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NUMBER **17***Standard***GRADING and
DRESSING RULES**

for

DOUGLAS FIR
WESTERN HEMLOCK
WESTERN RED CEDAR
SPRUCE-PINE-FIR SOUTH
AND OTHER SPECIES**LUMBER****Effective September 1, 1991****Revised September 1, 2018**

Superseding, canceling and annulling all previous rules of
the West Coast Lumber Inspection Bureau

**Approved by the Board of Directors of the
WEST COAST LUMBER INSPECTION BUREAU
AMERICAN LUMBER STANDARD SIZES AND GRADES**

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INTRODUCTION

1. The West Coast Lumber Inspection Bureau is an Oregon non-profit corporation. It is a service organization which functions for the convenience and protection of buyer, seller and consumer alike, and provides its services at approximate cost.

Bureau activities include publication and distribution of West Coast Grading Rules, supervision of the grading and manufacturing practices of subscriber plants, grade stamping of West Coast lumber with official Bureau stamps, certificate inspection of lumber shipments, reinspection of lumber in dispute at destination, and assistance to specification agencies, buyers and consumers of West Coast lumber products. The Bureau renders such services on request, but only on condition that those requesting and obtaining such services assume all liability arising out of or in connection therewith, including claims of third parties.

In the United States these rules apply to lumber species manufactured from timber grown in the West Coast region which includes the summit area of the Cascade Mountains and west to the Pacific Ocean in the states of Washington and Oregon, and in the entire state of California, and to those species of foreign origin specifically listed in these rules.

California redwood may be graded under the current grading rules of the Redwood Inspection Service. Ponderosa pine, Idaho white pine, Sugar pine, Lodgepole pine, Engelmann spruce and Western larch may be graded under the current grading rules of the Western Wood Products Association. Stock so graded under the supervision of West Coast Lumber Inspection Bureau shall be subject to reinspection by WCLIB at its current rates. Inclusion of the term "WWPA RULES" in the grade stamp indicates that the lumber was graded under WWPA rules. WCLIB grade stamps applied to redwood will include the word "REDWOOD" to indicate that the lumber was graded under RIS rules.

The purpose of West Coast grade stamps is to identify lumber to the consumer, in terms of intended use. References to use in these rules are only to general adaptability of the grade. West Coast grade stamps are applied only by a West Coast inspector, or at a licensed

operation where the grading practices are under the supervision of the West Coast Lumber Inspection Bureau.

The grade as stamped shall signify that the lumber conforms to the grade, size and seasoning provisions of these rules unless otherwise noted on the stamps.

Grade stamps applied to lumber surfaced to less than standard size shall show the size in the stamp.

Under these rules, grade stamping is restricted chiefly to yard grades of West Coast lumber, such as finish, paneling, casing, base, flooring, ceiling, siding, stepping, boards, dimension, decking and timbers, which are graded under current rules of the West Coast Lumber Inspection Bureau.

Grade stamps applied to boards and dimension lumber 4" and thinner, dried to 19% or less moisture content and surfaced to "DRY" sizes, shall include the designation "S-DRY" or "KD" in the stamps, or if dried to a maximum moisture content of 15%, the symbol "MC 15" or "KD 15" may be used. (See Para. 3d-f.)

Grade stamps applied to 4" and thinner framing lumber surfaced at a moisture content in excess of 19% shall include the designation "S-GRN."

West Coast yard grades are identified by letters, names or stress values in the center of the grade stamp. West Coast Lumber Inspection Bureau grade stamps also include the Bureau's registered symbol, inspector or mill identification, moisture content when applicable, and identification of species. Bureau grade stamps bearing the designation "WESTERN WOODS" are provided to identify a mixture of species. Design values are those for the lowest species or species group in the combination.

GRADE STAMPING OF "HEM-FIR"

The species combination "HEM-FIR" includes Western hemlock, Pacific silver fir, Noble fir, Grand fir, California red fir, and White fir. All of the species included in this group, singly or in combination, may be stamped "HEM-FIR." Manufacturers producing a single species of this group, or those who can separate individual species, verified by Bureau supervision, may identify the individual species.

INTRODUCTION

The design values shown in the tables, Para. 200, will apply. Non Dimension grades of Western hemlock may use the values shown for that species.

GRADE STAMPING OF "SPRUCE-PINE-FIR SOUTH"

The species combination "SPRUCE-PINE-FIR SOUTH" includes Sitka spruce, Engelmann spruce, Lodgepole pine, Balsam fir, Jack pine, Red pine, and Eastern spruces. Any one of these species or any combination may be grade stamped as "SPRUCE-PINE-FIR-SOUTH."

GRADE STAMPING OF "WESTERN WOODS"

The species combination "WESTERN WOODS" includes Douglas fir, Bigcone Douglas fir, Larch, Western hemlock, Pacific silver fir, Noble fir, Grand fir, California red fir, White fir, Mountain hemlock, Sitka spruce, Engelmann spruce, Subalpine fir, Idaho white pine, Ponderosa pine, Sugar pine, Jeffrey pine, Bishop pine, Coulter pine, Digger pine, Knobcone pine, Limber pine, Whitebark pine, and Lodgepole pine. Any one of these species or any combination may be grade stamped as "WESTERN WOODS."



Applied to lumber dried to 19% or less moisture content at time of surfacing. This moisture level qualifies the piece to be surfaced to the dry size, as denoted by the word "DRY" in the stamps.



Applied to lumber exceeding 19% moisture content at time of surfacing to standard surfaced green sizes.

1



Applied to stress graded lumber in boardsizes, showing dimension grade name and "SRB".



Applied to a mixture of species surfaced unseasoned.



Applied to No. 1 Douglas Fir dried to 19% maximum moisture content and surfaced to the standard dry size.

GRADE STAMPING OF “WESTERN CEDAR”

The species combination “WESTERN CEDAR” includes Western red cedar, Incense cedar, Port Orford cedar and Alaska cedar. Any one of these species or any combination of them sold as “WESTERN CEDAR” may be grade stamped with the designation “WESTERN CEDAR.” Any one of these species shipped separately may be marked with grade stamps showing that species. The combination values shown in the tables of Para. 200 shall apply, unless species specific values are listed.

GRADE STAMP ABBREVIATIONS

West Coast species and species combinations are shown in abbreviated form on the grade stamps. Examples of these abbreviations are:

<i>Species or Combination</i>	<i>Abbreviation</i>
Alaska Cedar	AK Ced
Austrian spruce	Aus.Spr
Douglas fir	DF
Douglas fir - Larch.....	DF-L
Hem-fir.....	HF
Mountain hemlock	MH
Norway spruce	N.Spr.
Port Orford Cedar	P.O. Ced.
Scots Pine.....	Scot.P or Sc.P.
Sitka spruce.....	SS
Spruce-Pine-Fir South.....	SPF-S
Western cedar.....	WC
Western hemlock.....	WH
Western red cedar.....	WRC
Western Woods.....	WW

Imported species include designation (I)

INSPECTION CERTIFICATE

1

A Bureau Certificate of Inspection is the buyer's assurance that the shipment involved has been carefully inspected by a qualified inspector who is regularly supervised for grading efficiency by the Bureau.

Bureau certificates are available to all producers whether subscribers to the Bureau or not, or users of West Coast species, in market as well as producing areas. Certificates can be furnished for West Coast grades and for any practical special specification if a copy of the specification is supplied. This service is performed at approximate cost.

The main objectives of the Bureau are to maintain uniform standards of lumber grading and manufacture, to promote the use of grade stamped lumber as assurance to buyer, seller and consumer that the interests of each are fully protected, and to assist in efficient distribution and use of West Coast lumber products.

Any lumber producer and remanufacturer operating in the areas served by the West Coast Lumber Inspection Bureau may subscribe to the Bureau.

Inspection and grading services of the Bureau are available to any producer, user, distributor or dealer handling West Coast lumber products.

The affairs and work of the Bureau are directed from the main office in Portland, Oregon. All reinspection requests are routed through the Portland office and are assigned to the proper field representatives.

Lumber which has been inspected by a Bureau authorized inspector may be identified in a Certificate of Inspection issued by the Bureau.

INSPECTION CERTIFICATE

A Bureau Certificate of Inspection is a document listing in detail the following items:

1

- (a) Name of shipping mill or place at which inspection was made.
- (b) Car number, or name of vessel, when available.
- (c) Name of Bureau Inspector or Certified Mill Inspector.
- (d) Description of material (species, sizes, lengths, applicable grades, tally of pieces, type or class of material).
- (e) Lot markings, hammer brands, paint daubs, or other means of identification.
- (f) Order numbers of buyer and seller (if necessary).
- (g) Certifying signature of Bureau Agent.

WEST COAST LUMBER INSPECTION BUREAU
GENERAL OFFICE

6980 S W Varns Road • Portland Oregon 97223
P.O. Box 23145 • Portland Oregon 97281-3145
BP-12345

INSPECTION CERTIFICATE

Issued at PORTLAND, OREGON, on Month X, YEAR. Inspected on Month X, YEAR. Lumber herein listed has been inspected and tallied under Grading and Dressing Rules 17 in accordance with the order and specifications furnished the Inspector(s) by the Shipper at time of inspection at plant of WEST COAST SAWMILL COMPANY, Portland, Or. by Bureau Inspector(s) Richard Roe Shipment made via SP 123456.

WEST COAST LUMBER INSPECTION BUREAU
GENERAL OFFICE

6980 S W Varns Road • Portland Oregon 97223
P.O. Box 23145 • Portland Oregon 97281-3145
OP-12345

INSPECTION CERTIFICATE

Issued at PORTLAND, OREGON, on Month X, YEAR. Inspected on Month X, YEAR. Lumber herein listed has been inspected and tallied under Grading and Dressing Rules 17 in accordance with the order and specifications furnished the Inspector(s) by the Shipper at time of inspection at plant of WEST COAST SAWMILL COMPANY, Portland, OR. by Inspector(s) John Doe who is (are) a qualified Inspector(s) who is (are) regularly supervised for grading efficiency by the WEST COAST LUMBER INSPECTION BUREAU. Shipment made via SP 123456.

ROUGH GREEN DOUGLAS FIR

CONSTRUCTION 122 - B

2x4 50/ 8 24/10 80/12 75/16 45/20 274 pcs. 2,466'

STANDARD 122 C

2x4 40/ 8 95/10 45/12 90/16 50/20 320 pcs. 2,833'

NO. 1 123 B

2x6 35/ 8 55/10 60/12 40/16 55/20 245 pcs. 3,290'

NO. 2 123 C

2x6 85/ 8 75/10 80/12 60/16 30/20 330 pcs. 3,950'

Total 1,169 pcs. 12,539'

CONSUMER ORDER NO.: 250 A

MILL ORDER NO.: 125

HAMMER BRAND: (XO)

This Certificate refers only to the form and condition of the material at the time of inspection.

West Coast Lumber Inspection Bureau

GENERAL GRADING PROVISIONS

2. Because they are the limiting factors, the natural characteristics of lumber are emphasized throughout these rules. At no time, in whatever grade, should the inherent and wonderful properties of wood be forgotten. Often less than one percent of the piece is made up of the “characteristics” so prominently mentioned. Rarely does the total exceed ten percent. The remaining wood has beauty or strength, or both, plus all the other qualities which have made lumber so tremendously useful for thousands of year.

Every tree, every log, every piece of lumber, has individual characteristics. Because of the wide variation in the raw material, an infinite number of grades could be developed. For convenience in distribution and merchandising, grades are limited to a few general classifications. These may be roughly described as appearance grades, construction grades, and combination grades which have both fine appearance and high construction qualities. There are some uses for lumber so limited in volume that a specific rule is not practical. These needs are filled by special agreement between buyer and seller. Use of basic grades wherever practical, however, will reduce the cost of both manufacture and distribution.

These general grading provisions apply to all paragraphs in these rules except as otherwise specifically provided.

2-a. A lumber grade is a grouping of pieces, all slightly different, with regard to the end use for which the grade was intended. The purpose of a grading rule is to describe as accurately as possible the pieces which may be accepted in specific grades. Each grade description lists major characteristics which may be accepted and usually limits them as to location, type, area, size or number. When characteristics are not listed, they are appraised in relation to the characteristics permitted or limitations prescribed for the grade under consideration and are allowed if judged by the inspector to be equivalent in effect to those listed.

The grade is determined by the number, size, type and position of knots, shake, wane or other visible characteristics. Each piece is considered and its grade determined by its general character, the sum of all its characteristics, and with reference to its suitability for the use for which the grade was designed.

GENERAL GRADING PROVISIONS

1

Basic dimensions are specified for some grades. Basic dimensions for flooring, for example, are one inch by four inches by 12 feet. These are what is called the “nominal” dimensions.

Whenever width or thickness is mentioned in these rules, reference is made to the nominal width or thickness unless otherwise specifically stated. The use of nominal sizes in these rules is for convenience and follows industry practice. No inference should be drawn that nominal sizes are actual size.

The number or size of the characteristics permitted in a grade vary as the area of the piece increases or decreases in relation to the basic dimensions.

Lumber grades are broad manufacturing categories, providing the extent and limitations of the characteristics permitted in the particular grade. Grades overlap, and pieces may be selected from a grade to comprise another grade. However, a specific shipment shall not be made up only of pieces containing characteristics of the maximum number or size permitted in the grade.

2-b. The inspection of lumber is the visual analysis, with regard to end-use, of each piece. As a result, a reasonable difference of opinion between inspectors is recognized. A parcel or shipment of lumber is considered on grade if on reinspection ninety-five percent (95%) or more is found to be of the grade specified. In mixed parcels or shipments, each grade and kind is considered separately.

The grade of lumber, as determined by the inspector, applies to the size, form, condition or degree of seasoning at time of original inspection; any subsequent change in the lumber must be disregarded in determining the accuracy of the original grade.

2-c. Dimension, framing, joists, timbers and similar items are graded for strength. Characteristics on all four sides are considered in relation to their effect on the strength of the piece. Other yard lumber, when rough or surfaced two sides, is graded from the face or best side. If surfaced one face only, it is graded from the surfaced face except when otherwise specified. The reverse face may have characteristics approximately one grade lower than the

face. Bright sapwood is not limited in any grade except as specifically provided. Discoloration through exposure to the elements is permitted in all construction grades.

2-d. Except in the case of such items as factory lumber, material supplied in accordance with these rules is not intended to be suitable for remanufacturing to smaller sizes.

2-e. Characteristics permitted and limitations for rough lumber are the same as those for dressed lumber of like kind and grade. In addition, such characteristics which are likely to disappear in dressing rough lumber to standard sizes are allowed.

2-f. The principal factors which govern the strength of a piece of lumber are the slope of grain, size of knots and their location, and in Douglas fir the number of annual rings and percentage of summerwood. It is primarily on the basis of these factors that the stress value of any grade is assigned. Other characteristics of wood which have a lesser effect on strength, such as shake, splits, etc., are then restricted or not permitted so that the assigned values for the grades are assured. Some characteristics such as pitch streaks, pitch pockets and wane may be restricted merely for the sake of appearance. Knots not firmly fixed, unsound knots and knot holes, which have no more effect on strength than sound knots, are restricted in most grades in order to improve appearance. Para. 200 gives additional information on stress grades.

2-g. All lumber under these rules is trimmed for the removal of sniped, splintered or uneven log ends. It must be trimmed full to the length specified and if 2" and thinner, not more than 3" over length, unless otherwise stated in the contract of purchase.

Double-end-trimmed (DET) lumber is trimmed reasonably square by a saw on both ends. It does not mean equalized lengths unless the order so specifies.

Precision-end-trimmed (PET) lumber is trimmed square and smooth on both ends to uniform lengths with a manufacturing tolerance of 1/16" over or under in length in 20% of the pieces.

GENERAL GRADING PROVISIONS

1

Square-end-trimmed lumber is trimmed square permitting slight manufacturing tolerance of 1/64" for each nominal 2" of thickness or width.

2-h. A variation of 1/32" over or under in thickness is permitted in the product resulting from resawing surfaced lumber. For SAW-SIZED, see Para. 739.

2-i. Lumber not conforming to standard sizes or grades, or intended for special uses, should be governed by special contract.

Standard thicknesses and widths are shown in Para. 250 of these rules. The dressed thicknesses and widths as shown are considered standard for corresponding nominal sizes as shown. Lumber of any size, rough or dressed, is described by its nominal dimensions in customary use and in these rules. However - invoices should show the net size of surfaced lumber. Standard lengths are multiples of 1' but are customarily shipped in multiples of 2' in most items.

2-j. Except moulding, which is tallied in linear feet, lumber is tallied board measure. Board measure is the term used to indicate that a board foot is the quantity of lumber contained in or derived by drying, planing or working from a piece of rough unseasoned lumber.

The board measurement of dry lumber, rough or dressed, is based on the corresponding nominal dimensions of rough unseasoned lumber. The board measurement of lumber less than 1" thick is based on the nominal surface dimensions (width by length).

In shipments measured with a board rule, a piece tally in feet shall be made and this tally shall be the number of feet, board measure, of 1" lumber. The tally of lumber thicker than 1" shall be multiplied by the thickness as expressed in inches and fractions of an inch.

In material measured with a board rule on actual widths, pieces measuring to the even half foot shall be alternately counted as of the next higher and lower foot count; fractions below the one-half foot shall be dropped and fractions above counted as of the next higher foot.

GENERAL GRADING PROVISIONS

1

2-k. Lumber finished to special non-standard size is tallied as being of the basic rough (nominal) size necessarily used in its manufacture, and the actual thickness and width of such lumber as indicated on the invoice. Lumber of standard sizes is tallied by the number of pieces of each size and length in the shipment.

2-l. In these rules, there are paragraphs detailing special provisions and limitations for each standard grade of each item. These specific rules cannot be used to determine the grade of such item without also giving consideration to applicable provisions of other paragraphs in these rules.

2-m. Edge-glued, face-glued, and end-glued in any combination is intended to be interchangeable in use with one-piece stock of the comparable grade. The characteristics of the grade are the same as for one-piece stock. Additional requirements for which the producer is responsible are:

- (a) Exterior glue line equal to heat-cured 50-50 melamine urea glue.
- (b) Adequate glue line strength for usual handling and fastening.
- (c) Appearance shall be suitable for intended finishing of each grade.

Grade stamps applied under these rules to edge or end-glued material shall indicate only the quality of the pieces of lumber in the glued unit.

2-n. Upon written request, the Bureau may, at its option and under conditions established by the Bureau, permit publication of the rules, in whole or in part, including all applicable provisions with all quoted parts clearly so indicated. Any such publication shall carry reference to the source of the rules and their effective date, and be revised to conform with any subsequent changes in the rules, giving the effective dates thereof.

2-o. The Bureau performs its services at approximate cost and reserves the right to demand prepayment of all charges or a deposit to cover estimated costs of such charges.

GENERAL GRADING PROVISIONS

1

2-p. The interpretation of these rules and decisions on grades is vested in the West Coast Lumber Inspection Bureau.

National grades for softwood dimension lumber 2" to 4" thick contained herein were developed by representatives of the regional rules-writing agencies serving on task groups appointed by American Lumber Standard Committee, and were subsequently adopted by the National Grading Rules Committee, which is composed of representatives of lumber inspection agencies, building codes, home builders, engineers, architects, consumer groups, Federal Housing Administration, Defense Supply Agency, United States Forest Products Laboratory and National Institute of Standards and Technology. These national grades are required to appear in identical form in the rules of all agencies certified by American Lumber Standard Committee to write rules for softwood lumber. Thus, grades for dimension lumber will be the same and will be uniformly applied in all regions for all commercial softwood species. Written interpretations of the national grading rules have been prepared by the National Grading Rules Committee to promote the uniform application of these rules. Copies of the interpretations are available from the West Coast Lumber Inspection Bureau.

SEASONING PROVISIONS

3. Sizes referred to in these rules are sizes applicable to the pieces at the time of manufacture.

All lumber swells and shrinks within narrow limits with changes in moisture content much as most other materials swell and shrink with changes in temperature. Natural shrinkage in width and thickness under usual changes in moisture content may average approximately 4%. Individual pieces may have more or less shrinkage.

3-a. When lumber has been subjected to drying conditions after manufacture, causing an appreciable loss in moisture content, an allowance must be made for the resulting shrinkage. In such cases, the shrinkage allowance is 1% reduction in size for each 4% reduction in moisture content, based on the moisture content specified for dry items and 30% moisture content for unseasoned items. The same tolerance for expansion will be applied for surfaced dry items that have re-absorbed moisture. Shrinkage occurring in sizes too large to permit accurate testing for moisture content with the regularly used meters will be assessed by the inspector and a reasonable allowance made, based on his judgment.

3-b. Boards, dimension or clears specified to be kiln dried or air dried in these rules, or ordered kiln dried or air dried, will be dried as follows:

3-b(1). SEASONED CLEARS. All grades of seasoned clears 2" or less in thickness represented as kiln dried shall be dried to 15% maximum moisture content. Clears over 2" thick shall be dried to 19% maximum moisture content. Orders for lumber of a moisture content varying from the above shall be subject to special agreement. Moisture content of lumber thicker than 4" also is subject to special agreement.

3-b(2). SEASONED BOARDS AND DIMENSION 4" AND THINNER. Boards and dimension 4" or less in thickness sold as "DRY" shall be dried to 19% maximum moisture content.

3-c. AIR DRY. Air Dry is the state of seasoning in which wood has been dried to a moisture content varying from 12 to 19%, it being in approximate equilibrium with the average moisture conditions of the atmosphere. This varies with the climate and local weather conditions.

SEASONING PROVISIONS

1

3-d. KILN DRY. Kiln dry lumber is lumber which has been seasoned in a chamber or kiln to a predetermined moisture content by the application of heat.

3-e. Lumber dried to 19% maximum moisture content may be grade stamped with stamps including the designation “S-DRY,” indicating the lumber was surfaced at 19% or less moisture content. Lumber kiln dried to 19% maximum moisture content may substitute “KD” in place of “S-DRY.”

3-f. Lumber dried to 15% maximum moisture content may be grade stamped with stamps including the symbol “MC15,” to indicate the lumber was surfaced at 15% or less moisture content. Lumber kiln dried to 15% maximum moisture content may substitute “KD15” in place of “MC15.”

3-g. Lumber graded under Para. 154 and dried to 16% maximum moisture content may be grade stamped with stamps including the symbol “MC16” or “KD16”, if kiln dried, to indicate that the lumber was surfaced at 16% or less moisture content.

WEST COAST SPECIES

DOUGLAS FIR

90. Douglas fir from the West Coast is one of the strongest woods, pound for pound, that has ever been tested. It enjoys a reputation throughout the world as an all-purpose wood of great dependability, and is supreme for both heavy and light construction.

West Coast Douglas fir, which is available everywhere, is the most serviceable of all American softwoods, being manufactured into more use items than any other lumber species.

Through years of the most favorable growing conditions, West Coast Douglas fir has acquired the characteristics necessary to fine construction uses – stiffness, strength, ease of working, durability and comparative freedom from warping, cupping or twisting.

90-a. Larch (*Larix occidentalis*) sometimes grows in intermingled stands with Douglas fir. Wood of this species has similar strength properties and can be manufactured together with Douglas fir with identical design values.

HEM-FIR

91. Hem-fir is a combination species, including Western hemlock (*Tsuga heterophylla*), California red fir (*Abies magnifica*), Grand fir (*Abies grandis*), Noble fir (*Abies procera*), Pacific silver fir (*Abies amabilis*), and White fir (*Abies concolor*). Western hemlock lumber possesses characteristics which rank it among the foremost commercial woods. The true firs found on the Pacific coast often grow in intermingled stands with Western hemlock. Wood of these species is similar in appearance, has similar strength properties and takes similar spans. Therefore, they usually are manufactured and shipped together under identical design values as Hem-fir. The true firs included in the Hem-Fir grouping may be marketed and grade stamped exclusive of Western hemlock (*Tsuga heterophylla*) as “White Fir.” The assigned design values for Hem-Fir apply to this grouping.

Since Hem-fir lumber is fine-textured, straight grained, stiff, and easily worked, it adapts itself readily to many uses. It is particularly distinguished by its strength, freedom from pitch, freedom from splintering, and its ease in working.

91-a. In these rules, black burls in Hem-fir are interchangeable with knots. Bark pockets are interchangeable with pitch pockets. Dark streaks peculiar to Hem-fir are permitted in any grade.

MOUNTAIN HEMLOCK

(*Tsuga mertensiana*)

92. Mountain hemlock is a timber tree grown at high elevations in the mountains, and in the West Coast region is found principally in the Cascade Range at elevations around 4500 feet or higher.

Mountain hemlock is similar in appearance to Western hemlock (*Tsuga heterophylla*) and when cut into lumber is practically indistinguishable. Its strength properties are very similar to those of Western hemlock, having slightly higher bending strength and slightly lower modulus of elasticity (stiffness).

It is used for the same purposes as Western hemlock.

SITKA SPRUCE

(*Picea sitchensis*)

93. The unusual characteristics of Sitka spruce enable it to meet the requirements of a wide variety of items from box lumber to piano sounding boards, from general construction lumber to the finest of clears used by cabinet makers, airplane and ladder manufacturers. Extremely resilient, it has the highest strength-to-weight ratio of any wood in the world.

Sitka spruce is tough, even-grained and soft textured. It is easily worked and has little tendency to split or splinter. It dries easily, stays in place well and shrinks only moderately. It is tasteless and odorless.

WESTERN RED CEDAR

(*Thuja plicata*)

1

94. The Western red cedar is among the largest and finest of the cedars grown anywhere in the world, its heartwood being famed for extraordinary resistance to decay.

Its wood is of exceptionally light weight – one of the lightest of all commercial species – of soft texture and close, even, straight grain. It is very easily worked, can be finished to a smooth, silky surface with little effort, is free from pitch, takes and holds stains, paints and enamels excellently, and has superior gluing qualities.

The wood contains a natural preservative oil which renders its heartwood resistive to decay and gives it durability without artificial preservative treatment. When left in its natural state, it weathers to a beautiful, soft, driftwood gray.

A number of Western mills manufacture specialty products of Western red cedar, designed for precise application, to take advantage of the inherent qualities of this species.

From the clear portion of the log such standard products as bevel siding, finish, paneling, pickets and ceiling are manufactured as well as various specialty items. The remainder of the log is manufactured into tight knotted siding and paneling, tank and pipe stock, standard construction material such as boards and dimension, decking and wall plank, and any other special uses that take full advantage of Western red cedar's many qualities.

94-a. Three cedar species in addition to Western red cedar (*Thuja plicata*) may be graded under these rules. They are Incense cedar (*Libocedrus decurrens*), Port Orford cedar (*Chamaecyparis lawsonia*), and Alaska cedar (*Chamaecyparis nootkatensis*). Items sold as Western cedar may be any one of the above species, or any combination of them.

95. In addition to the species previously listed, WCLIB members produce products in the following species, which are found in the West Coast region: Engelmann spruce (*Picea engelmannii*), Bigcone Douglas fir (*Pseudotsuga macrocarpa*), Idaho white pine (*Pinus monticola*), Knobcone pine (*Pinus attenuata*), Lodgepole pine (*Pinus contorta*), Ponderosa pine (*Pinus ponderosa*), Sugar pine

(*Pinus lamertiana*), Jeffrey pine (*Pinus jeffreyi*), Bishop pine (*Pinus muricata*), Coulter pine (*Pinus coulteri*), Digger pine (*Pinus sabiniana*), Limber pine (*Pinus flexilis*), Whitebark pine (*Pinus albicaulis*), and Subalpine fir (*Abies lasiocarpa*). Lumber of any of the above species, except the Cedar species, may be grade stamped as "WESTERN WOODS." "WESTERN WOODS" may also include any of the species specified in the species groupings of Douglas Fir North, Hem-Fir North, and Spruce-Pine-Fir as listed and defined in the grade rules of the National Lumber Grades Authority (NLGA) of Canada.

96. Foreign species - When foreign species graded under these rules are grade stamped, the grade stamp shall include the designation "(I)" with the species group identification. Design values developed in accordance with PS20-99 may be published in these rules when available.

Foreign species graded under these rules include Austrian spruce (*Picea excelsa*), Norway spruce (*Picea abies*), Scots pine (*Pinus sylvestris*), Douglas fir (*Pseudotsuga menziesii*), and European Larch (*Larix decidua*). Structural allowable properties are specific to the regional source of origin. See Para. 200 for specific allowable properties.

In addition to the species listed above, foreign species graded under these rules as Span Rated Decking (Para. 126) and non-structural grades include Mexican pines from Michoacan and neighboring states (*P. leiophylla*, *P. chihuahuana*, *P. lumholtzii*, *P. arizonica*, *P. engelmannii*, *P. durangensis*, *P. jeffreyi*, *P. cooperi*, *P. montezumae*, *P. douglasiana*, *P. rudis*, *P. hartiwegii*, *P. michoacana*, *P. pseudostrobus*, *P. maximinoi*, *P. oaxacana*, *P. nubicola*, *P. patula*, *P. oocarpa*, *P. pringlei*, *P. teocote*, *P. lawsoni*, *P. herrerae*), Mexican pines from the states of Chihuahua and Durango (*P. leiophylla*, *P. chihuahuana*, *P. lumholtzii*, *P. arizonica*, *P. engelmannii*, *P. durangensis*, *P. jeffreyi*, *P. cooperi*, *P. montezumae*, *P. douglasiana*, *P. rudis*, *P. hartiwegii*, *P. michoacana*, *P. pseudostrobus*, *P. maximinoi*, *P. oaxacana*, *P. nubicola*, *P. patula*, *P. oocarpa*, *P. pringlei*, *P. teocote*, *P. lawsoni*, *P. herrerae*) and Radiata pine from Chile and New Zealand. Note that all grades of Span Rated Decking for both Mexican pine groupings require a minimum of 4 rings per inch.

FINISH ALL WEST COAST SPECIES (EXCEPT CEDAR)

VG, FG OR MG, KD

2" and Thinner

2" and Wider

1

101. FINISH is customarily shipped kiln dried and surfaced four sides. Grade descriptions are based on a piece 8" wide and 12' long. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece.

Pieces of FINISH 5" and narrower are graded from the best face and both edges. Pieces 6" and wider are graded from the best face and one edge.

There are two grades of FINISH: "C & BTR" and "D."

Unless otherwise specified, pieces are VG, FG or MG at shipper's option.

101-c. "C & BTR"-VG, FG or MG FINISH. This grade includes the highest type products produced from the clear portion of the log. FINISH of this grade is recommended and widely used for interior trim and cabinet work with natural, stain or enamel finishes where finest appearance is important.

Characteristics and limiting provisions are:

Medium stained sapwood. Heart stain firm.

Short splits in not more than 5% of the pieces.

Small seasoning checks, well scattered.

Light torn or raised grain.

Occasional very light skips on edge or back.

Two small, sound, tight knots or equivalent smaller, or a small pitch streak or four small pitch or bark pockets or equivalent smaller.

Warp - light in occasional pieces.

A 3" cutout 3' or more from either end of pieces 12' and longer is permissible in 5% of the shipment if the piece is otherwise of high type.

FINISH
ALL WEST COAST SPECIES
(EXCEPT CEDAR)

1

101-d. "D" - FINISH. "D" FINISH includes some of the high appearance features of "C & BTR" grade. Although the grade is generally less restricted than "C & BTR", it is suitable where the requirements for finishing are less exacting. When "D" VG FINISH is ordered, pieces may have an angle of grain from vertical to 60 degrees from vertical.

Characteristics and limiting provisions are:

Stained wood.

Short splits.

Medium seasoning checks, scattered.

Limited pin holes

Torn or raised grain.

Hit and miss skips or skips on one edge up to
1/8" scant.

Medium pitch streak.

Four medium pitch or bark pockets or equivalent
smaller.

Firm white speck, narrow streak or equivalent.

Wane 1/4 the thickness and 1/8 the width for
1/4 the length.

Four fixed one-inch (1") knots or equivalent smaller.

Warp - medium.

A 3" cutout 3' or more from either end of pieces 12' and longer is permissible in 10% of the shipment.

Any piece with an unusual combination of characteristics which seriously affects normal serviceability is excluded from the grade.

FINISH, PANELING AND CEILING WESTERN RED CEDAR

VG, FG OR MG, KD
FINISH & PANELING

2" and Thinner
2" and Wider

1

102. Western red cedar Finish is customarily shipped kiln dried and surfaced four sides. Grade descriptions for Finish and Paneling are based on a piece 8" wide and 12' long. Grade descriptions for Ceiling are based on a piece 4" wide and 12' long. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece.

Pieces of Finish 5" and narrower are graded from the best face and both edges. Pieces 6" and wider are graded from the best face and one edge.

Pieces of Paneling and Ceiling run to pattern may be partially surfaced or hollow or scratched back.

"SAW TEXTURE" is available in all clear grades of Western red cedar and, as the name implies, is a texture put on a piece of siding or lumber by a saw to give it a texture or resawn appearance. Material supplied with this finish shall in all ways adhere to the grades, sizes and patterns as specified except it shall be graded from the textured face.

There are three grades of Western red cedar Finish, Paneling and Ceiling: "CLEAR HEART," "A" and "B."

If FG or VG only is desired, it must be so specified. Otherwise mixed grain (MG) may be shipped at shipper's option.

102-b. "CLEAR HEART" - Western red cedar FINISH, PANELING and CEILING. Finish, Paneling and Ceiling of this grade is recommended and widely used for interior and exterior trim and cabinet work with natural, stain or enamel finishes where finest appearance is important.

This is the highest grade of Finish, Paneling and Ceiling produced and many pieces are absolutely clear. Pieces may exhibit a few minor characteristics which do not detract from their high appearance and quality.

FINISH, PANELING AND CEILING WESTERN RED CEDAR

1

Characteristics and limiting provisions are:

- Very light torn grain.
- Very light skips on back.
- Very light warp.

102-c. "A" - Western red cedar FINISH, PANELING and CEILING. The "A" grade is also recommended for interior and exterior uses where fine appearance is important. This grade is only slightly less restrictive than "CLEAR HEART." The "A" grade is ideally suited to applications where finishing requirements are less exacting.

Characteristics and limiting provisions are:

- Small seasoning checks.
- Light torn or raised grain.
- Occasional very light skips on edges and backs.
- Two small, sound, tight knots or their equivalent.
- Light warp.

102-d. "B" - Western red cedar FINISH, PANELING and CEILING. Although the "B" grade permits larger and more numerous characteristics than "CLEAR HEART" and "A" grades, it is highly serviceable and often yields short lengths of fine appearance from longer stock. Many pieces have a fine appearance on one side, the reverse side showing larger and more numerous characteristics.

Characteristics and limiting provisions are:

- Short splits.
- Seasoning checks.
- Limited pin holes.
- Torn grain.
- Hit and miss skips on either face, or skip approximately 1/8" scant on edge.
- Four knots approximately 1" or their equivalent.
- Warp - medium.

FINISH, PANELING AND CEILING WESTERN RED CEDAR

1

Wane $\frac{1}{8}$ the width for $\frac{1}{4}$ the length and $\frac{1}{4}$ the thickness, or its equivalent, in an occasional piece.

A 3" cutout 3' or more from either end of pieces 12' and longer is permissible in 10% of the shipment.

All or nearly all of the permissible characteristics of the grade are never present in maximum size or number in any one piece. Any piece with an unusual combination of characteristics which seriously affects normal serviceability is excluded from the grade.

102-e. GLUED-UP FINISH, PANELING AND CEILING. End-glued, edge-glued or a combination of end and edge-glued Finish, Paneling and Ceiling is intended to be interchangeable in use value with one-piece stock of the comparable grade.

The characteristics of the grade are the same as for one-piece stock. Additional requirements for which the producer is responsible are:

- (a) Exterior glue line equal to heat-cured 50-50 melamine urea glue.
- (b) Adequate glue line strength for usual handling and fastening.
- (c) Appearance shall be suitable for intended finishing of each grade.

CEILING AND SIDING ALL WEST COAST SPECIES (EXCEPT CEDAR)

VG, FG OR MG, KD

1

105. Ceiling and Siding are customarily shipped kiln dried and surfaced two sides, tongue and groove or shiplap, and usually run to a pattern. The reverse side may be partially surfaced or hollow or scratched back. Unless otherwise specified, pieces are VG, FG or MG at shipper's option. Grade descriptions are based on a piece 6" wide and 12' long. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece. An occasional piece of "C & BTR" grade Siding with a tongue or lap 1/16" narrow is permitted. An occasional piece of "C & BTR" grade Ceiling with a tongue 1/8" or more in width is permitted. Special patterns will be graded according to these paragraphs unless otherwise specified.

There are three grades of Ceiling and Siding: "C & BTR," "D" and "E."

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

105-c. "C & BTR" - CEILING and SIDING. Ceiling and Siding of this grade are recommended and widely used where the finest appearance is required.

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

Medium stained sapwood. Heart stain firm.

Three small seasoning checks.

Light torn or raised grain.

Warp - light in occasional pieces.

Three small, sound, tight knots or their equivalent, or five small pockets or their equivalent.

A 3" cutout 4' or more from either end of pieces 12' and longer is permissible in 5% of the shipment if the piece is otherwise of a high type.

**CEILING AND SIDING
ALL WEST COAST SPECIES
(EXCEPT CEDAR)**

1

105-d. "D" - CEILING and SIDING. Ceiling and Siding of this grade are recommended for use where good utility is required. It is a highly serviceable grade designed for use where appearance is not of primary importance.

Pieces of this grade may have one or more characteristics which are of such size or number that the piece is not of "C & BTR" grade.

Pieces may have:

Stained wood.

Medium splits.

Seasoning checks.

Limited holes - one 1" or equivalent smaller in 8' to 14', and two 1" or equivalent in 16' and longer.

Torn or raised grain.

Large pitch streaks.

Hit and miss skips on face or grooved edge.

Warp - medium.

Four fixed knots approximately 1" or their equivalent.

Five medium pockets or their equivalent.

Narrow tongue or lap, which must be at least 1/16" in width.

Firm white specks, 25% of face.

A 3" cutout 4' or more from either end of piece 12' and longer is permissible in 10% of the shipment. Resultant pieces shorter than 8' must be free of holes.

Any piece with an unusual combination of characteristics which seriously affects normal serviceability is excluded from the grade.

105-e. "E" - CEILING and SIDING. Graded under the provisions for "E" FLOORING, Para. 104-e.

BEVEL SIDING WESTERN RED CEDAR

KD

1

106. Western red cedar Bevel Siding is produced by resawing kiln dried surfaced lumber on a bevel to produce two pieces thicker on one edge than the other and is most commonly used as exterior siding, giving a horizontal shadow line effect. Except for siding intended for rough side use, bevel siding is graded on the surfaced side with characteristics and limiting provisions enumerated in the grades applying to the exposed width. Grade descriptions are based on a piece 6" wide by 12' long. Occasional tolerance in thickness is permitted, approximately 1/32" over or under in any one piece. The thick edge permits minor characteristics that do not detract from the appearance of the piece in use.

"SAW TEXTURE" is available in all clear grades of Western red cedar and as the name implies, is a texture put on a piece of siding or lumber by a saw to give it a textured, rough and/or resawn appearance. Material supplied with this finish shall in all ways adhere to the grades, sizes and patterns as specified, except that it shall be graded from the textured face.

There are four grades of Western red cedar Bevel Siding: "CLEAR VG HEART," "A," "B" and "C." Special items, namely 1/2" x 4" and 1/2" x 5" sizes, 1/2" x 6" square edged and 3/4" x 6" rabbeted siding, are usually graded "CLEAR VG HEART" and "A" combined for the first grade.

Normal head lap for regular Bevel Siding is 1". This portion of the thin edge may contain characteristics that will be covered when laid and will provide a suitable backing. In rabbeted siding, depth of rabbet conforms to thickness of thin edge, width of rabbet is 1/2". Finished Sizes:

BEVEL SIDING WESTERN RED CEDAR

1

Nominal Size Board Measure (Inches)		Dressed Sizes (Inches)		
Thickness	Width	Thick Edge	Thin Edge	Width
1/2	4	15/32	3/16	3-1/2
1/2	5	15/32	3/16	4-1/2
1/2	6	15/32	3/16	5-1/2
1/2	8	15/32	3/16	7-1/2
5/8	8	9/16	3/16	7-1/2
5/8	10	9/16	3/16	9-1/2
3/4	6	3/4	3/16	5-1/2
3/4	8	3/4	3/16	7-1/5
3/4	10	3/4	3/16	9-1/2
3/4	12	3/4	3/16	11-1/2

Lengths are 3' and longer in multiples of 1'. (NB) Nested Bundling:

Bundles are 6' to 18' or longer. Bundles 10' and longer contain specified layers of 3' to 7' lengths.

(FLB) Full Length Bundling.

All pieces in the bundle correspond to length of the bundle. The length assortment is normally 6' to 18' or longer but may include a percentage of 3' to 5' bundles, as specified by the shipper.

Shorts:

“CLEAR” and “A” Grade -

6" and narrower, not more than 20% of the footage may be 6' and 7' bundles.

8" and wider, not more than 15% of the footage may be 6' and 7' bundles.

“B” Grade -

Not more than 20% of the footage may be 6' and 7' bundles.

BEVEL SIDING WESTERN RED CEDAR

1

Bundling Schedule:

Size Thickness X Width	FLB & NB Layers Per Bundle	NB Only Layers Nested in 10' & Longer
3/4" x 6" to 12"	6	2
1/2" x 5" to 8"	10	3
5/8" x 8" and 10"	10	3
1/2" x 4"	12	4

106-aa. "CLEAR VG HEART" - BEVEL SIDING. "CLEAR VG HEART" - Bevel Siding is intended for use where highest quality is indicated. The exposed width is all heartwood and free from imperfections and presents a vertical grain appearance for 3/4 the width from the thick edge. The thick edge may contain light torn or raised grain.

106-a. "A" - BEVEL SIDING. "A" - Bevel Siding is intended for use where good appearance is desired. It may be furnished in mixed grain.

Characteristics and limiting provisions are:

Very light torn or raised grain.

One sound, tight, small knot or two sound, tight pin knots in the occasional piece.

Light torn or raised grain on the thick edge.

Very light skips on the thick edge.

106-b. "B" - BEVEL SIDING. "B" - Bevel Siding is a quality paint grade with excellent serviceability. It may be furnished in mixed grain.

Characteristics and limiting provisions are:

Light torn or raised grain.

Very light skips.

Four small, sound, tight knots in the occasional piece.

Limited pin holes, well scattered, in the occasional piece.

Thick edge will permit medium torn or raised grain or light skips in dressing on the occasional piece.

BEVEL SIDING WESTERN RED CEDAR

1

Cutouts are permitted which can be removed by cutting out not more than 5% of the length of the piece, not exceeding one cutout in pieces 6' to 9' and two cutouts in pieces 10' and longer.

All or nearly all of the permissible characteristics are never present in maximum size or number in any one piece.

106-c. "C" - BEVEL SIDING. "C" - Bevel Siding is suitable for temporary construction or use on buildings where a higher grade is not needed. Although this grade admits larger or more numerous characteristics than "B" grade, it often yields short lengths of fine quality. This grade may include stock too thin to dress to standard sizes. Lengths are random with percentages as specified by the shipper.

106-d. FACTORY PRIMED BEVEL SIDING. Factory priming is intended as a part of the complete paint system requiring final painting per the primed siding producer's recommendations. Factory primed products shall be identified with a stamp or label by the producer.

106-e. GLUED-UP BEVEL SIDING. End-glued, edge-glued or a combination of end and edge-glued Bevel Siding is intended to be interchangeable in use value with one-piece stock of the comparable grade. The characteristics of the grade are the same as for one-piece stock. Additional requirements for which the producer is responsible are:

- (a) Exterior glue line equal to heat cured 50-50 melamine urea glue.
- (b) Adequate glue line strength for usual handling and fastening.
- (c) Appearance shall be suitable for intended finishing of each grade.

BEVEL SIDING WESTERN HEMLOCK (HEM-FIR)

107. There are two grades of Western hemlock; Bevel Siding: "C & BTR" and "D." Since introduction of this popular wall covering, the 3/4" thickness sizes have been known to the trade as "Bungalow" siding. Unless otherwise specified, pieces are VG, FG or MG at shipper's option.

Grade descriptions are based on a piece 6" wide and 12' long. Minimum head lap for 6" and narrower is usually 1". For widths wider than 6" the head lap is usually 1-1/4". This portion of the thin edge, which will be covered when laid, is not given the same consideration as the uncovered portion.

Bright sap is permitted in both grades. Occasional tolerance in thickness is permitted, approximately 1/32" over or under in any one piece.

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

Finished Sizes:

Nominal Size Board Measure (Inches)		Dressed Sizes (Inches)	
Thickness	Width	Thickness	Width
1/2	4	7/16 x 3/16	3-1/2
1/2	5	7/16 x 3/16	4-1/2
1/2	6	7/16 x 3/16	5-1/2
1/2	8	7/16 x 3/16	7-1/4
3/4	8	11/16 x 3/16	7-1/4
3/4	10	11/16 x 3/16	9-1/4
3/4	12	11/16 x 3/16	11-1/4

Bundling: Standard bundles are 8' and up. 1/2" stock is bundled 10 layers to bundle. In bundles 10' and longer three layers of 3' to 7' lengths are included in each bundle. 3/4" stock is bundled 6 layers to bundle. In bundles 10' and longer two layers of 3' to 7' lengths are included in each bundle. Lengths - Multiples of 1'.

**BEVEL SIDING
WESTERN HEMLOCK (HEM-FIR)**

1

107-c. "C&BTR" - BEVEL SIDING. Siding of this grade is well manufactured and characteristics are so limited that it is suitable for use where finest appearance is required.

Characteristics permitted are:

Very light torn or raised grain, and one of the following:

4 small pockets, none open through, or 4 sound, tight pin knots.

In 6" and wider siding the angle of grain for 3/4 of face from thick edge does not deviate from vertical more than 45 degrees.

107-d. "D" - BEVEL SIDING. Siding of this grade is a utility grade permitting characteristics which can be covered by paint or removed by trimming with a limited amount of waste.

Characteristics permitted are:

Stained wood.

Very light skips.

Torn or raised grain.

Pockets, none open through.

Sound and tight knots.

Cutouts are permitted which can be removed by cutting out not more than 5% of the length of the piece, not exceeding one cutout in pieces 6' to 9' and two cutouts in pieces 10' and longer.

Percentage of lengths not guaranteed. Large percentage of shorts permitted at shipper's option.

In 6" and wider siding the angle of grain for one half of face from thick edges does not deviate from vertical more than 45 degrees.

NOTE: Other species may be graded on the foregoing paragraphs except Cedar. For Cedar Bevel Siding, see Para. 106.

VG STEPPING, KD DOUGLAS FIR AND WESTERN HEMLOCK (HEM-FIR)

(Other West Coast species may also be graded
under these rules if so specified)

109. Stepping is customarily shipped kiln dried, surfaced three sides and bull-nosed on one edge. The recommended standard for Stepping of 1-1/4" thickness is to round the nosed edge to a radius of 5/8" . Grade descriptions are based on a piece 12" wide and 12' long. The number of characteristics in larger or smaller pieces may vary in proportion to the size of the piece. When Stepping is put in place, about 1" of the face on the riser edge does not show. There may be any number of various characteristics in this area so long as the utility of the piece is not affected.

There are two grades of Stepping: "C&BTR" and "D."

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

109-c. "C&BTR" - VG STEPPING. Stepping of this grade is recommended where a combination of strength, excellent appearance and high resistance to wear is required.

Pieces of this grade are of sound wood and vertical grain for 1/2 the width or more nearer the wearing edge.

Pieces may have a few minor or unimportant characteristics such as:

Medium stained sapwood.

Heart stain firm.

Small seasoning checks, not through.

Light torn or raised grain.

Occasional very light skips on back. Riser edge may have hit or miss skips.

Warp - light.

Four small, sound, tight knots or two 1" knots or their equivalent, or nine small pockets or their equivalent, or two small pitch streaks.

**VG STEPPING, KD
DOUGLAS FIR AND
WESTERN HEMLOCK (HEM-FIR)**

1

A 3" cutout 3' or more from either end of pieces 12' and longer is permissible in 5% of the shipment if the piece is otherwise a high type.

109-d. "D" - VG STEPPING. Stepping of this grade is recommended for use where a combination of strength and good resistance to wear is desirable. It is a highly serviceable grade and valuable where appearance is not of primary importance.

Pieces of this grade may have one or more characteristics which are of such size or number that the piece is not of "C&BTR" grade.

Pieces may have the angle of grain ranging from vertical to 60 degrees from vertical for 1/2 the width or more nearer the wearing edge.

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

Stained wood.

Short splits.

Seasoning checks.

Limited pin holes.

Torn or raised grain.

Medium pitch streaks.

Hit and miss skips.

Medium warp.

Six small fixed knots, or their equivalent.

None over 1-1/2".

Six medium pockets or their equivalent.

Firm white specks, 25% of face.

A 3" cutout 3' from either end in pieces 12' and longer is permissible in 10% of the shipment.

Any piece with an unusual combination of characteristics which seriously affects normal serviceability is excluded from the grade.

PANELING ALL WEST COAST SPECIES

1

110. A substantial quantity of West Coast species is used for Paneling, notable for its beauty and fine finishing qualities, and, except as otherwise provided, is graded under the Finish Para. 101, and also under the Flooring Para. 104. For Cedar Paneling, see Para. 102.

PANELING WESTERN RED CEDAR

(Knotty Paneling & Sidings)
For patterns, see Para. 400

111. Western red cedar Paneling may be shipped kiln dried, air dried, or green. The basis of Knotty Paneling and Sidings grades are knots, burls, and other natural markings which are of fairly uniform distribution and add to the decorative character of the piece. Knots form the major portion of the markings. Tight Knotted Paneling and Sidings grades are intended for use where only one face is exposed. Unless otherwise specified, characteristics which do not interfere with the intended use are permitted on the reverse side.

“SAW TEXTURE” is available in Tight Knot Paneling and Sidings of Western red cedar and as the name implies, is a texture put on a piece of siding or lumber by a saw to give it a textured, rough and/or resawn appearance. Material supplied with this finish shall in all ways adhere to the grades, sizes and patterns as specified, except that it shall be graded from the textured face.

There are two grades of Tight Knot Paneling and Sidings: “SELECT KNOTTY” and “QUALITY KNOTTY.”

111-e. “SELECT KNOTTY”

Pieces may contain the following characteristics or their equivalent:

- Light torn grain.
- Very light skips on back.
- Very light warp.
- Short splits in 5% of pieces.

**PANELING
WESTERN RED CEDAR**

1

Sound, tight knots; star checked and/or slightly chipped knots permitted.

Spike knots approximately 1/2 the width of piece.

111-e. "QUALITY KNOTTY."

Pieces may contain the following characteristics or their equivalent:

Seasoning checks, medium surface, occasional through.

Limited pin holes, well scattered.

Medium torn or raised grain.

Very light skips.

Warp - light.

Short splits.

Sound, tight knots. Two 1" not firmly fixed or unsound per 12 lineal feet.

Star checked and/or chipped knots permitted.

Spike knots equivalent to other knots.

A 3" cutout 3' or more from either end is permissible in 20% of the pieces in 12' and longer lengths.

GUTTER ALL WEST COAST SPECIES

1

112. 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. There is only one grade of Gutter: "GUTTER." In addition to the following specific provisions applicable to Gutter, the appropriate provisions in all other paragraphs of the rules apply.

112-a. "GUTTER"

Pieces of this grade are of sound wood and are watertight. Pieces are clear or have only a few minor and unimportant characteristics such as:

Medium stained sapwood.

Medium seasoning checks.

Heavy torn or raised grain.

Medium pitch streaks.

Very light skips.

Light warp.

Three 1" sound, tight knots or their equivalent.

Four medium pockets or their equivalent.

BATTENS, KD ALL WEST COAST SPECIES

Standard widths are:

Flat Battens - 3"	nominal	1/4"x2-1/2" net
O.G. Battens - 2"	nominal	3/4"x1-3/4" net
O.G. Battens - 2-1/2"	nominal	3/4"x2-1/4" net
O.G. Battens - 3"	nominal	3/4"x2-1/2" net

113. Battens are surfaced S1S1E or S4S at shipper's option unless otherwise provided. The grade description of Battens is based on a piece 12' long. The number of characteristics may vary in proportion to the length of the piece.

There is only one grade of Battens: "BATTENS."

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

BATTENS, KD
ALL WEST COAST SPECIES

1

113-a. Battens of this grade are of sound wood. Pieces are clear or have only a few minor and unimportant characteristics such as:

- Stained wood.
- Very light skips.
- Medium torn grain.
- Two sound, tight pin knots.
- Two small pockets or their equivalent.

PICKETS
ALL WEST COAST SPECIES
KD OR UNSEASONED

Standard sizes of Pickets are:

1-1/4" square	S4S to 1-1/16"x1-1/16"
1-1/2" square	S4S to 1-5/16"x1-5/16"
1 x3" flat	S4S to 3/4"x2-1/2"

115. There are two grades of Pickets: "NO. 1" and "NO. 2." Grades are based on a piece 1"x3"x4'.

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

115-a. "NO. 1" — PICKETS

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

- Small seasoning checks.
- Light torn grain.
- One small, sound, tight knot or its equivalent.
- Occasional very light skips.

115-b. "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.

PICKETS ALL WEST COAST SPECIES

1

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

Seasoning checks.

Limited pin holes.

Torn grain.

Two knots approximately 1" or their equivalent.

Very light skip.

LATH ALL WEST COAST SPECIES

DRY or UNSEASONED

3 pieces to 1" - in thickness

1-1/2" or 1-5/8" - in width

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

116-a. "NO. 1" — LATH Pieces of this grade are entirely clear or may have one of the following or its equivalent:

Pin knots.

Limited pin holes.

Small pitch or bark pockets.

Stained wood.

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

Seasoned 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.

116-b. "NO. 2" — LATH Pieces of this grade are either so scant in size or contain characteristics of such number that the pieces cannot be included in "No. 1" grade.

LATH
ALL WEST COAST SPECIES

1

Pieces may contain the following or their equivalent:

Knots.

Small holes.

Pitch or bark pockets.

Stained wood.

Wane.

Pieces are not over 1/4" scant in width nor 3/4" scant in length. Each piece is at least 1/4" thick.

FENCE BOARDS
ALL WEST COAST SPECIES

117. Fence Boards may be rough or surfaced. Air Dried, Kiln Dried, or green. There are three grades: No. 1, No. 2, and No. 3. No. 1 and No. 2 Fencing boards are selected for tight construction. The grade is determined from the best face. The reverse side may have characteristics approximately one grade lower than the face.

117-a. "NO. 1 FENCING." (SELECT)

Characteristics and limiting provisions are:

Checks.

Pinholes.

Shakes - fine.

Skips - hit and miss.

Splits - short.

Knots - sound and tight.

Spike knots - approximately 1/2 face width or equivalent.

S1S Boards may have a tolerance of 1/16" over or under the net invoiced thickness.

Rough-sawn Boards may have a tolerance of 1/16" over or under the invoiced thickness. In rough widths a variation along the length of the piece of 1/8" from maximum to minimum width shall be permitted in not to exceed 20% of the pieces.

FENCE BOARDS WESTERN RED CEDAR

1

117-b. "NO. 2 FENCING." (QUALITY)

Characteristics and limiting provisions are:

Checks.

Skips - hit or miss.

Pinholes.

Splits - medium.

Shakes - fine.

Wane 1/2 thickness, 1/3 width.

Unsound wood - small spots or equivalent streaks.

White speck not limited, firm honeycomb 1/3 width.

Knots - sound and tight.

Knots not firmly fixed or unsound, approximately 1/3 the width.

Spike-knots - approximately 3/4 face width.

Holes - maximum 1", 2 per 6', grub or teredo - equivalent smaller in not more than 50% of the pieces.

S1S Boards may have a tolerance of 1/16" over or under the net invoiced thickness.

Rough-sawn Boards may have a tolerance of 1/16" over or under the invoiced thickness. In rough widths a variation along the length of the piece of 1/8" from maximum to minimum width shall be permitted.

117-c. "NO. 3 FENCING." (RUSTIC) Lumber of this grade is suitable for low grade Fencing and permits all characteristics which do not interfere with use of the piece.

S1S Boards may have a tolerance of 3/16" over or under the net invoiced thickness.

Boards resawn from surfaced stock permits edge skips not to exceed 1/4".

Rough-sawn Boards may have a tolerance of 1/4" over or under the invoiced thickness.

Variation in width not to exceed 1/2" in rough material.