



# Mechanical lifting safety

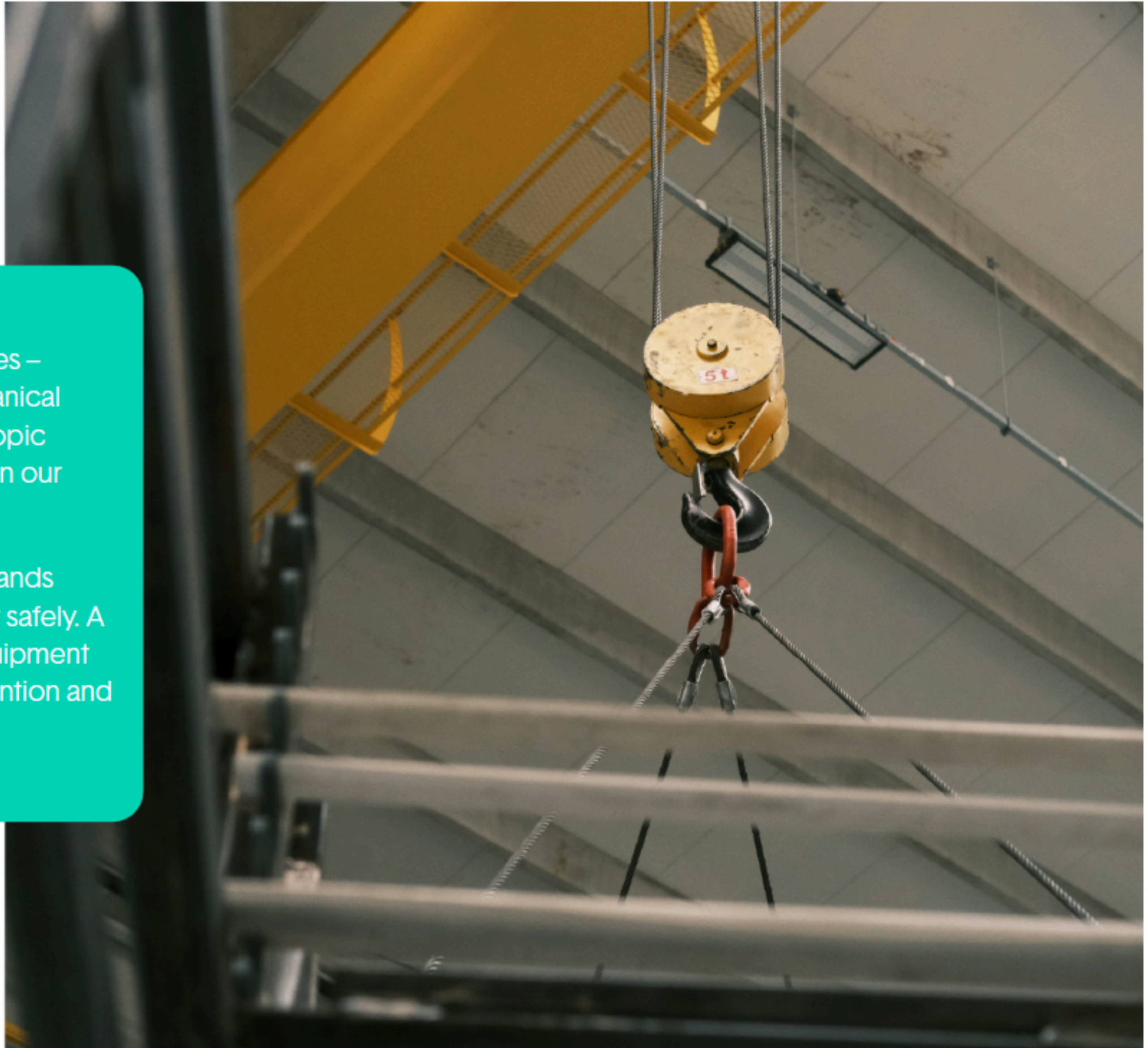
This training will help you identify and manage everyday risks associated with mechanical lifting and lifting equipment



## Purpose of the Training

This training is designed for all employees – regardless of role or experience. Mechanical lifting equipment such as cranes, telescopic handlers, and forklifts are often present in our work environment.

**Our goal** is to ensure everyone understands potential hazards and knows how to act safely. A proper safety mindset around lifting equipment helps prevent serious injuries – your attention and responsibility are critical.



# Types of Mechanical Lifting Equipment

To work safely, we must first be able to identify different types of mechanical lifting equipment. In our work environment, various devices may be used, including overhead cranes designed to move loads across large areas, forklifts known for their maneuverability, and other lifts and hoists. Each of these machines presents specific hazards, but standard safety rules apply in all cases. Following these rules helps prevent accidents and ensures a safe working environment.



Telescopic lifts

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Forklifts

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Overhead Cranes

# Types of Mechanical Lifting Equipment

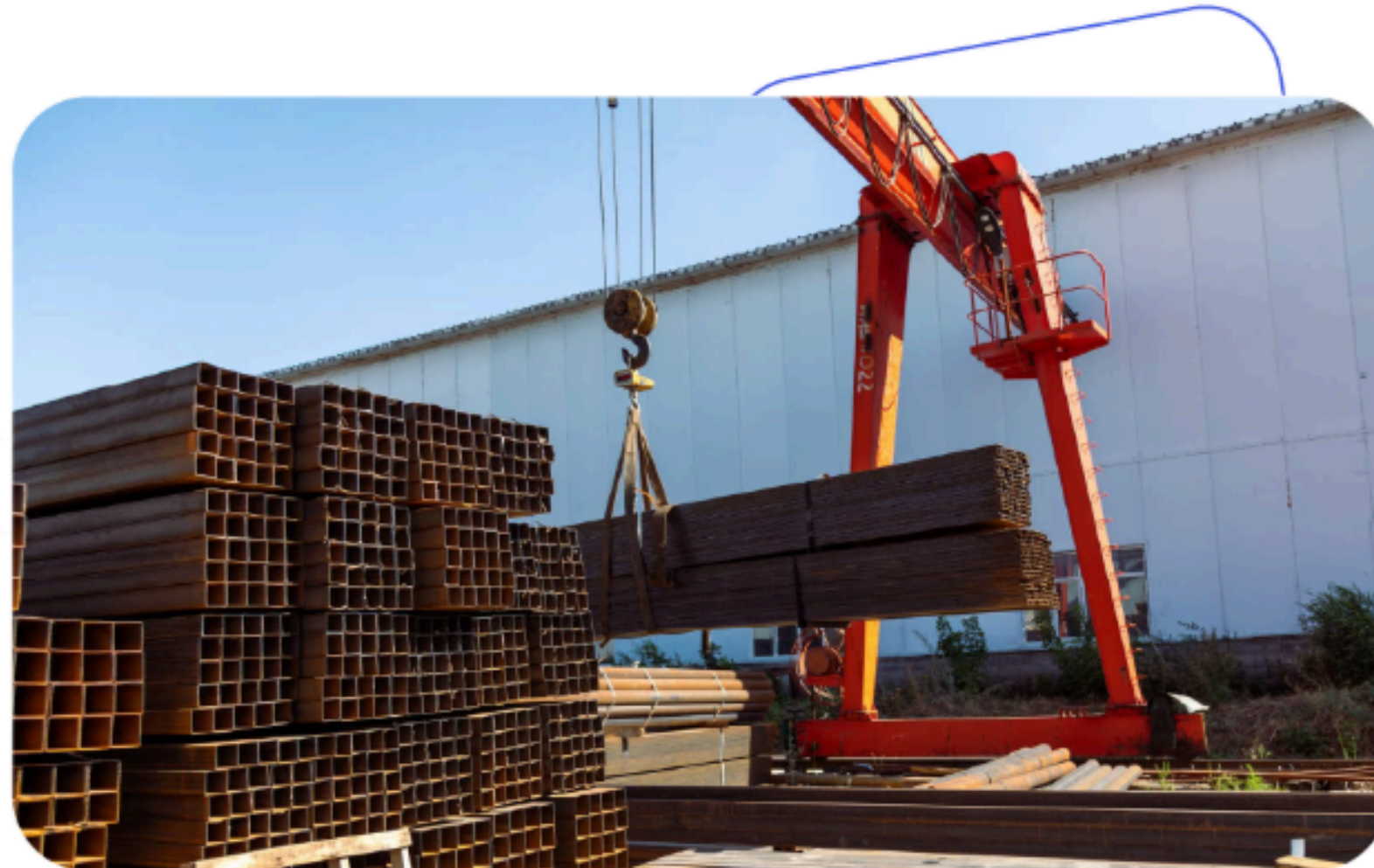
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Grab cranes

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Gantry Cranes

# Types of Mechanical Lifting Equipment

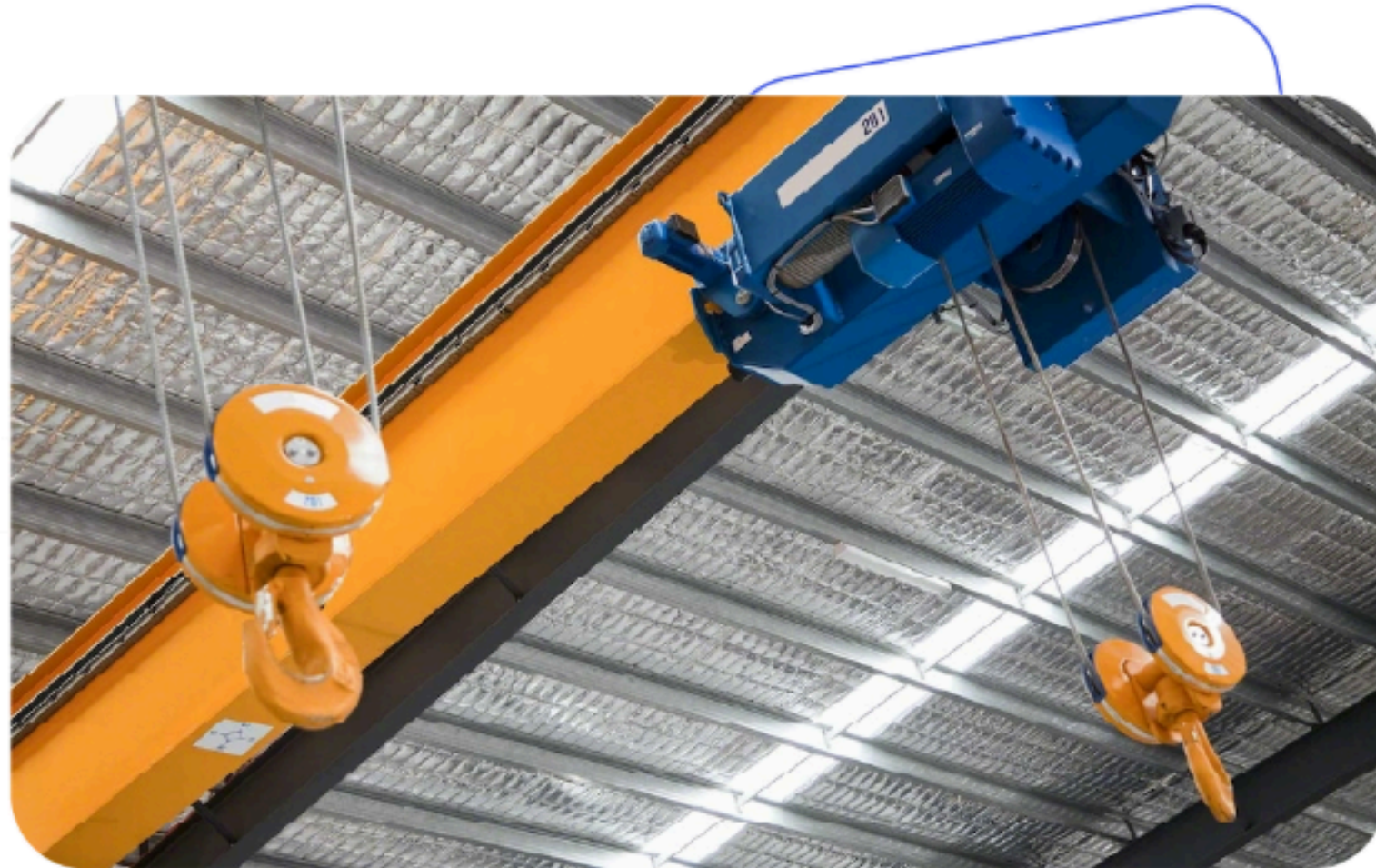
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Scissor lifts

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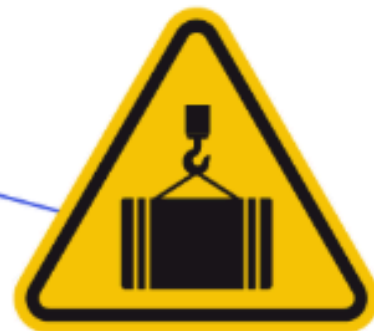


Various liftings hoists

## Recognize the Hazard Zone

Around every piece of mechanical lifting equipment and any suspended load, there is a designated **hazard zone** – a restricted area where entry is strictly prohibited. This zone includes not only the space directly beneath the load but also the area where the load could swing, fall, or be accidentally dropped.

Always stay alert to warning signs, safety tape, barriers, and other safety indicators. If you are unsure whether you are in a safe position, move back to a safer distance.



# Key Safety Rules When Working with Mechanical Lifting Equipment



Work is permitted only with a valid permit to work



Always wear appropriate personal protective equipment (PPE)



Avoid entering the hazard zone



Ensure safe lifting operations and always follow lifting safety procedures



Collective protective measures (such as barriers, safety tapes, etc.) must always be used when necessary

# Key Safety Rules When Working with Mechanical Lifting Equipment

**NO ONE** is allowed to stand, walk, or work directly beneath a suspended load.

Even if a load appears to be securely fastened, there is always a risk that it may accidentally come loose. A falling object – no matter how small – can pose a fatal danger. **ALWAYS** take alternative routes and avoid hazardous areas.



**MOST IMPORTANT RULE –  
NEVER STAND UNDER A  
SUSPENDED LOAD!**



# Key Safe Lifting Rules for Non-Operators

Sometimes it is necessary to lift an object using a simple lifting tool, such as a hand winch. Even though these are not large cranes, the rules are just as strict because even a small weight can cause serious injury.

Review the key safety rules that apply when performing these tasks.

It is very important not to rush. Before taking any actions, always assess the load and the surroundings environment.

It is essential to check that any item is securely fastened, its center of gravity remains stable, and it does not rotate or move unexpectedly.

Before use, the selected equipment should be inspected. This includes checking whether the rope, chain, and winch appear in good condition and free from damage.

During the entire lifting process, the load should be monitored to allow immediate response if something goes wrong.

**NEVER** stand directly under a suspended load.

If the load is too heavy, oversized, or awkward to handle, assistance should always be requested.

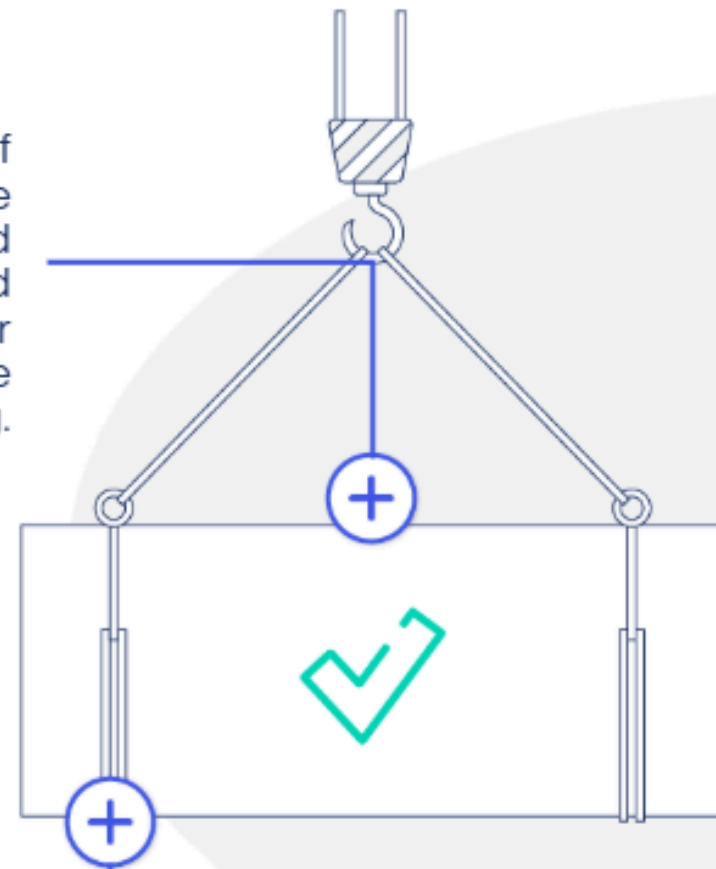
# Proper Load Balance – Essential for Safe Operations

Before lifting begins, the load must be adequately prepared. It must be securely fastened, with its center of gravity directly below the lifting hook. If the load is attached incorrectly, it may tilt, rotate, loosen unexpectedly, and become uncontrollable once lifted. Even a slight imbalance can lead to significant instability.

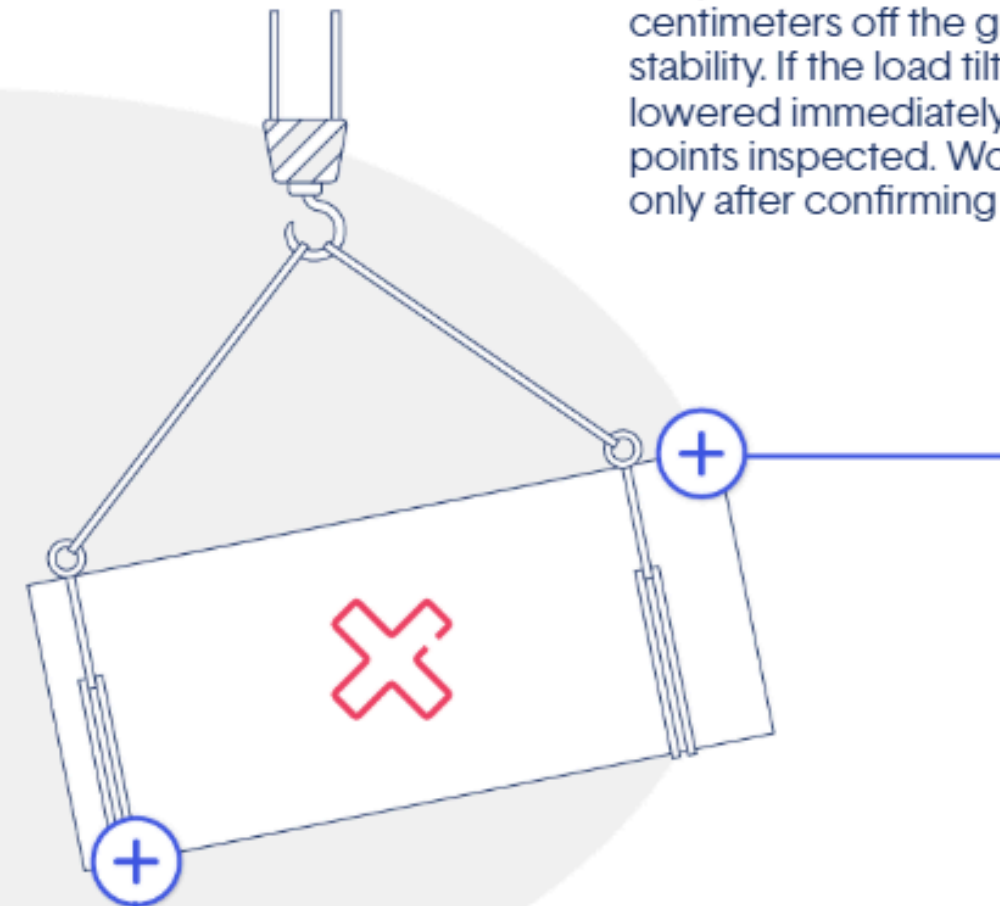
Click on the plus signs to learn more.

Finding the load's center of gravity is important. Before securing the load, its shape and weight distribution should always be assessed. Heavy or irregularly shaped items require extra caution during lifting.

Using several attachment points helps maintain stability. A single attachment point is often not enough. Several slings or chains can help ensure that the load remain stable.



First, the load should be lifted only a few centimeters off the ground to check its stability. If the load tilts or sways, it must be lowered immediately and the attachment points inspected. Work should continue only after confirming everything is secure.



When lifting a load with two or more slings, their lengths must be equal to prevent the load from tilting to one side.

# The Importance of Communication

When performing mechanical lifting operations, it is crucial to stay aware of the surroundings and maintain communication. Crane operators or forklift drivers do not always have complete visibility of the work area. Effective communication is critically important.



Indicates that the next signal will follow

## ATTENTION!

Arms extended horizontally at shoulder level, palms facing down



Stop movement immediately

## STOP

Right arm raised vertically, palm facing forward



End of the work process

## END

Hands clasped at chest level, palms together



## UP

Right arm raised forward, palm up, making slow circular motions



## DOWN

Right arm lowered forward, palm down, making slow circular motions



## VERTICAL DISTANCE

Arms extended forward, palms facing each other, showing the distance



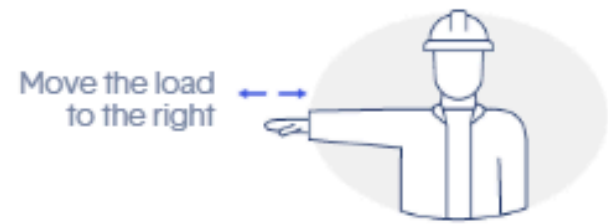
## FORWARD

Arms bent at elbows, palms inward, making pushing motions



## BACKWARD

Arms bent at elbows, palms outward, making pulling motions



Move the load to the right

## RIGHT

Right arm extended horizontally, palm down, making small motions to the right



Move the load to the left

## LEFT

Left arm extended horizontally, palm down, making small motions to the left



## HORIZONTAL DISTANCE

Hands held at chest level, palms facing each other, showing the distance



Emergency stop!

## DANGER

Both arms raised vertically, palms forward

# The Importance of Communication

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Indicates that the next signal will follow

## ATTENTION!

Arms extended horizontally at shoulder level, palms facing down



Stop movement immediately

## STOP

Right arm raised vertically, palm facing forward



End of the work process

## END

Hands clasped at chest level, palms together



## UP

Right arm raised forward, palm up, making slow circular motions



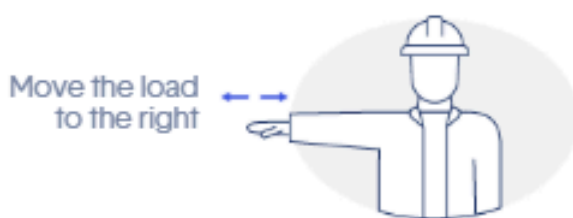
## DOWN

Right arm lowered forward, palm down, making slow circular motions



## VERTICAL DISTANCE

Arms extended forward, palms facing each other, showing the distance



Move the load to the right

## RIGHT

Right arm extended horizontally, palm down, making small motions to the right



## LEFT

Left arm extended horizontally, palm down, making small motions to the left



When a potential hazard is noticed, it is standard practice to inform the operator to prevent incidents. In work environments, standardized hand signals are often used to indicate the operator's intentions. These signals are internationally recognized, helping to avoid misunderstandings – especially in noisy conditions.

# Personal Protective Equipment (PPE)

Wearing Personal Protective Equipment (PPE) is **MANDATORY** when working in mechanical lifting equipment zones!



Safety helmet with a chin strap to protect the head from falling objects



Safety boots with reinforced toe caps to protect feet from falling objects



High-visibility workwear with reflective elements to ensure workers are easily seen



Protective gloves



Goggles



Other personal protective equipment (PPE)



## Safety is Everyone's Responsibility

**Safety** is a shared commitment. Even if your work is not directly related to lifting operations, you must never ignore your surroundings. Staying alert and observing the situation can make a critical difference in preventing serious incidents.

If you notice any violation – such as damaged equipment, a load left in an unsafe location, or any potentially hazardous situation – you must report it to your direct supervisor or the responsible person. Even if the risk seems minor, reporting helps maintain safety and prevent possible incidents.

It's important to know that every employee has the right to stop work if it appears unsafe. This is a fundamental part of a strong safety culture, helping to prevent accidents and protect everyone in the workplace.



**Stay Alert!**  
**See a hazard?**  
**Report it immediately!**

# Let's share responsibility

Everyone has the right to stop unsafe work.



## Report incidents



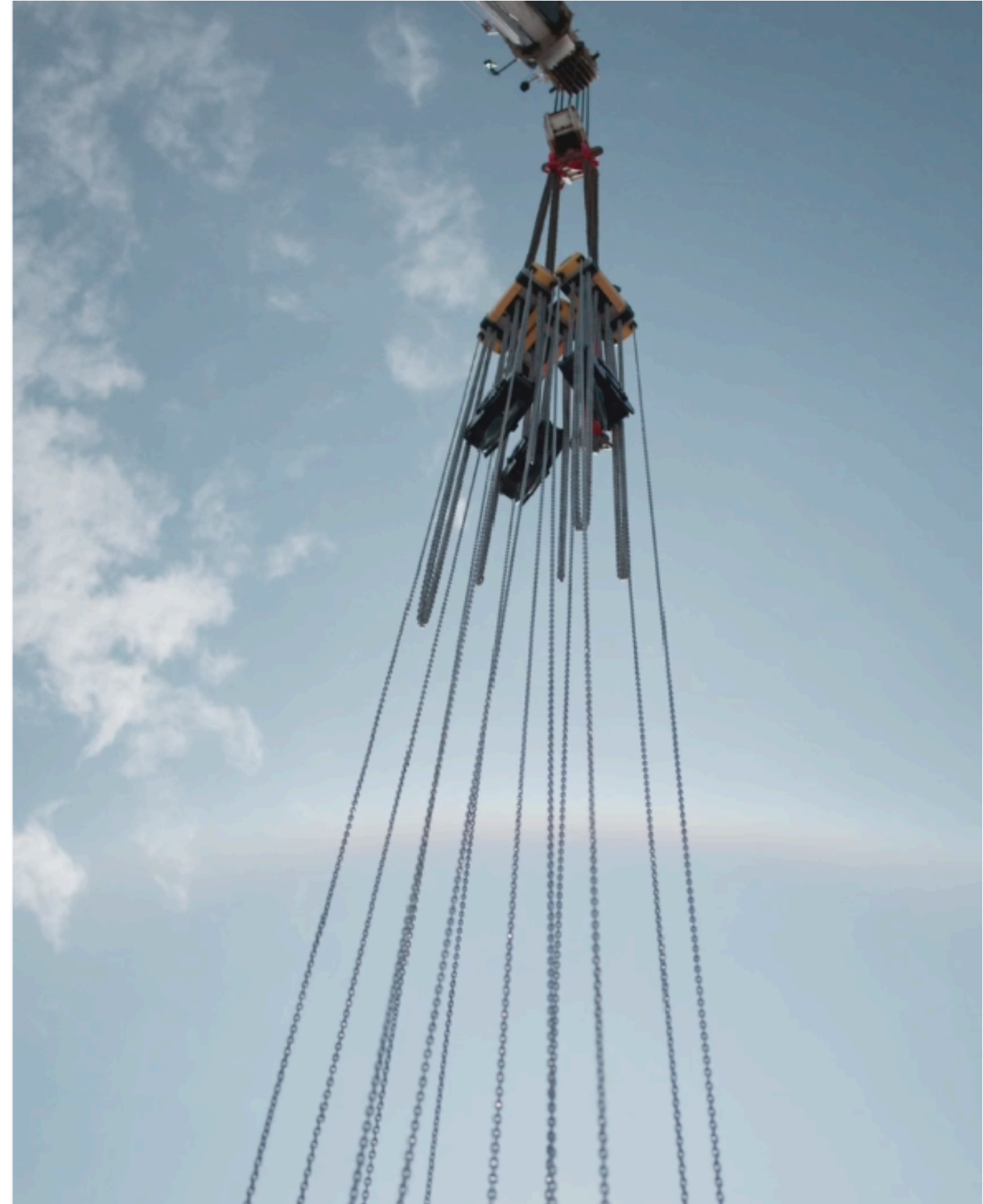
## Start the Conversation

Safety is a shared responsibility – let's talk about it openly



## Keep Learning

Regularly refresh your knowledge on how to recognize and respond to unsafe situations





**Thank you!**

