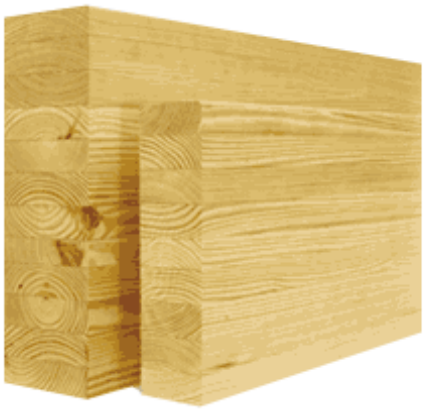
BOOZERBEAM™

THE ORIGINAL

1.8E • 2400F$_b$

The classic BOOZERBEAM™ is made of the finest materials available. Each is built with the dedicated skill of our craftsmen and quality inspected by the American Institute of Timber Construction (AITC). We feel the beauty strength and durability of a BOOZERBEAM™ is unequaled by any other engineered wood product.



HANDCRAFTED WITH PRIDE IN THE U.S.A.

American Institute of Timber Construction

North American Wholesale Lumber Association

- Quality inspected by the American Institute of Timber Construction (AITC).
- Pound-for-pound stronger than steel I-beams.
- Available in architectural appearance grade for visually exposed applications. Absolutely beautiful!
- Less expensive than LVL & PSL.
- Exceptional value in cost vs. performance.
- Cambered to offset dead load deflection (optional).
- Individually wrapped with water resistant paper.
- Available in any length up to 52'.

1.8E BOOZERBEAM, is available in widths of 3 1/8" 5 1/8" 6 3/4" and 7" and depths that are compatible with I-joists, conventional framing and traditional glulam.

Please contact your nearest **BOOZERBEAM** dealer for sizes available in your market.

BOOZERBEAM HOLDS UP!

Boozer Laminated Beam Co., Inc. • Anniston, AL • 256-237-2875 • boozerbeam.com

TABLE SP Boozer Special 24F 3-1/8 in

SOUTHERN PINE **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

FLOOR BEAMS
FLOOR LIVE LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.00	Span / 360 for LIVE LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

FLOOR LOAD FACTOR = 0.80

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
3 1/8	5 1/2	4.3	282 D	198 D	144 D	109 D	84 D	66 D	--	--	--	--	--	--	--	--	--	--	--
3 1/8	6 7/8	5.4	551 D	387 D	282 D	212 D	163 D	128 D	103 D	84 D	69 D	57 D	--	--	--	--	--	--	--
3 1/8	8 1/4	6.4	886 B	669 D	487 D	366 D	282 D	222 D	178 D	144 D	119 D	99 D	84 D	71 D	61 D	--	--	--	--
3 1/8	9 1/4	7.2	1114 B	880 B	687 D	516 D	398 D	313 D	250 D	204 D	168 D	140 D	118 D	100 D	86 D	74 D	65 D	56 D	--
3 1/8	9 1/2	7.4	1172 S	928 B	744 D	559 D	431 D	339 D	271 D	221 D	182 D	151 D	128 D	109 D	93 D	80 D	70 D	61 D	--
3 1/8	9 5/8	7.5	1191 S	953 B	772 B	582 D	448 D	352 D	282 D	229 D	189 D	158 D	133 D	113 D	97 D	84 D	73 D	64 D	56 D
3 1/8	11	8.6	1412 S	1215 S	1008 B	833 B	669 D	526 D	421 D	342 D	282 D	235 D	198 D	168 D	144 D	125 D	109 D	95 D	84 D
3 1/8	11 1/4	8.8	1454 S	1250 S	1055 B	872 B	715 D	563 D	450 D	366 D	302 D	252 D	212 D	180 D	154 D	133 D	116 D	102 D	89 D
3 1/8	11 7/8	9.3	1561 S	1339 S	1172 S	971 B	816 B	662 D	530 D	431 D	355 D	296 D	249 D	212 D	182 D	157 D	137 D	119 D	105 D
3 1/8	12 3/8	9.7	1650 S	1412 S	1234 S	1055 B	886 B	749 D	600 D	487 D	402 D	335 D	282 D	240 D	206 D	178 D	154 D	135 D	119 D
3 1/8	13 3/4	10.7	1907 S	1623 S	1412 S	1250 S	1094 B	932 B	804 B	669 D	551 D	459 D	387 D	329 D	282 D	244 D	212 D	185 D	163 D
3 1/8	14	10.9	1956 S	1663 S	1446 S	1279 S	1134 B	966 B	833 B	706 D	582 D	485 D	408 D	347 D	298 D	257 D	224 D	196 D	172 D
3 1/8	15 1/8	11.8	2185 S	1848 S	1601 S	1412 S	1263 S	1128 B	973 B	847 B	733 D	611 D	515 D	438 D	375 D	324 D	282 D	247 D	217 D
3 1/8	16	12.5	2375 S	2000 S	1727 S	1520 S	1357 S	1226 S	1088 B	948 B	833 B	724 D	610 D	518 D	444 D	384 D	334 D	292 D	257 D
3 1/8	16 1/2	12.9	2488 S	2090 S	1802 S	1583 S	1412 S	1274 S	1158 B	1008 B	886 B	785 B	669 D	569 D	487 D	421 D	366 D	320 D	282 D
3 1/8	17 7/8	14.0	2818 S	2350 S	2016 S	1764 S	1569 S	1412 S	1284 S	1177 S	1040 B	921 B	822 B	723 D	620 D	535 D	466 D	407 D	359 D
3 1/8	18	14.1	2850 S	2375 S	2036 S	1781 S	1583 S	1425 S	1295 S	1188 S	1055 B	934 B	833 B	738 D	633 D	547 D	475 D	416 D	366 D
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January, 2003

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Lamination thickness: 1-3/8 in.

FLOOR LOAD FACTOR = 0.80

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf															
Width	Depth	WEIGHT	SPAN, ft															
b, in.	d, in.	plf	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
3 1/8	5 1/2	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	6 7/8	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	8 1/4	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/4	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/2	7.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 5/8	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11	8.6	74 D	66 D	59 D	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 1/4	8.8	79 D	70 D	63 D	56 D	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 7/8	9.3	93 D	83 D	74 D	66 D	60 D	--	--	--	--	--	--	--	--	--	--	--
3 1/8	12 3/8	9.7	105 D	94 D	84 D	75 D	67 D	61 D	--	--	--	--	--	--	--	--	--	--
3 1/8	13 3/4	10.7	144 D	128 D	115 D	103 D	93 D	84 D	76 D	69 D	63 D	57 D	--	--	--	--	--	--
3 1/8	14	10.9	152 D	136 D	121 D	109 D	98 D	88 D	80 D	73 D	66 D	61 D	56 D	--	--	--	--	--
3 1/8	15 1/8	11.8	192 D	171 D	153 D	137 D	123 D	111 D	101 D	92 D	84 D	76 D	70 D	64 D	59 D	--	--	--
3 1/8	16	12.5	228 D	202 D	181 D	162 D	146 D	132 D	119 D	109 D	99 D	90 D	83 D	76 D	70 D	65 D	60 D	56 D
3 1/8	16 1/2	12.9	250 D	222 D	198 D	178 D	160 D	144 D	131 D	119 D	109 D	99 D	91 D	84 D	77 D	71 D	66 D	61 D
3 1/8	17 7/8	14.0	317 D	282 D	252 D	226 D	203 D	184 D	166 D	151 D	138 D	126 D	116 D	106 D	98 D	90 D	84 D	77 D
3 1/8	18	14.1	324 D	288 D	257 D	231 D	208 D	187 D	170 D	154 D	141 D	129 D	118 D	109 D	100 D	92 D	85 D	79 D
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b, in.	d, in.	plf	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
3 1/8	5 1/2	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	6 7/8	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	8 1/4	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/4	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/2	7.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 5/8	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11	8.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 1/4	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 7/8	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	12 3/8	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	13 3/4	10.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	14	10.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	15 1/8	11.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	16	12.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	16 1/2	12.9	57 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	17 7/8	14.0	72 D	67 D	62 D	58 D	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	18	14.1	73 D	68 D	64 D	59 D	56 D	--	--	--	--	--	--	--	--	--	--	--	--
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b, in.	d, in.	plf	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
3 1/8	5 1/2	4.3	451 D	317 D	231 D	174 D	134 D	105 D	--	--	--	--	--	--	--	--	--	--	--
3 1/8	6 7/8	5.4	708 B	559 B	451 D	339 D	261 D	205 D	164 D	134 D	110 D	92 D	--	--	--	--	--	--	--
3 1/8	8 1/4	6.4	1019 B	805 B	652 B	539 B	451 D	355 D	284 D	231 D	190 D	159 D	134 D	114 D	97 D	--	--	--	--
3 1/8	9 1/4	7.2	1281 B	1012 B	820 B	678 B	569 B	485 B	401 D	326 D	268 D	224 D	188 D	160 D	137 D	119 D	103 D	90 D	--
3 1/8	9 1/2	7.4	1348 S	1068 B	865 B	715 B	601 B	512 B	434 D	353 D	291 D	242 D	204 D	174 D	149 D	129 D	112 D	98 D	--
3 1/8	9 5/8	7.5	1370 S	1096 B	888 B	734 B	617 B	525 B	451 D	367 D	302 D	252 D	212 D	181 D	155 D	134 D	116 D	102 D	90 D
3 1/8	11	8.6	1624 S	1397 S	1160 B	958 B	805 B	686 B	592 B	515 B	451 D	376 D	317 D	270 D	231 D	200 D	174 D	152 D	134 D
3 1/8	11 1/4	8.8	1672 S	1438 S	1213 B	1002 B	842 B	718 B	619 B	539 B	474 B	403 D	339 D	288 D	247 D	214 D	186 D	163 D	143 D
3 1/8	11 7/8	9.3	1796 S	1540 S	1348 S	1117 B	938 B	800 B	689 B	601 B	528 B	468 B	399 D	339 D	291 D	251 D	218 D	191 D	168 D
3 1/8	12 3/8	9.7	1898 S	1624 S	1419 S	1213 B	1019 B	868 B	749 B	652 B	573 B	508 B	451 D	384 D	329 D	284 D	247 D	216 D	190 D
3 1/8	13 3/4	10.7	2193 S	1866 S	1624 S	1438 S	1258 B	1072 B	924 B	805 B	708 B	627 B	559 B	502 B	451 D	390 D	339 D	297 D	261 D
3 1/8	14	10.9	2249 S	1912 S	1663 S	1471 S	1304 B	1111 B	958 B	835 B	734 B	650 B	580 B	520 B	470 B	412 D	358 D	313 D	276 D
3 1/8	15 1/8	11.8	2513 S	2125 S	1841 S	1624 S	1453 S	1297 B	1119 B	974 B	856 B	759 B	677 B	607 B	548 B	497 B	451 D	395 D	348 D
3 1/8	16	12.5	2731 S	2300 S	1986 S	1748 S	1561 S	1410 S	1252 B	1090 B	958 B	849 B	757 B	680 B	613 B	556 B	507 B	464 B	412 D
3 1/8	16 1/2	12.9	2861 S	2404 S	2072 S	1821 S	1624 S	1466 S	1331 B	1160 B	1019 B	903 B	805 B	723 B	652 B	592 B	539 B	493 B	451 D
3 1/8	17 7/8	14.0	3000 *	2703 S	2318 S	2029 S	1804 S	1624 S	1477 S	1354 S	1196 B	1060 B	945 B	848 B	766 B	694 B	633 B	579 B	531 B
3 1/8	18	14.1	3000 *	2731 S	2341 S	2048 S	1821 S	1639 S	1490 S	1366 S	1213 B	1074 B	958 B	860 B	776 B	704 B	642 B	587 B	538 B
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.

The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.

For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For roof beams, deflection is limited to span /180 for total load.

CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.

SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.

* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

January, 2003

TABLE Boozer Special 24F 3-1/8 in

SOUTHERN PINE

THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION

Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.15	Span / 180 for TOTAL LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf															
Width	Depth	WEIGHT	SPAN, ft															
b, in.	d, in.	plf	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
3 1/8	5 1/2	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	6 7/8	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	8 1/4	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/4	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/2	7.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 5/8	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11	8.6	118 D	105 D	94 D	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 1/4	8.8	127 D	113 D	100 D	90 D	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 7/8	9.3	149 D	132 D	118 D	106 D	95 D	--	--	--	--	--	--	--	--	--	--	--
3 1/8	12 3/8	9.7	168 D	150 D	134 D	120 D	108 D	97 D	--	--	--	--	--	--	--	--	--	--
3 1/8	13 3/4	10.7	231 D	205 D	183 D	164 D	148 D	134 D	121 D	110 D	100 D	92 D	--	--	--	--	--	--
3 1/8	14	10.9	244 D	217 D	194 D	174 D	156 D	141 D	128 D	116 D	106 D	97 D	89 D	--	--	--	--	--
3 1/8	15 1/8	11.8	308 D	273 D	244 D	219 D	197 D	178 D	161 D	147 D	134 D	122 D	112 D	103 D	95 D	--	--	--
3 1/8	16	12.5	364 D	324 D	289 D	259 D	233 D	211 D	191 D	174 D	158 D	145 D	133 D	122 D	112 D	104 D	96 D	89 D
3 1/8	16 1/2	12.9	399 D	355 D	317 D	284 D	256 D	231 D	209 D	190 D	174 D	159 D	146 D	134 D	123 D	114 D	105 D	97 D
3 1/8	17 7/8	14.0	488 B	450 B	403 D	361 D	325 D	294 D	266 D	242 D	221 D	202 D	185 D	170 D	157 D	145 D	134 D	124 D
3 1/8	18	14.1	495 B	456 B	412 D	369 D	332 D	300 D	272 D	247 D	225 D	206 D	189 D	174 D	160 D	148 D	137 D	127 D
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.

The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.

For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For floor beams, deflection is limited to span/360 for live load.

CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.

SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.

* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

January, 2003

TABLE SP Boozer Special 24F 3-1/8 in

SOUTHERN PINE **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.15	Span / 180 for TOTAL LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
3 1/8	5 1/2	4.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	6 7/8	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	8 1/4	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/4	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 1/2	7.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	9 5/8	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11	8.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 1/4	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	11 7/8	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	12 3/8	9.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	13 3/4	10.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	14	10.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	15 1/8	11.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	16	12.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	16 1/2	12.9	91 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	17 7/8	14.0	115 D	107 D	100 D	93 D	--	--	--	--	--	--	--	--	--	--	--	--	--
3 1/8	18	14.1	118 D	109 D	102 D	95 D	89 D	--	--	--	--	--	--	--	--	--	--	--	--
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For roof beams, deflection is limited to span /180 for total load.

CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.

SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.

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January, 2003

TABLE SP Boozer Special 24F 5-1/8 in

SOUTHERN PINE **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

FLOOR BEAMS
FLOOR LIVE LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	**190 psi**	**1.8 million psi**	**1.00**	**Span / 360 for LIVE LOAD**

Simple Span Beams

For Preliminary Design Purposes

Lamination thickness: 1-3/8 in.

FLOOR LOAD FACTOR : 0.80

BEAM SIZE Width b, in.	Depth d, in.	BEAM WEIGHT plf	BEAM CAPACITY, UNIFORM LOAD w, plf — SPAN, ft 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5 1/8	5 1/2	7.0	463 D	325 D	237 D	178 D	137 D	108 D	--	--	--	--	--	--	--	--	--	--	--
5 1/8	6 7/8	8.8	904 D	635 D	463 D	348 D	268 D	211 D	169 D	137 D	113 D	94 D	--	--	--	--	--	--	--
5 1/8	8 1/4	10.6	1453 B	1097 D	799 D	601 D	463 D	364 D	291 D	237 D	195 D	163 D	137 D	117 D	100 D	--	--	--	--
5 1/8	9 1/4	11.9	1827 B	1444 B	1127 D	847 D	652 D	513 D	411 D	334 D	275 D	229 D	193 D	164 D	141 D	122 D	106 D	93 D	--
5 1/8	9 1/2	12.2	1922 S	1523 B	1221 D	917 D	706 D	556 D	445 D	362 D	298 D	248 D	209 D	178 D	153 D	132 D	115 D	100 D	--
5 1/8	9 5/8	12.3	1954 S	1563 B	1266 B	954 D	735 D	578 D	463 D	376 D	310 D	258 D	218 D	185 D	159 D	137 D	119 D	104 D	92 D
5 1/8	11	14.1	2316 S	1993 S	1654 B	1367 B	1097 D	862 D	691 D	561 D	463 D	386 D	325 D	276 D	237 D	205 D	178 D	156 D	137 D
5 1/8	11 1/4	14.4	2385 S	2050 S	1730 B	1429 B	1173 D	923 D	739 D	601 D	495 D	413 D	348 D	296 D	253 D	219 D	190 D	167 D	147 D
5 1/8	11 7/8	15.2	2561 S	2196 S	1922 S	1593 B	1338 B	1085 D	869 D	706 D	582 D	485 D	409 D	348 D	298 D	257 D	224 D	196 D	172 D
5 1/8	12 3/8	15.9	2706 S	2316 S	2024 S	1730 B	1453 B	1228 D	983 D	799 D	659 D	549 D	463 D	393 D	337 D	291 D	253 D	222 D	195 D
5 1/8	13 3/4	17.6	3127 S	2661 S	2316 S	2050 S	1794 B	1529 B	1318 B	1097 D	904 D	753 D	635 D	540 D	463 D	400 D	348 D	304 D	268 D
5 1/8	14	17.9	3208 S	2727 S	2371 S	2097 S	1860 B	1585 B	1367 B	1157 D	954 D	795 D	670 D	570 D	488 D	422 D	367 D	321 D	283 D
5 1/8	15 1/8	19.4	3584 S	3031 S	2626 S	2316 S	2072 S	1850 B	1595 B	1390 B	1203 D	1003 D	845 D	718 D	616 D	532 D	463 D	405 D	356 D
5 1/8	16	20.5	3895 S	3280 S	2833 S	2493 S	2226 S	2010 S	1785 B	1555 B	1366 B	1187 D	1000 D	850 D	729 D	630 D	548 D	479 D	422 D
5 1/8	16 1/2	21.1	4080 S	3428 S	2955 S	2597 S	2316 S	2090 S	1898 B	1654 B	1450 B	1281 B	1097 D	932 D	799 D	691 D	601 D	526 D	463 D
5 1/8	17 7/8	22.9	4622 S	3855 S	3306 S	2893 S	2573 S	2316 S	2106 S	1931 S	1695 B	1497 B	1331 B	1185 D	1016 D	878 D	764 D	668 D	588 D
5 1/8	18	23.1	4674 S	3895 S	3339 S	2921 S	2597 S	2337 S	2125 S	1948 S	1718 B	1517 B	1350 B	1208 B	1038 D	896 D	780 D	682 D	601 D
5 1/8	19 1/4	24.7	5216 S	4315 S	3680 S	3208 S	2843 S	2552 S	2316 S	2120 S	1954 S	1730 B	1538 B	1377 B	1240 B	1097 D	954 D	835 D	735 D
5 1/8	20 5/8	26.4	5869 S	4814 S	4080 S	3541 S	3127 S	2800 S	2535 S	2316 S	2132 S	1974 S	1760 B	1575 B	1418 B	1283 B	1166 B	1027 D	904 D
5 1/8	22	28.2	6000 *	5356 S	4510 S	3895 S	3428 S	3060 S	2764 S	2520 S	2316 S	2142 S	1993 S	1787 B	1608 B	1455 B	1323 B	1208 B	1097 D
5 1/8	23 3/8	29.9	6000 *	5946 S	4972 S	4272 S	3745 S	3333 S	3004 S	2733 S	2507 S	2316 S	2152 S	2009 S	1810 B	1638 B	1489 B	1359 B	1246 B
5 1/8	24 3/4	31.7	6000 *	6000 *	5470 S	4674 S	4080 S	3621 S	3254 S	2955 S	2706 S	2496 S	2316 S	2160 S	2023 B	1831 B	1664 B	1519 B	1392 B
5 1/8	26 1/8	33.5	6000 *	6000 *	6000 *	5104 S	4436 S	3923 S	3516 S	3186 S	2913 S	2682 S	2486 S	2316 S	2168 S	2034 B	1849 B	1688 B	1547 B
5 1/8	27 1/2	35.2	6000 *	6000 *	6000 *	5564 S	4814 S	4242 S	3792 S	3428 S	3127 S	2876 S	2661 S	2477 S	2316 S	2175 S	2044 B	1866 B	1710 B
5 1/8	28 7/8	37.0	6000 *	6000 *	6000 *	6000 *	5216 S	4579 S	4080 S	3680 S	3351 S	3076 S	2843 S	2642 S	2468 S	2316 S	2181 S	2052 B	1881 B
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.

The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

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For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For floor beams, deflection is limited to span/360 for live load. Live load of 80% of total load is used.

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February, 2003

TABLE Boozer Special 24F 5-1/8 in

SOUTHERN PINE **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

FLOOR BEAMS
FLOOR LIVE LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.00	Span / 360 for LIVE LOAD

Simple Span Beams

For Preliminary Design Purposes

Lamination thickness: 1-3/8 in.

FLOOR LOAD FACTOR : 0.80

BEAM SIZE		BEAM	**BEAM CAPACITY, UNIFORM LOAD w, plf**															
Width	Depth	WEIGHT	SPAN, ft															
b, in.	d, in.	plf	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5 1/8	5 1/2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	6 7/8	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	8 1/4	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/4	11.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/2	12.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 5/8	12.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11	14.1	121 D	108 D	96 D	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 1/4	14.4	130 D	115 D	103 D	92 D	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 7/8	15.2	153 D	136 D	121 D	109 D	98 D	--	--	--	--	--	--	--	--	--	--	--
5 1/8	12 3/8	15.9	173 D	153 D	137 D	123 D	111 D	100 D	--	--	--	--	--	--	--	--	--	--
5 1/8	13 3/4	17.6	237 D	211 D	188 D	169 D	152 D	137 D	124 D	113 D	103 D	94 D	--	--	--	--	--	--
5 1/8	14	17.9	250 D	222 D	198 D	178 D	160 D	145 D	131 D	119 D	109 D	99 D	91 D	--	--	--	--	--
5 1/8	15 1/8	19.4	315 D	280 D	250 D	224 D	202 D	182 D	165 D	150 D	137 D	125 D	115 D	106 D	97 D	--	--	--
5 1/8	16	20.5	373 D	332 D	296 D	266 D	239 D	216 D	196 D	178 D	162 D	148 D	136 D	125 D	115 D	106 D	98 D	91 D
5 1/8	16 1/2	21.1	409 D	364 D	325 D	291 D	262 D	237 D	215 D	195 D	178 D	163 D	149 D	137 D	126 D	117 D	108 D	100 D
5 1/8	17 7/8	22.9	520 D	463 D	413 D	370 D	333 D	301 D	273 D	248 D	226 D	207 D	190 D	174 D	161 D	148 D	137 D	127 D
5 1/8	18	23.1	531 D	472 D	422 D	378 D	340 D	307 D	279 D	253 D	231 D	211 D	194 D	178 D	164 D	151 D	140 D	130 D
5 1/8	19 1/4	24.7	650 D	578 D	516 D	463 D	416 D	376 D	341 D	310 D	283 D	258 D	237 D	218 D	200 D	185 D	171 D	159 D
5 1/8	20 5/8	26.4	799 D	711 D	635 D	569 D	512 D	463 D	419 D	381 D	348 D	318 D	291 D	268 D	247 D	228 D	211 D	195 D
5 1/8	22	28.2	970 D	862 D	770 D	691 D	622 D	561 D	509 D	463 D	422 D	386 D	354 D	325 D	299 D	276 D	256 D	237 D
5 1/8	23 3/8	29.9	1146 B	1034 D	924 D	828 D	746 D	673 D	610 D	555 D	506 D	463 D	424 D	390 D	359 D	331 D	307 D	284 D
5 1/8	24 3/4	31.7	1281 B	1182 B	1094 B	983 D	885 D	799 D	724 D	659 D	601 D	549 D	503 D	463 D	426 D	393 D	364 D	337 D
5 1/8	26 1/8	33.5	1423 B	1313 B	1215 B	1128 B	1041 D	940 D	852 D	775 D	706 D	646 D	592 D	544 D	501 D	463 D	428 D	397 D
5 1/8	27 1/2	35.2	1573 B	1451 B	1343 B	1247 B	1160 B	1082 B	994 D	904 D	824 D	753 D	691 D	635 D	584 D	540 D	499 D	463 D
5 1/8	28 7/8	37.0	1730 B	1596 B	1477 B	1371 B	1276 B	1190 B	1113 B	1043 B	954 D	872 D	799 D	735 D	677 D	625 D	578 D	536 D
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.

The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

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For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For floor beams, deflection is limited to span/360 for live load. Live load of 80% of total load is used.

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February, 2003

TABLE SP Boozer Special 24F 5-1/8 in

SOUTHERN PINE **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

FLOOR BEAMS
FLOOR LIVE LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.00	Span / 360 for LIVE LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

FLOOR LOAD FACTOR : 0.80

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
5 1/8	5 1/2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	6 7/8	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	8 1/4	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/4	11.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/2	12.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 5/8	12.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11	14.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 1/4	14.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 7/8	15.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	12 3/8	15.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	13 3/4	17.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	14	17.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	15 1/8	19.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	16	20.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	16 1/2	21.1	93 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	17 7/8	22.9	118 D	110 D	102 D	95 D	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	18	23.1	120 D	112 D	104 D	97 D	91 D	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	19 1/4	24.7	147 D	137 D	128 D	119 D	111 D	104 D	98 D	92 D	--	--	--	--	--	--	--	--	--
5 1/8	20 5/8	26.4	181 D	169 D	157 D	147 D	137 D	128 D	120 D	113 D	106 D	100 D	94 D	--	--	--	--	--	--
5 1/8	22	28.2	220 D	205 D	191 D	178 D	166 D	156 D	146 D	137 D	129 D	121 D	114 D	108 D	102 D	96 D	91 D	--	--
5 1/8	23 3/8	29.9	264 D	245 D	229 D	213 D	200 D	187 D	175 D	164 D	155 D	145 D	137 D	129 D	122 D	115 D	109 D	104 D	98 D
5 1/8	24 3/4	31.7	313 D	291 D	271 D	253 D	237 D	222 D	208 D	195 D	183 D	173 D	163 D	153 D	145 D	137 D	130 D	123 D	117 D
5 1/8	26 1/8	33.5	368 D	343 D	319 D	298 D	279 D	261 D	244 D	230 D	216 D	203 D	191 D	181 D	171 D	161 D	153 D	145 D	137 D
5 1/8	27 1/2	35.2	430 D	400 D	372 D	348 D	325 D	304 D	285 D	268 D	252 D	237 D	223 D	211 D	199 D	188 D	178 D	169 D	160 D
5 1/8	28 7/8	37.0	497 D	463 D	431 D	402 D	376 D	352 D	330 D	310 D	291 D	274 D	258 D	244 D	230 D	218 D	206 D	195 D	185 D
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February, 2003

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Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.15	Span / 180 for TOTAL LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5 1/8	5 1/2	7.0	740 D	520 D	379 D	285 D	219 D	172 D	--	--	--	--	--	--	--	--	--	--	--
5 1/8	6 7/8	8.8	1161 B	917 B	740 D	556 D	428 D	337 D	270 D	219 D	181 D	151 D	--	--	--	--	--	--	--
5 1/8	8 1/4	10.6	1671 B	1321 B	1070 B	884 B	740 D	582 D	466 D	379 D	312 D	260 D	219 D	186 D	160 D	--	--	--	--
5 1/8	9 1/4	11.9	2101 B	1660 B	1345 B	1111 B	934 B	796 B	657 D	534 D	440 D	367 D	309 D	263 D	225 D	195 D	169 D	148 D	--
5 1/8	9 1/2	12.2	2211 S	1751 B	1418 B	1172 B	985 B	839 B	712 D	579 D	477 D	397 D	335 D	285 D	244 D	211 D	183 D	161 D	--
5 1/8	9 5/8	12.3	2247 S	1798 B	1456 B	1203 B	1011 B	862 B	740 D	602 D	496 D	413 D	348 D	296 D	254 D	219 D	191 D	167 D	147 D
5 1/8	11	14.1	2663 S	2292 S	1902 B	1572 B	1321 B	1125 B	970 B	845 B	740 D	617 D	520 D	442 D	379 D	327 D	285 D	249 D	219 D
5 1/8	11 1/4	14.4	2742 S	2358 S	1989 B	1644 B	1381 B	1177 B	1015 B	884 B	777 B	660 D	556 D	473 D	405 D	350 D	305 D	267 D	235 D
5 1/8	11 7/8	15.2	2945 S	2525 S	2211 S	1832 B	1539 B	1311 B	1131 B	985 B	866 B	767 B	654 D	556 D	477 D	412 D	358 D	313 D	276 D
5 1/8	12 3/8	15.9	3112 S	2663 S	2328 S	1989 B	1671 B	1424 B	1228 B	1070 B	940 B	833 B	740 D	629 D	540 D	466 D	405 D	355 D	312 D
5 1/8	13 3/4	17.6	3596 S	3060 S	2663 S	2358 S	2063 B	1758 B	1516 B	1321 B	1161 B	1028 B	917 B	822 B	740 B	639 D	556 D	487 D	428 D
5 1/8	14	17.9	3689 S	3135 S	2727 S	2412 S	2139 B	1823 B	1572 B	1369 B	1203 B	1066 B	951 B	851 B	766 B	675 D	587 D	514 D	452 D
5 1/8	15 1/8	19.4	4122 S	3485 S	3019 S	2663 S	2382 S	2127 B	1834 B	1598 B	1404 B	1243 B	1105 B	989 B	891 B	806 B	733 B	648 D	570 D
5 1/8	16	20.5	4479 S	3772 S	3258 S	2867 S	2560 S	2312 S	2053 B	1788 B	1570 B	1387 B	1234 B	1104 B	994 B	899 B	818 B	746 B	675 D
5 1/8	16 1/2	21.1	4693 S	3942 S	3398 S	2986 S	2663 S	2404 S	2183 B	1902 B	1668 B	1473 B	1310 B	1172 B	1055 B	955 B	868 B	792 B	726 B
5 1/8	17 7/8	22.9	5316 S	4433 S	3801 S	3327 S	2959 S	2663 S	2422 S	2220 S	1949 B	1721 B	1531 B	1370 B	1234 B	1116 B	1015 B	926 B	849 B
5 1/8	18	23.1	5375 S	4479 S	3839 S	3359 S	2986 S	2688 S	2443 S	2240 S	1976 B	1745 B	1552 B	1389 B	1251 B	1132 B	1029 B	939 B	861 B
5 1/8	19 1/4	24.7	5998 S	4963 S	4232 S	3689 S	3269 S	2935 S	2663 S	2437 S	2247 S	1989 B	1769 B	1584 B	1425 B	1290 B	1172 B	1070 B	981 B
5 1/8	20 5/8	26.4	6000 *	5536 S	4693 S	4072 S	3596 S	3220 S	2915 S	2663 S	2451 S	2271 S	2024 B	1812 B	1631 B	1476 B	1341 B	1224 B	1122 B
5 1/8	22	28.2	6000 *	6000 *	5187 S	4479 S	3942 S	3519 S	3179 S	2898 S	2663 S	2464 S	2292 S	2055 B	1849 B	1673 B	1521 B	1389 B	1273 B
5 1/8	23 3/8	29.9	6000 *	6000 *	5718 S	4913 S	4307 S	3834 S	3454 S	3143 S	2883 S	2663 S	2475 S	2311 S	2082 B	1883 B	1712 B	1563 B	1432 B
5 1/8	24 3/4	31.7	6000 *	6000 *	6000 *	5375 S	4693 S	4164 S	3742 S	3398 S	3112 S	2870 S	2663 S	2484 S	2327 B	2105 B	1914 B	1747 B	1601 B
5 1/8	26 1/8	33.5	6000 *	6000 *	6000 *	5869 S	5102 S	4512 S	4044 S	3664 S	3349 S	3085 S	2859 S	2663 S	2493 S	2340 B	2127 B	1942 B	1779 B
5 1/8	27 1/2	35.2	6000 *	6000 *	6000 *	6000 *	5536 S	4878 S	4360 S	3942 S	3596 S	3307 S	3060 S	2848 S	2663 S	2501 S	2351 B	2146 B	1967 B
5 1/8	28 7/8	37.0	6000 *	6000 *	6000 *	6000 *	5998 S	5266 S	4693 S	4232 S	3854 S	3537 S	3269 S	3039 S	2839 S	2663 S	2508 S	2360 B	2163 B
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0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.

The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.

For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For roof beams, deflection is limited to span /180 for total load.

CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.

SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.

* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

February, 2003

TABLE Boozer Special 24F 5-1/8 in

SOUTHERN PINE **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.15	Span / 180 for TOTAL LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf															
Width	Depth	WEIGHT	SPAN, ft															
b, in.	d, in.	plf	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5 1/8	5 1/2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	6 7/8	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	8 1/4	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/4	11.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/2	12.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 5/8	12.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11	14.1	194 D	172 D	154 D	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 1/4	14.4	208 D	185 D	165 D	148 D	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 7/8	15.2	244 D	217 D	194 D	174 D	156 D	--	--	--	--	--	--	--	--	--	--	--
5 1/8	12 3/8	15.9	276 D	246 D	219 D	197 D	177 D	160 D	--	--	--	--	--	--	--	--	--	--
5 1/8	13 3/4	17.6	379 D	337 D	301 D	270 D	243 D	219 D	199 D	181 D	165 D	151 D	--	--	--	--	--	--
5 1/8	14	17.9	400 D	356 D	318 D	285 D	256 D	231 D	210 D	191 D	174 D	159 D	146 D	--	--	--	--	--
5 1/8	15 1/8	19.4	504 D	448 D	400 D	359 D	323 D	292 D	265 D	241 D	219 D	201 D	184 D	169 D	156 D	--	--	--
5 1/8	16	20.5	597 D	531 D	474 D	425 D	383 D	346 D	313 D	285 D	260 D	237 D	218 D	200 D	184 D	170 D	157 D	146 D
5 1/8	16 1/2	21.1	655 D	582 D	520 D	466 D	420 D	379 D	343 D	312 D	285 D	260 D	239 D	219 D	202 D	186 D	172 D	160 D
5 1/8	17 7/8	22.9	781 B	720 B	661 D	593 D	533 D	482 D	437 D	397 D	362 D	331 D	303 D	279 D	257 D	237 D	219 D	203 D
5 1/8	18	23.1	791 B	730 B	675 D	605 D	545 D	492 D	446 D	405 D	370 D	338 D	310 D	285 D	262 D	242 D	224 D	208 D
5 1/8	19 1/4	24.7	902 B	832 B	771 B	715 B	666 B	602 D	545 D	496 D	452 D	413 D	379 D	348 D	321 D	296 D	274 D	254 D
5 1/8	20 5/8	26.4	1032 B	952 B	881 B	818 B	761 B	710 B	664 B	610 D	556 D	508 D	466 D	428 D	395 D	364 D	337 D	312 D
5 1/8	22	28.2	1171 B	1080 B	1000 B	928 B	863 B	805 B	753 B	706 B	663 B	617 D	566 D	520 D	479 D	442 D	409 D	379 D
5 1/8	23 3/8	29.9	1317 B	1216 B	1125 B	1044 B	972 B	907 B	848 B	794 B	746 B	701 B	661 B	624 D	574 D	530 D	490 D	455 D
5 1/8	24 3/4	31.7	1473 B	1359 B	1258 B	1167 B	1086 B	1013 B	948 B	888 B	834 B	784 B	739 B	697 B	659 B	624 B	582 D	540 D
5 1/8	26 1/8	33.5	1636 B	1510 B	1398 B	1297 B	1207 B	1126 B	1053 B	987 B	926 B	871 B	821 B	775 B	733 B	694 B	658 B	624 B
5 1/8	27 1/2	35.2	1809 B	1669 B	1545 B	1434 B	1334 B	1245 B	1164 B	1090 B	1024 B	963 B	907 B	856 B	810 B	767 B	727 B	690 B
5 1/8	28 7/8	37.0	1989 B	1835 B	1699 B	1577 B	1467 B	1369 B	1280 B	1199 B	1126 B	1059 B	998 B	942 B	891 B	843 B	799 B	759 B
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.

The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.

For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For floor beams, deflection is limited to span/360 for live load.

CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.

SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.

* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

February, 2003

TABLE SP Boozer Special 24F 5-1/8 in

SOUTHERN PINE — **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.15	Span / 180 for TOTAL LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
5 1/8	5 1/2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	6 7/8	8.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	8 1/4	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/4	11.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 1/2	12.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	9 5/8	12.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11	14.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 1/4	14.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	11 7/8	15.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	12 3/8	15.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	13 3/4	17.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	14	17.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	15 1/8	19.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	16	20.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	16 1/2	21.1	148 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	17 7/8	22.9	189 D	176 D	164 D	153 D	--	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	18	23.1	193 D	179 D	167 D	156 D	146 D	--	--	--	--	--	--	--	--	--	--	--	--
5 1/8	19 1/4	24.7	236 D	219 D	204 D	191 D	178 D	167 D	156 D	147 D	--	--	--	--	--	--	--	--	--
5 1/8	20 5/8	26.4	290 D	270 D	251 D	235 D	219 D	205 D	192 D	181 D	170 D	160 D	151 D	--	--	--	--	--	--
5 1/8	22	28.2	352 D	327 D	305 D	285 D	266 D	249 D	234 D	219 D	206 D	194 D	183 D	172 D	163 D	154 D	146 D	--	--
5 1/8	23 3/8	29.9	422 D	393 D	366 D	342 D	319 D	299 D	280 D	263 D	247 D	233 D	219 D	207 D	195 D	185 D	175 D	166 D	157 D
5 1/8	24 3/4	31.7	501 D	466 D	434 D	405 D	379 D	355 D	333 D	312 D	294 D	276 D	260 D	246 D	232 D	219 D	208 D	197 D	186 D
5 1/8	26 1/8	33.5	589 D	548 D	511 D	477 D	446 D	417 D	391 D	367 D	345 D	325 D	306 D	289 D	273 D	258 D	244 D	231 D	219 D
5 1/8	27 1/2	35.2	656 B	624 B	595 B	556 D	520 D	487 D	456 D	428 D	403 D	379 D	357 D	337 D	318 D	301 D	285 D	270 D	256 D
5 1/8	28 7/8	37.0	722 B	687 B	654 B	624 B	596 B	563 D	528 D	496 D	466 D	439 D	413 D	390 D	368 D	348 D	330 D	312 D	296 D
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0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.
Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.
The load carrying capacities tabulated are for total load including the weight of the member.
BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.
DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.
For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.
DEFLECTION LIMITS: For roof beams, deflection is limited to span /180 for total load.
CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.
SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.
* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

While these capacity tables have been prepared in accordance with recognized engineering principles and are based on the most accurate and reliable technical data available, these tables should not be used or relied upon for any general or specific application without competent professional examination and verification of their accuracy, suitability, and applicability by a licensed professional engineer, designer, or architect.

February, 2003

TABLE SP Boozer Special 6-3/4 in

SOUTHERN PINE

THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION

Structural Glued Laminated Timber

FLOOR BEAMS
FLOOR LIVE LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.00	Span / 360 for LIVE LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

FLOOR LOAD FACTOR : 0.80

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
6 3/4	5 1/2	9.3	609 D	428 D	312 D	234 D	181 D	142 D	--	--	--	--	--	--	--	--	--	--	--
6 3/4	6 7/8	11.6	1190 D	836 D	609 D	458 D	353 D	277 D	222 D	181 D	149 D	124 D	--	--	--	--	--	--	--
6 3/4	8 1/4	13.9	1914 B	1444 D	1053 D	791 D	609 D	479 D	384 D	312 D	257 D	214 D	181 D	153 D	132 D	--	--	--	--
6 3/4	9 1/4	15.6	2406 B	1901 B	1484 D	1115 D	859 D	675 D	541 D	440 D	362 D	302 D	254 D	216 D	185 D	160 D	139 D	122 D	--
6 3/4	9 1/2	16.0	2532 S	2006 B	1608 D	1208 D	930 D	732 D	586 D	476 D	392 D	327 D	276 D	234 D	201 D	174 D	151 D	132 D	--
6 3/4	9 5/8	16.2	2573 S	2059 B	1668 B	1256 D	968 D	761 D	609 D	495 D	408 D	340 D	287 D	244 D	209 D	181 D	157 D	137 D	121 D
6 3/4	11	18.6	3050 S	2625 S	2178 B	1800 B	1444 D	1136 D	909 D	739 D	609 D	508 D	428 D	364 D	312 D	269 D	234 D	205 D	181 D
6 3/4	11 1/4	19.0	3141 S	2700 S	2278 B	1883 B	1545 D	1215 D	973 D	791 D	652 D	543 D	458 D	389 D	334 D	288 D	251 D	219 D	193 D
6 3/4	11 7/8	20.0	3373 S	2892 S	2532 S	2098 B	1763 B	1429 D	1144 D	930 D	767 D	639 D	538 D	458 D	392 D	339 D	295 D	258 D	227 D
6 3/4	12 3/8	20.9	3564 S	3050 S	2666 S	2278 B	1914 B	1617 D	1295 D	1053 D	868 D	723 D	609 D	518 D	444 D	384 D	334 D	292 D	257 D
6 3/4	13 3/4	23.2	4119 S	3505 S	3050 S	2700 S	2363 B	2014 B	1736 B	1444 D	1190 D	992 D	836 D	711 D	609 D	526 D	458 D	401 D	353 D
6 3/4	14	23.6	4225 S	3591 S	3123 S	2762 S	2450 B	2088 B	1798 B	1524 D	1256 D	1047 D	882 D	750 D	643 D	556 D	483 D	423 D	372 D
6 3/4	15 1/8	25.5	4720 S	3992 S	3458 S	3050 S	2728 S	2433 B	2090 B	1815 B	1584 D	1320 D	1112 D	946 D	811 D	701 D	609 D	533 D	469 D
6 3/4	16	27.0	5130 S	4320 S	3731 S	3283 S	2931 S	2648 S	2333 B	2025 B	1774 B	1563 D	1317 D	1120 D	960 D	829 D	721 D	631 D	556 D
6 3/4	16 1/2	27.8	5374 S	4514 S	3892 S	3420 S	3050 S	2753 S	2477 B	2150 B	1884 B	1664 B	1444 D	1228 D	1053 D	909 D	791 D	692 D	609 D
6 3/4	17 7/8	30.2	6088 S	5077 S	4354 S	3811 S	3388 S	3050 S	2773 S	2513 B	2202 B	1945 B	1730 B	1548 B	1339 D	1156 D	1006 D	880 D	775 D
6 3/4	18	30.4	6156 S	5130 S	4397 S	3848 S	3420 S	3078 S	2798 S	2548 B	2232 B	1971 B	1753 B	1569 B	1367 D	1181 D	1027 D	899 D	791 D
6 3/4	19 1/4	32.5	6870 S	5684 S	4847 S	4225 S	3744 S	3362 S	3050 S	2792 S	2544 B	2247 B	1998 B	1789 B	1610 B	1444 D	1256 D	1099 D	968 D
6 3/4	20 5/8	34.8	7730 S	6340 S	5374 S	4664 S	4119 S	3688 S	3339 S	3050 S	2807 S	2570 B	2286 B	2046 B	1842 B	1667 B	1515 B	1352 D	1190 D
6 3/4	22	37.1	8000 *	7054 S	5940 S	5130 S	4514 S	4031 S	3641 S	3319 S	3050 S	2822 S	2593 B	2321 B	2089 B	1890 B	1718 B	1569 B	1438 B
6 3/4	23 3/8	39.4	8000 *	7831 S	6548 S	5626 S	4932 S	4390 S	3956 S	3600 S	3302 S	3050 S	2834 S	2612 B	2351 B	2128 B	1934 B	1766 B	1618 B
6 3/4	24 3/4	41.8	8000 *	8000 *	7204 S	6156 S	5374 S	4769 S	4286 S	3892 S	3564 S	3287 S	3050 S	2845 S	2629 B	2378 B	2162 B	1974 B	1809 B
6 3/4	26 1/8	44.1	8000 *	8000 *	7913 S	6722 S	5843 S	5167 S	4631 S	4196 S	3836 S	3533 S	3274 S	3050 S	2855 S	2643 B	2402 B	2193 B	2010 B
6 3/4	27 1/2	46.4	8000 *	8000 *	8000 *	7329 S	6340 S	5587 S	4994 S	4514 S	4119 S	3787 S	3505 S	3262 S	3050 S	2864 S	2655 B	2424 B	2221 B
6 3/4	28 7/8	48.7	9000 *	9000 *	9000 *	7980 S	6870 S	6031 S	5374 S	4847 S	4414 S	4051 S	3744 S	3480 S	3251 S	3050 S	2873 S	2666 B	2443 B
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

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The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

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For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

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SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.

* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

February, 2003

TABLE Boozer Special 6-3/4 in

SOUTHERN PINE

THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION

Structural Glued Laminated Timber

FLOOR BEAMS
FLOOR LIVE LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.00	Span / 360 for LIVE LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

FLOOR LOAD FACTOR : 0.80

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf															
Width	Depth	WEIGHT	SPAN, ft															
b, in.	d, in.	plf	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
6 3/4	5 1/2	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	6 7/8	11.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	8 1/4	13.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/4	15.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/2	16.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 5/8	16.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11	18.6	160 D	142 D	127 D	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 1/4	19.0	171 D	152 D	136 D	122 D	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 7/8	20.0	201 D	179 D	160 D	143 D	129 D	--	--	--	--	--	--	--	--	--	--	--
6 3/4	12 3/8	20.9	227 D	202 D	181 D	162 D	146 D	132 D	--	--	--	--	--	--	--	--	--	--
6 3/4	13 3/4	23.2	312 D	277 D	248 D	222 D	200 D	181 D	164 D	149 D	136 D	124 D	--	--	--	--	--	--
6 3/4	14	23.6	329 D	293 D	261 D	234 D	211 D	191 D	173 D	157 D	143 D	131 D	120 D	--	--	--	--	--
6 3/4	15 1/8	25.5	415 D	369 D	330 D	296 D	266 D	240 D	218 D	198 D	181 D	165 D	151 D	139 D	128 D	--	--	--
6 3/4	16	27.0	492 D	437 D	390 D	350 D	315 D	284 D	258 D	234 D	214 D	195 D	179 D	165 D	152 D	140 D	129 D	120 D
6 3/4	16 1/2	27.8	539 D	479 D	428 D	384 D	345 D	312 D	283 D	257 D	234 D	214 D	196 D	181 D	166 D	153 D	142 D	132 D
6 3/4	17 7/8	30.2	685 D	609 D	544 D	488 D	439 D	397 D	359 D	327 D	298 D	272 D	250 D	230 D	211 D	195 D	181 D	167 D
6 3/4	18	30.4	700 D	622 D	556 D	498 D	448 D	405 D	367 D	334 D	304 D	278 D	255 D	234 D	216 D	199 D	184 D	171 D
6 3/4	19 1/4	32.5	856 D	761 D	680 D	609 D	548 D	495 D	449 D	408 D	372 D	340 D	312 D	287 D	264 D	244 D	225 D	209 D
6 3/4	20 5/8	34.8	1053 D	936 D	836 D	749 D	675 D	609 D	552 D	502 D	458 D	419 D	384 D	353 D	325 D	300 D	277 D	257 D
6 3/4	22	37.1	1278 D	1136 D	1014 D	909 D	819 D	739 D	670 D	609 D	556 D	508 D	466 D	428 D	394 D	364 D	337 D	312 D
6 3/4	23 3/8	39.4	1488 B	1362 D	1217 D	1091 D	982 D	887 D	804 D	731 D	666 D	609 D	559 D	513 D	473 D	436 D	404 D	374 D
6 3/4	24 3/4	41.8	1664 B	1535 B	1421 B	1295 D	1166 D	1053 D	954 D	868 D	791 D	723 D	663 D	609 D	561 D	518 D	479 D	444 D
6 3/4	26 1/8	44.1	1849 B	1706 B	1579 B	1465 B	1364 B	1238 D	1122 D	1020 D	930 D	851 D	780 D	717 D	660 D	609 D	564 D	522 D
6 3/4	27 1/2	46.4	2043 B	1885 B	1745 B	1620 B	1507 B	1406 B	1309 D	1190 D	1085 D	992 D	909 D	836 D	770 D	711 D	657 D	609 D
6 3/4	28 7/8	48.7	2247 B	2073 B	1919 B	1781 B	1658 B	1546 B	1446 B	1355 B	1256 D	1148 D	1053 D	968 D	891 D	823 D	761 D	705 D
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.
Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.
The load carrying capacities tabulated are for total load including the weight of the member.
BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.
DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.
For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.
DEFLECTION LIMITS: For floor beams, deflection is limited to span/360 for live load. Live load of 80% of total load is used.
CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.
SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.
* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

While these capacity tables have been prepared in accordance with recognized engineering principles and are based on the most accurate and reliable technical data available, these tables should not be used or relied upon for any general or specific application without competent professional examination and verification of their accuracy, suitability, and applicability by a licensed professional engineer, designer, or architect.

February, 2003

TABLE SP Boozer Special 6-3/4 in

SOUTHERN PINE

THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION

Structural Glued Laminated Timber

FLOOR BEAMS
FLOOR LIVE LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	**190 psi**	**1.8 million psi**	**1.00**	**Span / 360 for LIVE LOAD**

FLOOR LOAD FACTOR : 0.80

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
6 3/4	5 1/2	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	6 7/8	11.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	8 1/4	13.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/4	15.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/2	16.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 5/8	16.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11	18.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 1/4	19.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 7/8	20.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	12 3/8	20.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	13 3/4	23.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	14	23.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	15 1/8	25.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	16	27.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	16 1/2	27.8	122 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	17 7/8	30.2	155 D	145 D	135 D	126 D	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	18	30.4	159 D	148 D	138 D	128 D	120 D	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	19 1/4	32.5	194 D	181 D	168 D	157 D	147 D	137 D	129 D	121 D	--	--	--	--	--	--	--	--	--
6 3/4	20 5/8	34.8	239 D	222 D	207 D	193 D	181 D	169 D	158 D	149 D	140 D	132 D	124 D	--	--	--	--	--	--
6 3/4	22	37.1	290 D	269 D	251 D	234 D	219 D	205 D	192 D	181 D	170 D	160 D	151 D	142 D	134 D	127 D	120 D	--	--
6 3/4	23 3/8	39.4	347 D	323 D	301 D	281 D	263 D	246 D	231 D	217 D	204 D	192 D	181 D	170 D	161 D	152 D	144 D	136 D	129 D
6 3/4	24 3/4	41.8	412 D	384 D	358 D	334 D	312 D	292 D	274 D	257 D	242 D	227 D	214 D	202 D	191 D	181 D	171 D	162 D	153 D
6 3/4	26 1/8	44.1	485 D	451 D	420 D	392 D	367 D	343 D	322 D	302 D	284 D	267 D	252 D	238 D	225 D	212 D	201 D	190 D	181 D
6 3/4	27 1/2	46.4	566 D	526 D	490 D	458 D	428 D	401 D	376 D	353 D	331 D	312 D	294 D	277 D	262 D	248 D	234 D	222 D	211 D
6 3/4	28 7/8	48.7	655 D	609 D	568 D	530 D	495 D	464 D	435 D	408 D	384 D	361 D	340 D	321 D	303 D	287 D	271 D	257 D	244 D
0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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SOUTHERN PINE

THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION

Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	**190 psi**	**1.8 million psi**	**1.15**	**Span / 180 for TOTAL LOAD**

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
6 3/4	5 1/2	9.3	975 D	685 D	499 D	375 D	289 D	227 D	--	--	--	--	--	--	--	--	--	--	--
6 3/4	6 7/8	11.6	1529 B	1208 B	975 D	732 D	564 D	444 D	355 D	289 D	238 D	198 D	--	--	--	--	--	--	--
6 3/4	8 1/4	13.9	2201 B	1739 B	1409 B	1164 B	975 D	767 D	614 D	499 D	411 D	343 D	289 D	246 D	211 D	--	--	--	--
6 3/4	9 1/4	15.6	2767 B	2187 B	1771 B	1464 B	1230 B	1048 B	865 D	704 D	580 D	483 D	407 D	346 D	297 D	256 D	223 D	195 D	--
6 3/4	9 1/2	16.0	2911 S	2306 B	1868 B	1544 B	1297 B	1105 B	937 D	762 D	628 D	524 D	441 D	375 D	322 D	278 D	242 D	211 D	--
6 3/4	9 5/8	16.2	2959 S	2367 B	1918 B	1585 B	1332 B	1135 B	975 D	793 D	653 D	544 D	459 D	390 D	334 D	289 D	251 D	220 D	194 D
6 3/4	11	18.6	3508 S	3018 S	2505 B	2070 B	1739 B	1482 B	1278 B	1113 B	975 D	813 D	685 D	582 D	499 D	431 D	375 D	328 D	289 D
6 3/4	11 1/4	19.0	3612 S	3105 S	2620 B	2165 B	1819 B	1550 B	1337 B	1164 B	1023 B	869 D	732 D	623 D	534 D	461 D	401 D	351 D	309 D
6 3/4	11 7/8	20.0	3879 S	3326 S	2911 S	2412 B	2027 B	1727 B	1489 B	1297 B	1140 B	1007 B	861 D	732 D	628 D	542 D	472 D	413 D	363 D
6 3/4	12 3/8	20.9	4099 S	3508 S	3066 S	2620 B	2201 B	1876 B	1617 B	1409 B	1236 B	1092 B	971 B	829 D	711 D	614 D	534 D	467 D	411 D
6 3/4	13 3/4	23.2	4737 S	4031 S	3508 S	3105 S	2718 B	2316 B	1996 B	1733 B	1518 B	1341 B	1192 B	1067 B	961 B	842 D	732 D	641 D	564 D
6 3/4	14	23.6	4858 S	4130 S	3591 S	3177 S	2818 B	2401 B	2068 B	1795 B	1572 B	1389 B	1235 B	1106 B	995 B	889 D	773 D	677 D	595 D
6 3/4	15 1/8	25.5	5428 S	4591 S	3977 S	3508 S	3138 S	2798 B	2404 B	2087 B	1828 B	1615 B	1436 B	1285 B	1157 B	1047 B	952 B	853 D	751 D
6 3/4	16	27.0	5900 S	4968 S	4291 S	3776 S	3371 S	3045 S	2682 B	2329 B	2040 B	1802 B	1602 B	1434 B	1291 B	1168 B	1062 B	970 B	889 B
6 3/4	16 1/2	27.8	6180 S	5192 S	4475 S	3933 S	3508 S	3166 S	2848 B	2473 B	2166 B	1913 B	1702 B	1523 B	1371 B	1241 B	1128 B	1029 B	943 B
6 3/4	17 7/8	30.2	7001 S	5838 S	5007 S	4382 S	3897 S	3508 S	3190 S	2890 B	2532 B	2236 B	1989 B	1780 B	1603 B	1450 B	1318 B	1203 B	1103 B
6 3/4	18	30.4	7079 S	5900 S	5057 S	4425 S	3933 S	3540 S	3218 S	2930 B	2567 B	2267 B	2016 B	1805 B	1625 B	1470 B	1336 B	1220 B	1118 B
6 3/4	19 1/4	32.5	7900 S	6536 S	5574 S	4858 S	4306 S	3866 S	3508 S	3210 S	2926 B	2584 B	2298 B	2057 B	1852 B	1676 B	1523 B	1390 B	1274 B
6 3/4	20 5/8	34.8	8000 *	7292 S	6180 S	5363 S	4737 S	4241 S	3840 S	3508 S	3229 S	2956 B	2629 B	2353 B	2118 B	1917 B	1742 B	1591 B	1458 B
6 3/4	22	37.1	8000 *	8000 *	6831 S	5900 S	5192 S	4635 S	4187 S	3817 S	3508 S	3245 S	2982 B	2669 B	2403 B	2174 B	1976 B	1804 B	1653 B
6 3/4	23 3/8	39.4	8000 *	8000 *	7530 S	6470 S	5672 S	5049 S	4549 S	4140 S	3798 S	3508 S	3259 S	3004 B	2704 B	2447 B	2224 B	2030 B	1861 B
6 3/4	24 3/4	41.8	8000 *	8000 *	8000 *	7079 S	6180 S	5484 S	4929 S	4475 S	4099 S	3780 S	3508 S	3272 S	3023 B	2735 B	2486 B	2270 B	2080 B
6 3/4	26 1/8	44.1	8000 *	8000 *	8000 *	7730 S	6719 S	5942 S	5326 S	4826 S	4411 S	4063 S	3765 S	3508 S	3284 S	3039 B	2763 B	2522 B	2311 B
6 3/4	27 1/2	46.4	8000 *	8000 *	8000 *	8000 *	7292 S	6425 S	5743 S	5192 S	4737 S	4355 S	4031 S	3751 S	3508 S	3294 S	3053 B	2788 B	2555 B
6 3/4	28 7/8	48.7	9000 *	9000 *	9000 *	9000 *	7900 S	6935 S	6180 S	5574 S	5076 S	4659 S	4306 S	4002 S	3739 S	3508 S	3304 S	3066 B	2810 B
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.

Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.

The load carrying capacities tabulated are for total load including the weight of the member.

BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.

DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.

For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.

DEFLECTION LIMITS: For roof beams, deflection is limited to span /180 for total load.

CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.

SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.

* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

While these capacity tables have been prepared in accordance with recognized engineering principles and are based on the most accurate and reliable technical data available, these tables should not be used or relied upon for any general or specific application without competent professional examination and verification of their accuracy, suitability, and applicability by a licensed professional engineer, designer, or architect.

February, 2003

TABLE Boozer Special 6-3/4 in

SOUTHERN PINE **THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION**

Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.15	Span / 180 for TOTAL LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf															
Width	Depth	WEIGHT	SPAN, ft															
b, in.	d, in.	plf	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
6 3/4	5 1/2	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	6 7/8	11.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	8 1/4	13.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/4	15.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/2	16.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 5/8	16.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11	18.6	256 D	227 D	203 D	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 1/4	19.0	273 D	243 D	217 D	195 D	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 7/8	20.0	322 D	286 D	255 D	229 D	206 D	--	--	--	--	--	--	--	--	--	--	--
6 3/4	12 3/8	20.9	364 D	323 D	289 D	259 D	233 D	211 D	--	--	--	--	--	--	--	--	--	--
6 3/4	13 3/4	23.2	499 D	444 D	396 D	355 D	320 D	289 D	262 D	238 D	217 D	198 D	--	--	--	--	--	--
6 3/4	14	23.6	527 D	468 D	418 D	375 D	338 D	305 D	276 D	251 D	229 D	209 D	192 D	--	--	--	--	--
6 3/4	15 1/8	25.5	664 D	591 D	527 D	473 D	426 D	384 D	348 D	317 D	289 D	264 D	242 D	222 D	205 D	--	--	--
6 3/4	16	27.0	786 D	699 D	624 D	560 D	504 D	455 D	412 D	375 D	342 D	313 D	287 D	263 D	243 D	224 D	207 D	192 D
6 3/4	16 1/2	27.8	862 D	767 D	685 D	614 D	553 D	499 D	452 D	411 D	375 D	343 D	314 D	289 D	266 D	246 D	227 D	211 D
6 3/4	17 7/8	30.2	1014 B	936 B	866 B	781 D	703 D	635 D	575 D	523 D	477 D	436 D	400 D	367 D	338 D	312 D	289 D	268 D
6 3/4	18	30.4	1028 B	949 B	878 B	797 D	717 D	648 D	587 D	534 D	487 D	445 D	408 D	375 D	345 D	319 D	295 D	273 D
6 3/4	19 1/4	32.5	1172 B	1081 B	1001 B	929 B	865 B	793 D	718 D	653 D	595 D	544 D	499 D	459 D	422 D	390 D	361 D	334 D
6 3/4	20 5/8	34.8	1341 B	1237 B	1145 B	1063 B	989 B	923 B	863 B	803 D	732 D	670 D	614 D	564 D	520 D	480 D	444 D	411 D
6 3/4	22	37.1	1521 B	1403 B	1299 B	1205 B	1122 B	1046 B	978 B	917 B	861 B	810 B	745 D	685 D	631 D	582 D	539 D	499 D
6 3/4	23 3/8	39.4	1711 B	1579 B	1462 B	1357 B	1262 B	1178 B	1101 B	1032 B	969 B	911 B	859 B	810 B	756 D	698 D	646 D	599 D
6 3/4	24 3/4	41.8	1913 B	1765 B	1634 B	1517 B	1411 B	1317 B	1231 B	1153 B	1083 B	1019 B	960 B	906 B	856 B	811 B	767 D	711 D
6 3/4	26 1/8	44.1	2126 B	1962 B	1816 B	1685 B	1568 B	1463 B	1368 B	1282 B	1203 B	1132 B	1067 B	1007 B	952 B	901 B	854 B	811 B
6 3/4	27 1/2	46.4	2350 B	2168 B	2007 B	1862 B	1733 B	1617 B	1512 B	1416 B	1330 B	1251 B	1179 B	1113 B	1052 B	996 B	944 B	896 B
6 3/4	28 7/8	48.7	2584 B	2384 B	2207 B	2048 B	1906 B	1778 B	1663 B	1558 B	1463 B	1376 B	1296 B	1224 B	1157 B	1095 B	1038 B	986 B
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0	0	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.
Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.
The load carrying capacities tabulated are for total load including the weight of the member.
BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.
DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.
For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.
DEFLECTION LIMITS: For floor beams, deflection is limited to span/360 for live load.
CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.
SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.
* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

While these capacity tables have been prepared in accordance with recognized engineering principles and are based on the most accurate and reliable technical data available, these tables should not be used or relied upon for any general or specific application without competent professional examination and verification of their accuracy, suitability, and applicability by a licensed professional engineer, designer, or architect.

February, 2003

TABLE SP Boozer Special 6-3/4 in

SOUTHERN PINE

THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION

Structural Glued Laminated Timber

ROOF BEAMS
SNOW LOAD

F_{bx}	F_{vx}	E_x	C_D	Deflection limit
2400 psi	190 psi	1.8 million psi	1.15	Span / 180 for TOTAL LOAD

Simple Span Beams
For Preliminary Design Purposes
Lamination thickness: 1-3/8 in.

BEAM SIZE		BEAM	BEAM CAPACITY, UNIFORM LOAD w, plf																
Width	Depth	WEIGHT	SPAN, ft																
b, in.	d, in.	plf	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
6 3/4	5 1/2	9.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	6 7/8	11.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	8 1/4	13.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/4	15.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 1/2	16.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	9 5/8	16.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11	18.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 1/4	19.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	11 7/8	20.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	12 3/8	20.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	13 3/4	23.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	14	23.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	15 1/8	25.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	16	27.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	16 1/2	27.8	196 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	17 7/8	30.2	249 D	231 D	216 D	201 D	--	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	18	30.4	254 D	236 D	220 D	205 D	192 D	--	--	--	--	--	--	--	--	--	--	--	--
6 3/4	19 1/4	32.5	310 D	289 D	269 D	251 D	235 D	220 D	206 D	194 D	--	--	--	--	--	--	--	--	--
6 3/4	20 5/8	34.8	382 D	355 D	331 D	309 D	289 D	270 D	254 D	238 D	224 D	211 D	198 D	--	--	--	--	--	--
6 3/4	22	37.1	463 D	431 D	402 D	375 D	351 D	328 D	308 D	289 D	272 D	256 D	241 D	227 D	215 D	203 D	192 D	--	--
6 3/4	23 3/8	39.4	556 D	517 D	482 D	450 D	420 D	394 D	369 D	346 D	326 D	307 D	289 D	272 D	257 D	243 D	230 D	218 D	207 D
6 3/4	24 3/4	41.8	660 D	614 D	572 D	534 D	499 D	467 D	438 D	411 D	387 D	364 D	343 D	323 D	306 D	289 D	273 D	259 D	246 D
6 3/4	26 1/8	44.1	771 B	722 D	673 D	628 D	587 D	550 D	515 D	484 D	455 D	428 D	403 D	380 D	359 D	340 D	322 D	305 D	289 D
6 3/4	27 1/2	46.4	852 B	811 B	773 B	732 D	685 D	641 D	601 D	564 D	530 D	499 D	470 D	444 D	419 D	396 D	375 D	355 D	337 D
6 3/4	28 7/8	48.7	937 B	892 B	850 B	811 B	774 B	740 B	696 D	653 D	614 D	578 D	544 D	514 D	485 D	459 D	434 D	411 D	390 D
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TABLE SPECIFICATIONS: This table applies to straight, simply supported glued laminated timber beams under dry conditions of use.
Beams must be laterally supported at the top along the length of the beam and at the top and bottom at the ends.
The load carrying capacities tabulated are for total load including the weight of the member.
BEAM WEIGHT: 36.0 pounds per cubic foot was used to determine beam weight per lineal foot shown in the table.
DESIGN VALUE MODIFICATIONS: The allowable stress in bending, F_{bx}, has been adjusted by the AITC volume factor, C_V.
For determination of load carrying capacities governed by shear, loads within a distance "d" (the depth of the beam) from the ends have been neglected.
DEFLECTION LIMITS: For roof beams, deflection is limited to span /180 for total load.
CONTROLLING VALUES: Values marked with a D are controlled by deflection, B are bending controlled, and S are shear controlled.
SPAN: Span is defined as the length from centerline to centerline of bearing. This span is the length used in standard engineering equations to calculate deflection, bending and shear.
* The values have been limited to reasonable capacities. Engineering calculations may allow for greater capacities.

While these capacity tables have been prepared in accordance with recognized engineering principles and are based on the most accurate and reliable technical data available, these tables should not be used or relied upon for any general or specific application without competent professional examination and verification of their accuracy, suitability, and applicability by a licensed professional engineer, designer, or architect.

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