WJ28 Truss - Allowable Uniform Load Table (PLF) / Parallel Chord

Clear Span (Ft.)	Depth 14"		16"		18"		20"		22"		24"		26"		28"		30"		32"		34"		36"		38"		40"		Clear Span (Ft.)
	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	100% TL L/600 Δ	115% TL 125% TL	
14	341	388	388	388	388	388	388	388	388	388	377	377	363	363	348	348	334	334	320	320	307	307	295	295	283	283	272	272	14
	297	388	399	388	517	388	649	388	797	388	960	377	1138	363	1332	348	1540	334	1764	320	2002	307	2256	295	2525	283	2810	272	
16	261	300	303	342	342	342	342	342	342	342	342	342	342	342	338	338	325	325	313	313	301	301	289	289	278	278	268	268	16
	200	327	268	342	347	342	437	342	536	342	646	342	765	342	895	338	1036	325	1186	313	1347	301	1517	289	1698	278	1890	268	
18	207	238	240	276	273	306	306	306	306	306	306	306	306	306	306	306	306	306	306	306	294	294	284	284	273	273	263	263	18
	140	258	189	300	245	306	307	306	377	306	455	306	539	306	631	306	729	306	835	306	949	294	1069	284	1196	273	1331	263	
20	167	193	194	224	221	254	248	277	275	277	277	277	277	277	277	277	277	277	277	277	277	277	277	277	269	269	258	258	20
	103	209	138	243	179	277	225	277	276	277	332	277	394	277	461	277	533	277	610	277	693	277	781	277	874	269	973	258	
22	138	159	161	185	183	210	205	236	227	253	250	253	253	253	253	253	253	253	253	253	253	253	253	253	249	249	233	233	22
	77	173	104	201	134	229	169	253	207	253	250	253	296	253	347	253	401	253	459	253	522	253	588	253	658	249	732	233	
24	116	134	135	155	154	177	172	198	191	220	210	232	228	232	232	232	232	232	232	232	232	232	232	232	227	227	212	212	24
	59	146	80	169	104	192	130	216	160	232	193	232	229	232	267	232	309	232	354	232	402	232	453	232	508	227	565	212	
26	99	114	115	132	131	151	147	169	163	187	179	206	195	215	211	215	215	215	215	215	215	215	215	215	209	209	195	195	26
	47	124	63	144	81	164	102	184	126	204	152	215	180	215	211	215	244	215	279	215	317	215	357	215	400	209	445	195	
28	85	98	99	114	113	130	127	146	140	162	154	177	168	193	182	200	195	200	200	200	200	200	200	200	193	193	181	181	28
		107	50	124	65	141	82	159	101	176	121	193	144	200	169	200	195	200	224	200	254	200	286	200	320	193	356	181	
30	74	86	86	99	98	113	110	127	122	141	134	155	146	168	158	182	170	187	182	187	187	187	187	187	180	180	168	168	30
		93	41	108	53	123	67	138	82	153	99	168	117	183	137	187	159	187	182	187	207	187	233	187	261	180	290	168	
32	65	75	76	87	86	99	97	112	108	124	118	136	129	148	139	160	150	172	160	176	171	176	176	176	168	168	157	157	32
		82		95	44	108	55	121	68	135	81	148	97	161	113	174	131	176	150	176	170	176	192	176	215	168	239	157	
34	58	67	67	77	77	88	86	99	95	110	105	120	114	131	123	142	133	153	142	163	151	166	161	166	158	158	147	147	34
		70		84		96	46	107	56	119	68	131	80	143	94	154	109	166	125	166	142	166	160	166	179	158	199	147	
36		59	60	69	68	79	77	88	85	98	93	107	102	117	110	126	118	136	127	146	135	155	143	157	149	149	139	139	36
		59		75		85		96	47	106	57	117	68	127	79	138	92	148	105	157	120	157	135	157	151	149	168	139	
38		50		62	61	70	69	79	76	88	84	96	91	105	99	114	106	122	114	131	121	139	129	148	136	141	131	131	38
		50		67		77		86	40	95	49	105	58	114	67	123	78	133	89	142	102	149	115	149	128	141	143	131	
40		43		56	55	64	62	71	69	79	75	87	82	95	89	102	96	110	103	118	109	126	116	133	123	133	124	124	40
		43		58		69		78		86	42	94	49	103	58	111	67	120	77	128	87	137	98	141	110	133	122	124	
42				50		58	56	65	62	72	68	79	75	86	81	93	87	100	93	107	99	114	105	121	111	127	117	118	42
		37		50		63		70		78		86	43	93	50	101	58	109	66	116	75	124	85	132	95	127	106	118	
44				43		52		59	57	65	62	72	68	78	74	85	79	91	85	97	90	104	96	110	101	117	107	113	44
				43		56		64		71		78		85	43	92	50	99	58	106	65	113	74	120	83	121	92	113	
46						48		54		60	57	66	62	72	67	77	72	83	77	89	83	95	88	101	93	107	98	108	46
				38		49		59		65		71		78		84	44	91	50	97	57	103	65	110	72	115	80	108	
48						43		49		55		60	57	66	62	71	66	76	71	82	76	87	80	93	85	98	90	103	48
						43		54		60		66		71		77		83	44	89	50	95	57	101	64	107	71	103	
50								46		51		55		60	57	65	61	70	65	75	70	80	74	85	78	90	83	95	50
						38		48		55		60		66		71		77		82	44	87	50	93	56	98	63	99	
52								42		47		51		56		60	57	65	61	70	65	74	69	79	73	83	77	88	52
								43		51		56		61		66		71		76	40	81	45	86	50	91	56	95	
54										43		48		52		56		60	56	65	60	69	64	73	67	77	71	82	54
								38		47		52		56		61		66		70		75	40	80	45	84	50	89	
56										40		44		48		52		56		60	56	64	59	68	62	72	66	76	56
										42		48		52		57		61		65		70		74	40	78	44	83	
58												41		45		49		52		56		60	55	63	58	67	61	71	58
										38		45		49		53		57		61		65		69		73	40	77	
60														42		45		49		52		56		59		63	57	66	60
												41		46		49		53		57		61		64		68		72	

Allowable Properties @ 100%

Prop.	Depth (D) (In.) 14	16	18	20	22	24	26	28	30	32	34	36	38	40	Prop.
R	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	2,900.0	R
T	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	8,490.2	T
EI	9.4789E+08	1.2739E+09	1.6482E+09	2.0709E+09	2.5418E+09	3.0610E+09	3.6285E+09	4.2444E+09	4.9085E+09	5.6209E+09	6.3816E+09	7.1907E+09	8.0480E+09	8.9536E+09	EI
d	12.5000	14.5000	16.5000	18.5000	20.5000	22.5000	24.5000	26.5000	28.5000	30.5000	32.5000	34.5000	36.5000	38.5000	d
W	3.7	3.8	3.8	3.8	3.9	3.9	3.9	4.0	4.0	4.1	4.1	4.1	4.2	4.2	W

E (psi) = 2.30E+06 $I\ (In.^4)=I_1 d^2+I_2$ I_1 = 2.625 I_2 = 1.969 d = Pin to Pin Depth (In.) = D - 1.500

R = Reaction (Lbs.) T = Tension (Lbs.) EI = MOE x I (Lbs.-In.^{2}) W = Approx. Truss Weight (plf) xx 7% Repetive use increase allowed for Trusses at 24" or less o/c

TERMS:

Clear Span is horizontal distance from indide face of bearing surface to inside face of bearing surface.
Depth is out to out depth.

L/600 Δ column is Load that will cause L/600 Deflection.
For other deflection limits.
L/180 Δ Load = L/600 Δ value x 3.3333
L/240 Δ Load = L/600 Δ value x 2.5000
L/360 Δ Load = L/600 Δ value x 1.6667
L/480 Δ Load = L/600 Δ value x 1.2500

NOTES:

1. Total loads shown in table are maximum possible. Trusses will be custom designed to loads specified for project (not maximum shown in this table).
TL = Live (LL) + Dead (DL) + Part. (PL)

2. Deflection limits may control maximum load. Web Joist recommends the following deflection limits:
Residential:
L/240 @ TL and/or L/360 @ LL (min.) or
L/360 @ TL and/or L/480 @ LL (preferred)
Non-Residential:
L/360 @ TL and/or L/480 @ LL (min.) or
L/480 @ TL and/or L/600 @ LL (preferred)
With plaster or gyp ceiling use L/360 @ LL.
TL = Live (LL) + Dead (DL)
(exclude Part. (PL))

3. Allowable Total Load (TL) may be reduced at top chord bearings if bearing pin to end of chord is less than 3.50". See Table 6 of ESR-2504 for allowable reaction with reduced pin to end length.

4. The load table is limited to simple-span and uniform load. The table may also be used for bottom chord bearing and/or for cantilevers at both or either ends which do not exceed 1/3 of the main span length. For other conditions, inquire through your Web Joist representive.

5. Straight line interpretation may be made between depths and spans indicated.