

Allowable Total Loads for Beams Supporting Floors

Hem-Fir																
Span in Feet	2 x 6				2 x 8				2 x 10				2 x 12			
	$f_b = 1270$ psi				$f_b = 1175$ psi				$f_b = 1075$ psi				$f_b = 980$ 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	1392	2783	4803	6403	2238	4477	7720	10294	3333	6667	11498	15330	4493	8986	15504	20672
5	1113	2227	3842	5123	1791	3581	6176	8235	2667	5333	9198	12264	3594	7189	12403	16538
6	928	1855	3202	4269	1492	2984	5147	6863	2222	4445	7665	10220	2995	5991	10336	13781
7	795	1590	2744	3659	1279	2558	4412	5882	1905	3810	6570	8760	2567	5135	8859	11813
8	696	1392	2347	3129	1119	2238	3860	5147	1667	3333	5749	7665	2247	4493	7752	10336
9	618	1236	1854	2472	995	1990	3431	4575	1482	2963	5110	6813	1997	3994	6891	9188
10	501	1001	1502	2003	895	1791	3088	4118	1333	2667	4599	6132	1797	3594	6202	8269
11	414	828	1241	1655	814	1628	2807	3743	1212	2424	4181	5575	1634	3268	5638	7517
12	348	695	1043	1391	746	1492	2389	3185	1111	2222	3833	5110	1498	2995	5168	6891
13	296	593	889	1185	679	1357	2036	2714	1026	2051	3538	4717	1382	2765	4770	6361
14	255	511	766	1022	585	1170	1755	2340	952	1905	3285	4380	1284	2567	4430	5906
15	223	445	668	890	510	1019	1529	2039	889	1778	3066	4088	1198	2396	4134	5513
16	196	391	587	782	448	896	1344	1792	833	1667	2791	3721	1123	2247	3876	5168
17	173	346	520	693	397	794	1190	1587	784	1569	2472	3296	1057	2114	3648	4864
18	155	309	464	618	354	708	1062	1416	735	1470	2205	2940	998	1997	3445	4594
19	139	277	416	555	318	635	952	1271	660	1319	1979	2639	946	1892	3264	4352
20	125	250	376	501	287	573	860	1147	595	1191	1786	2382	899	1797	3101	4134
21	114	227	341	454	260	520	780	1040	540	1080	1620	2160	856	1712	2915	3886
22	103	207	310	414	237	474	711	948	492	984	1476	1968	817	1634	2656	3541
23	95	189	284	379	217	434	650	867	450	900	1351	1801	781	1563	2430	3240
24	87	174	261	348	199	398	597	796	413	827	1240	1654	744	1488	2232	2975
25	80	160	240	320	183	367	550	734	381	762	1143	1524	686	1371	2057	2742

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

Hem-Fir																
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	1601	3202	5521	7361	2571	5143	8870	11827	3829	7658	13209	17612	5157	10315	17798	23731
5	1281	2561	4417	5889	2057	4114	7096	9462	3063	6126	10567	14090	4126	8252	14238	18985
6	1067	2134	3681	4908	1714	3428	5913	7885	2553	5105	8806	11741	3438	6877	11865	15821
7	915	1830	3155	4206	1469	2939	5069	6758	2188	4376	7548	10064	2947	5894	10170	13560
8	800	1601	2760	3681	1286	2571	4435	5913	1914	3829	6604	8806	2579	5157	8899	11865
9	711	1423	2454	3272	1143	2286	3942	5256	1702	3404	5871	7828	2292	4584	7910	10547
10	640	1281	2208	2945	1029	2057	3548	4731	1532	3063	5284	7045	2063	4126	7119	9492
11	582	1164	1862	2483	935	1870	3226	4301	1392	2785	4803	6404	1875	3751	6472	8629
12	522	1043	1565	2086	857	1714	2957	3942	1276	2553	4403	5871	1719	3438	5933	7910
13	444	889	1333	1777	791	1582	2729	3639	1178	2356	4064	5419	1587	3174	5476	7302
14	383	766	1149	1533	735	1469	2534	3379	1094	2188	3774	5032	1474	2947	5085	6780
15	334	668	1001	1335	686	1371	2293	3058	1021	2042	3522	4697	1375	2751	4746	6328
16	293	587	880	1173	643	1286	2016	2688	957	1914	3302	4403	1289	2579	4450	5933
17	260	520	780	1039	595	1190	1786	2381	901	1802	3108	4144	1214	2427	4188	5584
18	232	464	695	927	531	1062	1593	2124	851	1702	2935	3914	1146	2292	3955	5274
19	208	416	624	832	476	953	1429	1906	806	1612	2781	3708	1086	2172	3747	4996
20	188	375	563	751	430	860	1290	1720	766	1532	2642	3522	1031	2063	3560	4746
21	170	341	511	681	390	780	1170	1560	729	1459	2430	3240	982	1965	3390	4520
22	155	310	465	621	355	711	1066	1422	696	1392	2214	2952	938	1875	3236	4315
23	142	284	426	568	325	650	975	1301	666	1332	2026	2701	897	1794	3095	4127
24	130	261	391	522	299	597	896	1195	620	1240	1861	2481	860	1719	2966	3955
25	120	240	360	481	275	550	826	1101	572	1143	1715	2286	825	1650	2848	3797

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 $L/360$.