Web crippling — single members

Web size & thickness	Design thickness (in.)	ksi	Condition 1 Bearing length (in.)				Condition 2 Bearing length (in.)				Condition 3 Bearing length (in.)				Condition 4 Bearing length (in.)			
			1"	1.625"	3.5"	6"	1"	1.625"	3.5"	6"	1"	1.625"	3.5"	6"	1"	1.625"	3.5"	6"
362Sxxx-33	0.0346	33	165	195	259	322	323	362	444	525	129	142	173	202	381	412	480	547
362Sxxx-43	0.0451	33	277	324	427	526	570	632	767	898	236	260	311	360	675	726	836	943
362Sxxx-54	0.0566	33	419	487	636	780	877	967	1160	1348	388	424	501	577	1079	1154	1316	1473
362Sxxx-54	0.0566	50	634	738	963	1182	1329	1465	1758	2043	588	642	760	874	1635	1748	1994	2232
362Sxxx-68	0.0713	33	635	734	948	1157	1349	1477	1753	2022	635	689	806	920	1728	1837	2074	2305
362Sxxx-68	0.0713	50	962	1112	1437	1752	2044	2237	2657	3064	961	1043	1221	1393	2618	2783	3143	3492
362Sxxx-97	0.1017	33	1206	1379	1755	2120	2626	2846	3323	3787	1333	1434	1651	1862	3547	3742	4166	4578
362Sxxx-97	0.1017	50	1827	2089	2659	3212	3978	4312	5035	5738	2020	2172	2501	2821	5374	5670	6313	6936
600Sxxx-33	0.0346	33	153	180	240	297	313	350	430	507	93	103	125	146	329	357	416	473
600Sxxx-43	0.0451	33	259	303	400	493	553	614	745	872	185	204	243	282	600	645	743	838
600Sxxx-54	0.0566	33	395	460	600	736	855	942	1131	1314	318	348	411	473	975	1043	1189	1331
600Sxxx-54	0.0566	50	599	697	909	1116	1295	1427	1713	1991	482	527	623	716	1478	1580	1802	2017
600Sxxx-68	0.0713	33	604	698	902	1100	1318	1443	1713	1976	539	584	684	781	1583	1684	1901	2113
600Sxxx-68	0.0713	50	914	1057	1366	1666	1998	2186	2596	2994	816	886	1036	1183	2399	2551	2881	3201
600Sxxx-97	0.1017	33	1157	1323	1684	2034	2575	2791	3260	3714	1175	1264	1455	1641	3306	3489	3884	4267
600Sxxx-97	0.1017	50	1752	2004	2551	3081	3902	4229	4939	5628	1781	1915	2205	2487	5010	5286	5885	6466
800Sxxx-43	0.0451	33	247	289	381	470	542	601	730	854	150	165	197	228	548	589	678	765
800Sxxx-54	0.0566	33	379	441	576	706	839	925	1110	1290	270	295	349	402	904	966	1102	1234
800Sxxx-54	0.0566	50	575	669	872	1070	1272	1401	1682	1955	409	447	529	608	1370	1464	1670	1869
800Sxxx-68	0.0713	33	582	673	870	1061	1297	1420	1686	1944	473	513	600	685	1485	1579	1783	1981
800Sxxx-68	0.0713	50	882	1019	1318	1607	1966	2151	2555	2946	716	777	910	1038	2250	2392	2701	3001
800Sxxx-97	0.1017	33	1123	1285	1635	1975	2541	2754	3216	3665	1068	1148	1322	1491	3142	3316	3691	4056
800Sxxx-97	0.1017	50	1702	1946	2477	2992	3850	4173	4873	5553	1618	1739	2003	2259	4761	5024	5593	6145
1000Sxxx-54	0.0566	33	365	425	554	680	826	910	1092	1269	228	249	295	339	841	899	1026	1148
1000Sxxx-54	0.0566	50	553	644	840	1031	1251	1379	1655	1923	346	378	447	514	1275	1363	1554	1740
1000Sxxx-68	0.0713	33	563	651	842	1027	1279	1400	1662	1917	415	451	527	602	1398	1487	1679	1865
1000Sxxx-68	0.0713	50	854	987	1275	1555	1938	2121	2518	2904	629	683	799	912	2119	2253	2544	2826
1000Sxxx-97	0.1017	33	1094	1251	1592	1923	2511	2722	3178	3622	974	1047	1206	1360	2999	3165	3523	3871
1000Sxxx-97	0.1017	50	1657	1896	2412	2914	3805	4124	4815	5487	1476	1586	1827	2060	4545	4795	5338	5866
1200Sxxx-68	0.0713	33	547	632	816	996	1262	1382	1640	1892	363	394	462	527	1320	1404	1585	1762
1200Sxxx-68	0.0713	50	828	957	1237	1509	1913	2093	2485	2866	551	598	699	798	2001	2127	2402	2669
1200Sxxx-97	0.1017	33	1068	1221	1554	1877	2484	2692	3144	3583	889	956	1101	1242	2871	3029	3372	3705
1200Sxxx-97	0.1017	50	1618	1850	2355	2844	3764	4079	4764	5428	1348	1449	1668	1882	4350	4589	5109	5614
1350Sxxx-68	0.0713	33	535	618	799	975	1251	1369	1625	1874	327	355	416	475	1266	1346	1520	1689
1350Sxxx-68	0.0713	50	810	937	1211	1477	1895	2074	2463	2840	496	538	630	719	1919	2040	2304	2560
1350Sxxx-97	0.1017	33	1049	1200	1527	1845	2465	2672	3120	3556	831	893	1029	1160	2782	2935	3267	3590
1350Sxxx-97	0.1017	50	1590	1818	2314	2796	3736	4049	4728	5387	1259	1353	1558	1758	4214	4447	4950	5440
1400Sxxx-68	0.0713	33	531	614	793	968	1247	1365	1621	1869	316	343	401	458	1249	1328	1500	1666
1400Sxxx-68	0.0713	50	805	930	1202	1466	1889	2068	2455	2831	479	519	608	694	1892	2012	2272	2525
1400Sxxx-97	0.1017	33	1043	1193	1519	1835	2459	2666	3113	3547	812	873	1005	1134	2753	2905	3234	3553
1400Sxxx-97	0.1017	50	1581	1808	2301	2780	3726	4039	4716	5374	1230	1323	1523	1718	4171	4401	4900	5384

Web crippling

This table identifies the loads that can be handled by the joist web under four different conditions without web stiffeners.Web crippling can occur at member ends or at interior lead points along the member. A point is considered to be an interior point if it is within the ends of the member by a distance that is 1.5 times the web depth (h) or more. Web crippling also can occur either with point loading on one flange of the member or on both flanges. The following illustrations identify the four possible conditions.