

WAC 296-24-29429 Natural and synthetic fiber rope slings. (1)

Sling use.

(a) You must use natural and synthetic fiber rope slings that have permanently affixed and legible identification markings stating the rated capacity for the type(s) of hitch(es) used and the angle upon which it is based, type of fiber material, and the number of legs if more than one.

(b) You must ensure that fiber rope slings have a diameter of curvature meeting at least the minimums specified in Figs. D-4 and D-5.

(c) You must use slings not included in these tables only in accordance with the manufacturer's recommendations.

(2) **Safe operating temperatures.** You may use natural and synthetic fiber rope slings, except for wet frozen slings, in a temperature range from minus 20°F to plus 180°F without decreasing the working load limit. For operations outside this temperature range and for wet frozen slings, you must follow the sling manufacturer's recommendations.

(3) **Splicing.** You must not use spliced fiber rope slings unless they have been spliced in accordance with the following minimum requirements and in accordance with any additional recommendations of the manufacturer:

(a) In manila rope, eye splices must consist of at least three full tucks, and short splices must consist of at least 6 full tucks, three on each side of the splice center line.

(b) In synthetic fiber rope, eye splices must consist of at least four full tucks, and short splices must consist of at least eight full tucks, four on each side of the center line.

(c) You must not trim strand end tails flush with the surface of the rope immediately adjacent to the full tucks. This applies to all types of fiber rope and both eye and short splices. For fiber rope under one inch in diameter, the tail must project at least six rope diameters beyond the last full tuck. For fiber rope one inch in diameter and larger, the tail must project at least six inches beyond the last full tuck. Where a projecting tail interferes with the use of the sling, you must taper and splice the tail into the body of the rope using at least two additional tucks (which will require a tail length of approximately six rope diameters beyond the last full tuck).

(d) You must ensure that fiber rope slings have a minimum clear length of rope between eye splices equal to 10 times the rope diameter.

(e) You must not use knots in lieu of splices.

(f) You must not use clamps not designed specifically for fiber ropes for splicing.

(g) For all eye splices, you must ensure that the eye is of such size to provide an included angle of not greater than 60 degrees at the splice when the eye is placed over the load or support.

(4) **End attachments.** You must not use fiber rope slings if end attachments in contact with the rope have sharp edges or projections.

(5) **Removal from service.** You must immediately remove natural and synthetic fiber rope slings from service if any of the following conditions are present:

(a) Abnormal wear.

(b) Powdered fiber between strands.

(c) Broken or cut fibers.

(d) Variations in the size or roundness of strands.

(e) Discoloration or rotting.

(f) Distortion of hardware in the sling.

(6) **Repairs.** You must only use fiber rope slings made from new rope. Use of repaired or reconditioned fiber rope slings is prohibited.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 15-24-100, § 296-24-29429, filed 12/1/15, effective 1/5/16. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060 and chapter 49.17 RCW. WSR 12-24-071, § 296-24-29429, filed 12/4/12, effective 1/4/13; Order 76-6, § 296-24-29429, filed 3/1/76.]