

1 RCNY §3316-01

CHAPTER 3300

Safeguards during Construction or Demolition

§3316-01 Rigging operations and rigging equipment

- (a) **Applicability.** This section applies to rigging operations performed in connection with the hoisting or lowering of articles on the outside of a building and all rigging equipment utilized in connection with such operations.
- (b) **Definitions.** For the purposes of this section, terms defined in Chapter 2 of the New York City Building Code and section 3319-01 of these rules have the same meaning here.
- (c) **Manufacturer specifications, design, and capacity restrictions.** Rigging operations must be performed, and rigging equipment utilized, in accordance with specifications and rated capacities established by the manufacturer of the rigging equipment and the manufacturer of the object to be hoisted or lowered. In addition, where plans or design documents are provided, the rigging operations must be performed in accordance with such plans or design documents.

Exceptions: Deviations from the manufacturer specifications and rated capacities are allowed provided they are in accordance with design drawings prepared by a registered design professional who has demonstrated knowledge and experience with rigging. Such design drawings must clearly indicate the deviations from the manufacturer specifications and rated capacities.

- (d) **Precautions.** The following precautions must be observed during rigging operations.
- (1) **Tag lines.** A tag or restraint line must be used where a load could be subject to rotation that would pose a hazard.
 - (2) **Releasing the load.** The rigging supervisor required by Section 3316.9.1 of the New York City building code is required to ensure that no load is released from the hoisting line or otherwise deposited until either:
 - (i) The load is securely attached in place to the building or structure; or
 - (ii) The load has been placed on a surface or structure capable of supporting the load.
 - (3) **Shock loading.** Precautions must be taken to avoid shock loading.
 - (4) **Makeshift links or fasteners.** Makeshift links or fasteners formed from bolts or rods, or other such attachments are prohibited.
 - (5) **Job built equipment.** Job built rigging equipment must be designed by a registered design professional who has demonstrated knowledge and experience with rigging. Signed and sealed drawings for the job built rigging equipment must be kept at the site at all times.
 - (6) **Trimming and balancing loads.** Loads must be securely slung and balanced before they are set in motion. Loads must be trimmed to prevent the dislodgment of any part during raising, lowering, swinging, or transit.
 - (7) **Load suspended beneath another load (“Christmas treeing”) prohibited.** No load may be suspended directly beneath an existing load.
 - (8) **Attachment points.** Only an attachment point, consisting of a hook or other secure connection not allowing any undesirable movement, and provided or authorized by the manufacturer of the hoisting machine or hoisting equipment, may be used to support a suspended load. No load shall be slung over, wrapped around, tied to, or otherwise draped from a boom, fork, cradle, lifting arm, bucket, platform, basket, or similar accouterment.
- (e) **Slings.** Slings must be utilized in accordance with the requirements of this subdivision and ASME B30.9. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.
- (1) **Repairs, alterations, and modifications.** Slings may only be repaired, altered, or modified by the manufacturer of the sling, or an entity authorized by the manufacturer.

Exception: Missing or illegible identification tags may be replaced by a qualified person in accordance with the requirements of the manufacturer of the sling.

- (2) **Inspections.** The frequent inspection required by ASME B30.9 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. Where synthetic slings are utilized, the softening mechanisms must also be inspected as part of the frequent inspection. The periodic inspection and other inspections required by ASME B30.9 must be performed by a competent person designated by the owner of the sling at the intervals prescribed by ASME B30.9.
- (i) **Additional inspection for synthetic slings.** Synthetic materials can be degraded by exposure to sunlight or ultraviolet light. Manufacturer recommendations for the inspection of synthetic slings to determine the damage from sunlight or ultraviolet light must be followed.
- (3) **Records.** Where ASME B30.9 requires a record or documentation of an inspection or test, such record or documentation must be signed and dated by the individual who performed the inspection or test, and must be maintained by the owner of the sling.
- (4) **Identification.** Tags or similar identification on the sling must be legible.
- (5) **Discarded rope.** Discarded rope cannot be used for slings.
- (6) **Weakest component.** Hooks, rings, oblong links, pear shaped links, welded or mechanical coupling links, or other attachments must have a rated capacity at least equal to that of the sling with which they are used.
- (7) **Protection of synthetic slings from edges, corners, or protrusions.** Synthetic slings cannot be used unless softening mechanisms have been applied to all edges, corners, or protrusions.
- (8) **Use of synthetic slings in conjunction with climber or tower crane erection, jumping, climbing, and dismantling.** Synthetic slings can only be used in conjunction with climber or tower crane erection, jumping, climbing, and dismantling if the manufacturer's manual specifically states or recommends the use of synthetic slings.
- (f) **Below-the-hook lifting devices.** Below-the-hook lifting devices must be utilized in accordance with the requirements of this subdivision and ASME B30.20. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.
- (1) **Repairs, alterations, and modifications.** Below-the-hook lifting devices may only be repaired, altered, or modified by the manufacturer of the device, or an entity authorized by the manufacturer.
- Exception:** Missing or illegible identification tags may be replaced by a qualified person in accordance with the requirements of the manufacturer of the below-the-hook lifting device.
- (2) **Inspections.** The frequent inspection required by ASME B30.20 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. The periodic inspection and other inspections required by ASME B30.20 must be performed by a competent person designated by the owner of the below-the-hook lifting device at the intervals prescribed by ASME B30.20.
- (3) **Records.** Where ASME B30.20 requires a record or documentation of an inspection or test, such record or documentation must be signed and dated by the individual who performed the inspection or test, and must be maintained by the owner of the below-the-hook lifting devices.
- (4) **Identification.** Tags or similar identification on the below-the-hook lifting device must be legible.
- (g) **Rigging hardware.** Rigging hardware described in ASME B30.26 must be utilized in accordance with the requirements of this subdivision and ASME B30.26. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.
- (1) **Repairs, alterations, and modifications.** Rigging hardware may only be repaired, altered, or modified by the manufacturer of the rigging hardware, or an entity authorized by the manufacturer.
- Exceptions:**
1. Missing or illegible identification tags may be replaced by a qualified person in accordance with the requirements of the manufacturer of the rigging hardware.
 2. Safety latches may be replaced by a qualified person in accordance with the requirements of the manufacturer of the rigging hardware.

- (2) **Inspections.** The frequent inspection required by ASME B30.26 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. The periodic inspection and other inspections required by ASME B30.26 must be performed by a competent person designated by the owner of the rigging hardware at the intervals prescribed by ASME B30.26.
- (3) **Records.** Where ASME B30.26 requires a record or documentation of an inspection, calibration, or test, such record or documentation must be signed and dated by the individual who performed the inspection, calibration, or test, and must be maintained by the owner of the rigging hardware.
- (4) **Identification.** Tags or similar identification on the rigging hardware must be legible.
- (h) **Hooks.** Hooks must be utilized in accordance with the requirements of this subdivision and ASME B30.10. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.
- (1) **Repairs, alterations, and modifications.** Hooks may only be repaired, altered, or modified by the manufacturer of the hook, or an entity authorized by the manufacturer. Repairs, alterations, or modifications by welding or reshaping are not acceptable unless prior written approval of the department is obtained.
- Exception:** Safety latches may be replaced by a qualified person in accordance with the requirements of the manufacturer of the hook.
- (2) **Inspections.** The frequent inspection required by ASME B30.10 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. The periodic inspection and other inspections required by ASME B30.10 must be performed by a competent person designated by the owner of the hook at the intervals prescribed by ASME B30.10.
- (3) **Records.** Where ASME B30.10 requires a record or documentation of an inspection or test, such record or documentation must be signed and dated by the individual who performed the inspection or test, and must be maintained by the owner of the hook.
- (4) **Identification.** Tags or similar identification on the hook must be legible.
- (5) **Latches and self-locking mechanisms.** Hooks without a latch or self-locking mechanism are prohibited.
- (i) **Documents made available upon request.** Where this section or a referenced standard requires inspection records, design drawings, or other documentation to be maintained, such record, design drawing, or documentation must be made available to the commissioner upon request.
- (j) **Referenced standards.** The standards referenced in this section are considered part of the requirements of this section to the prescribed extent of each such reference. Where differences occur between provisions of this section and referenced standards, the provisions of this section apply.

Standard	Name	Year
American Society of Mechanical Engineers (ASME)		
ASME B30.9	Slings	2021
ASME B30.10	Hooks	2019
ASME B30.20	Below-the-hook lifting devices	2021
ASME B30.26	Rigging hardware	2015