Basic Rigging Principles, Part 1: Hazards and Risks

Rigging is the process of using specialized equipment to lift and move heavy loads. Rigging may also refer to the specialized equipment we use to attach and move heavy loads.

Rigging Purpose
People who perform rigging carefully choose equipment based on the weight and balance of the object they need to move to a designated place. Rigging activities may involve lifting extremely heavy objects at great heights or through narrow or confined spaces. The goal is always to safely move objects from one place to another.

Industries in which people perform rigging include:

- Construction (building, remodeling, demolition, infrastructure)
- Manufacturing and industrial (assembling equipment, vehicles or ships)
- Road construction (moving the heavy materials required to build bridges)
- Commercial (harvesting oil, gas and trees; mining; maintaining telecommunication networks)
- Transportation (loading/unloading, moving train cars, boats and ships)
- Entertainment (moving sets, lights, speakers and cameras)

Hazards
Generally, rigging may expose workers to fall hazards, struck-by or crushing hazards and electrical hazards. Being aware of these hazards is the first step to making safe choices. Only qualified people are allowed to perform rigging activities, and they have the training and experience required to account for these hazards.

Fall hazards may be created by:

- Uneven surfaces
- Slick surfaces
- Obstructions
- Unprotected sides, openings or holes

Electrical hazards can be created by:

- Rigging near energized lines
- Failure to ground tools/equipment
- Defective electrical tools and cables

Struck-by and crushing hazards include:

- Equipment tip-overs onto people or objects
- Equipment failure that causes loads/equipment to swing or drop
- Falling loads that strike people below
- Moving parts/loads/equipment that strike people or objects
- Loads pinning people and crushing them against objects

Think about how environmental conditions (winds, slick surfaces), imbalanced, unstable and oddly shaped loads can increase the risks associated with these hazards.

Rigging operations may need to be rescheduled or suspended when there is high wind, lightning or rain.