Natural & Synthetic Fiber Rope
Sling Requirements

Equipment

Employees must only natural and synthetic fiber-rope slings that have permanently affixed and legible identification markings stating the rated capacity of the types of hitches used and the angle upon which it is based, type of fiber material and the number of legs if more than one.

Modifications

1. Spliced fiber rope slings shall not be used unless they have been spliced in accordance with the following minimum requirements and any recommendations from the manufacturer:
   - Manila Rope – eye splices (three full tucks), short splices (six full tucks), three on each side of the splice center line.
   - Synthetic Fiber Rope – eye splices (four full tucks), short splices (eight full tucks), four on each side of the center line.
   - Strand end tails not trimmed flush with the surface of the rope immediately adjacent to full tucks.

2. Fiber rope slings shall have a minimum clear length of rope between eye splices equal to 10 time the rope diameter.

3. Knots shall not be used in lieu of splices.

4. Clamps not designed specifically for fiber ropes shall not be used for splicing.

5. For all eye splices, the eye shall be of such size to provide and included angle of not greater than 60 degrees at the splice when the eye is placed over the load or support.

6. Fiber rope slings shall not be used if end attachments in contact with the rope have sharp edges or projections.
Removal from Service (if the following exist)

1. Abnormal wear.
2. Powdered fiber between strands.
3. Broken or cut fibers.
4. Variations in the size or roundness of strands.
5. Discoloration or rotting.
6. Distortion of hardware in the sling.

Repairs

1. Only fiber rope slings made from new rope shall be used.
2. Use of repaired or reconditioned fiber rope slings is prohibited.