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The Southern Pine Marketing Council (SPMC) is a joint promotional body coordinated and supported by members of the Southern Forest Products Association (SFPA) and Southeastern Lumber Manufacturers Association (SLMA). For more information, contact either association.

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Acknowledgment

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Table Number	Live Load (psf)	Dead Load (psf)	Deflection Limit	See Page
Floor Joists				
1	30	10	360	8
2	40	10	360	8
3	50	10	360	9
4	60	10	360	9
5	40	20	360	10
6	50	20	360	10
7	60	20	360	11

Ceiling Joists				
8	10	5	240	12
9	20	10	240	12

Rafters (Snow Load, $C_D = 1.15$)				
10	20	10	240	13
11	30	10	240	13
12	40	10	240	14
13	50	10	240	14
14	20	15	240	15
15	30	15	240	15
16	40	15	240	16
17	50	15	240	16
18	20	20	240	17
19	30	20	240	17
20	40	20	240	18
21	50	20	240	18
22	20	10	180	19
23	30	10	180	19
24	40	10	180	20
25	50	10	180	20
26	20	15	180	21
27	30	15	180	21
28	40	15	180	22
29	50	15	180	22
30	20	20	180	23
31	30	20	180	23
32	40	20	180	24
33	50	20	180	24

Rafters (Construction Load, $C_D = 1.25$)				
34	20	10	240	25
35	20	15	240	25
36	20	20	240	26
37	20	10	180	26
38	20	15	180	27
39	20	20	180	27

Wet-Service Floor Joists (MC > 19%)				
40	40	10	360	28
41	60	10	360	28

Heavy Live-Load Floor Joists				
42	75	10	360	29
43	80	10	360	29
44	90	10	360	30
45	100	10	360	30
46	125	10	360	31
47	150	10	360	31

The Southern Pine Marketing Council does not grade or test lumber; and accordingly, does not assign design values to Southern Pine lumber. The design values contained herein are based on the *SPIB Standard Grading Rules for Southern Pine Lumber, 1991 Edition*, published by the Southern Pine Inspection Bureau, and modified as required by the *1991 National Design Specification® (NDS®) for Wood Construction* published by the American Forest & Paper Association (AFPA), formerly NFPA.

The primary purpose of this publication is to provide a convenient reference for joist and rafter spans for specific grades of Southern Pine lumber. The maximum spans provided herein were determined on the same basis as those in the *Span Tables for Joists and Rafters, 1993 Edition*, published by AFPA. Accordingly, the Southern Pine Marketing Council, its principals and/or members, do not warrant in any way that the design values on which the span tables for Southern Pine lumber contained herein are based are correct, and specifically disclaim any liability for injury or damage resulting from the use of such span tables.

The conditions under which lumber is used in construction may vary widely, as does the quality of the lumber and workmanship. Neither the Southern Pine Marketing Council, nor its principals and/or members, have any knowledge of the construction methods, quality of materials and workmanship used on any construction project; and accordingly, cannot and do not, warrant the performance of the lumber used in completed structures.

Southern Pine—An Abundant Resource

Southern Pine is a general group of four principal species: longleaf, shortleaf, slash, and loblolly grown in a region that stretches from Virginia through eastern Texas. With nearly 200 million acres of forestland, the southern United States offers a potential for timber growth uncommon to other regions. And the continued practice of wise forest management, including prolific reforestation efforts, assures a bountiful supply of quality wood for generations to come.

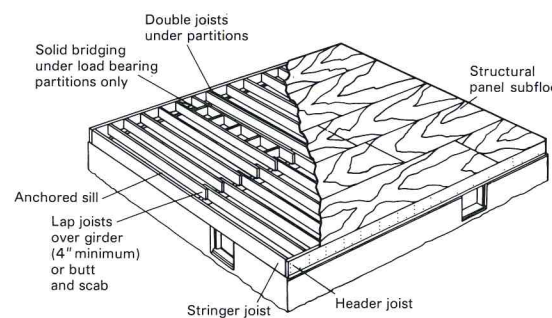
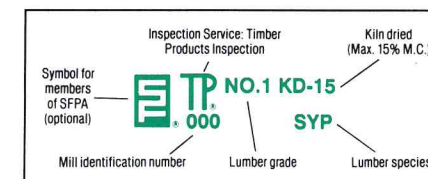
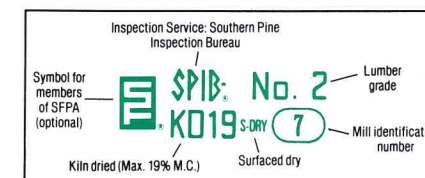
Today's Versatile Building Material

Southern Pine has long been a preferred species for residential and nonresidential structures, because of its high strength, durability, and fastener holding power. Kiln-dried Southern Pine lumber is ideal for joists and rafters. New, empirical design values for Southern Pine dimension lumber, published in the *SPIB Standard Grading Rules for Southern Pine Lumber, 1991 Edition*, confirm Southern Pine's stature as the strongest structural lumber species for engineered and framing applications. This booklet presents a simplified system for determining allowable spans for joists and rafters, using Southern Pine lumber under a variety of loading conditions.

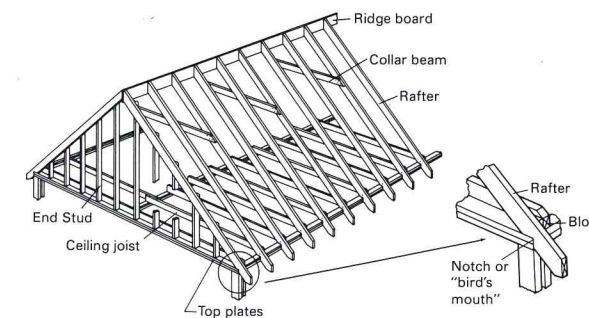
Lumber Identification

The maximum spans in these tables apply to lumber identified by the grade mark of an agency certified by the Board of Review of the American Lumber Standards Committee, and manufactured in accordance with *Product Standard PS 20-70* published by the U.S. Department of Commerce. A certified grade mark on Southern Pine lumber (2" or less in thickness) indicates that the lumber has been properly seasoned and that it meets the structural and appearance requirements established for the grade.

Two Typical Lumber Grade Marks:



Typical floor joist construction



Typical rafter framing for pitched roof