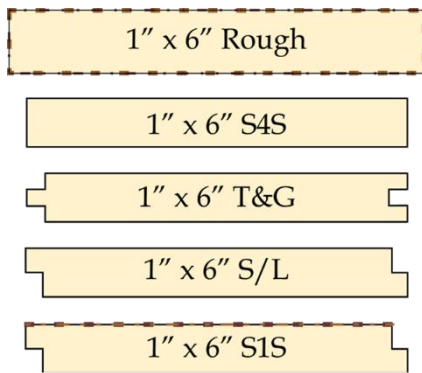


III. Types of Boards, Sheathing, and Form Lumber



a. Boards, sheathing, and form lumber may vary in processing methods, including rough, surfaced one side (S1S), surfaced one side and one edge (S1S1E), surfaced two sides (S2S), surfaced four sides (S4S), shiplapped, or centre-matched (Tongue and Groove – T&G).

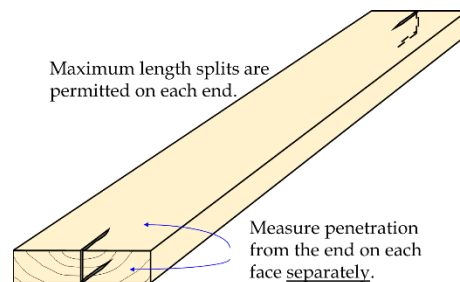
b. The grading process considers the best face regardless of its dressing, with edges considered part of the back. The reverse face may be one grade lower unless otherwise stated, and each face must be assessed independently.

IV. Grades of Sheathing and Form Lumber

- a. The five grades of sheathing and form lumber are Select Merchantable, Construction, Standard, Utility, and Economy. These grades represent knotty construction lumber evaluated primarily for sheathing and form applications.
- b. Knots and pockets generally do not affect grading but are subject to restrictions on size and quality within specific grades.

V. Split Measurement and Allowances

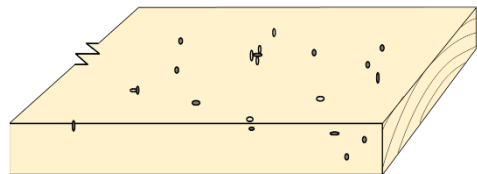
- a. Splits are measured by their length on the face they occur rather than average penetration on both faces. The allowance for split length is determined by the nominal width of the piece.
- b. In Standard, Utility, and Economy grades, split allowances are expressed as fractions of the piece's length. For instance, the Standard grade permits splits up to one-sixth of the piece's total length, calculated based on its overall dimensions.



VI. Pin Hole Restrictions and Calculations

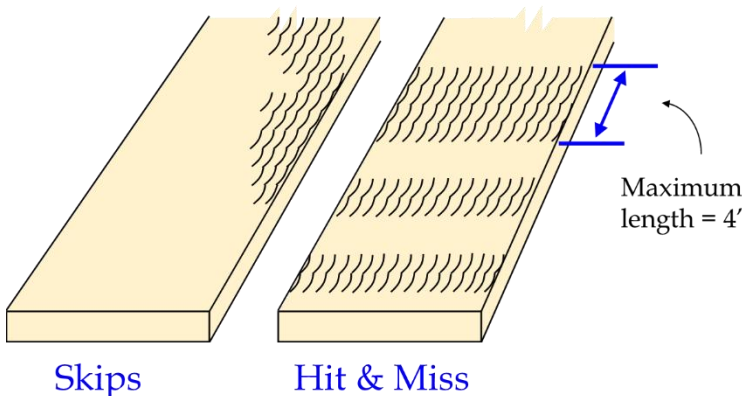
- a. Select Merchantable is the only grade that restricts the number of pin holes, allowing an average of 30 per square foot across the piece. The worst square foot may contain 50% more pin holes, provided the overall piece average is not exceeded.
- b. The length equivalent to one square foot is calculated by dividing 144 square inches by the nominal width of the piece. For instance, a 6-inch-wide piece equates to 24 inches of length per square foot. Pin holes are counted only on the worst wide face, with pin hole galleries, where multiple pin holes are connected, counted as separate chambers.
- c. When pin holes are present, the piece must be carefully inspected for unsound wood, as this may affect the grade.

□ The number of pin holes is restricted according to square footage.



VII. Skips Definition and Allowances

- a. Skips are areas that fail to surface clean during processing. Their allowable presence depends on the grade and is not treated as one grade lower, unlike other characteristics.

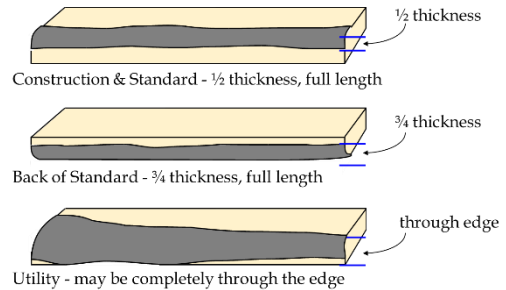
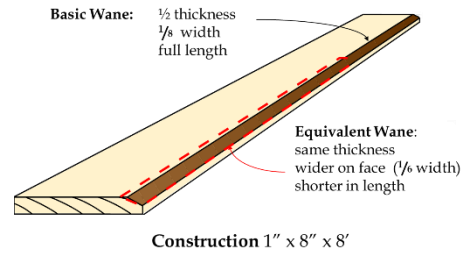


- b. On Select Merchantable and Construction grades, skips may not exceed 20% of the face area. In Standard grade, two skips or their equivalent are allowed in a 12-foot piece, with equivalence considered based on skip size and coverage.

- c. Hit & Miss skips are permitted up to 4 feet long, provided there are at least two surfaced areas (hits), each measuring at least 2 inches by half the width of the piece. Allowances for Utility and Economy grades differ slightly, considering width (e.g., 1/8-inch narrow for Utility and 1/4-inch for Economy) and thickness (e.g., 1/16-inch scant for Utility and 1/8-inch for Economy).

VIII. Wane Evaluation and Limits

- Wane is assessed on the face and edges separately. On the face, it is evaluated based on area coverage, with restrictions ensuring it does not exceed the basic width allowance of the next lower grade or the total allowance for the current grade.
- For edges, wane may cover the full depth over the entire piece length in Construction and Standard grades. Wane on the back of Standard grade is restricted to a maximum of three-quarters of the thickness, with worse wane limiting the piece to Utility grade.

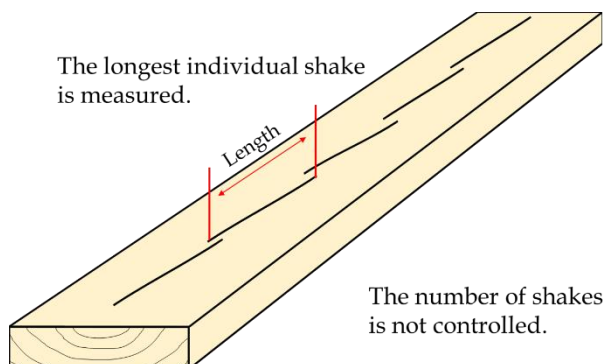


IX. Grub and Teredo Hole Allowances

- Grub and teredo holes are counted on the worst wide face of the piece. Twelve grub or teredo holes are allowed for each 1-inch knot hole permitted, based on the total knot hole inches for the piece.
- Select Merchantable does not permit grub or teredo holes. Construction and Standard grades allow two knot holes in a 12-foot piece, while Utility allows one knot hole per lineal foot. Economy grade has no restrictions. The total number of grub or teredo holes is determined by multiplying the allowed holes per foot by the piece length.

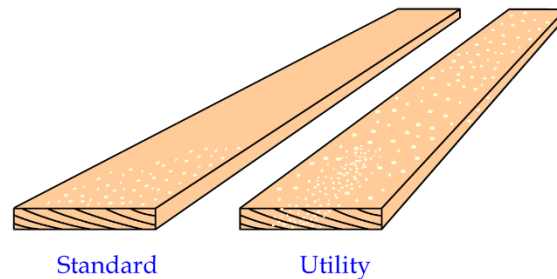
X. Shake and White Speck Allowances

- Construction grade is the highest grade that allows shake on the back, while



Standard is the highest grade permitting shake on the face. Shake in Standard grade cannot exceed one-quarter the length of the piece. In Utility grade, tight shakes that allow full-length use are considered “not serious,” while in Economy grade, any shake that holds the piece together is acceptable.

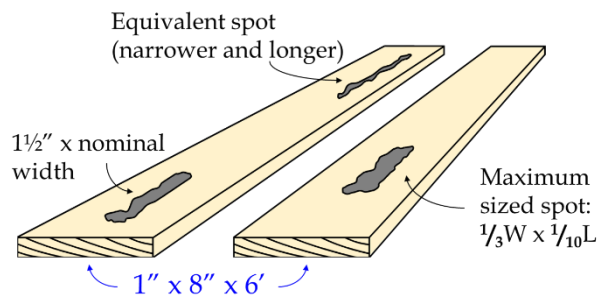
- b. White specks are allowed on the face of Standard grade up to one-third of the area and are also permitted on the back of Construction grade. In Utility and Economy grades, white specks are unrestricted. Firm honeycomb is allowed on the face of Utility or the back of Standard grade, while soft honeycomb in Utility grade is evaluated as equivalent to unsound wood.



XI. Unsound Wood Allowances

1. Standard grade is the highest grade that permits unsound wood, but only on the back of the piece. Utility grade is the highest grade allowing unsound wood on the best face.

2. If there is one spot of unsound wood, it may occupy an area equivalent to one-third of the width multiplied by one-tenth of the length. For multiple spots, the allowance is one and a half inches by the nominal width for every two feet of length, with additional smaller spots permitted if the total area does not exceed the grade limit.

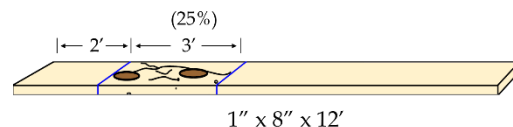


3. In Economy grade, scattered spots of unsound wood may cover up to 75% of the cross section and extend up to two feet long. Areas exceeding 75% of the cross section can be accepted under the waste clause, provided the remaining wood complies with the permitted allowance. Peck in Western Red Cedar and Yellow Cedar is treated as unsound wood.

XII. Waste Restrictions

1. Waste restrictions apply to pieces longer than six feet, which must remain usable along their full length if six feet or shorter.

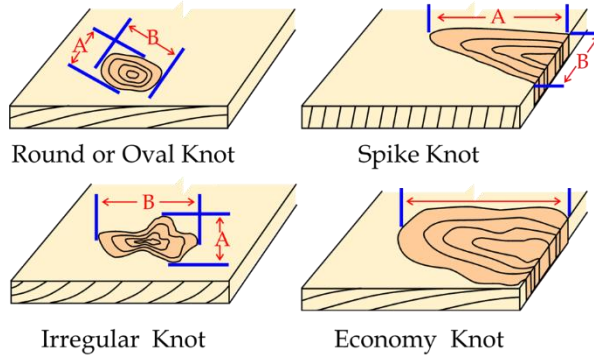
- Waste includes any characteristic(s) too large or too numerous to conform to the grading rule.
- The highest grade permitting waste is **Economy**.



- Waste must be situated at least two feet from either end of the piece and cannot exceed 25% of the total piece length.

XIII. Knot Size Measurements

- Knot sizes are calculated as the average of their largest and smallest diameters, with measurements taken separately for each face of the piece. Economy grade measures knots based on their cross section only.



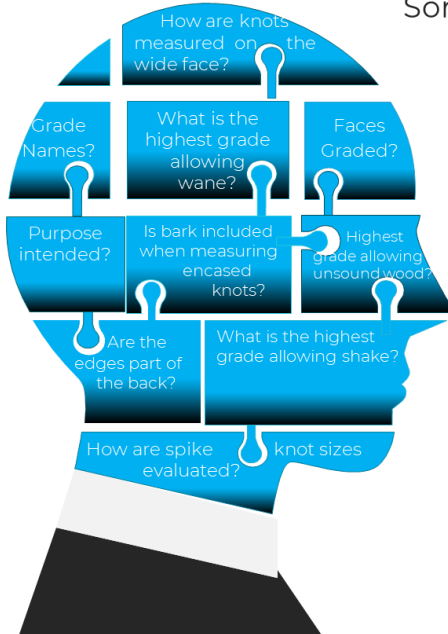
- For round or oval knots, measure the largest and smallest diameters and calculate the average. Spike knots are measured by their length across the face and the widest width on the edge, averaged together. Irregular knots are measured by the

average dimensions of the smallest rectangle enclosing the knot.

- The number of knots on a piece is irrelevant. Only knot size and quality are considered in grading criteria.

NLGA Para. 114 Boards Review

Some Thought-Provoking Concepts



- How are knots measured on the wide face?
Average Diameter
- Grade Names?
Sel. Merch., Const., Stand. Util., and Economy
- Faces Graded?
Best face allowing the reverse to be one grade lower.
- Are the edges part of the back?
Yes
- How are spike knots evaluated?
Average the length across the face and along the edge.
- What is the highest grade allowing wane?
Construction
- Purpose Intended?
Tight Construction.
- Is bark included in the measurement of encased knots?
Yes.
- What is the highest grade allowing shake?
Standard.
- What is the highest grade allowing unsound wood?
Utility.