

## Hand and Portable Powered Tools

### Description:

Employer requirements for assuring the safe condition of hand-held and portable powered tools used by employees is the subject of these standards.

### Regulatory Reference

29 CFR §1910 Subpart P	Hand and Portable Powered Equipment and Other Hand-Held Equipment
29 CFR §1910.241	Definitions
29 CFR §1910.242	Hand and portable powered tools and equipment, general
29 CFR §1910.243	Guarding of portable powered tools
29 CFR §1910.244	Other portable tools and equipment

### Applies to:

The standard applies to the use of portable, hand-held or powered tools used in shops or other workplace locations including customer locations where construction, maintenance or other service operations require the use of such equipment. Sections also apply to equipment such as mowers, jacks, pneumatic tools and hoses, grinders, circular and saber saws, nail guns, and other common shop and maintenance equipment.

### General Requirements:

For specific requirements employers should review the CFR references cited above. General requirements that may apply to typical LP-gas operations include:

- Each employer shall be responsible for the safe condition of tools and equipment used by employees, **including tools and equipment that may be furnished by employees.**
- Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment.
- Grounding.* Portable electric powered tools shall meet the electrical requirements of subpart S of 29 CFR 1910 (Electrical Safety).
- Pneumatic powered tools and hose-*
  - A tool retainer shall be installed on each piece of pneumatic equipment which, without such a retainer, may eject the tool.
  - Hose and hose connections used for conducting compressed air to utilization equipment shall be designed for the pressure and service to which they are subjected.
- Abrasive wheels shall be used only on machines provided with safety guards.
- All hand-held powered circular saws having a blade diameter greater than 2 inches, electric, hydraulic or pneumatic chain saws, and percussion tools without positive

accessory holding means shall be equipped with a constant pressure switch or control that will shut off the power when the pressure is released. All hand-held gasoline powered chain saws shall be equipped with a constant pressure throttle control that will shut off the power to the saw chain when the pressure is released. All portable, power-driven circular saws having a blade diameter greater than 2 in. shall be equipped with guards above and below the base plate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. When the tool is withdrawn from the work, the lower guard shall automatically and instantly return to covering position.

7. Power lawnmowers of the walk-behind, riding-rotary, and reel power lawnmowers designed for sale to the general public shall meet the design specifications in “American National Standard Safety Specifications for Power Lawnmowers” ANSI B71.1-X1968, which is incorporated by reference as specified in §1910.6.
- (A) All power-driven chains, belts, and gears shall be so positioned or otherwise guarded to prevent the operator's accidental contact therewith, during normal starting, mounting, and operation of the machine.
  - (B) A shutoff device shall be provided to stop operation of the motor or engine. This device shall require manual and intentional reactivation to restart the motor or engine.
  - (C) All positions of the operating controls shall be clearly identified. The words, “Caution. Be sure the operating control(s) is in neutral before starting the engine,” or similar wording shall be clearly visible at an engine starting control point on self-propelled mowers.
  - (D) On walk-behind and riding rotary mowers, the mower blade shall be enclosed except on the bottom and the enclosure shall extend to or below the lowest cutting point of the blade in the lowest blade position.
  - (E) Guards which must be removed to install a catcher assembly shall comply with the following:
    - Warning instructions shall be affixed to the mower near the opening stating that the mower shall not be used without either the catcher assembly or the guard in place.
    - The catcher assembly or the guard shall be shipped and sold as part of the mower.
    - The instruction manual shall state that the mower shall not be used without either the catcher assembly or the guard in place.
    - The catcher assembly, when properly and completely installed, shall not create a condition which violates the limits given for the guarded opening.
  - (F) For other mower requirements consult 29 CFR §1910.243.
8. Jacks-
- (A) The operator shall make sure that the jack used has a rating sufficient to lift and sustain the load. The rating of a jack is the maximum working load for which it is designed to lift safely that load throughout its specified amount of travel. The rated load shall be legibly and permanently marked in a prominent location on the jack by casting, stamping, or other suitable means.

- (B) In the absence of a firm foundation, the base of the jack shall be blocked. If there is a possibility of slippage of the cap, a block shall be placed in between the cap and the load.
- (C) The operator shall watch the stop indicator, which shall be kept clean, in order to determine the limit of travel. The indicated limit shall not be overrun.
- (D) After the load has been raised, it shall be cribbed, blocked, or otherwise secured at once.
- (E) Each jack shall be thoroughly inspected at times that depend upon the service conditions. Inspections shall be not less frequent than the following:
  - For constant or intermittent use at one locality, once every 6 months,
  - For jacks sent out of shop for special work, when sent out and when returned,
  - For a jack subjected to abnormal load or shock, immediately before and immediately thereafter.
- (F) Jacks, which are out of order, shall be tagged accordingly, and shall not be used until repairs are made. Repair or replacement parts shall be examined for possible defects.
- (G) Hydraulic jacks exposed to freezing temperatures shall be supplied with an adequate antifreeze liquid.

### **Training Requirements:**

No specific training requirements are set out in the standard. Many employers' compliance efforts for the standard take the form of employee and supervisor work rules or standard operating procedures (SOPs) for the use of hand-held and portable powered tools. Documented training of affected employees including managers and supervisors, directed at understanding and implementing work rules or SOPs is one method to implement the compliance effort.

### **Maintenance and Review**

Periodic inspection of hand-held and portable powered tools in facilities and service vehicles is a typical method of on-going compliance with the OSHA standards. Inspection of employee-supplied tools such as fleet mechanic's tools should be included in the program.

Review of any written work rules or SOPs can be scheduled on an annual or other periodic basis. Consideration should be given to employee training, and specific coverage in new employee orientation for affected personnel should be considered as well.

### **Additional Information and Resources**

Specific standards for hand-held and portable powered tools can be obtained from American National Standards Institute, Washington, DC, Internet address [www.ansi.org](http://www.ansi.org)

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