

How wire rope slings are used

HITCHES

How wire rope slings are configured to lift a load is called a hitch. Most lifts use one of three basic hitches.

VERTICAL EYE AND EYE HITCH

If one eye of the sling is attached to the lifting hook and the other eye is attached to the load, this is called a vertical eye and eye, or straight, hitch. A tagline should be used to prevent load rotation that may damage the sling.

When two or more slings are attached to the same lifting hook, the total hitch becomes, in effect, a lifting bridle and the load is distributed equally among the individual slings.

Slings used at an angle have a lower rated capacity than one used vertically.

CHOKER HITCH

In the choker hitch, one eye of the sling is attached to the lifting hook, while the sling itself is drawn through the other eye. The load is placed inside the "choke" that is created while the sling is drawn tight over the load through the eye.

Choker hitches reduce the lifting capability of a sling since the wire rope component's ability to adjust during the lift is affected. You should only use a choker hitch when the load will not be seriously damaged by the sling body,

or the sling damaged by the load, and when the lift requires the sling to hug the load. Never choke a load so that any part of one eye or splice is in the part of the sling that passes through the other eye to form the choke.

Two notes of caution: Always pull a choker hitch tight before the lift is made. It should never be pulled down during the lift. Also, never use only one choker hitch to lift a load that could shift or slide out of the choke.

BASKET HITCH

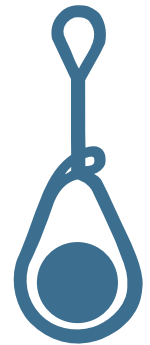
A basket hitch is formed when both eyes of the sling are placed on the lifting hook, thereby forming a circular basket of the sling. This type of hitch distributes the load equally between the two legs of the sling, within limitations.

LIFTING BRIDLES

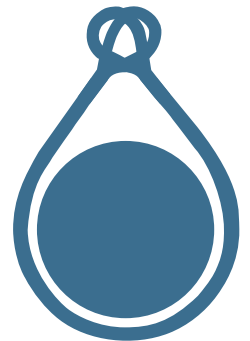
When you attach two or more slings to the same lifting hook, or are connected to a link rigged onto the hook, the total hitch becomes a lifting bridle, distributing the load among the individual slings. When using two or more slings as a lifting bridle, remember that the sling angle affects the slings' rated capacities. Also, the location of the lift's center of gravity will affect the load on each sling leg.



VERTICAL HITCH



CHOKER HITCH



BASKET HITCH

REDUCTION IN EFFICIENCY OF WIRE ROPE WHEN BENT OVER PINS OF VARIOUS SIZES

