

Basic Rigging Principles, Part 2: General Safety

The process of rigging includes preparing for the job, doing the job safely, and inspecting and storing equipment.

1. Preparing for the job	2. Doing the job safely	3. Inspecting and storing equipment
<ul style="list-style-type: none">• Job hazard analysis• Crew organization• Preparation/planning• Pre-job briefing	<ul style="list-style-type: none">• Wear PPE• Communicate• Inspect/attach equipment• Use safe practices	<ul style="list-style-type: none">• Inspect equipment• Remove defective equipment• Store equipment

Preparing for the Job

A **job hazard analysis** is a document that identifies potential hazards and how to control them. A competent person completes the job hazard analysis with input from supervisors, employees and other professionals.

The **lift director** is in charge of ensuring that people perform the job safely. They are not part of the rigging crew and are not crane operators. Lift directors must:

- Be qualified and competent (or competent with qualified assistants)
- Review and understand all procedures
- Verify that crew members understand their tasks, responsibilities and associated hazards

Lift directors and competent riggers will work together to determine the weight of the load, find the balance point of the load (or center of gravity), check clearances for moving the load and select the rigging equipment to be used.

The lift director will conduct a **pre-job briefing** before every job that will cover:

- Tasks and sequence
- Expected results
- Responsibilities
- Methods of communication
- Environmental concerns
- Previous experience/lessons learned
- Job hazards, precautions and controls
- Documentation to review and use
- Crew input, questions and concerns

Doing the Job Safely

Inspect and wear the personal protective equipment (PPE) that the lift director told you about during the pre-job briefing. This may include:

- Hard hats
- Safety glasses
- Hearing protection
- Gloves
- Safety shoes
- High-visibility vests
- Fall protection, as needed
- Shock- and arc-rated equipment, as needed

Throughout the job, the crew should **communicate** as the lift director described during the pre-job briefing. Communication may include a combination of verbal communication, hand signals

and radio communications. Everyone on the crew can and should use stop-work authority to stop work and address questions and hazards, as needed.

The way you attach rigging equipment to a load or lifting device will vary depending on the job. Generally, rigging a load involves:

1. Assembling the load
2. Attaching slings to the assembly
3. Attaching the slings to the lifting device, such as a crane
4. Lifting/moving the assembly
5. Detaching the slings from the lifting device
6. Detaching the slings from the assembly

Safe rigging practices include the following:

- Do not drag equipment or use it to drag a load
- Only use appropriate attachments as they are intended (manufacturer documentation)
- Never let unauthorized personnel in the area
- Never place any part of your body under a suspended load or lift a load over people
- Never place personnel between a moving load and a stationary object or structure
- Never ride on loads or crane hooks
- Do not leave suspended loads unattended
- Keep loads low to the ground so they don't have far to fall if something goes wrong
- Move loads slowly to correct problems before people get hurt or property gets damaged
- Use taglines to control the load as approved/directed by the lift director
- NEVER wrap taglines around body parts, such as hands or arms
- Avoid pinch points that may be created when tension is applied to hooks or slings
- Protect skin and slings from contact with sharp or abrasive edges or surfaces
- Do not trap slings or body parts when landing the load

Inspecting and Storing Equipment

Damaged equipment can cause loads to fall, potentially killing or injuring people and damaging equipment and property.

Competent people should inspect rigging equipment at the beginning of each day or shift.

They should inspect equipment and document its condition periodically, at intervals of a year or less. Competent people will receive in-depth training about the condition equipment must be in. They will look for defects that may be more complex or invisible to the naked eye.

Riggers should inspect rigging equipment before using it, after using it and after anyone drops it. Riggers should focus on obvious defects and check with a competent person for guidance, as needed. Riggers will receive training about the equipment they will use and must be able to spot obvious defects such as:

- Wear
- Cracks or damage
- Kinking
- Corrosion and rust
- Torn or damaged webbing
- Missing or faded labels
- Other damage or deformity

When equipment **fails** an inspection, follow the procedures your employer has regarding how to take defective equipment out of service.

Safely **store** equipment so that it won't be damaged while it is not in use. The floor can expose equipment to wear, water, dirt, chemicals or oils. If possible, hang equipment or lay it in trays. Do not store equipment in extreme cold or hot temperatures or in direct sunlight. Keep storage areas clean and tidy. Check manufacturer documentation for more information about safe storage.