

**Part 11. Fixed and Portable Ladders
Detailed Comparison With
29 C.F.R. 1926 Subpart X – Stairways and Ladders**

The comparisons show only those provisions where MIOSHA rules are different than OSHA
or where MIOSHA rules are not included in 29 C.F.R.

MIOSHA	OSHA
<p>R 408.41111. Adoption by reference; certification.</p> <p>Rule 1111. (1) A manufactured portable wood ladder shall be constructed and maintained as prescribed in the ANSI standard A14.1-1990, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of consumer and industry services. This standard may be purchased at a cost as of the time of adoption of this rule of \$35.00 from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.</p> <p>(2) A manufactured portable metal ladder shall be constructed and maintained as prescribed in the ANSI standard A14.2-1990, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of consumer and industry services. This standard may be purchased at a cost as of the time of adoption of this rule of \$35.00 from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.</p> <p>(3) A manufactured portable plastic ladder shall be constructed and maintained as prescribed in the ANSI standard A14.5-1982 and supplement 1985, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of consumer and industry services. This standard may be purchased at a cost as of the time of adoption of this rule of \$24.00 from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.</p> <p>(4) Fixed ladders shall be constructed and maintained as prescribed in the ANSI standard A14.3-1984, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of consumer and industry services. This standard may be purchased at a cost as of the time of adoption of this rule of \$15.00 from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.</p> <p>(5) Job-made ladders shall be constructed and maintained as prescribed in the ANSI standard A14.4-1979 (R1984), which is adopted by reference in this rule and may be inspected at the Lansing office of the department of consumer and industry services. This standard may be purchased at a cost as of the time of adoption of this rule of \$15.00 from the American National Standards Institute, 11 West 42nd Street, New York, New York, 10036, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.</p> <p>(6) A manufactured portable ladder shall be branded or have a permanent label permanently affixed by the manufacturer which shows the type of ladder and certifies that it meets the requirements of the appropriate</p>	<p>No comparable OSHA definitions</p>

A. NSI standard as set out in subrules (1) to (5) of this rule.

R 408.41122. Use generally.

Rule 1122.

(3) A ladder shall not be used as a brace, slide, guy, gin pole, or gangway or for any other use than that for which it is designed.

(4) An employee shall face the ladder when ascending or descending. Each employee shall use at least 1 hand to grasp the ladder when progressing up or down the ladder. An employee shall not carry any object or load that could cause the employee to lose balance and fall.

(5) An employee who is on a ladder shall not overreach or do any pushing or pulling that may cause the ladder to move or topple. If both of an employee's shoulders are outside of a side rail, the employee is overreaching.

(6) A manufactured portable ladder or a single-cleat ladder shall not be used by more than 1 employee at a time.

(7) A ladder shall be located and maintained to prevent an employee from bumping into, or snagging onto, projecting objects while ascending or descending the ladder.

(8) If a ladder provides the only means of access to, or egress from, a working area for 25 or more employees, or if simultaneous 2-way traffic is expected, a minimum of 2 ladders or a job-built, double-cleat ladder shall be provided.

(9) A rope or chain ladder shall not be used on a construction site.

(10) A ladder shall not be loaded beyond its load-carrying capacity.

(11) A ladder shall not be moved, shifted, or extended while occupied by an employee.

(12) Single-rail ladders shall not be used.

R 408.41123. Classification of ladders.

Rule 1123. The use of all manufactured portable ladders or stepladders shall be limited to those classified as type IA or type I, as prescribed in ANSI A14.1-1990, which is adopted by reference in this rule and may be inspected at the Lansing office of the department of consumer and industry services. This standard may be purchased from the American National Standards Institute, 11 West 42nd Street, New York, New York, 10036, or from the Safety Standards Division, Michigan Department of Consumer and Industry Services 7150 Harris Drive, Box 30643, Lansing, Michigan 48909, at a cost as of the time of adoption of this rule of \$35.00.

R 408.41124. Portable ladders.

Rule 1124.

(3) A portable ladder that is used at such a pitch that the horizontal projected distance from the top support to the base is less than 1/5 of the vertical distance between these points shall be secured at the top to prevent tipping backward.

(4) A portable ladder that is used at a pitch of 80 degrees or more shall be in compliance with the requirements of a fixed ladder as prescribed in R 408.10335 of the Michigan Administrative Code.

(5) When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend not less than 3 feet (.9 m) above the upper landing surface to which the ladder is used to gain

No comparable OSHA provision

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access; or, when such an extension is not possible because of the ladder's length, then the ladder shall be secured at its top to rigid support that will not deflect and a grasping device, such as a grabrail, shall be provided to assist employees in mounting and dismounting the ladder. The side rails shall not extend in a manner that would permit ladder deflection under a load, by itself, to cause the ladder to slip off its support. **The top of a non-self-supporting ladder shall be placed with the 2 rails supported equally, unless the ladder is equipped with a single support attachment.**

(6) A manufactured portable metal ladder shall not be used for electrical work or where the ladder or an employee may contact electrical conductors. A ladder shall have nonconductive siderails if the ladder is used where the employee or the ladder could contact exposed energized electrical equipment.

(7) A metal ladder shall not be used or moved unless a minimum of 20 feet is maintained between power transmission or distribution lines.

(8) A power transmission or distribution line or electrical apparatus shall be considered energized unless the property owner or utility indicates it is de-energized and the line or apparatus is visibly grounded. Where de-energizing is impractical, the minimum clearances set forth in table 1 shall be maintained between the ladder, employee, or material, whichever is closer.

(9) Table 1 reads as follows:

Table 1

Voltage	Minimum Clearance
To 50 kv	10 feet
Over 50 kv	10 feet plus .4 inch per kv

(10) A manufactured portable ladder shall not be more than the following lengths:

Type	Maximum Length
Single-section ladder (Type 1A or 1)	30 feet
Extension ladder (Type 1A or 1)	60 feet
Trestle ladder or extension sections or base sections of an extension trestle ladder	20 feet

(11) An employee who is using a portable ladder shall not stand on the top 2 rungs or within 3 feet of the top of the ladder.

(12) Two portable ladders shall not be spliced together to provide long sections unless such ladders are specifically designed for such use.

(13) A portable extension ladder shall be adjusted only from the ground, floor, or the lower section of the ladder.

(14) A portable 2-section extension ladder shall be erected so that the top section rests on the base section. The top section shall be the section nearest to the climber.

(15) A non-self-supporting ladder shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately 1/4 of the working length of the ladder that is the distance along the ladder between the foot and the top support.

(16) A fixed ladder shall be used at a pitch of not more than 90 degrees from the horizontal, as measured to the back side of the ladder. See figure 5.

R 408.41125. Trestle ladders.

Rule 1125. (1) When trestle ladders are used to support an elevated work platform, the entire system shall be considered a scaffold.

(2) An employee shall not work directly from the vertical portion of an extension trestle ladder.

(3) Rungs, cleats, and steps of the base section of extension trestle ladders shall be not less than 8 inches (20 cm) and not more than 18 inches (46 cm) apart, as measured between center lines of the rungs, cleats, and steps. The rung spacing on the extension section of the extension trestle ladder shall be not less than 6 inches (15 cm) and not more than 12 inches (31 cm).

R 408.41126. Use of stepladders.

Rule 1126. (1) An employee shall not use the backside of a stepladder for climbing, unless the stepladder is designed for such use.

(2) Unless the stepladder is equipped with a handrail, the top step and cap shall not be used to stand on.

(3) A stepladder shall not be used as a straight ladder by leaning it against a wall or other support.

(5) Each leg of a step ladder shall be in contact with solid footing.

(6) A portable metal stepladder shall not be used for electrical work or where the ladder or an employee may contact electrical conductors.

(7) A portable stepladder shall be in compliance with the provisions of R 408.41121(2) to (5), R 408.41122(1) to (7), (9), and (10), and R 408.41130(1) to (4).

R 408.41127. Single and double-cleat ladders generally.

Rule 1127. (1) A job-built ladder shall not be more than 24 feet in length. If the length of a required job-built ladder would be more than the maximum length, 2 or more separate ladders shall be used and shall be offset with a platform between each ladder that is not supported by the ladders. Ladders used with a platform shall be secured at the top and bottom.

(2) The platform shall be designed to support 4 times the intended load. Guardrails and toeboards, as prescribed in Part 45. Fall Protection, being R 408.44501 et seq. of the Michigan Administrative Code, shall be erected on the exposed sides of the platform. Rails shall extend above the top landing at least 36 inches but not more than 42 inches to provide a handhold for mounting and dismounting, and cleats shall be eliminated above the landing level. When 2 or more separate job-built ladders are used with a platform, the ladders shall be completely offset from each other and the minimum horizontal distance between adjacent side rails shall be 6 inches.

(3) Side rails of a job-built ladder shall be continuous.

(4) Each cleat of a job-built ladder shall be a continuous member.

(5) A wood cleat shall be not less than nominal 1-inch by 4-inch construction grade lumber for a cleat less than 20 inches in length and not less than nominal 2-inch by 4-inch construction grade lumber for a cleat from

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20 inches to 50 inches in length. Knot-free lumber shall be used for cleats.

(6) The cleats shall be uniformly spaced 12 inches top to top. A cleat shall be attached to the narrow face of each side rail using 2 10-d nails for nominal 1-inch by 4-inch cleats or 2 16-d nails for 2-inch by 4-inch cleats.

(7) Filler blocks shall be used on the rails between cleats. Filler blocks of the same thickness as the cleats shall be inserted between cleats and butted tightly against the underside of each cleat.

(8) Side rails shall not be cut into to house cleats.

R 408.41128. Single-cleat ladders; width; side rails.

Rule 1128. (1) The width of a single-cleat ladder shall be not less than 16 inches or more than 20 inches between rails. Side rails shall be parallel.

(2) Side rails of a single-cleat ladder shall be not less than nominal 2-inch by 4-inch construction grade lumber for ladders less than 16 feet in length and not less than nominal 2-inch by 6-inch construction grade lumber for ladders from 16 feet to 24 feet in length.

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R 408.41129. Double-cleat ladders; width; additional rail; side rails.

Rule 1129. (1) The width between outside rails of a double-cleat ladder shall be not less than 38 inches or more than 46 inches.

(2) A double-cleat ladder shall have an additional rail located at the center of the ladder.

(3) The side rails and middle rail for a double-cleat ladder shall be not less than nominal 2-inch by 4-inch construction grade lumber for double cleat ladders less than 12 feet in length and not less than nominal 2-inch by 6-inch construction grade lumber for a double cleat ladder from 12 feet to 24 feet in length.

(4) The side rails of a double-cleat ladder shall be secured at the bottom and as close as possible to the top to prevent moving or toppling.

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R 408.41130. Storage of ladders.

Rule 1130. (1) A ladder should be stored in such a manner as to provide ease of access and inspection. A ladder stored in a horizontal position shall be supported at a sufficient number of points to prevent the ladder from sagging during storage.

(2) A wood ladder shall not be stored within 6 feet of a radiator, stove, or steam pipe or in a location subject to excessive heat or dampness.

(3) A metal ladder shall not be stored where it is subject to reaction with corrosive substances like acids and alkali solutions.

(4) A plastic ladder shall be stored on edge on racks when not in use and in a location which is free of corrosive substances and which provides protection from adverse environmental conditions.

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R 408.41131. Handling and transporting of ladders.

Rule 1131. (1) A ladder shall be handled with reasonable care and not be subjected to deliberate dropping or to misuse.

(2) A ladder which is transported on a vehicle shall be secured to prevent it from catapulting or falling from the vehicle.

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R 408.41132. Maintenance.

Rule 1132. (1) A ladder shall be maintained free of slip-enhancing hazards and in good working condition.

(2) A ladder shall not be painted with an opaque

No comparable OSHA provision except:

1926.1053 Ladders (a) General (12) Wood ladders

<p>material. A ladder, particularly one used out-of-doors should be coated with a suitable transparent protective material to retard splintering caused by weathering.</p> <p>(3) The side rails and legs of a ladder shall be kept free from splinters. The joint between the side rail and step shall be kept tight and metal hardware and fittings secured.</p> <p>(4) The locks, pulleys, spreader joints, or other movable metal parts of a ladder shall operate freely without undue play. Lubricants shall be applied as needed.</p> <p>(5) A rope used on a ladder shall not have a long or loosely twisted lay, shall be free of burns and cuts, and shall not show evidence of weakness resulting from fraying, wear, mildew, or rot. Rope ends shall be fastened or whipped.</p> <p>(6) A ladder surface shall be free of puncture or laceration hazards.</p> <p>R 408.41133. Special-purpose ladders.</p> <p>Rule 1133. (1) A special-purpose ladder may be capable of being used as a step ladder, a single or extension ladder, or a trestle ladder.</p> <p>(2) A special-purpose ladder, when used as any of the types of ladders listed in subrule (1) of this rule, shall meet the requirements of the applicable rules of this part.</p> <p>(3) A special-purpose ladder may be used by more than 1 employee if specifically designed for that purpose.</p> <p>(4) A platform step ladder shall be constructed in accordance with requirements for a type 1 step ladder. A platform of a platform ladder shall be capable of supporting a load of 200 pounds placed at any point on the platform.</p> <p>R 408.41140. Fixed ladders.</p> <p>Rule 1140. A fixed ladder shall be as prescribed in Part 3. Fixed ladders, being R 408.10301 et seq. of the Michigan Administrative Code. This standard may be inspected at or purchased from the Safety Standards Division, Michigan Department of Consumer and Industry Services, 7150 Harris Drive, Box 30643, Lansing, Michigan 48909.</p>	<p>shall not be coated with any opaque covering, except for identification or warning labels which may be placed on one face only of a side rail.</p> <p>No comparable OSHA provision</p> <p>No comparable OSHA provision</p>
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