

1910.184(f)

**Wire-rope sling --**

1910.184(f)(1)

**Sling use.** Employers must use only wire-rope slings that have permanently affixed and legible identification markings as prescribed by the manufacturer, and that indicate the recommended safe working load for the type(s) of hitch(es) used, the angle upon which it is based, and the number of legs if more than one.

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## 2) Wire Rope Slings:

### *Identification:*

New slings are marked by the manufacture to show:

- The rated load for the types of hitches, and the angle upon which they are based,
- The diameter or size, and
- The name or trademark of the manufacturer.

### *Rated loads:*

Rated loads (capacities) for single-leg vertical, choker, basket hitches, and two-, three-, and four-leg bridle slings for specific grades of wire rope slings are as shown in Tables [7](#) through [15](#).

For angles not shown, use the next lower angle or a qualified person to calculate the rated load. Rated loads are based on:

- Material strength,
- Design factor,
- Type of hitch,
- Angle of loading,
- Diameter of curvature over which the sling is used (D/d) (see [Fig. 4](#)), and
- Fabrication efficiency.

Do not use horizontal angles less than 30 degrees except as recommended by the sling manufacturer or a qualified person.

Rated loads for a sling in a choker hitch are the values shown in Table [7](#), [9](#), [11](#), [13](#), [14](#), or [15](#), provided that the angle of the choke is 120 degrees or more ([Fig. 2](#)). Use the values in [Fig. 2](#) or those from the sling manufacturer or a qualified person for angles of choke less than 120 degrees.

For other materials and for configurations not shown, use the rated loads provided by the sling manufacturer or a qualified person.

*Configurations:*

- Ensure that slings made of rope with 6x19 and 6x37 classifications and cable slings have a minimum clear length of rope 10 times the component rope diameter between splices, sleeves, or end fittings unless approved by a qualified person,
- Ensure that braided slings have a minimum clear length of rope 40 times the component rope diameter between the loops or end fittings unless approved by a qualified person,
- Ensure that grommets and endless slings have a minimum circumferential length of 96 times the body diameter of the grommet or endless sling unless approved by a qualified person, and
- You may use other configurations if specific data is supplied by the manufacturer or a qualified person.