



# WARNING

Failure To Read, Understand And Follow  
This Warning May Result In Personal  
Injury Or Death



## Inspection, Care and Use of Synthetic Web Slings

### Removal From Service

A sling shall be removed from service if any of the following are visible:

1. If sling rated capacity or sling material identification is missing or not readable.
2. Acid or alkali burns.
3. Melting, charring or weld spatter on any part of the sling.
4. Holes, tears, cuts, snags or embedded particles.
5. Broken or worn stitching in load bearing splices.
6. Excessive abrasive wear.
7. Knots in any part of the sling.
8. Excessive pitting, corrosion, cracked, distorted or broken fittings.
9. Any conditions which cause doubt as to the strength of the sling.

### Operating Practices

1. Determine weight of the load. The weight of the load shall be within the rated capacity of the sling.
2. Select a web sling having suitable characteristics for the type of load, hitch and environment.
3. Slings shall not be loaded in excess of the rated capacity. Consideration shall be given to the sling to load angle which affects rated capacity. (see load chart)
4. Slings with fittings which are used as a choker hitch shall be of sufficient length to ensure that the choking action is on the webbing and never on a fitting.
5. Web slings used in a basket hitch shall have the load controlled to prevent slippage.
6. The opening in fittings shall be the proper shape and size to ensure that the fitting will seat properly in the hook or other attachments.
7. A combination of a moderate edge, combined with non-positive sling to load engagement could result in damage and the ultimate separation of the lifting member. Materials of sufficient strength or thickness need to be employed. Several "test" lifts, done in a non-consequence set of circumstances, may be necessary to determine the suitability of the wear protection device. After each evaluation lift, the wear protection device and the sling need to be inspected for damage and suitability.
8. Web slings should not be dragged on the floor or over abrasive surfaces.
9. Web slings shall not be twisted, shortened, lengthened, tied into knots, or joined by knotting. Web slings shall be shortened, lengthened or adjusted only by methods approved by the manufacturer.
10. Web slings should not be pulled from under loads when the load is resting on the web sling. Loads resting on web slings could damage the sling.
11. Do not drop slings equipped with metal fittings.
12. Slings that appear to be damaged shall not be used unless inspected and accepted.
13. The sling shall be hitched in a manner providing control of the load.
14. Personnel, including portions of the human body, shall be kept from between the sling and the load; and from between the sling and the crane hook or hoist hook.
15. Personnel shall not stand under suspended loads. Personnel should stand clear of suspended loads. Personnel shall not ride the web sling or the load being lifted.
16. Shock loading should be avoided.
17. Twisting and kinking the legs shall be avoided.
18. Load applied to the hook shall be centered in the base of the hook to prevent point loading on the hook.
19. During lifting, with or without the load, personnel shall be alert for possible snagging.
20. The web slings' legs should contain or support the load from the sides above the center of gravity when using a basket hitch.
21. Web slings shall be long enough so that the rated load (rated capacity) is adequate when the sling to load angle is taken into consideration.



22. Place blocks under load prior to setting the load down to allow removal of the web sling, if applicable.
23. Nylon and polyester slings shall not be used in contact with objects or at temperatures in excess of 194 degrees F (90 degrees C) or below -40 degrees F (-40 degrees C).
24. Exposure to sunlight or ultraviolet light degrades the strength of slings. Store slings in a cool, dry and dark place when not in use.

## Inspection

### A. Initial Inspection

Before any new or repaired sling is placed in service, it shall be inspected by a designated person to ensure that the correct sling is being used, as well as to determine that the sling meets the specification requirements and has not been damaged in shipment.

### B. Frequent Inspection

This inspection should be conducted by the person handling the sling each time the sling is used.

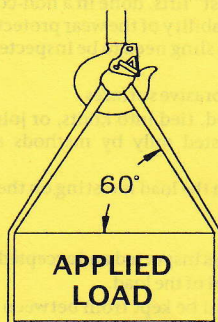
### C. Periodic Inspection

This inspection shall be conducted by designated personnel. Frequency of inspection should be based on:

1. Frequency of sling use
2. Severity of service conditions
3. Experience gained on the service life of slings used in similar applications
4. Inspections should be conducted at least annually

## Sling Angle and Sling Load Chart

SLING ANGLE is the angle measured between a horizontal line and the sling leg or body. This angle is very important and can have a dramatic effect on the rated capacity of the sling. As illustrated, when this angle decreases, the load on each leg increases. This principle applies whether one sling is used to lift at an angle, in a basket hitch or for multi-legged bridle slings. This data is only for equally loaded sling legs. Sling angles of less than 30 degrees are not recommended.



Sling Angle In Degrees	Factor
90	1.000
85	.996
80	.985
75	.966
70	.940
65	.906
60	.866
55	.819
50	.766
45	.707
40	.643
35	.574
30	.500

Actual Sling Capacity = factor X rated capacity



Additional requirements and safe operating practices are outlined in current OSHA and ANSI/ASME B30.9 and/or other regulations as applicable.

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WSTDA-WSWS-02