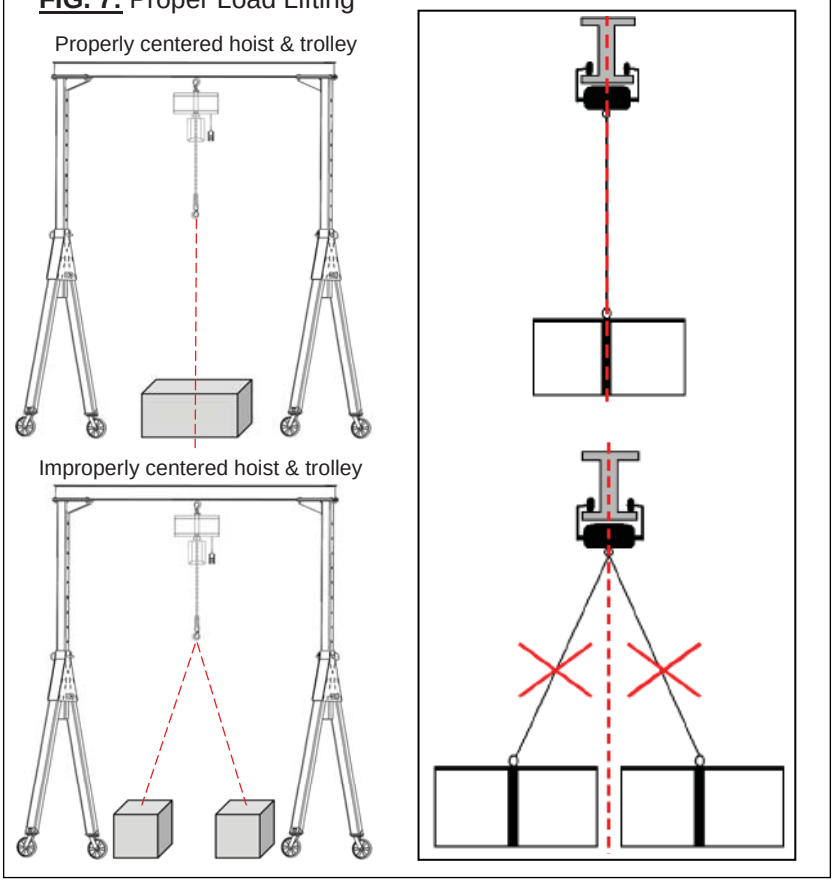
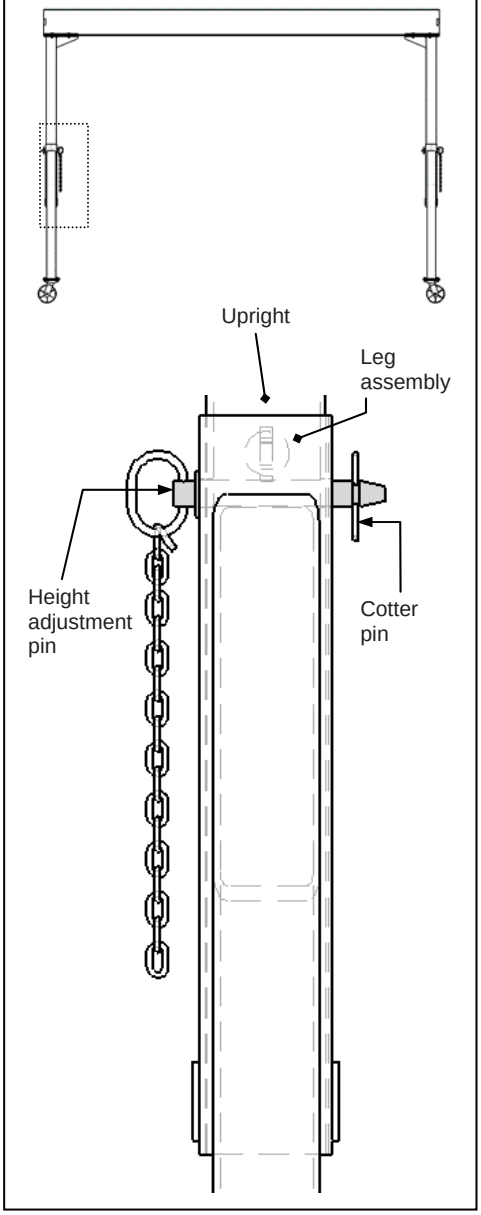


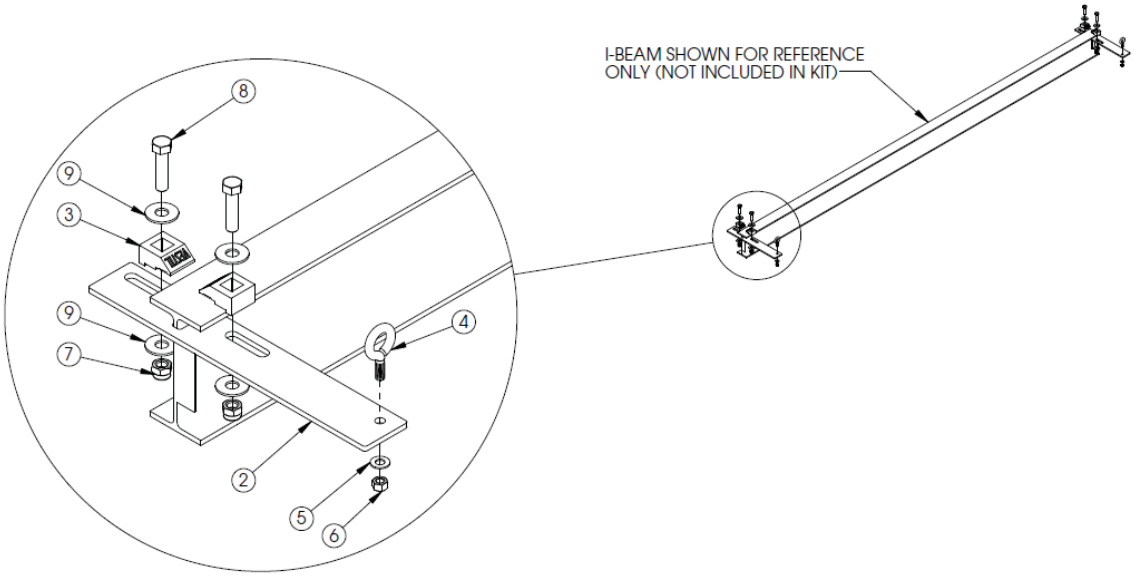
Fig. 6: Pin upright at selected height



Connect the load to the hoist chain/cable, according to the instructions supplied with your hoist and the method applied at your work site; then raise the load only as high as is necessary to position it. 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. Return the crane and hoist to their storage locations.

If you must move the load to a different location, return the load to the ground or other supporting surface, e.g. pallet, and disconnect it from the hoist. **Move the crane and load separately to the desired work location. Only use the crane to lift loads**.

Festoon Kit (option)



Item no.	Part no.	Description	Quantity
2	28-016-169	Hold down plate	2
3	28-145-002	I-beam clamp	4
4	42234	$^3/_8$ in. -16 x 1in. turned eye bolt	2
5	33008	$^3/_8$ in. zinc-plated flat washer	2
6	36106	$^3/_8$ in. -16 zinc-plated hex nut	2
7	37030	$^1/_2$ in. – 13 nylon insert lock nut	4
8	11211	$^1/_2$ in. – 13 x 2 in. HHCS zinc-plated bolt	4
9	33012	$^1/_2$ in. zinc-plated USS flat washer	8
10	45503	$^1/_8$ in. wire rope (1 in. longer than 1-beam)	1
11	34785T4	Quick-grip wire rope clamp	2
12	CV200	Plastic cable tie	7
13	O-RING15	Metal ring	6
14	FCOIL 143-001	Coiled power cord	1

Inspections and Maintenance:

Owner(s)/end-user(s) of the crane should apply Occupational Safety and Health Administration (OSHA) crane inspection procedures (see 29 CFR 1910.179 by visiting http://www.osha.gov/ and navigate to “Regulations”; then to “General Industry” standards, section 1910.179. However, the end-user should realize that occupational safety and health laws and regulations of the state where the crane is used, rather than federal OSHA regulations, are controlling authority). 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 (wheels/casters, 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, 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.

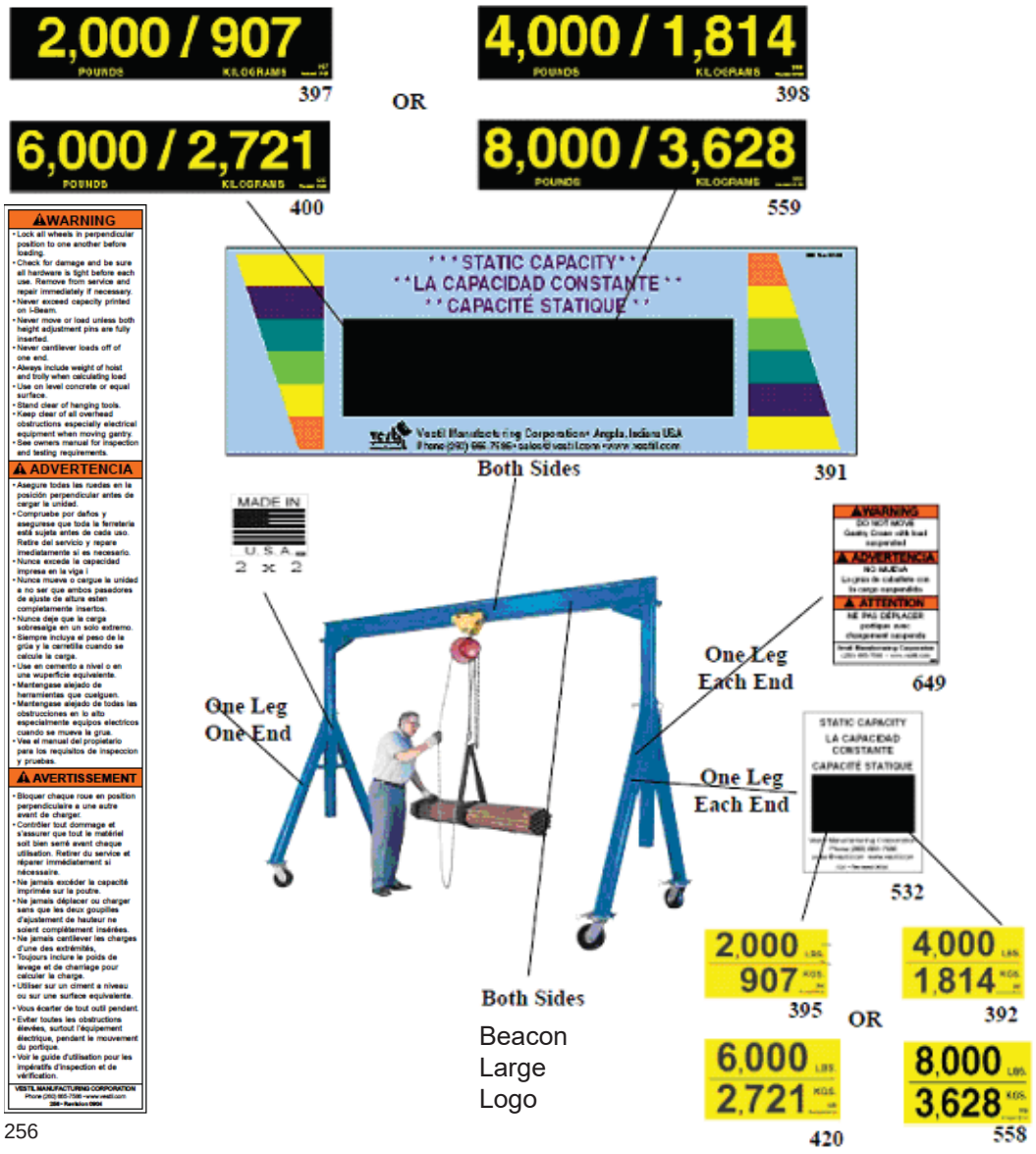
3. **Periodic inspection** [29 CFR 1910.179(j)(1)(ii)(b)] — 1 to 12-month intervals.
   Complete inspections of the crane shall be performed at intervals depending upon its activity, severity of service, and environment, or as specifically indicated below. Perform all of the requirements described for 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 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 “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).

Product Markings and Labels:

NOTE: Periodically inspect the labels affixed to the product. Clean the labels as necessary to maintain legibility from a reasonable viewing distance. Contact the manufacturer for replacement labels.



LIMITED WARRANTY

Beacon Industries, Inc. ("Beacon") warrants this product to be free of defects in material and workmanship during the warranty period. *Our warranty obligation is to provide a replacement for a defective original part **if** the part is covered by the warranty, after we receive a proper request from the warrantee (you) for warranty service*.

Who may request service?
Only a warrantee may request service. *You are a warrantee **if*** you purchased the product from Beacon or from an authorized distributor AND Beacon 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 Beacon receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by any of the following methods:

Mail	Fax	Email
Beacon Industries, Inc.	(314) 487-0100	sales@beacontechnology.com
12300 Old Tesson Rd.	Phone	
St. Louis, MO 63128	(314) 487-7600	

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 Beacon 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, Beacon 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 components is 90 days. The warranty period begins on the date when Beacon ships the product to the warrantee. If the product was purchased from an authorized distributor, the period begins when the distributor ships the product. Beacon may extend the warranty period for products shipped from authorized distributors by *up to* 30 days to the duration necessary to account for shipping time.

If a defective part is covered by the warranty, what will Beacon do to correct the problem?
Beacon will provide an appropriate replacement for any *covered* part. An authorized representative of Beacon 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 Beacon. 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?
Beacon Industries, Inc. 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.