

Allowable Total Loads for Beams Supporting Floors

Douglas Fir - Larch																
Span in Feet	2 x 6				2 x 8				2 x 10				2 x 12			
	$f_b = 1310$ psi				$f_b = 1210$ psi				$f_b = 1105$ psi				$f_b = 1005$ 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	1436	2871	4954	6605	2304	4608	7950	10600	3426	6852	11819	15758	4609	9218	15900	21199
5	1149	2297	3963	5284	1843	3686	6360	8480	2741	5482	9455	12606	3687	7374	12720	16960
6	957	1914	3303	4403	1536	3072	5300	7067	2284	4568	7879	10505	3073	6145	10600	14133
7	820	1641	2831	3774	1317	2633	4543	6057	1958	3916	6753	9005	2634	5267	9085	12114
8	718	1436	2477	3303	1152	2304	3975	5300	1713	3426	5909	7879	2305	4609	7950	10600
9	638	1276	2202	2936	1024	2048	3533	4711	1523	3045	5253	7004	2048	4097	7066	9422
10	574	1149	1849	2465	922	1843	3180	4240	1370	2741	4727	6303	1844	3687	6360	8480
11	509	1019	1528	2037	838	1676	2891	3855	1246	2492	4298	5730	1676	3352	5782	7709
12	428	856	1284	1712	768	1536	2650	3533	1142	2284	3940	5253	1536	3073	5300	7066
13	365	729	1094	1458	709	1418	2446	3262	1054	2108	3636	4849	1418	2636	4892	6523
14	314	629	943	1258	658	1317	2160	2880	979	1958	3377	4502	1317	2634	4543	6057
15	274	548	822	1095	614	1229	1882	2509	914	1827	3152	4202	1229	2458	4240	5653
16	241	481	722	963	551	1103	1654	2205	857	1713	2955	3940	1152	2305	3975	5300
17	213	426	640	853	488	977	1465	1954	806	1612	2781	3708	1084	2169	3741	4988
18	190	380	571	761	436	871	1307	1742	761	1523	2626	3502	1024	2048	3533	4711
19	171	341	512	683	391	782	1173	1564	721	1443	2436	3248	970	1941	3347	4463
20	154	308	462	616	353	706	1059	1411	685	1370	2198	2931	922	1844	3180	4240
21	140	279	419	559	320	640	960	1280	653	1305	1994	2659	878	1756	3028	4038
22	127	255	382	509	292	583	875	1166	606	1211	1817	2423	838	1676	2891	3854
23	116	233	349	466	267	534	800	1067	554	1108	1662	2216	802	1603	2765	3687
24	107	214	321	428	245	490	735	980	509	1018	1527	2036	768	1536	2650	3533
25	99	197	296	394	226	452	677	903	469	938	1407	1876	737	1475	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

Douglas Fir - Larch																
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	1650	3300	5691	7588	2648	5296	9133	12177	3954	7908	13637	18182	5295	10589	18273	24364
5	1320	2640	4553	6071	2118	4237	7306	9742	3163	6326	10909	14546	4236	8471	14618	19491
6	1100	2200	3794	5059	1765	3531	6089	8118	2636	5272	9091	12122	3530	7059	12182	16242
7	943	1886	3252	4336	1513	3026	5219	6958	2259	4519	7792	10390	3025	6051	10442	13922
8	825	1650	2846	3794	1324	2648	4566	6089	1977	3954	6818	9091	2647	5295	9136	12182
9	733	1467	2529	3373	1177	2354	4059	5412	1757	3514	6061	8081	2353	4706	8121	10828
10	660	1320	2276	3035	1059	2118	3653	4871	1582	3163	5455	7273	2118	4236	7309	9745
11	600	1200	2070	2759	963	1926	3321	4428	1438	2875	4959	6612	1925	3851	6645	8859
12	550	1100	1897	2529	883	1765	3044	4059	1318	2636	4546	6061	1765	3530	6091	8121
13	508	1015	1641	2188	815	1629	2810	3747	1217	2433	4196	5595	1629	3258	5622	7496
14	471	943	1415	1886	757	1513	2609	3479	1130	2259	3896	5195	1513	3025	5221	6961
15	411	822	1232	1643	706	1412	2435	3247	1054	2109	3636	4849	1412	2824	4873	6497
16	361	722	1083	1444	662	1324	2283	3044	988	1977	3409	4546	1324	2647	4568	6091
17	320	640	959	1279	623	1246	2149	2865	930	1861	3209	4278	1246	2492	4299	5733
18	285	571	856	1141	588	1177	1960	2614	879	1757	3030	4041	1177	2353	4061	5414
19	256	512	768	1024	557	1115	1759	2346	832	1665	2871	3828	1115	2229	3847	5129
20	231	462	693	924	529	1059	1588	2117	791	1582	2727	3636	1059	2118	3655	4873
21	210	419	629	838	480	960	1440	1920	753	1506	2597	3463	1008	2017	3481	4641
22	191	382	573	764	437	875	1312	1750	719	1438	2479	3306	963	1925	3322	4430
23	175	349	524	699	400	800	1201	1601	688	1375	2372	3162	921	1842	3178	4237
24	160	321	481	642	368	735	1103	1470	659	1318	2273	3030	882	1765	3045	4061
25	148	296	444	592	339	677	1016	1355	633	1265	2110	2814	847	1694	2924	3898

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 $L/360$.