

**WAC 296-32-23505 Pole climbing equipment.** (1) Approved line-man's belts and straps shall be provided. The employer shall ensure their use when work is performed at positions more than four feet above ground, on poles. The belt and strap (work-positioning systems) must be rigged so that an employee can free fall no more than two feet (0.6 meters).

(2) The employer shall ensure that all safety belts and straps are inspected by a competent person prior to each day's use to determine that they are in safe working condition.

(3) Telecommunication lineman's body belts, safety straps and lanyards have to meet the following general requirements:

(a) Shall be drop forged or pressed steel.

(b) Shall have a corrosion resistant finish tested to meet the requirements of the American Society for Testing and Materials B117-64 (50-hour test).

(c) Hardware surfaces shall be smooth and free of sharp edges.

(d) Lineman's body belts shall be at least four inches in width.

(e) Buckles shall be capable of withstanding an 8.9-kilonewton (2,000-pound force) tension test with a maximum permanent deformation no greater than 0.4 millimeters (0.0156 inches).

(f) "D" rings shall be capable of withstanding a 22-kilonewton (5,000-pound force) tensile test without cracking or breaking.

(g) Snaphooks shall be capable of withstanding a 22-kilonewton (5,000-pound force) tension test without failure. The keeper of the locking snaphooks must have a spring tension that will not allow the keeper to begin to open with a weight of two and one-half pounds or less, but the keeper of snaphooks must begin to open with a weight of four pounds, when the weight is supported on the keeper against the end of the nose. The snaphook must be a locking snaphook.

**Note:** Distortion of the snaphook sufficient to release the keeper is considered to be tensile failure of a snaphook.

(h) Top grain leather or leather substitute may be used in the manufacture of body belts and positioning straps; however, leather and leather substitutes may not be used alone as a load-bearing component of the assembly.

(i) Plyed fabric used in positioning straps and in load-bearing parts of body belts shall be constructed in such a way that no raw edges are exposed and the plies do not separate.

(j) Positioning straps shall be capable of withstanding the following tests:

(i) A dielectric test of 819.7 volts, AC, per centimeter (25,000 volts per foot) for three minutes without visible deterioration;

(ii) A leakage test of 98.4 volts, AC, per centimeter (3,000 volts per foot) with a leakage current of no more than 1 mA;

**Note:** Positioning straps that pass direct-current tests at equivalent voltages are considered as meeting this requirement.

(iii) Tension tests of 20 kilonewtons (4,500 pounds-force) for sections free of buckle holes and of 15 kilonewtons (3,500 pounds-force) for sections with buckle holes;

(iv) A buckle-tear test with a load of 4.4 kilonewtons (1,000 pounds-force); and

(v) A flammability test in accordance with Table 5.

**Table 5**

<b>Flammability Test Method</b>	<b>Criteria For Passing the Test</b>
Vertically suspend a 500 mm (19.7 inch) length of strapping supporting a 100 kg (220.5 lb.) weight. Use a butane or propane burner with a 76 mm (3 inch) frame. Direct the flame to an edge of the strapping at a distance of 25 mm (1 inch). Remove the flame after five seconds. Wait for any flames on the positioning strap to stop burning.	Any flames on the positioning strap shall self-extinguish. The positioning strap shall continue to support the 100 kg (220.5 lb.) mass.

(4) Before an employee throws their weight on a belt, the employee shall determine that the snap or fasteners are properly engaged.

(5) When working on single-use telecom poles, safety straps shall not be placed above the cross-arm or top attachment except where it is not possible for the strap to slide or be slipped over the top of the pole.

(6) Neither end of the strap shall be allowed to hang loose or dangle while the employee is ascending or descending poles or other structures.

(7) Lineman's belts and safety straps shall not be stored with sharp-edged tools or near sharp objects. When a lineman's belt, safety strap and climbers are kept in the same container, they shall be stored in such a manner as to avoid cutting or puncturing the material of the lineman's belt or safety strap with the gaffs or climbers.

(8) Unless the snap hook is designed for the following connections, snap hooks shall not be engaged as follows:

(a) Connected to loops made in webbing-type lanyards.

(b) Connected to each other.

(c) Attached to a D-ring to which another snap hook or other connector is attached.

(9) Pole climbers.

(a) Climbing gaffs shall be kept properly sharpened and shall be at least one and one-quarter inches in length as measured on the underside of the gaff.

(b) The gaffs of pole climbers shall be covered with safety caps when not being used for their intended use.

(c) The employer shall ensure that pole climbers are inspected by a competent person/qualified climber for the following conditions: Fractured or cracked gaffs or leg irons, loose or dull gaffs, broken straps or buckles. If any of these conditions exist, the defect shall be corrected or replaced before the climbers are used.

(d) Pole climbers shall be inspected as required in this subsection before each day's use and a gaff cut-out test performed at least weekly when in use.

(e) Employees shall not wear climbers while doing work where they are not required. Employees shall not continue to wear their climbers while working on the ground, except for momentary periods of time on the ground.

(f) Pole climbers shall not be worn when:

(i) Working in trees (specifically designed tree climbers shall be used for tree climbing);  
(ii) Working on ladders;  
(iii) Working in an aerial lift;  
(iv) Driving a vehicle;  
(v) Walking on roadways, sidewalks, rocky, hard, frozen, brushy or hilly terrain.

(10) When a ladder is supported by an aerial strand, and ladder hooks or other supports are not being used, the ladder shall be extended at least two feet above the strand and shall be secured to it (e.g., lashed or held by a safety strap around the strand and ladder side rail). When a ladder is supported by a pole, it shall be securely lashed to the pole unless the ladder is specifically designed to prevent movement when used in this application. Use a safety belt with a lanyard that is secured to the pole when doing any work.

(11) Aerial manlift equipment.

(a) These devices shall not be operated with any conductive part of the equipment closer to exposed energized power lines than the clearances set forth in Table 6 of WAC 296-32-25518.

(b) Only qualified drivers shall be permitted to operate aerial manlift equipment and shall possess an appropriate and current motor vehicle operator's license, specific to the vehicle and load; such as a commercial driver's license (CDL) Class A, B, C, etc.

(c) When performing work from aerial manlift equipment, the employee shall wear a full body harness and a lanyard attached to the manufacturer's approved attachment point.

(d) When it is necessary for the employee to remain in the bucket at an elevated position while traveling from pole to pole:

(i) There shall be direct communication between the employee and the vehicle operator; and

(ii) The operator's manual must be followed for rate of speed.

(e) When any aerial manlift equipment is parked at the job site, the brakes shall be set. Wheel chocks shall be used to prevent uncontrolled movement. If equipped with outriggers, the outriggers shall be implanted on firm footing.

(f) Manufacturer's recommended maximum load limit shall be posted near each set of controls, kept in legible condition and the maximum load limit shall not be exceeded.

(g) Flashing warning lights shall be installed, maintained, and used on all aerial manlift equipment used on public thoroughfares.

(12) Inspection criteria. The employer shall ensure that aerial lifts and associated equipment are inspected by a competent person at intervals set by the manufacturer but in no case less than once per year. Records shall be maintained including the dates of inspections, and necessary repairs made. Additional requirements are located in chapter 296-869 WAC, Elevating work platforms.

(13) Digger derricks and similar equipment.

(a) This equipment shall not be operated with any conductive part of the equipment closer to exposed energized power lines than the clearances set forth in Table 6 in WAC 296-32-23518.

(b) When digger derricks are used to handle poles near energized power conductors, these operations shall comply with the requirements contained in WAC 296-32-23518(3) of this chapter.

(c) Moving parts of equipment and machinery carried on or mounted on telecommunications line trucks shall be guarded. This may be done with barricades as specified in WAC 296-32-22530 of this chapter.

(d) Digger derricks and their operation shall comply with the following requirements:

(i) Manufacturer's specifications, load ratings and instructions for digger derrick operation shall be strictly observed.

(ii) Rated load capacities and instructions related to digger derrick operation shall be conspicuously posted on a permanent weather-resistant plate or decal in a location on the digger derrick that is plainly visible to the operator.

(iii) Prior to operation the parking brake must be set and the stabilizers extended if the vehicle is so equipped. When the vehicle is situated on a grade, at least two wheels must be chocked on the downgrade side.

(iv) Only trained and qualified persons shall be permitted to operate the digger derrick.

(v) Hand signals to operators shall be those prescribed by ANSI A10.31-2013, Safety Requirements, Definitions and Specifications for Digger Derricks.

(vi) The employer shall ensure that the digger derrick and its associated equipment are inspected by a competent person at intervals set by the manufacturer but in no case less than once per year. Records shall be maintained including the dates of inspections, and necessary repairs made.

(vii) Modifications or additions to the digger derrick and its associated equipment that alter its capacity or affect its safe operation shall be made only with written certification from the manufacturer, or other equivalent entity, such as a nationally recognized testing laboratory, that the modification results in the equipment being safe for its intended use. Such changes shall require the changing and posting of revised capacity and instruction decals or plates. These new ratings or limitations shall be as provided by the manufacturer or other equivalent entity.

(viii) Synthetic rope shall be used in accordance with the manufacturer's specifications and guidelines for the load(s) intended and the equipment being used.

**Note:** Digger derricks are now being supplied with synthetic rope hoist lines and worn out wire rope hoist lines may be replaced with synthetic ropes, depending on the hoist drum's storage capacity, compatibility and manufacturer's guidance.

(ix) The use of rope that shows any signs of aging, chemical contamination or wear must not be used.

**Note:** If you are in doubt of the line's condition, take it out of service and have a competent person inspect it. If it is found to be unserviceable, tag the worn/damaged rope and render it unusable.

(x) When the bulk of a surface strand of the cover has been reduced by 50 percent or more for a distance along the axis of the rope of four or more rope diameters, a two-in-one, double braided rope must be taken out of service or discarded. If the core is visible through the cover in a localized area, discard the damaged area; you may have the eye respliced by a competent/qualified person.

**Note:** If the condition is in more than one area, take the rope out of service and have a competent person inspect it or discard the rope.

(xi) Pulled strands are a potential hazard for snagging on foreign objects. Make every effort to reincorporate a pulled strand back into the rope. If there are four or more consecutive pulled strands that cannot be reincorporated back into the rope, then the rope must be either respliced above the damaged spot or discarded.

(xii) For ropes with a circumference up to (11.43 cm) 4.5 inches, three or more adjacent cut strands are a sign of severe damage and the rope must be taken out of service, discarded or respliced. For ropes with larger circumferences, cut strands can be increased to four.

(xiii) The rope shall not be allowed to build up on one side of the hoist drum, it can slip off and drop the load until the cable tightens up. This creates a shock load on the rope and boom and produces a loss of control of the load.

**Notes:**

- A very sudden change in load up or down in excess of ten percent of the line's rated working load constitutes a hazardous shock load and would void most manufacturers' normal working load recommendations.
- A typical shock load occurs when an object being lifted vertically by a hoist line gets jerked suddenly or is dropped. Under these conditions, a (2268 kg) 5,000 lb. load may increase to the equivalent of (13,608 kg) 30,000 lb., breaking the hoist line.

(xiv) Any rope suspected of undergoing a shock load must be taken out of service and inspected by a competent person.

(xv) Hoist lines used with derricks shall be rated for the load and usage as specified by the load chart as required by the manufacturer's specifications.

(xvi) Wire rope shall be taken out of service when any of the following conditions exist:

(A) The rope strength has been significantly reduced due to corrosion, pitting, or excessive heat;

(B) The thickness of the outer wires of the rope has been reduced to two-thirds or less of the original thickness;

(C) There are more than six broken wires in any one rope lay, or three in one strand;

(D) There is excessive permanent distortion caused by kinking, crushing, or severe twisting of the rope; or

(E) When the wire rope fails to meet the manufacturer's inspection criteria.

(e) Pulling equipment.

(i) Collapsible power reels shall only be used to string or take up wire, small diameter cable, poly rope, or tape for placing or removing aerial cable, taking down wire, or pulling winch line into conduits.

(ii) When used for pulling in poly rope or tape, the reel shall only be used as a pulling capstan and not as a storage device. A maximum of three wraps is allowed.

**Note:** Excessive wraps of poly rope or tape will cause a reel to fail.

(iii) At all times during pulling operations the employee must stay out of the bite of the line.

(iv) All other manufacturer requirements and recommendations must be followed.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, and chapter 49.17 RCW. WSR 17-20-069, § 296-32-23505, filed 10/2/17, effective 1/1/18.]