SAFE WORKING LOAD, IN POUNDS, FOR TYPICAL WIRE ROPE

Wire Rope Construction and Material

Diameter of Rope, in Inches	6x7			6x19			6x37			8x19			6x7 or 6x19 Cast Steel Guy Rope	6x7 or 6x19 Iron Guy Rope
	Cast Steel	Mild Plow Steel	Plow Steel	Cast Steel	Mild Plow Steel	Plow Steel	Cast Steel	Mild Plow Steel	Plow Steel	Cast Steel	Mild Plow Steel	Plow Steel		
1/4	--------	--------	--------	730	810	880	--------	--------	730	600	670	750	----------	330
5/16	1160	1310	1460	1030	1160	1260	--------	--------	1130	910	1010	1110	1060	470
3/8	1530	1750	1960	1600	1760	1910	1400	1550	1700	1400	1550	1700	1400	650
7/16	1830	2080	2330	2160	2410	2660	1830	2110	2400	1900	2100	2300	1660	780
1/2	2560	2950	3330	2800	3060	3330	2410	2750	3080	2460	2660	2900	2330	1130
9/16	3330	3660	4000	3330	3730	4100	3160	3500	3860	2900	3360	3860	3000	1480
5/8	4330	4830	5330	4160	4660	5160	3760	4200	4660	3660	4130	4660	3900	1900
3/4	6200	7000	7660	5830	6730	7660	5830	6330	7000	5100	5860	6660	5600	2600
7/8	8000	9330	10330	7660	8660	9660	7660	8330	9000	6660	7660	8660	7330	3700
1	10330	11660	12660	10000	11330	14660	9660	10660	11660	8660	9900	11000	9330	4700

(b) Where any fibre or wire rope comes in contact with a rough surface or sharp edge, a smooth frictionless guard shall be provided at all points of contact to prevent injury to the rope.

(c) Fibre rope fastenings shall be by means of knots such that the free end will not have a tendency to slip. The free end of all knots shall be served to prevent untwisting and loosening of the fibres.

(d) Wire rope fastenings, except for elevators for workmen, shall be secured by clips, using not less than 3 clips to fasten the free end to the standing portion of the rope, or shall be fastened as required by the elevator code. Where clips are used, the U shall be placed on the dead end of the rope.

(e) Every rope subject to load strain shall be maintained straight, without bends or turns, except where proper pulleys or sheaves are provided to accomplish the change in direction.

(f) Fibre rope supporting a scaffold, where acid is used, shall be protected by an acid resisting shield. Fibre rope that has been exposed to acid shall be tested each day, and if found to be damaged by the acid, shall not be used. Rope shall not be stored in the same place with acid containers.

Ind 35.33 Protection from falling objects. (a) Every hoisting engine, air compressor, concrete mixer or other machine used in construction work and which requires an attendant, shall be covered over to protect the operators stationed at the machine, wherever the horizontal distance from such machine to the nearest point where work is being done is less than one-half the vertical height of such point above the machine. The covering shall be solid, shall extend not less than 4 feet outside the normal working area of the machine operators, and shall be constructed to support a uniform load of not less than 30 pounds per square foot over the entire covering, in addition to the weight of the covering itself.

(b) When men are working in an elevator shaftway, hatchway or stair well during the construction, demolition or alteration to any structure, a protection shall be provided not more than 2 stories above nor more than one story below the level at which the men are working. Such protection shall be solid and shall be of not less than nominal 2 inch plank.

(c) All material and other objects on upper levels shall be kept at least 6 feet away from any shaftway, except where a solid enclosure is provided.

Ind 35.34 Slippery conditions. (1) No structural metal on which the paint or other protective covering has not dried sufficiently to present a non-slippery surface shall be erected or placed in any structure.

Note. Paint that can be smeared or broken by light rubbing cannot be considered dry and non-slippery.

"(2) No person shall work on the surface of any structural member, floor or other working platform which has become slippery from ice, snow, frost, painting or other cause, unless such surface is cleaned, sprinkled with sand or made non-slippery insofar as the nature of the work will reasonably permit."

History: 1–2–56; am. Register, January, 1963, No. 85, eff. 2–1–63.