

ASHLEY SLING, INC. SYNTHETIC FIBER ROPE SLINGS INSPECTION, REMOVAL AND OPERATING PRACTICES



WARNING

This bulletin contains important safety information about the use of Ashley Synthetic Fiber Rope Slings. However, it does not contain all the information you need to know about handling, lifting and manipulating materials and loads safely. Sling selection and use is only part of a lifting system and it is your responsibility to consider all the risks prior to using any rigging device or product. Failure to follow warnings, removal from service criteria, inspection and operating practices could result in DEATH or INJURY. Refer to all OSHA, ASME and or any other ruling body standards as they apply.

CAUTIONS TO PERSONNEL

- Ensure that all portions of the human body are kept away from the area between the sling and the load and between the sling and the crane or hoist hook.
- Ensure that personnel never stand in line with or next to the legs of a sling that is under tension.
- Ensure that personnel do not stand or pass under a suspended load.
- Ensure that personnel do not ride the sling or the load, unless the load is specifically designed and tested for carrying personnel.
- Do not use synthetic rope slings as bridles on suspended personnel platforms.

EFFECTS OF ENVIRONMENT

- Store slings in an area where they will not be subjected to mechanical, chemical, or ultraviolet damage, or to extreme temperatures.
- When slings are exposed to extreme temperatures, follow the guidance provided by the sling manufacturer or qualified person.
- Do not store fiber ropes in areas where they may become impregnated with rust.
- Ensure that slings exposed to salt water are thoroughly rinsed with fresh water to prevent mechanical damage from salt crystals when the rope dries.

INSPECTION

Each day before being used, the slings and all the fastenings and attachments shall be inspected for damage or defects by a qualified person designated by the employer. Additional inspections shall be performed during sling use where service conditions warrant. Slings used in severe or special service should be inspected before each use. Damage or defective sling shall be immediately removed from service.

Make periodic inspections of synthetic fiber rope slings at intervals no greater than 12 months. A good guide to follow includes:

- Yearly for normal service use,
- Monthly to quarterly for severe service use, and
- As recommended by a qualified person for special and infrequent service use.

Although OSHA's sling standard does not require you to make and maintain records of inspections, the ASME standard contains provisions on inspection records.

REMOVAL FROM SERVICE CRITERIA (ASME B30.9)

1. Missing or illegible sling identification.
2. Cuts, gouges, areas of extensive fiber breakage along the length, and abraded areas on the rope.
3. Damage that is estimated to have reduced effective diameter of the rope more than 10%
4. Uniform fiber breakage along the major part of the length of the rope in the slings such that the entire rope appears covered with fuzz or whiskers.
5. Inside the rope, fiber breakage, fused or melted fiber (observed by prying or twisting to open the strands) involving damage estimated at 10% of the fiber in any strand or the rope as a whole.
6. Discoloration, brittle fibers, and hard or stiff areas that may indicate chemical damage, ultraviolet damage, or heat damage.
7. Dirt and grit in the interior of the rope structure that is deemed excessive.
8. Foreign matter that has permeated the rope and makes it difficult to handle and may attract and hold grit.
9. Kinks or distortions in the rope structure, particularly if caused by forcibly pulling on loops (known as hockles).
10. Melted, hard, or charred areas that affect more than 10% of the diameter of the rope or affect more than 10% of strand diameters.
11. Poor condition of thimbles or other components manifested by corrosion, cracks, distortion, sharp edges, or localized weather.
12. For hooks, removal criteria as stated in ASME B30.10.
13. For rigging hardware, removal criteria as stated in B20.26.
14. Other conditions including visible damage that cause doubt as to the continued use of the sling.

OPERATING PRACTICES

1. All users shall be trained in the selection, use, inspection and cautions to personnel.
2. Ensure that slings are hitched in a manner providing control of the load,
3. Ensure that edges, corners, protrusions, or abrasive surfaces in contact with slings are padded with material of sufficient strength to protect the sling from being cut or damaged,
4. Ensure that slings are shortened or adjusted only by methods approved by the sling manufacturer or a qualified person,
5. Ensure that, during lifting with or without a load, personnel are alert for possible snagging,
6. Ensure that, in a basket hitch, the load is balanced to prevent slippage,
7. When using a basket hitch, ensure that the legs of the sling contain or support the load from the sides, above the center of gravity, so that the load remains under control,
8. Ensure that, in a choker hitch, the choke point is only on the sling body, never on a splice or fitting,
9. Ensure that, in a choker hitch, an angle of choke less than 120 degrees is not used without reducing the rated load,
10. Ensure that slings are not constricted, bunched, or pinched by the load, hook, or any fitting,
11. Ensure that the load applied to the hook is centered in the base (bowl) of the hook to prevent point loading on the hook, unless the hook is designed for point loading,
12. Ensure that an object in the eye of a sling is not wider than one-third the length of the eye,
13. Ensure that the sling and the load are not allowed to rotate when hand-tucked slings are used in a single-leg vertical lift application. Ensure that care is taken to minimize sling rotation.
14. Do not shorten or lengthen a sling by knotting or twisting,
15. Do not rest loads on the sling,
16. Do not pull a sling from under a load when the load is resting on the sling,
17. Do not allow shock loading, and
18. Avoid twisting and kinking.