



# Wallace Mighty Mite Gantry Cranes

## Assembly Instructions

*Read, Understand, and Comply with all instructions supplied with this crane. Also, pay attention to the equipment used with this crane such as hoists, trolleys, power drives (if applicable), etc. Read, Understand, and Comply with the requirements of OSHA (Occupational Safety, and Health Administration) 1910.179*

### STEP 1 - ASSEMBLE I-BEAM HARDWARE COMPONENTS

- A. Place I-Beam (1) on a pair of suitable supports in an upright position so the stencils are right side up.
- B. Slide one pair of I-Beam Brackets (2) onto each end of the I-Beam (1). Make sure the welded tabs on the brackets face away from each other.
- C. Slide second pair of I-Beam Brackets (2) onto each end of the I-Beam (1). Make sure the welded tabs on the brackets face away from each other.
- D. Attach an I-Beam Safety Key Ring (8) to each end of the I-Beam (1) through the 3/8" holes.
- E. At each end of the crane separate the Main Leg Bracket and the Brace Leg Bracket with a Spacer Bar (3). Remove the nut from each bracket, place the spacer bar over the set screw and replace the nut. The nut does not need to be tightened yet.
- F. Connect your trolley and hoist, if you have them, to the I-beam (1) as per their instructions. Secure Trolley to I-Beam (1) until erection of crane is complete.
- G. Connect a pair of Trolley Stop Angles (4) to each end of the I-Beam (1) with a pair of Bolts (5), Nuts (6) and Lockwashers (7). Be sure that the flat face of the trolley stop faces towards the center of the I-Beam.

### STEP 2 - ASSEMBLE MAIN LEGS AND BRACE LEGS TO THE I-BEAM

- A. Using the Main Leg Support Pin (13), attach the upper end of each of the four Upper Main Legs (9) to each pair of outer I-Beam Brackets (2). Make sure the welded tabs at the bottom of each Upper Main Leg (9) point towards the center of the I-Beam (1). Use a Safety Key Ring (8) to secure each Main Leg Support Pin (13).
- B. Using the Brace Leg Support Pin (14), attach the upper end of each of the four Brace Legs (11) to each pair of inner I-Beam Brackets (2). Be sure the Brace Leg (11) is aligned so the miter cut ends will be parallel to the ground when the gantry is erected. Use a Safety Key Ring (8) to secure each Brace Leg Support Pin (14).
- C. Extend the Lower Main Leg (10) from the Upper Main Leg (9) to the desired position. Make sure all four legs are adjusted equally. Use a Load Pin (15) and a Safety Key Ring (8) to secure the Upper and Lower Main Legs together. In the hole below the Load Pin (15) put another Load Pin (15) to act as a safety stop. Secure this pin with a Safety Key Ring (8).
- D. Loosen the nut on the set screw on each of the eight brackets (2). Tighten the set screw with an Allen wrench until the bracket fingers rest firmly against the underside of the I-Beam flange and the set screw point bites into the I-Beam (1). Do not over-tighten the set screws so the bracket rests at a severe angle, this will hinder the construction on the crane and interfere with proper operation. Tighten each nut back down so as to lock the set screw in place.
- E. Place the I-Beam Stabilizer (22) flat against the under-side of the I-Beam (1) (between the Main Legs). Place a Clip (25) (teeth down) on the top of the flange. Secure the Clip (25) and I-Beam Stabilizer (22) to the I-Beam (1) with a pair of Bolts (24), Nuts (23) and Lockwashers (26). Adjust bolt spacing as needed. Repeat on other side.



## STEP 3 - ASSEMBLE CASTER FRAMES AND ERECT CRANE

- A. Optional if you have casters for your gantry: To each Caster Frame (12) attach two Swivel Casters (18). Use four Bolts (19), four Nuts (20) and four Lockwashers (21) to attach each Caster.
- B. Using a lifting device (Such as a fork lift, overhead hoist or tripod) carefully raise the I-Beam (1) so the Lower Main Legs (10) are off the ground.
- C. Use a Caster Frame Pin (17) to attach the Caster Frame (12) to the two Lower Main Legs (10) at each end of the crane. Secure the Caster Frame Pin (17) with a Safety Key Ring (8).
- D. Gently set the crane down, making sure all four casters are resting evenly on the floor.

### Parts List

ITEM NO.	QUAN.	PART DESCRIPTION
1	1	I-BEAM (American Standard "S" shape)
2	8	I-BEAM BRACKET (cut shapes w/ tabs, nut, set screw)
3	2	SPACE BAR
4	4	TROLLEY STOP ANGLE
5	4	TROLLEY STOP BOLT
6	4	TROLLEY STOP NUT
7	4	TROLLEY STOP LOCKWASHER
8	26	SAFETY KEY RING & TAG ASS'Y
9	4	UPPER MAIN LEG 2"
10	4	LOWER MAIN LEG 1-3/4"
11	4	BRACE LEG 2"
12	2	CASTER FRAME 2"
13	4	MAIN LEG SUPPORT PIN 1/2" X 4" LG
14	4	BRACE LEG SUPPORT PIN 1/2" X 4-3/16 LG
15	8	LOAD PIN 1/2" DIA.
16	4	BRACE LEG PIN 1/2" X 3-1/2" LG
17	4	CASTER FRAME PIN 1/2" X 3-1/4" LG
18	4	SWIVEL CASTER (Optional)
19	16	CASTER BOLT 3/8"-16NC X 1-1/2" (Optional)
20	16	CASTER NUT 3/8"-16NC (Optional)
21	16	CASTER LOCKWASHER 3/8" (Optional)

**ALL BOLTS SHOULD BE TIGHTENED TO 25 FOOT POUNDS  
25 FOOT POUNDS = 300 INCH POUNDS**

**See Safe Use Instruction Form 379**

