

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



Bridge Crane Kits

Description

CIGNYS' bridge crane kits provide an economical alternative to factory built bridge crane assemblies for the handling of heavy loads. Units can be installed on parallel I-beam runways. Bridge crane kits employ the use of cast iron wheels containing sealed precision ball bearings. Safe-T-Lug® type end plates are standard on each end truck, acting as rail sweeps, and preventing the unit from falling in case of wheel failure.

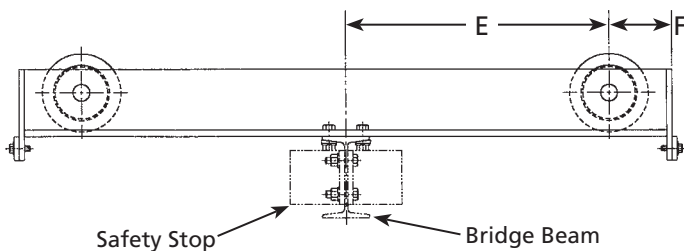
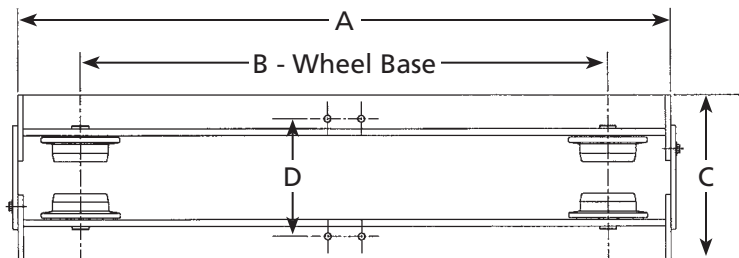
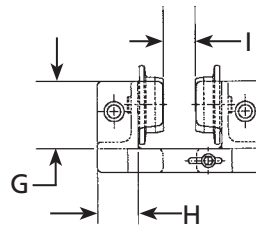


Figure 1



Figure 2



⚠ WARNING These bridge crane kits are neither designed nor intended to be used for the support or transport of people, or for transporting loads over people.

Specifications and Dimensions

Model	Capacity Tons	A	B	C	D	E	F	G	H	I
44600	2	49.75"	39.00"	12.25"	7.47 - 9.58"	19.50"	4.62"	5.00"	3.00"	3.16" MAX
46758	3	49.75	39.00	12.25	7.47 - 9.58	19.50	4.62	5.00	3.00	3.16

General Safety Information

1. Make sure moving unit will clear all obstructions (i.e. electrical wires, overhead lights, etc.).
2. Check I-beam carefully so that unit can roll smoothly without encountering weld marks, beam irregularities, or debris which may have accumulated on beam.
3. The span-beam must have rigid stops (i.e. safety stops) installed at each end to prevent run-off of hoist and trolley assembly.
4. Make certain capacity of hoist does not exceed the rated capacity of the trolley assembly and that the supporting structure has a load rating at least equivalent to the rated capacity of the trolley plus the weight of the hoist.

CIGNYS Bridge Crane Kits

Installation

IMPORTANT – READ THIS FIRST

⚠ WARNING Do NOT load beyond rated capacity.

⚠ WARNING Do NOT use for human transport.

APPLICATION AND USE

Model 44600 (2 Ton) bridge crane kit can be used to construct bridge cranes ranging up to 4,000 lbs. capacity. Model 46758 (3 Ton) bridge crane kit can be used to construct bridge cranes ranging up to 6,000 lbs. capacity. All necessary parts are included in these kits for the construction of the bridge crane units with the exception of the brace assembly and span-beam. Refer to page 5 for replacement parts and accessories.

BRIDGE CRANE TRUCK DESIGN

Model 44600 (2 Ton) and Model 46758 (3 Ton) bridge crane trucks are designed to fit 6" to 12" American Standard I-beams (3.33" to 5.06" flange width).

Bridge crane trucks are 2-piece angle construction with flanged wheels mounted on the assembly. No shims or spacers are required for units to obtain the correct flange clearance.

Both models use universal tread wheels. Universal tread wheels are of a unique design that can also be used for wide flange beams, patented tracks, and rails having 3.33" to 5.06" flange widths.

SPAN-BEAM DETERMINATION

The size of the I-beam required to provide adequate strength for the span-beam depends on the rated load and the length of the span. Refer to Table 1 for the minimum beam size that should be used for various combinations of spans and load ratings.

The span-beam should be at least 8" longer than the span from centerline to centerline of the parallel tracks.

Table 1 is to be used in determining the proper size span-beam to meet your overall capacity and span requirements.

⚠ CAUTION These kits are intended for industrial use only and should not be used to lift, support, or otherwise transport people, or carry loads over people.

⚠ CAUTION As a safety measure, each end of the span-beam must have a rigid stop installed to prevent run-off of the hoist assembly (See Figure 3).

NOTE: Chain hoist and trolley included in capacity. Loads are based on ASTM-47 or equal.

Beam weights are per foot of beam. Multiply weight figure shown by length (in feet) of span-beam used in computing total installed weight.

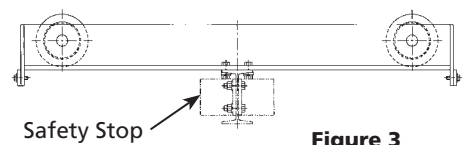


Figure 3

Table 1 — Beam Size (beam height x weight per foot in pounds)

Capacity (Lbs.)	10 ft. Span Beam Size	12.5 ft. Span Beam Size	15 ft. Span Beam Size	17.5 ft. Span Beam Size	20 ft. Span Beam Size	22.5 ft. Span Beam Size	25 ft. Span Beam Size	27.5 ft. Span Beam Size	30 ft. Span Beam Size
500	6" x 12.5#	6" x 12.5#	6" x 12.5#	6" x 12.5#	6" x 12.5#	6" x 12.5#	7" x 15.3#	7" x 15.3#	7" x 20.0#
1000	6" x 12.5#	7" x 15.3#	7" x 15.3#	7" x 15.3#	7" x 20.0#	8" x 18.4#	8" x 23.0#	10" x 25.4#	10" x 25.4#
2000	7" x 15.3#	8" x 18.4#	8" x 23.0#	10" x 25.4#	10" x 25.4#	10" x 35.0#	12" x 31.8#	12" x 31.8#	12" x 35.0#
3000	8" x 23.0#	10" x 25.4#	10" x 35.0#	12" x 31.8#	12" x 35.0#	15" x 42.9#	15" x 42.9#	15" x 42.9#	15" x 42.9#
4000	10" x 25.4#	10" x 35.0#	12" x 31.8#	15" x 42.9#	15" x 42.9#	15" x 42.9#	15" x 42.9#	18" x 54.7#	18" x 54.7#
6000	12" x 31.8#	12" x 31.8#	12" x 31.8#	15" x 42.9#	15" x 42.9#	15" x 42.9#	18" x 54.7#	18" x 54.7#	18" x 54.7#

Models 44600 and 46758

Installation (Continued)

PREPARATION

1. The first step when installing the bridge crane kit is to be sure that the runway beams are parallel within $\frac{1}{8}$ " maximum.
2. Caution should be exercised to make certain each parallel track will withstand the capacities you will carry, plus the added weight of the span-beam, bridge unit, hoist, and other accessories. A minimum safety factor of 5:1 should be used in determining if the parallel I-beam will support the intended load. If there is any doubt, a structural engineer should be consulted.

TRUCK POSITIONING

1. Place the adjustable end truck on one of the parallel I-beams. Loosen the $\frac{1}{2}$ " bolt located in the slot at the end of the truck. Move the two (2) end truck halves so that there is $\frac{1}{8}$ " clearance between the wheel flange and the beam flange on each side. Tighten the bolt to 85 foot-pounds torque. Repeat procedure for the other end of the truck. **The bolt must be tight or the truck might come off the beam.** Repeat the above procedure on the second end truck included with your kit (See Figures 4 and 5).
2. Position the trucks directly opposite one another on their runways. Be sure each truck is centered on the beam/rail, not riding toward either side. Carefully measure the distance between the eight (8) holes for

attaching the span-beam to accept $\frac{1}{2}$ " diameter Grade 5 bolts, which are included in your kit.

3. The span-beam should extend four (4)" beyond each end, past the truck width. The span-beam clips (safety stops) that are supplied with the kit must be installed on the span beam to prevent the hoist and trolley from traveling beyond the center of either parallel beam (See Figure 1, Page 1).
4. Fasten the beam to the end trucks using the mounting hardware provided (See Figure 7, Page 5). Double check to insure that the span-beam is perpendicular to the runway beams. Tighten the beam mounting bolts to 85-foot pounds torque.
5. Have a certified welder weld span-beam stops to I-beam and weld on each end of the end truck in four (4) places (See Figure 6, Page 4).

LOAD RATING

The load rating of the bridge crane should be stenciled on both sides of the span-beam so that it is clearly visible from the floor. The capacity decals provided with the kit are to be used only when the span beam, hoist, and hoist trolley have the same rated capacity. These decals are to be placed on the side of the end trucks.

CAUTION *The designated load rating of the hoist and trolley should not exceed the rated load of the span-beam (See Table 1, page 2).*

LONGER SPAN CRANES

On longer span cranes it may be desirable to add diagonal braces between the span-beam and the crane trucks to insure against loss of truck alignment. Brace assembly may be welded between the bottom of the truck and the top of the span-beam (See Figure 8, page 5). Refer to page 5 for accessories.

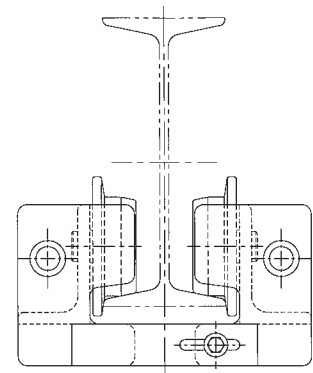


Figure 4 — Bottom Running

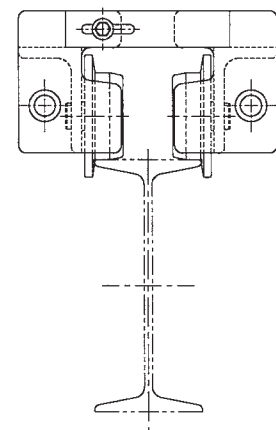


Figure 5 — Top Running

CIGNYS Bridge Crane Kits

Installation (Continued)

CAUTION *The designated load rating of the hoist and trolley should not exceed the rated load of the span-beam (See Table 1, page 2).*

Maintenance

INSPECTION OF COMPLETE ASSEMBLY

Before the bridge crane is put into service, the following items must be checked:

- Loose nuts or bolts
- Trolley wheel wear
- Loose or damaged safety stops
- Missing or loose retaining rings on trolley wheels
- Cracked welds
- Distorted end truck sections, beams, or any damaged parts

LUBRICATION

All wheel bearings are permanently lubricated and sealed. No maintenance should be required other than routine visual inspection every three (3) to six (6) months.

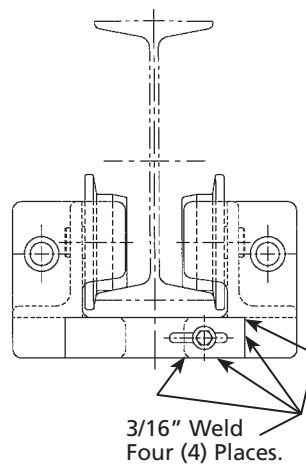


Figure 7 — Weld Locations

CIGNYS WARRANTY STATEMENT

CIGNYS, a corporation duly formed and existing under the laws of the state of Michigan, hereby warrants to the original purchaser only, each new product manufactured and sold by **CIGNYS**, to be free from defect of material, and workmanship during normal service and use. **CIGNYS'** obligation and liability herein shall be limited to providing a replacement product for any product which shall be returned by said purchaser within twelve (12) months from the date of purchase to **CIGNYS** for examination; and only after receiving **CIGNYS'** written authorization therefore and after which said examination shall reveal the product(s) to have been defective.

CIGNYS IS NOT LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES TO SUCH PURCHASER ARISING OUT OF ANY SUCH DEFECT AND PROVIDES NO OTHER WARRANTY OF FITNESS OR MERCHANTABILITY EITHER EXPRESSED OR IMPLIED.

LIMITATIONS

This warranty shall not apply to any **CIGNYS'** product which has been repaired, modified or altered in any way or which has been subjected to negligent or careless handling or use after leaving **CIGNYS'** custody and control so as in **CIGNYS'** judgement, to have adversely affected the products' performance and reliability, nor to any product which has been used for any purpose for which it has not been designed or intended. No one shall have the authority to modify or expand the terms of this warranty without the express written approval of a duly designated officer of **CIGNYS**.

Manufactured by CIGNYS
68 Williamson Street
Saginaw, MI 48601 U.S.A.
989-753-1411

For Replacement Parts, call 989-753-1411

Please provide the following information:

- Model number
- Part description and number as shown in parts list

Address parts correspondence to:

CIGNYS

68 Williamson Street
Saginaw, MI 48601 U.S.A.

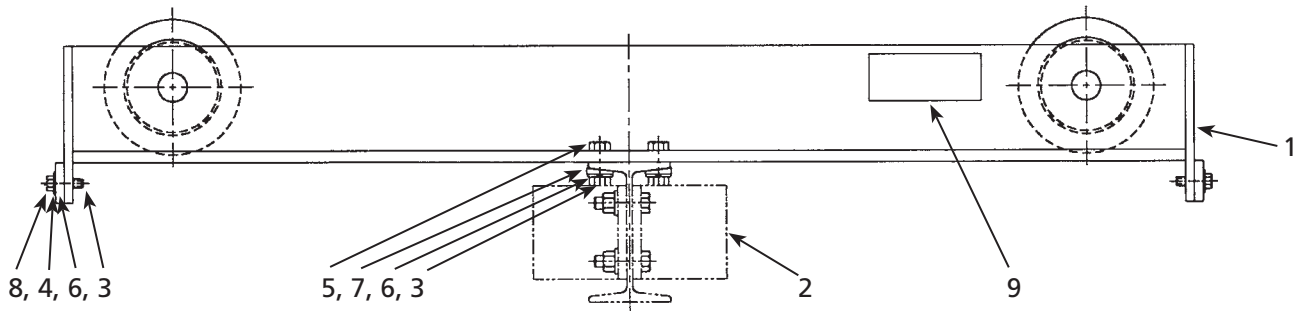


Figure 7 — Parts Illustration

Parts List

Reference Number	Description	Part Number	Quantity
1	2 Ton side angle assembly	02-044520-1	4
	3 Ton side angle assembly	02-047903	4
2	Safety stop	02-040840	1
3	1/2 - 13 Hex nut	02-052331	8
4	Flat washer	02-006620-11	4
5	1/2 - 13 x 2 1/4" Hex head bolt	02-52332	8
6	1/2" Lock washer	GG 1/2 ML	8
7	1/2" Tapered washer	91151A033	8
8	3/8 - 16 x 1 1/4" Hex head bolt	02-052340	4
9	2 Ton maximum capacity decal	02-52045	2
	3 Ton maximum capacity decal	02-52046	2

Accessories

Optional (Not included with Bridge Crane Kit)

Item No.	Description	Part Number
1	Brace Assembly	44596

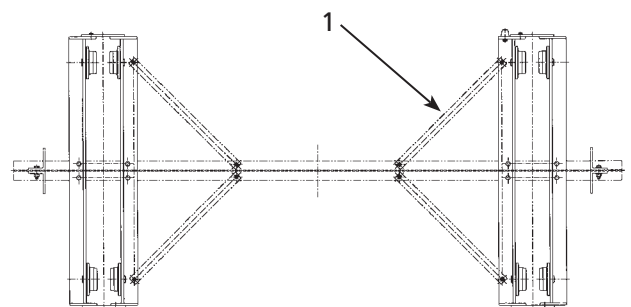


Figure 8 — Brace Weld Locations

