



The Caldwell Group, Inc.

4080 Logistics Pkwy (815) 229-5667
Rockford, IL 61109 Toll Free (800) 628-4263
www.caldwellinc.com Fax (815) 22 9-5686

INSTRUCTION MANUAL FOR Model 25 – Twin Hoist Lifting Beam

Your new Model 25 Twin Hoist Lifting Beam only supports loads up to its rated capacity when loaded correctly. The Model 25 Twin Hoist Lifting Beam is a load supporting, complying with ASME B30.20 BTH-1 Design Category B and Service Class 2, which is for specific tasks withstanding forces based on the unit's rated capacity. Use the following guidelines for your protection, and for optimal operation of your equipment. The safety precaution list below is not necessarily all-inclusive. The owner or user is responsible for understanding and acting according to industry standards and any local, city, state, and federal regulations. Refer to the Manufacturer's Instruction Manual for product and safety information on other attachments, components or both used with your lifting equipment.

1. **DO NOT EXCEED RATED CAPACITY OF THE MODEL 25 TWIN HOIST LIFTING BEAM.**
2. **DO NOT EXCEED RATED CAPACITY OF THE CRANE**
3. **DO NOT** lift or support people.
4. **DO NOT** lift over people.
5. **DO NOT** lift higher than necessary.
6. **DO NOT** leave the suspended load unattended.
7. **DO NOT** rotate the load on any Model 25 Lifting Beam supplied with a standard swivel hook. Load rotation is permissible **ONLY** on units equipped with the roller bearing hook(s) option.
8. **DO** inspect the lifter for damage or excess wear before each use. Check for structural bending, excess wear at load points, cracked or broken welds, or deformed hooks. If inspection reveals any defect(s), remove the lifting device from service, and tag "Out of Service". Immediately notify your Safety Administrator or Supervisor to contact The Caldwell Group regarding any defect.
9. **DO** contact The Caldwell Group to replace worn or damaged tags and/or decals.

Loading Operation

1. Know the rated capacity and weight of your Model 25 Twin Hoist Lifting Beam.
(See the Caldwell Nameplate/ID on your unit).
2. The rated capacity of the Model 25 Twin Hoist Lifting Beam must be equal to or greater than the weight of the load.
3. Add together the rated capacity and weight of the Model 25 Twin Hoist Lifting Beam.
4. Know the rated capacity of each crane.
5. Add together the rated capacity of each crane.
 - a. Each crane has the same rated capacity for symmetrical loading.
 - b. Each crane has a different rated capacity for asymmetrical loading.
6. Know the weight of the load.
7. Lifting the load with two cranes, do the calculation: The total rated capacity of both cranes must be equal or greater than the combined weight and rated capacity of the beam.
 $\text{crane 1 rated capacity} + \text{crane 2 rated capacity} \geq \text{the weight of the lifting beam} + \text{the weight of the load}$.
8. Lifting the load with one crane (for units with a Center Bail), do the calculation: The rated capacity of the crane must be equal or greater than the combined weight and rated capacity of the beam.
 $\text{crane 1 rated capacity} \geq \text{the weight of the lifting beam} + \text{the weight of the load}$.
9. Use slings(s) when applicable:
 - a. Single sling use, the rated capacity of the sling must be equal to or greater than the weight of the load
 - b. Multiple sling use, add the rated capacity of each sling together. The total rated capacity must be equal to or greater than the weight of the load



The Caldwell Group, Inc.

4080 Logistics Pkwy (815) 229-5667
 Rockford, IL 61109 Toll Free (800) 628-4263
www.caldwellinc.com Fax (815) 22 9-5686

Figure 1
Symmetrical Loading and Proper Lifting

Prevent tilting of the Model 25 Twin Hoist Lifting Beam.

- a. Symmetrically attach the load when using the CENTER BEAM HOOK to avoid overloading on either crane.
- a. The load's center of gravity is in-line with the center of the CENTER BEAM HOOK.
- b. The load's center of gravity is symmetrical from the center of the CENTER BEAM HOOK to each CRANE HOOK center.
- c. Keep the hoist spread equal to the beam spread.
- d. Each crane has the same rated capacity.
- e. Use ONLY a vertical lift. The center of each CRANE HOOK must be 90 degrees to the beam.
- f. Perform a test lift of several inches to verify the load is properly balanced, and the lifter is level/horizontal.
- g. The load beam must be level throughout the lift.

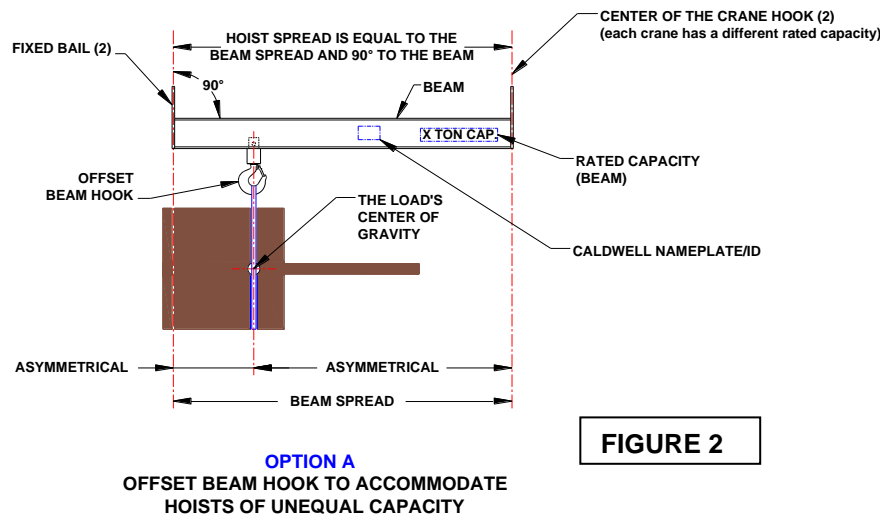
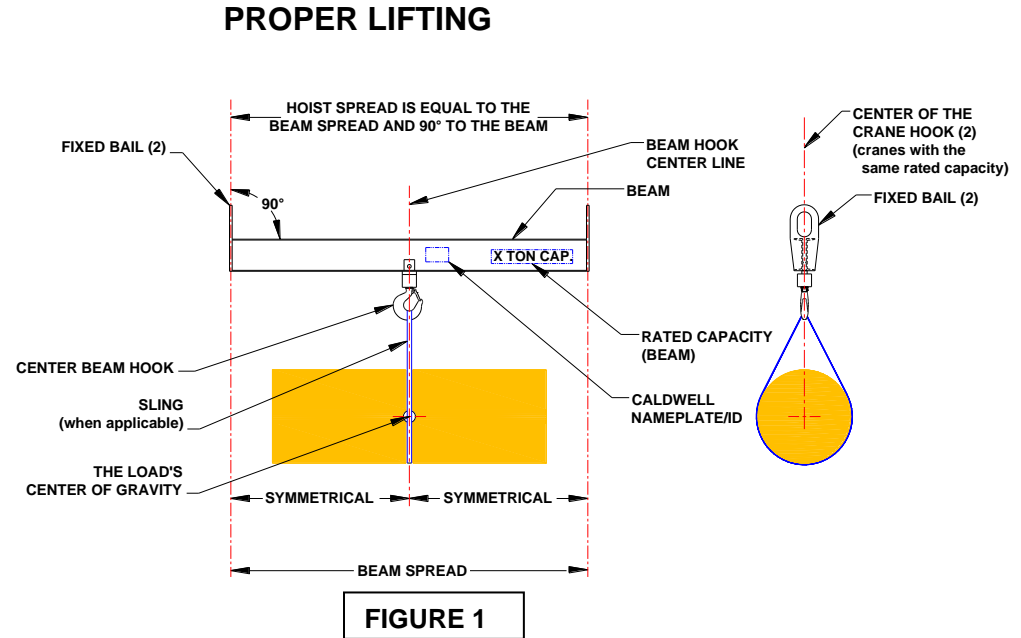


Figure 2
Asymmetrical Loading and Proper Lifting

Prevent tilting of the Model 25 Twin Hoist Lifting Beam.

- a. The load's center of gravity is in-line with the center of the OFFSET BEAM HOOK.
- b. The two distances between the centers of each CRANE HOOK and the center of the OFFSET BEAM HOOK are asymmetrical.
- c. Keep hoist spread equal to the beam spread.
- d. The rated capacity of each crane is different
- e. Use ONLY a vertical lift. The center of each CRANE HOOK must be 90 degrees to the beam.
- f. Perform a test lift of several inches to verify the load is properly balanced, and the lifter is level /horizontal.
- g. The load beam must be level throughout the lift.



The Caldwell Group, Inc.

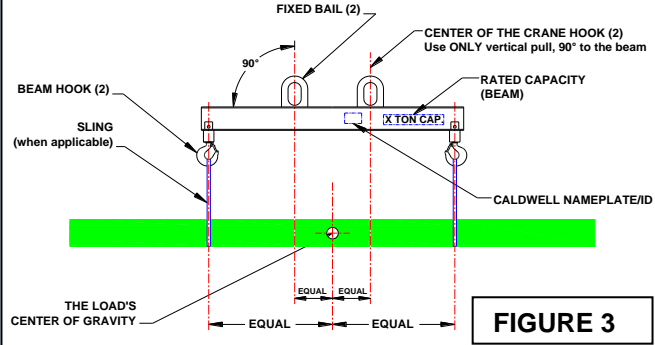
4080 Logistics Pkwy (815) 229-5667
 Rockford, IL 61109 Toll Free (800) 628-4263
www.caldwellinc.com Fax (815) 22 9-5686

PROPER LIFTING

Figure 3
Symmetrical Loading and Proper Lifting

Prevent tilting of the Model 25 Twin Hoist Lifting Beam.

- Symmetrically attach the load to the beam using two BEAM HOOKS to avoid overloading on either crane.
- The load's center of gravity is equal distance from the center of each CRANE HOOK.
- The load's center of gravity is equal distance from the center of each BEAM HOOK.
- The rated capacity of each crane is the same.
- Use ONLY a vertical lift. The center of each CRANE HOOK must be 90 degrees to the beam.
- Perform a test lift of several inches to verify the load is properly balanced, and the lifter is level/horizontal.
- The load beam must be level throughout the lift.

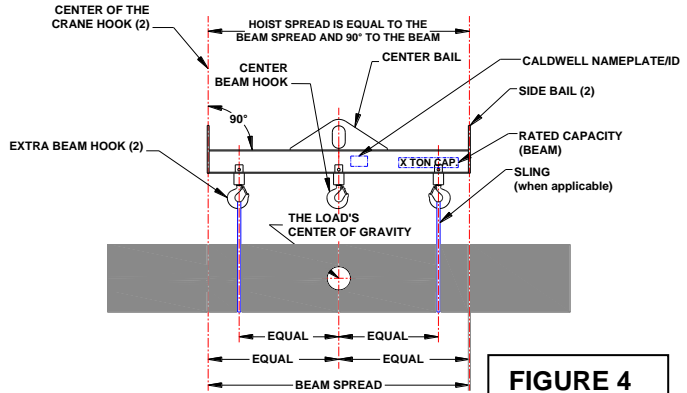


OPTION B
 ALLOW LOADS OF EXTREME LENGTH TO BE LIFTED BY TWIN HOISTS OF EQUAL CAPACITY

Figure 4
Symmetrical Loading and Proper Lifting

Prevent tilting of the Model 25 Twin Hoist Lifting Beam.

- Symmetrically attach the load to the beam when using two equally spaced BEAM HOOKS to avoid overloading of either crane.
- The load's center of gravity is equal distance from the center of each CRANE HOOK.
- The load's center of gravity is equal distance from the center of each BEAM HOOK.
- The rated capacity of each crane is the same.
- Use ONLY a vertical lift. The center of each CRANE HOOK must be 90 degrees to the beam.
- Perform a test lift of several inches to verify the load is properly balanced, and the lifter is level/horizontal.
- The load beam must be level throughout the lift.

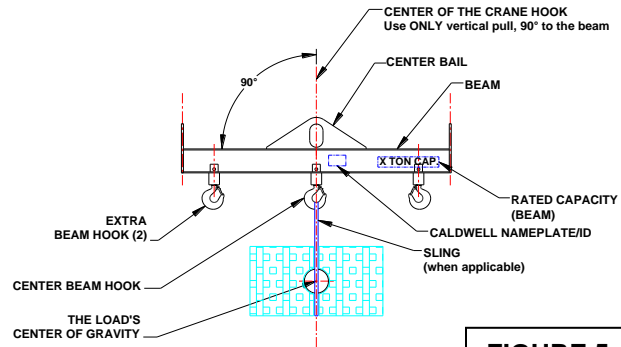


OPTION C
 CENTER BAIL AND EXTRA PAIR OF HOOKS FOR MAXIMUM VERSATILITY

Figure 5
Symmetrical Loading and Proper Lifting

Prevent tilting of the Model 25 Twin Hoist Lifting Beam.

- The CENTER BEAM HOOK is in the center of the beam.
- The load's center of gravity is in-line with the center of the CENTER BEAM HOOK, the center of the CRANE HOOK and the center of the CENTER BAIL.
- Use ONLY a vertical lift. The center of the CRANE HOOK must be 90 degrees to the beam.
- Perform a test lift of several inches to verify the load is properly balanced, and the lifter is level/horizontal.
- The load beam must be level throughout the lift.



OPTION C
 LIFTING THE LOAD WITH THE CENTER BAIL AND THE CENTER BEAM HOOK



The Caldwell Group, Inc.

4080 Logistics Pkwy (815) 229-5667
 Rockford, IL 61109 Toll Free (800) 628-4263
www.caldwellinc.com Fax (815) 22 9-5686

IMPROPER LIFTING

Figure 6
Improper Lifting

DO NOT lift the load when the center of the CRANE HOOKS are less than 90 degrees to the Mode 25 Twin Hoist Lifting Beam.

Applies to:
 a. Lifting the load with Twin Bails
 b. Lifting the load with a single CENTER BAIL

Figure 7
Improper Lifting

DO NOT lift the load when the center of the CRANE HOOKS are greater than 90 degrees to the Mode 25 Twin Hoist Lifting Beam.

Applies to:
 a. Lifting the load with Twin Bails
 b. Lifting the load with a single CENTER BAIL

Figure 8
Improper Lifting

DO NOT use top rigging with a single CRANE HOOK to lift the load on any style of Model 25 Twin Hoist Lifting Beam.

Figure 9
Improper Lifting

DO NOT LIFT the Model 25 Twin Hoist Lifting Beam and Load with a single CRANE HOOK.

Figure 9
Improper Lifting

DO NOT LIFT the Model 25 Twin Hoist Lifting Beam when the load's center of gravity is not in-line with the center of CENTER BEAM HOOK.

DO NOT LIFT The Model 25 Twin Hoist Lifting beam when the load's center of gravity is not equally spaced between the CRANE HOOKS.

MODIFICATIONS TO YOUR LIFTING EQUIPMENT WITHOUT PRIOR APPROVAL FROM
 THE CALDWELL GROUP, INC. WILL VOID YOUR WARRANTY.
 REFER TO ASME 30.20 REGARDING LIABILITY OF REPAIRED OR MODIFIED LIFTER.

