PART 1927 [RESERVED]

PART 1928—OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR AGRICULTURE

Subpart A—General

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AUTHORITY: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); and Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), 1–90 (55 FR 9033), 6–96 (62 FR 111), 3–2000 (65 FR 50017) or 5–2002 (67 FR 65008) as applicable; and 29 CFR part 1911.

Section 1928.21 also issued under section 29, Hazardous Materials Transportation Uniform Safety Act of 1990 (Pub. L. 101–615, 104 Stat. 3244 (49 U.S.C. 1801–1819 and 5 U.S.C. 553)).

SOURCE: 40 FR 18257, Apr. 25, 1975, unless otherwise noted.

Subpart A—General

§ 1928.1 Purpose and scope.

This part contains occupational safety and health standards applicable to agricultural operations.

Subpart B—Applicability of Standards

§ 1928.21 Applicable standards in 29 CFR part 1910.

(a) The following standards in part 1910 of this chapter shall apply to agricultural operations:

(1) Temporary labor camps—§ 1910.142;

(2) Storage and handling of anhydrous ammonia—§ 1910.111 (a) and (b);

(3) Logging operations—§ 1910.266;

(4) Slow-moving vehicles—§ 1910.145;

(5) Hazard communication—§ 1910.1200;

(6) Cadmium—§ 1910.1027.

(7) Retention of DOT markings, placards and labels—§ 1910.1201.

(b) Except to the extent specified in paragraph (a) of this section, the standards contained in subparts B through T and subpart Z of part 1910 of this title do not apply to agricultural operations.

(Section 1928.21 contains a collection of information which has been approved by the Office of Management and Budget under OMB control number 1218–0072)

[40 FR 18257, Apr. 25, 1975, as amended at 42 FR 38569, July 29, 1977; 52 FR 31886, Aug. 24, 1987; 59 FR 36700, July 19, 1994; 59 FR 51748, Oct. 12, 1994; 61 FR 5510, Feb. 13, 1996; 61 FR 9255, Mar. 7, 1996]

Subpart C—Roll-Over Protective Structures

§ 1928.51 Roll-over protective structures (ROPS) for tractors used in agricultural operations.

(a) *Definitions.* As used in this subpart—

Agricultural tractor means a two-or four-wheel drive type vehicle, or track vehicle, of more than 20 engine horsepower, designed to furnish the power to pull, carry, propel, or drive implements that are designed for agriculture. All self-propelled implements are excluded.

Low profile tractor means a wheeled tractor possessing the following characteristics:

(1) The front wheel spacing is equal to the rear wheel spacing, as measured from the centerline of each right wheel to the centerline of the corresponding left wheel.

(2) The clearance from the bottom of the tractor chassis to the ground does not exceed 18 inches.

(3) The highest point of the hood does not exceed 60 inches, and

(4) The tractor is designed so that the operator straddles the transmission when seated.

Tractor weight includes the protective frame or enclosure, all fuels, and other components required for normal use of the tractor. Ballast shall be added as necessary to achieve a minimum total weight of 110 lb. (50.0 kg.) per maximum power take-off horsepower at the rated engine speed or the maximum gross vehicle weight specified by the manufacturer, whichever is the greatest. Front end weight shall be at least 25 percent of the tractor test weight. In case power take-off horsepower is not available, 95 percent of net engine flywheel horsepower shall be used.

(b) *General requirements.* Agricultural tractors manufactured after October 25, 1976, shall meet the following requirements:

(1) *Roll-over protective structures (ROPS).* ROPS shall be provided by the employer for each tractor operated by an employee. Except as provided in paragraph (b)(5) of this section, a ROPS used on wheel-type tractors shall meet the test and performance requirements of 29 CFR 1928.52, 1928.53, or 1926.1002 as appropriate. A ROPS used on track-type tractors shall meet the test and performance requirements of 29 CFR 1926.1001.

(2) *Seatbelts.* (i) Where ROPS are required by this section, the employer shall:

(A) Provide each tractor with a seatbelt which meets the requirements of this paragraph;

(B) Ensure that each employee uses such seatbelt while the tractor is moving; and

(C) Ensure that each employee tightens the seatbelt sufficiently to confine the employee to the protected area provided by the ROPS.

(ii) Each seatbelt shall meet the requirements set forth in Society of Automotive Engineers Standard SAE J4C, 1965 Motor Vehicle Seat Belt Assemblies,[2] except as noted hereafter:

(A) Where a suspended seat is used, the seatbelt shall be fastened to the movable portion of the seat to accommodate a ride motion of the operator.

(B) The seatbelt anchorage shall be capable of withstanding a static tensile load of 1,000 pounds (453.6 kg) at 45 degrees to the horizontal equally divided between the anchorages. The seat mounting shall be capable of withstanding this load plus a load equal to four times the weight of all applicable seat components applied at 45 degrees to the horizontal in a forward and upward direction. In addition, the seat mounting shall be capable of withstanding a 500 pound (226.8 kg) belt load plus two times the weight of all applicable seat components both applied at 45 degrees to the horizontal in and upward and rearward direction. Floor and seat deformation is acceptable provided there is not structural failure or release of the seat adjusted mechanism or other locking device.

(C) The seatbelt webbing material shall have a resistance to acids, alkalies, mildew, aging, moisture, and sunlight equal to or better than that of untreated polyester fiber.

(3) *Protection from spillage.* Batteries, fuel tanks, oil reservoirs, and coolant systems shall be constructed and located or sealed to assure that spillage will not occur which may come in contact with the operator in the event of an upset.

(4) *Protection from sharp surfaces.* All sharp edges and corners at the operator's station shall be designed to minimize operator injury in the event of an upset.

(5) *Exempted uses.* Paragraphs (b)(1) and (b)(2) of this section do not apply to the following uses:

(i) *Low profile* tractors while they are used in orchards, vineyards or hop

[2] Copies may be obtained from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096.

yards where the vertical clearance requirements would substantially interfere with normal operations, and while their use is incidental to the work performed therein.

(ii) *Low profile* tractors while used inside a farm building or greenhouse in which the vertical clearance is insufficient to allow a ROPS equipped tractor to operate, and while their use is incidental to the work performed therein.

(iii) Tractors while used with mounted equipment which is incompatible with ROPS (e.g. cornpickers, cotton strippers, vegetable pickers and fruit harvesters).

(6) *Remounting.* Where ROPS are removed for any reason, they shall be remounted so as to meet the requirements of this paragraph.

(c) *Labeling.* Each ROPS shall have a label, permanently affixed to the structure, which states:

(1) Manufacturer's or fabricator's name and address;

(2) ROPS model number, if any;

(3) Tractor makes, models, or series numbers that the structure is designed to fit; and

(4) That the ROPS model was tested in accordance with the requirements of this subpart.

(d) *Operating instructions.* Every employee who operates an agricultural tractor shall be informed of the operating practices contained in appendix A of this part and of any other practices dictated by the work environment. Such information shall be provided at the time of initial assignment and at least annually thereafter.

[40 FR 18257, Apr. 25, 1975, as amended at 61 FR 9255, Mar. 7, 1996; 69 FR 18803, Apr. 9, 2004; 70 FR 77003, Dec. 29, 2005]

§ 1928.52 Protective frames for wheel-type agricultural tractors—test procedures and performance requirements.

(a) *Purpose.* The purpose of this section is to establish the test and performance requirements for a protective frame designed for wheel-type agricultural tractors to minimize the frequency and severity of operator injury resulting from accidental upsets. General requirements for the protection of operators are specified in 29 CFR 1928.51.

(b) *Types of tests.* All protective frames for wheel-type agricultural tractors shall be of a model that has been tested as follows:

(1) *Laboratory test.* A laboratory energy-absorption test, either static or dynamic, under repeatable and controlled loading, to permit analysis of the protective frame for compliance with the performance requirements of this standard.

(2) *Field-upset test.* A field-upset test under controlled conditions, both to the side and rear, to verify the effectiveness of the protective system under actual dynamic conditions. Such testing may be omitted when:

(i) The analysis of the protective-frame static-energy absorption test results indicates that both FER_{is} and FER_{ir} (as defined in paragraph (d)(2)(ii) of this section) exceed 1.15; or

(ii) The analysis of the protective-frame dynamic-energy absorption test results indicates that the frame can withstand an impact of 15 percent greater than the impact it is required to withstand for the tractor weight as shown in Figure C–7.

(c) *Descriptions*—(1) *Protective frame.* A protective frame is a structure comprised of uprights mounted to the tractor, extending above the operator's seat. A typical two-post frame is shown in Figure C–1.

(2) *Overhead weather shield.* When an overhead weather shield is available for attachment to the protective frame, it may be in place during tests provided it does not contribute to the strength of the protective frame.

(3) *Overhead falling object protection.* When an overhead falling-object protection device is available for attachment to the protective frame, it may be in place during tests provided it does not contribute to the strength of the protective frame.

(d) *Test procedures*—(1) *General.* (i) The tractor weight used shall be that of the heaviest tractor model on which the protective frame is to be used.

(ii) Each test required under this section shall be performed on a new protective frame. Mounting connections of the same design shall be used during each such test.