



KCA TOOL BOX TALK: *Materials Hoist Collapse Prevention*

A materials hoist is generally used on construction sites to hoist building materials between the ground and elevated floors of a multi-level structure. A hoist system includes a car, mast tower, mast ties, base/landing systems and a drive unit.

Operating hoists can present a risk of injury or death from a hoist collapse. This can occur due to the failure of the mast structure or if the hoist is not adequately secured to the supporting structure. A collapse may be influenced by a number of factors, including overloading or incorrect installation of the mast structure or supporting ties.

Planning the safe set-up and operation of materials hoists is the first step in ensuring that work is done safely. Below are some safety tips to review.

INCIDENT PREVENTION:

- Train workers on the proper procedures for erecting, inspecting, testing and maintaining the material hoist as recommended by the manufacturer. Workers must also be trained on how to recognize fall hazards and protect themselves from those hazards.
- Performing regular hoist maintenance, inspection, and testing of all functions/safety devices (e.g., safety brake system, safety chain, hoist cable) by a competent person will help to ensure that everything functions properly. This should always be done before putting the hoist in service, after major alterations, and on a regular basis.
- Comply with the manufacturer's specifications and install the safety chain as specified by the manufacturer. Use the welding method required by the manufacturer of the safety chain to ensure that it is correctly attached.
- Ensure that workers' personal fall arrest systems are not connected to any part of the material hoist when working outside it to install tower sections. Connect workers' PFASs to an independent anchorage such as an adjacent building's steel beam that is not used to support or suspend the carriage and is capable of supporting at least 5,000 pounds for each worker attached. An anchorage designed, installed and used under the supervision of a qualified person and as part of a complete PFAS capable of supporting at least twice the weight expected to be imposed upon it can be used instead. Lifelines must be protected from cuts or abrasions at all times.
- Prohibit workers from riding on top of a material hoist's carriage. Also, workers must not ride inside a material hoist's carriage except during inspection and maintenance activities. However, an OSHA Letter of Interpretation (dated April 7, 1987) states that workers can ride inside a material hoist's carriage when erecting towers, only if there is no other way to access the material hoist. Otherwise, when adding tower sections, workers should access a material hoist by using the stairways and windows of the adjacent building that the material hoist is anchored to.

For more information visit OSHA REGULATIONS: 1926.552

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