

Allowable Total Loads for Beams Supporting Floors

Southern Pine																
Span in Feet	2 x 6				2 x 8				2 x 10				2 x 12			
	$f_b = 1440$ psi				$f_b = 1380$ psi				$f_b = 1210$ psi				$f_b = 1120$ psi			
	Number of Members				Number of Members				Number of Members				Number of Members			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
4	1578	3156	5445	7260	2628	5256	9067	12090	3751	7501	12942	17255	5136	10273	17719	23625
5	1263	2525	4356	5808	2103	4205	7254	9672	3000	6001	10353	13804	4109	8218	14175	18900
6	1052	2104	3630	4840	1752	3504	6045	8060	2500	5001	8628	11504	3424	6849	11813	15750
7	902	1804	3112	4149	1502	3004	5181	6908	2143	4286	7395	9860	2935	5870	10125	13500
8	789	1578	2723	3630	1314	2628	4534	6045	1875	3751	6471	8628	2568	5136	8859	11813
9	701	1403	2282	3043	1168	2336	4030	5373	1667	3334	5752	7669	2283	4566	7875	10500
10	616	1232	1849	2465	1051	2103	3627	4836	1500	3000	5177	6902	2055	4109	7088	9450
11	509	1019	1528	2037	956	1911	3297	4396	1364	2728	4706	6275	1868	3736	6443	8591
12	428	856	1284	1712	876	1752	2940	3921	1250	2500	4314	5752	1712	3424	5906	7875
13	365	729	1094	1458	809	1617	2505	3341	1154	2308	3982	5309	1580	3161	5452	7269
14	314	629	943	1258	720	1440	2160	2880	1072	2143	3698	4930	1468	2935	5063	6750
15	274	548	822	1095	627	1255	1882	2509	1000	2000	3451	4601	1370	2739	4725	6300
16	241	481	722	963	551	1103	1654	2205	938	1875	3235	4314	1284	2568	4430	5906
17	213	426	640	853	488	977	1465	1954	882	1765	3043	4057	1209	2417	4169	5559
18	190	380	571	761	436	871	1307	1742	833	1667	2714	3619	1141	2283	3938	5250
19	171	341	512	683	391	782	1173	1564	790	1579	2436	3248	1081	2163	3730	4974
20	154	308	462	616	353	706	1059	1411	733	1466	2198	2931	1027	2055	3544	4725
21	140	279	419	559	320	640	960	1280	665	1329	1994	2659	978	1957	3375	4500
22	127	255	382	509	292	583	875	1166	606	1211	1817	2423	934	1868	3222	4296
23	116	233	349	466	267	534	800	1067	554	1108	1662	2216	893	1787	2991	3987
24	107	214	321	428	245	490	735	980	509	1018	1527	2036	856	1712	2747	3662
25	99	197	296	394	226	452	677	903	469	938	1407	1876	822	1644	2531	3375

NOTES:

1. The values shown for f_b are for repetitive use members of No. 2 Grade. When only one or two members make up a beam, non-repetitive f_b values are used.
2. Beams are assumed to be simple beams with uniformly distributed load.
3. When plywood flitch plates are used, add 7% to the values indicated.
4. For beams supporting floors, see "Allowable Total Loads for Beams Supporting FLOORS".
5. Deflection is limited to $L/240$.

Allowable Total Loads for Beams Supporting Roofs

Southern Pine																
Span in Feet	2 x 6				2 x 8				2 x 10				2 x 12			
	$f_b = 1460$ psi				$f_b = 1350$ psi				$f_b = 1235$ psi				$f_b = 1125$ psi			
	Number of Members				Number of Members				Number of Members				Number of Members			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
4	1809	3618	6239	8319	3029	6058	10447	13929	4310	8621	14867	19822	5917	11834	20408	27211
5	1447	2894	4992	6655	2423	4846	8358	11144	3448	6896	11893	15858	4733	9467	16327	21769
6	1206	2412	4160	5546	2019	4039	6965	9286	2874	5747	9911	13215	3945	7889	13606	18141
7	1034	2067	3565	4754	1731	3462	5970	7960	2463	4926	8495	11327	3381	6762	11662	15549
8	904	1809	3120	4160	1515	3029	5224	6965	2155	4310	7433	9911	2958	5917	10204	13606
9	804	1608	2773	3697	1346	2692	4643	6191	1916	3831	6607	8810	2630	5259	9070	12094
10	724	1447	2496	3328	1212	2423	4179	5572	1724	3448	5947	7929	2367	4733	8163	10885
11	658	1316	2269	3025	1101	2203	3799	5065	1567	3135	5406	7208	2152	4303	7421	9895
12	603	1206	1926	2567	1010	2019	3482	4643	1437	2874	4956	6607	1972	3945	6803	9070
13	547	1094	1641	2188	932	1864	3214	4286	1326	2652	4574	6099	1821	3641	6280	8373
14	472	943	1415	1886	865	1731	2985	3980	1232	2463	4248	5664	1691	3381	5831	7775
15	411	822	1232	1643	808	1615	2786	3715	1149	2299	3964	5286	1578	3156	5442	7256
16	361	722	1083	1444	757	1515	2481	3308	1078	2155	3717	4956	1479	2958	5102	6803
17	320	640	959	1279	713	1425	2198	2930	1014	2028	3498	4664	1392	2784	4802	6403
18	285	571	856	1141	653	1307	1960	2614	958	1916	3304	4405	1315	2630	4535	6047
19	256	512	768	1024	586	1173	1759	2346	907	1815	3130	4173	1246	2491	4297	5729
20	231	462	693	924	529	1059	1588	2117	862	1724	2973	3964	1183	2367	4082	5442
21	210	419	629	838	480	960	1440	1920	821	1642	2832	3776	1127	2254	3887	5183
22	191	382	573	764	437	875	1312	1750	784	1567	2703	3604	1076	2152	3711	4948
23	175	349	524	699	400	800	1201	1601	750	1499	2493	3325	1029	2058	3549	4732
24	160	321	481	642	368	735	1103	1470	718	1437	2290	3053	986	1972	3401	4535
25	148	296	444	592	339	577	1016	1355	690	1379	2110	2814	947	1893	3265	4354

NOTES:

1. The values shown for f_b are for repetitive use members of No. 2 Grade. When only one or two members make up a beam, non-repetitive f_b values are used.
2. Beams are assumed to be simple beams with uniformly distributed load.
3. When plywood flitch plates are used, add 7% to the values indicated.
4. For beams supporting roofs, see "Allowable Total Loads for Beams Supporting ROOFS".
5. Deflection is limited to $L/360$.