

# Installation and Parts Manual for SPANCO® E Series Gantry Cranes





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When moving gantry, keep load as close to the floor as possible and position the load in the center of the lbeam.

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.

# **ASSEMBLY INSTRUCTIONS - ALL MODELS**

- 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 and safety shoes.
- 2. Lay both "A" frames flat on the floor. Using an overhead hoist or truck lift, lift the I-beam to the gantry's minimum height (On adjustable height models uprights are secured in A frames at minimum height before shipment from factory). Be sure that the holes in the I-beam flange are on the bottom on fixed height and span models that the capacity rating is right side up and legible.
- 3. Lift one end frame assembly into position under one end of the I-beam, and bolt the I-beam to the top plate of the upright with the hardware supplied.
- 4. 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 D1.2-90. 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.
- 5. Your SPANCO gantry is now ready to use, and if it is an adjustable model, you can now adjust the I-beam to your desired height.

| 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 some lower grades of bolts may not take these high torques. Reduce values accordingly.

# **INSTRUCTIONS FOR HEIGHT & SPAN ADJUSTMENTS - ADJUSTABLE MODELS**

# **HEIGHT ADJUSTMENT:**

**Do not adjust height when unit is under load.** If your gantry is an adjustable model, you can adjust both the height and span. Adjusting the height requires a forklift or an overhead hoist to lift the beam in order to change the position of the locking pins, which secure the telescoping upright posts in the A-frame. Simple raise the

I-beam until the bolt connecting the upright posts to the A-frame can be pulled out of the holes. Lift the beam to the desired height and replace the bolts, securing each in place with the nuts that are provided. **Be sure** that the same number of holes are showing in the post above each A-frame, so that the beam is level.

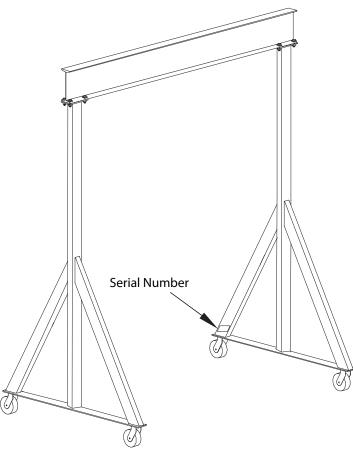
# SPAN ADJUSTMENT:

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. <u>Do not move the legs (A-frames) inward more than one half (1/2) of the total I-beam length.</u> For example, if the beam is 12 feet long, the distance between the A-frames should never be less than the castor center distance (on leg weldment).

After adjusting the span as desired, re-tighten all eight (8) bolts securely. Be sure you adjust <u>both</u> 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.



# SERIAL NUMBER LOCATOR

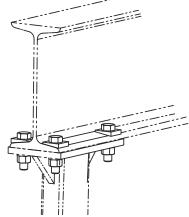


MAINTENANCE

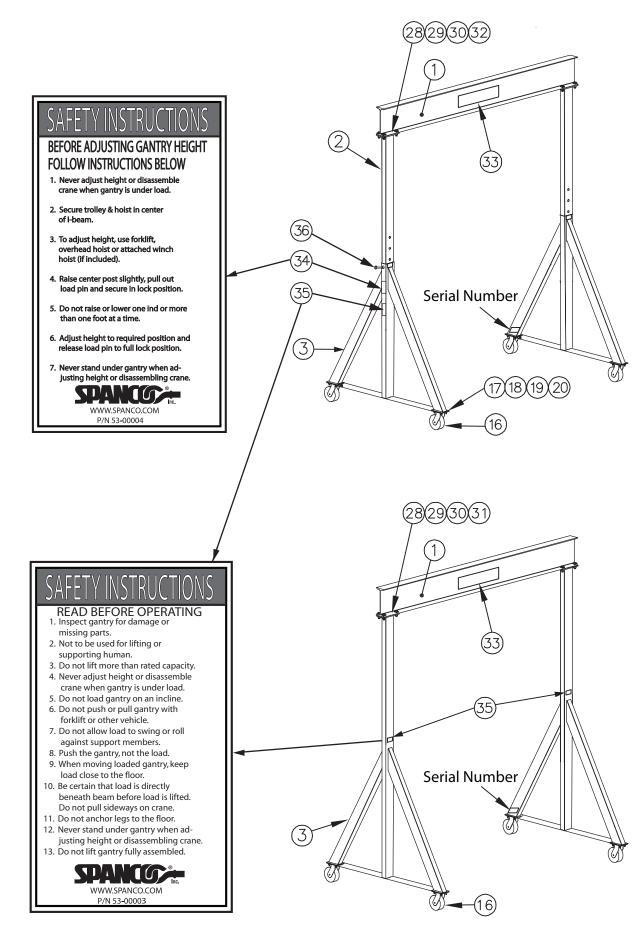
To ensure the safe operation of your gantry, periodically inspect it for bent, broken, damaged, corroded, cracked, or missing parts. The only regular maintenance that is required is to check bolt tightness and to lubricate the casters through the grease fittings that are provided. Casters are prelubricated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

|                | ltem | Description  | L |
|----------------|------|--------------|---|
|                | 1    | Hex Bolt     | L |
|                | 2    | I-Beam Clamp | L |
|                | 3    | Bevel Washer | L |
|                | 4    | Lock Washer  | L |
| Ajustable Span | 5    | Hex Nut      | L |
|                |      |              |   |

Fixed Span



# PARTS BREAKDOWN



|          | Bill Of Materials                           |          |
|----------|---|----------|
| Item No. | Description                                 | Quantity |
| 1        | I-Beam                                      | 1        |
| 2        | Upright                                     | 2        |
| 3        | End Frame                                   | 2        |
| 16       | Caster                                      | 4        |
| 17       | Flat Washer                                 | 16       |
| 18       | Lock Washer                                 | 16       |
| 19       | Hex Nut                                     | 16       |
| 20       | Hex Bolt                                    | 16       |
| 28       | Hex Bolt                                    | 8        |
| 29       | Lock Washer                                 | 8        |
| 30       | Hex Nut                                     | 8        |
| 31       | Level Washer (Fixed Span Only)              | 8        |
| 32       | I-Beam Clamp ( <sub>Adj. Models Only)</sub> | 8        |
| 33       | Capacity Decal                              | 2        |
| 34       | Safety Instructions (Adj. Models Only)      | 2        |
| 35       | Safety Lables                               | 2        |
| 36       | Bolts                                       | 2        |

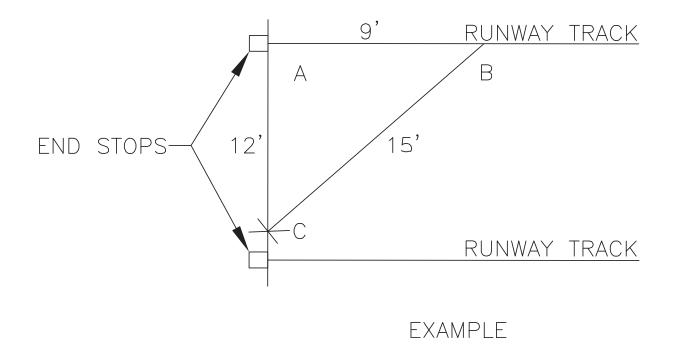
If replacement parts are required, please supply the complete gantry model number, serial number from the label affixed to the A-frame, and the item number of the part(s) on the drawing and bill of materials.

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.

# **V-GROOVE TRACK INSTALLATION INSTRUCTIONS FOR GANTRY CRANES**

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, assembly 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 the 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 feet 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.

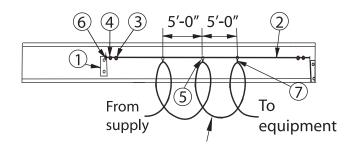




# **OPTIONAL ACCESSORIES**

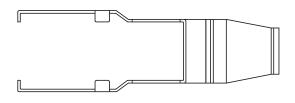
# **Tagline Assembly**

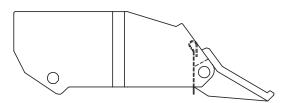
| Bill Of Materials |               |          |
|-------------------|---------------|----------|
| Item No.          | Description   | Quantity |
| 7                 | Cable Ties    | 5        |
| 6                 | Hex Nuts      | 4        |
| 5                 | Pulleys       | 5        |
| 4                 | Eye Bolts     | 2        |
| 3                 | Cable Clamps  | 2        |
| 2                 | Tagline Cable | 1        |
| 1                 | Trolley Stops | 2        |



# Wheel brake assembly installation

For 6" and some 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. Create additional clearance for the brake pad. To do this, loosen the jam nut on the brake pad with a 1/2" wrench. Rotate the brake pad clockwise so it moves toward the shoe/nut assembly.
- 4. Position the brake brackets over the outside of the fork legs. Line the bolt holes over each fork's bolt holes.
- 5. Insert the wheel between the fork legs and place the axle through the brake/fork holes and the wheel hub. Thread the nut on the axle and tighten.
- 6. Move the brake pedal to the "on" position (pedal is in the downward position). Rotate the brake pad outward (counterclockwise) to where it comes into contact with the wheel tread.
- 7. Set the brake pedal to the "off" position and rotate the brake pad counterclockwise until you reach the desired brake strength; test by applying the brake and rotating the wheel with your hand.
- 8. Once the desired brake strength is reached, hold the brake pad in place with your hand and tighten the jam nut against the shoe/nut assembly with a 1/2" wrench.

# To adjust brake on mounted caster:

- 1. Inspect brake mechanism for damage that may cause binding to the brake pad or the mounting bracket.
- 2. To adjust the brake pad, set the brake pedal to the "off" position (pedal is in the up position). Loosen the jam nut with a 1/2" wrench. Turn the brake pad clockwise (toward the shoe/nut assembly) to decrease the brake strength, or counterclockwise to increase the brake strength.
- 3. Once the desired brake strength is reached, hold the brake pad in place with your hand and tighten the jam nut against the shoe/nut assembly with a 1/2" wrench.

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

| Notes: |
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# Spanco.com

# **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.