

STANDARD LOAD TABLE

Based on a Maximum Allowable Tensile Stress of 22,000 psi

FOR DEEP LONGSPAN STEEL JOISTS, DLJ- SERIES

Adopted by Steel Joist Institute and American Institute of Steel Construction, Inc., February 1, 1970

This table was developed using 22,000 psi allowable tensile stress. The following table gives the TOTAL safe uniformly distributed load-carrying capacities in pounds per linear foot of span.

All loads shown are for roof construction only. The weight of DEAD loads, including weight of joists, must in all cases be deducted to determine the LIVE load-carrying capacity of the joists. Approximate weights per linear foot of joist include accessories.

The figures shown in **red** are the LIVE loads per linear foot of joist which will produce an approximate deflection of 1/360 of the span. Loads which will produce an approximate deflection of 1/240 of the span may be obtained by multiplying the red figures by 1.5. For roofs, LIVE load deflection is limited to 1/360 of the span where a plaster ceiling is attached or suspended; 1/240 of the span for all

other cases. In no case shall the TOTAL capacity of the joists be exceeded.*

When holes are required in the top or bottom chords, the carrying capacities must be reduced in proportion to reduction of chord areas.

The top chords are considered as being stayed laterally by the roof deck.

The load table applies to joists with either parallel chords or standard pitched chords. When top chords are pitched, the carrying capacities are determined by the nominal depth of the joist at the center of the span. Standard top chord pitch is 1/8" per foot. If pitch exceeds this standard, the load table **does not** apply.

The load table may be used for parallel chord joists installed to a maximum slope of 1/2" per foot.

Joist Designation	Approx. Wt. in Lbs. per Linear Ft.	Depth in Inches	SAFE LOAD** in Lbs. Between	CLEAR OPENING OR NET SPAN IN FEET																
				61-88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
52DLJ12	31	52	25700	287	281	275	269	264	258	253	248	243	238	234	229	225	220	216	212	
				228	221	214	207	200	194	188	182	176	171	166	161	156	152	147	143	
52DLJ13	36	52	30400	340	332	325	319	312	306	300	294	288	282	277	271	266	261	256	252	
				270	262	253	245	237	230	223	216	209	203	197	191	185	180	175	170	
52DLJ14	40	52	33800	378	370	362	355	347	340	333	326	319	313	306	300	294	289	283	278	
				291	281	272	263	255	247	239	232	225	218	212	205	199	194	188	183	
52DLJ15	44	52	37300	417	408	399	391	382	374	366	359	352	344	338	331	324	318	312	306	
				328	317	307	297	287	278	270	261	253	246	238	231	225	218	212	206	
52DLJ16	51	52	45100	503	492	482	471	462	452	443	434	426	417	409	401	393	386	379	372	
				393	380	368	356	345	334	324	314	304	295	286	278	270	262	254	247	
52DLJ17	57	52	50900	568	556	544	533	522	511	501	490	481	471	462	453	444	436	428	420	
				450	435	421	408	395	382	370	359	348	338	328	318	309	300	291	283	
52DLJ18	64	52	59000	659	645	631	618	605	592	580	569	557	546	535	525	515	505	496	486	
				501	485	469	454	440	426	413	400	388	376	365	354	344	334	324	315	
				66-96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
56DLJ13	35	56	28800	295	289	284	278	273	267	262	257	252	248	243	238	234	230	226	222	
				235	228	221	215	208	202	196	191	185	180	175	170	166	161	157	153	
56DLJ14	40	56	33100	339	332	326	319	313	307	302	296	291	285	280	275	270	266	261	256	
				263	255	247	240	233	226	220	213	207	201	196	191	185	180	176	171	
56DLJ15	44	56	37100	380	372	365	358	351	344	337	331	324	318	313	307	301	296	290	285	
				296	287	278	270	262	255	247	240	233	227	221	215	209	203	198	192	
56DLJ16	51	56	43900	450	441	433	425	416	409	401	394	386	379	372	366	359	353	347	341	
				355	344	334	324	315	306	297	288	280	272	265	258	251	244	237	231	
56DLJ17	57	56	49600	508	499	489	480	470	462	453	445	436	428	421	413	406	399	392	385	
				406	394	382	371	360	350	340	330	321	312	303	295	287	279	272	265	
56DLJ18	64	56	57900	593	582	570	559	549	538	528	518	509	499	490	481	473	465	456	448	
				453	439	426	414	402	390	379	368	358	348	338	329	320	311	303	295	
56DLJ19	72	56	65400	670	657	644	632	620	608	597	585	575	564	554	544	534	525	516	507	
				505	490	475	461	448	435	422	410	399	388	377	367	357	347	338	329	

See page LT-29 for notes



DEEP LONGSPAN STEEL JOISTS, DLJ- SERIES

Based on a Maximum Allowable Tensile Stress of 22,000 psi

Joist Designation	Approx. Wt. in Lbs. per Linear Ft.	Depth in Inches	SAFE LOAD** in Lbs. Between	CLEAR OPENING OR NET SPAN IN FEET															
				70-104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
60DLJ14	40	60	32300	306 239	300 233	295 226	290 220	285 214	280 208	275 203	270 197	265 192	261 187	257 182	252 178	248 173	244 169	240 165	236 161
60DLJ15	44	60	36800	349 269	342 262	336 255	330 248	324 241	318 235	312 228	307 222	301 216	296 211	291 205	286 200	281 195	276 190	272 185	267 181
60DLJ16	51	60	42900	406 324	399 315	392 306	385 297	378 288	371 282	365 274	359 267	353 260	347 253	341 247	335 240	330 234	324 228	319 223	314 217
60DLJ17	57	60	48500	459 370	450 360	442 350	434 340	427 331	419 322	412 314	405 305	398 297	391 290	385 282	378 275	372 268	366 261	360 255	354 249
60DLJ18	64	60	56900	539 413	529 402	519 390	510 380	501 369	492 360	483 350	475 341	467 332	459 323	451 315	444 307	436 299	429 292	422 284	415 277
60DLJ19	72	60	64300	609 461	597 448	587 436	576 424	566 412	556 401	546 390	537 380	528 370	519 361	510 351	501 342	493 334	485 325	477 317	469 309
75-112				113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128
64DLJ14	39	64	30600	270 210	265 204	260 199	256 194	252 189	247 184	243 180	239 175	235 171	231 167	228 163	224 159	221 155	217 151	214 148	210 144
64DLJ15	44	64	36200	319 247	314 241	309 235	304 229	299 223	294 217	289 212	284 207	280 202	275 197	271 192	267 187	263 183	259 179	255 174	251 170
64DLJ16	49	64	39500	348 276	342 268	336 262	330 255	324 248	319 242	314 236	308 230	303 225	298 219	294 214	289 209	284 204	280 199	275 194	271 190
64DLJ17	55	64	45400	406 314	393 306	386 298	380 290	373 283	367 276	361 269	355 262	349 256	343 250	338 244	332 238	327 232	322 227	317 222	312 216
64DLJ18	64	64	55900	492 380	483 370	475 360	467 351	460 342	452 334	445 325	438 317	431 309	424 302	417 295	411 288	404 281	398 274	392 268	386 262
64DLJ19	72	64	63100	556 424	546 414	537 402	528 392	519 382	511 372	503 363	495 354	487 345	479 337	471 329	464 321	457 313	450 306	443 299	436 292
64DLJ20	83	64	74500	656 492	645 479	634 467	623 455	612 443	602 432	592 421	582 411	573 401	563 391	554 382	545 373	537 364	528 355	520 347	512 339
80-120				121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136
68DLJ15	44	68	35400	291 229	287 223	282 218	278 212	273 207	269 203	265 198	261 193	257 189	254 184	250 180	246 176	243 172	239 168	236 165	232 161
68DLJ16	49	68	39200	323 255	318 249	313 243	308 237	303 231	298 226	293 220	289 215	284 210	280 206	276 201	272 196	268 192	264 188	260 184	256 180
68DLJ17	55	68	45200	372 290	366 283	360 276	354 270	348 263	343 257	338 251	332 245	327 240	322 234	317 229	313 224	308 219	303 214	299 209	295 205
68DLJ18	62	68	52100	429 328	422 320	415 313	408 305	402 298	395 291	389 284	383 277	377 271	372 265	366 259	360 253	355 247	350 242	345 237	340 231
68DLJ19	72	68	62000	510 392	502 383	494 373	486 364	479 356	472 347	464 339	457 331	451 324	444 316	437 309	431 302	425 296	418 289	412 283	407 276
68DLJ20	83	68	74200	610 455	600 444	591 433	581 423	572 413	563 403	554 394	546 385	537 376	529 367	521 359	513 351	506 343	498 336	491 328	484 321
84-128				129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144
72DLJ16	49	72	39100	302 237	297 231	293 226	288 221	284 216	280 211	275 207	271 202	268 198	264 193	260 189	256 185	253 181	249 178	246 174	242 170
72DLJ17	55	72	44900	347 270	342 264	337 258	332 252	327 246	322 241	317 236	312 230	308 225	304 221	299 216	295 211	291 207	287 202	283 198	279 194
72DLJ18	62	72	51800	400 305	394 298	388 291	383 285	377 279	371 272	366 266	360 261	355 255	350 249	345 244	340 239	335 234	331 229	326 224	322 220
72DLJ19	72	72	60900	470 365	463 356	457 348	450 340	443 333	437 326	431 318	425 311	419 305	413 299	407 292	401 286	396 280	390 274	385 268	380 262
72DLJ20	83	72	73900	570 424	562 414	553 405	545 396	537 387	529 378	521 370	513 362	506 354	499 346	492 339	485 332	478 325	471 318	465 311	458 305

*Section 104.10 of the "Standard Specifications for Longspan Steel Joists, LJ- and LH-Series and Deep Longspan Steel Joists, DLJ- and DLH-Series" limits the design LIVE load deflection as follows:
 1/360 of span where a plaster ceiling is attached or suspended;
 1/240 of span for all other cases.

**To extrapolate for safe uniform load between spans shown, divide the Safe Load in pounds by net span in feet plus .67 feet. (The added .67 feet, eight inches, is necessary to obtain the proper span for which the load tables were developed.)

