



SOUTHERN PINE HEADERS & BEAMS

Supplemental Allowable Load Tables for
Machine-graded Southern Pine Lumber



SouthernPine.com

Table 21A – 2400F-2.0E Southern Pine Lumber

Clear Opening		1-ply				2-ply				3-ply				4-ply			
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
4'	TL	676	984	1426	2008	1352	1968	2853	4015	2027	2953	4279	6023	2703	3937	5706	8030
	LL	676	984	1426	2008	1352	1968	2853	4015	2027	2953	4279	6023	2703	3937	5706	8030
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
6'	TL	326	558	785	1032	653	1117	1570	2064	1123	1717	2355	3097	1497	2289	3140	4129
	LL	275	558	785	1032	551	1117	1570	2064	822	1717	2355	3097	1096	2289	3140	4129
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
8'	TL	175	318	512	694	350	637	1024	1388	525	1096	1622	2081	701	1461	2163	2775
	LL	118	266	512	694	236	533	1024	1388	354	795	1622	2081	472	1060	2163	2775
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
10'	TL	90	204	331	485	179	409	662	969	269	613	1139	1566	358	818	1518	2088
	LL	61	138	283	485	122	276	566	969	183	414	844	1497	244	552	1125	1997
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
12'	TL	51	118	230	339	102	237	461	678	153	355	733	1167	205	473	978	1556
	LL	35	81	165	294	71	161	331	588	106	242	496	878	142	323	661	1170
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
14'	TL	32	74	154	250	63	148	308	499	95	222	463	827	126	295	617	1102
	LL	22	51	105	187	45	102	210	374	67	153	315	560	90	204	420	746
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
16'	TL	20	49	103	185	41	97	205	370	61	146	308	555	82	195	411	740
	LL	15	34	71	126	30	69	142	252	45	103	212	379	60	137	283	505
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
18'	TL	14	33	71	130	28	67	143	259	41	100	214	389	55	134	286	518
	LL	11	24	50	89	21	48	100	178	32	72	150	267	42	96	199	357
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Table 21B – M-23 Southern Pine Lumber

Clear Opening		1-ply				2-ply				3-ply				4-ply			
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
4'	TL	676	984	1426	2008	1352	1968	2853	4015	2027	2953	4279	6023	2703	3937	5706	8030
	LL	676	984	1426	2008	1352	1968	2853	4015	2027	2953	4279	6023	2703	3937	5706	8030
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
6'	TL	326	558	785	1032	653	1117	1570	2064	1104	1717	2355	3097	1472	2289	3140	4129
	LL	248	554	785	1032	496	1108	1570	2064	740	1661	2355	3097	987	2215	3140	4129
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
8'	TL	158	318	512	694	315	637	1024	1388	473	1066	1622	2081	631	1421	2163	2775
	LL	107	240	487	694	213	480	975	1388	320	716	1460	2081	426	955	1947	2775
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
10'	TL	80	184	331	485	161	368	662	969	241	552	1129	1566	322	736	1506	2088
	LL	55	125	255	450	110	249	509	900	165	374	760	1348	220	498	1013	1797
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
12'	TL	46	106	220	339	92	213	440	678	138	319	661	1167	183	425	881	1556
	LL	32	73	149	265	64	145	298	530	96	218	447	790	128	291	596	1053
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
14'	TL	28	66	139	248	56	133	277	497	85	199	416	745	113	265	555	993
	LL	20	46	95	168	40	92	189	337	60	138	284	505	81	184	379	673
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
16'	TL	18	44	92	167	36	87	184	333	55	131	277	500	73	174	369	666
	LL	14	31	64	114	27	62	128	228	41	93	191	341	54	123	255	455
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
18'	TL	12	30	64	116	24	60	128	233	37	90	192	349	49	119	256	465
	LL	9	22	45	80	19	43	90	161	28	65	135	241	38	87	180	321
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

(See Requirements for Use on page 23, Key, Example and Notes on page 24)

Table 27A – 2400F-2.0E Southern Pine Lumber

Clear Opening		1-ply				2-ply				3-ply				4-ply			
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
4'	TL	777	1132	1641	2309	1555	2264	3282	4619	2332	3397	4923	6928	3110	4529	6564	9237
	LL	777	1132	1641	2309	1555	2264	3282	4619	2332	3397	4923	6928	3110	4529	6564	9237
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
6'	TL	374	639	903	1188	748	1277	1806	2375	1287	1976	2710	3563	1716	2634	3613	4751
	LL	374	639	903	1188	748	1277	1806	2375	1226	1976	2710	3563	1634	2634	3613	4751
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
8'	TL	212	365	586	798	424	731	1171	1597	698	1257	1867	2395	931	1675	2490	3194
	LL	176	365	586	798	353	731	1171	1597	528	1186	1867	2395	704	1581	2490	3194
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
10'	TL	120	235	380	555	239	470	759	1110	359	810	1306	1803	479	1080	1741	2404
	LL	91	206	380	555	183	413	759	1110	274	617	1258	1803	365	823	1678	2404
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
12'	TL	69	158	265	389	138	316	530	778	206	474	912	1338	275	632	1216	1784
	LL	53	120	247	389	106	241	495	778	159	361	739	1308	212	482	985	1744
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
14'	TL	43	99	195	287	85	198	389	574	128	297	617	988	171	396	822	1318
	LL	34	76	157	279	67	153	314	559	101	229	470	835	134	305	627	1113
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
16'	TL	28	66	138	220	56	131	275	439	84	197	413	740	112	263	550	986
	LL	22	51	106	189	45	103	212	377	67	154	317	564	90	205	423	752
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
18'	TL	19	45	96	173	38	91	192	347	57	136	288	520	76	182	384	693
	LL	16	36	75	133	32	72	149	266	47	108	224	399	63	144	298	532
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Table 27B – M-23 Southern Pine Lumber

Clear Opening		1-ply				2-ply				3-ply				4-ply			
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
4'	TL	777	1132	1641	2309	1555	2264	3282	4619	2332	3397	4923	6928	3110	4529	6564	9237
	LL	777	1132	1641	2309	1555	2264	3282	4619	2332	3397	4923	6928	3110	4529	6564	9237
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
6'	TL	374	639	903	1188	748	1277	1806	2375	1287	1976	2710	3563	1716	2634	3613	4751
	LL	370	639	903	1188	740	1277	1806	2375	1103	1976	2710	3563	1471	2634	3613	4751
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
8'	TL	210	365	586	798	420	731	1171	1597	629	1257	1867	2395	839	1675	2490	3194
	LL	159	358	586	798	318	716	1171	1597	477	1067	1867	2395	635	1423	2490	3194
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
10'	TL	108	235	380	555	215	470	759	1110	323	734	1306	1803	430	979	1741	2404
	LL	82	186	380	555	164	372	759	1110	247	557	1132	1803	329	742	1510	2404
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
12'	TL	62	142	265	389	123	284	530	778	185	426	877	1338	247	568	1169	1784
	LL	48	109	223	389	96	217	445	778	143	326	666	1177	191	434	887	1570
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
14'	TL	38	89	185	287	76	178	370	574	115	267	555	988	153	356	740	1318
	LL	30	69	141	252	60	138	283	503	91	206	424	751	121	275	565	1002
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
16'	TL	25	59	124	220	50	118	247	439	75	177	371	666	100	236	495	888
	LL	20	46	95	170	41	92	191	339	61	139	286	509	81	185	381	679
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
18'	TL	17	41	86	156	34	81	172	312	51	122	259	468	68	163	345	623
	LL	14	33	67	120	28	65	134	240	43	98	202	360	57	130	269	480
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

(See Requirements for Use on page 23, Key, Example and Notes on page 29)

Table 33A – 2400F-2.0E Southern Pine Lumber

Clear Opening		1-ply				2-ply				3-ply				4-ply			
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
4'	TL	845	1231	1784	2511	1691	2462	3568	5021	2536	3693	5352	7532	3381	4924	7135	10042
	LL	845	1231	1784	2511	1691	2462	3568	5021	2536	3693	5352	7532	3381	4924	7135	10042
	BL	1.5	3.0	4.5	6.0	1.5	3.0	4.5	6.0	1.5	3.0	4.5	6.0	1.5	3.0	4.5	6.0
6'	TL	406	692	982	1291	812	1383	1964	2583	1395	2148	2946	3874	1861	2864	3928	5165
	LL	406	692	982	1291	812	1383	1964	2583	1221	2148	2946	3874	1628	2864	3928	5165
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
8'	TL	230	396	635	868	461	793	1269	1737	698	1363	2031	2605	931	1817	2708	3473
	LL	176	396	635	868	352	792	1269	1737	528	1181	2031	2605	704	1574	2708	3473
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	3.0	3.0	3.0	1.5	3.0	3.0	3.0
10'	TL	120	255	412	601	239	511	824	1203	359	814	1416	1961	479	1086	1888	2614
	LL	91	206	412	601	183	412	824	1203	274	617	1253	1961	365	822	1671	2614
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
12'	TL	69	158	288	422	138	316	575	844	206	474	972	1451	275	632	1296	1935
	LL	53	120	247	422	106	241	493	844	159	361	737	1303	212	482	982	1737
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
14'	TL	43	99	206	312	85	198	411	623	128	297	617	1073	171	396	822	1431
	LL	34	76	157	279	67	153	313	557	101	229	470	832	134	305	627	1109
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
16'	TL	28	66	138	239	56	131	275	478	84	197	413	740	112	263	550	986
	LL	22	51	106	188	45	103	212	376	67	154	317	564	90	205	423	752
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
18'	TL	19	45	96	173	38	91	192	347	57	136	288	520	76	182	384	693
	LL	16	36	75	133	32	72	149	266	47	108	224	399	63	144	298	532
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Table 33B – M-23 Southern Pine Lumber

Clear Opening		1-ply				2-ply				3-ply				4-ply			
		2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
4'	TL	845	1231	1784	2511	1691	2462	3568	5021	2536	3693	5352	7532	3381	4924	7135	10042
	LL	845	1231	1784	2511	1691	2462	3568	5021	2536	3693	5352	7532	3381	4924	7135	10042
	BL	1.5	3.0	4.5	6.0	1.5	3.0	4.5	6.0	1.5	3.0	4.5	6.0	1.5	3.0	4.5	6.0
6'	TL	406	692	982	1291	812	1383	1964	2583	1395	2148	2946	3874	1861	2864	3928	5165
	LL	369	692	982	1291	737	1383	1964	2583	1099	2148	2946	3874	1465	2864	3928	5165
	BL	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5	1.5	3.0	3.0	4.5
8'	TL	210	396	635	868	420	793	1269	1737	629	1363	2031	2605	839	1817	2708	3473
	LL	159	357	635	868	318	713	1269	1737	477	1080	2031	2605	635	1417	2708	3473
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	3.0	3.0	3.0	1.5	3.0	3.0	3.0
10'	TL	108	245	412	601	215	489	824	1203	323	745	1416	1961	430	979	1888	2614
	LL	82	186	378	601	164	371	757	1203	247	565	1128	1961	329	742	1504	2614
	BL	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0	1.5	1.5	3.0	3.0
12'	TL	62	142	288	422	123	284	575	844	185	434	877	1451	247	568	1169	1935
	LL	48	109	222	394	96	217	444	787	143	330	666	1172	191	434	887	1563
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
14'	TL	38	89	185	312	76	178	370	623	115	270	555	989	153	356	740	1318
	LL	30	69	141	251	60	138	283	502	91	210	424	751	121	275	565	1001
	BL	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0	1.5	1.5	1.5	3.0
16'	TL	25	59	124	222	50	118	247	444	75	180	371	666	100	236	495	888
	LL	20	46	95	170	41	92	191	339	61	140	286	509	81	185	381	679
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
18'	TL	17	41	86	156	34	81	172	312	51	123	259	468	68	163	345	623
	LL	14	33	67	120	28	65	134	240	43	99	202	360	57	130	269	480
	BL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

(See Requirements for Use on page 23, Key, Example and Notes on page 34)