



ALL SPECIES

SPECIALTY ITEMS LADDER RAILS Seasoned & Surfaced Four Sides

132. Ladder Rails are customarily furnished in Douglas Fir, Western Hemlock and Coast Sitka Spruce as ordered, but when specified, any other species may be used under these rules.

Ladder Rails are well manufactured to sizes ordered and are practically straight, permitting only very light crook or bow in occasional pieces. Limitations on compression wood in these grades apply to the type that is readily identifiable by visual inspection. Ladder Rails are dried to a maximum of 15% moisture content. Grade descriptions are based on a piece 3" wide. The number of characteristics in wider or narrower pieces may vary accordingly.

There are three grades of Ladder Rails: "**V.G. LADDER RAILS**," "**F.G. or M.G. LADDER RAILS**" and "**LADDER RAIL STOCK**."

In addition to the following specific provisions for Ladder Rails, the appropriate provisions in all other paragraphs in the rules apply.

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132a. "V.G. LADDER RAILS"

Most pieces are entirely clear or have only minor or unimportant characteristics such as:

- Burls - less than $\frac{1}{2}$ " in diameter.
- Checks - small, one in any 3 lineal feet.
- Compression Wood - a streak $\frac{1}{2}$ " wide or equivalent, narrower streak.
- Pockets - very small, one in any 3 lineal ft.
- Rate of Growth - average 6 rings per inch.
- Slope of Grain - 1 in 12.
- Torn Grain - very light.

132b. "F.G. OR M.G. LADDER RAILS"

Pieces of this grade may be Vertical, Flat or Mixed Grain at shipper's option unless otherwise specified. Most pieces are clear or have only minor or unimportant characteristics such as:

- Burls - less than $\frac{1}{2}$ " in diameter.
- Checks - small, 1 in any 3 lineal feet.



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- Compression
- Wood - a streak $\frac{1}{2}$ " wide or equivalent, narrower streak
- Pockets - very small, 1 in any 3 lineal feet.
- Rate of Growth - average 6 rings per inch.
- Slope of Grain - 1 in 12.
- Torn Grain - very light.
- Knots - pin, sound and tight, less than $\frac{1}{2}$ " in diameter and located $\frac{1}{2}$ " or more from the edges are permitted on wide faces if not more frequent than 1 in any 3 lineal feet.

132c. "LADDER RAIL STOCK" (V.G., F.G. OR M.G.)

Pieces of this grade have one or more characteristics which are of size or number that the pieces are not of the "Ladder Rail" grade but are suitable for use in shorter components.

Characteristics or their equivalent smaller which may appear on pieces in this grade and their limiting provisions are:

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- Burls - less than $\frac{1}{2}$ " in diameter.
 - Checks - 2, 6" in any 3 lineal feet.
- Compression
- Wood - narrow streaks, with the aggregate not to exceed $\frac{1}{4}$ the volume of the piece.
- Heart Stain - firm.
- Pockets - small, 1 in any 3 lineal feet, or their equivalent smaller.
- Sap Stain - medium.
- Skips - very light on occasional pieces.
- Slope of Grain - 1 in 10.
- Splits - short in 5% of the pieces.
- Torn Grain - light.
- Knots - pin, sound and tight, less than $\frac{1}{2}$ " in diameter and located $\frac{1}{2}$ " or more from the edges are permitted on wide faces if not more frequent than 1 in any 3 lineal feet.
- Cutout - A 3" cutout is permissible in 10% of the shipment if the resultant pieces are 3' long or longer and meet the provisions of "**Ladder Rail Stock.**"



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GUTTER

133. Gutter is shipped in a number of patterns. Grade descriptions are based on a piece 4" x 5" - 20'. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece.

Must be watertight full length.

In addition to the following specific provisions applicable to Gutter, the appropriate provisions in all other paragraphs in the rules apply.

There are two grades of Gutter: "**CLEAR**" and "**SELECTED**."

133a. "CLEAR" GUTTER

Characteristics or their equivalent smaller which may appear on pieces in this grade and their limiting provisions are:

- Checks - medium, not through.
- Knots - 3 sound tight 1" or equivalent smaller.
- Pitch Streaks - medium.
- Pockets - 4 medium, none through.
- Skips - very light on exposed faces, hit & miss on other faces.

Stained Sapwood - medium.

Torn or Raised

- Grain - heavy.

133b. "SELECTED" GUTTER

Must be medium grain, free from defective hearts.

Characteristics and limiting provisions are:

- Checks - medium, not through.
- Knots - sound, intergrown and well scattered, approximately 1" in 3" widths to 1³/₄" in 5" widths.
- Spike Knots - equivalent.
- Pitch Streaks - large.
- Pockets - medium, none through.
- Skips - very light on exposed faces, hit & miss on other faces.

Stained Sapwood - medium.

Torn or

- Raised Grain - heavy.

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MAST, SPAR AND BOAT LUMBER

134. Mast, Spar and Boat Lumber F.G. and/or V.G. is well manufactured and F.O.H.C. Grade descriptions are based on a piece 8" x 12'.

In addition to the following specific provisions applicable to Mast, Spar and Boat Lumber, the appropriate provisions in all other paragraphs in the rules apply.

134a. "ONE TO TWO INCH"

Characteristics and limiting provisions are:

- Checks - 4 small.
- Pockets - 3 very small, none through.
- Rate of Growth - average 5 rings per inch.
- Sapwood - bright, 1/3 width or equivalent.
- Slope of Grain - 1 in 10.
- Splits - short, in 5% of the pieces.

And on reverse side:

- Pockets - pitch or bark - 4 small.
 - Knots - 2, sound and tight, small or equivalent pin.
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134b. "TWO AND ONE-FOURTH INCH AND THICKER"

Characteristics and limiting provisions on wide face and corresponding half of narrow faces are the following or equivalent:

- Checks - 6 small in 2¹/₄" thicknesses to 6 medium in 6" & thicker.
- Pockets - 3 small in 2¹/₄" thicknesses to 4 in 4" & thicker.
- Rate of Growth - average 5 rings per inch.
- Sapwood - bright, 1/3 width or equivalent.
- Slope of Grain - 1 in 10.
- Splits - short in 5% of pieces.

And on reverse side and corresponding half of narrow faces:

- Pockets - pitch or bark - 4 medium.
- Knots - 3, sound and tight, 1" in 2¹/₄" thicknesses to 2" in 12" thicknesses.



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FLITCHES FOR REMANUFACTURE

150. Flitches as specified in these grades are particularly valued for the percentage of cuttings which may be obtained for use in joinery and factory work.

150a. FACTORY FLITCHES

Irregularities such as spike knots, knots, large soft knots, loose knots, knot holes or wane on corners which can be entirely removed in the process of resawing, ripping and/or cross-cutting will be allowed, provided that irregularities as heretofore mentioned are located in the flitch in such a way that each clear cutting resulting will not be less than 2' long, after allowing not more than 20% waste in a flitch. In each flitch or board 12' and longer at least half of required cuttings shall be 7' and longer.

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150b. SHOP FLITCHES



Flitches of this grade give a lower return of clear cuttings than Factory Flitches, but will be satisfactory for use in many areas where clear cuttings of shorter length are required. Each flitch must produce, on remanufacture, a minimum of 60% of clear cuttings 2' and longer.





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MOULDING STOCK ALL THICKNESSES & WIDTHS

151. MOULDING STOCK (A)

Moulding Stock (A) is stock of a type suitable for ripping into strips 1" and wider, 10' and longer.

At least 2/3 of the area contains such rips of the grade permissible in standard Mouldings.

In 4/4 and 8/4 & thicker Moulding Stock the grade of each rip is determined from the best face.

In 5/4, 6/4 and 7/4 Moulding Stock the grade of each rip is determined from the poorest face.

Slope of grain is limited to 1 in 4 in 4/4 and 8/4 & thicker stock and 1 in 6 in 5/4, 6/4 & 7/4 stock.

Crook, regardless of the width of a piece, is limited to 1" in 10' and shorter pieces and 1¹/₂" in 11' and longer pieces.

Up to 10% of the footage of any item may be 6' to 9' in length, provided each piece contains 2/3 or more of full-length moulding rips.



Wane, stain, skips in dressing or other characteristics that will surface off in making mouldings of standard size are admissible in computing the percentage of rips.

In rough 4/4 Moulding Stock, up to 10% of the material may be less than 7/8" thick, provided 5/8" mouldings can be manufactured from the thinner stock.

Rough 5/4, 6/4 and 7/4 Moulding Stock shall be the same thickness as other grades of Selects (see Para. 820e).

Rough 8/4 Moulding Stock shall be the same thickness as other grades of Selects (see Para. 820e), except that 5% of the material may contain a minimum thickness of 1⁷/₈". Moulding Stock thinner than these minimums shall be included and tallied as of the next lower thickness.

Massed pitch, shake, unsound wood and wane may render a portion of a piece unusable as Moulding Stock. If these characteristics create a total loss of 10% or more of the area of the piece, the excess unusable portion shall be scaled off to the nearest square foot, and the scale-off shall be marked on the piece. Pieces containing less than 10% waste shall not be scaled off to raise the grade. Pieces requiring more than 50% scale-off are not permitted.



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151a. MOULDINGS

Standard Mouldings permit such characteristics as are acceptable in both interior and exterior trim. These may be light seasoning checks, very small pockets, light torn grain, pin-size and small knots, medium stain or a small amount of medium pitch. A serious combination of these is not admissible in any one piece. The number and extent of characteristics permitted varies as the area of the piece increases or diminishes.

On the basis of a 1" x 2" x 12', this grade will admit the following characteristics or the equivalent:

- 1) A small spot of torn grain and 1' of medium pitch, light skip in dressing on back; or
- 2) One pocket $\frac{1}{8}$ " x 2" or equivalent; or
- 3) Two pin knots or one small knot (knots may be increased in number on an equivalent basis as the size of the moulding increases, but may not be increased in size); or
- 4) One small seasoning check and a light snipe at one end; or
- 5) Medium stain covering $\frac{1}{3}$ the face in an occasional piece, or a greater area of lighter stain when not in combination with other characteristics.

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Characteristics that will not show when piece is laid are not given the same consideration as characteristics elsewhere.

In random length Mouldings, pieces requiring one cut not to exceed 4" of waste to eliminate a characteristic too serious to go in the grade are allowed in otherwise high line pieces. The cut must be more than 36" from each end of the piece. Not more than 10% of the cutting type is admissible in any one item.

Lengths shall be 3' to 20' in multiples of 1'. When random length shipments are ordered, no more than 15% under 8' in any one item and bundled separately shall be shipped. When shipments are ordered to be 6' and longer, no more than 10% under 8' is allowable in any one item.

- 1) Casing and Stop patterns 7' in length are considered long lengths when figuring percentage of shorts.
- 2) Cut to length window and door trim are graded as completely usable.

The above paragraphs also apply to all fingerjoined mouldings with the additional provision that medium stain is allowed. Patching and filling are allowed in Fingerjoined mouldings, providing a good paintable surface results.



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152. MOULDING STOCK (B)

Moulding Stock (B) shall consist of lumber suitable for ripping into moulding strips 1" and wider, 8' and longer.

Each piece contains not less than 50% of rips of the grade permissible (See Para.151a. for Grade Characteristics). Up to 15% of stock 6' to 7' may be included, provided each piece contains 50% or more of full length moulding rips. Wane, stained wood, skips in dressing, or other characteristics that will surface off in making mouldings of standard size are admissible in computing the percentage of obtainable rips.

In rough Moulding Stock, up to 10% of the material may be less than $\frac{7}{8}$ " thick, provided $\frac{5}{8}$ " mouldings can be manufactured from the thinner stock.



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WINDOW STOCK (WS) All Widths, up to 5" in thickness

153. Window Stock

There are five (5) grades of Window Stock: "Clear", "A", "B", "C" and "Select" Window Stock. These grades are designed to provide the window trade with a full width product where only cross-cutting is required for the manufacture of window components.

Window stock may be supplied green or dry, rough, surfaced or worked, vertical, flat or mixed grain as ordered.

Grades are based on the quality and percentage of cuttings available from each piece.

The poorer face shall determine the grade.

Size of Cuttings: cutting must be full width and 3' and longer.

153a. GRADE OF CUTTINGS

The cuttings of "Clear", "A", "B" and "C" window stock shall permit:

Checks - In dry stock: one - 4" per cutting - no limit if rough. If ordered unseasoned and/or rough - not limited

Mineral Streaks - 2 per cutting on the occasional piece

Rate of Growth - Average 6 rings per inch.

Slope of Grain - 1 in 8

Slough Knots - occasional piece may have one slough knot extending $\frac{1}{2}$ " into the wide face and not more than $\frac{1}{2}$ " deep in thickness.

Wane - $\frac{1}{2}$ " in thickness and width, full length on one corner only.

Warp - **Crook/Bow:** $\frac{1}{32}$ " for each 1' of length.
Twist: 1/2 of Crook/Bow allowance.

153b. "CLEAR" WINDOW STOCK (Clr-WS)

The entire length of the pieces in this grade shall conform to the grade of cuttings.

153c. "A" WINDOW STOCK (A-WS)

Pieces in this grade shall contain a minimum of 90% - 3' & longer cuttings.

153d. "B" WINDOW STOCK (B-WS)

Pieces in this grade shall contain a minimum of 70% - 3' & longer cuttings.

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153e. "C" WINDOW STOCK (C-WS)

Pieces in this grade shall contain a minimum of 50% - 3' and longer cuttings.

153f. "SELECT" WINDOW STOCK (Sel-WS)

This grade is of the quality for use where high appearance is not required and is more suitable for paint finishes.

Pieces in this grade shall contain a minimum of 70% - 3' & longer cuttings.

The cuttings of "SELECT" window stock shall permit:

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- Checks - In dry stock: one - 4" per cutting - no limit if rough. If ordered unseasoned and/or rough - not limited
 - Heart Stain - not limited.
 - Knots - sound and tight pin knots.
 - Mineral Streaks - not limited.
 - Pockets - very small
 - Rate of Growth - Average 4 rings per inch.
 - Sapstain - medium
 - Slope of Grain - 1 in 6
 - Slough Knots - occasional piece may have one slough knot extending $\frac{1}{2}$ " into the wide face and not more than $\frac{1}{2}$ " deep in thickness.
 - Wane - $\frac{1}{2}$ " in thickness and width, full length, on one corner only.
 - Warp - **Crook/Bow:** $\frac{1}{32}$ " for each 1 foot of length.
Twist: 1/2 of Crook/Bow allowance.

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**FACTORY LUMBER AND
DOOR STOCK**

154. Factory Lumber and Door Stock shall be measured for the percentage of cuttings which can be obtained with the grade work carried to each cutting piece.

In addition to the following specific provisions applicable to Factory Lumber, the appropriate provisions in all other paragraphs in the rules apply.

**155a. FACTORY LUMBER 1" & 2" SHOP
All Species (except WR Cedar)**

Nominal Thickness	Finished Thickness S2S	Nominal Widths
1" cut full size	$25/32"$ & $13/16"$	5" & wider
2"	$1^{25/32}"$	

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Lengths - 4' & longer. Not to exceed 25% 8' & shorter, in multiples of 1'.

Rough 6" & narrower shall not be more than $1/8"$ scant in width when dry; 8" & wider widths shall not be more than $1/4"$ scant when dry.

Size of Cuttings:

- a) $9^{1/4}"$ or wider, 18" or longer.
- b) 5" or wider, 3' or longer.
- c) If stock under 5" wide, cutting must be full width and 3' & longer.

155b. GRADE OF CUTTINGS

The grade is determined from the poorest face.

- a) Cuttings $9^{1/4}"$ or wider and 18" or longer shall be clear on both sides — bright sapwood admitted.
- b) All other cuttings other than sash shall have a face equal to "B and Better" Industrial.
- c) Sash cuttings as per Para. 157e.

Panel stock cuttings to be graded under (a) above and must be full to width ordered.

155c. SELECT SHOP

Each piece shall contain 70% or more of a) and/or b) cuttings.

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155d. NO. 1 SHOP

Each piece shall contain 50% to 70% of (a) and/or (b) cuttings.

155e. NO. 2 SHOP

Each piece shall contain 33¹/₃% to 50% of (a) and/or (b) cuttings.

155f. NO. 3 SHOP

No. 3 Shop shall be of factory lumber type admitting all pieces below the grade of No. 2 Shop that contain approximately 10% or more of mixed (a) &/or (b) cuttings and 30% or more of mixed sash cuttings or 50% of sash cuttings.

156. DOOR STOCK - 1³/₈" & THICKER

Sizes:	Nominal Thickness (Inches)	Finished Thickness S2S (Inches)	Lengths
	1 ³ / ₈ " cut full size	1 ⁵ / ₃₂ "	
	1 ⁵ / ₈ " cut full size	1 ¹³ / ₃₂ "	
	2" cut full size	1 ²⁵ / ₃₂ "	6' and longer -
	2 ¹ / ₂ " cut full size	2 ⁹ / ₃₂ "	Multiples of 1'
	3" cut full size	2 ³ / ₄ "	
	4" cut full size	3 ³ / ₄ "	

156a. Rough 4" to 6" widths shall not be more than 1/8" scant in width when dry; 8" and wider widths shall not be more than 1/4" scant when dry.

156b. DOOR CUTTINGS - Lengths and Widths

Stiles, for purposes of computing percentages of cuttings, shall be figured as 4" to 6" wide by 6'8" to 7'7", in multiples of 1" in length for 1³/₈" and 1⁵/₈" Door Stock and 6'9" to 8'1" for 2" & thicker Door Stock.

Top Rails, 4" to 6" wide and **Bottom Rails**, 8" to 12" wide, shall be figured in lengths from 23" to 37" in multiples of 1" for 1³/₈" and 1⁵/₈" Door Stock and 25" to 47" for 2" & thicker Door Stock.

Muntins shall be 4" to 6" wide and 3'6" to 4' in length.



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156c. In determining the percentage of door cuttings in $1\frac{3}{8}$ " & thicker stock, consideration must be given to the fact that stock is to be ripped full length before cross cutting, in such manner as will yield the highest grade and largest percentage of door cuttings, except in such cases where stock will yield a higher value by first being cross cut for rails. In instances where stock is cross cut for rails and some of the stock so obtained contains stiles and muntins or top rails, which can be obtained by ripping this cross cut stock, the door cuttings so obtained shall be figured in when determining percentages. Where cutout knots occur, the computation of cuttings shall commence 1" from nearest edge of knot. Imperfections, other than knots, which will machine out, are permissible. Door Stock shows on both sides, hence the grade is determined from the poorer face.

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157. GRADE OF CUTTINGS



157a. Three grades of Door Cuttings only shall be recognized, "**NO. 1 Cuttings**", "**NO. 2 Cuttings**" and "**NO. 3 Cuttings**". Cuttings shall be VG unless otherwise specified.



157b. "NO. 1 Cuttings" will admit 1 small pocket, not through. No. 1 Cuttings must average at least 8 rings to the inch. Light pink colour admitted. Slope of grain not to exceed 1 in 8.

157c. "NO. 2 Cuttings" cuttings must average at least 6 rings to the inch. Will admit firm Stained Wood and one of the following:

- a) Pocket** - 1 small, not through.
- b) Pockets** - 2 small, not through, in a stile if located within 20" of the ends.
- c) Checks** - 1 or more, none through, with a combined length of not more than 6".
- d) Torn Grain** - very light on one side of a piece.
- e) Pitch Streaks** - not pronounced, or light pitch.
- f) Slope of Grain** - not to exceed 1 in 8.



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157d. "NO 3 Cuttings" will permit Stained Wood and one of the following:

- a) Pocket - 1, 6", not through, for each 20" of length, or equivalent of seasoning checks.
- b) Pitch Steaks- medium.
- c) Torn Grain - light.
- d) Knot - 1 sound tight $\frac{5}{8}$ " per cutting.
- e) Pin Holes - a few scattered on one side.

157e. "Sash Cuttings" - No. 2 Cuttings and Better are $2\frac{1}{2}$ ", $3\frac{1}{2}$ " and $4\frac{1}{2}$ " wide by 28" and over in length.

158. GRADE OF PIECE FOR CUTTING

158a. "FACTORY SELECT"

Each piece shall contain 70% or more No. 1 Door Cuttings. Sizes and grades of cuttings admissible in any combination are as follows:



4" to 6" widths: any number of NO. 1 Stiles; 1 only NO. 1 Top Rail;
8" to 12" widths: any number of NO. 1 Stiles and/or Bottom Rails are allowed; 1, NO. 1 Top Rail may be included. In pieces requiring 3 Stiles to get the necessary percentage of cuttings, 1 - NO. 2 Stile is allowed. Muntins are not permitted in this grade.



158b. "NO. 1 SHOP" (DOOR STOCK)

- a) Any number of NO. 1 Stiles;
- b) Any number of NO. 1 Rails - 8" to 12" wide;
- c) 2 only, NO. 1 Muntins or Top Rails;
- d) 1 only, NO. 2 Stile. Each 4" to 6" piece in this grade must contain at least 1 Stile.

158c. "NO. 2 SHOP" (DOOR STOCK)

Each piece shall contain not less than 25% NO. 1 Door Cuttings, or 40% NO. 2 Door Cuttings, or 60% of NO. 3 Door Cuttings, or $33\frac{1}{3}$ % of NO. 1 and NO. 2 Door Cuttings combined.

Any combination of Stiles, Rails or Muntins is admissible except NO. 1 Top Rails shall be figured as NO. 2.

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158d. "NO. 3 SHOP" (DOOR STOCK) OR "SASH"

NO. 3 Shop shall be of factory lumber type admitting all pieces below the grade of NO. 2 Shop which contain approximately 10% or more of mixed Door Cuttings and 30% or more of mixed Sash Cuttings, or 50% of Sash Cuttings, or 40% NO. 3 Cuttings.

158e. "CUT DOOR STOCK" K.D.

Sizes: Cut to length and widths.

Nom. Thickness (Inches)	Finished Thickness S2S (Inches)
1 ³ / ₈ "	1 ⁵ / ₃₂ "
1 ⁵ / ₈ "	1 ¹³ / ₃₂ "
2"	1 ²⁵ / ₃₂ "

	Lengths	Widths
Stiles	6'7" to 8'1"	4" to 6"
Bottom Rails	23" to 48"	8" to 12"
Top Rails	23" to 48"	4" to 6"
Muntins	3'6" to 4'	4" to 6"

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Rough **4" to 6" widths** shall not be more than 1/8" scant in width when dry; **8" and wider** shall not be more than 1/4" scant when dry. Imperfections on face and edges that will dress, tenon or sand out are permitted.

Door Stock shows on two sides, therefore the grade must be determined from the poorer face.



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STILES, RAILS, TOP RAILS, NARROW LOCK RAILS AND MUNTINS

158f. "NO. 1" will permit:

- Torn Grain - very light.
- Pocket - 1, 3", not through thickness or into edge.

Note: - in Top and Narrow Lock Rails and Muntins no pitch pockets are permitted.

158g. "NO. 2" will permit:

- Torn Grain - very light.
- And one of the following or equivalent:
 - Stained Wood - light, not over 50% of one side of piece.
 - Checks - 1 or more, with a combined length of not over 8".
 - Pockets - 2, 4", none through thickness or into edge.
 - Pitch Streak - small, light.
 - Knots - 1 sound tight, not over $\frac{5}{8}$ " in diameter.

158h. "NO. 3" will permit:

- Torn Grain - light.
- And one of the following or equivalent:
 - Stained Wood - not limited.
 - Checks - 1 or more, with a combined length of not over 8".
 - Pockets - 2, none over 6" in length.
 - Pitch - light.
 - Knots - sound tight, none over 1".
 - Pin Holes - a few scattered on one side.



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ALTERNATE RULES FOR FACTORY LUMBER BOX LUMBER All Widths 4/4 & Thicker

159. Box lumber may be of any thickness, 4/4 and thicker. It is considered strictly Factory lumber graded for box cutting value, and no comparison with any Yard grade shall be made.

Shipments ordered "hit or miss" to larger than standard sizes will contain all stock that will surface cleanly to standard size.

On orders of special widths or thicknesses, all stock sawn for the orders will be shipped.

Docking for scale, or so-called "pencil trimming," is permissible if the scale-off is clearly indicated on each piece so trimmed.

The descriptions following are intended to define the low limits of the grades, and shipments of box lumber will generally be found to contain a large portion of stock of higher box cutting value.

Short Box includes lumber 12" to 48" long, inclusive, 3" & wider of NO. 4 Common grade and better.

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159a. "NO. 1 BOX"

Sound red knots up to 4" in diameter and medium black knots are admissible, and no limit is placed on the number appearing in any one piece.

Larger knots, knot holes, and other serious characteristics are permitted when the waste from these characteristics does not exceed 15% of the piece.

Other characteristics admissible in this grade are:

- a) Light to medium blue stain, over the entire face of one side or its equivalent on both sides;
 - b) Heavy blue stain, over not more than 25% of one side or its equivalent on both sides;
 - c) Light to medium pitch, evenly distributed throughout the piece;
 - d) Heavy pitch or massed pitch streaks, over not more than 15% of the area, in pieces of otherwise good quality.
 - e) Large seasoning checks, splits, heart shake, or a combination of these characteristics, over not more than 1/2 the length on one side or its equivalent on both sides, in pieces containing no other serious characteristics.
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- f) Wane, equivalent to 1/4 the width, 1/2 the thickness and 1/4 the length, if not in combination with other serious characteristics.
- g) Fine seasoning checks, full length of a piece or their equivalent in light heart shake, a few worm holes, heart pith, light skips in dressing, or medium red heart stain, in pieces of otherwise good quality.

A serious combination of the above characteristics is not admissible in any one piece.

159b. "NO. 2 BOX"

The characteristics found in this grade are heavy and massed pitch, rot, numerous worm holes and heavy stain. Other types contain excessive heart shake, splits and seasoning checks, heavy skips in dressing and all other characteristics too serious to go into NO. 1 Box. No one piece shall contain less than 75% sound wood of usable quality.





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SHOP LUMBER

160. Shop lumber is graded with reference to its use for sash and doors, or on the basis of characteristics affecting its use for general cut-up purposes, or on the basis of size of cutting. The grade of shop lumber is determined by the percentage of the area of each piece available in cuttings of specified or of given minimum sizes and qualities. Slope of grain is limited to 1 in 4 in all Shop grades.

Standard Shop Thicknesses

Nominal Thickness	Surfaced Thickness (S2S)
4/4	$\frac{3}{4}$ "
5/4	$1\frac{5}{32}$ "
6/4	$1\frac{13}{32}$ "
7/4	$1\frac{19}{32}$ "
8/4	$1\frac{13}{16}$ "
9/4	$2\frac{3}{32}$ "
10/4	$2\frac{3}{8}$ "
11/4	$2\frac{9}{16}$ "
12/4	$2\frac{3}{4}$ "
16/4	$3\frac{3}{4}$ "



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Surfaced Shop lumber may be up to $\frac{1}{64}$ " full in thickness and still be considered on size. No minus tolerance in thickness is allowed.

The grades of Factory lumber 5/4 and thicker are determined from the poorer side of the piece.

Massed pitch, shake, unsound wood and wane may render a portion of a piece unusable for millwork.

If these characteristics create a total loss of 5% or more of the area of the piece, the excess unusable portion shall be scaled off to the nearest square foot, and the scale-off shall be marked on the piece.

Pieces containing less than 5% waste shall not be scaled off to raise the grade. Pieces requiring more than 50% scale-off are not permitted.



ALL SPECIES

In determining the percentage of door cuttings in 5/4 & thicker Shop lumber, consideration must be given to the fact that usually pieces are to be ripped full length before cross cutting in such a manner as will yield the highest grade and largest percentage of door cuttings, subject to the following exceptions:

- a) In such cases where pieces will yield a higher value by first being cross cut for rails, and some of the stock so obtained contains stiles or muntins or top rails, which can be obtained by ripping this cross cut stock, the door cuttings so obtained shall be figured in when determining percentages.
- b) Pieces in which stiles only are computed for the required percentage may be cross cut first.

In 4/4 Shop, each cutting is figured without regard to whether the lumber will be ripped before cross-cutting.

5/4 & THICKER SHOP

160a. "FACTORY SELECT "(NO. 3 CLEAR)



Each piece of Factory Select contains 70% or more of NO. 1 Door Cuttings, except that pieces containing one NO. 1 stile, or two or more NO. 1 Door Cuttings will admit one No. 2 stile. Not over two muntins are included in any piece. No piece contains muntins only.



160b. "NO. 1 SHOP"

Each piece of NO. 1 Shop contains from 50% to 70% of No. 1 Door Cuttings, except that pieces containing one or more No. 1 Door Cuttings will admit one NO. 2 stile. Not over two muntins are included in any piece.

160c. "NO. 2 SHOP"

Each piece of No. 2 Shop contains one of the following percentages of Door Cuttings: 25% NO. 1 cuttings; 33¹/₃% mixed NO. 1 and NO. 2 cuttings; 40% NO. 2 cuttings.

160d. "NO. 3 SHOP"

The grade of No. 3 Shop 5/4 and thicker is Factory lumber type admitting all pieces below the grade of No. 2 Shop that contain not less than 30% of the area of any combination of the following cuttings: No. 1 and No. 2 door cuttings, sash cuttings, moulding rips, jamb and sill cuttings. Sash cuttings are of No. 1 quality.



ALL SPECIES

Moulding ribs are 2" and wider and 10' and longer. Jambs and sills are 5" and wider and 3' and longer and of No. 1 cutting quality on one face except that barely perceptible light brown stain is admitted.

The backs of jamb and sill cuttings may contain pin knots, seasoning checks, medium pitch pockets, light stain, medium pitch, skips in dressing and other characteristics of equivalent nature. No consideration is given to edge or end characteristics that will be removed in milling.

Not more than 5% of stock narrower than 5" is admissible in any shipment of No. 3 Shop.

161. 4/4 SHOP

6

161a. "FACTORY SELECT" (NO. 3 CLEAR)

The grade of 4/4 Factory Select is determined by the percentage in each piece of cuttings suitable for general millwork in the sizes and qualities hereinafter specified.

Cuttings are 9¹/₄" wide or wider and 18" long or longer; or 5" wide or wider and 3' long or longer.

Cuttings 9¹/₄" wide or wider and less than 3' in length are free from characteristics on both sides.

Cuttings 5" wide or wider and 3' long or longer will grade C Select, or better.

Each piece of 4/4 Factory Select contains 70% or more of any one cutting or combination of cuttings described in the foregoing rules.

161b. "NO. 1 SHOP"

The grade of 4/4 No. 1 Shop is determined by the percentage in each piece of cuttings suitable for general millwork in the sizes and qualities hereinafter specified.

Cuttings are 9¹/₄" wide or wider and 18" long or longer; or 4" wide or wider and 3' long or longer.

Cuttings 9¹/₄" wide or wider and less than 3' in length are free from characteristics on both sides.

Cuttings 4" wide or wider and 3' long or longer will grade C Select, or better.



ALL SPECIES

The grade of 4/4 NO. 1 Shop may be 4" and wider. Each piece contains from 50% to 70% of any one cutting or combination of cuttings of the quality described in the foregoing rules.

161c. "NO. 2 SHOP"

The grade of 4/4 NO. 2 Shop consists of Shop type of pieces which do not have the required percent of cuttings necessary for 4/4 NO. 1 Shop. This grade contains not less than 33¹/₃% of cuttings of the size and quality permissible in 4/4 NO. 1 Shop.

CUT SASH AND DOOR STOCK

162. All sash and door cuttings are graded from the poor side of the piece. "Cut Sash" and "Door Stock" shall be graded as completely usable.

Less consideration is given to edge or end characteristics that will surface off in milling than to defects elsewhere in the piece.

A deviation of bow or crook is permissible as shown for the following basic lengths:



Length	Bow or Crook
28" to 48"	1/32"
60"	1/16"
70"	3/32"
80" & longer	1/8"



Lengths falling between the basic lengths may have a proportionate amount of bow and crook on the same curvature.

Surfaced stock may be up to 1/64" full in thickness, but no minus tolerance is allowed. Width variation may be 1/8" over or 1/32" under the specified width.

Sash cuttings are 2¹/₂" & over in width by 28" & over in length.

162a. "SASH CUTTINGS"

"NO. 1" Sash Cuttings are free from characteristics on both sides, except that light brown stain or one barely perceptible bark or pitch blemish is admissible.

"NO. 2" Sash Cuttings proportioned to their size, will admit the same characteristics permitted in No. 2 cuttings of door stock.

162b. "DOOR CUTTINGS"

Two grades of door cuttings are recognized, "NO. 1" and "NO. 2".

ALL SPECIES

"NO. 1 Cuttings" are free from characteristics on both sides, except that light brown stain or one barely perceptible bark or pitch blemish is admissible.

"NO. 2 Cuttings" will admit any one of the following characteristics:

- a) A small knot of sound character not exceeding $\frac{5}{8}$ " in diameter.
- b) Light blue stain and/or medium brown stain.
- c) One bark pocket $\frac{1}{8}$ " by 1" in size or several when proportionately smaller or less pronounced.
- d) One or more small seasoning checks, the combined length not exceeding 8".
- e) One very small pitch pocket, showing on one side only.
- f) Light pitch or pitch streaks that do not form a pronounced defect.
- g) Slight skip or torn grain.

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162c. "CUTTING SIZES"

Stiles are 5" and 6" wide by from 6'8" to 7'6" long. They may be either NO. 1 or NO. 2 in quality.

Bottom rails are 9" and 10" wide by 2'4" to 3' long. They may be either NO. 1 or NO. 2 in quality.

Muntins are 5" and 6" wide by from 3'6" to 4' long. They may be either NO. 1 or NO. 2 in quality.

Top rails are 5" and 6" wide by from 2'4" to 3' long. They must be of NO. 1 quality, but are considered as NO. 2 cuttings.

In computing the area of door cuttings in Factory lumber 5/4 & thicker, the sizes listed below shall be used.

STILES	
5" x 6' 8"	- 2.78
5" x 6' 10"	- 2.85
5" x 7' 0"	- 2.92
5" x 7' 2"	- 2.99
5" x 7' 4"	- 3.06
5" x 7' 6"	- 3.13
6" x 6' 8"	- 3.33 - 3 ¹ / ₄

}

3

ALL SPECIES

6" x 6' 10"	- 3.42	}	3^{1/2}
6" x 7' 0"	- 3.50		
6" x 7' 2"	- 3.58		
6" x 7' 4"	- 3.67	}	3^{3/4}
6" x 7' 6"	- 3.75		

BOTTOM RAILS

9" x 2' 4"	- 1.75	}	1^{3/4}
9" x 2' 6"	- 1.875		
9" x 2' 8"	- 2.00	}	2
9" x 2' 10"	- 2.125		
9" x 3' 0"	- 2.25	-	2^{1/4}
10" x 2' 4"	- 1.94	}	2
10" x 2' 6"	- 2.08		
10" x 2' 8"	- 2.22	}	2^{1/4}
10" x 2' 10"	- 2.36		
10" x 3' 0"	- 2.50	-	2^{1/2}

MUNTINS

5" x 3' 6"	- 1.46	}	1^{1/2}
5" x 3' 8"	- 1.53		
5" x 3' 10"	- 1.60		
5" x 4' 0"	- 1.67	}	1^{3/4}
6" x 3' 6"	- 1.75		
6" x 3' 8"	- 1.83		
6" x 3' 10"	- 1.92	}	2
6" x 4' 0"	- 2.00		

TOP RAILS

5" x 2' 4"	- 0.97	}	1
5" x 2' 6"	- 1.04		
5" x 2' 8"	- 1.11		

ALL SPECIES

5" x 2' 10"	-	1.18	}	1¹/₄
5" x 3' 0"	-	1.25		
6" x 2' 4"	-	1.17		
6" x 2' 6"	-	1.25		
6" x 2' 8"	-	1.33		
6" x 2' 10"	-	1.42	}	1¹/₂
6" x 3' 0"	-	1.50		

CUT GRADES

163. "Cut grades" are used for cutting-up qualities only and are not to be confused either in quality or value with grades outlined elsewhere in this book.

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Cut grades are "**NO. 1**", "**NO. 2**" and "**NO. 3**" but generally marketed NO. 1 & NO. 2, or NO. 1, NO. 2 & NO. 3 together.

These grades will not permit shake in a cutting but will permit a small amount of light surface stain. Bright sap no defect.

Cuts are composed of units. One unit is 1" x 1' surface measure or the equivalent in square inches.

To determine the number of units in the White Pine cut grades, use the following table:

- For 91²/₃% (11/12) - Multiply surface measure by 11.
- 83¹/₃% (10/12) - Multiply surface measure by 10.
- 66²/₃% (8/12) - Multiply surface measure by 8.
- 50% (6/12) - Multiply surface measure by 6.
- 33¹/₃% (4/12) - Multiply surface measure by 4.

163a. "NO. 1 CUTS"

Used for pattern stock, sash, doors, panel work. Will admit:
 All thicknesses. Widths - 6" & wider. Lengths - 8' to 16' long.
 A board to come within this grade must be capable of being cut to contain one cutting of at least 36 units with each additional cutting to contain 28 units. The total of all the clear cutting units in each board to be at least 66²/₃% of the surface area.
 Cuttings to be not less than 6" in width. ¹/₈" sound knot allowed in cuttings - one knot per each 12 units.
 Will also admit clear 6" and 7" wide boards, 8' - 12' long, 91²/₃% clear, in not more than two cuttings, full width of the piece.



ALL SPECIES

163b. "NO. 2 CUTS"

Same as NO. 1 Cuts in smaller dimensions. Will admit:

All thicknesses. Widths - 6" & wider. Lengths - 8' to 16' long.

A board to come within this grade must be capable of being cut to contain one cutting of at least 28 units with each additional cutting to contain not less than 20 units. The total of all clear cutting units in each board to be at least 50% of the surface area. Cuttings to be not less than 5¹/₂" in width. ¹/₈" sound knot allowed in cuttings at the rate of one knot per each 12 units.

Will also admit pieces 6" and 7" wide, 8' to 12' long, 83¹/₃% clear in not more than two cuttings, full width of the piece.

163c. "NO. 3 CUTS"

Small pattern work, paint doors, sash and toy manufacturing stock. Will admit:

All thicknesses. Width - 5" & wider. Lengths - 6' to 16' long.

A board to come within this grade must be capable of being cut to contain one or more cuttings of at least 20 units. The total of all the clear cutting units in each board to be at least 33¹/₃% of the surface area. Cuttings to be not less than 5" wide. ¹/₈" sound knot allowed in cuttings at the rate of one knot per each 9 units.



PINE FURNITURE GRADES

**4/4 to 12/4 thickness, 4" & wider
4' to 16' lengths including not over 5% of 4' & 5'**

164. There are two grades for pine furniture available: "**NO. 1 FURNITURE**" and "**NO. 2 FURNITURE**". Furniture grade pine is selected stock having well distributed sound, completely intergrown red knots that will provide sound cuttings on a fixed percentage of the good face.

CUTTINGS - Characteristics and limiting provisions:

- Face:**
- a) One sound, completely intergrown red knot is required per cutting with a minimum of one for each 3 lineal feet of length.
 - b) One sound, tight, black knot up to ¹/₄" in diameter or equivalent smaller is allowed in cuttings 6 lineal feet or over in length.

⊕

ALL SPECIES

- c) Not permitted: black knots, pith, checks, shake, splits, warp, wane, pitch pockets, worm holes, rot, stain or other defects that seriously weaken the cutting.

Back: Sound, allowing no rot, shake, wane, unsound knots, or other defects that seriously weaken the cutting.

164a. "NO. 1 FURNITURE"

Minimum sizes of cuttings are 4" x 2' or 3" x 3'.

The allowable number of cuttings is calculated by adding 1 to the surface measure of the piece, dividing by 3, and dropping any fraction:

Surface Measure	Number of Cuttings
2' - 4'	1
5' - 7'	2
8' - 10'	3
11' - 13'	4
14' & over	5

6

This grade requires sound cuttings of $66\frac{2}{3}\%$ or better on the face and $33\frac{1}{3}\%$ or better on the back of any piece.

Pieces producing 75% or better sound face cuttings are allowed one additional cutting.

164b. "NO. 2 FURNITURE"

Minimum size of cuttings is 3" x 2'. The allowable number of cuttings is calculated by dividing the surface measure of the piece by 2 and dropping any fractions:

Surface Measure	Number of Cuttings
2' - 3'	1
4' - 5'	2
6' - 7'	3
8' - 9'	4
10' - 11'	5
12' - 13'	6
14' & over	7

This grade requires sound cuttings of 50% or better on the face. Pieces producing $66\frac{2}{3}\%$ or better sound face are allowed 1 additional cutting.



ALL SPECIES

RAILWAY AND CAR MATERIAL GRADES

CAR FRAMING

1" to 2" thick

Unseasoned, V.G. &/or F.G.

170. There are two grades of 1" and 2" Car Framing:
"B & Better" and "C."

If A.D. or K.D. required, must be so specified. Grade descriptions based on a piece 6" wide & 12' long.

170b. "B & BETTER"

Characteristics and limiting provisions are:

Sapwood - bright, 1/3 of face unless K.D., A.D. or treated with anti-stain solution.

Torn Grain - very light.

With the above, one of the following or equivalent:

Checks - 3 small.

Pockets - 3 small, none through.

Knots - 3 sound intergrown pin.

If specified S2S, occasional light skips on back permitted.



170c. "C"

Characteristics and limiting provisions are:

Sapwood - stained, medium, 25% of face.

Torn Grain - light.

With the above, one of the following or equivalent:

Checks - small.

Pockets - 5 small.

Pitch Streak - small.

Knots - 3 sound tight, 1" or equivalent smaller.

If specified, S2S, occasional light skips on back permitted.

CAR FRAMING

2 1/2" & Thicker

Unseasoned, V.G. &/or F.G.

171. There are two grades of 2 1/2" & thicker Car Framing:
"B & Better" and "C."

If A.D. or K.D. required, must be so specified. Grade descriptions based on a piece 6" wide & 12' long.



ALL SPECIES

171b. "B & BETTER"

Characteristics and limiting provisions are:

Sapwood - bright, 1/3 of face unless K.D., A.D. or treated with anti-stain solution.

Torn Grain - light.

With the above, on face and corresponding half of edges, one of the following or equivalent:

Checks - 3 small.

Pockets - 3, 6" or equivalent smaller.

Knots - 3 sound tight small.

If specified S2S, occasional light skips on back permitted.

171c. "C"

Characteristics and limiting provisions are:

Sap Stain - medium, 25% of face.

Torn Grain - light.

With the above, on face and corresponding half of edges, one of the following or equivalent:

Checks - small.

Pitch Streak - medium.

Pockets - 5, 6" or equivalent smaller.

Knots - sound tight 3 - 1¹/₂" or equivalent smaller.

If specified S2S, occasional light skips on back permitted.

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CAR FRAMING Rough or Surfaced Under 7" in thickness

172. There are three grades of Car Framing:
"SELECT STRUCTURAL," "SELECTED" and "NO. 1."

172a. "SELECT STRUCTURAL"

Must be sound wood, close grain, free from wane.

Characteristics and limiting provisions are:

Checks - not limited.

Pockets - medium.

Sap Stain - medium, approximately 10% of face.

Skips - occasional, light on face and edges not opposite each other.

Slope of grain - 1 in 15.

Torn Grain - medium.



ALL SPECIES

- Knots - sound tight, not in clusters:
1" on **3"** & **4"** faces 1¹/₄" on a **6"** face
1¹/₂" on an **8"** face 1³/₄" on a **10"** face
2" on a **12"** face
Not over 2¹/₂" on **wider** faces.
- Spike Knots - equivalent.

172b. "SELECTED"

Must be sound wood, free from wane.

Characteristics and limiting provisions are:

- Checks - not limited.
- Pockets - medium.
- Sap Stain - medium, 25% of face.
- Skips - occasional, light on face & edges, not opposite each other.
- Torn Grain - medium.
- Knots - sound tight, not in clusters, approximately:
1" on **3"** and **4"** faces 1¹/₄" on a **6"** face
1¹/₂" on an **8"** face 1³/₄" on a **10"** face
2" on a **12"** face
Not over 2¹/₂" on **wider** faces.
- Spike Knots - equivalent.
- 
- 

172c. "NO. 1"

Must be sound wood.

Characteristics and limiting provisions are:

- Checks - not limited.
- Heart Stain - approximately 10% of face.
- Pockets - permitted.
- Sap Stain - medium.
- Skips - occasional, light on face & edges, not opposite each other.
- Splits - short.
- Torn Grain - not limited.
- Wane - 1/8 of any face for 1/4 length.
- Knots - sound tight, not in clusters:
1¹/₂" on **3"** & **4"** faces 1³/₄" on a **6"** face
2" on an **8"** face 2¹/₂" on a **10"** face
3" on a **12"** face
Not over 3¹/₂" on **wider** faces.
- Spike Knots - equivalent.



ALL SPECIES

CLEAR CAR DECKING Rough or Surfaced 1¹/₂" to 4" Thick, 4" to 12" Wide

173. There are two grades of Clear Car Decking:
"B & BETTER" and "C."
Surfaced sizes and patterns are subject to special contract.
Grade descriptions are based on a piece 1¹/₂" x 6" x 9'.

173b. "B & BETTER" V.G. AND/OR F.G. Characteristics and limiting provisions are:

Heart Stain - firm.
Sap Stain - light.
Torn Grain - light.

With the above, one of the following or equivalent:

Checks - 3 small, none through.
Pockets - 3 small or 1 medium, none through.

If specified S2S, occasional light skips on back permitted.

6



173c. "C," V.G. AND/OR F.G.

Characteristics and limiting provisions are:

Heart Stain - firm.
Skips - very light.
Sap Stain - medium.
Torn Grain - medium.

With the above, one of the following or equivalent:

Checks - small, allowing some 8", none through.
Pockets - 5 small, none through.
Knots - 4 small sound intergrown.

If specified S2S, occasional light skips on back permitted.

CAR DECKING AND GRAIN DOOR MATERIAL

174. There are two grades of common (Grain Tight) Car Decking
and Grain Door material, "SELECTED" and "NO. 1."
Surfaced sizes and patterns are subject to special contract.



ALL SPECIES

174a. "SELECTED" (Grain Tight)

Characteristics and limiting provisions are:

- Checks - not limited.
 - Pockets - medium, none through.
 - Skips - very light.
 - Stained Wood - not limited.
 - Torn Grain - medium.
 - Knots - sound intergrown, maximum 1¹/₂".
- If specified S2S, occasional light skips on back permitted.

174b. "NO. 1"

Characteristics and limiting provisions are:

- Checks - not limited.
 - Pockets - large, none through.
 - Skips - very light.
 - Stained Wood - not limited.
 - Torn Grain - heavy.
 - Knots - sound tight, approximately 1/3 width of piece.
- If specified S2S, occasional light skips on back permitted.
- 
- 

CAR LINING AND ROOFING V.G. and/or F.G.

175. There are three grades of Car Lining and Roofing:
"B & BETTER," "C" and "SELECTED."

If A.D. or K.D. required, must be so specified.

Grade descriptions are based on a piece 4" wide and 12' long.

175b. "B & BETTER"

Characteristics and limiting provisions are:

- Crook - ³/₄" in 4" widths, ⁵/₈" in 6" widths.
- Heart Stain - firm.
- Sap Stain - light.
- Torn Grain - light.

With the above, one of the following or equivalent:

- Checks - 4 small, none through.
- Pockets - 4 small, none through.
- Knots - 3 sound intergrown pin.

If specified S2S, occasional light skips on back permitted.



ALL SPECIES

175c. "C"

Characteristics and limiting provisions are:

- Crook - $\frac{3}{4}$ " in 4" widths, $\frac{5}{8}$ " in 6" widths.
- Heart Stain - firm.
- Skips - very light.
- Sap Stain - medium.
- Torn Grain - medium.

With the above, one of the following or equivalent:

- Checks - small.
- Pockets - 5 medium, none open through.
- Knots - 3 sound intergrown small, or equivalent pin.

If specified S2S, occasional light skips on back permitted.

6

175d. "SELECTED" (Grain Tight)

Characteristics and limiting provisions are:

- 
- 
- Checks - not limited.
 - Crook - $\frac{3}{4}$ " in 4" widths, $\frac{5}{8}$ " in 6" widths
 - Pockets - medium, none open through.
 - Skips - very light.
 - Stained Wood - not limited.
 - Torn Grain - not limited.
 - Knots - sound intergrown, approximately 1" in 4" widths,
 $1\frac{1}{2}$ " in 6" widths.

If specified S2S, occasional light skips on back permitted.



ALL SPECIES

HORIZONTAL CAR SHEATHING V.G. and/or F.G.

176. There are three grades of Horizontal Car Sheathing: **"B & BETTER," "C"** and **"SELECTED."**

If A.D. or K.D. required, must be so specified. Grade descriptions are based on a piece 2" x 6" x 18'.

176b. "B & BETTER"

Characteristics and limiting provisions are:

- Crook - $\frac{1}{2}$ ".
- Heart Stain - firm.
- Sap Stain - light.
- Torn Grain - light.

With the above, one of the following or equivalent:

- Checks - 5 small, none through.
- Pitch Streak - very small.
- Pockets - 5 small, none through.

On reverse side:

- 
- Pockets - slightly larger than above.
 - Knots - 2 sound intergrown small, if located away from edges.
- 

If specified S2S, occasional light skips on back permitted.

176c. "C"

Characteristics and limiting provisions are:

- Crook - $\frac{1}{2}$ ".
- Heart Stain - firm.
- Skips - very light.
- Sap Stain - medium.
- Torn Grain - medium.

With the above, one of the following or equivalent:

- Checks - small, none through.
- Pitch Streaks - 2 medium.
- Pockets - 8 small, none open through.
- Knots - 8 sound intergrown small.

If specified S2S, occasional light skips on back permitted.



ALL SPECIES

176d. "SELECTED" (Grain Tight)

Characteristics and limiting provisions are:

- Checks - not limited.
- Crook - $\frac{1}{2}$ ".
- Pockets - medium, none open through.
- Skips - very light.
- Stained Wood - not limited.
- Torn Grain - not limited.
- Knots - sound intergrown, approximately 1" in 4" widths,
 $1\frac{1}{2}$ " in 6" widths.

If specified S2S, occasional light skips on back permitted.

CAR SIDING V.G. and/or F.G

6

177. There are three grades of Car Siding: "B & BETTER," "C" and "SELECTED." Grade descriptions are based on a piece 1" x 4" x 9'.

177b. "B & BETTER"

Characteristics and limiting provisions are:

- 
- 
- Crook - $\frac{1}{2}$ " in 4" widths, $\frac{3}{8}$ " in 6" widths.
 - Heart Stain - firm.
 - Sap Stain - light.
 - Torn Grain - very light.

With the above, one of the following or equivalent:

- Checks - 3 small, none through.
- Pockets - 3 small, none through.
- Knots - 3 sound intergrown pin.

If specified S2S, occasional light skips on back permitted.

177c. "C"

Characteristics and limiting provisions are:

- Crook - $\frac{1}{2}$ " in 4" widths, $\frac{3}{8}$ " in 6" widths.
- Heart Stain - firm.
- Skips - very light.
- Sap Stain - medium.
- Torn Grain - light.

With the above, one of the following or equivalent:

- Checks - small, none through.
- Pockets - 5 small, none open through.
- Knots - 3 sound intergrown pin.

If specified S2S, occasional light skips on back permitted.



ALL SPECIES

177d. "SELECTED" (Grain Tight)

Characteristics and limiting provisions are:

- Checks - not limited.
- Crooks - $\frac{3}{4}$ " in 4" widths, $\frac{5}{8}$ " in 6" widths.
- Pockets - medium, none open through.
- Skips - very light.
- Stained Wood - not limited.
- Torn Grain - not limited.
- Knots - sound intergrown, approximately 1" in 4" widths, $1\frac{1}{2}$ " in 6" widths.

If specified S2S, occasional light skips on back permitted.

RUNNING BOARDS

V.G. and/or F.G.



178. There are two grades of Running Boards: "**B & BETTER**" and "**C**." If specified V.G., angle of grain is not more than 60° degrees from vertical.

Running Boards are usually shipped unseasoned. If A.D. or K.D. required, must be so specified.

Grade descriptions are based on a piece 6" wide and 12' long.

Running Boards ordered S1S are graded from the rough face.



178b. "B & BETTER"

Characteristics and limiting provisions are:

- Sapwood - bright, 25% of face, unless A.D., K.D. or treated with anti-stain solution.

With the above, one of the following or equivalent:

- Checks - 3 small.
- Pockets - 3 small.

178c. "C"

Characteristics and limiting provisions are:

- Heart Stain - firm.
- Sap Stain - medium.

With the above, one of the following or equivalent:

- Checks - 3 small.
- Pockets - 5 small.
- Knots - 3 sound tight 1", if located away from edges.



ALL SPECIES

SAWN RAILROAD TIES

179. There is only one grade of sawn railroad ties. NO. 1, NO. 2 and NO. 3 refer to use and these are predicated by the amount of wane permitted. Sizes and species may be specified by purchaser.

All ties shall be manufactured from sound, live, straight timber and are free from decay, unsound knots, shake, bark seams and worm holes, except pin worm holes (Ambrosia Beetle) and all other imperfections that would impair the strength or durability of the tie. Ties shall be clean peeled but an occasional strip of inner bark 1" wide & 10" long may be permitted. All four faces must be sawn and opposite faces parallel.

Characteristics and limiting provisions are:

- | | |
|------------|--|
| Bow | - $\frac{1}{2}$ " in 6" thicknesses, 1" in 7" thicknesses. |
| Crook | - 1" in 8" widths, $1\frac{1}{2}$ " in 9" widths. |
| Checks | - medium, not through. |
| Knots | - sound and tight, $\frac{1}{4}$ the width. |
| Pockets | - permitted. |
| Pith | - exposed heart not permitted in species other than Douglas Fir. |
| Tolerances | - 1" over in length and $\frac{1}{8}$ " under and $\frac{1}{2}$ " over in width and thickness. |
| Wane | - wane restrictions are applied 8" to 28" from either end. |

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Maximum on one edge $1\frac{1}{2}$ ".

NO. 1 Ties (7x9) minimum face of 7" is permitted if wane on one wide face only.

If wane on both wide faces, minimum face width 8".

NO. 2 Ties (6x8) minimum face of 6" is permitted if wane on one wide face only.

If wane on both wide faces, minimum face width 7".

NO. 3 Ties (6x8) minimum face 5" on one or both wide faces.

Flatted ties when ordered are covered by special contract.



ALL SPECIES

SCAFFOLD PLANK All Species (Except Cedar) 1¹/₄" & Thicker, 8" & Wider

180. Scaffold Plank is well manufactured.

The grade is determined from the poorer face.

Wide face knot sizes shall be determined from the face showing the largest knot dimensions. The resultant average of the maximum dimensions of the end section of the knot shall be used in determining the knot size.

The measurement of wide face knots overlapping an edge (3 face knot) shall be determined in accordance with Part 1 of the NLGA Interpretations – NGR Interpretations, Figure 5, 3 Face Knots.

Four face knots are not permitted in the grade of Scaffold Plank.

Narrow Face knots (spike) are permitted provided their cross-sectional area displacement does not exceed that of the knot size permitted for the wide face.

Narrow face knots shall not be spiked across the piece for more than one half the width.



Pieces containing spike knots in the same cross-section are not permitted in the grade of Scaffold Plank.

Knot Spacing: When two or more knots appear in the same cross-section, the combined total sum of their sizes &/or displacement must not exceed the specified knot size or displacement for that width of piece under consideration.

The term “**cross-section**” is defined as the area across the width of a piece equal to the diameter of the largest knot present. See: Part I of the NLGA Interpretations–NGR Interpretations, Figure 11 Knot Spacing.

Pieces are FOHC (side cut). See Para. 714(c).

There is only one grade: “**SELECT STRUCTURAL.**” The grade stamp identification for this grade is “**SEL SCAFFOLD.**”

In addition to the following specific provisions applicable to Scaffold Plank, the appropriate provisions in all other paragraphs in the rules apply.

ALL SPECIES

180a. "SELECT STRUCTURAL" - Scaffold Plank

Characteristics and their limiting provisions shall be:

- Checks - surface. If through at ends, equivalent to splits.
- Pitch Streaks - medium.
- Pockets - medium.
- Rate of Growth - close grain.
- Sap Stain - medium.
- Slope of Grain - 1 in 12.
- Splits - very short.
- Knots - sound, tight and well spaced, may be present in the following sizes:

On Wide Faces	Knot Size	On Wide Face	Knot Size
8"	1 ⁵ / ₈ "	12"	2 ³ / ₈ "
9"	1 ³ / ₄ "	14"	2 ¹ / ₂ "
10"	1 ⁷ / ₈ "	16"	2 ⁵ / ₈ "

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Chipped or sloughed knots on a wide face extending into or across a narrow face are permitted if not larger than 1" in size and if not through the thickness.

One wide face must be free of holes on the corners.



ALL SPECIES

STRUCTURAL LAMINATIONS Rough or Surfaced 2" & Thinner, 3" & Wider

181. The grades of Structural Laminations in this section are intended for use in members manufactured to CSA Standard CAN/CSA-0122-06, Structural Glued Laminated Timber. Structural laminations for use in members manufactured to U.S. specifications shall be graded under Para. 195.

181a. There are four grades of Structural laminations:

**"B.F. LAMINATING", "B LAMINATING", "C LAMINATING"
& "D LAMINATING".**

The following "General Requirements" apply to all laminating grades: Moisture content subject to special agreement.

Laminating stock must be of sound wood and shall be graded from the worst face and based on the full length of the piece.

When ordered surfaced, must be well manufactured.

Knots shall be measured between lines enclosing the knot and parallel to the edges of the wide faces. If two or more knots are in line, i.e., partially or completely enclosed by the same parallel lines and separated lengthwise by less than 8 inches, the effective width of the knots shall be the distance between two parallel lines which enclose the knots.

Two or more knots of maximum size will be permitted if they are separated in a lengthwise direction a distance, measured centre to centre of the knots, at least equal to the width of the piece.

When two or more knots appear in the same cross-section of a piece (opposite each other on a face or edge), the sum of their sizes shall not exceed the maximum permitted knot size.

Maximum Cup Permitted

Nominal Thickness (Inches)	Nominal Width - (Inches)		
	4" & less	6"	8" & wider
1"	1/32"	1/16"	1/8"
2"	None	1/32"	1/16"

181b. "B" LAMINATING

In addition to the General Requirements, the following provisions shall apply to Grade "B" Laminating:

ALL SPECIES

- Checks - approximately 1/4 the length.
- Crook - 1/4" in 12'.
- Cup - as per table in Para. 181.
- Machine Marks - occasional knife marks or machine burns permitted.
- Pitch Streaks - 1/8" wide, equal to the width of the piece.
- Pockets - 1/8" wide, equal to the width of the piece.
- Rate of Growth - close grain - Douglas Fir only.
- Shake - approximately 1/4 the length.
- Skips - hit or miss on narrow face, occasional roughness in dressing on wide face.
- Slope of Grain - 1 in 16.
- Splits - approximately 1/4 the length.
- Stained Wood - firm.
- Torn Grain - light on wide faces, heavy on edges.
- Wane - 3/16" may go through thickness.
- Twist or Bow - 1/2" in 12'.
- Worm Holes - pin, scattered; small, occasional.
- Knots - sound, tight, loose or knot holes approximately:

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Face Width	Size	Face Width	Size
4"	7/8"	10"	2 1/4"
6"	1 3/8"	12"	2 3/4"
8"	1 3/4"		

- Spike Knots - equivalent.

181bb. "B.F." LAMINATING

In addition to the requirements for "B" Laminating the following provisions shall apply for "B.F." Laminating; knots, knot holes and local deviations of slope of grain exceeding 1 in 16 shall not be permitted within one half inch of both edges of one wide face. This face shall also be free from torn grain.

181c. "C" LAMINATING

In addition to the General Requirements, the following provisions shall apply to Grade "C" Laminating:

- Checks - approximately 1/4 the length.
- Crook - 1/4" in 12'.
- Cup - as per table in Para. 181.
- Machine Marks - occasional knife marks or machine burns permitted.
- Pitch Streaks - 1/8" wide equal to the width of the piece.

SPECIFIED SPECIES

- Pockets - $\frac{1}{8}$ " wide equal to the width of the piece.
- Rate of Growth - medium - Douglas Fir only.
- Shake - approximately $\frac{1}{4}$ the length.
- Skips - hit or miss on narrow face, occasional roughness in dressing on wide face.
- Slope of Grain - 1 in 12.
- Splits - approximately $\frac{1}{4}$ the length.
- Stained Wood - firm.
- Torn Grain - light on wide faces, heavy on edges.
- Wane - $\frac{3}{16}$ " may go through thickness.
- Twist or Bow - $\frac{1}{2}$ " in 12'.
- Worm Holes - pin, scattered; small, occasional.
- Knots - sound, tight, loose or knot holes, approximately:

Face Width	Size	Face Width	Size
4"	$1\frac{1}{4}$ "	10"	$3\frac{5}{8}$ "
6"	$2\frac{1}{8}$ "	12"	$4\frac{3}{8}$ "
8"	$2\frac{3}{4}$ "		

- Spike Knots - equivalent.

181d. "D" LAMINATING

In addition to the General Requirements, the following provisions shall apply to Grade "D" Laminating:

- Checks - approximately $\frac{1}{4}$ the length.
- Crook - $\frac{1}{4}$ " in 12'.
- Cup - as per table in Para. 181.
- Machine Marks - occasional knife marks or machine burns permitted.
- Pitch Streaks - $\frac{1}{8}$ " wide equal to the width of the piece.
- Pockets - $\frac{1}{8}$ " wide equal to the width of the piece.
- Rate of Growth - medium - Douglas Fir only.
- Shake - approximately $\frac{1}{4}$ the length.
- Skips - hit or miss on narrow face, occasional roughness in dressing on wide face.
- Slope of Grain - 1 in 8.
- Splits - approximately $\frac{1}{4}$ the length.
- Stained Wood - firm.
- Torn Grain - light on wide faces, heavy on edges.
- Wane - $\frac{3}{16}$ " may go through thickness.
- Twist or Bow - $\frac{1}{2}$ " in 12'.
- Worm Holes - pin, scattered; small, occasional.

SPECIFIED SPECIES

Knots - sound, tight, loose or knot holes, approximately:

Face Width	Size	Face Width	Size
4"	1 ⁵ / ₈ "	10"	4 ¹ / ₂ "
6"	2 ⁵ / ₈ "	12"	5 ¹ / ₂ "
8"	3 ¹ / ₂ "		

Spike Knots - equivalent.

PICKETS

K.D. or Unseasoned

182. There are two grades of Pickets: "NO. 1" and "NO. 2."

Standard sizes of Pickets are:

1 ¹ / ₄ " square	- S4S to 1 ¹ / ₃₂ " x 1 ¹ / ₃₂ "
1 ¹ / ₂ " square	- S4S to 1 ⁹ / ₃₂ " x 1 ⁹ / ₃₂ "
1" x 3" flat	- S4S to 1 ¹¹ / ₁₆ " x 2 ¹ / ₂ "

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Grades are based on a piece 1" x 3" x 4'.

In addition to the following specific provisions applicable to Pickets, the appropriate provisions in all other paragraphs in the rules apply.

182b. "NO. 1" - PICKETS

Most pieces of this grade are entirely clear or have only a few minor and unimportant characteristics, such as:

- Checks - small.
- Skips - occasional very light.
- Torn Grain - light.
- Knots - 1 small, sound, tight or its equivalent.

182c. "NO. 2" - PICKETS

Pieces of this grade may have one or more characteristics which are of such size or number that the piece is not of "NO. 1" grade.

Pieces may contain characteristics which have no important effect on the utility of the piece, such as:

- Checks - not limited.
- Pin Holes - limited.
- Skips - light.
- Torn Grain - not limited.
- Knots - 2 approximately 1", or their equivalent.



SPECIFIED SPECIES

LATH 3 Pieces to Each 1" Thickness Widths - 1¹/₂" or 1⁵/₈"

183. Lath, unless otherwise specified, is shipped either dry or unseasoned at shipper's option. There are two grades of Lath: "NO. 1" and "NO. 2."

183b. "NO. 1" LATH

Pieces of this grade are entirely clear or may have one of the following or equivalent:

- Holes - pin limited.
- Pockets - small.
- Stained Wood - not limited.
- Knots - pin.

Pieces are uniformly manufactured with scantness in width in unseasoned pieces limited to ¹/₁₆" & seasoned pieces to ³/₃₂".

Dry pieces may be scant in thickness, but not more than ¹/₁₆" for three pieces.

All pieces are within ¹/₄" of full nominal length.



183c. "No. 2" LATH

Pieces of this grade are either so scant in size or contain characteristics of such number or size that they cannot be included in "No. 1" grade. Pieces may contain the following or equivalent:

- Holes - small.
- Pockets - not limited.
- Stained Wood - not limited.
- Wane - not through.
- Knots - not limited.

Pieces are not over ¹/₄" scant in width or ³/₄" scant in length. Each piece is at least ¹/₄" thick.

INDUSTRIAL WOOD LATH

184. There are three grades of lath: "NO. 1," "NO. 2" & "NO. 3." The lath grades in the species covered in these rules are intended for the manufacture of snow fence, base for plaster finish and for kiln strips. The lath is usually rough but may be dressed if specified.

Length - 32", 36", 42", 48", 60" or 72" as specified.

Thickness - ³/₈" or ¹/₂".

Width - 1¹/₂".

Other thicknesses, widths and lengths may be specified.

SPECIFIED SPECIES

184a. "NO. 1" WOOD LATH

- Knots - intergrown - $\frac{3}{4}$ ", one per 12" of length.
 $\frac{1}{4}$ " or smaller to be disregarded. No knots on edges.
- Pith - not permitted.
- Slope of Grain - 1 in 32.
- Variation in Size - Length: $\frac{1}{2}$ " short in 10% of shipment.
Width: $\frac{1}{8}$ " over - $\frac{3}{16}$ " under.
Thickness: $\frac{1}{16}$ " over - $\frac{3}{32}$ " under.
- Wane - $\frac{1}{3}$ thickness and $\frac{1}{3}$ width.
- White Speck - 15%.

184b. "NO. 2" WOOD LATH

- Holes - $\frac{1}{2}$ " per 2' of length.
- Knots - a) sound - 1" one per lineal foot.
b) not firmly fixed - $\frac{3}{4}$ " one per lineal foot.
- Pith - permitted.
- Slope of Grain - 1 in 20.
- Split - medium.
- Variation in Size - Length: $\frac{3}{4}$ " short in 20% of shipment.
Width: $\frac{3}{16}$ " over - $\frac{1}{4}$ " under.
Thickness: $\frac{1}{8}$ " over - $\frac{1}{8}$ " under.
- Wane - $\frac{1}{2}$ thickness and $\frac{1}{2}$ width.
- White Speck - 30 %.

184c. "NO. 3" WOOD LATH

- Variation in Size - **Length:** 2" short in 20% of shipment.
Width: $\frac{3}{8}$ " over or under.
Thickness: $\frac{1}{4}$ " over or under.
- Wane - $\frac{1}{2}$ the width and full thickness. Taper or wedges at one or both ends for 6" permitted provided length of lath is not reduced.

All characteristics which do not interfere with the use of the lath full length are permitted in this grade.

Note: Experience has shown that combination of heartwood and sapwood in a lath may cause excessive distortion. If there is no distortion, such combination is not considered a defect in the grading of lath.


SPECIFIED SPECIES

PIPE STAVE STOCK

(Douglas Fir)

Rough, Unseasoned, F.G. &/or V.G.

185. There is only one grade: “**PIPE STAVE STOCK.**” Pipe Stave Stock is well manufactured. Edges must not contain imperfections which will prevent a watertight joint when worked.

185a. “PIPE STAVE STOCK”

Characteristics which may appear on pieces in this grade and their limiting provisions are:

- Pockets - small, none through.
- Sapwood - bright, not more than half the thickness.
- Knots - sound tight, none through.

SILO STAVES

(Douglas Fir)

186. Silo Staves are used in the construction of silos for the curing and storage of ensilage. There are two grades of Silo Staves: “**CLEAR**” and “**SELECTED.**” Grade descriptions are based on a piece 6" wide by 12' long; lengths multiples of 1'. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece.

Silo staves shall be graded from the inside or narrow face as this is the use side. The outside, or wide face, can be approximately one grade lower.

Finished Seasoned	Finished Unseasoned Thickness	Finished Face Width Thickness
1 ⁵ / ₈ "	1 ⁵ / ₈ "	5" outside 4 ⁷ / ₈ " inside

186a. “CLEAR” SILO

Must be water tight full length of piece. Characteristics which may appear on pieces in this grade and their limiting provisions are:

- Sapwood - bright or medium stained - 1/2 the thickness from outside face.
- Torn Grain - medium.

With the above, one of the following or equivalent:

- Checks - none through.
- Crook - approximately 1/4" in 12'.



SPECIFIED SPECIES

Pitch Pockets - 4 small, none through.
Knots - 5 sound tight, small.

186b. "SELECTED" SILO

Must be water tight full length of piece.

Characteristics and limiting provisions are:

Checks - medium.
Crook - very light.
Heart Stain - firm - 25%.
Pockets - not exceeding 6" in length, none through.
Sapwood - bright or medium stained - 1/2 the thickness
from outside face.
Knots - sound tight, medium.

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SPECIFIED SPECIES

MINE GUIDES (Douglas Fir)

189. There are two grades of Mine Guides: “**CLEAR**” and “**SELECTED.**” Mine Guides shall be well manufactured, close grain, square edged, with a slope of grain not more than 1" in 12" (ie. 1 in 14).

In addition to the following specific provisions applicable to Mine Guides, the applicable provisions of all other paragraphs in the rules apply.

189a. “CLEAR”

Characteristics and limiting provisions are:

- Checks - single or opposite each other, with a sum total equal to approximately 1/4 the thickness.
 - Torn Grain - light.
 - Skips - occasional light.
 - Pitch Pockets - 4 medium based on 12 lineal feet.
- Shall be free from knots on the face and both edges.



189b. “SELECTED”

Characteristics and limiting provisions are:

- Stained Sapwood - not limited.
- Checks - medium.
 - Torn Grain - medium.
 - Skips - occasional medium.
 - Pitch Pockets - medium.
 - Pitch Streaks - not limited.
 - Knots - sound tight, well scattered approximately:
 - 1" in **3" & 4"** widths 1¹/₄" in **6"** width
 - 1¹/₂" in **8"** width 1³/₄" in **10"** width
- 



SPECIFIED SPECIES

CROSSARMS (Douglas Fir, Western Hemlock & Pacific Coast Yellow Cedar) Rough or Surfaced

190. There are two grades of crossarms: “**CLEAR**” and “**SELECTED**.” Rough stock must be sawn full to sizes ordered. Grade descriptions are based on 3" x 4" x 8' to 4" x 6" x 8' long. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece. The best narrow face shall be considered the top of the arm. Stock must be F.O.H.C.

190a. “CLEAR” CROSSARMS

Characteristics or their equivalent smaller which may appear on pieces in this grade and their limiting provisions are:

- 
- 
- | | |
|----------------|--|
| Checks | - small on top arm; medium on other faces. |
| Crook or Bow | - medium. |
| Pitch Streak | - medium. |
| Pin Holes | - scattered. |
| Pockets | - 4, small on top of arm; 5, medium on other faces. |
| Rate of Growth | - close grain. |
| Sap Stain | - medium. |
| Skips | - 1, light, approximately 12" long. |
| Slope of Grain | - not to exceed 1 in 12 although an occasional piece may have a slope of grain not to exceed 1 in 10. |
| Torn Grain | - medium. |
| Wane | - $1\frac{1}{4}$ " within 12" of the ends; centre of length $\frac{3}{4}$ " measured across the corner. |
| Knots | - 2 - 1" or equivalent smaller sound tight on top of arm, $\frac{3}{8}$ " or less not considered. 4 - $1\frac{1}{4}$ " or equivalent smaller, sound tight or not firmly fixed, well scattered, on other faces. |

Occasional pieces may have 1 additional knot and knots may be 25% larger.

Occasional cutouts permitted in pieces 13' and longer, provided resulting pieces 6' and longer meet the above specification. Limit of waste is 2 lineal feet.

Minor surface characteristics permitted, provided they do not exceed 1/3 size of permissible knots.

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SPECIFIED SPECIES

190b. "SELECTED" CROSSARMS

Characteristics or their equivalent smaller which may appear on pieces in this grade and their limiting provisions are:

- Checks - small on top of arm, medium on other faces.
- Crook or Bow - medium.
- Heart Centres - permitted if not more than $\frac{1}{8}$ " from any face.
- Pin Holes - scattered.
- Pitch Streaks - medium.
- Pockets - medium.
- Sap Stain - not limited.
- Skip - occasional, light.
- Slope of Grain - 1 in 12, occasional 1 in 10.
- Torn Grain - medium.
- Wane - $\frac{1\frac{1}{2}}$ " within 12" of the ends; centre of length $\frac{3}{4}$ "; measured across the corner.
- Knots - sound tight, approximately 1" in 4" to 6" widths; $\frac{1\frac{1}{4}}$ " in wider widths.
- Rate of Growth - medium grain.

10% of the pieces in the shipment may have cutouts 3' or more from either end, providing resulting pieces meet the above specifications. Limit of waste 1 lineal foot.





SPECIFIED SPECIES

TANK STOCK
(Douglas Fir, Western Red Cedar
& Pacific Coast Yellow Cedar)
Rough, Unseasoned, F.G. &/OR V.G.

191. Grade based on 6" x 12'. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece. Must be well manufactured and full sawn. Edges must be water tight when worked.

There are two grades: "Tank Stock - Two to Three Inch" and "Tank Stock - Four Inch and Thicker."

191a. "TANK STOCK - TWO INCH TO THREE INCH"

Characteristics or their equivalent smaller which may appear on pieces in this grade and their limiting provisions are:

- Checks - medium, none through.
 - Pockets - 2 small, none through.
 - Rate of Growth - 8 rings per inch.
 - Sapwood - bright, approximately 25% of the face and 1/2 the thickness.
 - Slope of Grain - 1 in 8.
 - Knots - 2, sound tight small, none through.
- One additional pocket &/or knot for each 2 additional inches in width.

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191b. "TANK STOCK - FOUR INCH AND THICKER"

Characteristics or their equivalent smaller which may appear on pieces in this grade and their limiting provisions are:

- Checks - medium, none through.
 - Pockets - 3 medium, none through.
 - Rate of Growth - 8 rings per inch.
 - Sapwood - bright, approximately 25% of the face and 1/2 the thickness.
 - Slope of Grain - 1 in 8.
 - Knots - 3 - sound and tight, 1" in 4" thickness to 4 - 2" in 12" thickness.
One additional pocket &/or knot for each 2 additional inches in width.
- Reverse side and corresponding half of narrow face may have:
- Pockets - 4 medium.
 - Knots - 4 - 1" in 4" thickness to 4 - 2" in 12" thickness.

SPECIFIED SPECIES

**STADIUM PLANK
(Pacific Coast Yellow Cedar)
1 1/4" & Thicker - 3" & Wider**

192. Stadium Plank is well manufactured. Except for strength determining factors, the pieces are graded from the best face and best edge and this should be so indicated; if air dried or kiln dried, moisture content covered by special contract.

In dry stock, blanked or run to pattern, loose knots, knot holes or their equivalent may be replaced by wood plugs. These plugs must not be larger than the permitted knot size and located only within the centre half of the width. Reasonable care should be taken in matching colour and grain. Some smaller defects may be filled with an approved filler.

If stock is to be used in areas of warm, humid climate, sapwood should be restricted to 10% by volume at buyer's request.

There are two grades: "**STADIUM PLANK SEATS**" and "**STADIUM PLANK WALK BOARDS.**"

192a. "STADIUM PLANK SEATS"

Characteristics and limiting provisions are:

- Checks - medium.
- Rate of Growth - close grain.
- Sap Stain - medium.
- Seams or Pockets - medium.
- Skips - light on reverse face and back edge.
- Splits - very short.
- Slope of Grain - 1 in 10.
- Torn or Raised Grain - light, heavy on reverse face and back edge.
- Knots - sound tight and well scattered.

On Narrow Face		On Wide Face	
Thickness	Knot Size	Width	Knot Size
1 1/4"		3"	1"
1 1/2"	1/2"	4"	1 1/4"
2"	3/4"	6"	1 1/2"
3"	1"	8"	1 7/8"
		10"	2 3/8"
		12"	2 3/4"
		14"	3"
		16"	3 1/4"



SPECIFIED SPECIES

STRUCTURAL LAMINATIONS (Douglas Fir) Rough or Surfaced 2" Net, or Thinner, When Surfaced 3" & Wider

195. STRUCTURAL LAMINATIONS

There are five grades of Douglas Fir used for laminating purposes: "L1" DENSE LAMINATING, "L1-c" LAMINATING, "L2-d" DENSE LAMINATING, "L2" LAMINATING, and "L3" LAMINATING.

The following general restrictions and limiting provisions apply to all grades and sizes of lumber used as individual laminations for structural glued laminated lumber.

Moisture Content - moisture content is subject to special agreement.

Knots - knots may be sound, unsound or not firmly fixed.

Knot

Measurement - a knot is measured by the area of the cross section it occupies.

Knot Spacing - a knot of the permitted size may be anywhere on the faces. Knots must be spaced in accordance with Para. 320.

Knot Holes - knot holes are interchangeable with knots in size and spacing. Other holes permitted if no more damaging in effect than the allowable knot hole.

Splits & Shake - splits and shake are permitted if extending from wide faces in the thickness at an angle of 45 degrees or more from the wide face.

Warp - crook or twist, light.

Torn Grain - medium torn grain. Spots of heavy torn grain around knot areas or equivalent.

Heart Stain - firm.

Checks - seasoning.

Pitch Pockets - medium, scattered.

Pitch Streaks - not exceeding 1/6 width.

Manufacture - shall be well manufactured.

Surfacing - edges may be hit or miss when ordered surfaced.

In addition to the following specific provisions applicable to lumber for laminating purposes, the appropriate provisions of all other paragraphs in the rules apply.

SPECIFIED SPECIES

**195aa. "L1" DENSE LAMINATING
2" Net, or Thinner, When Surfaced, 3" and Wider**

Characteristics and limiting provisions are:

- Stained Sapwood - light.
- Grain - dense.
- Slope of Grain - not to exceed 1 in 14 full length of piece.
- Knots -

Nominal Width	Knots, Sound, Unsound, Loose (Approximately)	Nominal Width	Knots, Sound, Unsound, Loose (Approximately)
4"	7/8"	10"	2 ³ / ₈ "
6"	1 ³ / ₈ "	12"	2 ⁷ / ₈ "
8"	1 ⁷ / ₈ "	14"	3 ³ / ₈ "

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- Spike & Narrow
- Face Knots - permitted if judged to have no more effect on strength than other knots.

**195a. "L1-c" LAMINATING
2" Net, or Thinner, When Surfaced. 3" & Wider**

Characteristics and limiting provisions are:

- Stained Sapwood - light.
- Grain - close.
- Slope of Grain - not to exceed 1 in 12 full length of piece.
- Knots - conform to provisions of Para. 195aa.

**195bb. "L2-d" DENSE LAMINATING
2" Net, or Thinner, When Surfaced. 3" & Wider**

Conforms to all the provisions of Para. 195b except that Dense material is required.

**195b. "L2" LAMINATING
2" Net, or Thinner, When Surfaced. 3" & Wider**

Characteristics and limiting provisions are:

- Stained Sapwood - medium.
- Grain - medium
- Slope of Grain - not to exceed 1 in 12 full length of piece.
- Wane - per purchaser's specifications.

SPECIFIED SPECIES

White Specks - firm. A combination of white speck and a knot in the same cross section shall occupy not more than 1/3 the width or equivalent.

Knots

Nominal Width	Knots, Sound, Unsound, Loose (Approximately)	Nominal Width	Knots, Sound, Unsound, Loose (Approximately)
4"	1 ¹ / ₈ "	10"	3 ¹ / ₈ "
6"	1 ⁷ / ₈ "	12"	3 ³ / ₄ "
8"	2 ³ / ₈ "	14"	4 ³ / ₈ "

Spike & Narrow

Face Knots - permitted if judged to have no more effect on strength than other knots.

195c. "L3" LAMINATING - STRUCTURAL LAMINATIONS 2" Net, or Thinner, When Surfaced. 3" & Wider

Characteristics and limiting provisions are:

Stained

Sapwood - medium.

Grain - medium.

Slope of Grain - not to exceed 1 in 8 full length of piece.

Wane - per purchaser's specifications.

White Specks - firm. A combination of white speck and a knot in the same cross section shall occupy not more than 1/2 the width or equivalent.

Knots

Nominal Width	Knots, Sound, Unsound, Loose (Approximately)	Nominal Width	Knots, Sound, Unsound, Loose (Approximately)
4"	1 ³ / ₄ "	10"	4 ⁵ / ₈ "
6"	2 ³ / ₄ "	12"	5 ⁵ / ₈ "
8"	3 ⁵ / ₈ "	14"	6 ⁵ / ₈ "

Spike & Narrow

Face Knots - permitted if judged to have no more effect on strength than other knots



SPECIFIED SPECIES

DENSE MATERIAL - in Douglas Fir averages approximately 6 or more annual rings per inch and, in addition, 1/3 or more summerwood on either one end or the other of a piece, measured as described in Para.350c. The contrast in colour between the summerwood and springwood must be distinct. Pieces averaging less than 6 annual rings per inch but not less than 4 are accepted as dense if averaging 1/2 or more summerwood.

STRUCTURAL LAMINATIONS (Hem-Fir)

**Rough or Surfaced
2" Net, or thinner, When Surfaced.
3" & Wider**

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There are three grades of Hem-Fir used for laminating purposes: "**L1**" LAMINATING, "**L2**" LAMINATING, and "**L3**" LAMINATING.



The general restrictions and limiting provisions for Douglas Fir Structural Laminations, Para. 195, apply also to Hem-Fir Structural Laminations.



H195a. "L1" LAMINATING

Characteristics and limiting provisions are:

Stained

Sapwood - light.

Grain - medium.

Slope of Grain - not to exceed 1 in 14 full length of the piece.

Knots - conform to Douglas Fir provisions, Para. 195aa.

H195b. "L2" LAMINATING

Graded under the provisions for Douglas Fir, Para.195b.

H195c. "L3" LAMINATING

Graded under the provisions for Douglas Fir, Para.195c.



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