

**NORTH CAROLINA DEPARTMENT OF LABOR
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
RALEIGH, NORTH CAROLINA**

Field Information System

Standards Notice 56

Subject: Citing Heavy and Light Duty Pneumatic Staplers

A. An interpretation pertaining to required safeguarding of portable pneumatic powered staplers and/or nailers used in general industry is provided in response to field personnel request.

1. 29 CFR 1910.212(a)(3)(ii) is applicable to heavy duty portable powered staplers and/or nailers. Section 1910.212 (a)(3)(iv) (h) lists portable power tools as one type of machine which usually requires point-of-operation guarding.
2. 29 CFR 1910.243(a)(2)(ii) and 1910.243(b) are the applicable general industry vertical standards for portable pneumatic powered tools. However, these standards are silent with regard to point-of-operation safeguarding. Under such circumstances, the NC OSHA Field Operations Manual, Chapter VII, permits the application of horizontal standards, such as 1910.212(a)(3) (ii), where employee workplace hazards exist. 29 CFR 1910.212 (a)(3)(ii) is applicable to point of operation hazards associated with portable pneumatic powered staplers and/or nailers, and the safeguarding device shall be in conformity with any appropriate standards therefore.
3. The American National Standards Institute, Inc. (ANSI), and the International Staple, Nail and Tool Association (ISANTA) have recently published ANSI/ISANTA SNT-101-1983, Safety Requirements for Heavy-Duty, Portable, Compressed-Air-Actuated, Fastener Driving Tools. The standard, developed by an industry consensus group, is applicable to heavy duty portable pneumatic powered staplers and/or nailers and is considered to be an appropriate standard within the meaning of 1910.212(a)(3) (ii). Publication of the standard has established industry recognition of the safeguards required.
4. The ANSI standard pertains to portable pneumatic powered devices which drive fasteners made from material of cross sectional area equal to or greater than 18 gage per the American Steel Wire Gage (ASWG). (18 ASWG is equal to 0.0475 inch diameter wire, and ASWG was formerly Washburn & Moen or Roebling.) Tables 1a and 1b (linked at the bottom of the page) itemize the physical wire diameters relative to ASWG number.
5. The ANSI standard specifies that fastening devices which drive nails, staples, etc., and which utilize fasteners of 18 ANWG or greater shall be equipped with a "work- contacting element" (interlocked pressure foot) for the prevention of accidental fastener discharges. The ANSI standard also specifies certain exceptions under which these pneumatic tools may be operated without a work-contacting element installed. However, only safeguarded pneumatic tools are acceptable to OSHA where hazardous employee exposures are substantiated. Unsafereguarded devices may be acceptable if an employer can demonstrate that the same degree of safety is provided by other means, or if safeguarding is not feasible and all other means of protection are being utilized. (See Section 4.3.4 and 4.3.5 of ANSI/ISANTA SNT-101-1983).
6. It should be noted that the ANSI standard does not relate to the requirement of a work-contacting element (interlocked safeguard) to the operating air pressure of the device, but rather to the size of the expelled fastener. Therefore, in general industry situations, prior interpretations which related to 100 psi air pressure as a consideration, are not germane to heavy duty portable pneumatic tools within the scope of the ANSI standard.
7. Tables 1a & 1b and Table 2 (linked at bottom of the page), are provided for the use of field personnel when evaluating the applicability of 1910.212(a)(3)(ii) to workplace situations in which portable pneumatic powered fastener tools are used.

It is further recommended that the following items be evaluated:

- a. Assure that a pressurized tool is never left unattended.
- b. Provide a quick disconnect coupling, of the shut off type, at or adjacent to the tool for easy use of the operator and for tool depressurization when unattended.
- c. Provide full face protection of operators and persons in close proximity to stapler operations.
- d. Provide appropriate training and supervision of stapler tool operators.

B. "Light Duty" Pneumatic Staplers:

- 1. These "Light duty" Pneumatic Staplers are generally used during furniture manufacturing for applications such as: fastening of back panels and for mattress box spring construction. They are designed to fit into areas where space is limited.
- 2. Existing OSHA standards, such as 29 CFR 1910.243(b), do not address the operation of staplers requiring less than 100 PSI pressure. Since these light duty pneumatically actuated tools require less than 100 PSI for proper operation, the use of these tools shall be acceptable if:
 - a. A pressure regulator or other means is provided to assure that the tool operating air pressure does not exceed 100 PSI or the manufacturer's recommendation, whichever is lower.
 - b. The staples or fasteners are "light duty" type and do not exceed 18 gauge, .040 inch (American Wire Gage B. & S.) as specified by the tool manufacturers.
 - c. The operator and other persons in the area, within range of a flying staple (approximately 20 feet) are wearing personal protective eye equipment (safety glasses).

C. In general industry applications, when these tools are observed to be in use and the above procedures have not been adhered to, Field Personnel shall consider the General Provisions of GS 95-129(1) for issuance of a General Duty violation, and where eye and face protective equipment is not in use, a violation of 1910.133 is applicable.

Table Links:

[Table 1a - American Steel Wire Gage \(ASWG\)](#): Fastener sizes within the scope of ANSI.

[Table 1b - American Steel Wire Gage \(ASWG\)](#): Fastener sizes too small for coverage under ANSI.

[Table 2 - Wire Nail Sizes Related to ASWG](#).

Signed on Orginal

David J. Pierce
ETTA Bureau Chief

Signed on Original

James A. Oppold
Director

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Date of Signature