

Nine Important Rules to Follow When Using Shackles

Best Practices for Using Shackles Safely

Shackles are used every day in a variety of rigging and load securement applications. Before you use a shackle, there are nine important rules to keep in mind.

RULE 1:

When making a sling, attach multiple sling legs to the bow, not the pin. Attaching legs to the pin can damage and weaken the sling.

RULE 2:

When point loading shackle to shackle, connect bow to bow or bow to pin. Never connect pin to pin.

RULE 3:

Do not side load "D" shaped shackles such as chain shackles or long reach shackles. These shackles are designed and rated for in-line applied tension. Therefore, the center line of the load should coincide with the center line of the shackle. Anchor body style shackles (screw pin style, as pictured above, or bolt nut cotter anchor body style) can be side loaded. Always refer to reductions in rating charts when performing this type of rigging.

RULE 4:

When securing a load, the bow of the shackle should be put into the running side of a choke.

RULE 5:

When using a shackle with wire rope, the shackle must be equal to or larger than the wire rope diameter.

RULE 6:

If using a shackle with synthetic slings, ensure the shackle is big enough to avoid pinching or binding the sling.

RULE 7:

Shackles should not be subjected to high or low temperatures that could affect thermal treatment and the strength of the shackle. -4 degrees F to 400 degrees F is the operating range for full working load limit.



RULE 8:

Always ensure shackle pins are properly engaged. Screw pin shackles need to have threads fully engaged on the shackle ear. (The pin should be flush with the outside of the shackle body or slightly past). The pin head should make contact with the shackle body. Bolt nut and cotter shackles need to have the bolt and nut properly secured with the cotter pin attached.

RULE 9:

Use bolt nut cotter anchor style shackles, if shackles will remain in place as a semi-permanent application or if they will be suspending a load. Screw pin shackles are used when the shackles are removed after the lift is complete. If a screw pin shackle is being used to suspend the load for any length of time, it is advisable that you mouse or tie off the pin to the body of the shackle with wire.



CHRISTIE LAGOWSKI

Christie Lagowski is a Communications Manager at Columbus McKinnon Corporation. She has 6 years of experience marketing hoists and rigging products as well as crane systems and components. Christie has marketed a variety of industrial products, ranging from lifting solutions to glass technology as well as health and safety products.