

South Carolina Department of Labor, Licensing and Regulation  
Division of Labor  
Office of Occupational Safety and Health  
Columbia, South Carolina 29211

**OSH Program Directive Number 80-1910.212-11**

**Subject:** Citing of Machines used to Inspect, Grind, Measure, or Tension-Measure Timing Belts and V-Belts Used in the Automotive Belt and Timing/V-Belt Manufacturing Industry.

**Standard:** Article VI, Section 1910.212 (a) (1), Rules and Regulations, Commissioner of Labor, State of South Carolina.

**Cross Reference to Federal Standards:** 29 CFR 1910.212 (a) (1).

**Background:**

- a. This program directive is intended to provide guidance for citing those machines used to inspect, grind, measure, or tension-measure for timing belts and V-belts used in the automotive belt and timing/V-belt manufacturing industry where such belts are being tested for quality control to meet production specifications.
- b. Article VI, Section 1910.212 (a) (1) is appropriate for citing this type of safety hazard rather than Section 1910.219 (e), since testing of such belts does not involve mechanical power-transmission apparatus in relationship to the intent of Section 1910.219.
- c. A survey was conducted at all of the automotive and timing/V-belt manufacturing plants in the State of South Carolina to determine the type, nature and extent of injuries that have occurred during the use of referred machines. The survey consisted of interviews with both management and employees on the injuries sustained from the operations of these types of machines.
- d. The survey of the type, nature and extent of injuries that occur revealed that no "lost-workday case" injury has occurred in any of the known automotive belt and timing/V-belt manufacturing plants in the State of South Carolina. The survey did not uncover any injuries to the nature of amputations, skin abrasions, or skin punctures. This is due, in part, to the small amount of tension normally involved during the inspecting and measuring operations to ensure good quality control. The

tension on the belts may vary from 12 to approximately 100 pounds with the majority being less than 50 pounds of pressure used for tension.

There were very few cases of injury to operators of such machines found since the first belt manufacturing plant was established in this State in 1972. The only injuries that were found involved minor bruises and contusions of the fingers which may or may not have required the administering of some sort of minimal first aid treatment.

**Interpretation:**

- a. Under the above circumstances, the citing of belts being tested on inspect-grind machines, measuring machines, tension-measuring timing and V-belt machines, operating at less than 100 pounds of tension, under Article VI, Section 1910.212 (a) (1), for nip points and rotating parts, shall be de minimus unless a more substantial injury other than minimal nips and contusion of the fingers can readily be predicted. This interpretation does not apply to any power-transmission belts which may be integral parts of the machine.
- b. The grinding operation present on some of these machines, which is used to grind such belts being tested, is required to be guarded. Violation of unguarded grinding wheels on these machines shall be cited under Article VI, Section 1910.212 (a) (1).

**Effective Date:** This instruction is effective upon receipt and will remain in effect until cancelled or superseded by amendment to the Rules and Regulations.

William M. Lybrand, Director  
September 15, 1980