Synthetic Boat Sling Safety Information





WARNING To The Users of Synthetic Boat Slings



The AWARNING Icon, used in our product information is done to alert sling users to potentially hazardous conditions and situations.

AWARNING It is your explicit responsibility to consider all risk factors prior to using any rigging device or product. Read and understand the information contained in this bulletin, in our catalog, on our website www.lift-it.com and follow OSHA and ASME guidelines. Use by untrained persons is hazardous.

The American Society of Mechanical Engineers, in the ASME B30.9 Sling Safety Standard, clearly establishes the requirement for training. Section 9-5.1-Training states, "Synthetic webbing sling users shall be trained in the selection, inspection, cautions to personnel, effects of the environment and rigging practices, covered by this chapter."

AWARNING All Products provided by Lift-It® Manufacturing Co. Inc. are sold with the express understanding that the purchaser and user are thoroughly familiar with the safe and proper use and application of the product. The user has the responsibility for proper use and application as outlined in all applicable standards and regulations. Use by untrained persons is hazardous. It is important that all sling and rigging users be thoroughly familiar with the manufacturer's recommendations and safety information that accompany the products. The user must have sufficient training and knowledge of all applicable standards to responsibly use our products. If you are unsure whether you are properly trained and knowledgeable or if you are unsure of what the standards and regulations require of you, ask your employer for information and/or training. DO NOT use any sling or rigging device until you are absolutely sure of what you are doing. Remember, when it comes to using slings and rigging devices, lack of skill, knowledge and care can result in severe INJURY or DEATH to you and others.

AWARNING Failure to follow proper use, care and inspection criteria could result in severe personal injury or death. Slings and rigging products will fail if damaged, abused, misused, overused or improperly maintained.

Any hazardous condition disclosed by an inspection shall require sling replacement. Temporary repairs are not permitted. Damage and wear seriously reduce sling work load limits.

Always know the load weight and select the appropriate sling for the load, configuration of lift necessary to ensure load control and any chemical exposure.

Always take into account sling angles to calculate changes in the sling work load limits, when used in choker and non-perpendicular vertical, basket or bridle configurations.

Ensure that the load will not cut the sling during the lift by padding corners, edges, protrusions or abrasive surfaces with suitable materials of sufficient strength, thickness and construction.

The strength of Synthetic Boat Slings can be affected by chemically active environments. Sling materials may be susceptible to damage from caustic or acid substances or fumes. Strong oxidizing environments attack all common sling materials and components. Consult the manufacturer prior to selection and use.

When nylon products are "wet", they experience a 15% reduction in strength. Polyester looses no strength when wet.

Slings that have been exposed to saltwater should be thoroughly rinsed and allowed to dry, preferably out of direct sunlight.

AWARNING Slings with Cargo style Eyes are For Use in Basket Hitch Only

Add on eyes must always be rigged to pull "in line" with the load path.

Pulling against stitching shall never be permitted.

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WARNING

Slings can fail if damaged, misused, or overloaded. Inspect before use. Use only if trained. Observe rated load. Use adequate sling protection to avoid damage to sling. DEATH or INJURY can occur from improper use or care. Avoid exposure to acid, alkali, sunlight and temperatures over 194° F. ALWAYS protect the sling from damage with materials of sufficient strength, thickness and construction.

RATED LOAD = RATED CAPACITY = WORK LOAD LIMIT

SYNTHETIC BOAT SLINGS

INSTRUCTIONS FOR CARE • USE • INSPECTION • REPAIR

CARE • Store away from possible mechanical damage, corrosion, dust, grit, extreme temperatures, sun and any ultraviolet light source. Exposure to sunlight will reduce the strength of synthetic slings. Polyester boat slings lose 30% of sling strength after 12 months of constant exposure; nylon boat slings lose 40% to 60% of sling strength after a 12 to 36 month constant exposure period.

USE • Know the weight of load. • Check tag to confirm that sling is rated adequately for the load (see load angle chart). • Sling shall not be twisted, tied into knots or joined by knotting. • Shackles and other hardware must be inspected and padded if there are edges that could damage the sling. • Be sure that the load can't cut the sling during the lift by padding corners, edges, protrusions or abrasive surfaces; **use materials of sufficient strength, thickness and construction**. • Center sling in the base (bowl) of hook unless hook is designed for point loading. • Balance the load. • Maintain load control. • Avoid jerking the load. • Be alert for snagging of load • Do not pull on stuck objects. •Avoid dragging sling over rough surfaces and from under the load. • Stand clear of load at all times. • Persons are not to ride on sling or load. • For use in abnormal conditions of heat, cold, chemical activity, consult the manufacturer. •Boat slings must be used with compatible fittings, hooks and shackles. •Bunching of webbing reduces capacity. •Avoid exposure to acid, alkali or sunlight. •Do not use synthetic boat slings at temperatures above 194° F or below -40° F. •Pad edges of load to avoid damage to the synthetic boat sling.

INSPECTION • Before each use: Check tag for rated load adequate for the lift. Look at the webbing for worn eyes, cuts, fraying, melted or charred fabric, or chemical damage. Look at hardware for distorted, cracked, worn fittings. **If this wear or damage is present, if red core yarns are visible, if rated load tag is missing or illegible, do not use the sling. Repair or replace it.** *Frequent inspection* **is done by the person handling the sling each day it is used and must include all of the** *Before each use* **items.** *Periodic inspections* **should be recorded at least annually for normal service, more often if use is frequent or severe. Recorded Periodic inspections are performed by a designated person.**

REPAIR • Field repair is not permitted. Only manufactures or other qualified persons may make repairs.

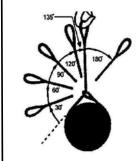
PROOF TEST • It is strongly recommended that boat slings be proof tested semi-annually using a calibrated and certified proof test machine. (A proof test is a load test applied to the sling for the sole purpose of detecting injurious defects in the material or manufacture.) A proof test is normally an applied load that is equal to twice the rated load of the sling.

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 the angle.



Angle of	Rated Capacity,
Choke, deg	% [Note (1)]
Over 120	100
90 - 120	87
60 - 89	74
30 - 59	62
0 - 29	49

NOTE: (1) Percent of sling rated capacity in a choker hitch.

Because of the 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 with adequate capacity could be broken because of increased tension resulting from angles of less than 30 degrees. When possible, use longer slings to minimize angular tension by increasing the angle.