

Inspection of Web Slings

INSPECTION OF SYNTHETIC WEB SLINGS ASME B30.9C.5-2000

Type of Inspection

- a. **Frequent Inspection** - This inspection should be made by the person handling the sling each day the sling is used.
- b. **Periodic Inspection** - This inspection should 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.Periodic inspection should be conducted at least annually.

Inspection Records. Written inspection records, utilizing the identification for each sling as established by the user, should be kept for all slings. These records should show a description of the new sling and its condition on each periodic inspection.

Removal Criteria. A sling shall be removed from service if damage such as the following is visible and shall be returned to service when approved by a designated person.

- a. Acid or charring burns
- b. Melting or charring of any part of the sling
- c. Holes, tears, cuts or snags
- d. Broken or worn stitching in load bearing splices
- e. Excessive abrasive wear
- f. Knots in any parts of the sling
- g. Excessive pitting or corrosion, or cracked, distorted or broken fittings
- h. Other visible damage that causes doubt as to the strength of the sling operation of synthetic sling
- i. Missing or illegible rated capacity tags

OPERATION OF SYNTHETIC WEB SLING: ASME B30.9C.5-2000

Operating Practices

- ✓ Slings having suitable characteristic for the type of load, hitch and environment shall be selected in accordance with appropriate table.
- ✓ The weight of load shall be within the rated load of the sling.
- ✓ Slings shall be shortened, lengthened, or adjusted only by methods approved by the sling manufacturer.
- ✓ Slings shall not be shortened or lengthened by knotting.
- ✓ Sharp corners in contact with the sling should be padded with material of sufficient strength to minimize damage to the sling.
- ✓ Portions of the human body should be kept from between the sling and the load, and from between the sling and the crane hook or hoist hook.
- ✓ Personnel shall not ride the sling
- ✓ Shock loading should be avoided.
- ✓ Slings should not be pulled from under a load when the load is resting on the sling.
- ✓ Slings should be stored in a cool, dry, and dark place to prevent environmental damage.
- ✓ Twisting and kinking the legs shall be avoided.
- ✓ Load applied to the hook should be centered in the base (bowl) of hook to prevent point loading on the hook.
- ✓ During lifting, with or without load, personnel shall be alert for possible snagging.
- ✓ In a basket hitch, the load should be balanced to prevent slippage.
- ✓ The sling's legs should contain or support the load from the sides above the center of gravity when using a basket hitch.
- ✓ Slings should be long enough so that the rated load is adequate when the angle of the legs is taken into consideration.
- ✓ Slings should not be dragged on the floor or over an abrasive surface.
- ✓ In a choker hitch, slings shall be long enough so the choker fitting chokes on the webbing and never on the other fittings.
- ✓ Nylon and polyester slings shall not be used at temperatures in excess of 194° F, or temperature below -40°F.
- ✓ When extensive exposure to sunlight or ultraviolet light is experienced by nylon or polyester web slings, the sling manufacturer should be consulted for recommended inspection procedures.

"Reprinted from ASME B30.9-1990 by permission of The American Society of Mechanical Engineers".

