



WARNING

Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Observe rated load. Avoid sharp edges. **DEATH OR INJURY** can occur from improper use or care.

RATED LOAD = RATED CAPACITY = WORKING LOAD LIMIT

ALLOY CHAIN SLINGS

INSTRUCTIONS FOR CARE, USE, INSPECTION, AND REPAIR.

CARE ♦ Store on a rack in a clean, dry place. ♦ Oil prior to prolonged storage. ♦ Do not anneal (temper) alloy chain, connecting links or hook. Hot galvanizing requires chain manufacturer advice.

USE ♦ Check weight of load. ♦ Check sling rated load for type of lift, angle of loading (see load angle chart). ♦ Avoid twists, knots or kinks. ♦ Center load on base (bowl) of hook unless hook is designed for point loading. ♦ Balance load. ♦ Avoid jerking load. ♦ Be alert for snagging of load. ♦ Maintain load control. ♦ Pad sharp corners. ♦ Keep load off sling. ♦ Avoid dragging sling over rough surfaces and from under the load. ♦ Stand clear of the load at all times. ♦ No person allowed beneath the load. ♦ Persons are not to ride on sling or load. ♦ For use in temperatures over 800°F, contact the manufacturer. ♦ When shortening chain, use only the manufacturer's recommended alloy components.

INSPECTION ♦ *Before use*, check for excessive wear:

Chain Size	9/32 in.	3/8 in.	1/2 in.	5/8 in.
Max. Wear	3/64 (.046)	5/64 (.078)	7/64 (.109)	9/64 (.140)
Chain Size	3/4 in.	7/8 in.	1 in.	1 1/4 in.
Max. Wear	5/32 (.158)	11/64 (.171)	3/16 (.187)	1/4 (.250)

Look for bent or twisted links and cracks, nicks, gouges in chain, master links, coupling links and hooks. Look for heat damage,

OVER

WARNING

Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Observe rated load. Avoid sharp edges. **DEATH OR INJURY** can occur from improper use or care.

RATED LOAD = RATED CAPACITY = WORKING LOAD LIMIT

WIRE ROPE SLINGS

INSTRUCTIONS FOR CARE, USE, INSPECTION, AND REPAIR.

CARE ♦ Store in a clean, dry place and protect from mechanical damage, extreme heat, corrosion, or kinking. ♦ Maintain lubricated condition.

USE ♦ Check weight of load. ♦ Check sling rated load for type of lift, angle of loading (see load angle chart). ♦ Sling shall always be protected from being cut by sharp corners, sharp edges, protrusions, or abrasive surfaces. ♦ Center load on base (bowl) of hook unless hook is designed for point loading. ♦ Balance load. ♦ Avoid jerking load. ♦ Maintain load control. ♦ Be alert for snagging of load. ♦ Avoid dragging sling over rough surfaces and from under the load. ♦ Stand clear of the load at all times. ♦ No person allowed beneath the load. ♦ Persons are not to ride on sling or load. ♦ Avoid knotting, twisting and kinking the sling. ♦ Restrict use to temperatures below 400°F (fiber core wire rope 180°F) and above -60°F. **Important:** A single leg sling with hand tucked splice can unlay and drop the load if allowed to rotate during a lift. Always use a tag line.

INSPECTION ♦ *Before use*, look for rope distortion, kinks, cut or broken strands, corrosion, heat damage, birdcaging, or crushing. Look at the end attachments for cracks, wear or deformation, hooks with twists or a throat opening increase. Look for *broken wires*: For strand laid and single part slings, no more than 10 broken wires in 1 lay or 5 in 1 strand in 1 lay. For cable laid and braided broken wire inspection criteria, consult the manufacturer.

OVER

weld spatter, link stretch, increased hook throat opening, latch missing or damaged (if hook so equipped). **If excessive wear or damage is present, if rated load tag is missing or illegible, do not use the sling. Repair or replace it. Periodic inspections** must be recorded annually for normal service; monthly/quarterly for severe service. Only chain manufacturers or other qualified persons perform periodic inspections.

REPAIR ♦ Any hazardous condition disclosed by an inspection shall require repair by chain manufacturer or other qualified person.

LOAD ANGLE CHART

Angle factor *must* be applied to calculate the reduced sling capacity when lifting force is not at 90° to the plane of the load!

Multiply angle factor x sling's vertical rated load to calculate the reduced capacity at that angle.

Angle	Factor	Angle	Factor	Angle	Factor	Angle	Factor
90°	1.0000	70°	0.9397	55°	0.8192	40°	0.6428
80°	0.9848	65°	0.9063	50°	0.7660	35°	0.5736
75°	0.9659	60°	0.8660	45°	0.7071	30°	0.5000

Because of the greatly reduced lifting capacity, use extra care when the **horizontal** lift angle is less than 45° and do not make lifts of less than 30° load angle. *Example:* A sling rated at and lifting 1,000 pounds will be damaged – and could break suddenly—when the lifting angle is less than 30° at which angle the sling's capacity is reduced to only 500 pounds. **Important:** Use a longer sling to increase the angle which will also increase the allowable capacity.

CHOKER HITCHES

For choker hitches, the lifting capacity is reduced by 25% or more, depending on the angle of choke.

ANGLES OF CHOKER	SLING RATED LOAD PERCENTAGE OF SINGLE LEG SLING CAPACITY
120 - 180	75%
90 - 119	65%
60 - 89	55%
30 - 59	40%

If an inspection reveals that such wear or damage is present, replace the sling. Frequent inspection is done by the person handling the sling before each use and must include all of the *Before use* items. **Periodic inspections** must be recorded at least annually for normal service; quarterly or more frequently if in severe service or nearly constant use. **Periodic inspections** are performed by a designated person who records the observed condition and determines when further use would be hazardous.

REPAIR ♦ Any hazardous condition disclosed by an inspection shall require replacement of the wire rope sling. Repair is not an option when damage/wear seriously reduces the sling's capacity.

LOAD ANGLE CHART

Angle factor *must* be applied to calculate the reduced sling capacity when lifting force is not at 90° to the plane of the load!

Multiply angle factor x sling's vertical rated load to calculate the reduced capacity at that angle.

Angle	Factor	Angle	Factor	Angle	Factor	Angle	Factor
90°	1.0000	70°	0.9397	55°	0.8192	40°	0.6428
80°	0.9848	65°	0.9063	50°	0.7660	35°	0.5736
75°	0.9659	60°	0.8660	45°	0.7071	30°	0.5000

Because of the greatly reduced lifting capacity, use extra care when the **horizontal** lift angle is less than 45° and do not make lifts of less than 30° load angle. *Example:* A sling rated at and lifting 1,000 pounds will be damaged – and could break suddenly—when the lifting angle is less than 30° at which angle the sling's capacity is reduced to only 500 pounds. **Important:** Use a longer sling to increase the angle which will also increase the allowable capacity.

CHOKER HITCHES

For choker hitches, the lifting capacity is reduced by 25% or more, depending on the angle of choke.

ANGLES OF CHOKER	SLING RATED LOAD PERCENTAGE OF SINGLE LEG SLING CAPACITY
120 - 180	75%
90 - 119	65%
60 - 89	55%
30 - 59	40%