

**WAC 296-304-07011 Use of gear.** (1) Loads must be safely rigged before being hoisted.

(2) Plates must be handled on and off hulls by means of shackles whenever possible. Clips or pads of ample size must be welded to the plate to receive the shackle pins whenever there are no holes in the plate. When it is not possible to make holes in or to weld pads to the plate, alligator tongs, grab hooks, grab clamps or screw clamps may be used. In such cases special precautions must be taken to keep employees from under such lifts.

(3) Tag lines must be provided on loads likely to swing or to need guidance.

(4) When slings are secured to eyebolts, the slings must be so arranged, using spreaders if necessary, that the pull is within 20 degrees of the axis of the bolt.

(5) Slings must be padded by means of wood blocks or other suitable material where they pass over sharp edges or corners of loads so as to prevent cutting or kinking.

(6) Skips must be rigged to be handled by not less than 3 legged bridles, and all legs must always be used. When open end skips are used, means must be taken to prevent the contents from falling.

(7) Loose ends of idle legs of slings in use must be hung on the hook.

(8) Employees must not be permitted to ride the hook or the load.

(9) Loads (tools, equipment or other materials) must not be swung or suspended over the heads of employees.

(10) Pieces of equipment or structure susceptible to falling or dislodgement must be secured or removed as early as possible.

(11) An individual who is familiar with the signal code in use must be assigned to act as a signalman when the hoist operator cannot see the load being handled. Communications must be made by means of clear and distinct visual or auditory signals except that verbal signals must not be permitted.

(12) Pallets, when used, must be of such material and construction and so maintained as to safely support and carry the loads being handled on them.

(13) A section of hatch through which materials or equipment are being raised, lowered, moved, or otherwise shifted manually or by a crane, winch, hoist, or derrick, must be completely opened. The beam or pontoon left in place adjacent to an opening must be sufficiently lashed, locked or otherwise secured to prevent it from moving so that it cannot be displaced by accident.

(14) Hatches must not be opened or closed while employees are in the square of the hatch below.

(15) Before loads or empty lifting gear are raised, lowered, or swung, clear and sufficient advance warning must be given to employees in the vicinity of such operations.

(16) At no time will an employee be permitted to place himself or herself in a hazardous position between a swinging load and a fixed object.

**TABLE E-1**

DIMENSIONS AND SPACING OF WOOD  
INDEPENDENT-POLE SCAFFOLD MEMBERS

Structural Members	Light duty (Up to 25 pounds per square foot)			Heavy duty (25 to 75 pounds per square foot)		
	Height in feet			Height in feet		
	< 24	>24<40	40<60	<24	>24<40	40<60
Poles or uprights (in inches) . . . . .	2x4	3x4 or 2x6	4x4	3x4	4x4	4x6
Bearers (in inches) . . . . .	2x4	2x6	2x6	2x8	2x8	2x10
Ledgers (in inches) . . . . .	2x6	2x6	2x6	2x8	2x8	2x8
Stringer (not supporting bearers) (in inches) . . . . .	1x6	1x6	1x6	1x6	1x6	1x6
Braces (in inches) . . . . .	1x4	1x6	1x6	1x6	1x6	1x6
Pole spacing— longitudinally (in feet) . . . . .	7 1/2	7 1/2	7 1/2	7	7	7
Pole spacing— transversely (in feet) . . . . .	6 1/2 min	7 1/2 min	8 1/2 min	6 1/2	10	10
Ledger spacing— vertically (in feet) . . . . .	7	7	7	4 1/2	4 1/2	4 1/2

**TABLE E-2**  
SPECIFICATIONS FOR SIDE RAILS OF LADDERS

Length (in feet)	Cross section (in inches)	
	At ends	At center
15 . . . . .	1 7/8 x 2 3/4	1 7/8 x 3 3/4
16 . . . . .	1 7/8 x 2 3/4	1 7/8 x 3 3/4
17 . . . . .	1 7/8 x 3	1 7/8 x 4
18 . . . . .	1 7/8 x 3	1 7/8 x 4
20 . . . . .	1 7/8 x 3	1 7/8 x 4 1/2
24 . . . . .	1 7/8 x 3	1 7/8 x 4 1/2

**TABLE E-3**  
SPECIFICATIONS FOR THE CONSTRUCTION OF HORSES

Structural Members	Height in feet		
	<10	>10<16	16<20
	Inches	Inches	Inches
Legs . . . . .	2x4	3x4	4x6
Bearers or headers	2x6	2x8	4x6
Crossbraces . . . . .	2x4 or 1x8	2x4	2x6
Longitudinal braces . . . . .	2x4	2x6	2x6

**TABLE E-4**  
SAFE CENTER LOADS FOR SCAFFOLD PLANK  
OF 1,100 POUNDS FIBRE STRESS

[Codification note: The graphic presentation of this table has been varied in order that it would fall within the printing specifications for the Washington Administrative Code. The following table had lumber dimensions in the table heading typed in vertically across the page while the remainder of the table was typed horizontally on the page. The "Span in Feet" materials (6 through 16) which ran top to bottom has been switched to run left to right on the page. The "Lumber dimensions in inches" which ran left to right on the page has been switched to run top to bottom on the page.]

Lumber dimensions in inches	Span in Feet					
	6	8	10	12	14	16
A-2 x 10						
B-1 5/8 x 9 1/2	256	192	153	128	110	...

Lumber dimensions in inches	Span in Feet					
	6	8	10	12	14	16
A-2 x 12						
B-1 5/8 x 11 1/2	309	232	186	155	133	116
A-3 x 8						
B-2 5/8 x 7 1/2	526	395	316	263	225	197
A-3 x 10						
B-2 5/8 x 9 1/2	667	600	400	333	286	250
A-3 x 12						
B-2 5/8 x 11 1/2	807	605	484	404	346	303

(A)—Rough lumber.  
(B)—Dressed lumber.

**TABLE G-1**  
NUMBER AND SPACING OF U-BOLT WIRE  
ROPE CLIPS

Improved plow steel rope diameter inches	Number of Clips		
	Drop forged	Other material	Minimum spacing (inches)
* .....	...	...	
1/2 .....	3	4	3
5/8 .....	3	4	3 3/4
3/4 .....	4	5	4 1/2
7/8 .....	4	5	5 1/4
1 .....	4	6	6
1 1/8 .....	5	6	6 3/4
1 1/4 .....	5	7	7 1/2
1 3/8 .....	6	7	8 1/4
1 1/2 .....	6	8	9

\*Three clips shall be used on wire size less than 1/2-inch diameter.

**TABLE G-2**  
MAXIMUM ALLOWABLE WEAR AT  
ANY POINT OF LINK

Chain size in inches	Maximum allowable wear in fraction of inches
1/4 (9/32).....	3/64
3/8.....	5/64
1/2.....	7/64
5/8.....	9/64
3/4.....	5/32
7/8.....	1/64
1.....	3/16
1 1/8.....	7/32
1 1/4.....	1/4
1 3/8.....	9/32
1 1/2.....	5/16
1 3/4.....	1/32

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-18-075, § 296-304-07011, filed 9/5/17, effective 10/6/17. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060 and chapter 49.17 RCW. WSR 12-24-071, § 296-304-07011, filed 12/4/12, effective 1/4/13. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-04-099, § 296-304-07011,

filed 2/4/03, effective 8/1/03; Order 74-25, § 296-304-07011, filed 5/7/74.]