LIFTALLOY™ CHAIN SLING SAFETY BULLETIN

026

WARNING

FAILURE TO READ, UNDERSTAND AND FOLLOW THE USE AND INSPECTION INSTRUCTIONS FURNISHED WITH EACH SLING MAY RESULT IN SEVERE PERSONAL INJURY OR DEATH.

USE, CARE AND INSPECTION REQUIREMENTS

Upon receipt, make certain that it meets the requirements of your Purchase Order and that it has not been damaged in shipment.

ALWAYS INSPECT SLINGS BEFORE EACH USE

INSPECTION

Remove Chain Slings from service if any of the following are visible:

A. A rated capacity tag is missing or illegible.
B. Knots in any part of the sling.
C. Any evidence of heat or chemical damage, including melting or discoloration.
D. Metal fittings or chain that is cracked, nicked, gouged, stretched, deformed, pitted, corroded, excessively worn, or has weld spatter.
E. Hooks with throat openings increased by more than 15 percent or twisted out of plane more than 10 degrees.
F. Latches on hooks should hinge freely and seat properly.
G. Chain links and attachments should hinge freely with adjacent links.
H. Any other visible damage which causes doubt as to the sling strength.

OPERATING PRACTICES

A. Slings shall not be loaded in excess of the rated capacity. Consideration shall be given to the effect of angles. (See Effect of Angle Chart shown on opposite side.)
B. Select slings having suitable characteristics for the type of load, hitch and environment. (See Lift-All Catalog).
C. Slings shall not be shortened by twisting, knotting or other unapproved methods.
D. Slings shall not be lengthened by knotting, choking or basketing slings together, or by any other unapproved method. Suitable fittings must interconnect slings.
E. Slings shall be hitched in a manner providing control of the load.
F. Chain slings should be protected from being cut or damaged by corners, edges, protrusions or abrasive surfaces. See Sling Protection section of Lift-All Catalog.
G. Keep all portions of the human body from between the sling and the load, and from between the sling and the lifting hook.
H. Personnel should stand clear of the suspended load.
I. Personnel shall not ride the sling or a load suspended by a sling.
J. Shock loading shall be avoided.
K. Slings should not be pulled from under a load when the load is resting on them. Where practicable, use blocking to allow for easy sling removal.
L. Twisting and kinking slings shall be avoided.
M. Loads applied to a hook should be centered in the base of the hook to prevent point loading of the hook.
N. Before lifting, make certain that the sling, attachments, or load shall not snag.
O. In a basket hitch, proper slings must be selected to balance the load and restrict slippage in order to prevent the load from falling out of the sling.
P. In a choker hitch, slings shall be long enough so that the choker fitting chokes onto the sling eye or body and never onto any fittings.
Q. Slings should be stored in an area where they will not be subject to mechanical damage, moisture or extreme heat.

R. Do not expose slings to chemicals that are not compatible with all of the sling materials. (See the Lift-All Catalog)

S. Slings should not be used at angles of less than 30 degrees from horizontal.

T. Slings should not be dragged on the floor or over an abrasive surface.

U. When lifting points are below the center of gravity, loads tend to be unstable. Proper rigging must restrict load rotation to avoid tipping and loss of load con trol.

V. For lifts of non-symmetrical loads using multiple sling legs, an analysis should be performed by a qualified person to prevent the overloading of any leg.

W. The working load limit for chain slings used in a heated environment shall be reduced as follows.

Temp. of Chain (ºF)	% Reduction in Rated Capacity while heated	Permanent Reduction of Rated Capacity	Temp. of Chain (ºF)	% Reduction in Rated Capacity while heated	Permanent Reduction of Rated Capacity
	Grade 100	Grade 100		Grade 100	Grade 100
Below -40	Do Not Use	Do Not Use	700	40	20
			800	50	25
400	15	0	900	60	30
500	25	5	1000	70	35
600	30	15	Over 1000	DO NOT USE	

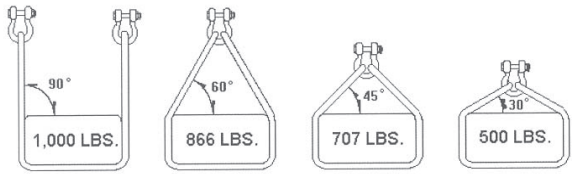
Refer to other regulations, codes and standards for additional information and safe operating practices. See OSHA CFR 1910.184 Regulations, Lift-All Catalog, ANSI/ASME B30.9.

EFFECT OF ANGLE

When slings are used at an angle, (i.e., two slings, or one sling in a basket hitch, attached to only one crane hook) sling capacity is reduced. How much it is reduced depends on the degree of the angle. You can determine whether a sling will be rated high enough if you know the angle between the sling leg and the horizontal. Once you know this angle, multiply the sling's rating by the appropriate factor in the table. This will give you the sling's reduced rating.

ANGLE	FACTOR	ANGLE	FACTOR	ANGLE	FACTOR
90º	1.00	65º	.906	40º	.643
85º	.996	60º	.866	35º	.574
80º	.985	55º	.819	30º	.500
75º	.966	50º	.766		
70º	.940	45º	.707		

SLING CAPACITY DECREASES AS THE ANGLE DECREASES



A sling capable of lifting 1,000-lbs. in a 90˚ vertical basket hitch can only lift 866-lbs. at a 60˚ angle; 707-lbs. at a 45˚ angle; and 500-lbs. at a 30˚ angle.

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Call for information on sling inspections and safety seminars.

800-909-1964

Lift-All®
PRODUCTS FOR BETTER LIFTING