



## Installation and Maintenance Manual for SPANCO® A Series Aluminum Gantry Cranes





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## **WARNING**

- Do not lift or support humans.
- When moving gantry, keep load as close to the floor as possible and position the load in the center of the I-beam.
- Ensure the load is not attached to the floor and remove any obstacles that impede lifting.
- Adjustments and/or repairs should be made in an area where it will have the least interference with operation.
- Secure trolley and hoist in the center of I-beam when adjusting height.
- Ensure the rated capacity is clearly labeled on each side of the I-beam.
- Do not adjust the height when gantry is under load.
- Do not lift more than the rated capacity.
- Do not push or pull gantry with a forklift or other vehicle.
- Do not allow the load to swing or roll against support members.
- Push the gantry, not the load.
- Inspect gantry for missing or broken parts before operating.

# INSTALLATION

1. For assembly, when possible, select an area under an overhead hoist, or where a lift truck can be used to raise the I-beam. Be sure there is no machinery or clutter nearby that will hamper free movement. All personnel should be wearing applicable safety gear, such as hard hats, safety shoes, and safety glasses.
2. Lay both “A” frames flat on the floor, and slide upright tube into top of center tube. Upright tube should then be pinned into its lowest position, making sure that load pin is fully engaged. Top plate (and extension tube, if required) should be pinned also at this time with cotterless hitch pins.
3. The caster wheels should then be locked in position parallel to the “A” frame. This will prevent the frame assembly from rolling away when lifted to the upright position.
4. Using an overhead hoist or lift truck, lift the I-beam to the gantry's minimum height. Be sure that the capacity rating is right side up and legible.
5. Lift one end of the frame assembly into position under one end of the I-beam, and bolt I-beam to top plate of the upright with the hardware supplied. Be sure the lifting lug is on the outside of the frame assembly, not facing the I-beam. Next, raise into position the other end frame and bolt together as above.
6. Testing. We certify that the equipment referenced in this manual is in conformance with our interpretation of applicable CMAA 74, ANSI B30.17, AISC ASD 9th Edition, and AWS D1.2. This equipment is designed and manufactured to the rated capacity marked on the equipment with due allowances for safety factors. It is recommended that a person appointed by the owner, under the direction of a qualified technical person, shall perform a load test of 125% of the rated capacity before placing the unit into service. See the latest edition of ANSI B30.17 for clarification of details related to rated load tests.
7. Your SPANCO gantry is now ready to use, and you can now adjust the I-beam to desired height.
8. First secure the trolley and hoist in the center of the I-beam. To raise or lower unit height, simply hang the optional “LUG-ALL” winch kit (if ordered with the gantry), or any other type of “come-along”, from the lifting lug at the top of the A-frame. Now pull the bottom hook of the “LUG-ALL” winch down and hook it under the end of the upright tube. By raising the upright slightly, you can now pull back the spring-loaded adjustment pin. Secure the adjustment pin in the lockout position. By operating the “LUG-ALL”, you can raise or lower the height of the gantry. When desired height is reached, release the load pin. The load pin will self locate the hole in the upright. Be sure the load pin is in the full lock-in position.

**NOTE: This operation requires a “LUG-ALL” winch on each end of the unit. Both ends must be raised or lowered at the same time. Never adjust gantry while it is supporting a load. Make sure that the “LUG-ALL” or “come-along” used for height adjustment has a combined capacity rating equal to the weight of the I-beam and any hoist trolley that is suspended from the I-beam.**

## MAINTENANCE

To ensure the safe operation of your gantry, periodically inspect it for bent, broken, damaged, corroded, cracked or missing parts. The only regular maintenance that is required is to check bolt tightness and to lubricate the casters through the grease fittings. Casters are prelubricated at the factory, but when lubrication is needed use NLGI No.1 or No.2 grease.

ITEM	DESCRIPTION
1	Hex Bolt
2	I-Beam Clamp
3	Lock Washer
4	Hex Nut
5**	Clipped Washer**

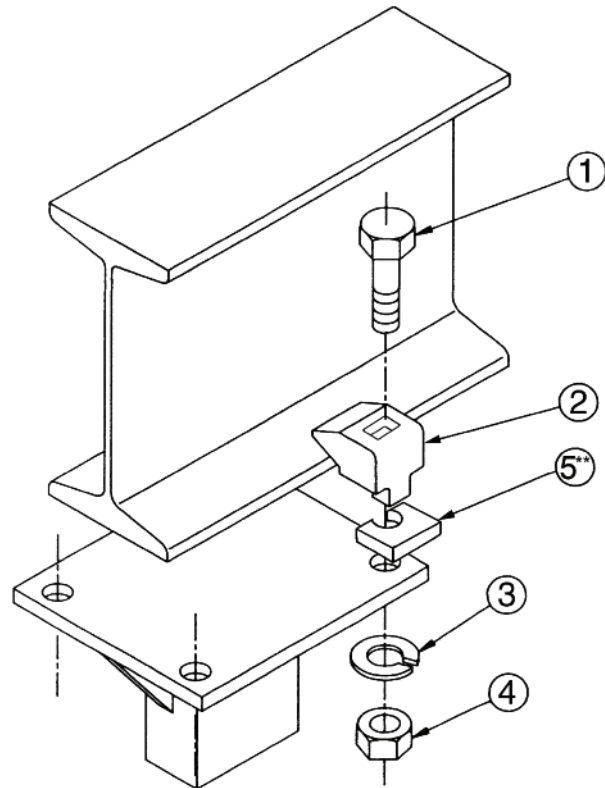
**NOTE:**

\*\* Item 5 for 12" beam only (1 and 2 ton models)

\* Torque 5/8" bolt to 108 ft/lbs

\* Torque 3/4" bolt to 210 ft/lbs

### ADJUSTABLE SPAN

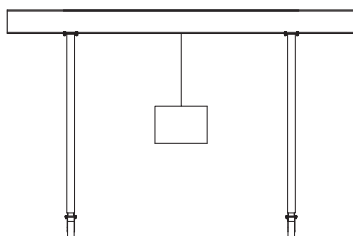


### SPAN ADJUSTMENT

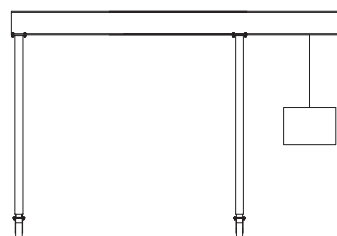
The I-Beam is clamped in place at each end with four (4) beam clamps which firmly hold the beam in place. To adjust the span, just loosen the bolts which hold the clamps and slide the beam to the desired span between the legs. Do not move the legs (A-frames) inward more than one half (1/2) of the total I-Beam length. For example, if the beam is 12 feet long, the distance between the A-Frames should never be less than six (6) feet.

After adjusting the span as desired, re-tighten all eight (8) bolts securely. Be sure you adjust both frames inward when adjusting the span so one end of the beam does not hang over more than the other end. Do not suspend a trolley or load from the cantilevered ends of the beam.

#### RIGHT WAY



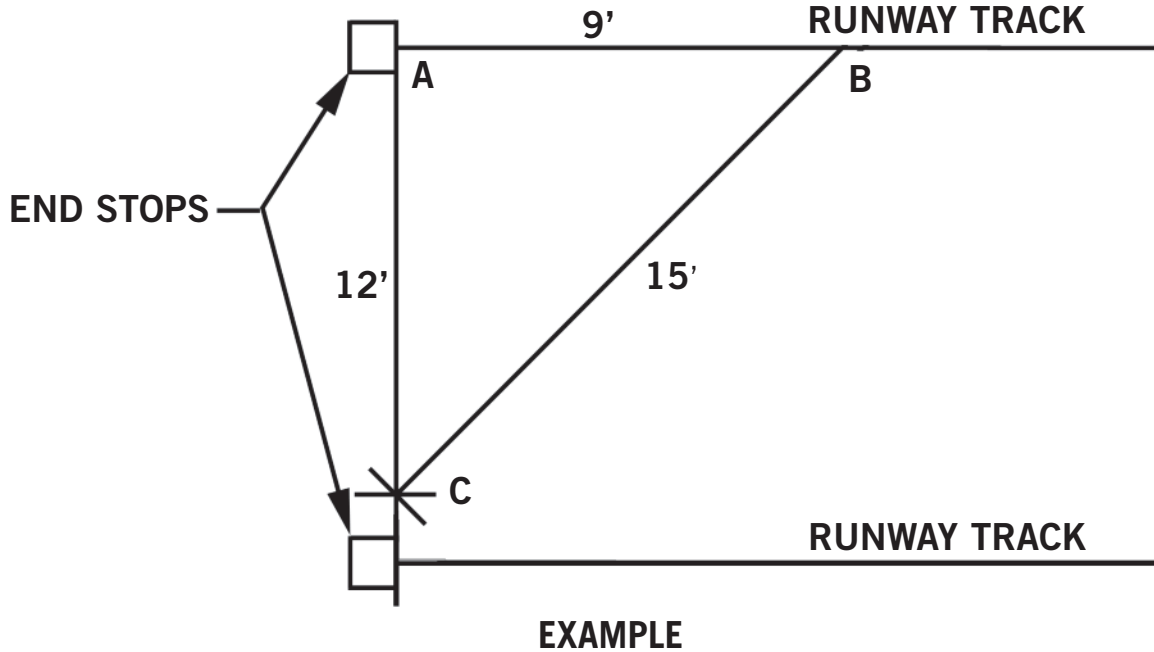
#### WRONG WAY



## V-GROOVE INSTALLATION INSTRUCTIONS

The exact span of the crane may vary from the design span. We recommend installing the track on one side making sure that the track is straight and level. Lay one or two sections of the track down at the design span, assemble crane on the tracks following assembly instructions and operate the crane back and forth a few times, being careful not to run the crane off the tracks. The loose sections of track will float and set the track to the crane span. Once the operating span is determined, attach all the other sections of track to the floor making sure the track is straight, level, parallel, and at the same elevation as the first track. The end stops should be set square with the 3-4-5 right triangle. The sides and the hypotenuse can be multiplied by any convenient number such as three used in the example.

Set one end stop at point A, measure along runway track nine feet from point A to point B. With B as a center and fifteen feet as a radius, draw a circular arc on the floor, with point A as a center and 12 ft. as a radius. Draw a circular arc on the floor intersecting the other arc at C. A line running through points A and C is perpendicular, or square, with the runway track. Extend this line to the other runway track to locate the end stop on that runway. Repeat the process at the other end of the runway, or measure along each runway the same distance from these end stops for locating the stops at the other end of the runways.



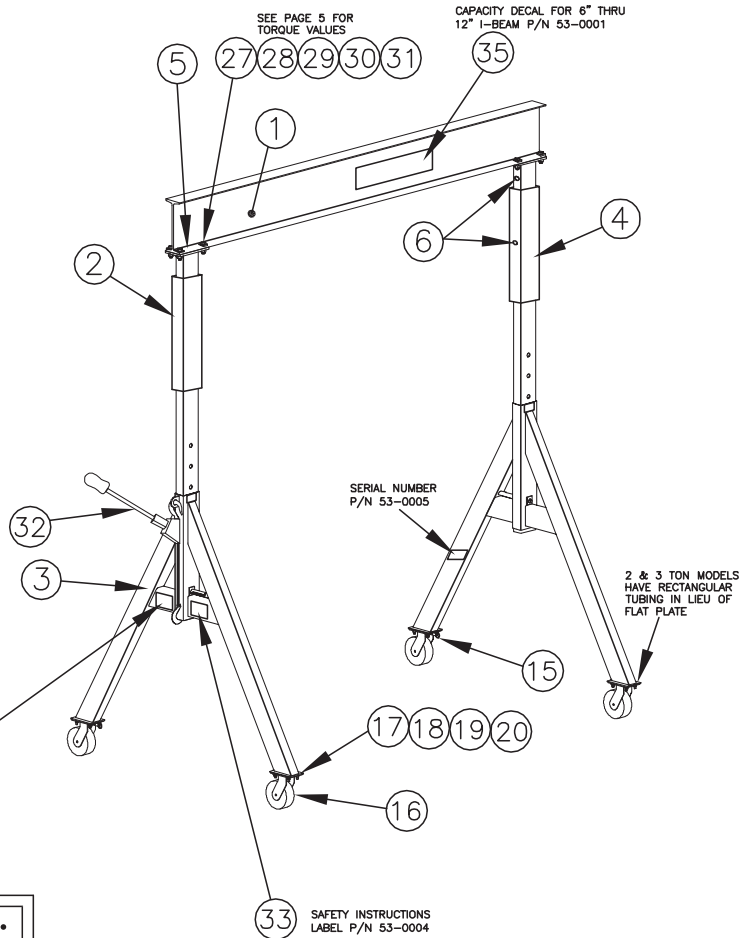
**NOTE: SPANCO recommends lagging with 3/8" lag bolts every 3'-0" staggered.**

# V-GROOVE INSTALLATION INSTRUCTIONS continued...

## CASTER BOLT TORQUE

FASTENER SIZE	TORQUE
1/4"	10 ft./lbs.
5/16"	19 ft./lbs.
3/8"	33 ft./lbs.
7/16"	54 ft./lbs.
1/2"	58 ft./lbs.
9/16"	114 ft./lbs.
5/8"	162 ft./lbs.
3/4"	288 ft./lbs.

← This is a general chart of fastener torque values. This table is based upon Grade 5 fasteners. Note that lower grades of bolts may not take these high torques. Reduce values accordingly.



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**READ BEFORE OPERATING**

1. Inspect gantry for damaged or missing parts.
2. Not to be used for lifting or supporting humans.
3. Do not lift more than rated capacity.
4. Never adjust height or disassemble crane when gantry is under load.
5. Do not load gantry on an incline.
6. Do not push or pull gantry with forklift or other vehicle.
7. Do not allow load to swing or roll against support members.
8. Push the gantry, not the load.
9. When moving loaded gantry, keep load close to the floor.
10. Be certain that load is directly beneath beam before load is lifted. Do not pull sideways on crane.
11. Do not anchor legs to the floor.
12. Never stand under gantry when adjusting height or disassembling crane.

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**BEFORE ADJUSTING GANTRY HEIGHT FOLLOW INSTRUCTIONS BELOW**

1. Never adjust height or disassemble crane when gantry is under load.
2. Secure trolley & hoist in center of I-beam.
3. To adjust height, use forklift, overhead hoist or attached winch hoist (if included).
4. Raise center post slightly, pull out load pin and secure in lock position.
5. Do not raise or lower one end more than one foot at a time.
6. Adjust height to required position and release load pin to full lock position.
7. Never stand under gantry when adjusting height or disassembling crane.

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◀ 2 and 3 ton models are manufactured with "rounded edge" tubing.

## BILL OF MATERIALS

BILL OF MATERIALS		
ITEM#	DESCRIPTION	QUANTITY
1	I-Beam	1
2	Upright Tube	2
3	End Frame/A Frame	2
4	2' Extension (if required**)	2
5	Top Plate**	2
6	Cotterless Hitch Pin	2
15	Swivel Lock	4
16	Caster	4
17	Flat Washer	16
18	Lock Washer	16
19	Hex Nut	16
20	Hex Bolt	16
27	Clipped Washer	8*
28	Hex Bolt	8
29	Lock Washer	8
30	Hex Nut	8
31	I-Beam Clamp	8
32	Optional LUG-ALL Winch Kit	2
33	Safety Instruction	2
34	Safety Instruction	2
45	Capacity Decal	2

**NOTE:**

\* 12" beam only (1 & 2 ton models)

\*\* Items 4 and 5 are combined into one piece on the 3 ton model only.

NOTE: ITEM #6 IS INCREASED TO QUANTITY OF 4 IF ITEM #4 (EXTENSION TUBE) IS REQUIRED

If replacement parts are required, please supply the complete gantry model, and serial number from the label affixed to the A-frame, and the item number of the part(s) on the drawing and bill of materials.

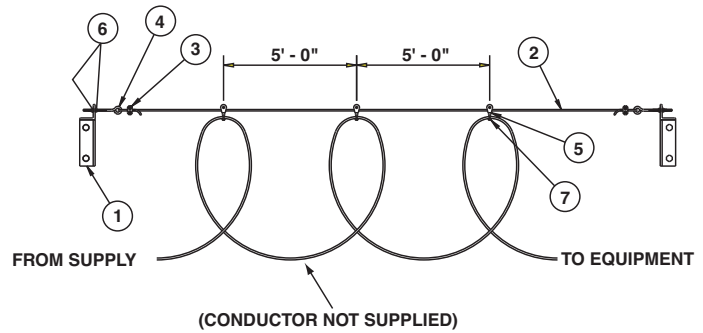
Safety instruction labels should be in readable condition at all times. If any become lost or damaged, please notify SPANCO with the gantry serial number immediately, and they will be replaced at no charge.



# OPTIONAL ACCESSORIES

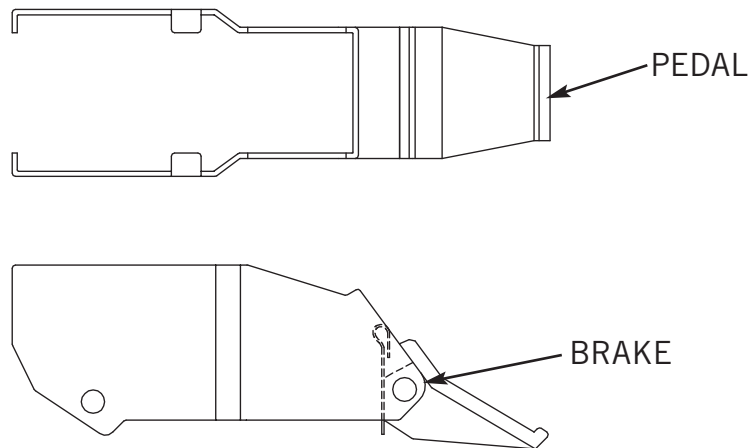
## Tagline Assembly

BILL OF MATERIALS		
ITEM	DESCRIPTION	QTY
7	Cable Ties	5
6	Hex Nuts	4
5	Pulleys	5
4	Eye Bolts	2
3	Cable Clamps	2
2	Tagline Cable	1
1	Trolley Stops	2



## Wheel Brake Assembly Installation

For 6" and 8" diameter casters on SPANCO "A" & "E" Series Gantries

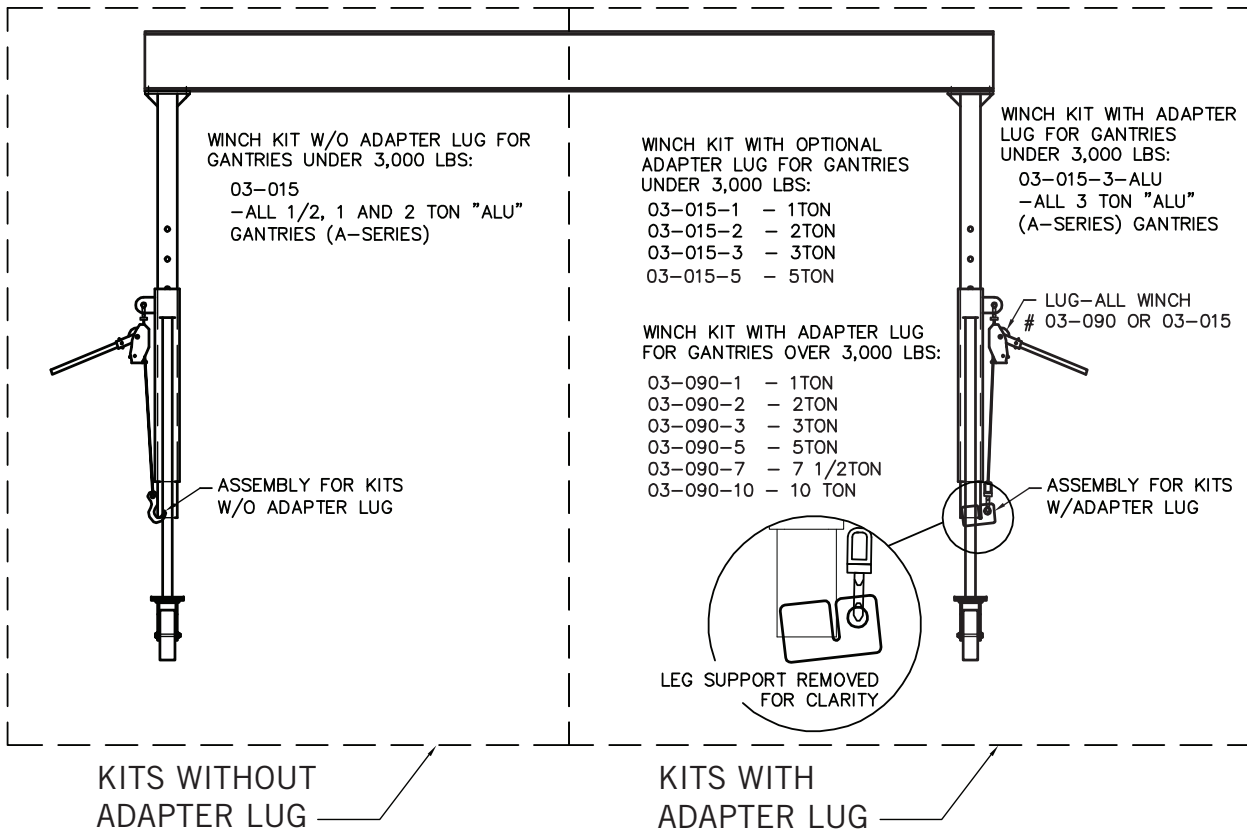


To set brake while assembling the caster:

1. Inspect the brake mechanism to ensure it is in working order.
2. Make sure the brake pedal is in the "off" position (pedal is in the up position).
3. Position the brake brackets over the outside of the fork legs. Line the bolt holes over each fork's bolt holes.
4. Insert the wheel between the fork legs and place the axle through the brake/fork holes and the wheel hub.
5. Thread the nut on the axle and tighten.

**NOTE: NEVER CHANGE CASTERS WITH A LOAD ON GANTRY!**

# LIFT KIT INSTRUCTIONS



- NOTE:**
1. To be used under no load conditions only.
  2. For use on "A" or "ALU" series gantry cranes only.
  3. For kits supplied with an adapter lug, **DO NOT** use without winch adapter lug or damage to the crane could result.
  4. Before removing LUG-ALL® winch, ensure that load pin is fully engaged.





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## TEN-YEAR SPANCO WARRANTY

### Products covered under the Ten-Year Warranty:

- Manual Steel Freestanding, Ceiling Mounted Workstation Bridge Cranes, and Monorails
- Manual Aluminum (Alu-Track®) Workstation Bridge Cranes and Monorails
- Manual Jib Cranes (I-Beam, Articulating, and Workstation Jib Cranes)
- Manual Gantry Cranes and Tripods

### What the Ten-Year Warranty covers:

- Defects in Equipment material and workmanship
- Wearable parts (end truck and hoist trolley wheels only)

Spanco, Inc. warrants its manual workstation bridge crane products, jib crane products, and gantry crane products to be free from defects in material and workmanship for a period of ten (10) years or 20,000 hours, commencing on the date of shipment to the first retail purchaser. This warranty extends to non-wearable parts only, with the exception of the wheels supplied on manually operated workstation end trucks and hoist trolleys. This warranty does not cover defective equipment or system failure caused by misuse, negligence, improper installation or maintenance, or equipment that has been used in excess of its rated capacity or beyond its service factors. It does not apply to equipment that has been altered without Spanco's written authorization.

Written notice of any claimed system defect must be given to Spanco within thirty days of discovery. Spanco's obligation under this warranty is limited to the replacement or repair of Spanco's products at the factory or separate location approved by Spanco. The purchaser is responsible for all freight and transportation costs relating to equipment repair or replacement. **Other than the abovementioned warranty, Spanco will not honor any other warranties—whether express, implied, or statutory—and disclaims any warranties of merchantability or fitness for a particular purpose. Spanco is not liable—under any circumstances—for any indirect, incidental, or consequential damages including but not limited to lost profits, increased operating costs, or loss of production.**

This warranty does not extend to components or accessories not manufactured by Spanco. The purchaser's remedy for such components and accessories will be determined by the terms and conditions of any the warranty provided by the manufacturer of such components and accessories.

**NOTE:** *All motorized Spanco products come with a One-Year Warranty on drive components.*