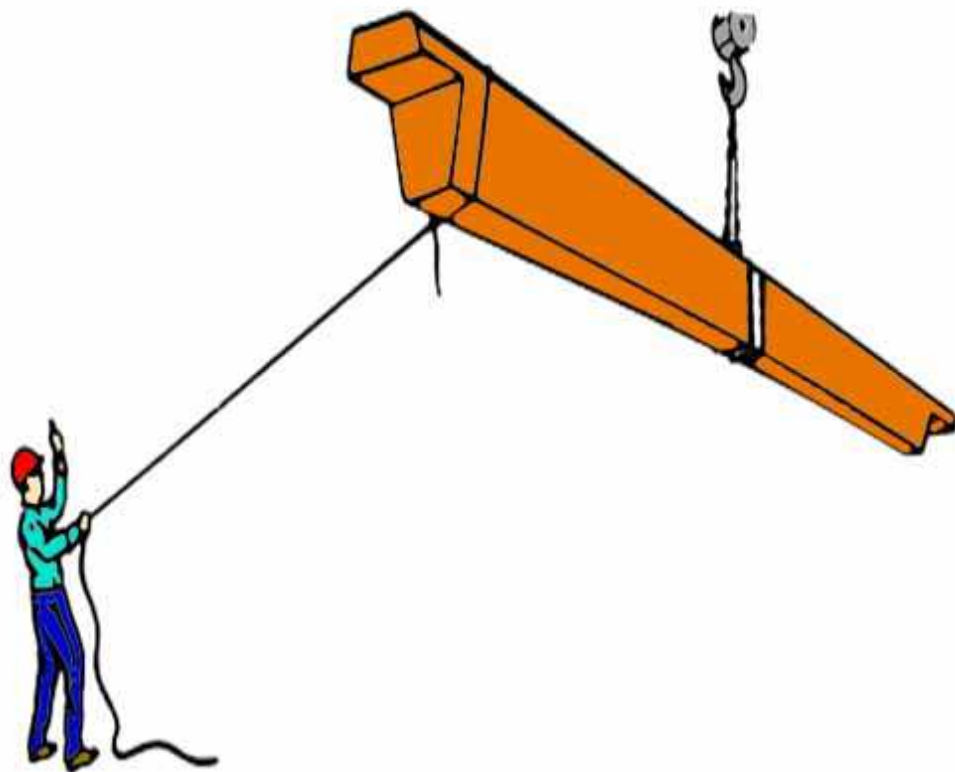


Lifting Tackles Safe Operating Procedures



SAFE OPERATING PROCEDURES

LIFTING TACKLES

- Always know how to properly use the equipment, slinging procedures before attempting the lift operation.
- Inspect the slings and accessories before use for any defects.
- Replace misplaced safety latches.
- Find out load weight before lifting.
- Check whether slings fit freely. Do not force into position.
- Keep hands and fingers from between load and sling when tensioning slings and when landing loads.
- Ensure the load is free to be lifted.
- Make a trial lift and trial lower to ensure the load is balanced, stable and secure.
- Balance the load to avoid overstress on one sling arm or the load slipping free.
- Lower working a load limit if there may be severe impact.
- Pad sharp corners to prevent bending links and to protect the load.
- Position hooks of multi-leg slings facing outward from the load.
- Do not leave suspended loads unattended.
- Reduce the load limit when temperatures above 425⁰C.
- Store slings on racks in assigned areas and not lying on the ground. The storage area should be dry, clean and free of any contaminates which may harm the sling.

SAFETY AND ENVIRONMENT EDUCATION FOR DEVELOPMENT

- Avoid impact loading
- Do not drag slings over floors or attempt to drag a trapped sling from under a load. Do not use a sling to drag a load.
- Do not use worn-out or damaged slings.
- Do not lift on the point of the hook.
- Do not overloads or shock load a sling.
- Do not trap slings when landing the load.
- Do not splice a sling by inserting a bolt between two links.
- Do not shorten sling with knots or by twisting other than by means of an integral chain clutch.
- Do not force or hammer hooks into place.
- Do not use homemade connections. Use only attachments designed for the slings.
- Do not heat-treat or weld chain links: the lifting capacity will be reduced drastically.
- Do not expose slings to chemicals without the manufacturer's approval.

RIGGING

- Determine the capacity of the web slings by the following manufacturer's table.
 - Table of capacity ratings by sling width and type of sling (single leg sling and endless sling)
 - Table of capacity ratings by color coding and types of hitch (vertical, choke, basket and 90⁰ basket)

SAFETY AND ENVIRONMENT EDUCATION FOR DEVELOPMENT

- Table for factor of safety from the manufacturers chart.
- Determine the capacity of the chain slings by the following manufacturer's table.
 - Table of capacity ratings by number of legs and type of hitch and also by grades of chain slings
 - Table for factor of safety from the manufacturers chart.
- Determine the capacity of the rope slings by the following manufacturer's table.
 - Table of capacity ratings by diameter of ropes, number of legs, types of splices and also by type of cores.
- Use proper wire rope thimbles, wire rope grips, wedge type rope sockets, rings, shackles, rigging screws, turn buckles, sheaves, lifting beams, spreaders, frames and plate clamps as per manufacturing standard.
- Determine the weight, center of gravity and stability of load.

Annexure - 1

INSPECTION PROCESS

Chain slings

- Chain showing cracks, stretches, severe nicks, gouges, welding splattered or deformed master links, coupling links, chains must be discarded.
- One leg of a double or triple chain sling is longer than the others must be discarded.
- Chain size at any point of any link is less than stated in the chart as per norms must be discarded

Rope slings

- Breaking of large number of wires as per norms
- Reduction in rope diameter as per norms
- Kinking, crushing or any damage resulting in distortion of the wire rope must be discarded
- End attachments that are cracked, worn or deformed.
- Corrosion of the rope or end attachments.

Synthetic slings

- Acid or caustic burns on the synthetic sling.

SAFETY AND ENVIRONMENT EDUCATION FOR DEVELOPMENT

- Melting, charring, snags, punctures, tears, or cuts of any part of the synthetic sling's surface must be discarded.
- Stitching is broken or worn.
- Stretched synthetic slings must be discarded.
- Hooks have been opened more than 25% of the normal throat opening measured at the narrowest point or twisted more than 10 degrees from the plane of the unbent hook.

Shackles

- Inspect for damage, distortion and cracking.
- Look for worn or flattened threads, rusting freedom of moving parts.
- Check that all rivets etc, are firmly in place.

Inertia blocks

- Test that the block will lock when subject to the designated load.
- Ensure that all moving parts are free and that there is no contamination inside the block.

Pulleys

Carry out a visual inspection to ensure that the pulley wheels are of the correct size for the ropes.