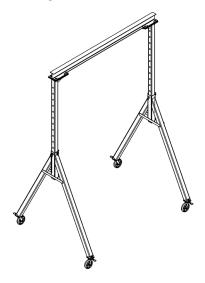


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# AHS-Series Steel Adjustable-Height Gantry Cranes



#### **Receiving Instructions**

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

**NOTE:** The end-user is solely responsible for confirming that product design, use, and maintenance comply with laws, regulations, codes, and mandatory standards applied where the product is used.

#### **Technical Service & Replacement Parts**

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

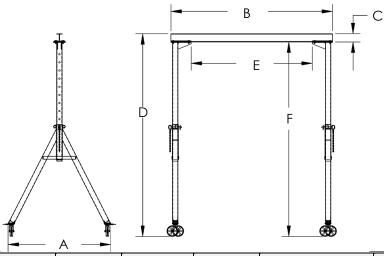
#### **Electronic copies of Instruction Manuals**

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

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#### **SPECIFICATIONS**

Dimensions, net weight, and capacity information for each AHS-series crane are provided in the tables on pages 2 & 3. However, product design changes might alter specifications, particularly dimensions and net weight, for 1 or more model. Specifications documents for AHS-series cranes are provided on Vestil's website. To access the appropriate specifications document, navigate to the relevant webpage: <a href="https://www.vestil.com/product.php?FID=517">https://www.vestil.com/product.php?FID=517</a>. Click the "Product Specifications Table" drop-down menu bar partway down the page. Scroll down to the entry for the model you purchased and click the button in the column titled "PDF's" that looks like a pencil inside a box. A PDF file will open. This file is the specifications document. Print a copy of the document and keep it with your copy of this manual. The following is an exemplar specifications document. NOTE: 1 or more models listed in the following tables might be discontinued between revisions of this manual.



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
AHS-2-10-12	76 <sup>1</sup> / <sub>8</sub> in.	119³/₄in.	6 in.	149 <sup>15</sup> / <sub>16</sub> in.	89³/₄in.	(90 – 144)in.	2,000 lb.	753.5 lb.
	193.4 cm	304.2 cm	15.2 cm	380.8 cm	228.0 cm	(228.6 – 365.8)cm	909 kg	342.5kg
	88 <sup>1</sup> / <sub>2</sub> in.	119 <sup>3</sup> / <sub>4</sub> in.	6 in.	174 <sup>1</sup> / <sub>16</sub> in.	89 <sup>3</sup> / <sub>4</sub> in.	(102 – 168)in.	2,000 lb.	832.4 lb.
AHS-2-10-14	224.8 cm	304.2 cm	15.2 cm	442.1 cm	228.0 cm	(259.1 – 426.7)cm	909 kg	378.4 kg
AHS-2-10-16	88 <sup>1</sup> / <sub>2</sub> in.	119³/₄in.	6 in.	1981/16in.	89³/₄in.	(126 – 192)in.	2,000 lb.	881.0 lb.
	224.8 cm	304 cm	15.2 cm	503.1 cm	228.0 cm	(320.0 – 487.7)cm	909 kg	400.4 kg
AHS-2-15-7	46³/ <sub>8</sub> in.	179³/₄in.	6 in.	90³/16 in.	149³/₄in.	(60 - 84)in.	2,000 lb.	620.9 lb.
	117.8 cm	456.6 cm	15.2 cm	229.1 cm	380.4 cm	(152.4 - 213.4)cm	909 kg	282.2 kg
AHS-2-15-9	58³/ <sub>8</sub> in.	179³/₄in.	6 in.	114¹/₄in.	149³/₄in.	(72 – 108)in.	2,000 lb.	698.7 lb.
	148.3 cm	456.6 cm	15.2 cm	290.2 cm	380.4 cm	(183.0 – 274.3)cm	909 kg	317.6 kg
AHS-2-15-10	64 <sup>1</sup> / <sub>4</sub> in.	179³/₄in.	6 in.	126 in.	149³/₄in.	(78 – 120)in.	2,000 lb.	737.2 lb.
	163.2 cm	456.6 cm	15.2 cm	320.0 cm	380.4 cm	(198.1 – 304.8)kg	909 kg	335.1 kg
AHS-2-15-12	76 <sup>1</sup> / <sub>8</sub> in.	179³/₄in.	6 in.	149 <sup>15</sup> / <sub>16</sub> in.	149³/₄in.	(90 – 144)in.	2,000 lb.	814.0 lb.
	193.4 cm	456.6 cm	15.2 cm	380.8 cm	380.4 cm	(228.6 – 365.8)cm	909 kg	370.0 kg
AHS-2-15-14	88 <sup>1</sup> / <sub>2</sub> in.	179³/₄in.	6 in.	174 <sup>1</sup> / <sub>16</sub> in.	149³/₄in.	(102 – 168)in.	2,000 lb.	892.9 lb.
	224.8 cm	456.6 cm	15.2 cm	442.1 cm	380.4 cm	(259.1 – 426.7)cm	909 kg	405.8 kg
AHS-2-15-16	88 <sup>1</sup> / <sub>2</sub> in.	179³/₄in.	6 in.	1981/ <sub>16</sub> in.	149³/₄in.	(126 – 192)in.	2,000 lb.	941.4 lb.
	224.8 cm	456.6 cm	15.2 cm	503.1 cm	380.4 cm	(320.0 – 487.7)cm	909 kg	427.9 kg
AHS-2-20-12	76 <sup>1</sup> / <sub>8</sub> in.	239³/₄in.	10¹/ <sub>8</sub> in.	154 in.	209³/₄in.	(90 – 144)in.	2,000 lb.	972.3 lb.
	193.4 cm	609.0 cm	25.7 cm	391.2 cm	532.8 cm	(228.6 – 365.8)cm	909 kg	442.0 kg
AHS-2-20-14	88 <sup>1</sup> / <sub>2</sub> in.	239³/₄in.	10¹/ <sub>8</sub> in.	178¹/ <sub>8</sub> in.	209³/₄in.	(102 – 168)in.	2,000 lb.	1051.2 lb.
	224.8 cm	609.0 cm	25.7 cm	452.4 cm	532.8 cm	(259.1 – 426.7)cm	909 kg	477.8 kg
AHS-2-20-16	88 <sup>1</sup> / <sub>2</sub> in.	239³/₄in.	10¹/8 in.	202 <sup>1</sup> / <sub>8</sub> in.	209³/₄in.	(126 – 192)in.	2,000 lb.	1099.8 lb.
	224.8 cm	609.0 cm	25.7 cm	513.4 cm	532.8 cm	(320.0 – 487.7)cm	909 kg	499.9 kg
AHS-4-10-12	76 <sup>1</sup> / <sub>8</sub> in.	119³/₄in.	8 <sup>1</sup> / <sub>8</sub> in.	152 in.	89³/₄in.	(90 – 144)in.	4,000 lb.	783.7 lb.
	193.4 cm	304.2 cm	20.6 cm	386.1 cm	228.0 cm	(228.6 – 365.8)cm	1,818 kg	356.2 kg
AHS-4-10-14	88 <sup>1</sup> / <sub>2</sub> in.	119³/₄in.	81/8 in.	176¹/ <sub>8</sub> in.	89³/₄ in.	(102 – 168)in.	4,000 lb.	862.6 lb.
	224.8 cm	304.2 cm	20.6 cm	447.4 cm	228.0 cm	(259.1 – 426.7)cm	1,818 kg	392.1 kg
AHS-4-10-16	88 <sup>1</sup> / <sub>2</sub> in.	119³/₄in.	8 <sup>1</sup> / <sub>8</sub> in.	200 <sup>1</sup> / <sub>8</sub> in.	89³/₄in.	(126 – 192)in.	4,000 lb.	911.1 lb.
	224.8 cm	304 cm	20.6 cm	508.3 cm	228.0 cm	(320.0 – 487.7)cm	1,818 kg	414.1 kg
AHS-4-15-7	46³/ <sub>8</sub> in.	179³/₄in.	8 <sup>1</sup> / <sub>8</sub> in.	92¹/₄in.	149³/₄in.	(60 - 84)in.	4,000 lb.	666.1 lb.
	117.8 cm	456.6 cm	20.6 cm	234.3 cm	380.4 cm	(152.4 - 213.4)cm	1,818 kg	302.8 kg
AHS-4-15-9	58 <sup>3</sup> / <sub>8</sub> in.	179³/₄in.	8 <sup>1</sup> / <sub>8</sub> in.	116 <sup>5</sup> / <sub>16</sub> in.	149³/₄in.	(72 – 108)in.	4,000 lb.	743.9 lb.
	148.3 cm	456.6 cm	20.6 cm	295.4 cm	380.4 cm	(183.0 – 274.3)cm	1,818 kg	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
AHS-4-15-10	64 <sup>1</sup> / <sub>4</sub> in.	179 <sup>3</sup> / <sub>4</sub> in.	8 <sup>1</sup> / <sub>8</sub> in.	128 <sup>5</sup> / <sub>16</sub> in.	149³/₄in.	(78 – 120)in.	4,000 lb.	782.5 lb.
	163.2 cm 76 <sup>1</sup> / <sub>8</sub> in.	456.6 cm	20.6 cm	325.9 cm 152 in.	380.4 cm	(198.1 – 304.8)kg (90 – 144)in.	1,818 kg 4,000 lb.	355.7 kg
AHS-4-15-12	193.4 cm	179³/₄in. 456.6 cm	8¹/ <sub>8</sub> in. 20.6 cm	386.1 cm	149³/₄in. 380.4 cm	(90 – 144)In. (228.6 – 365.8)cm	1,818 kg	859.2 lb. 390.5 kg
	88 <sup>1</sup> / <sub>2</sub> in.	179 <sup>3</sup> / <sub>4</sub> in.	8 <sup>1</sup> / <sub>8</sub> in.	176 <sup>1</sup> / <sub>8</sub> in.	149 <sup>3</sup> / <sub>4</sub> in.	(102 – 168)in.	4,000 lb.	938.1 lb.
AHS-4-15-14	224.8 cm	456.6 cm	20.6 cm	447.4 cm	380.4 cm	(259.1 – 426.7)cm	1,818 kg	426.4 kg
AHS-4-15-16	88 <sup>1</sup> / <sub>2</sub> in.	179³/₄in.	81/8 in.	200¹/ <sub>8</sub> in.	149³/₄in.	(126 – 192)in.	4,000 lb.	986.6 lb.
	224.8 cm	456.6 cm	20.6 cm	508.3 cm	380.4 cm	(320.0 – 487.7)cm	1,818 kg	448.5 kg
AHS-4-20-12	76 <sup>1</sup> / <sub>8</sub> in. 193.4 cm	239³/₄in. 609.0 cm	12³/ <sub>16</sub> in. 30.0 cm	156 in. 396.2 cm	209³/₄in. 532.8 cm	(90 - 144)in. (228.6 - 365.8)cm	4,000 lb. 1,818 kg	1011.9 lb. 459.9 kg
	88 <sup>1</sup> / <sub>2</sub> in.	239 <sup>3</sup> / <sub>4</sub> in.	12 <sup>3</sup> / <sub>16</sub> in.	180 <sup>3</sup> / <sub>16</sub> in.	209³/₄in.	(102 – 168)in.	4,000 lb.	1090.8 lb.
AHS-4-20-14	224.8 cm	609.0 cm	30.0 cm	457.7 cm	532.8 cm	(259.1 – 426.7)cm	1,818 kg	495.8 kg
AHS-4-20-16	88¹/₂in.	239³/₄in.	12 <sup>3</sup> / <sub>16</sub> in.	204 <sup>3</sup> / <sub>16</sub> in.	209³/₄in.	(126 – 192)in.	4,000 lb.	1139.3 lb.
A113-4-20-10	224.8 cm	609.0 cm	30.0 cm	518.6 cm	532.8 cm	(320.0 – 487.7)cm	1,818 kg	517.9 kg
AHS-6-10-12	77³/ <sub>8</sub> in. 196.5 cm	119 <sup>3</sup> / <sub>4</sub> in.	$8^{1}/_{8}$ in.	153 lb.	89³/₄in.	(91 – 145)in.	6,000 lb. 2,727 kg	856.5 lb.
	89 <sup>3</sup> / <sub>4</sub> in.	304.2 cm 119 <sup>3</sup> / <sub>4</sub> in.	20.6 cm 8 <sup>1</sup> / <sub>8</sub> in.	388.6 kg 1771/8 in.	228.0 cm 89 <sup>3</sup> / <sub>4</sub> in.	(231.1 – 368.3)cm (103 – 169)in.	6,000 lb.	389.3 kg 959.1 lb.
AHS-6-10-14	228.0 cm	304.2 cm	20.6 cm	449.9 cm	228.0 cm	(261.6 – 429.3)kg	2,727 kg	436.0 kg
AHS-6-10-16	89³/₄in.	119³/₄in.	81/8 in.	201 <sup>1</sup> / <sub>8</sub> in.	89³/₄in.	(127 – 193)in.	6,000 lb.	1007.7 lb.
Ans-6-10-16	228.0 cm	304.2 cm	20.6 cm	510.9 cm	228.0 cm	(322.6 – 490.2)kg	2,727 kg	458.0 kg
AHS-6-15-7	47 <sup>5</sup> / <sub>8</sub> in.	179 <sup>3</sup> / <sub>4</sub> in.	10 <sup>1</sup> / <sub>8</sub> in.	95 <sup>1</sup> / <sub>4</sub> in.	149³/₄in.	(61 – 85)in.	6,000 lb. 2,727 kg	766.4 lb.
	121.0 cm 59 <sup>5</sup> / <sub>8</sub> in.	456.6 cm 179 <sup>3</sup> / <sub>4</sub> in.	25.7 cm 10 <sup>1</sup> / <sub>8</sub> in.	241.9 cm 119 <sup>5</sup> / <sub>16</sub> in.	380.4 cm 149 <sup>3</sup> / <sub>4</sub> in.	(154.9 – 215.9)cm (73 – 109)in.	6,000 lb.	348.4 kg 844.1 lb.
AHS-6-15-9	151.4 cm	456.6 cm	25.7 cm	303.1 cm	380.4 cm	(185.4 – 276.9)kg	2,727 kg	383.7 kg
AHS-6-15-10	65 <sup>1</sup> / <sub>2</sub> in.	179³/₄in.	10 <sup>1</sup> / <sub>8</sub> in.	131 <sup>5</sup> / <sub>16</sub> in.	149³/₄in.	(79 – 121)in.	6,000 lb.	882.7 lb.
Ап3-6-13-10	166.4 cm	456.6 cm	25.7 cm	333.5 cm	380.4 cm	(200.7 - 307.3)cm	2,727 kg	401.2 kg
AHS-6-15-12	77 <sup>3</sup> / <sub>8</sub> in.	179³/₄in.	10 <sup>1</sup> / <sub>8</sub> in.	155 in.	149³/₄in.	(91 – 145)in.	6,000 lb.	960.2 lb.
	196.5 cm 89 <sup>3</sup> / <sub>4</sub> in.	456.6 cm 179 <sup>3</sup> / <sub>4</sub> in.	25.7 cm 10 <sup>1</sup> / <sub>8</sub> in.	393.7 cm 179 <sup>1</sup> / <sub>8</sub> in.	380.4 cm 149 <sup>3</sup> / <sub>4</sub> in.	(231.1 – 368.3)cm (103 – 169)in.	2,727 kg 6,000 lb.	436.5 kg 1062.8 lb.
AHS-6-15-14	228.0 cm	456.6 cm	25.7 cm	455.0 cm	380.4 cm	(261.6 – 429.3)cm	2,727 kg	483.1 kg
AUC / 15 1/	89 <sup>3</sup> / <sub>4</sub> in.	179³/₄in.	10 <sup>1</sup> / <sub>8</sub> in.	203 <sup>1</sup> / <sub>8</sub> in.	149³/₄in.	(127 – 193)in.	6,000 lb.	1111.4 lb.
AHS-6-15-16	228.0 cm	456.6 cm	25.7 cm	515.9 cm	380.4 cm	(322.6 – 490.2)kg	2,727 kg	505.2 kg
AHS-6-20-12	77 <sup>3</sup> / <sub>8</sub> in.	239 <sup>3</sup> / <sub>4</sub> in.	12 <sup>5</sup> / <sub>16</sub> in.	157¹/₄in.	209³/₄in.	(91 – 145)in.	6,000 lb.	1305.2 lb.
	196.5 cm 89 <sup>3</sup> / <sub>4</sub> in.	609.0 cm 239 <sup>3</sup> / <sub>4</sub> in.	31.3 cm 12 <sup>5</sup> / <sub>16</sub> in.	399.4 cm 181 <sup>3</sup> / <sub>8</sub> in.	532.8 cm 209 <sup>3</sup> / <sub>4</sub> in.	(231.1 – 368.3)cm (103 – 169)in.	2,727 kg 6,000 lb.	593.3 kg 1407.8 lb.
AHS-6-20-14	228.0 cm	609.0 cm	31.3 cm	460.7 cm	532.8 cm	(261.6 – 429.3)cm	2,727 kg	639.9 kg
AUS / 20 1/	89 <sup>3</sup> / <sub>4</sub> in.	239³/₄in.	12 <sup>5</sup> / <sub>16</sub> in.	205 <sup>3</sup> / <sub>8</sub> in.	209³/₄in.	(127 – 193)in.	6,000 lb.	1456.3 lb.
AHS-6-20-16	228.0 cm	609.0 cm	31.3 cm	93.4 cm	532.8 cm	(322.6 – 490.2)kg	2,727 kg	662.0 kg
AHS-8-10-12	76 <sup>1</sup> / <sub>2</sub> in.	119³/₄in.	8 <sup>1</sup> / <sub>8</sub> in.	152 <sup>7</sup> / <sub>8</sub> in.	89³/₄in.	(91 – 145)in.	8,000 lb.	1047.7 lb.
	194.3 cm	304.2 cm 119 <sup>3</sup> / <sub>4</sub> in.	20.6 cm 8 <sup>1</sup> / <sub>8</sub> in.	388.3 cm	228.0 cm 89 <sup>3</sup> / <sub>4</sub> in.	(231.1 – 368.3)cm (102 – 168)in.	3,636 kg 8,000 lb.	476.2 kg 979.7 lb.
AHS-8-10-14	88 <sup>5</sup> / <sub>16</sub> in. 224.3 cm	304.2 cm	20.6 cm	176 <sup>7</sup> / <sub>16</sub> in. 448.2 cm	228.0 cm	(259.1 – 426.7)cm	3,636 kg	445.3 kg
AUC 0 10 1/	88 <sup>1</sup> / <sub>4</sub> in.	119 <sup>3</sup> / <sub>4</sub> in.	8 <sup>1</sup> / <sub>8</sub> in.	200 <sup>7</sup> / <sub>16</sub> in.	89 <sup>3</sup> / <sub>4</sub> in.	(126 – 192)in.	8,000 lb.	1028.3 lb.
AHS-8-10-16	224.2 cm	304.2 cm	20.6 cm	509.1 cm	228.0 cm	(320.0 – 487.7)cm	3,636 kg	467.4 kg
AHS-8-15-7	45³/₄ in.	179³/₄in.	10 <sup>1</sup> / <sub>8</sub> in.	94 <sup>3</sup> / <sub>16</sub> in.	149³/₄in.	(60 – 84)in.	8,000 lb.	757.8 lb.
	116.2 cm 57 <sup>3</sup> / <sub>4</sub> in.	456.6 cm 179 <sup>3</sup> / <sub>4</sub> in.	25.7 cm 10 <sup>1</sup> / <sub>8</sub> in.	239.2 cm 118 <sup>3</sup> / <sub>16</sub> in.	380.4 cm 149 <sup>3</sup> / <sub>4</sub> in.	(152.4 – 213.4)cm (72 – 108)in.	3,636 kg 8,000 lb.	344.4 kg 850.3 lb.
AHS-8-15-9	146.7 cm	456.6 cm	25.7 cm	300.2 cm	380.4 cm	(182.9 – 274.3)cm	3,636 kg	386.5 kg
AUC 0 15 10	63 <sup>3</sup> / <sub>4</sub> in.	179 <sup>3</sup> / <sub>4</sub> in.	10 <sup>1</sup> / <sub>8</sub> in.	130¹/₄in.	149³/₄in.	(78 – 120)in.	8,000 lb.	896.7 lb.
AHS-8-15-10	161.9 cm	456.6 cm	25.7 cm	330.8 cm	380.4 cm	(198.1 – 304.8)kg	3,636 kg	407.6 kg
AHS-8-15-12	$76^{1}/_{2}$ in.	179³/₄in.	10¹/ <sub>8</sub> in.	154 <sup>7</sup> / <sub>8</sub> in.	149³/₄in.	(91 – 145)in.	8,000 lb.	1043 lb.
	194.3 cm	456.6 cm	25.7 cm	393.4 cm	380.4 cm	(231.1 – 368.3)cm	3,636 kg	474.1 kg 1083.4 lb.
AHS-8-15-14	88 <sup>5</sup> / <sub>16</sub> in. 224.3 cm	179³/₄in. 456.6 cm	10¹/8 in. 25.7 cm	178 <sup>1</sup> / <sub>2</sub> in. 453.4 cm	149³/₄in. 380.4 cm	(102 – 168)in. (259.1 – 426.7)cm	8,000 lb. 3,636 kg	492.5 kg
AUC 0 15 17	88¹/₄in.	179 <sup>3</sup> / <sub>4</sub> in.	10 <sup>1</sup> / <sub>8</sub> in.	207 <sup>7</sup> / <sub>16</sub> in.	149³/₄in.	(126 – 192)in.	8,000 lb.	1132.0 lb.
AHS-8-15-16	224.2 cm	456.6 cm	25.7 cm	526.9 cm	380.4 cm	(320.0 – 487.7)cm	3,636 kg	514.5 kg
AHS-8-20-12	76 <sup>1</sup> / <sub>2</sub> in.	239 <sup>3</sup> / <sub>4</sub> in.	12 <sup>5</sup> / <sub>16</sub> in.	157¹/ <sub>8</sub> in.	209 <sup>3</sup> / <sub>4</sub> in.	(91 – 145)in.	8,000 lb.	1496.7 lb.
	194.3 cm	609.0 cm	31.3 cm	399.1 cm	532.8 cm	(231.1 – 368.3)cm	3,636 kg	680.3 kg
AHS-8-20-14	88 <sup>5</sup> / <sub>16</sub> in. 224.3 cm	239³/₄in. 609.0 cm	12 <sup>5</sup> / <sub>16</sub> in. 31.3 cm	180 <sup>11</sup> / <sub>16</sub> in. 458.9 cm	209³/₄in. 532.8 cm	(102 – 168)in. (259.1 – 426.7)kg	8,000 lb. 3,636 kg	1428.4 lb. 649.3 kg
4110 0 00 00	88 <sup>1</sup> / <sub>4</sub> in.	239 <sup>3</sup> / <sub>4</sub> in.	12 <sup>5</sup> / <sub>16</sub> in.	204 <sup>11</sup> / <sub>16</sub> in.	209³/₄in.	(126 – 192)in.	8,000 lb.	1476.9 lb.
AHS-8-20-16	224.2 cm	609.0 cm	31.3 cm	519.9 cm	532.8 cm	(320.0 – 487.7)cm	3,636 kg	671.3 kg
AHS-10-15-10	64 <sup>1</sup> / <sub>2</sub> in.	179³/₄in.	12 <sup>1</sup> / <sub>8</sub> in.	132¹/₄in.	148³/₄in.	(78 – 120)in.	10,000 lb.	1033.4 lb.
A113-10-13-10	163.8 cm	456.6 cm	30.8 cm	335.9 cm	377.8 cm	(198.1 – 304.8)cm	4,545 kg	469.7 kg

#### SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage. The signal words used appear below along with the meaning of each word.

▲ DANGER

▲ WARNING

▲ CAUTION

NOTICE

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

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

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

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

#### SAFETY INSTRUCTIONS

Vestil strives to identify foreseeable hazards associated with the use of its products. However, no manual can address every conceivable risk. The most effective way to avoid injury is to exercise sound judgment when assembling, using, inspecting, and maintaining this crane. **Keep a copy of this manual with the crane at all times.** For example, put the copy inside a plastic pouch and attach the pouch to the frame.

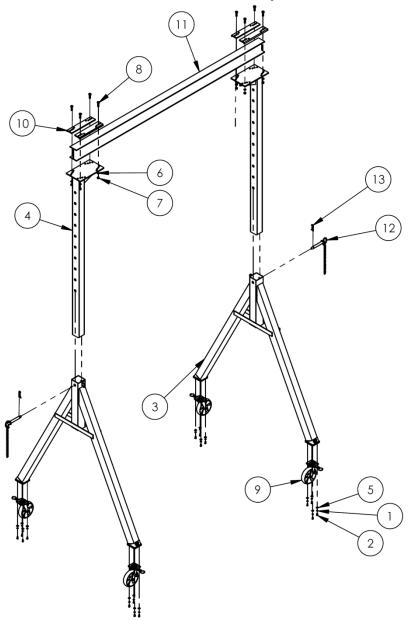
ADANGER Electrocution might result if the crane contacts electrified wires.

- > DO NOT assemble, maintain, or use the crane in an area where it could contact electrified wires.
- > Regularly inspect electrical wiring in the area where the crane is used. DO NOT contact electrical wiring, especially wiring with exposed conductors (damaged insulation) with the crane.

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

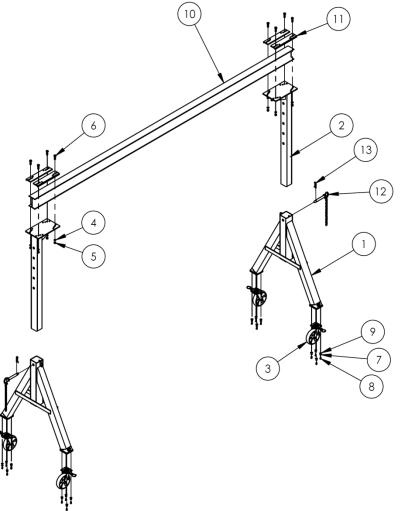
- Inspect the usage area each time the crane is used. Make sure that all debris on the ground is removed.
- DO NOT use a structurally damaged or malfunctioning crane. ALWAYS inspect the crane before each use by following the <u>INSPECTIONS & MAINTENANCE</u> instructions on p. 24-25. DO NOT use the crane unless it passes every part of the appropriate inspection, i.e. is in <u>SATISFACTORY CONDITION</u>. See <u>RECORD OF SATISFACTORY CONDITION</u> page 24.
- DO NOT attempt to adjust the height of the crane while a load is applied.
- DO NOT adjust the height of the crane until any hoist and/or trolley is secured at the center of the I-beam. The hoist should not be able to move while height adjustments are performed.
- DO NOT attempt to lift a load that weighs more than the capacity of your crane. Capacity information for each AHS model crane is provided in the <u>SPECIFICATIONS</u> tables on p. 2-3. Capacity information also appears in the <u>LABELING DIAGRAM</u> section of this manual on p. 25, as well as on capacity labels applied to the crane.
- Keep clear of the suspended load. DO NOT put any part of your body under a suspended load.
- 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 lift people with the crane. DO NOT lift loads over people.
- DO NOT allow people to climb on the load or the crane.
- DO NOT operate manual motions with other than manual power.
- DO NOT push or pull the crane with a vehicle. Slowly & carefully push the trailing end of the crane to move it. DO NOT stand beneath the I-beam while pushing the crane. Only traverse even, level ground.
- ALWAYS load the crane in accordance with PROPER LOADING recommendations on p. 22-23.
- DO NOT lift a load unless it is centered under your hoist. A swinging load might cause serious injury.
- DO NOT remove or obscure any label on the crane. DO NOT use the crane if any label is damaged, missing, or not easily readable. See <u>LABELING DIAGRAM</u> on p. 25. Contact Vestil for replacement labels.
- DO NOT modify the crane in any way without the express approval of Vestil in writing. Unapproved modifications automatically void the <u>LIMITED WARRANTY</u> and might make the crane unsafe to use.
- DO NOT use the crane to transport loads. ONLY use the crane to lift loads!

## FIG. A: AHS-2-10-12, AHS-2-10-14, & AHS-2-10-16 Exploded View & Bill of Materials



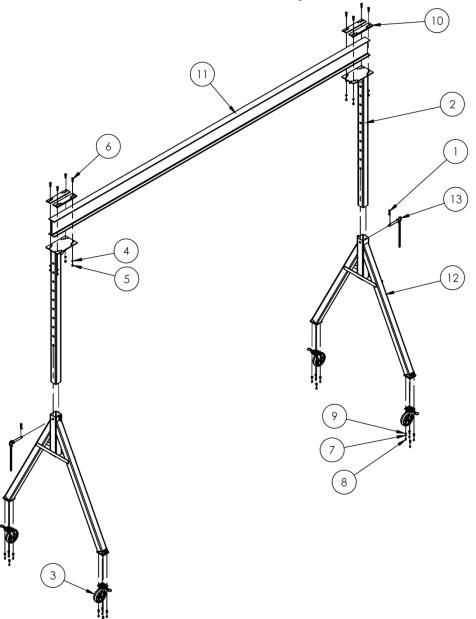
Item no.	Part no.	Description	Quantity
1	33620	5/16 in. zinc-plated lock washer	16
2	11053	5/ <sub>16</sub> in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
3	28-514-016 28-514-017 28-514-017	Frame, leg assembly: AHS-2-10-12 AHS-2-10-14 AHS-2-10-16	2 2 2
4	28-514-009 28-514-010 28-514-124	Assembly frame, upright: AHS-2-10-12 AHS-2-10-14 AHS-2-10-16	2 2 2
5	33006	5/ <sub>16</sub> 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

<u>FIG. B</u>: AHS-2-15-7, AHS-2-15-9, AHS-2-15-10, AHS-2-15-12, AHS-2-15-14, AHS-2-15-16 Exploded View & Bill of Materials



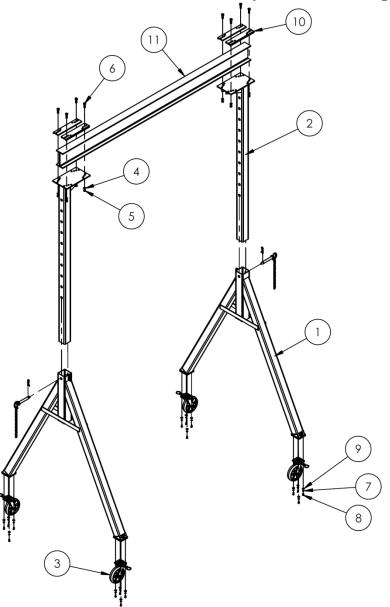
Item no.	Part no.	Description	Quantity
		Frame, leg assembly:	
	28-514-145	AHS-2-15-7	2
	28-514-144	AHS-2-15-9	2
1	28-514-143	AHS-2-15-10	2
	28-514-016	AHS-2-15-12	2
	28-514-017	AHS-2-15-14	2
	28-514-017	AHS-2-15-16	2
		Assembly frame, upright:	
	28-514-151	AHS-2-15-7	2
	28-514-150	AHS-2-15-9	2
2	28-514-149	AHS-2-15-10	2
	28-514-009	AHS-2-15-12	2
	28-514-010	AHS-2-15-14	2
	28-514-124	AHS-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/ <sub>16</sub> in. – 18 x ¾ in. HHCS #2 zinc-plated bolt	16
9	33006	5/ <sub>16</sub> 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: AHS-2-20-12, AHS-2-20-14, & AHS-2-20-16 Exploded View & Bill of Materials



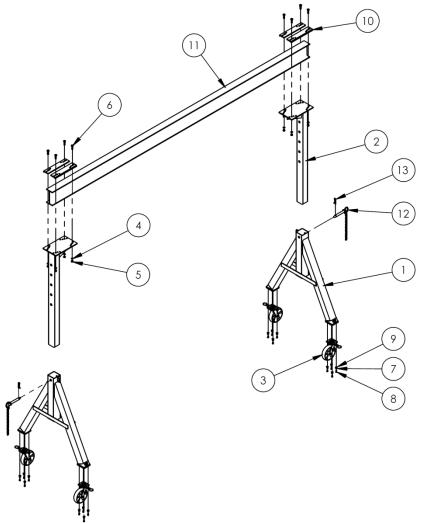
Item no.	Part no.	Description	Quantity
		<u>Frame, leg assembly</u> :	
1	28-514-016	AHS-2-20-12	2
'	28-514-017	AHS-2-20-14	2
	28-514-017	AHS-2-20-16	2
		Assembly frame, upright:	
2	28-514-009	AHS-2-20-12	2
2	28-514-010	AHS-2-20-14	2
	28-514-124	AHS-2-20-16	2
3	16-132-249	GFN-8/2-S locking caster	4
4	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: AHS-4-10-12, AHS-4-10-14, & AHS-4-10-16 Exploded Parts Diagram & Parts List



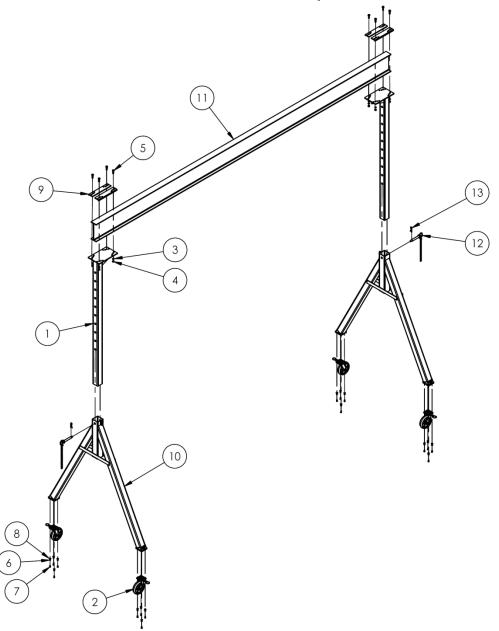
Item no.	Part no.	Description	Quantity
		<u>Frame, leg assembly</u> :	
1	28-514-016	AHS-4-10-12	2
'	28-514-017	AHS-4-10-14	2
	28-514-017	AHS-4-10-16	2
		Assembly frame, upright:	
2	28-514-009	AHS-4-10-12	2
	28-514-010	AHS-4-10-14	2
	28-514-124	AHS-4-10-16	2
3	16-132-249	GFN-8/2-S locking caster	4
4	33626	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/ <sub>16</sub> 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: AHS-4-15-7, AHS-4-15-9, AHS-4-15-10, AHS-4-15-12, AHS-4-15-14, & AHS-4-15-16 Exploded View & Bill of Materials



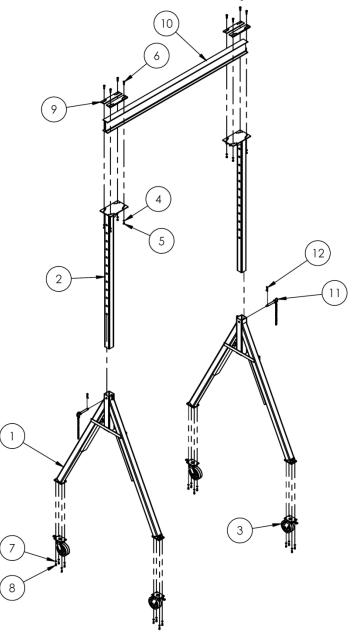
Item no.	Part no.	Description	Quantity
		Frame, leg assembly:	
	28-514-145	AHS-4-15-7	2
	28-514-144	AHS-4-15-9	2
1	28-514-143	AHS-4-15-10	2
	28-514-016	AHS-4-15-12	2
	28-514-017	AHS-4-15-14	2
	28-514-017	AHS-4-15-16	2
		Assembly frame, upright:	
	28-514-151	AHS-4-15-7	2
	28-514-150	AHS-4-15-9	2
2	28-514-149	AHS-4-15-10	2
	28-514-009	AHS-4-15-12	2 2 2 2
	28-514-010	AHS-4-15-14	
	28-514-124	AHS-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/ <sub>16</sub> 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: AHA-4-20-12, AHA-4-20-14, & AHA-4-20-16 Exploded View & Bill of Materials



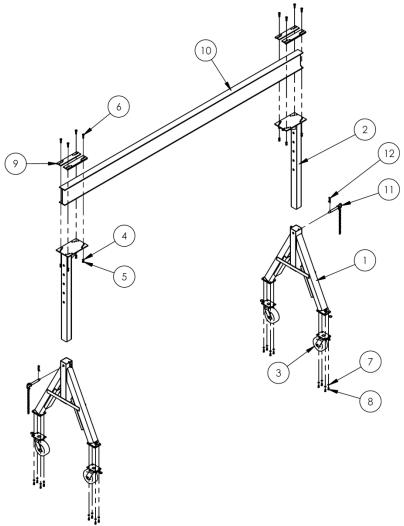
Item no.	Part no.	Description	Quantity
		Assembly frame, upright:	
1	28-514-009	AHS-4-20-12	2
ı	28-514-010	AHS-4-20-14	2
	28-514-124	AHS-4-20-16	2
2	16-132-249	GFN-8/2-S locking caster	4
3	33626	½ in. zinc-plated lock washer	8
4	19211-A	½ in. – 13 A325 structural nut	8
5	19211-B	½ in. – 13 x 2 in. A325 structural bolt	8
6	33620	5/ <sub>16</sub> in. zinc-plated lock washer	16
7	11053	5/ <sub>16</sub> 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
		Frame, leg assembly:	
10	28-514-016	AHS-4-20-12	2
10	28-514-017	AHS-4-20-14	2
	28-514-017	AHS-4-20-16	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: AHS-6-10-12, AHS-6-10-14, & AHA-6-10-16 Exploded View & Bill of Materials



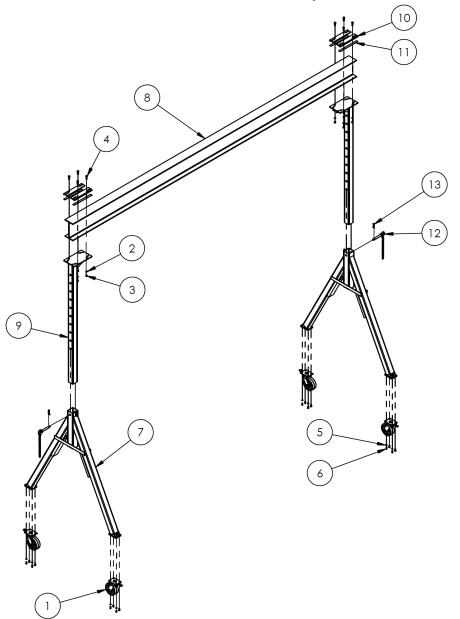
Item no.	Part no.	Description	Quantity
		Frame, leg assembly:	
1	28-514-019	AHS-6-10-12	2
'	28-514-020	AHS-6-10-14	2
	28-514-020	AHS-6-10-16	2
		Assembly frame, upright	
2	28-514-009	AHS-6-10-12	2
	28-514-010	AHS-6-10-14	2
	28-514-124	AHS-6-10-16	2
3	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in13 A325 structural nut	8
6	19211-B	½ in13 x 2in. A325 structural bolt	8
7	33624	<sup>7</sup> / <sub>16</sub> 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: AHS-6-15-7, AHS-6-15-9, AHS-6-15-10, AHS-6-15-12, AHS-6-15-14 & AHS-6-15-16 Exploded View & Bill of Materials



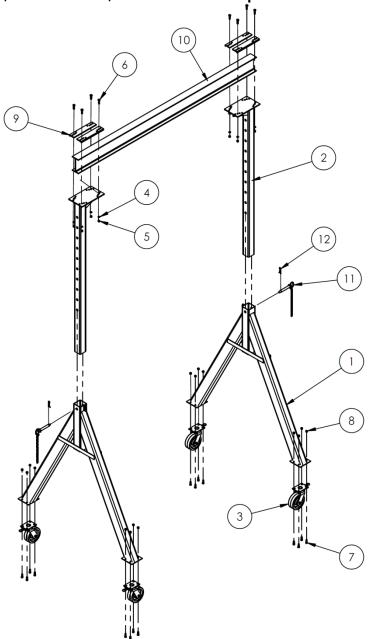
Item no.	Part no.	Description	Quantity
		Frame, leg assembly:	
	28-514-148	AHS-6-15-7	2
	28-514-147	AHS-6-15-9	2
1	28-514-146	AHS-6-15-10	2
	28-514-019	AHS-6-15-12	2
	28-514-020	AHS-6-15-14	2
	28-514-020	AHS-6-15-16	2
		Assembly frame, upright:	
	28-514-151	AHS-6-15-7	2
	28-514-150	AHS-6-15-9	2
2	28-514-149	AHS-6-15-10	2
	28-514-009	AHS-6-15-12	2
	28-514-010	AHS-6-15-14	2
	28-514-124	AHS-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 in13 A325 structural nut	8
6	19211-B	½ in13 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: AHS-6-20-12, AHS-6-20-14, & AHS-6-20-12 Exploded View & Bill of Materials



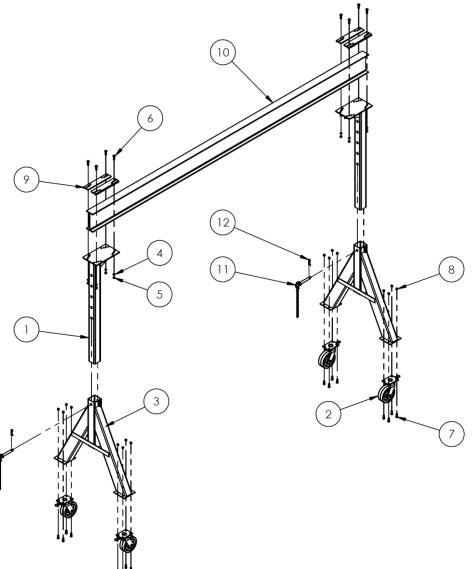
Item no.	Part no.	Description	Quantity
1	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
2	33626	<sup>1</sup> / <sub>2</sub> in. zinc-plated lock washer	8
3	19211-A	1/2 in. – 13 A325 structural nut (part of nut and bolt combo.)	8
4	19211-B	$^{1}/_{2}$ in. $-13 \times 2$ in. structural bolt (part of nut and bolt combo.)	8
5	33624	<sup>7</sup> / <sub>16</sub> 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: AHS-6-20-12 AHS-6-20-14 & AHS-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: AHS-6-20-12 AHS-6-20-14 AHS-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: AHS-8-10-12, AHS-8-10-14, & AHS-8-10-16 Exploded View & Bill of Materials



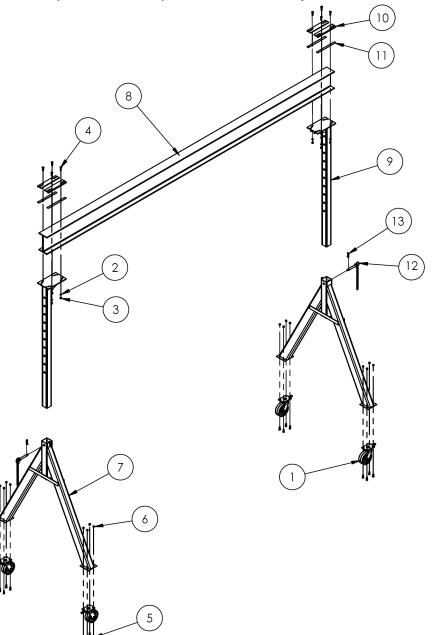
Item no.	Part no.	Description	Quantity
1		Frame, leg assembly:	
	28-514-122	AHS-8-10-12	2
'	28-514-123	AHS-8-10-14	2
	28-514-123	AHS-8-10-16	2
		Assembly frame, upright:	
2	28-514-009	AHS-8-10-12	2
	28-514-010	AHS-8-10-14	2
	28-514-124	AHS-8-10-16	2
3	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in13 A325 structural nut	8
6	19211-B	½ in13 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

<u>FIG. K</u>: AHS-8-15-7, AHS-8-15-9, AHS-8-15-10, AHS-8-15-12, AHS-8-15-14, & AHS-8-15-16 Exploded View & Bill of Materials



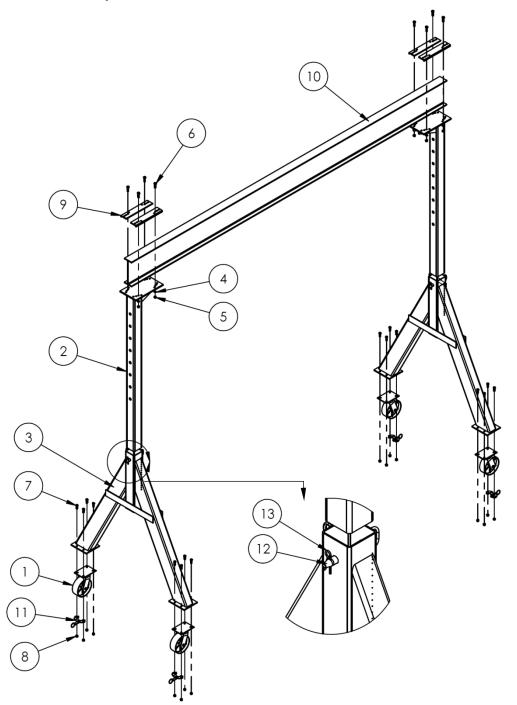
Item no.	Part no.	Description	Quantity
		Assembly frame, upright:	•
	28-514-151	AHS-8-15-7	2
	28-514-150	AHS-8-15-9	2
1	28-514-149	AHS-8-15-10	2
	28-514-009	AHS-8-15-12	2
	28-514-010	AHS-8-15-14	2
	28-514-124	AHS-8-15-16	2
2	16-132-064	8in. x 3in. phenolic 4-way swivel lock caster	4
		<u>Frame, leg assembly</u> :	
	28-514-155	AHS-8-15-7	2
	28-514-154	AHS-8-15-9	2
3	28-514-153	AHS-8-15-10	2
	28-514-122	AHS-8-15-12	2
	28-514-123	AHS-8-15-14	2
	28-514-123	AHS-8-15-16	2
4	33626	½ in. zinc-plated lock washer	8
5	19211-A	½ in13 A325 structural nut	8
6	19211-B	½ in13 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	
11	28-112-027	1 in. x 6 in. retaining pin	
12	45282	#6 hitch pin	2

FIG. L: AHS-8-20-12, AHS-8-20-14, & AHS-8-20-16 Exploded View & Bill of Materials



Item no.	Part no.	Description	Quantity
1	16-132-064	8 in. x 3 in. phenolic 4-way swivel lock caster	4
2	33626	<sup>1</sup> / <sub>2</sub> 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	<sup>1</sup> / <sub>2</sub> in. – 13 1 <sup>1</sup> / <sub>2</sub> in. HHCS #2 zinc-plated bolt	16
6	37030	<sup>1</sup> / <sub>2</sub> in. – 13 nylon insert lock nut	16
7	28-514-122 28-514-123	Frame, leg assembly: AHS-8-20-12 AHS-8-20-14 & AHS-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: AHS-8-20-12 AHS-8-20-14 AHS-8-20-16	2 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: AHS-10-15-10 Exploded View & Bill of Materials



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 in13 A325 structural nut	8
6	19211-B	½ in13 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

#### ASSEMBLING THE CRANE

AWARNING

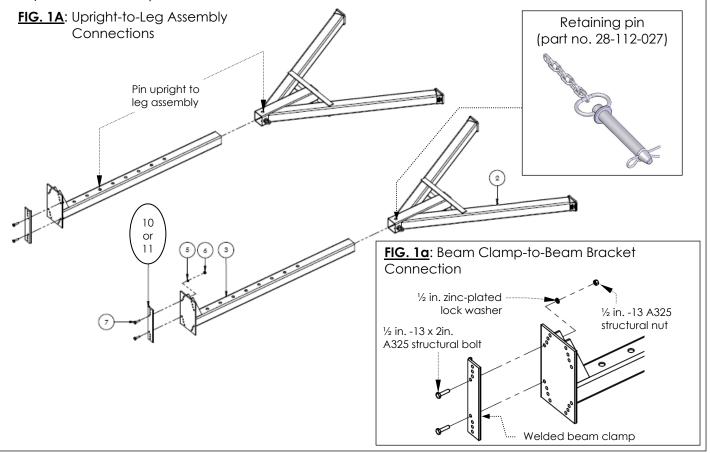
If the crane is improperly assembled, it might malfunction and result in serious personal injuries. Read this instruction manual in its entirety before assembling the crane; only assemble the crane if you fully understand both the associated risks and the manufacturer-approved assembly procedure discussed below.

- ONLY qualified personnel should assemble the crane.
- **DO NOT** modify the crane in any way <u>unless and until</u> you receive written approval from Vestil.
- **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 Vestil 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

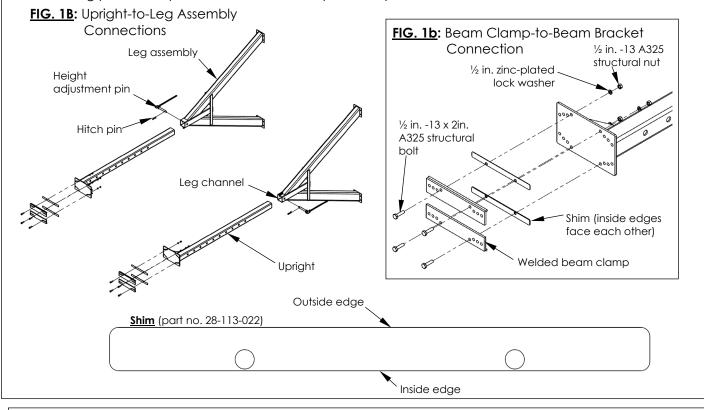
- Modifying the crane in any way without first receiving written approval of the modification from Vestil automatically voids the limited warranty.
- The crane is designed for both indoor and outdoor use. However, it should be sheltered from the weather when not in use.
- Inspect the crane for damage 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 AHS 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 3<sup>rd</sup> pinhole in the uprights aligns with the pinhole in the leg assemblies as indicated in Fig. 1A below. Each upright must be pinhole to a leg assembly through the same pinhole (diagram below shows pinning through 3<sup>rd</sup> 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).



<u>Step 1B</u>: [Models AHS-6-20-12, AHS-6-20-14, AHS-6-20-16, AHS-8-20-12, AHS-8-20-14 & AHS-8-2016] Fasten the uprights to the leg assemblies; then fasten two beam clamps to the beam bracket.

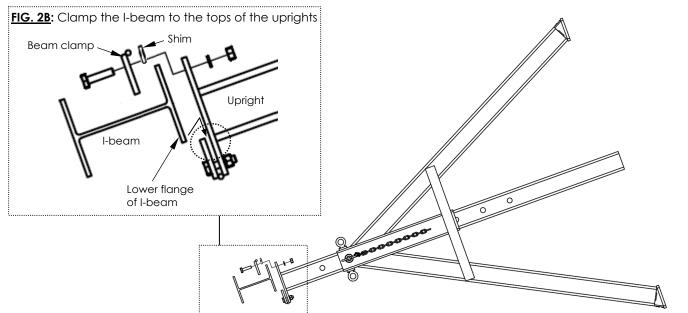
Lay the leg assemblies on the ground. Then, slide the uprights into the leg channels of the leg assemblies. Insert the telescoping tubes (uprights) until the 3<sup>rd</sup> pinhole in the uprights aligns with the pinhole in the leg assemblies as indicated in Fig. 1B below. Each upright must be pinned to a leg assembly through the same pinhole (diagram below shows pinning through 3<sup>rd</sup> pinhole). To pin an upright to a leg assembly, use a 1 in. x 6 in. retaining pin. See exploded view that corresponds to your crane model.



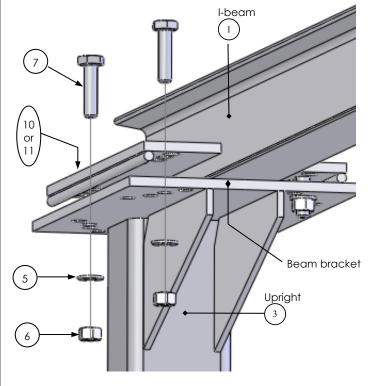
**Step 2**: Fasten I-beam to uprights. [NOTE: Shim <u>only</u> used in models AHS-6-20-12, AHS-6-20-14, AHS-6-20-16, AHS-8-20-12, AHS-8-20-14 & AHS-8-2016.]

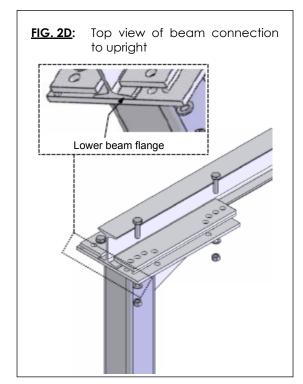
Insert the flange of the I-beam into the gap between the beam clamp and the top of the uprights (circled in FIG. 2B below); then clamp the flange on the opposite side of the beam to the beam bracket with the remaining beam clamps as shown in the diagram below.

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



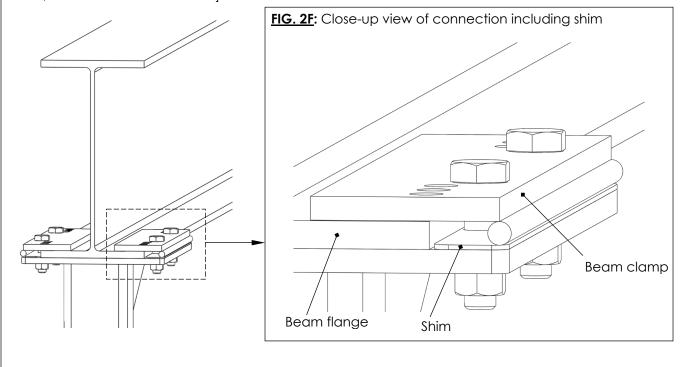
#### FIG. 2C: Exploded Parts View of Beam Clamp Connection to Beam





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

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



**Step 3:** Tighten the beam clamp fasteners to 50 - 52 ft 1b of torque.

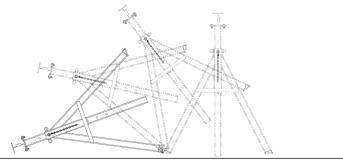
#### **Step 4:** Stand the crane on its feet.

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.

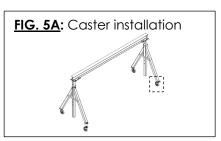
Approach the crane with a fork truck from this side, and slide the forks under the Ibeam.

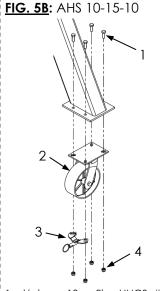
Slowly raise the beam and slowly drive forward until the crane stands on its feet.

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

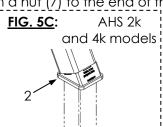


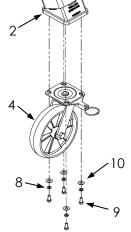
Step 5: Connect the casters to the legs (instructions show standard casters). Attach each caster to the foot of each leg using the hardware shown in Fig. 5B. Raise the crane 8 to 10 inches off of the ground with a fork lift or hoist. Position a caster underneath each foot as shown in Figures 5A & 5B 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.





- ½ in. − 13 x 2in. HHCS #5¦¦2 zinc-plated bolt
- Ø8in. x 3in. ductile steel!!8 caster
- Batwing caster position lock 19 ½ in. − 13 lock nut

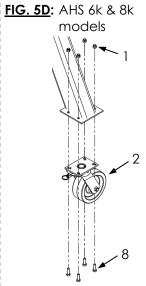




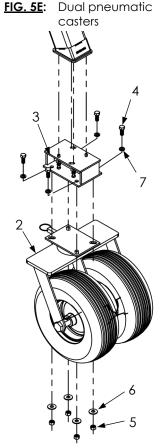
Leg Assembly GFN-8/2-S caster

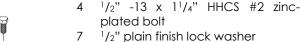
15

- 5/16 in. zinc-plated lock washer
- 5/<sub>16</sub> in. 18 x ¾ in. HHCS #21 8 1/<sub>2</sub>in. -13 x 11/<sub>2</sub>in. HHCS zinc-plated bolt

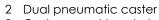


- <sup>1</sup>/<sub>2</sub>in. -13 nylon insert lock
- 8in. x 3in. phenolic 4-way swivel lock caster
- zinc-plated bolt





- (medium split) 5/16" plain finish lock washer (medium split)
- 16 <sup>5</sup>/<sub>16</sub>" -18 x <sup>3</sup>/<sub>4</sub>" HHCS #2, zincplated
- <sup>5</sup>/<sub>16</sub>" zinc plated flat washer



- 3 Caster mount bracket
- $^{1}/_{2}$ " -13 zinc-plated hex; 6 1/2" zinc finish flat washer

#### **USING THE CRANE**

Before using the crane for the first time, perform a BEFORE AND AFTER EACH USE inspection (see p. 24).

**AWARNING** 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:

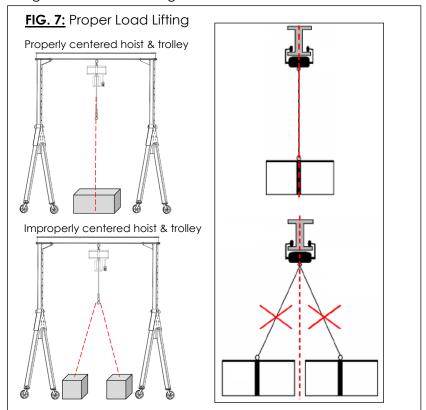
- Only qualified, designated crane operators should use this device. The operating instructions in this manual *supplement* safe crane and hoist operation practices learned during your training program.
- ALWAYS apply the safe material handling practices learned during your training program (for example, 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).

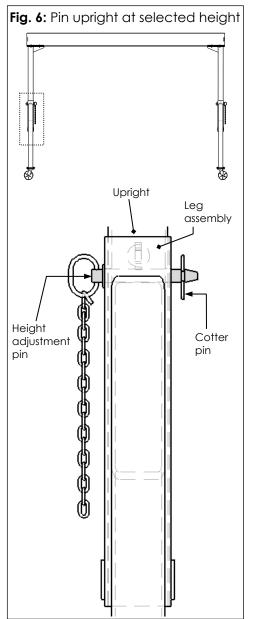
#### Height adjustment:

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:**

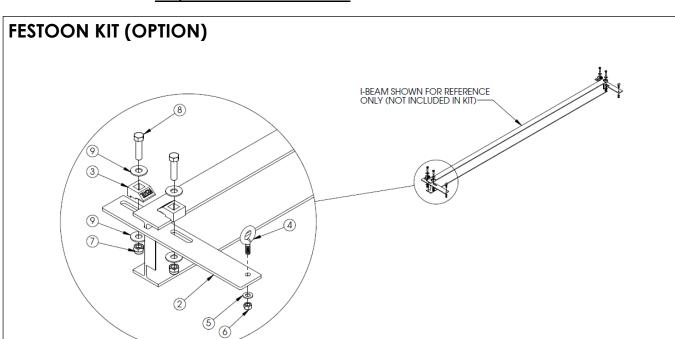
Position the trolley and hoist directly above the load. Proper centering requires the operator to center the trolley and hoist above the center of the load as well as to position the long axis of the I-beam above the center of the load. Proper positioning is diagrammed below in Fig 7.





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 <u>only</u> 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.



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 in16 x 1in. turned eye bolt	2
5	33008	3/8 in. zinc-plated flat washer	2
6	36106	³/ <sub>8</sub> in16 zinc-plated hex nut	2
7	37030	<sup>1</sup> / <sub>2</sub> in. – 13 nylon insert lock nut	4
8	11211	<sup>1</sup> / <sub>2</sub> in. – 13 x 2 in. HHCS zinc-plated bolt	4
9	33012	<sup>1</sup> / <sub>2</sub> 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

### RECORD OF SATISFACTORY CONDITION (THE "RECORD")

Thoroughly inspect the crane after assembling it and before putting it into service. Record the condition and appearance of each of the frame members (I-beam, upright assemblies, leg assemblies), the wheels and/or casters, beam clamp, and all fasteners (bolts, nuts, etc.). Thoroughly photograph the crane from multiple angles. Include close range photographs of the casters and/or wheels, all labeling, and all beam clamp connections. Add the photographs to the record. Collect all photographs and writings in a single file. This file is a record of the crane in satisfactory condition. Compare the results of all *INSPECTIONS* to this RECORD to determine whether the crane is in satisfactory condition. Do not use the crane unless it is in satisfactory condition. Purely cosmetic changes, like damaged paint or powdercoat, are not changes from satisfactory condition. However, touchup paint should be applied as soon as damage occurs. If your crane is not painted or powdercoated, touchup paint is not required.

#### NATIONAL STANDARDS

This product is a portable A-frame gantry crane (PGC). ASME standard B30.17 (the "Standard") applies to PGC's. You <u>should</u> acquire a copy of the latest version of the standard. Follow all use and maintenance/care instructions provided in the Standard as well as all other provisions for PGC owners and users. If any content in this manual is inconsistent with a recommendation or mandatory provision in the Standard, apply the provision from the Standard. Vestil encourages you to immediately contact <u>Technical Service</u> to report inconsistencies.

#### INSPECTIONS AND MAINTENANCE

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

Inspections and all necessary repairs should be performed by qualified persons. Compare the results of each inspection to the RECORD OF SATISFACTORY CONDITION. Do not use the crane unless every part is in satisfactory condition. **DON'T GUESS! If you have any questions about the condition of your crane, contact the Technical Service department.** The phone number is provided on the cover page of this manual. Never make temporary repairs of damaged or missing parts. Only use manufacturer-approved replacement parts to restore the crane to satisfactory condition.

- A. Before and after each use, including first use, unload the crane and inspect the following components:
  - 1) I-Beam Examine the beam, especially the lower flanges, for bends, cracks, and other damage.
  - 2) **Beam clamps and beam clamp fasteners –** Clamp connections are shown in <u>Step 2</u> on p. 19-20. Verify that all lock washers are fully compressed. The clamps should equally overlap the I-beam flange.
  - 3) Beam brackets Look for cracks, elongations around bolt holes, warps, bends, etc.
  - 4) Casters and caster fasteners Examine each caster for cracks, warps, tears, grooves, pitting, and significant wear. Push the crane a short distance. All 4 casters should be in continuous contact with the ground. Confirm that the casters roll smoothly without wobbling or skidding. Make sure that caster fasteners are tightly connected. Fastener connections are shown in <a href="Step 5">Step 5</a> on p. 21.
  - 5) **Pins** Check both adjustment pins. Pinned connections are shown in <u>Steps 1A and 1B</u> on p. 18-19. Both adjustment pins should be fully inserted and pin stops should be perpendicular to the pins to secure them in place. All 4 of the clevis pins should be fully inserted and secured in place with cotter pins.
  - 6) **Leg assemblies** Inspect both leg assemblies. Look for cracks, bends, warps, and other forms of damage. Pay particular attention to pin holes & bolt holes. Look for elongations, cracks, etc.
- B. **Monthly inspections** Unload the crane and inspect the following:
  - 1) **Beam clamps and beam clamp fasteners** Use a torque wrench to tighten each bolt and nut to 50-52ft·lb. Examine all of the clamps for damage such as deformations and cracks. The I-beam flange should be solidly/immovably clamped to the tops of the uprights.
  - 2) Lay the crane over so that the I-beam is on the ground and inspect:
    - a) **Adjustment pins** One at a time, remove each adjustment pin and examine it. Look for cracks, warps, pitting, and other forms of damage. Confirm that the pin stop operates normally. Reinsert each pin after inspecting it.
    - b) **Leg tubes** Examine the pin holes in the top end of each leg. Look for elongations, cracks, and other forms of damage. Reinstall each leg once its inspection is finished.
- C. **Once per year**: Perform a load test. Lift a load equal to 125% of its rated load (capacity). Only lift the load high enough to ensure that it is entirely supported by the crane. Transport the load by means of your hoist (or hoist & trolley) the full usable length of the I-beam (dimension E in <u>SPECIFICATIONS</u> diagram and table). Return the test load to the ground. Perform inspections A (Before and after each use) and B (Monthly). **NOTE**: Perform this part C (Load test and a Before & after use inspection) whenever the crane is partially or fully disassembled and reassembled, e.g. after installing replacement parts.

#### LABELING DIAGRAM

Label content and location are subject to change so your product might not be labeled exactly as shown. Compare the diagram below to your <u>Record of Satisfactory Condition</u>. If there are any differences between actual labeling and this diagram, contact <u>Technical Service</u>. Replace all labels that are damaged, missing, or not easily readable (e.g. faded). To order replacement labels or to inquire whether your unit is properly labeled, contact the technical service and parts department online at <a href="http://www.vestilmfg.com/parts">http://www.vestilmfg.com/parts</a> info.htm or by calling (260) 665-7586 and asking for 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 507PhoneWrite "Warranty service request"Angola, IN 46703(260) 665-7586in the subject field.

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

#### What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, motor controllers, and cylinders. It also covers defects in original parts that wear under normal usage conditions ("wearing parts"), such as bearings, hoses, wheels, seals, brushes, and batteries.

#### How long is the warranty period?

The warranty period for original dynamic components is <u>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 in material or workmanship.