Structural studs & track 12"

	Member	Design Thickness (in)	Gross Properties							33 ksi Effective Properties				50 ksi Effective Properties				Torsional Properties				
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Sx (in^3)	Rx (in)	Iy (in^4)	Ry (in)	Ix (in^4)	Sx (in^3)	Ma (in-k)	Va (lb)	Ix (in^4)	Sx (in^3)	Ma (in-k)	Va (lb)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	Beta
12" Studs	1200S162-54[1]	0.0566	0.896	3.05	15.730	2.622	4.190	0.212	0.486	14.743	2.109	41.68	1377	14.298	1.914	57.31	1377	0.957	6.340	-0.732	4.281	0.971
	1200S162-68	0.0713	1.121	3.81	19.518	3.253	4.173	0.255	0.477	18.955	2.817	55.66	2771	18.390	2.645	79.19	2771	1.899	7.739	-0.719	4.261	0.972
	1200S162-97	0.1017	1.576	5.36	26.966	4.494	4.137	0.331	0.459	26.966	4.327	85.51	8147	26.735	4.091	122.49	8147	5.433	10.331	-0.691	4.219	0.973
	1200S162-118	0.1242	1.904	6.48	32.145	5.357	4.109	0.376	0.444	32.145	5.357	105.87	13189	32.145	5.168	154.74	14986	9.788	12.002	-0.670	4.187	0.974
	1200S200-54[1]	0.0566	0.953	3.24	17.662	2.944	4.306	0.393	0.643	16.678	2.425	47.93	1377	16.334	2.073	62.07	1377	1.017	11.550	-1.032	4.474	0.947
	1200S200-68	0.0713	1.192	4.06	21.947	3.658	4.291	0.479	0.634	21.376	3.215	63.54	2771	20.864	2.963	88.71	2771	2.020	14.176	-1.017	4.455	0.948
	1200S200-97	0.1017	1.677	5.71	30.417	5.069	4.258	0.635	0.615	30.417	4.899	96.81	8147	30.175	4.660	139.51	8147	5.783	19.150	-0.987	4.414	0.950
	1200S200-118	0.1242	2.028	6.90	36.347	6.058	4.234	0.732	0.601	36.347	6.058	119.71	13189	36.347	5.865	175.59	14986	10.427	22.451	-0.964	4.384	0.952
	1200S250-54[1]	0.0566	1.009	3.43	19.681	3.280	4.416	0.683	0.823	18.832	2.482	49.05	1377	18.433	2.149	64.34	1377	1.078	19.505	-1.378	4.699	0.914
	1200S250-68	0.0713	1.263	4.30	24.484	4.081	4.402	0.836	0.813	23.963	3.496	69.08	2771	23.575	3.007	90.04	2771	2.141	24.034	-1.362	4.679	0.915
	1200S250-97	0.1017	1.779	6.05	34.016	5.669	4.373	1.121	0.794	34.016	5.496	108.60	8147	33.835	5.037	150.82	8147	6.134	32.734	-1.329	4.639	0.918
	1200S250-118	0.1242	2.152	7.32	40.726	6.788	4.350	1.307	0.779	40.726	6.788	134.13	13189	40.726	6.541	195.84	14986	11.065	38.619	-1.305	4.608	0.920
	1200S300-54[1]	0.0566	1.066	3.63	21.699	3.617	4.512	1.074	1.004	21.648	2.736	54.06	1377	21.043	2.272	68.04	1377	1.138	30.051	-1.743	4.940	0.876
	1200S300-68	0.0713	1.335	4.54	27.020	4.503	4.499	1.320	0.994	26.918	4.064	80.30	2771	26.510	3.317	99.32	2771	2.262	37.126	-1.726	4.921	0.877
	1200S300-97	0.1017	1.881	6.40	37.616	6.269	4.472	1.786	0.974	37.616	6.035	133.59	8147	37.085	5.831	174.57	8147	6.484	50.853	-1.691	4.880	0.880
	1200S300-118	0.1242	2.276	7.75	45.106	7.518	4.452	2.095	0.959	45.106	7.323	165.76	13189	44.727	7.232	243.67	14986	11.704	60.251	-1.666	4.849	0.882
	1200S350-54[1]	0.0566	1.165	3.96	24.860	4.143	4.620	1.866	1.266	24.610	3.295	65.12	1377	24.087	2.787	83.46	1377	1.244	54.279	-2.363	5.341	0.804
	1200S350-68	0.0713	1.460	4.97	30.996	5.166	4.608	2.306	1.257	30.996	4.908	96.98	2771	30.916	4.061	121.59	2771	2.473	67.251	-2.346	5.322	0.806
	1200S350-97	0.1017	2.059	7.01	43.269	7.211	4.584	3.159	1.239	43.269	7.071	154.22	8147	43.269	6.590	197.31	8147	7.098	92.672	-2.310	5.281	0.809
	1200S350-118	0.1242	2.494	8.48	51.992	8.665	4.566	3.741	1.225	51.992	8.665	192.74	13189	51.992	8.260	274.07	14986	12.821	110.302	-2.284	5.250	0.811
12" Track	1200T125-54[1]	0.0566	0.820	2.79	13.335	2.186	4.033	0.060	0.271	12.296	1.491	29.47	1354	11.460	1.286	38.51	1354	0.876	1.820	-0.333	4.055	0.993
	1200T125-68	0.0713	1.033	3.51	16.826	2.747	4.036	0.074	0.268	16.246	2.206	43.60	2713	15.686	1.934	57.90	2713	1.750	2.270	-0.329	4.059	0.993
	1200T125-97	0.1017	1.472	5.01	24.078	3.897	4.044	0.102	0.263	24.078	3.690	72.92	7902	23.751	3.442	103.06	7902	5.076	3.171	-0.322	4.065	0.994
	1200T125-118	0.1242	1.798	6.12	29.472	4.740	4.049	0.121	0.259	29.472	4.740	93.67	13189	29.472	4.490	134.44	14434	9.243	3.812	-0.316	4.070	0.994
	1200T150-54[1]	0.0566	0.848	2.89	14.378	2.357	4.117	0.103	0.348	12.962	1.530	30.23	1354	12.020	1.313	39.31	1354	0.906	3.033	-0.454	4.156	0.988
	1200T150-68	0.0713	1.068	3.64	18.148	2.963	4.121	0.127	0.345	17.568	2.281	45.08	2713	16.566	1.987	59.48	2713	1.810	3.795	-0.450	4.160	0.988
	1200T150-97	0.1017	1.523	5.18	25.987	4.206	4.130	0.176	0.340	25.987	3.996	78.97	7902	25.719	3.616	108.27	7902	5.252	5.335	-0.441	4.168	0.989
	1200T150-118	0.1242	1.860	6.33	31.825	5.119	4.137	0.210	0.336	31.825	5.119	101.15	13189	31.825	4.865	145.66	14434	9.562	6.444	-0.435	4.173	0.989
	1200T200-54[1]	0.0566	0.905	3.08	16.464	2.699	4.265	0.236	0.510	14.078	1.582	31.26	1354	12.962	1.350	40.41	1354	0.966	6.714	-0.730	4.357	0.972
	1200T200-68	0.0713	1.140	3.88	20.791	3.395	4.271	0.294	0.508	19.277	2.383	47.09	2713	18.026	2.058	61.62	2713	1.931	8.431	-0.725	4.362	0.972
	1200T200-97	0.1017	1.625	5.53	29.805	4.824	4.283	0.410	0.502	29.805	4.298	84.93	7902	28.959	3.819	114.35	7902	5.602	11.945	-0.714	4.371	0.973
	1200T200-118	0.1242	1.984	6.75	36.530	5.876	4.291	0.492	0.498	36.530	5.794	114.50	13189	36.530	5.278	158.02	14434	10.201	14.513	-0.706	4.377	0.974
	1200T250-54[1]	0.0566	0.962	3.27	18.550	3.041	4.392	0.445	0.681	15.021	1.617	31.95	1354	13.756	1.374	41.14	1354	1.027	12.339	-1.039	4.565	0.948
	1200T250-68	0.0713	1.211	4.12	23.435	3.826	4.399	0.556	0.678	20.720	2.451	48.44	2713	19.255	2.106	63.04	2713	2.052	15.529	-1.033	4.569	0.949
	1200T250-97	0.1017	1.727	5.88	33.623	5.442	4.413	0.780	0.672	32.479	4.489	88.70	7902	31.310	3.954	118.37	7902	5.953	22.101	-1.021	4.579	0.950
	1200T250-118	0.1242	2.108	7.17	41.236	6.632	4.423	0.940	0.668	40.963	6.138	121.28	13189	39.954	5.519	165.24	14434	10.839	26.943	-1.013	4.586	0.951
	1200T300-54[1]	0.0566	1.018	3.46	20.636	3.383	4.502	0.745	0.855	15.856	1.641	32.44	1354	14.451	1.391	41.65	1354	1.087	20.211	-1.375	4.784	0.917
	1200T300-68	0.0713	1.282	4.36	26.079	4.258	4.510	0.932	0.852	21.991	2.501	49.41	2713	20.338	2.140	64.06	2713	2.173	25.471	-1.369	4.789	0.918
	1200T300-97	0.1017	1.828	6.22	37.441	6.060	4.525	1.310	0.847	34.841	4.629	91.46	7902	33.377	4.051	121.30	7902	6.304	36.357	-1.355	4.799	0.920
	1200T300-118	0.1242	2.232	7.60	45.941	7.389	4.537	1.583	0.842	44.194	6.386	126.18	13189	42.885	5.695	170.51	14434	11.478	44.420	-1.346	4.806	0.922

For section properties table notes see page 4

A = Cross-sectional area
Ix = Moment of inertia (x-axis)
Sx = Section modulus (x-axis)
Rx = Radius of gyration (x-axis)
Iy = Moment of inertia (y-axis)
Ry = Radius of gyration (y-axis)
Ma = Allowable bending moment
Va = Allowable shear force
J = St. Vennant torsion constant
Cw = Torsional warping constant
Xo = Distance from center of gravity to shear center along x-axis
Ro = Polar radius of gyration about the centroidal principal axis
ß = Beta coefficient