Wire Rope
Sling Requirements

Each Day – Before Initial Use (sling, fastenings and attachments)

1. Employees must only use wire-rope slings that have permanently affixed and legible identification markings.

2. Markings should indicate the safe working load for the hitches used, the angle which it is based and number of legs if more than one.

3. Cable laid and 6 x 19 and 6 x 37 have a minimum clear length of wire rope 10 times the component rope diameter between splices, sleeves or end fittings.

4. Braided slings shall have a minimum clear length of wire rope 40 times the component rope diameter between the loops or end fittings.

5. Cable laid grommets, strand laid grommets and endless slings shall have a minimum circumferential length of 96 times the body diameter.

Modifications

1. Welding of end attachments, except covers to thimbles, shall be performed prior to assembly of the sling.

2. Welded end attachments shall not be used unless proof tested by the manufacturer or equivalent entity at twice their rate capacity prior to use.

3. Department shall retain a certificate of the proof test and have it available for review.

Removal from Service (if the following exist)

1. Ten randomly distributed broken wires in one rope lay, or five broken wires in one strand in one rope lay.

2. Wear or scraping of 1/3 the original diameter of outside individuals wires.
3. Kinking, crushing, bird caging or any other damage resulting in distortion of the wire rope structure.

4. Evidence of heat damage.

5. Slings shall be removed from service; if the hooks and end attachments are cracked, deformed or worn.

6. Slings shall be removed from service that have; openings more than 15% of the normal throat opening (measured at narrowest point).

7. Shall be removed from service that are twisted more than 10 degrees from the plane of the unbent hook or have corrosion visible on the rope or end attachments.