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## 29 C.F.R. § 1917.42

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### Miscellaneous auxiliary gear.

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- (a) *Routine inspection.* (1) At the completion of each use, loose gear such as slings, chains, bridles, blocks and hooks shall be so placed as to avoid damage to the gear. Loose gear shall be inspected and any defects corrected before reuse.
- (2) All loose gear shall be inspected by the employer or his authorized representative before each use and, when necessary, at intervals during its use, to ensure that it is safe. Any gear which is found upon such inspection to be visibly unsafe shall not be used until it is made safe.
- (3) Defective gear shall not be used. Distorted hooks, shackles or similar gear shall be discarded.
- (b) *Wire rope and wire rope slings.* (1) The employer shall ascertain and adhere to the manufacturer's recommended ratings for wire rope and wire rope slings and shall have such ratings available for inspection. When the manufacturer is unable to supply such ratings, the employer shall use the tables for wire rope and wire rope slings found in American National Safety Standard for Slings, ANSI B30.9-1971. A design safety factor of at least five shall be maintained for the common sizes of running wire used as falls, in purchases or in such uses as light load slings. Wire rope with a safety factor of less than five may be used only:
- (i) In specialized equipment, such as but not limited to cranes, designed to be used with lesser wire rope safety factors;
- (ii) In accordance with design factors in standing rigging applications; or
- (iii) For heavy lifts or other purposes for which a safety factor of five is impracticable and for which the employer can demonstrate that equivalent safety is ensured.
- (2) Wire rope or wire rope slings having any of the following conditions shall not be used:
- (i) Ten randomly distributed broken wires in one rope lay or three or more broken wires in one strand in one rope lay;
- (ii) Kinking, crushing, bird caging or other damage resulting in distortion of the wire rope structure;
- (iii) Evidence of heat damage;
- (iv) Excessive wear or corrosion, deformation or other defect in the wire or attachments, including cracks in attachments;
- (v) Any indication of strand or wire slippage in end attachments; or
- (vi) More than one broken wire in the close vicinity of a socket or swaged fitting.
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(3) Protruding ends of strands in splices on slings and bridles shall be covered or blunted. Coverings shall be removable so that splices can be examined. Means used to cover or blunt ends shall not damage the wire.

(4) Where wire rope clips are used to form eyes, the employer shall adhere to the manufacturers' recommendations, which shall be made available for inspection. If "U" bolt clips are used and the manufacturers' recommendations are not available, Table C-1 shall be used to determine the number and spacing of the clips. "U" bolts shall be applied with the "U" section in contact with the dead end of the rope.

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