Harsco Industrial *IKG*

MATERIAL: Hot Rolled Mild Carbon Steel
Fs 16,000 psi
E 29,000,000 psi
Bearing bars spaced 12 inches on center
# of bearing bars per foot 1

STEEL SAFE LOAD TABLE

U = Uniform load in pounds per square foot
D = Deflection in inches
C = Concentrated load at mid-span in pounds per foot of width

Maximum span for 1/4" deflection under uniform load of 100 psf

SPAN IN INCHES			12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
1/8 X 12	19	U	334	148	83	53	37	27	21	16	13	11	9	8	7	6	5	5	4	4	3
		D	0.130	0.291	0.515	0.803	1.163	1.572	2.086	2.545	3.152	3.905	4.525	5.540	6.520	7.365	7.945	10.125	10.181	12.639	11.638
S^3/ft 0.0313		C	167	111	83	67	56	48	42	37	33	30	28	26	24	22	21	20	19	18	17
I^4/ft 0.0020		D	0.104	0.233	0.412	0.650	0.938	1.277	1.668	2.093	2.560	3.098	3.754	4.432	5.110	5.761	6.674	7.624	8.597	9.579	10.552
3/16 X 12	26	U	750	333	187	120	83	61	47	37	30	25	21	18	15	13	12	10	9	8	7
		D	0.088	0.198	0.352	0.551	0.790	1.076	1.414	1.784	2.204	2.689	3.199	3.777	4.234	4.835	5.778	6.136	6.941	7.660	8.229
S^3/ft 0.0703		C	375	250	187	150	125	107	94	83	75	68	62	58	54	50	47	44	42	39	37
I^4/ft 0.0066		D	0.071	0.159	0.281	0.441	0.635	0.863	1.132	1.423	1.763	2.128	2.519	2.996	3.484	3.967	4.526	5.082	5.759	6.289	6.959
1/4 X 12	32	U	1333	593	333	213	148	109	83	66	53	44	37	32	27	24	21	18	16	15	13
		D	0.066	0.149	0.265	0.414	0.596	0.814	1.057	1.346	1.647	2.002	2.385	2.841	3.224	3.777	4.278	4.673	5.221	6.076	6.466
S^3/ft 0.1250		C	667	444	333	267	222	190	167	148	133	121	111	103	95	89	83	78	74	70	67
I^4/ft 0.0156		D	0.053	0.119	0.212	0.332	0.477	0.648	0.851	1.073	1.323	1.602	1.908	2.251	2.593	2.988	3.382	3.812	4.293	4.776	5.332
5/16 X 12	38	U	2083	926	521	333	231	170	130	103	83	69	58	49	43	37	33	29	26	23	21
		D	0.053	0.119	0.212	0.331	0.476	0.649	0.847	1.074	1.320	1.606	1.912	2.225	2.626	2.978	3.438	3.851	4.339	4.765	5.342
S^3/ft 0.1953		C	1042	694	521	417	347	298	260	231	208	189	174	160	149	139	130	123	116	110	104
I^4/ft 0.0305		D	0.042	0.095	0.170	0.265	0.381	0.520	0.677	0.857	1.058	1.280	1.530	1.788	2.080	2.387	2.709	3.074	3.442	3.839	4.233
3/8 X 12	43	U	3001	1334	750	480	333	245	188	148	120	99	83	71	61	53	47	42	37	33	30
		D	0.044	0.099	0.177	0.276	0.397	0.541	0.709	0.893	1.104	1.334	1.584	1.866	2.156	2.469	2.834	3.228	3.574	3.957	4.417
S^3/ft 0.2813		C	1500	1000	750	600	500	429	375	333	300	273	250	231	214	200	188	177	167	158	150
I^4/ft 0.0527		D	0.035	0.080	0.141	0.221	0.318	0.433	0.565	0.715	0.883	1.070	1.272	1.494	1.729	1.988	2.267	2.560	2.868	3.191	3.533
7/16 X 12	49	U	4083	1815	1021	653	454	333	255	202	163	135	113	97	83	73	64	57	50	45	41
		D	0.038	0.085	0.151	0.236	0.341	0.463	0.605	0.768	0.944	1.145	1.358	1.605	1.847	2.141	2.430	2.758	3.041	3.398	3.801
S^3/ft 0.3828		C	2042	1361	1021	817	681	583	510	454	408	371	340	314	292	272	255	240	227	215	204
I^4/ft 0.0837		D	0.030	0.068	0.121	0.189	0.273	0.371	0.484	0.614	0.756	0.915	1.089	1.279	1.485	1.702	1.936	2.186	2.454	2.734	3.026
1/2 X 12	54	U	5333	2370	1333	853	593	435	333	263	213	176	148	126	109	95	83	74	66	59	53
		D	0.033	0.074	0.132	0.207	0.298	0.405	0.529	0.669	0.826	1.000	1.191	1.396	1.624	1.866	2.110	2.398	2.688	2.983	3.290
S^3/ft 0.5000		C	2667	1778	1333	1067	889	762	667	593	533	485	444	410	381	356	333	314	296	281	267
I^4/ft 0.1250		D	0.026	0.060	0.106	0.166	0.238	0.324	0.424	0.537	0.662	0.801	0.952	1.118	1.298	1.492	1.693	1.915	2.143	2.393	2.652
5/8 X 12	64	U	8334	3704	2083	1333	926	680	521	412	333	275	231	197	170	148	130	115	103	92	83
		D	0.026	0.060	0.106	0.166	0.238	0.324	0.424	0.537	0.662	0.800	0.952	1.118	1.297	1.488	1.692	1.908	2.148	2.382	2.638
S^3/ft 0.7813		C	4167	2778	2083	1667	1389	1191	1042	926	833	758	694	641	595	556	521	490	463	439	417
I^4/ft 0.2441		D	0.021	0.048	0.085	0.132	0.191	0.260	0.339	0.429	0.530	0.641	0.762	0.895	1.038	1.193	1.357	1.530	1.717	1.914	2.121
3/4 X 12	73	U	12000	5333	3000	1920	1333	980	750	593	480	397	333	284	245	213	188	166	148	133	120
		D	0.022	0.050	0.088	0.138	0.199	0.270	0.353	0.447	0.552	0.668	0.794	0.932	1.082	1.239	1.416	1.594	1.786	1.992	2.207
S^3/ft 1.1250		C	6000	4000	3000	2400	2000	1714	1500	1333	1200	1091	1000	923	857	800	750	706	667	632	600
I^4/ft 0.4219		D	0.018	0.040	0.071	0.110	0.159	0.216	0.282	0.357	0.441	0.534	0.636	0.746	0.865	0.993	1.130	1.276	1.431	1.594	1.765
7/8 X 12	82	U	16334	7259	4083	2613	1815	1333	1021	807	653	540	454	387	333	290	255	226	202	181	163
		D	0.019	0.043	0.076	0.118	0.170	0.232	0.303	0.383	0.473	0.572	0.681	0.800	0.926	1.063	1.210	1.366	1.535	1.707	1.888
S^3/ft 1.5313		C	8167	5445	4083	3267	2722	2333	2042	1815	1633	1485	1361	1256	1167	1089	1021	961	907	860	817
I^4/ft 0.6699		D	0.015	0.034	0.061	0.095	0.136	0.185	0.242	0.306	0.378	0.458	0.545	0.639	0.742	0.851	0.969	1.094	1.225	1.366	1.514
1 X 12	90	U	21333	9481	5333	3413	2370	1741	1333	1053	853	705	593	505	435	379	333	295	263	236	213
		D	0.017	0.037	0.066	0.103	0.149	0.203	0.265	0.335	0.414	0.501	0.596	0.699	0.810	0.930	1.058	1.195	1.339	1.491	1.653
S^3/ft 2.0000		C	10667	7111	5333	4267	3556	3048	2667	2370	2133	1939	1778	1641	1524	1422	1333	1255	1185	1123	1067
I^4/ft 1.0000		D	0.013	0.030	0.053	0.083	0.119	0.162	0.212	0.268	0.331	0.400	0.477	0.559	0.649	0.745	0.847	0.957	1.072	1.195	1.325