

Dear Senators PATRICK, Martin, Schmidt, and  
Representatives BARBIERI, Clow, Smith:

The Legislative Services Office, Research and Legislation, has received the enclosed rules of the  
Division of Building Safety:

IDAPA 07.08.09 - Idaho Minimum Safety Standards and Practices for Logging–Rigging, Lines,  
Blocks, and Shackles - Proposed Rule (Docket No. 07-0809-1601);

IDAPA 07.08.10 - Idaho Minimum Safety Standards and Practices for Logging–Canopy and Canopy  
Construction for Logging Equipment - Proposed Rule (Docket No. 07-0810-1601);

IDAPA 07.08.11 - Idaho Minimum Safety Standards and Practices for Logging–Skidding and  
Yarding - Proposed Rule (Docket No. 07-0811-1601);

IDAPA 07.08.12 - Idaho Minimum Safety Standards and Practices for Logging–Road Transportation  
- Proposed Rule (Docket No. 07-0812-1601).

Pursuant to Section 67-454, Idaho Code, a meeting on the enclosed rules may be called by the  
cochairmen or by two (2) or more members of the subcommittee giving oral or written notice to Research  
and Legislation no later than fourteen (14) days after receipt of the rules' analysis from Legislative  
Services. The final date to call a meeting on the enclosed rules is no later than 11/02/2016. If a meeting is  
called, the subcommittee must hold the meeting within forty-two (42) days of receipt of the rules' analysis  
from Legislative Services. The final date to hold a meeting on the enclosed rules is 12/01/2016.

The germane joint subcommittee may request a statement of economic impact with respect to a  
proposed rule by notifying Research and Legislation. There is no time limit on requesting this statement,  
and it may be requested whether or not a meeting on the proposed rule is called or after a meeting has  
been held.

To notify Research and Legislation, call 334-4834, or send a written request to the address on the  
memorandum attached below.



Eric Milstead  
Director

# Legislative Services Office

## Idaho State Legislature

*Serving Idaho's Citizen Legislature*

### MEMORANDUM

**TO:** Rules Review Subcommittee of the Senate Commerce & Human Resources Committee and the House Business Committee

**FROM:** Principal Legislative Research Analyst - Ryan Bush

**DATE:** October 14, 2016

**SUBJECT:** Division of Building Safety

IDAPA 07.08.09 - Idaho Minimum Safety Standards and Practices for Logging--Rigging, Lines, Blocks, and Shackles - Proposed Rule (Docket No. 07-0809-1601)

IDAPA 07.08.10 - Idaho Minimum Safety Standards and Practices for Logging--Canopy and Canopy Construction for Logging Equipment - Proposed Rule (Docket No. 07-0810-1601)

IDAPA 07.08.11 - Idaho Minimum Safety Standards and Practices for Logging--Skidding and Yarding - Proposed Rule (Docket No. 07-0811-1601)

IDAPA 07.08.12 - Idaho Minimum Safety Standards and Practices for Logging--Road Transportation - Proposed Rule (Docket No. 07-0812-1601)

**(1) 07.08.09 - Idaho Minimum Safety Standards and Practices for Logging--Rigging, Lines, Blocks, and Shackles - Proposed Rule (Docket No. 07-0809-1601)**

The Division of Building Safety submits notice of proposed rulemaking at IDAPA 07.08.09 - Idaho Minimum Safety Standards and Practices for Logging--Rigging, Lines, Blocks, and Shackles. The Division states that this rule change clarifies the proper reference to rule provisions that govern appeals of decisions made by the Division and clarifies certain requirements related to the use of guylines, guyline anchors and wire ropes and lines. Additionally, this rule updates a table for wire rope specifications and replaces certain illustrations to assist loggers in more easily identifying common logging equipment and practices.

The Division states that negotiated rulemaking was conducted and that notice was published in the December 2015 edition of the Idaho Administrative Bulletin, Vol. 15-12, pages 1-2. There is no fiscal impact associated with this rulemaking.

The proposed rule appears to be within the statutory authority granted to the Division in Section 67-2601A, Idaho Code.

**(2) 07.08.10 - Idaho Minimum Safety Standards and Practices for Logging--Canopy and Canopy Construction for Logging Equipment - Proposed Rule (Docket No. 07-0810-1601)**

The Division of Building Safety submits notice of proposed rulemaking at IDAPA 07.08.10 - Idaho Minimum Safety Standards and Practices for Logging--Canopy and Canopy Construction for Logging Equipment.

Mike Nugent, Manager  
Research & Legislation

Cathy Holland-Smith, Manager  
Budget & Policy Analysis

April Renfro, Manager  
Legislative Audits

Glenn Harris, Manager  
Information Technology

The Division states that this rule change clarifies the proper reference to rule provisions that govern appeals of decisions made by the Division and makes minor revisions related to the safe operation of logging tractors and similar equipment.

The Division states that negotiated rulemaking was conducted and that notice was published in the December 2015 edition of the Idaho Administrative Bulletin, Vol. 15-12, pages 1-2. There is no fiscal impact associated with this rulemaking.

The proposed rule appears to be within the statutory authority granted to the Division in Section 67-2601A, Idaho Code.

**(3) 07.08.11 - Idaho Minimum Safety Standards and Practices for Logging--Skidding and Yarding - Proposed Rule (Docket No. 07-0811-1601)**

The Division of Building Safety submits notice of proposed rulemaking at IDAPA 07.08.11 - Idaho Minimum Safety Standards and Practices for Logging--Skidding and Yarding. The Division states that this rule change clarifies the proper reference to rule provisions that govern appeals of decisions made by the Division and clarifies certain provisions related to skidding and yarding generally. Additionally, the rulemaking does the following:

- (a) Provides measures to ensure safe practices for yarding equipment;
- (b) Describes types of wire rope characteristics including safety and precautionary issues;
- (c) Provides plans and procedures for safely climbing trees and for proper equipment;
- (d) Updates a table showing wire rope specifications; and
- (e) Updates and adds figures/illustrations to assist loggers in identifying common logging equipment and practices.

The Division states that negotiated rulemaking was conducted and that notice was published in the December 2015 edition of the Idaho Administrative Bulletin, Vol. 15-12, pages 1-2. There is no fiscal impact associated with this rulemaking.

The proposed rule appears to be within the statutory authority granted to the Division in Section 67-2601A, Idaho Code.

**(4) 07.08.12 - Idaho Minimum Safety Standards and Practices for Logging--Road Transportation - Proposed Rule (Docket No. 07-0812-1601)**

The Division of Building Safety submits notice of proposed rulemaking at IDAPA 07.08.12 - Idaho Minimum Safety Standards and Practices for Logging--Road Transportation. The Division states that this rule change clarifies the proper reference to rule provisions that govern appeals of decisions made by the Division and makes minor revisions related to safe logging truck transportation.

The Division states that negotiated rulemaking was conducted and that notice was published in the December 2015 edition of the Idaho Administrative Bulletin, Vol. 15-12, pages 1-2. There is no fiscal impact associated with this rulemaking.

The proposed rule appears to be within the statutory authority granted to the Division in Section 67-2601A, Idaho Code.

cc: Division of Building Safety  
Steve Keys

## IDAPA 07 - DIVISION OF BUILDING SAFETY

### 07.08.09 - IDAHO MINIMUM SAFETY STANDARDS AND PRACTICES FOR LOGGING - RIGGING, LINES, BLOCKS, AND SHACKLES

DOCKET NO. 07-0809-1601

#### NOTICE OF RULEMAKING - PROPOSED RULE

**AUTHORITY:** In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized pursuant to Section 67-2601A(3), Idaho Code.

**PUBLIC HEARING SCHEDULE:** Public hearing(s) concerning this rulemaking will be scheduled if requested in writing by twenty-five (25) persons, a political subdivision, or an agency, not later than October 19, 2016.

The hearing site(s) will be accessible to persons with disabilities. Requests for accommodation must be made not later than five (5) days prior to the hearing, to the agency address below.

**DESCRIPTIVE SUMMARY:** The following is a nontechnical explanation of the substance and purpose of the proposed rulemaking:

During the 2015 legislative session the authority to perform safety inspections and issue safety orders, as well as conduct safety training programs was statutorily transferred from the Idaho Industrial Commission to the Division of Building Safety. The minimum standards and practices for conducting logging operations in Idaho have not been substantively updated since their initial promulgation as administrative rules in 1997. Several of the provisions contained therein the rules are outdated, no longer applicable, or confusing to the logging industry; accordingly, many of the amendments contained in the rulemaking are either administrative in nature to clarify and edit rule provisions, provide updated references and citations, or replace outdated or unclear provisions and illustrations related to common logging practices. Through the negotiated rulemaking process, the logging industry requested most of the proposed amendments set forth in the rulemaking.

This rulemaking would clarify the proper reference to statutory and rule provisions which govern any appeals process of decisions by the Division related to logging safety matters. It also provides several amendments to clarify and update provisions related to the use of guylines, and guyline anchors, as well as wire ropes and lines. Additionally, a table providing for wire rope specifications was updated and moved to a more appropriate location in a different chapter of the logging rules. Finally, throughout the chapter existing illustrations (figures) were replaced with updated and/or clearer figures to assist loggers in more easily identifying common logging equipment or practices.

**FEE SUMMARY:** The following is a specific description of the fee or charge imposed or increased: N/A

**FISCAL IMPACT:** The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars (\$10,000) during the fiscal year resulting from this rulemaking: N/A

**NEGOTIATED RULEMAKING:** Pursuant to Section 67-5220(1), Idaho Code, negotiated rulemaking was conducted. The Notice of Intent to Promulgate Rules - Negotiated Rulemaking was published in the December 2, 2015 Idaho Administrative Bulletin under Docket No. 07-0800-1501, [Vol. 15-12, pages 1-2](#).

**INCORPORATION BY REFERENCE:** Pursuant to Section 67-5229(2)(a), Idaho Code, the following is a brief synopsis of why the materials cited are being incorporated by reference into this rule: N/A

**ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS:** For assistance on technical questions concerning the proposed rule, contact Steve Keys, Deputy Administrator – Operations, at (208) 332-8986.

Anyone may submit written comments regarding this proposed rulemaking. All written comments must be directed to the undersigned and must be delivered on or before October 26, 2016.

DATED this 2nd day of September, 2016.

Steve Keys, Deputy Administrator – Operations  
Division of Building Safety  
1090 E. Watertower St., Ste. 150  
P. O. Box 83720  
Meridian, ID 83642  
Phone: (208) 332-8986  
Fax: (877) 810-2840

**THE FOLLOWING IS THE PROPOSED TEXT OF DOCKET NO. 07-0809-1601  
(Only Those Sections With Amendments Are Shown.)**

**000. LEGAL AUTHORITY.**

Pursuant to the provisions of Section 67-2601A, Idaho Code, the Division of Building Safety has the authority to promulgate and adopt *reasonable* rules for affecting the purposes *of the Workers' Compensation Act* therein. (7-1-97)( )

**(BREAK IN CONTINUITY OF SECTIONS)**

**003. ADMINISTRATIVE APPEALS.**

*There are no provisions for administrative appeal of these rules.* The procedure for appeals in logging safety matters is prescribed by IDAPA 07.08.16, "Idaho Minimum Safety Standards and Practices for Logging – Recommended Safety Program," and Title 67, Chapter 52, Idaho Code. (7-1-97)( )

**004. INCORPORATION BY REFERENCE.**

There are no documents that have been incorporated by reference into these rules. ( )

**005. OFFICE – OFFICE HOURS – MAILING ADDRESS AND STREET ADDRESS.**

The principal place of business of the Division of Building Safety, Logging Safety Program, is at the Division office located at 1090 E. Watertower Street, Suite 150, Meridian, Idaho 83642. The Logging Safety Program may also be contacted at 1250 Ironwood Drive, Suite 220, Coeur d'Alene, Idaho 83814, and at 2055 Garrett Way, Suite 4, Pocatello, Idaho 83201. All locations are open from 8:00 a.m. to 5:00 p.m., except Saturday, Sunday and legal holidays. The telephone number of the office is (208) 334-3950. The facsimile number of the office is 1-877-810-2840. The Department website is <http://dbs.idaho.gov>. ( )

**006. PUBLIC RECORDS ACT COMPLIANCE.**

The rules contained herein have been promulgated according to the provisions of Title 67, Chapter 52, Idaho Code, and are public records. ( )

**0047. -- 008. (RESERVED)**

**009. DEFINITIONS.**

For definitions refer to IDAPA 07.08.01, "Idaho Minimum Safety Standards and Practices for Logging -- General Provisions," Section 007, and IDAPA 07.08.15, "Idaho Minimum Safety Standards and Practices for Logging – Commonly Used Logging Terms." (7-1-97)( )

**010. RIGGING.**

**01. General.** The determining factor in rigging-up shall be the amount of rated stump pull which a

machine can deliver on each line. (7-1-97)

**02. Equipment Classification.** (7-1-97)

a. Equipment shall be classed according to the manufacturer's rating. (~~7-1-97~~)(    )

b. Where lower gear ratios or other devices are installed to increase the power of equipment, the size of the rigging shall be increased proportionately so that it will safely withstand the increased strains to conform to Subsection 010.04. of ~~this chapter~~ these rules. (~~7-1-97~~)(    )

**03. Safe Loading.** Rigging, and all parts thereof, shall be of a design and application to safely withstand all expected or potential loading to which it will be subjected. (7-1-97)

**04. Allowable Loading or Stress.** (7-1-97)

a. In no case shall the allowable loading or stress be imposed on one half (1/2) of the rated breaking strength of any parts of the rigging. (~~7-1-97~~)(    )

b. This shall not be construed as applying to chokers. (7-1-97)

**05. Chokers.** Chokers shall be at least one eighth (1/8) inch smaller than the mainline. (7-1-97)

**06. Placing, Condition, and Operation of Rigging.** The placing, condition and operation of rigging shall be such as to ensure safety to those who will be working in the vicinity. (7-1-97)

**07. Arrangement and Operation.** Rigging shall be arranged and operated so that rigging or loads will not pound, rub, or saw against lines, straps, blocks, or other equipment. (7-1-97)

**08. Line Hazards.** (7-1-97)

a. Running lines and changed settings shall be made in a way to avoid bight of line hazards. (7-1-97)

b. Signals to operator shall be made before moving lines. (7-1-97)

**09. Reefing.** Reefing or similar practices to increase line pull shall be prohibited. (7-1-97)

**10. Inspection of Rigging.** (7-1-97)

a. A thorough inspection, by the operator or qualified person, of all blocks, straps, guylines, and other rigging shall be made before they are placed in position for use. (7-1-97)

b. This inspection shall include an examination for damaged, cracked or worn parts, loose nuts and bolts, lubrication, condition of straps and guylines. (7-1-97)

c. The repairs or replacements necessary for safe operation shall be made before rigging is used. (7-1-97)

**011. GUYLINES.**

**01. General Requirements.** (7-1-97)

a. Guylines shall be of plow steel or equivalent, and in good condition. (~~7-1-97~~)(    )

b. Guylines shall be provided in sufficient number, condition and location to develop stability and strength equivalent to the breaking strength of any component part of the rigging or equipment. (7-1-97)

c. Guylines shall be fastened by means of shackles or hooks and slides. The use of loops or molles for

attaching guylines is prohibited. The use of wedge buttons on guylines is prohibited. (7-1-97)( )

**d.** The “U” part of a shackle shall be around the guyline and the pin passed through the eye of the guyline. Pins shall be secured with molles, cotter-keys, or the equivalent. (7-1-97)

**e.** Guylines shall be kept tightened while equipment or rigging they support is in use. (7-1-97)

**02. Anchoring Guylines.** (7-1-97)

**a.** Stumps used for fastening guylines and skylines shall be carefully chosen as to position, height and strength. They shall be tied back if necessary. See Figures 011.02-A and 011.02-B.

**FIGURE 011.02-A**

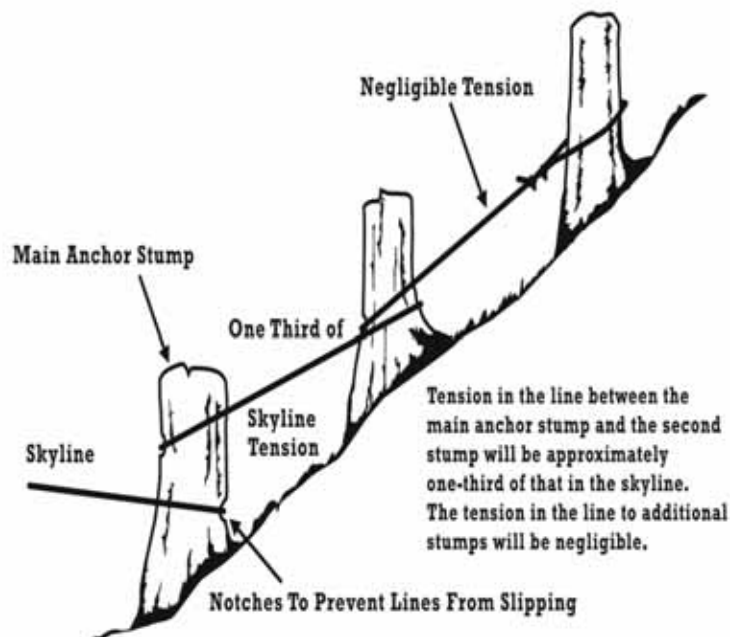
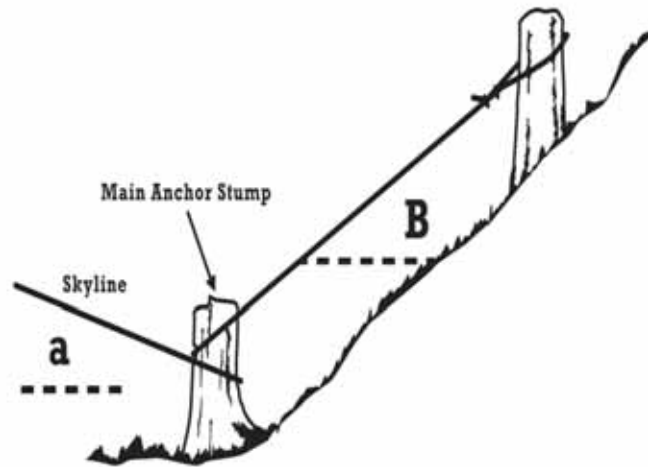




FIGURE 011.02-B



Profile of a common two-stump anchor.

(7-1-97)

b. Properly installed deadman anchors are permitted. Guylines anchors shall not be directly attached directly to deadman anchors. Suitable straps or equally effective means shall be used. (7-1-97)( )

c. Stumps, trees and guyline anchors shall be inspected from time to time while an operation is in progress and hazardous conditions immediately corrected. (7-1-97)( )

d. Standing trees which will reach landing or work areas shall not be used for guyline anchors. (7-1-97)

e. Any guyline anchor tree that can reach the landing or work area shall be felled before using as an anchor. (7-1-97)

**03. Effectiveness of Guys.** (7-1-97)

a. Guys making an angle with the horizontal greater than sixty (60) degrees will be considered less than fifty percent (50%) effective. For the effectiveness of other angles see Table 011.03-A.

TABLE 011.03-A	
Degree	Effectiveness
60 to 45	50% to 75%
45 to 30	75% to 85%
30 to 10	85% to 95%

(7-1-97)

- B. b. For the effectiveness of guys according to the number of guys and their spacing, see Table 011.03-

TABLE 011.03-B		
No. of Guys Equally	Guys Most Effective When Pull Is:	Guys Will Support Strain Equal To The Following:
3	Opposite 1 guy	100% of strength of 1 guy
4	Halfway between 2 guys	140% of strength of 1 guy
5	Opposite 1 guy or halfway between 2 guys	160% of strength of 1 guy
6	Opposite 1 guy or halfway between 2 guys	200% of strength of 1 guy
7	Opposite 1 guy or halfway between 2 guys	225% of strength of 1 guy
8	Halfway between 2 guys	260% of strength of 1 guy
9	Opposite 1 guy or halfway between 2 guys	290% of strength of 1 guy
10	Opposite 1 guy or halfway between 2 guys	325% of strength of 1 guy

(7-1-97)( )

**04. Minimum Guyline Requirements.** A ~~M~~ minimum of four (4) top guys are required on any portable spar tree used for yarding, swinging, loading or cold-decking. (7-1-97)( )

**012. LINES, SHACKLES AND BLOCKS.**

**01. General Requirements.** (7-1-97)

a. All lines, shackles, blocks, etc., should be maintained in good condition and shall be of sufficient size, diameter and material to withstand one and one half (1 1/2) times the maximum stress imposed. (7-1-97)

b. Wire rope or other rigging equipment ~~shall be replaced~~ which shows a fifteen percent (15%) reduction in strength ~~shall be replaced~~. (7-1-97)( )

**02. Splices.** (7-1-97)

a. Two (2) lines may be connected by a long splice, or by shackles of patent links of the next size larger than the line where practical. (7-1-97)

b. A ~~S~~ safe margin of line must be used for making long splices. See Table 012.02-A.

TABLE 012.02-A		
Rope Diameter	Unraveled	Total Length
3/8"	8'	16'
5/8"	13'	20'

TABLE 012.02-A		
Rope Diameter	Unraveled	Total Length
3/4"	15'	30'
7/8"	18'	36'
1"	20'	40'

(7-1-97)( )

**03. Clips.**

(7-1-97)

**a.** Clips should be spaced at least six (6) rope diameters apart to ~~get~~ achieve maximum holding power. See Table 012.03-A

TABLE 012.03-A		
Diameter of Rope	Number of Clips	Required Space Between Clips
1-1/2-inch	8	10 inches
1-3/8-inch	7	9 inches
1-1/4-inch	6	8 inches
1-1/8-inch	5	7 inches
1- inch	5	6 inches
7/8-inch	5	5-1/4 inches
3/4-inch	5	5-1/2 inches
3/8 to 5/8-inch	4	3 inches

(7-1-97)( )

**b.** Clips should always be attached with the base or saddle of the clip against the longer or “live” end of the rope. See Figure 012.03-A. This is the only ~~right way~~ approved method.

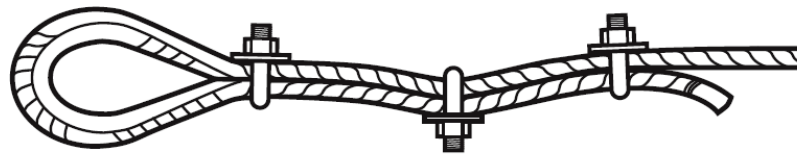
**FIGURE 012.03-A**



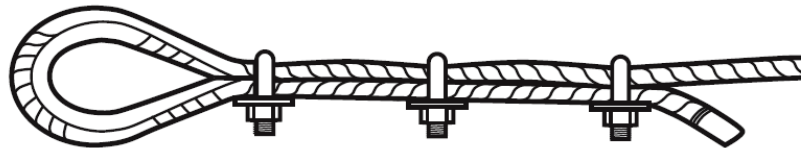
(7-1-97)( )

**c.** Do not reverse the clips or stagger them. See Figure 012.03-B. Otherwise the “U” bolt will cut into the live rope when the load is applied.

FIGURE 012.03-B



**Wrong**



**Wrong**

(7-1-97)

**d.** After the rope has been used and is under tension, the clips should again be tightened to take up any looseness caused by the tension reducing the rope diameter. Remember that even when properly applied a clip fastening has only about ninety percent (90%) of the strength of the rope and far less than that when rigged improperly. (3-29-10)

**04. Blocks.** All blocks must be of steel construction or of material of equal or greater strength and so hung that they will not strike or interfere with other blocks or rigging. (7-1-97)

**05. Pins.** All pins in blocks shall be properly secured by keys of the largest size the pin hole will accommodate (7-1-97)

**06. Shackles.** (7-1-97)

**a.** Spread in jaws of shackles shall not exceed by more than one (1) inch the size of yoke or swivel of the block to which it is connected. (7-1-97)

**b.** All shackles must be made of forged steel or material of equivalent strength and one (1) size larger than the line it connects. (7-1-97)

**07. Cable Cutting.** Cable cutters, soft hammers, or a cutting torch shall be available and shall be used for cutting cables. (7-1-97)( )

**08. Damaged or Worn Wire Rope.** Worn or damaged ~~W~~wire rope ~~worn or damaged beyond the point of creating a~~ safety hazard shall be taken out of service or properly repaired before further use. (7-1-97)( )

~~**09. Wire Rope Certification.** (7-1-97)~~

~~**a.** All wire rope offered for sales shall be certified as to its breaking strength by the manufacturer or vendor in accordance with the U. S. Bureau of Standards specifications. See Table 012.09-A~~

<b>TABLE 012.09 A—TYPICAL WIRE ROPE SPECIFICATIONS, (6X19, OR 6X25 IWRC*)</b>					
<b>Cable Dimensions</b>		<b>Improved-Plow-Steel</b>		<b>Extra-Improved-Plow-Steel</b>	
<b>Diameter- (inches)</b>	<b>Weight per foot- (pounds)</b>	<b>Safe-working- load** (pounds)</b>	<b>Breaking- strength- (pounds)</b>	<b>Safe-working- load (pounds)</b>	<b>Breaking- strength- (pounds)</b>
1/4	0.116	1,960	5,880	2,270	6,800
5/6	0.18	3,050	9,160	3,510	10,540
3/8	.26	4,370	13,120	5,000	15,100
7/16	.35	5,930	17,780	6,800	20,400
1/2	.46	7,700	23,000	89,800	26,600
9/16	.59	9,700	29,000	11,200	33,600
5/8	.72	12,000	36,000	13,700	41,200
3/4	1.04	17,100	53,200	19,600	58,800
7/8	1.42	23,100	69,200	26,500	79,600
1	1.85	30,000	90,000	64,500	103,500
1-1/8	2.34	37,700	113,200	43,300	130,000
1-1/4	2.89	46,300	139,000	53,300	159,800
1-3/8	3.5	55,700	167,000	64,000	192,000
1-1/2	4.16	65,900	197,800	76,000	228,000
1-5/8	4.88	76,000	230,000	88,000	264,000
1-7/8	6.50	101,300	304,000	116,000	348,000
2	7.39	114,739	344,000	132,000	396,000
2-1/8	8.25	128,700	386,000	147,300	442,000
2-1/4	9.36	143,300	430,000	164,700	494,000
2-1/2	11.6	175,300	526,000	201,300	604,000
2-3/4	14.0	209,300	628,000	204,700	722,000

*Specifications may vary with different line materials and swedge lines.*

*(7-1-97)*

**~~013. TYPICAL RIGGING SYSTEMS.~~**

~~01. See Figures 013.01-A through 013.01-N.~~

~~*(7-1-97)*~~

**[THE FOLLOWING ILLUSTRATIONS ARE BEING DELETED FROM RULE]**

FIGURE 013.01-A; FIGURE 013.01-B; FIGURE 013.01-C; FIGURE 013.01-D; FIGURE 013.01-E; FIGURE 013.01-F (LIVE SLYLINE with carriage stop); FIGURE 013.01-G (SLACKLINE); FIGURE 013.01-H; FIGURE 013.01-I; FIGURE 013.01-J; FIGURE 013.01-K; FIGURE 013.01-L; FIGURE 013.01-M; FIGURE 013.01-N1; FIGURE 013.01-N2

**0143. -- 999. (RESERVED)**

## **IDAPA 07 - DIVISION OF BUILDING SAFETY**

### **07.08.10 - IDAHO MINIMUM SAFETY STANDARDS AND PRACTICES FOR LOGGING - CANOPY AND CANOPY CONSTRUCTION FOR LOGGING EQUIPMENT**

**DOCKET NO. 07-0810-1601**

#### **NOTICE OF RULEMAKING - PROPOSED RULE**

**AUTHORITY:** In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized pursuant to Section 67-2601A(3), Idaho Code.

**PUBLIC HEARING SCHEDULE:** Public hearing(s) concerning this rulemaking will be scheduled if requested in writing by twenty-five (25) persons, a political subdivision, or an agency, not later than October 19, 2016.

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This rulemaking would clarify the proper reference to statutory and rule provisions which govern any appeals process of decisions by the Division related to logging safety matters. The rulemaking also makes minor editorial revisions related to the safe operation of logging tractors and similar logging equipment.

**FEE SUMMARY:** The following is a specific description of the fee or charge imposed or increased: N/A

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DATED this 2nd day of September, 2016.

Steve Keys, Deputy Administrator – Operations  
Division of Building Safety  
1090 E. Watertower St., Ste. 150  
P. O. Box 83720  
Meridian, ID 83642  
Phone: (208) 332-8986 / Fax: (877) 810-2840

**THE FOLLOWING IS THE PROPOSED TEXT OF DOCKET NO. 07-0810-1601  
(Only Those Sections With Amendments Are Shown.)**

**000. LEGAL AUTHORITY.**

Pursuant to the provisions of Section 67-2601A, Idaho Code, the Division of Building Safety has the authority to promulgate and adopt *reasonable* rules for affecting the purposes *of the Workers' Compensation Act* therein.  
(7-1-97)( )

**(BREAK IN CONTINUITY OF SECTIONS)**

**003. ADMINISTRATIVE APPEALS.**

~~There are no provisions for administrative appeal of these rules.~~ The procedure for appeals in logging safety matters is prescribed by IDAPA 07.08.16, "Idaho Minimum Safety Standards and Practices for Logging – Recommended Safety Program," and Title 67, Chapter 52, Idaho Code.  
(7-1-97)( )

**004. INCORPORATION BY REFERENCE.**

There are no documents that have been incorporated by reference into these rules. ( )

**005. OFFICE – OFFICE HOURS – MAILING ADDRESS AND STREET ADDRESS.**

The principal place of business of the Division of Building Safety, Logging Safety Program, is at the Division office located at 1090 E. Watertower Street, Suite 150, Meridian, Idaho 83642. The Logging Safety Program may also be contacted at 1250 Ironwood Drive, Suite 220, Coeur d'Alene, Idaho 83814, and at 2055 Garrett Way, Suite 4, Pocatello, Idaho 83201. All locations are open from 8:00 a.m. to 5:00 p.m., except Saturday, Sunday and legal holidays. The telephone number of the office is (208) 334-3950. The facsimile number of the office is 1-877-810-2840. The Department website is <http://dbs.idaho.gov>. ( )

**006. PUBLIC RECORDS ACT COMPLIANCE.**

The rules contained herein have been promulgated according to the provisions of Title 67, Chapter 52, Idaho Code, and are public records. ( )

**0047. -- 008. (RESERVED)**

**009. DEFINITIONS.**

For definitions refer to IDAPA 07.08.01, "Idaho Minimum Safety Standards and Practices for Logging -- General Provisions," Section 007, and IDAPA 07.08.15, "Idaho Minimum Safety Standards and Practices for Logging – Commonly Used Logging Terms."  
(7-1-97)( )

**010. GENERAL REQUIREMENTS.**

**01. Driver Protection Guard.** (7-1-97)

**a.** A substantial metal guard for the protection of the driver shall be installed on every piece of equipment, where exposed to overhead hazards. (7-1-97)

**b.** This guard shall be strongly constructed to afford adequate protection for the driver against overhead hazards. (7-1-97)

**c.** ~~#~~ This guard shall be of sufficient width and height so that it will not impair the movements of the driver or prevent his immediate escape from the equipment in emergencies. (7-1-97)( )

- d. ~~# This guard~~ shall be of open construction to allow the driver all the visibility possible. (7-1-97)( )
- 02. Canopy Framework.** (7-1-97)
- a. The canopy framework shall consist of at least two (2) arches, either transverse or longitudinal. (7-1-97)
- b. If transverse, one (1) arch shall be installed at the rear of the equipment and the other at the center of the equipment. They shall be joined together by three (3) longitudinal braces, one (1) at the top and one (1) at each side of the arches. (7-1-97)
- c. There shall be a shear or deflecting guard extending from the leading edge of the forward arch to the front part of the frame of the tractor or similar equipment. (7-1-97)
- d. If longitudinal arches are used, they shall be extended from the rear of the tractor or equipment to the front frame of the tractor or equipment and each arch shall have an intermediate support located approximately at the dash so that ingress or egress will not be impeded. (7-1-97)
- e. Regardless of the type of construction used, the fabrication and method of connecting to the tractor or equipment shall be of such design as to develop a strength equivalent to that of the upright members. (7-1-97)
- 03. Canopy Structure.** The canopy structural framework shall be fabricated of pipe of the following size, or materials of equivalent strength, depending upon the gross weight of the tractor or similar equipment as equipped. Under twenty-eight thousand (28,000) lbs., two (2) inch double extra strong pipe (XXS); twenty-eight thousand (28,000) to fifty-eight thousand (58,000) lbs., three (3) inch double extra strong pipe (XXS); over fifty-eight thousand (58,000) lbs., four (4) inch double extra strong pipe (XXS). (7-1-97)
- 04. Gusset Plates or Braces.** Gusset plates or braces shall be installed on the canopy framework so that the framework will withstand a horizontal pressure equal to twenty-five percent (25%) of the gross weight of the tractor or similar equipment, as equipped, when such pressure is applied to any vertical member at a point not more than six (6) inches below the roof of the canopy. (7-1-97)
- 05. Clearance Above the Deck.** The clearance above the deck of the tractor or similar equipment at points of egress shall be not less than fifty-two (52) inches and the clearance above the driver's seat shall be of such height as will allow sufficient clearance above the driver's head. (7-1-97)
- 06. Overhead Covering.** The overhead covering on the canopy structure shall be of not less than three-sixteenth (3/16) inch steel plate except that the forward eighteen (18) inches may be made of one quarter (1/4) inch woven wire having not more than one (1) inch mesh. (7-1-97)
- 07. Rear Covering.** (7-1-97)
- a. The opening in the rear of the structure shall be covered with one quarter (1/4) inch woven wire having not less than one and one half (1 1/2) inch or more than two (2) inch wire mesh. This covering shall be affixed to the structural members so that ample clearance will be provided between the screen and the back of the operator. (7-1-97)
- b. Structural members shall present smooth, rounded edges and the covering shall be free from projections which would tend to puncture or tear flesh or clothing. (7-1-97)
- 08. Pin Connections.** (7-1-97)
- a. Pin connections are recommended for joints in the structural frame and especially at connections to the tractor frame or similar equipment frame. (7-1-97)
- b. Gusset plates shall be installed at each place where individual pieces of pipe are joined. (7-1-97)



**09. Sideguards.** When practical, sideguards shall be installed to protect the operator from hazards. (7-1-97)

**011. TRACTORS AND SIMILAR LOGGING EQUIPMENT.**

**01. Operating Condition.** The general operating condition of a tractor or equipment shall be sufficient ~~by good~~ to ensure the safety of the driver and other workmen. (7-1-97)(    )

**02. Guards.** All guards shall be kept in place and in good repair at all times when the tractor or similar equipment is used. (7-1-97)

**03. Repairs or Adjustments.** Repairs or adjustments to clutches, frictions, or other parts of equipment which may cause hazardous movement of equipment shall not be done while engines are running. (7-1-97)

**04. Blades or Similar Equipment.** (7-1-97)

**a.** Blades or similar equipment shall be blocked or otherwise securely supported when making repairs or performing other work around such equipment when they are elevated from the ground. (7-1-97)

**b.** Equipment under repair or adjustment should be tagged out. (7-1-97)

**05. Brakes and Steering.** (7-1-97)

**a.** All equipment shall be equipped with a braking system capable of stopping and holding the maximum load on all grades at all times. (7-1-97)

**b.** Any defect found in the braking system or steering devices of any equipment used in skidding or yarding operations shall not be used until repaired or replaced. (7-1-97)(    )

**06. Starting of Equipment.** Equipment shall be started (cranked) only by the operator or other experienced persons. (7-1-97)

**07. Seatbelts.** (7-1-97)

**a.** Seatbelts shall be installed on all tractors and mobile equipment having roll-over protection or in accordance with a design by a ~~P~~professional ~~E~~engineer which offers equivalent employee protection. (7-1-97)(    )

**b.** Seatbelts shall be used when operating any machine equipped with Roll Over Protection Structure (ROPS), Falling Object Protection Structure (FOPS), or overhead guards. (3-29-10)

**08. Pin Connections.** (7-1-97)

**a.** Pin connections are recommended for joints in the structural frame and especially at connections to the tractor frame or similar equipment frame. (7-1-97)

**b.** Gusset plates shall be installed at each place where individual pieces of pipe are joined. (7-1-97)

**09. Sideguards.** When practical, sideguards shall be installed to protect the operator from hazards. (7-1-97)

**012. -- 999. (RESERVED)**

## IDAPA 07 - DIVISION OF BUILDING SAFETY

### 07.08.11 - IDAHO MINIMUM SAFETY STANDARDS AND PRACTICES FOR LOGGING - SKIDDING AND YARDING

DOCKET NO. 07-0811-1601

#### NOTICE OF RULEMAKING - PROPOSED RULE

**AUTHORITY:** In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized pursuant to Section 67-2601A(3), Idaho Code.

**PUBLIC HEARING SCHEDULE:** Public hearing(s) concerning this rulemaking will be scheduled if requested in writing by twenty-five (25) persons, a political subdivision, or an agency, not later than October 19, 2016.

The hearing site(s) will be accessible to persons with disabilities. Requests for accommodation must be made not later than five (5) days prior to the hearing, to the agency address below.

**DESCRIPTIVE SUMMARY:** The following is a nontechnical explanation of the substance and purpose of the proposed rulemaking:

During the 2015 legislative session the authority to perform safety inspections and issue safety orders, as well as conduct safety training programs was statutorily transferred from the Idaho Industrial Commission to the Division of Building Safety. The minimum standards and practices for conducting logging operations in Idaho have not been substantively updated since their initial promulgation as administrative rules in 1997. Many of the provisions contained therein the rules are outdated, no longer applicable, or confusing to the logging industry. Accordingly, many of the amendments contained in the rulemaking are either administrative in nature to clarify rule provisions, provide updated references and citations, or replace outdated or unclear provisions and illustrations related to common logging practices. Additionally, several sections related to cable yarding, yarding machinery, wire rope, and tree climbing were added. These areas can be critical components of logging operations; however, they were not adequately addressed by the rules. Through the negotiated rulemaking process, the logging industry requested the proposed amendments set forth in the rulemaking.

This rulemaking would clarify the proper reference to statutory and rule provisions which govern any appeals process of decisions by the Division related to logging safety matters. It also provides several amendments to clarify and update provisions related to skidding and yarding generally. Additionally, the rulemaking adds several sections related to cable yarding, yarding machinery, wire rope, and tree climbing. Yarding section amendments contain measures to ensure safe practices and provisions to ensure safe yarding equipment. Wire rope provisions include descriptions of different types of wire rope characteristics, specifications related to tensile strength, and other safety and precautionary issues related to wire life, wire connections, and inspection and care of lines. Tree climbing provisions were also added related to plans and procedures for climbing trees, safe climbing operational practices, and proper climbing equipment. Additionally, a table providing for wire rope specifications was updated and moved from a different chapter of the logging rules and included herein as a more appropriate location. Finally, throughout the chapter updated and/or clearer illustrations (figures) were added to assist loggers to more easily identify common logging equipment or practices.

**FEE SUMMARY:** The following is a specific description of the fee or charge imposed or increased: N/A

**FISCAL IMPACT:** The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars (\$10,000) during the fiscal year resulting from this rulemaking: N/A

**NEGOTIATED RULEMAKING:** Pursuant to Section 67-5220(1), Idaho Code, negotiated rulemaking was conducted. The Notice of Intent to Promulgate Rules - Negotiated Rulemaking was published in the December 2, 2015 Idaho Administrative Bulletin under Docket No. 07-0800-1501, [Vol. 15-12, pages 1-2](#).

**INCORPORATION BY REFERENCE:** Pursuant to Section 67-5229(2)(a), Idaho Code, the following is a brief synopsis of why the materials cited are being incorporated by reference into this rule: N/A

**ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS:** For assistance on technical questions concerning the proposed rule, contact Steve Keys, Deputy Administrator – Operations, at (208) 332-8986.

Anyone may submit written comments regarding this proposed rulemaking. All written comments must be directed to the undersigned and must be delivered on or before October 26, 2016.

DATED this 2nd day of September, 2016.

Steve Keys, Deputy Administrator – Operations  
Division of Building Safety  
1090 E. Watertower St., Ste. 150  
P. O. Box 83720  
Meridian, ID 83642  
Phone: (208) 332-8986  
Fax: (877) 810-2840

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(7-1-97)( )

**(BREAK IN CONTINUITY OF SECTIONS)**

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*There are no provisions for administrative appeal of these rules.* The procedure for appeals in logging safety matters is prescribed by IDAPA 07.08.16, "Idaho Minimum Safety Standards and Practices for Logging – Recommended Safety Program," and Title 67, Chapter 52, Idaho Code. (7-1-97)( )

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Provisions,” Section 007, and IDAPA 07.08.15, “Idaho Minimum Safety Standards and Practices for Logging – Commonly Used Logging Terms.” (7-1-97)( )

**010. SKIDDING AND YARDING.**

- 01. General Requirements.** (7-1-97)
- a.** All personnel shall wear approved head protection and proper clothing at all times in skidding and yarding. (7-1-97)
- b.** Getting on or off moving equipment is strictly prohibited. (7-1-97)
- c.** Equipment operators shall move rigging only upon the signal of an authorized person. (7-1-97)( )
- d.** Workers shall at all times watch for and protect themselves and their fellow workers from side-winders, rolling logs, up ending logs, snags, and other hazards caused by the movement of equipment, logs and/or lines. (7-1-97)
- e.** Chokers should be placed near, but not closer than two (2) feet, from the ends of logs if possible. (7-1-97)
- f.** Choker holes shall be dug from the uphill side of a log if there is any danger of its rolling. (7-1-97)
- g.** Knots shall not be used to connect separate lengths of chain or cable. (7-1-97)
- h.** Chaser (hooker) shall not unhook logs (trees) until rigging has stopped and the equipment operator is aware of his location. (7-1-97)( )
- i.** Riding on drag or logs or any part of equipment used in skidding and yarding except in the area of the driver’s seat is prohibited. (7-1-97)
- j.** A tool handle, stick, iron bar, or similar object shall be used in guiding lines onto drums. Guiding lines with hands is prohibited. (7-1-97)
- k.** Make sure all personnel are in the clear before skidding turn, drag, log, or tree into landing. (7-1-97)
- l.** All personnel shall keep out of the bight of line and clear of running lines. (7-1-97)
- m.** Logs shall not be swung over personnel. (7-1-97)
- n.** Knot bumping should be done before a log is loaded. (7-1-97)( )

**011. CABLE YARDING.**

- 01. Safety A.** Personnel shall not ride hooks, lines, rigging, or logs suspended in the air or being moved. ( )
- 02. Safety B.** Personnel shall not hold on to haywire, running lines, drop lines, or chokers as an assist when walking uphill. ( )
- 03. Safety C.** Personnel shall not work in the bight of lines under tension. ( )
- 04. Safety D.** Personnel shall be “in the clear” before any signal to move any lines is given. ( )

**012. YARDING MACHINERY.**

**01. Equipment Assessment.** When personnel arrive at a job site with a set of machinery on hand to perform yarding operations, evaluation of the conditions at the landing shall be made, and reassessment of the capacity of the available equipment shall be performed to determine if it meets the task. The principal options and features for yarders, log loaders, and processors are described in this section. ( )

**02. Manufacturer's Manual.** Yarders of various types are used in logging operations, including ground-based and rigged trees to lift the lines, and mobile steel towers. The manufacturer's manual shall always be consulted for essential features and inspection points on each particular machine. ( )

**03. Types of Yarding Equipment.** Yarding operations may include the use of, but is not limited to the following yarding equipment: ( )

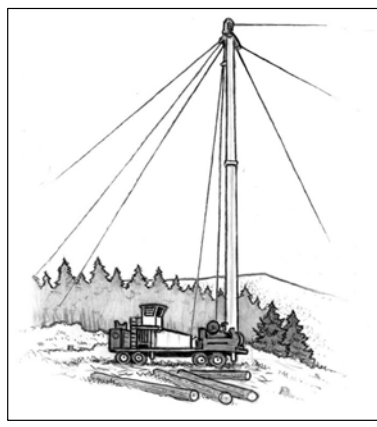
**a. Straight Tube Telescoping Tower.** This equipment uses a hydraulic ram or multiple-sheave cable system to raise the tower. Some telescoping towers allow use at the telescoped height. The tower may be used partially retracted if guyline anchors need to be placed closer to the landing or on steep slopes. ( )

**i.** This equipment may travel by self-propulsion, or be either trailer or track-mounted. It has long reach capacity with a typical height of ninety (90) to one hundred ten (110) feet. ( )

**ii.** The advantages of this equipment include the ability to operate heavy payloads, the tower height allows for more line deflection, and some yarders allow yarding one hundred eighty (180) degrees without moving yarder or guylines. ( )

**iii.** The disadvantages of this equipment are that it is heavy and difficult to move, it requires appropriate roads and it may have to be disassembled to move on public roads, it requires large landing areas, and it needs large guyline anchor capacity.

**FIGURE 012.03-A**



**STRAIGHT TUBE TELESCOPING TOWER**

( )

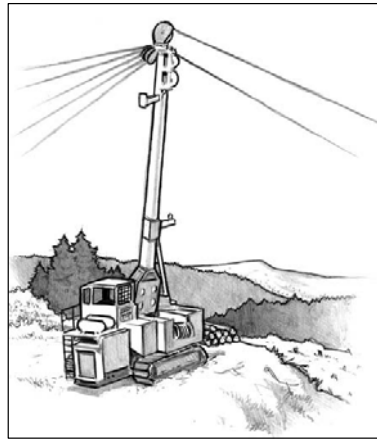
**b. Fixed Leaning Tower.** This equipment is a one (1)-piece tower that may be front-mounted vertical, or leaning. The height of the tower varies with make and model. ( )

**i.** This equipment may travel by self-propulsion, or be either trailer or track-mounted. It has medium reach capacity with a typical height of forty (40) to eighty (80) feet. ( )

ii. The advantages of this equipment include faster line setup, smaller landing area requirements, it is lighter and easier to move, and has lower guyline anchor requirements. ( )

iii. The disadvantages include a smaller yarding window which necessitates moving the tower and guylines more frequently, and smaller payloads than straight tube towers. ( )

**FIGURE 012.03-B**



**FIXED LEANING TOWER**

( )

c. Swing Yarder. This equipment is similar to the fixed leaning tower in nearly all respects; however, the swing yarder is also capable of swinging logs onto the road or landing, and capable of using a running skyline. Track mounts are more stable when moving. ( )

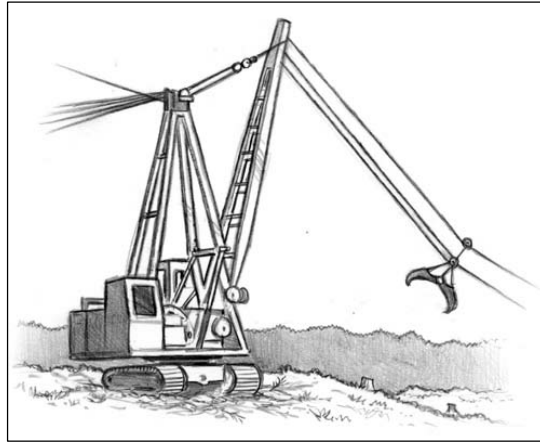
d. Grapple Yarder. This equipment uses a swing yarder or yoader system. The grapple is controlled by signals from the rigging slinger, or by the yarder engineer using a video link on the carriage. Swing capability is necessary to allow a wider logging corridor. A grapple system is typically used in conjunction with a machine anchor and elevated support on the back end of the unit, making for quick road changes. ( )

i. This equipment may travel by track-mount or rubber-tire mount. It has medium to short reach capacity. ( )

ii. The advantages of this equipment include the need for a smaller crew size, typically only a yarder engineer, landing worker, and a hooktender, and it is easier to rig up which is ideal for smaller logging areas. ( )

iii. The disadvantages of this equipment are that it requires extensive planning to achieve full production, it must have moderate to good deflection, access to the back of unit is generally necessary, and it possesses limited yarding width. ( )

**FIGURE 012.03-C**



**GRAPPLE YARDER**

( )

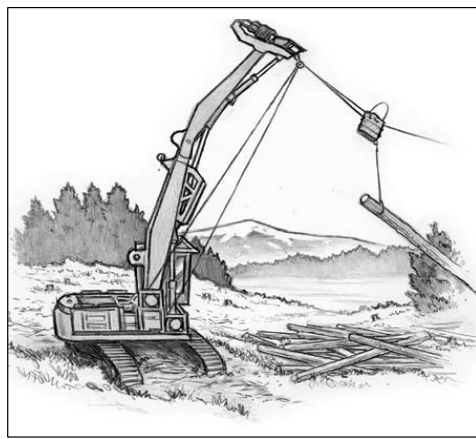
**e.** Yoader. This yarder is typically a log loader with two (2) drums mounted at the base of the boom. Both lines run through sheaves mounted on the boom or heel rack. The lines can be set up in a standing, live, or running skyline configuration, or a high-lead configuration. ( )

**i.** This equipment may travel by track-mount or rubber-tire mount. It has medium reach capacity. ( )

**ii.** The advantages of this equipment are that guylines are not necessary, it is easier to move, easy road changes, it is easier to rig up which is ideal for smaller logging areas, and it may be used as a loader. ( )

**iii.** The disadvantages of this equipment are that it requires/results in slower line speeds, it requires blocking up front of the tracks to create stability, and rigging height is limited.

**FIGURE 012.03-D**



**YOADER**

( )

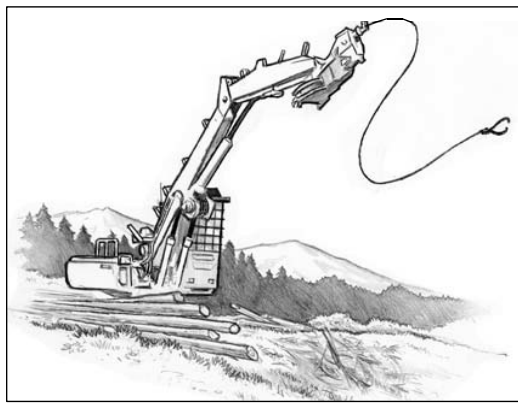
**f.** Tong-tosser/Jammer System. These are two (2) systems which basically use the same machine as the yoader, with either tongs or chokers on the end of the line to secure the logs. This version typically uses one (1) drum on the machine with a spitter wheel at the end of the boom to pull the line from the drum and push it out to the brush. The yarder engineer usually gets the tongs or chokers swinging and then tosses them to the waiting choker setters. ( )

**i.** This equipment travels by track-mount. It has short reach capacity. ( )

**ii.** The advantages of this equipment are that guylines are not necessary, it is easier to move, it is easier to rig up which is ideal for smaller logging areas, and it may be used as a loader. Additionally, it does not require line layouts or anchors. ( )

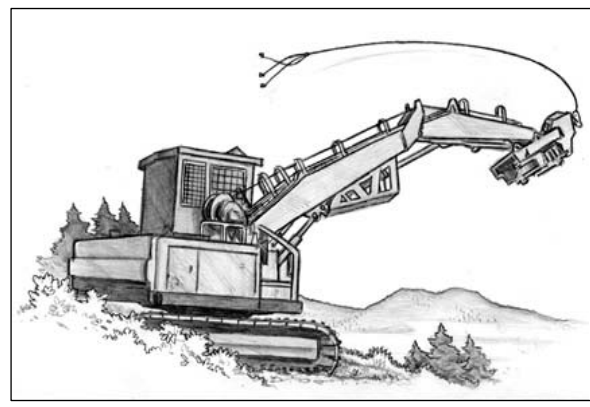
**iii.** The disadvantages of this equipment are that it results in slower line speeds, it requires blocking up front of the tracks to create stability, rigging height is limited, and there is a greater potential risk to the rigging crew.

**FIGURE 012.03-E**



**TONG-TOSSER WITH GRAPPLE**

**FIGURE 012.03-F**



**JAMMER-SYSTEM WITH CHOKERS**

( )

**g.** Stiff-leg Spar Yarder. One of various configurations for this yarder uses an excavator or log loader fitted with a third boom between the main and jib boom, which is elevated to provide lift. The elevated boom is typically rigged with two (2) or three (3) lines. Works with high lead, standing, running, or slackline configurations. ( )

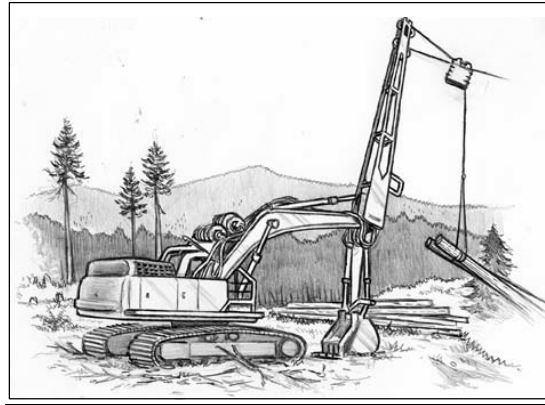
**i.** This equipment travels by track-mount. It has medium reach capacity. ( )

**ii.** The advantages of this equipment are that guylines may not be necessary, it is easier to move, it is easier to rig up which is ideal for smaller logging areas, and it may be used as a loader or excavator. Additionally, it does not require line layouts or anchors. Additionally, jib boom offers greater stability, and the rigging height is greater than yoader or tong-tosser/jammer system. ( )

**iii.** The disadvantages of this equipment are that it results in slower line speeds, the attached tower boom may need to be removed for other operations, and it generates heavy stress on boom and components. ( )



**FIGURE 012.03-G**



**STIFF-LEG SPAR YARDER**

( )

**013. WIRE ROPE.**

**01. General Characteristics.** Wire rope comes in many grades and dimensions, and every rope has its own characteristics with regard to strength and resistance to crushing and fatigue. A larger rope will outlast a smaller rope of the same materials and construction, used in the same conditions, because wear occurs over a larger surface. Similarly, a stronger rope will outlast a weaker rope, because it performs at a lower percentage of its breaking strength, with reduced stress. ( )

**02. Wire Rope Terms.** Common grades of wire rope include extra improved plow steel (EIPS) and swaged powerflex, among others. The following terms are commonly used for wire rope: ( )

**a. Abrasion Resistance.** Ability of outer wires to resist wear. Abrasion resistance is greater with larger wires. ( )

**b. Core.** The foundation of a wire rope which is made of materials that will provide support for the strands under normal bending and loading conditions. A fiber core (FC) can be natural or synthetic. If the core is steel, it can be a wire strand core (WSC) or an independent wire rope core (IWRC). ( )

**c. Crushing Resistance.** Ability of the rope to resist being deformed. A rope with an independent wire core is more resistant to crushing than one with a fiber core. ( )

**d. Die-form Line.** Made from strands that are first compacted by drawing them through a drawing die to reduce their diameter. The finished rope is then swaged or further compressed. ( )

**e. Fatigue Resistance.** Ability of the rope to withstand repeated bending without failure (the ease of bending a rope in an arc is called its "bendability"). Fatigue resistance is greater with more wires. ( )

**f. Strength.** Referred to as breaking strength, usually measured as a force in pounds or tons. The breaking strength is not the same as the load limit, which is calculated as a fraction of the breaking strength to ensure safety. ( )

**g. Swaged Line.** Manufactured by running a nominal-sized line through a drawing die to flatten the outer crown and thus reduce the rope diameter. This compacted rope allows for increased drum capacity and increased line strength. ( )

**03. Typical Wire Rope Specifications.** The table below lists a few examples of wire-rope breaking strengths. ( )

<b>TABLE 012.09-A -- Typical Wire Rope Specifications</b>						
	<u>6x26 Improved Plow Steel</u>		<u>6x26 Swaged</u>		<u>Swaged Compact-Strand</u>	
<u>Diameter (inches)</u>	<u>Weight (lbs/ft)</u>	<u>Breaking Strength (tons)</u>	<u>Weight (lbs/ft)</u>	<u>Breaking Strength (tons)</u>	<u>Weight (lbs/ft)</u>	<u>Breaking Strength (tons)</u>
<u>1/2</u>	<u>0.46</u>	<u>11.5</u>	<u>0.6</u>	<u>15.2</u>	<u>0.63</u>	<u>18.6</u>
<u>9/16</u>	<u>0.59</u>	<u>14.5</u>	<u>0.75</u>	<u>19</u>	<u>0.78</u>	<u>23.7</u>
<u>5/8</u>	<u>0.72</u>	<u>17.9</u>	<u>0.93</u>	<u>23.6</u>	<u>1.01</u>	<u>28.5</u>
<u>11/16</u>			<u>1.10</u>	<u>28.8</u>	<u>1.18</u>	<u>35.3</u>
<u>3/4</u>	<u>1.04</u>	<u>25.6</u>	<u>1.37</u>	<u>34.6</u>	<u>1.41</u>	<u>42.2</u>
<u>13/16</u>			<u>1.56</u>	<u>39.6</u>	<u>1.63</u>	<u>49.3</u>
<u>7/8</u>	<u>1.42</u>	<u>34.6</u>	<u>1.83</u>	<u>46.5</u>	<u>1.91</u>	<u>56.0</u>
<u>15/16</u>			<u>1.95</u>	<u>53.3</u>	<u>2.20</u>	<u>66.1</u>
<u>1</u>	<u>1.85</u>	<u>44.9</u>	<u>2.42</u>	<u>60.6</u>	<u>2.53</u>	<u>73.7</u>
<u>1-1/8</u>	<u>2.34</u>	<u>56.5</u>	<u>2.93</u>	<u>75.1</u>	<u>2.97</u>	<u>92.9</u>
<u>1-1/4</u>	<u>2.89</u>	<u>69.3</u>	<u>3.52</u>	<u>92.8</u>	<u>3.83</u>	<u>112.1</u>
<u>1-3/8</u>	<u>3.5</u>	<u>83.5</u>	<u>4.28</u>	<u>108.2</u>	<u>4.62</u>	<u>128.6</u>

<b>TABLE 013.03-A</b>						
	<u>6x26 Improved Plow Steel</u>		<u>6x26 Swaged</u>		<u>Swaged Compact-Strand</u>	
<u>Diameter (inches)</u>	<u>Weight (lbs/ft)</u>	<u>Breaking Strength (tons)</u>	<u>Weight (lbs/ft)</u>	<u>Breaking Strength (tons)</u>	<u>Weight (lbs/ft)</u>	<u>Breaking Strength (tons)</u>
<u>1/2</u>	<u>0.46</u>	<u>11.5</u>	<u>0.6</u>	<u>15.2</u>	<u>0.63</u>	<u>18.6</u>
<u>9/16</u>	<u>0.59</u>	<u>14.5</u>	<u>0.75</u>	<u>19</u>	<u>0.78</u>	<u>23.7</u>
<u>5/8</u>	<u>0.72</u>	<u>17.9</u>	<u>0.93</u>	<u>23.6</u>	<u>1.01</u>	<u>28.5</u>
<u>11/16</u>			<u>1.10</u>	<u>28.8</u>	<u>1.18</u>	<u>35.3</u>
<u>3/4</u>	<u>1.04</u>	<u>25.6</u>	<u>1.37</u>	<u>34.6</u>	<u>1.41</u>	<u>42.2</u>
<u>13/16</u>			<u>1.56</u>	<u>39.6</u>	<u>1.63</u>	<u>49.3</u>

<u>7/8</u>	<u>1.42</u>	<u>34.6</u>	<u>1.83</u>	<u>46.5</u>	<u>1.91</u>	<u>56.0</u>
<u>15/16</u>			<u>1.95</u>	<u>53.3</u>	<u>2.20</u>	<u>66.1</u>
<u>1</u>	<u>1.85</u>	<u>44.9</u>	<u>2.42</u>	<u>60.6</u>	<u>2.53</u>	<u>73.7</u>
<u>1-1/8</u>	<u>2.34</u>	<u>56.5</u>	<u>2.93</u>	<u>75.1</u>	<u>2.97</u>	<u>92.9</u>
<u>1-1/4</u>	<u>2.89</u>	<u>69.3</u>	<u>3.52</u>	<u>92.8</u>	<u>3.83</u>	<u>112.1</u>
<u>1-3/8</u>	<u>3.5</u>	<u>83.5</u>	<u>4.28</u>	<u>108.2</u>	<u>4.62</u>	<u>128.6</u>

Source: Cable Yarding Systems Handbook, 2006, Worksafe BC. Table lists typical breaking strengths. See manufacturer's specifications for specific lines. ( )

**04. Synthetic Rope.** High-tensile strength synthetic lines are considerably lighter than standard wire rope; however, some lines are dimensionally as strong as standard wire rope. Accordingly, high-tensile strength synthetic lines are permitted to be used in appropriate logging applications, including as substitutes for brush straps, tree straps, tail and intermediate support guylines, guyline extensions, skyline extensions, and haywire. Manufacturers' standards and recommendations for determining usable life or criteria for retirement of such lines shall be followed. Personnel shall examine the lines for broken or abraded strands, discoloration, inconsistent diameter, glossy or glazed areas caused by compression and heat, and other inconsistencies. Rope life is affected by load history, bending, abrasion, and chemical exposure. Most petroleum products do not affect synthetic ropes. ( )

**05. Inspection and Care.** ( )

**a.** Wire rope shall be inspected daily by a qualified individual and repaired or taken out of service when there is evidence of any of the following conditions: ( )

i. Twelve and five tenths percent (12.5%) of the wires are broken within a distance of one (1) lay. ( )

ii. Evidence of chafing, sawing, crushing, kinking, crystallization, bird-caging, corrosion, heat damage, or other damage that has weakened the rope structure. ( )

**b.** Qualified personnel shall closely inspect those points subject to the most wear, including the knob ends of lines, eye splices, and those sections of line that most often run through blocks or carriages. If there is doubt about the integrity of the line, it is far safer to replace a suspect line, or cut out and resplice a defective area, than risk a failure during operation. Evaluation of the load-bearing yarder lines shall be stringent. A qualified person shall also inspect all other lines used on site and remove any that are unsafe. ( )

**06. Additional Precautions.** The following precautions shall also be observed: ( )

**a.** Ensure the working load limit for any line is adequate for the intended use. ( )

**b.** The manufacturer's specifications with regard to assigned breaking strength shall be followed. Such specifications as determined by engineering test results should factor the grade of the wire, number of strands, number of wires per strand, filler wire construction, lay pattern of the wires, and the diameter of the line. ( )

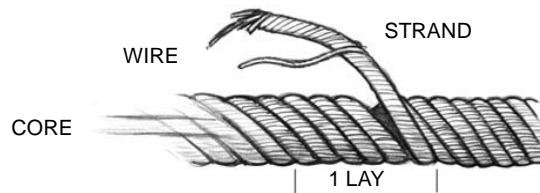
**07. Safety Factor.** Operators shall follow the manufacturer's specifications in determining load limits. The working load limit is a fraction of a line's breaking strength – a factor of three (3), or one-third (1/3) the breaking strength, is commonly used as a safety factor for running and standing lines, when workers are not exposed to breaking lines or loads passing overhead. A safety factor of three (3) is commonly used to determine the working load limit for a standing or running line. A standard six (6) x twenty-six (26) IWRC wire rope with a diameter of one (1) inch has a breaking strength of approximately forty-five (45) tons – divide by three (3) – equals fifteen (15) tons

working load limit. ( )

**08. Wire Labeling.** ( )

**a.** The elements of a typical wire rope are labeled, for example, six (6) x twenty-five (25) FW PRF RL EIPS IWRC. The label indicates a six (6)-strand rope with twenty-five (25) wires per strand (six (6) x twenty-five (25)), filler-wire construction (FW), strands pre-formed in a helical pattern (PRF), laid in a right-hand lay pattern (RL), using an extra-improved plow steel (EIPS) grade of wire, and strands laid around an independent wire rope core (IWRC). See figure 013.08-A for proper labeling of wire rope. ( )

**FIGURE 013.08-A**



**b.** Out of Service Standard Example. A six (6) x twenty-five (25) IWRC wire rope = six (6) strands in one (1) lay with twenty-five (25) wires per strand = one hundred fifty (150) wires. The rope must be taken out of service when twelve and five tenths percent (12.5%), or one-eighth (1/8), of the wires are broken within the distance of one (1) lay = one hundred fifty (150) divided by eight (8) = eighteen and seventy-five one hundredths (18.75), or nineteen (19) broken wires. ( )

**09. Wire Line Life.** Table 013.08-A provides the allowable life of a line in million board feet in accordance with line size and use. Figure 013.09-A illustrates both the correct and incorrect manner in which to measure line size (diameter). ( )

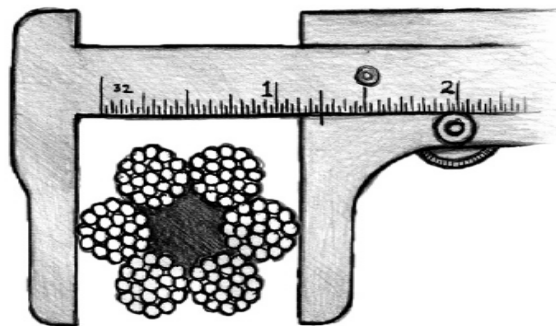
**TABLE 013.08-A  
LINE LIFE BY WOOD HAULED**

<b>System</b>	<b>Use</b>	<b>Line Size (inches)</b>	<b>Line Life (million board feet)</b>
<b>Standing Skyline</b>	<b>Skyline</b>	<b>1-3/4</b>	<b>20-25</b>
		<b>1-1/2</b>	<b>15-25</b>
		<b>1-3/8</b>	<b>8-15</b>
	<b>Mainline</b>	<b>1 to 1-1/8</b>	<b>15-20</b>
		<b>1</b>	<b>10-15</b>
<b>Haulback</b>	<b>3/4 to 7/8</b>	<b>8-12</b>	

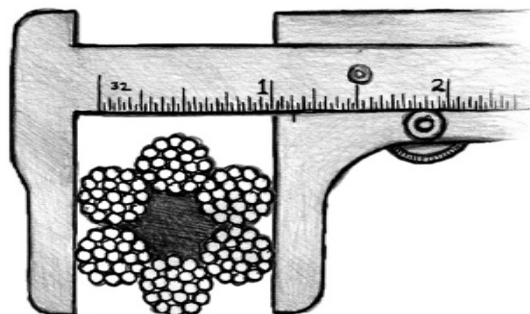
<u>Live Skyline</u>	<u>Skyline</u>	<u>1-1/2</u>	<u>10-20</u>
		<u>1-3/8</u>	<u>8-15</u>
		<u>1</u>	<u>6-10</u>
	<u>Mainline</u>	<u>1</u>	<u>10-15</u>
		<u>3/4</u>	<u>8-12</u>
		<u>5/8</u>	<u>8</u>
	<u>Haulback</u>	<u>3/4 to 7/8</u>	<u>8-12</u>
<u>1/2</u>		<u>6-10</u>	
<u>Dropline</u>	<u>7/16</u>	<u>5-8</u>	
<u>High Lead</u>	<u>Mainline</u>	<u>1-3/8</u>	<u>8-15</u>
		<u>1-1/8</u>	<u>6-12</u>

Source: Willamette Logging Specialist's Reference by Keith L. McGonagill, 1976. Portland, OR: Willamette National Forest. Calculations of line life refer to EIPS 6x21 wire rope for the skyline, and EIPS 6x26 for other lines. Figures will be different for other classes of wire rope. ( )

**FIGURE 013.09-A**



Correct way to measure line diameter



Incorrect way to measure line diameter

( )

**10. Dynamic Loads.** Operators shall consider high dynamic loads when calculating safe working limits of wire ropes. Wire ropes are often subjected to high dynamic loads, which greatly multiply the force on a line and may exceed the safe working limit. Even a split second of time over the limit can lead to premature failure of a line. Typical dynamic loads occur when a turn hits a stump, a turn comes down off of the back hillside to full suspension, or when excessive force is applied to pulling a turnout of its bed. A high dynamic load or a sudden shock load that exceeds the working limit may not result in immediate failure, but rope strands may stretch and weaken, and may fail at a later time. ( )

**11. Other Common Wire Rope Considerations.** ( )

**a. Wire Rope Stretching and Line Diameter.** A stretched wire rope has a reduced diameter. Operators shall check for stretched lines by measuring the diameter, particularly on older lines and any line used in stressful situations. ( )

**b. Older Wire Rope.** Standing lines and guylines are often kept in service for multiple years (four (4) to five (5), and as long as ten (10) years in some instances) without exhibiting any obvious signs of excessive wear other than rust. Operators shall check date stamps of wire rope and evaluate line life. Operators shall also inspect the core of older lines periodically for a fractured or dry core, which could indicate other deficiencies such as broken wires, excessive wear, or line deformation. ( )

**c. Hard Use.** The life of a wire rope is also affected by hard use. Line life can be measured by the volume of wood hauled (see Table 013.08-A). Line life is reduced when a line exceeds its elastic limits, is heavily shocked, or rubbed against rocks or other lines. As a line wears, the safe working load limit shall be lower and the payload adjusted appropriately. ( )

**d. Wire Rope endurance and elastic limits.** Working within the endurance and elastic limits of lines can help preserve line life. The following principles shall be observed when evaluating the integrity and safe use of wire rope: ( )

i. The “endurance limit” for all lines is fifty percent (50%) of the breaking strength. If wire rope tensioning regularly exceeds the endurance limit, the life of the line is reduced through fatigue. ( )

ii. The “elastic limit” for all lines is sixty to sixty-five percent (60-65%) of the breaking strength. When a wire rope is loaded to its normal safe working limit, the line stretches, but then returns to its original size when the load is released. If a load increases past the elastic limit through prolonged exertion or repeated stress, the line will stretch and stay stretched, resulting in a permanent reduction in the breaking strength. ( )

**e. Lubrication and Abrasion.** Wire rope is lubricated in the factory to reduce internal friction and corrosion, and prolong the life of the rope. Heat from friction causes the internal lubricant to deteriorate. Friction occurs when the rope stretches under load, particularly in places where it bends around sheaves or other objects. An improperly lubricated line can pick up particles of dirt and sand that will increase abrasion. Accordingly, operators shall: ( )

i. Check for and ensure the proper lubrication of all lines and wire rope, following the manufacturer’s instructions. Commercial wire rope lubricants are available. ( )

ii. Carefully inspect lines for faults in areas where dust and sand may collect. ( )

iii. Store all wire rope and lines off the ground. ( )

**12. Line Connections.** ( )

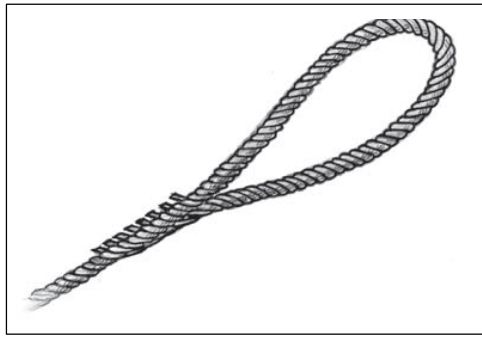
**a. Inspection.** Operators shall regularly inspect shackles, hooks, splices, and other connecting equipment for damage and wear, as well as ensure the connectors are the correct type and size for the line and

intended use. ( )

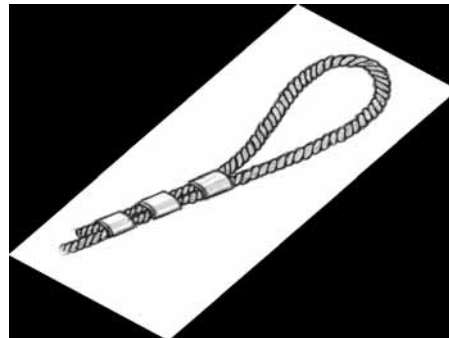
**b.** Wire Splicing. Splices are used to form an eye at the end of a line, extend the length of a line, or repair a broken or damaged line. The splicing of wire rope requires special skill and shall only be performed under the supervision of a competent person with using the proper tools. Reference materials are available with detailed instructions for numerous types of splices. Individuals splicing wire shall always wear appropriate eye protection while splicing or assisting with a splicing procedure.

**c.** The logger's eye splice and three (3)-pressed eye are the most common methods to form an eye for use as a skyline terminal. See Figure 013.12-A. The spliced eye is approximately eighty percent (80%) efficient. A three (3)-pressed eye can reach ninety percent (90%) line strength. The pressed eye is typically performed at the rigging shop. Spliced eyes may be placed in the field, but may require additional time to install. ( )

**FIGURE 013.12-A**



THE LOGGER'S EYE SPLICE



THREE-PRESSED EYE

**d.** Guyline Care. Guylines are a vital link in holding up a tower. Guyline extensions shall not be excessively moved around by dragging on the ground, or left on the ground for long periods of time as they will deteriorate faster. ( )

**e.** Line Deformity. A line may deform where it loops around a shackle or pin, producing weakness that may result in line failure. A thimble in the loop protects the line. Thimbles may be used on standing lines, but not on running lines. Examples of the appearance of deformed lines and the use of thimbles in shackles are illustrated in Figure 013.12-B. ( )

**FIGURE 013.12-B**



DEFORMED EYE



EYE WITH THIMBLE

**13. Shackles and Hooks.** ( )

**a.** Hooks. Hooks shall be inspected to ensure that they have not sprung open. Ensure that shackles are positioned correctly to bear the load. Haywire swivels shall be inspected frequently, due to their susceptibility to wear rapidly. ( )

**b.** Shackle Safety. Proper bells or shackles shall be used to connect the guylines to the stumps, and the guyline lead blocks to the ring at the top of the tower. Connections shall have at least one and a half (1-1/2) times the strength of the guyline. The pins of the shackles must be secured to protect against dislodgement, and a nut and cotter key, or a nut and molly may be used for that purpose. The use of loops or mollies to attach guylines is prohibited. Examples of the appearance of some shackle equipment is illustrated in Figure 013.13-A.

**FIGURE 013.13-A**



**SHACKLE WITH SAFETY PIN**



**HAYWIRE SWIVEL**



**HAYWIRE HOOKS**

**c.** The following practices shall be observed in order to ensure the safe use of shackles: ( )

**i.** A shackle must have a rated breaking strength greater than the rated breaking strength of the lines attached to it, and the manufacturer's rated strengths to determine oversized requirements shall be used. Accepted industry standards shall be utilized and adhered to when determining the correct shackle size based on the type and nature of the logging operation being performed. Examples of the appearance of some shackle equipment for the purposes of proper selection is illustrated in Figure 013.13-B. ( )

**ii.** Shackles with pins, and securing nuts with mollies or a cotter key shall be used on standing or overhead rigging. ( )

**iii.** Screw shackle pins shall not be used in any standing or overhead rigging. ( )

**iv.** Screw shackle pins, where allowed to be used, shall be tightened securely. ( )

**v.** Shackle pin mollies shall be rolled sufficiently and fit the pin hole fully. Mollies shall be tucked a minimum of three (3) times. ( )

**vi.** The shackle shall always be placed with the pin nearest to the yarder, so that in the event the shackle fails the least amount of hardware may be thrown at the yarder. ( )

**vii.** Replace shackles that are bent, broken, or show excess wear on the inner surfaces. Examples of the appearance of some damaged or non-conforming shackles are illustrated in Figure 013.13-A.



**FIGURE 013.13-A**



**REPLACE SHACKLES THAT ARE BENT, BROKEN, OR SHOW EXCESS WEAR ON THE INNER SURFACES.**

**FIGURE 013.13-B**



**SLEEVE WITH KNOCKOUT PIN**



**BELL WITH KNOCKOUT PIN**



**SLEEVE WITH SAFETY PIN**



**FLUSH PIN STRAIGHT SIDE**

**14. Knobs, Ferrules, and Eyes.**

**a.** Poured nubbins and a double-end hook are acceptable connectors in place of shackles in some instances. The use of quick nubbins (wedge buttons) as guylines and skyline end fittings is prohibited unless attaching guylines to guyline drums. Operators shall follow the manufacturer's recommendations when attaching sockets and similar end fastenings.

**b.** Poured nubbins achieve ninety-nine percent (99%) of line strength and may be used. Quick nubbins only achieve a maximum of sixty-five percent (65%) under ideal conditions, and accordingly operators shall consider whether they are appropriate for safe use in any given application. Pressed ferrule are not certifiable for strength, and shall not be used. Examples of the appearance of some knob, ferrule, and nubbin equipment are illustrated in Figure 013.14-A.

c. Operators shall inspect knobs, ferrules, and eyes at cable ends for loose or broken wires, and corroded, damaged, or improperly applied end connections. Poured nubbins shall be date stamped.

**FIGURE 013.14-B**



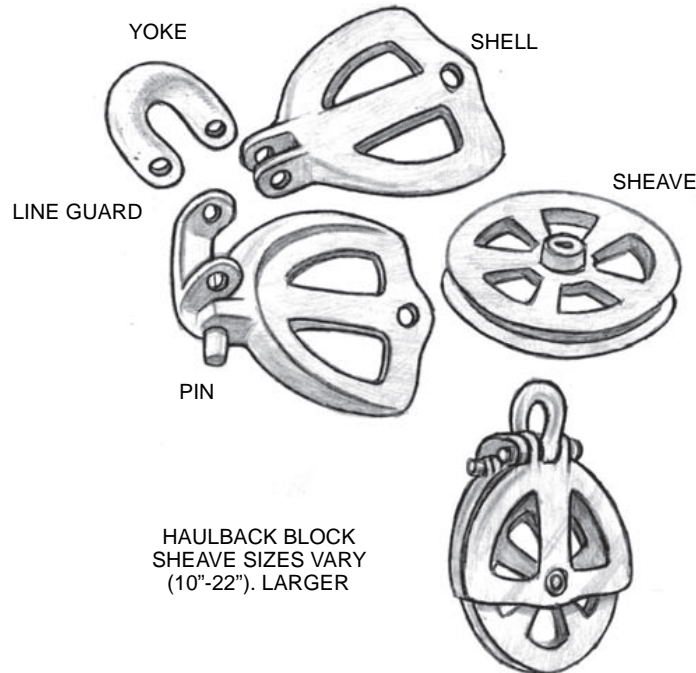
**BABBITED KNOB & PRESSED FERRULE**

**QUICK NUBBIN (WEDGE BUTTON)**

( )

**15. Brush Blocks.** Brush blocks shall be thoroughly inspected for cracks, wear, or deterioration. Operators shall closely examine the areas subject to the most wear, including bearings, sheave, frame, yoke, and pins. Defective parts shall be replaced immediately. Blocks shall be greased every time before each use.

**FIGURE 013.15-A**



( )

**16. Chains and Straps.** Chains or straps shall always be sized and used correctly for the intended purpose. Determining which size to use may depend on various factors. Oversized trailer lift straps, for example, shall have a breaking strength equal to five (5) times the load to be lifted. Towing chains shall have a tensile strength equivalent to the gross weight of the towed vehicle. The manufacturer's specifications or other appropriate reference materials shall always be consulted to ensure the right chain or strap is used for a task.

( )

**a.** Operators shall periodically inspect chains for damaged, worn, or stretched links. Chains with more than ten percent (10%) wear at the bearing surface shall be replaced. Operators shall periodically inspect straps, and examine them for broken wires or wear. Examples of the appearance of damaged and safe chains are illustrated in Figure 013.16-A. ( )

**FIGURE 013.16-A**



**GOOD CHAIN**



**STRETCHED CHAIN**



**WORN CHAIN (INSIDE LINKS)**

( )

**014. TREE CLIMBING.**

Loggers are often required to climb considerable heights to top trees or hang rigging on lift trees. All workers who may be exposed to fall hazards shall be specifically trained and equipped with fall protection. ( )

**01. Rescue Plan.** Before rigging any tree, the employer must develop rescue procedures, which includes identifying appropriate equipment, personnel, and training to perform a rescue in case a climber is injured or incapacitated in the tree. A second set of climbing gear and a person with climbing experience shall be readily available. Equipment and procedures that will support an injured climber's chest and pelvis in an upright position during a rescue shall be used. When an injured climber is wearing only a climbing belt, provisions must be made to prevent the climber from slipping through it; this may include using a rope to create an upper-body support system. Consideration should be made to replacing climbing belts with a climbing harness. ( )

**02. Before Leaving the Ground.** Employers shall check climbing equipment and immediately remove defective equipment from service. Personnel shall ensure that hardware and safety equipment is securely fastened before placing weight on the lanyard or life-support rope. All climbing knots shall be tied, dressed, and set prior to ascending. All personnel shall follow the recommendations of the manufacturer of the cordage with respect to the use of splices. ( )

**03. Climbing Equipment.** ( )

**a.** A climbing harness provides both pelvic and upper-body support, and may be a one (1)-piece, full-body harness, or any two (2)-piece design that meets industry standards. ( )

**b.** Climbing and life-support lines shall be conspicuous and easily identifiable. ( )

**c.** All lines and webbing used for life support shall have a minimum breaking strength of five thousand four hundred (5,400) pounds and may only be used for climbing. ( )

**d.** When a cutting tool is used in a tree, the climbing rope (lanyard) shall be a high-quality steel safety chain of three-sixteenths (3/16) inch size or larger, or a wire-core rope. ( )

**e.** A life-support rope evidencing excessive wear or damage or that has been subjected to a shock load

shall be removed from climbing service. ( )

**04. Climbing Operations.** ( )

**a.** Ensure climbers are appropriately well-trained in climbing and in the use of all equipment to carry out assigned tasks. ( )

**b.** While climbing operations are underway, co-workers and others on the ground shall stay clear of potential falling objects. If co-workers must work directly below a climber, the climber shall stop any activity in which objects could be dropped or dislodged until the area below is cleared. Climbers shall provide warning whenever any material may be likely to fall or is dropped deliberately. Unsecured equipment, rigging, or material shall not be left in the tree. ( )

**c.** Yarding activity must cease within reach of a tree or guylines of a tree where a climber is working. Machinery may operate in reach of the climber to hoist rigging into the tree. In such circumstance the following shall apply: ( )

**i.** A spotter shall be utilized and yarding operations shall be performed with extra caution; ( )

**ii.** The machine operator and the spotter shall give the task their undivided attention; ( )

**iii.** Equipment that is nearby and which may be noisy, such as power saws, tractors, or logging machines shall be shut down if the noise interferes with signal communications with the climber; and ( )

**iv.** Lines attached to a tree in which a climber is working shall not be moved except on a signal from the climber. ( )

**d.** Tree climbers shall use a three (3)-point climbing system whereby three (3) points of contact must be firmly in place on a secure surface before moving to another point. Along with hands and feet, other points on the body, such as a hooked knee, can be considered a point of contact if it can support the full body weight. Additionally, the places of support must be secure, and climbers should use care to void unsound branches or stubs as a contact point. A lanyard around the tree secured to the safety harness or climbing belt on both ends constitute two (2) points of contact. ( )

**e.** Climbing without being secured to the tree is prohibited, except in conifers, when in the judgment of a qualified climber, the density of branches growing from the stem make attaching the lanyard more hazardous than simply climbing the tree. In such instances, the climber shall evaluate the tree farther up, and use attachments when it is safe to do so. ( )

**05. Topping Trees.** Only an experienced climber with experience felling trees shall top a tree. Cutters shall not cut when wind or other conditions make doing so hazardous. Standard safe felling procedures shall apply, with the additional following requirements: ( )

**a.** A chainsaw with a bar short enough to make both the face-cut and backcut easily from one side shall be used. ( )

**b.** Cutters shall determine the felling direction and ensure there are no obstructions. Consideration shall be given to the fact that an impact could cause violent movement in the tree being topped where the climber is perched. ( )

**c.** A safety chain shall be wrapped around the tree just below the cut to prevent the tree from splitting or slabbing down inside the climbing rope. ( )

**d.** The cutter shall ensure he is comfortable, and avoid any awkward cutting position. ( )

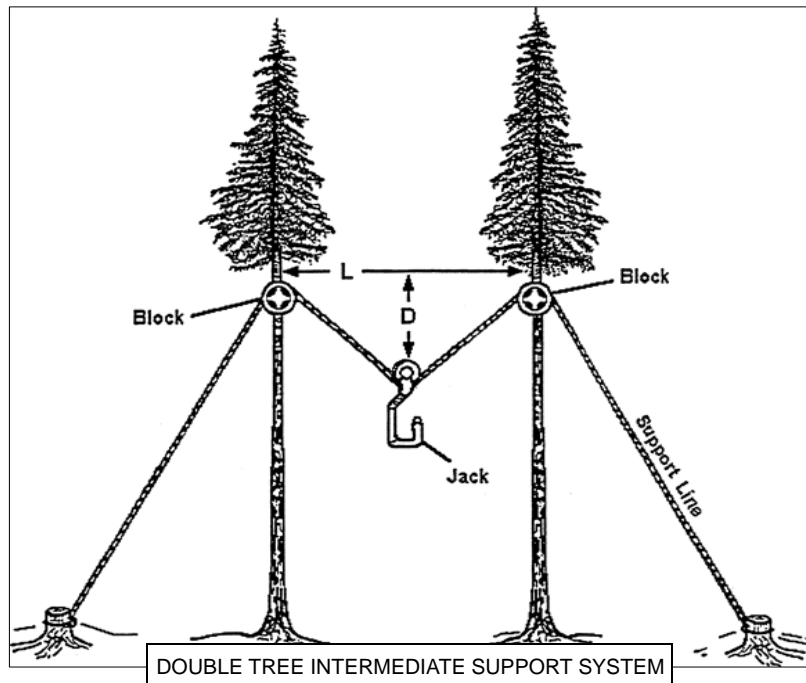
**e.** Exact cuts should be made. There is no escape route for the climber to get away from the stem to avoid kickback or a splintered hinge. When making horizontal side cuts, extra care shall be used to stay on the line of

the backcut to avoid wood breaking away with the saw as the top falls. ( )

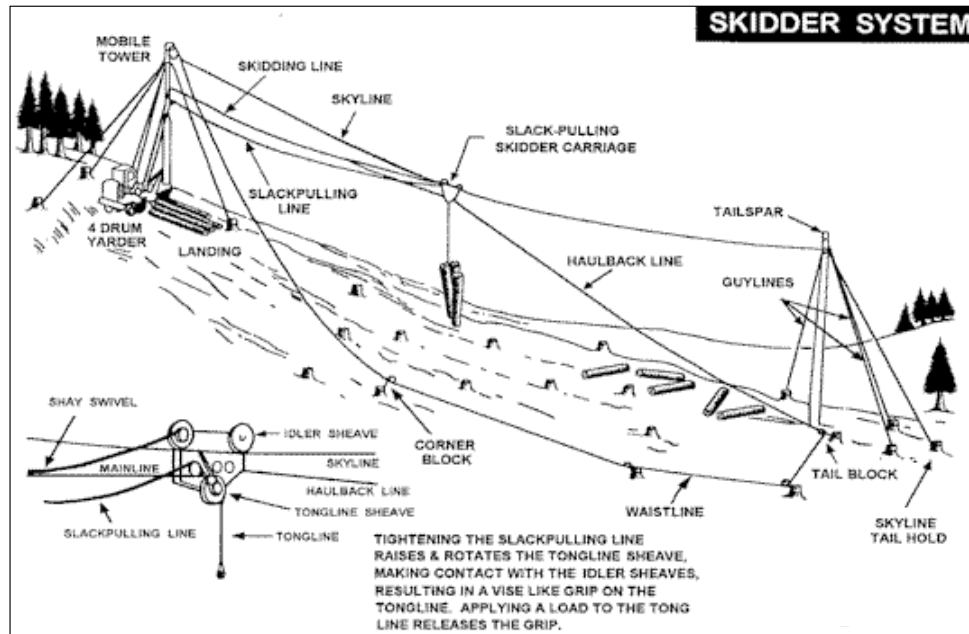
**015. TYPICAL RIGGING SYSTEMS.**

**01. See Figures 015.16-A through 015.16-H.**

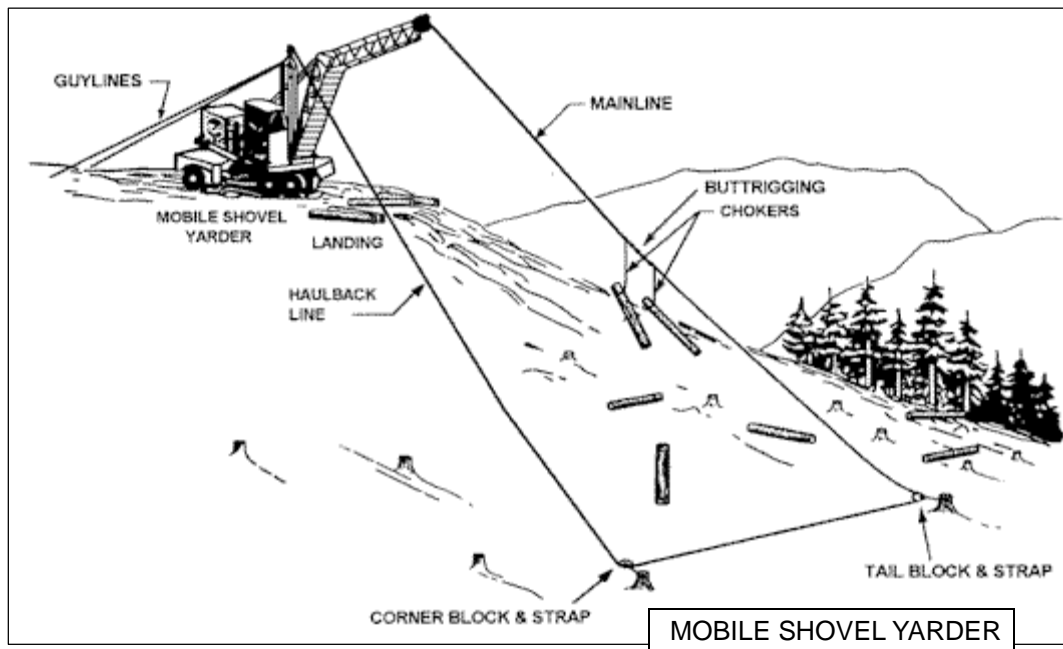
**FIGURE 015.16-A**



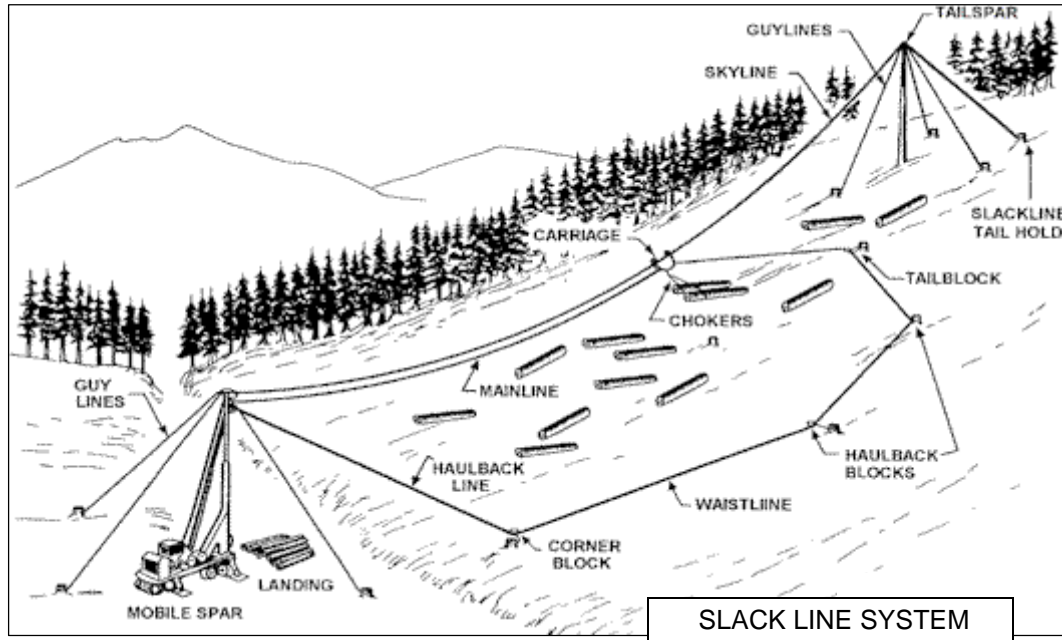
**FIGURE 015.16-B**



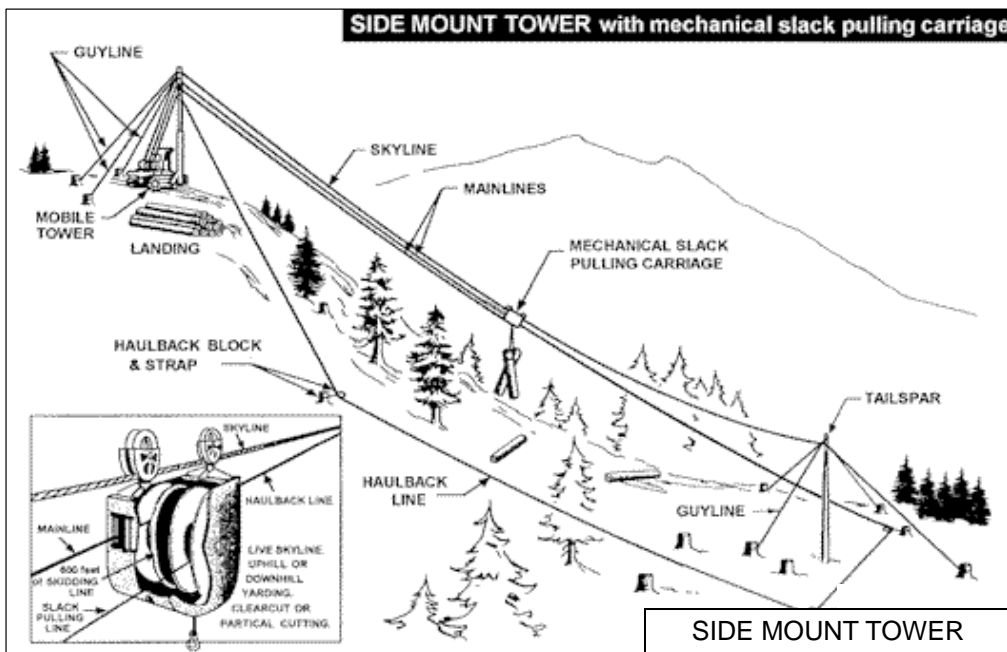
**FIGURE 015.16-C**



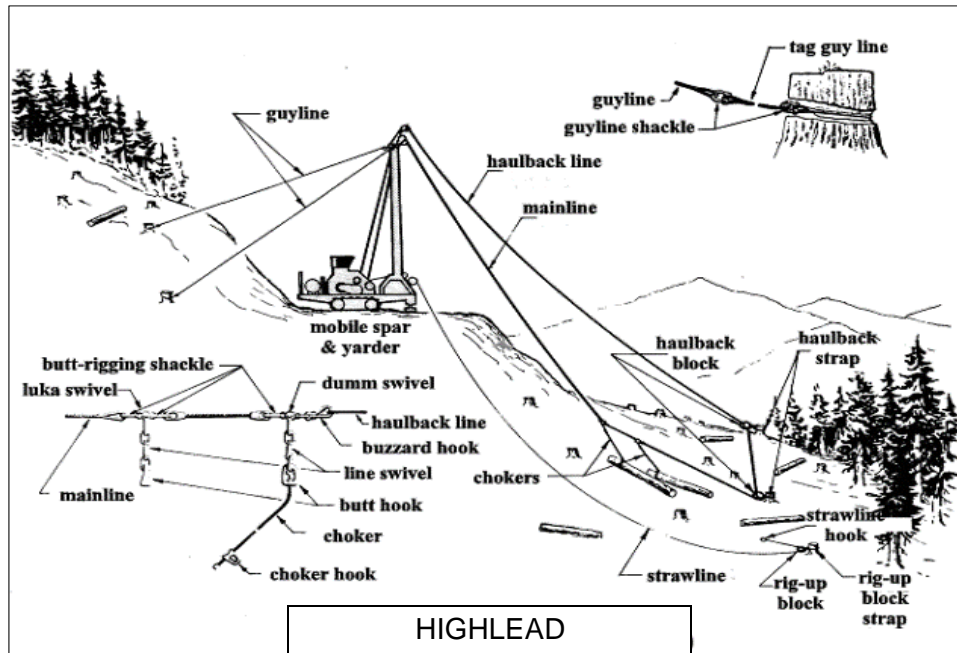
**FIGURE 015.16-D**



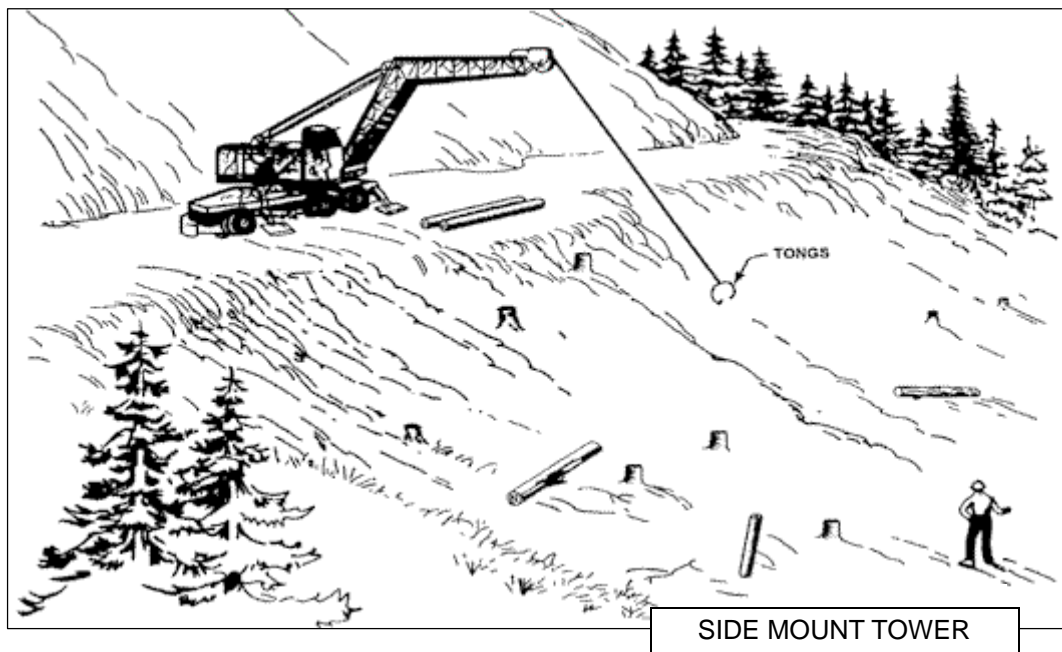
**FIGURE 015.16-E**



**FIGURE 015.16-F**

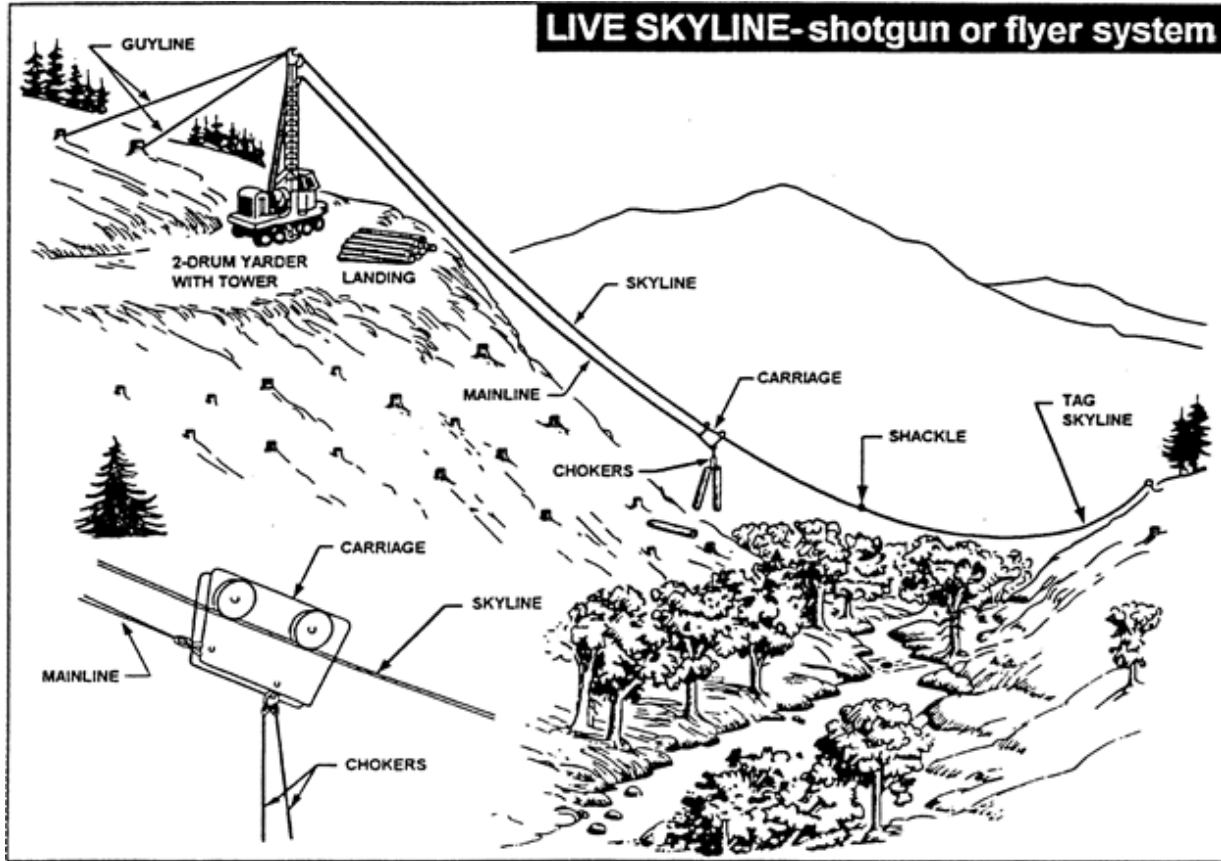


**FIGURE 015.16-G**





**FIGURE 015.16-H**



0176 -- 999. (RESERVED)

## **IDAPA 07 - DIVISION OF BUILDING SAFETY**

### **07.08.12 - IDAHO MINIMUM SAFETY STANDARDS AND PRACTICES FOR LOGGING - ROAD TRANSPORTATION**

**DOCKET NO. 07-0812-1601**

#### **NOTICE OF RULEMAKING - PROPOSED RULE**

**AUTHORITY:** In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has initiated proposed rulemaking procedures. The action is authorized pursuant to Section 67-2601A(3), Idaho Code.

**PUBLIC HEARING SCHEDULE:** Public hearing(s) concerning this rulemaking will be scheduled if requested in writing by twenty-five (25) persons, a political subdivision, or an agency, not later than October 19, 2016.

The hearing site(s) will be accessible to persons with disabilities. Requests for accommodation must be made not later than five (5) days prior to the hearing, to the agency address below.

**DESCRIPTIVE SUMMARY:** The following is a nontechnical explanation of the substance and purpose of the proposed rulemaking:

During the 2015 legislative session the authority to perform safety inspections and issue safety orders, as well as conduct safety training programs was statutorily transferred from the Idaho Industrial Commission to the Division of Building Safety. The minimum standards and practices for conducting logging operations in Idaho have not been substantively updated since their initial promulgation as administrative rules in 1997. Several of the provisions required updates to references, as well as minor editorial revisions to ensure clarity. Through the negotiated rulemaking process, the logging industry expressed support for the proposed amendments set forth in the rulemaking.

This rulemaking would clarify the proper reference to statutory and rule provisions which govern any appeals process of decisions by the Division related to logging safety matters. The rulemaking also makes minor editorial revisions to several references and other rule provisions related to safe logging truck transportation.

**FEE SUMMARY:** The following is a specific description of the fee or charge imposed or increased: N/A

**FISCAL IMPACT:** The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars (\$10,000) during the fiscal year resulting from this rulemaking: N/A

**NEGOTIATED RULEMAKING:** Pursuant to Section 67-5220(1), Idaho Code, negotiated rulemaking was conducted. The Notice of Intent to Promulgate Rules - Negotiated Rulemaking was published in the December 2, 2015 Idaho Administrative Bulletin under Docket No. 07-0800-1501, [Vol. 15-12, pages 1-2](#).

**INCORPORATION BY REFERENCE:** Pursuant to Section 67-5229(2)(a), Idaho Code, the following is a brief synopsis of why the materials cited are being incorporated by reference into this rule: N/A

**ASSISTANCE ON TECHNICAL QUESTIONS, SUBMISSION OF WRITTEN COMMENTS:** For assistance on technical questions concerning the proposed rule, contact Steve Keys, Deputy Administrator – Operations, at (208) 332-8986.

Anyone may submit written comments regarding this proposed rulemaking. All written comments must be directed to the undersigned and must be delivered on or before October 26, 2016.

DATED this 2nd day of September, 2016.

Steve Keys, Deputy Administrator – Operations  
Division of Building Safety  
1090 E. Watertower St., Ste. 150  
P. O. Box 83720  
Meridian, ID 83642  
Phone: (208) 332-8986 / Fax: (877) 810-2840

**THE FOLLOWING IS THE PROPOSED TEXT OF DOCKET NO. 07-0812-1601  
(Only Those Sections With Amendments Are Shown.)**

**000. LEGAL AUTHORITY.**

Pursuant to the provisions of Section 67-2601A, Idaho Code, the Division of Building Safety has the authority to promulgate and adopt *reasonable* rules for affecting the purposes *of the Workers' Compensation Act* therein.  
(7-1-97)( )

**(BREAK IN CONTINUITY OF SECTIONS)**

**003. ADMINISTRATIVE APPEALS.**

~~There are no provisions for administrative appeal of these rules.~~ The procedure for appeals in logging safety matters is prescribed by IDAPA 07.08.16, "Idaho Minimum Safety Standards and Practices for Logging – Recommended Safety Program," and Title 67, Chapter 52, Idaho Code.  
(7-1-97)( )

**004. INCORPORATION BY REFERENCE.**

There are no documents that have been incorporated by reference into these rules. ( )

**005. OFFICE – OFFICE HOURS – MAILING ADDRESS AND STREET ADDRESS.**

The principal place of business of the Division of Building Safety, Logging Safety Program, is at the Division office located at 1090 E. Watertower Street, Suite 150, Meridian, Idaho 83642. The Logging Safety Program may also be contacted at 1250 Ironwood Drive, Suite 220, Coeur d'Alene, Idaho 83814, and at 2055 Garrett Way, Suite 4, Pocatello, Idaho 83201. All locations are open from 8:00 a.m. to 5:00 p.m., except Saturday, Sunday and legal holidays. The telephone number of the office is (208) 334-3950. The facsimile number of the office is 1-877-810-2840. The Department website is <http://dbs.idaho.gov>. ( )

**006. PUBLIC RECORDS ACT COMPLIANCE.**

The rules contained herein have been promulgated according to the provisions of Title 67, Chapter 52, Idaho Code, and are public records. ( )

**0047. -- 008. (RESERVED)**

**009. DEFINITIONS.**

For definitions refer to IDAPA 07.08.01, "Idaho Minimum Safety Standards and Practices for Logging -- General Provisions," Section 007, and IDAPA 07.08.15, "Idaho Minimum Safety Standards and Practices for Logging – Commonly Used Logging Terms."  
(7-1-97)( )

**010. LOG TRUCK TRANSPORTATION.**

**01. General.** The following requirements are supplemental to any Idaho law governing automobiles, trucks, tractors, trailers, and any combination of these units. If there are any discrepancies in the codes between this section and ~~the any F~~ederal ~~and or~~ Idaho ~~motor~~ vehicle regulations pursuant to title 49, Idaho Code, applicable for in the state of Idaho, ~~the such federal of other~~ governmental regulations will govern (~~Idaho Code Title 49 Chapter 25~~).  
(7-1-97)( )

**02. Stopping and Holding Devices for Log Trucks.** (7-1-97)

**a.** Motor logging trucks and trailers must be equipped with brakes ~~and~~ or other control methods which will safely stop and hold the maximum load on the maximum grade. Air or vacuum brake lines shall be of the type intended for such use and shall have fittings which will not be interchangeable with water or other lines.

(7-1-97)( )

b. Brake Test - A brake test shall be made before and immediately after moving a vehicle. Any defects shall be eliminated before proceeding. (7-1-97)

**03. Lighting Equipment Required.** (7-1-97)

a. Motor vehicles used on roads not under the control of the ~~State Highway~~ **Idaho Transportation** Board, counties or cities, shall have equipment necessary for safe operation, such as head, tail, and stop lights. (7-1-97)( )

b. Such lights shall be used during clearance periods of reduced visibility. (7-1-97)

**04. Safe Operating Requirements.** (7-1-97)

a. The driver shall do everything reasonably possible to keep his truck under control at all times and shall not operate in excess of a speed at which he can stop the truck in one-half (1/2) the distance between him and the range of unobstructed vision. (7-1-97)

b. The driver shall take into consideration the condition of the roadway, weather factors, curves, grades and grade crossings, the mechanical condition of his equipment, and other ~~pertinent items~~ **relevant factors**. (7-1-97)( )

c. The driver shall clear rocks from between dual tires before driving on multi-lane roads. (7-1-97)

d. A daily inspection shall be made of trucks and trailers with particular attention to steering apparatus, brakes, boosters, brake hoses and connections, reaches, and couplings. Any defects found shall be corrected before equipment is used. (7-1-97)

**05. Stakes, Bunks, or Chock Blocks.** All stakes and bunks, installed on log trucks and trailers, together with the means provided for securing and locking the stakes in a hauling position, shall be designed and constructed of materials of such size and dimensions that ~~they~~ will withstand a pressure of fifteen thousand (15,000) pounds applied outward against the tops of the stakes, and, or extensions when used, without yield or permanent set resulting in the stakes, bunks or the means provided for securing and locking the stakes.

NOTE: Test Procedure - A test pressure of fifteen thousand (15,000) pounds is applied to the top of one (1) stake, using the top of the stake opposite as a base for applying pressure. Bunk is not to be secured to floor or other base except in a manner similar to that used to mount it to truck or trailer. Stakes must return to normal upright position at end of test and stakes and all component parts examined and checked with original specifications. If no yield results in any part, the design and construction may be considered as meeting code requirements. (7-1-97)( )

**06. Stake Extensions.** (7-1-97)

a. Stake extensions shall not be used unless all component parts of the bunking system are of sufficient size and strength to support the added stresses involved. (7-1-97)

b. Truck drivers shall report, ~~to the proper authority~~, missing or broken stake extensions **to the proper authority**. (7-1-97)( )

**07. Stake and Chock Tripping Mechanisms.** Stakes and chocks ~~which~~ **that** trip shall be constructed in such a manner that the tripping mechanism, which releases the stake or chocks, is activated at the opposite side of the load from the stake being tripped. (7-1-97)( )

**08. Linkage for Stakes or Chocks.** (7-1-97)

a. The linkage used to support the stakes or chock must be of adequate size and strength to withstand

the maximum imposed impact lead. (7-1-97)

b. "Molly Hogans" or cold shuts are prohibited in chains or cable used for linkage. (7-1-97)

**09. Notify Engineer When Around Truck.** (7-1-97)

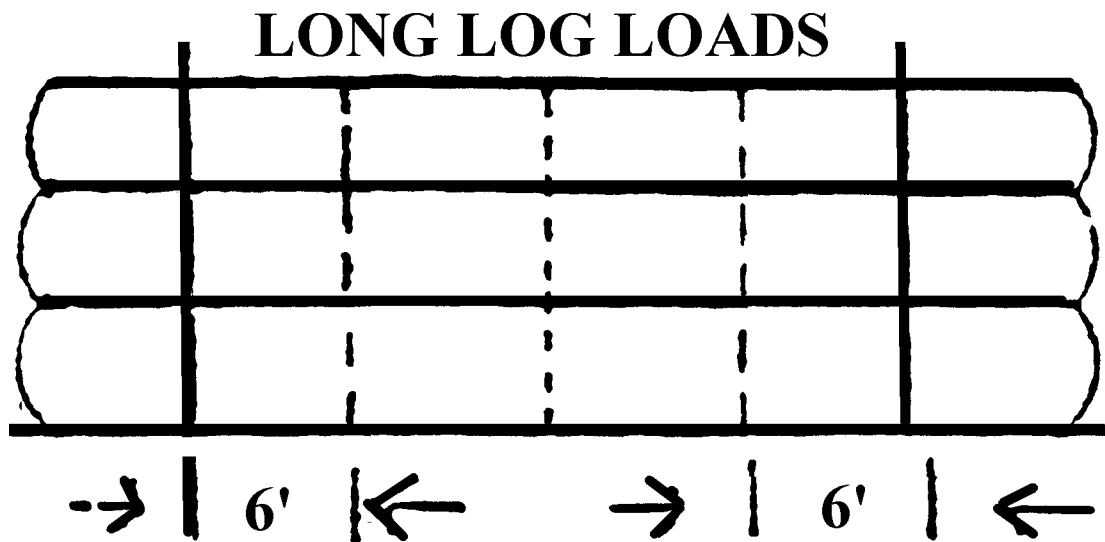
a. Persons shall not walk along side of or be underneath any truck being loaded. (7-1-97)

b. Prior to performing any duties, such as releasing bunk locks, placing or removing compensating pin, scaling logs, reading scale, chopping limbs or making connections, ~~they~~ persons shall notify the loading engineer of their intentions and be acknowledged. (7-1-97)( )

**10. Number of Wrappers Required.** (7-1-97)

a. Each unit used for hauling logs longer than twenty six (26) feet, shall have the load secured by a minimum of three (3) wrappers, one within six (6) feet of each bunk. See Figure 010.10-A.

**FIGURE 010.10-A**

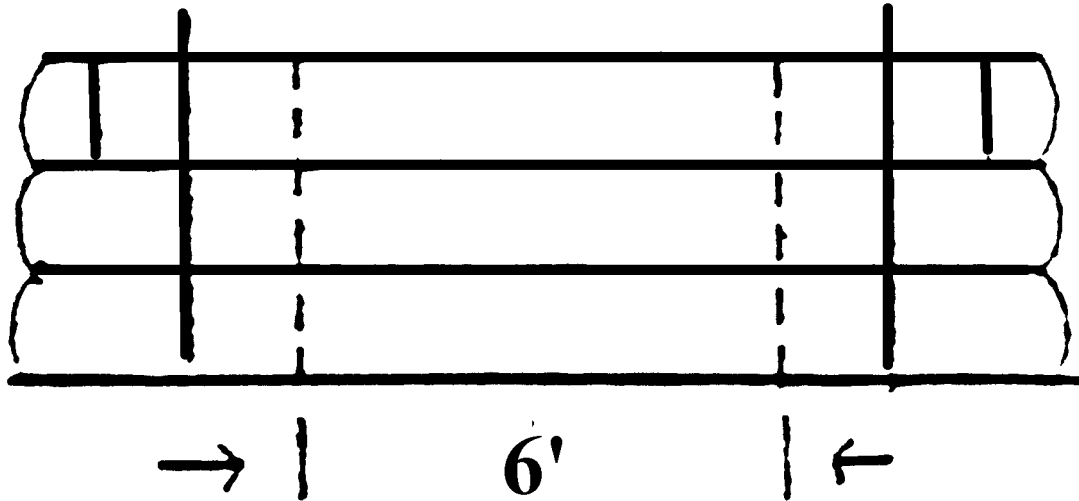


(7-1-97)

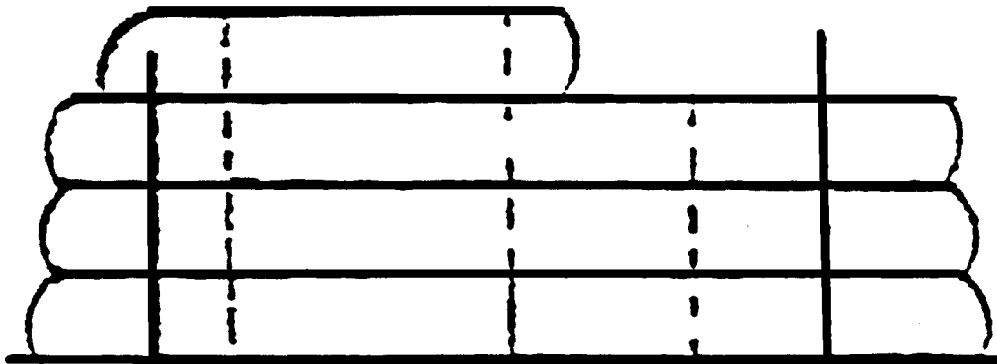
b. All exposed outside logs shall be secured by one (1) wrapper passing near each end of the log. See Figure 010.10-A.

**FIGURE 010.10-B**

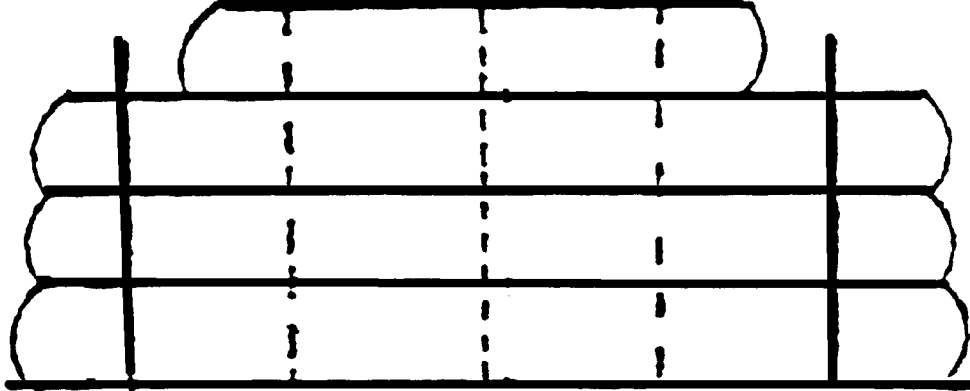
### SHORT LOG LOADS



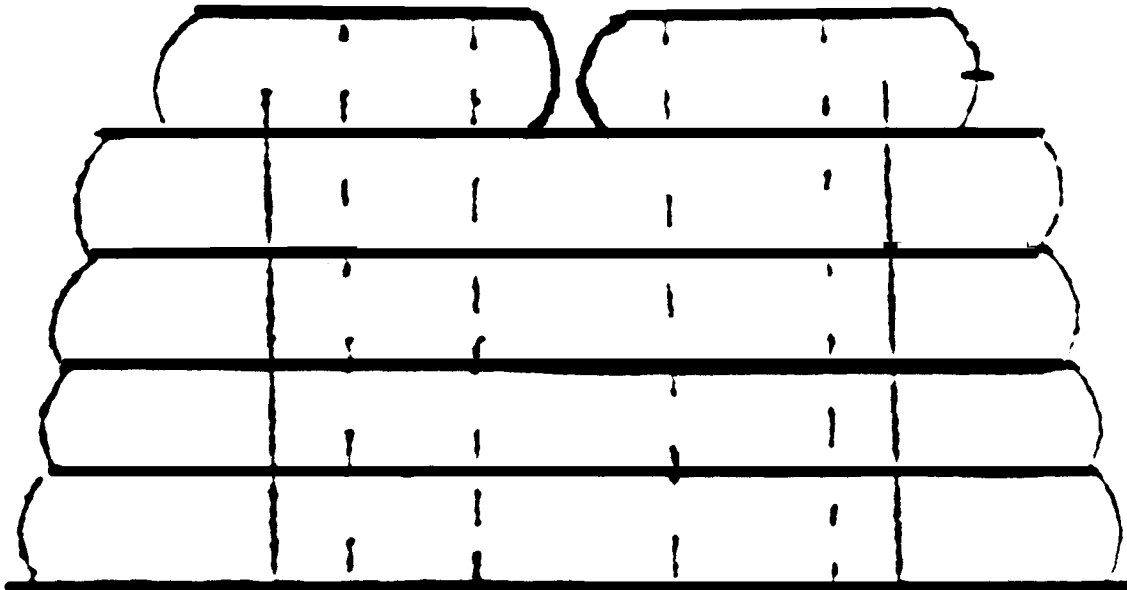
### LONG LOG LOAD WITH SHORT LOGS IN REAR OR IN FRONT



**LONG LOG LOAD WITH  
SHORT LOGS IN CENTER**



**LONG LOG LOAD WITH  
SHORT LOGS BUTTED**



(7-1-97)

c. On one (1) log load where trailer bunk is equipped with cheese blocks, one (1) wrapper securing log to the trailer bunk will be sufficient. Outside wrappers on short logs shall have a minimum of six (6) feet spread.

(See Figure 010.10-C.)

NOTE: High loads are defined as logs loaded above bunk stakes.

**FIGURE 010.10-C**



(7-1-97)

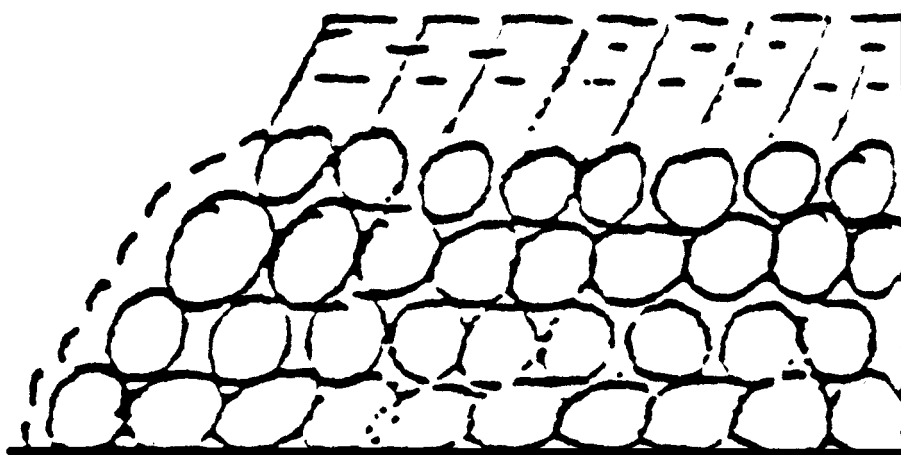
**11. Requirements for Crosswise Loaded Trucks.**

(7-1-97)

a. When loads of short logs are loaded crosswise, the logs shall be properly contained by use of stake or chock blocks and shall be secured by a minimum of two (2) wrappers. (See Figure 010.11-A.)

**FIGURE 010.11-A**

**CROSSWISE LOADED TRUCK**



(7-1-97)

b. Binders shall be securely fastened to the vehicle.

(7-1-97)

**12. Construction of Wrappers.**

(7-1-97)



- a. Cables shall have a spliced eye or swaged fittings. (7-1-97)
- b. "Molly Hogans" or cold shuts are prohibited to make splices or connections. (7-1-97)
- c. Wrappers shall have a minimum breaking strength of not less than thirteen thousand (13,000) pounds. (7-1-97)
- 13. Binder Placement Requirements.** (7-1-97)
  - a. Binders shall be placed in a manner whereby they will be released on the side opposite the brow log, or on the side where the unloading equipment operator can see the binders. (7-1-97)
  - b. Truck drivers shall be required to stop vehicles, dismount, check and tighten loose load binders, either just before or immediately after leaving a private road to enter the first public road they encounter. (7-1-97)
- 14. Precautions When Placing or Removing Binders and Wrappers.** (7-1-97)
  - a. Binders and wrappers shall remain on the load until an approved safeguard has been provided to prevent logs from rolling off the side of truck where binders are being released. (7-1-97)
  - b. At least one (1) wrapper shall remain secured while relocating or tightening other binders. (7-1-97)
- 15. Binders and Wrappers to Be Placed Before Leaving Landing Area.** Binders and wrappers shall be placed and tightened around the completed load before shifting the load for proper balance and a wrapper or wrappers shall be placed and secured to hold the load in place before the truck is moved from the landing area or of sight of the landing crew. (7-1-97)
- 16. Adequate Reaches Required.** (7-1-97)
  - a. Log trailers must be connected to tractors by reaches of a size and strength to withstand all imposed stresses. (7-1-97)
  - b. Spliced reaches shall not be used. (7-1-97)
  - c. Documented reach inspections shall be performed annually. ( )
- 17. Proper Lay of Logs in Stakes or Bunks.** (7-1-97)
  - a. The method of loading shall be such that the logs in any tier or layer unsecured by stakes or cheese blocks shall have their centers inside of the centers of the outer logs of the next lower tier or layer so that the load is stable without the aid of binders. (7-1-97)
  - b. Logs shall be well saddled without crowding so that there will be no excessive strain on the wrappers or stakes. (7-1-97)
  - c. No more than one half (1/2) of any log shall extend above the stakes unless properly and securely saddled. (7-1-97)
  - d. Bunk logs shall extend not less than twelve (12) inches beyond the bunk, with the exception of non-oscillating bunks. ( )
- 18. Traffic Travel on Right Side of Road Except Where Posted.** All trucks shall keep to the right side of the road. ~~(E, except where road is plainly and adequately posted for left side traveling.)~~ (7-1-97)( )
- 19. Towing of Trucks.** When trucks must be towed on any road, the person guiding the vehicle being towed shall, by prearranged signals, govern the speed of travel. (7-1-97)

**20. Scaling and Branding.** When at the dump or reload and where logs are scaled or branded on the truck, the logs shall be scaled or branded before the wrappers are released. (7-1-97)

**21. Metal Parts Between Bunk and Cab to Be Covered.** Suitable material shall be used on treading surfaces between the bunk and cab to prevent persons from slipping on the metal parts. (7-1-97)( )

**22. Bunks to Be Kept in Good Condition and Repair.** (7-1-97)

**a.** Log bunks or any part of bunk assembly bent enough to cause bunks to bind shall be straightened. (7-1-97)

**b.** Bunks shall be sufficiently sharp to prevent logs from slipping. (7-1-97)

**23. Following Other Vehicles.** (7-1-97)

**a.** A vehicle not intending to pass shall not follow another vehicle closer than one hundred fifty (150) feet. (7-1-97)( )

**b.** Passing shall be done only when it can be done safely. The passing vehicle shall consider all factors which may be essential, such as condition of the roadway, width of the road, and distance of clear visibility ahead. (7-1-97)

**24. Reaches to Be Clamped When Towing Unloaded Trailer.** A positive means, in addition to the clamp, shall be installed on the reach of log truck trailers when the trailers are being towed without a load. (7-1-97)

**25. Inserting of Compensating Pin.** (7-1-97)

**a.** Persons shall never enter the area below suspended logs or trailers. (7-1-97)

**b.** At dumps where the load must remain suspended above the bunks until the truck is moved away and when the trailer is the type with a compensating pin in the reach, a device shall be installed which that will allow the trailer to be towed away from the danger area. (7-1-97)( )

**26. Safety Chains.** (7-1-97)

**a.** All trailers shall be secured with a safety chain, or chains, which connect the frame of the truck assembly to the trailer unit. (7-1-97)

**b.** The chains shall be capable of holding the trailer in line in case of failure of the hitch assembly. (7-1-97)

**011. STEERED TRAILERS.**

**01. Steered Trailers.** Steered trailers not controlled from the truck cab shall be designed, constructed, and operated as follows in accordance with this section. (7-1-97)( )

**a.** Secure seat. A secure seat with substantial foot rests shall be provided for the steerer at the rear of the bunk. Any arrangement that permits the steerer to ride in front of the bunk is prohibited. (7-1-97)

**b.** Unobstructed exit. The seat for the steerer shall be so arranged that the steerers have has an unobstructed exit from both sides and the rear. (7-1-97)( )

**c.** Bunk support. The bunk support shall be so constructed that the steerer has a clear view ahead at all times. (7-1-97)

**d.** Adequate means of communication. Adequate means of communication shall be provided between

the steerer and the truck driver. (7-1-97)

e. Eye protection and respirator. Eye protection and respirator shall be provided for the steerer. (7-1-97)

f. Fenders and splash plates. The trailer shall be equipped with fenders or splash plates to protect the steerer from mud and dust so far as possible. (7-1-97)

g. Lights. If used during a period of reduced visibility on roads not under the control of the [State Highway Idaho Transportation](#) Board, counties or cities, the trailer shall be equipped with head, tail and stop lights. (7-1-97)( )

**012. COMMON CARRIERS.**

**01. Responsibility.** It shall be the responsibility of the common carrier, and particularly the operator of the common carrier, upon entering the premises of any sawmill, woodworking or allied industry, to exercise all possible caution and to use all necessary safety devices and precautions to their fullest extent. (7-1-97)

**02. Audible and Visual Warning Devices.** (7-1-97)

a. All common carriers equipped with audible and visual warning devices shall activate such warning devices before entering a danger zone, and they shall remain activated as long as the carrier is moving in that zone. (7-1-97)

b. A danger zone shall be defined as an area where men or vehicles are working or normally work. (7-1-97)

**03. Train Operations.** When a train is operating on a plant railway system, the safety rules shall apply as outlined by the Association of American Railroads governing train, engine and transportation of employees. (7-1-97)( )