## **Design of Steel Joists**

Select and check economical LH series joists for a 76 ft clear span roof. The joists are spaced 6 ft apart and must support a 40 psf live load plus a 15 psf superimposed dead load. To control ponding the live load deflection is limited to L/300. Determine the required bridging. Estimate the maximum service load tension force in the bottom chord of the joist.

## **ECONOMICAL JOIST GUIDE**

Combined K, VS, LH & DLH Series Load Table

The following table is an economy guide with the Joists listed in sequence of increasing relative cost. That is, the most economical joist for given length is listed first. The economies were based on production costs and do not include bridging requirements or erection costs.

HOW TO USE THE ECONOMICAL JOIST GUIDE: The specifying professional simply turns to the length required and proceeds down the allowable loads column until the first joist type in the list that will carry the required load is found. (However, additional bridging due to erection stability requirements should be taken into consideration.) This will then be the most economical joist type for the combination of length and required load. The approximate weight per foot of the joist is listed to the right of the live load.

EXAMPLE: Given 40'-0" length and a required load of 300 plf. On page 110 of the table under 40', it is found that a 30K7 at 40'-" will carry 319 plf TL. (page 110)

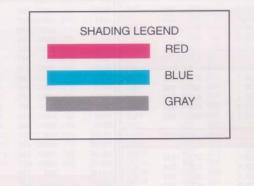
The figures shown in red are the live loads per lineal foot of joist which will produce an approximate deflection of 1/360 of the length. If a deflection limitation of 1/240 is required multiply the figures in red by 1.5. In no case shall the total load capacity of the joist be exceeded.

NOTE: Length as used in the economical joist guide means: clear span + 8" for K Series and clear span + 12" for LH and DLH Series joists.

You will note that the tables have been shaded to match the load tables. This shading indicates when bolted cross bridging needs to be installed per the Steel Joist Institute specification for a particular joist series. Where the joist span is in the **RED SHADED** area of the table, the row of bridging nearest the mid span shall be diagonal bridging with bolted connections at chords and intersection. Hoisting cables shall not be released until this row of bolted diagional bridging is completely installed.

Where the joist span is in the **BLUE SHADED** area of the table, all rows of bridging shall be diagonal bridging with bolted connections at chords and intersection. Hoist cables shall not be released until the two rows of bridging nearest the third points are completely installed.

Where the joist span is in the GRAY SHADED area of the table hoisting cables shall not be released until all rows of bridging are completely installed.



3 T			
Name:			
ranic.			

56DLH11	000		04	1411140	200			The state of the s	10000	6.656	***
	398	323	21	44LH10	300	174	19				
44LH12	419	252	24	56DLH11	381	297	21	7	7' LEN	IGTH	
40LH12	424	231	25	44LH12	402	232	25				
52DLH12	463	328	24	52DLH12	444	302	24	40LH8	192	97	16
48LH13	464		26	48LH13	445		25	44LH9	253		
44LH13	497	299	28	44LH13	477	275	29	The state of the s		141	18
40LH13	500	271	30	48LH14	525	331	29	44LH10	279	155	19
52DLH13	562	398	28	52DLH13	539	366	29	48LH11	283	172	18
44LH14	572	342	31	44LH14	549		12/2022	44LH11	302	168	21
52DLH14	642	444	31	52DLH14		315	31	44LH12	374	207	25
44LH15					616	409	32	52DLH11	382	256	24
	665	398	31	44LH15	639	366	31	52DLH12	427	279	26
52DLH15	722	501	35	60DLH15	669	525	32	48LH13	428	259	27
52DLH16	778	557	37	52DLH15	692	461	37	44LH13	444	246	28
48LH17	815	530	41	52DLH16	747	513	38	52DLH13	518	338	30
44LH17	824	489	45	48LH17	782	488	45	40LH15	538	268	36
56DLH17	889	680	40	44LH17	790	450	47	56DLH14	577	404	32
52DLH17	896	636	44	60DLH17	846	667	40	52DLH14			100000
60DLH18	1017	818	46	52DLH17	859	585	45		592	378	34
			-	60DLH18	976	753	46	44LH15	593	326	31
7	2' LEN	GTH		SUPERIO	0,0	700	40	60DLH15	643	484	34
1	L LLIV	СП		-	E' L EN	CTU		52DLH15	665	425	38
				- /	5' LEN	GIH		60DLH16	707	541	36
36LH7	196	95	15					56DLH16	711	508	37
36LH8	215	104	16	40LH8	201	104	15	52DLH16	717	473	40
40LH8	217	117	16	44LH9	265	152	18	48LH17	751	450	45
44LH9	279	167	17	40LH10	290	150	20	52DLH17	826	540	46
40LH9	283	153	18	44LH10	293	168	19	60DLH18	938	695	47
44LH10	308	184	18	56DLH11	376	289	21	OODLITTO	330	090	47
40LH10	313	169	20	44LH12	393			-		OTIL	
44LH11	333	199		48LH13		224	25	/	B' LEN	GIH	
56DLH11			19		439	273	25				
	392	314	20	44LH13	466	265	28	40LH8	187	93	16
44LH12	413	245	25	48LH14	518	322	29	44LH9	247	136	18
52DLH12	456	319	24	56DLH13	532	356	29	44LH10	272	150	19
48LH13	458	296	26	44LH14	534	302	·				18
AALLIAO				The state of the s		302	31	48I H11	279	168	
44LH13	490	291	29	52DLH14	608	398	31	48LH11	279	168	
52DLH13	490 554					398	200	44LH11	295	162	21
		291	29	52DLH14	608	398 352	33 31	44LH11 44LH12	295 365	162 200	21 25
52DLH13	554 564	291 387 333	29 28 31	52DLH14 44LH15 60DLH15	608 623 660	398 352 511	33 31 32	44LH11 44LH12 52DLH11	295 365 377	162 200 249	21 25 24
52DLH13 44LH14 52DLH14	554 564 633	291 387 333 432	29 28 31 31	52DLH14 44LH15 60DLH15 52DLH15	608 623 660 683	398 352 511 449	33 31 32 37	44LH11 44LH12 52DLH11 52DLH12	295 365 377 421	162 200 249 272	21 25 24 26
52DLH13 44LH14 52DLH14 44LH15	554 564 633 656	291 387 333 432 387	29 28 31 31 31	52DLH14 44LH15 60DLH15 52DLH15 48LH16	608 623 660 683 687	398 352 511 449 425	33 31 32 37 39	44LH11 44LH12 52DLH11 52DLH12 48LH13	295 365 377 421 422	162 200 249 272 252	21 25 24 26 26
52DLH13 44LH14 52DLH14 44LH15 52DLH15	554 564 633 656 712	291 387 333 432 387 487	29 28 31 31 31 31 35	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16	608 623 660 683 687 726	398 352 511 449 425 571	33 31 32 37 39 35	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13	295 365 377 421 422 433	162 200 249 272 252 236	21 25 24 26 26 28
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16	554 564 633 656 712 716	291 387 333 432 387 487 461	29 28 31 31 31 35 38	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16	608 623 660 683 687 726 737	398 352 511 449 425 571 499	33 31 32 37 39 35 40	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13	295 365 377 421 422	162 200 249 272 252	21 25 24 26 26
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16	554 564 633 656 712 716 767	291 387 333 432 387 487 461 542	29 28 31 31 31 35 38 38	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17	608 623 660 683 687 726 737 771	398 352 511 449 425 571 499 475	33 31 32 37 39 35 40 45	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13	295 365 377 421 422 433	162 200 249 272 252 236	21 25 24 26 26 28
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17	554 564 633 656 712 716 767 812	291 387 333 432 387 487 461 542 475	29 28 31 31 31 35 38 38 45	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17	608 623 660 683 687 726 737 771 780	398 352 511 449 425 571 499 475 438	33 31 32 37 39 35 40 45	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13	295 365 377 421 422 433 511	162 200 249 272 252 236 329	21 25 24 26 26 28 30
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17	554 564 633 656 712 716 767 812 883	291 387 333 432 387 487 461 542 475 618	29 28 31 31 31 35 38 38 45 44	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17	608 623 660 683 687 726 737 771 780 834	398 352 511 449 425 571 499 475 438 649	33 31 32 37 39 35 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15	295 365 377 421 422 433 511 524	162 200 249 272 252 236 329 258 394	21 25 24 26 26 28 30 36
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17	554 564 633 656 712 716 767 812	291 387 333 432 387 487 461 542 475	29 28 31 31 31 35 38 38 45	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17	608 623 660 683 687 726 737 771 780 834 848	398 352 511 449 425 571 499 475 438	33 31 32 37 39 35 40 45	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14	295 365 377 421 422 433 511 524 569 585	162 200 249 272 252 236 329 258 394 368	21 25 24 26 26 28 30 36 32 34
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18	554 564 633 656 712 716 767 812 883 1003	291 387 333 432 387 487 461 542 475 618 796	29 28 31 31 31 35 38 38 45 44	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17	608 623 660 683 687 726 737 771 780 834	398 352 511 449 425 571 499 475 438 649	33 31 32 37 39 35 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15	295 365 377 421 422 433 511 524 569 585 657	162 200 249 272 252 236 329 258 394 368 415	21 25 24 26 26 28 30 36 32 34 38
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18	554 564 633 656 712 716 767 812 883 1003	291 387 333 432 387 487 461 542 475 618 796	29 28 31 31 31 35 38 38 45 44	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17	608 623 660 683 687 726 737 771 780 834 848	398 352 511 449 425 571 499 475 438 649 570	33 31 32 37 39 35 40 45 47 40 45	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16	295 365 377 421 422 433 511 524 569 585 657 661	162 200 249 272 252 236 329 258 394 368 415 393	21 25 24 26 26 28 30 36 32 34 38 40
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18	554 564 633 656 712 716 767 812 883	291 387 333 432 387 487 461 542 475 618 796	29 28 31 31 31 35 38 38 45 44	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18	608 623 660 683 687 726 737 771 780 834 848 963	398 352 511 449 425 571 499 475 438 649 570 733	33 31 32 37 39 35 40 45 47 40 45	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16	295 365 377 421 422 433 511 524 569 585 657 661 698	162 200 249 272 252 236 329 258 394 368 415 393 528	21 25 24 26 26 28 30 36 32 34 38 40 38
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18	554 564 633 656 712 716 767 812 883 1003	291 387 333 432 387 487 461 542 475 618 796	29 28 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18	608 623 660 683 687 726 737 771 780 834 848	398 352 511 449 425 571 499 475 438 649 570 733	33 31 32 37 39 35 40 45 47 40 45	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16	295 365 377 421 422 433 511 524 569 585 657 661 698 702	162 200 249 272 252 236 329 258 394 368 415 393 528 495	21 25 24 26 26 28 30 36 32 34 38 40 38
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18	554 564 633 656 712 716 767 812 883 1003 3' LEN	291 387 333 432 387 487 461 542 475 618 796 GTH	29 28 31 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18	608 623 660 683 687 726 737 771 780 834 848 963	398 352 511 449 425 571 499 475 438 649 570 733	33 31 32 37 39 35 40 45 47 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16 52DLH16	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461	21 25 24 26 26 28 30 36 32 34 38 40 38 38
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275	291 387 333 432 387 487 461 542 475 618 796 GTH	29 28 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18	608 623 660 683 687 726 737 771 780 834 848 963	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b>	33 31 32 37 39 35 40 45 47 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16 52DLH16 48LH17	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461 439	21 25 24 26 26 28 30 36 32 34 38 40 38 40 38 41 45
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18 70 40LH8 44LH9 40LH9	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275 276	291 387 333 432 387 487 461 542 475 618 796 GTH	29 28 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18	608 623 660 683 687 726 737 771 780 834 848 963 <b>6' LEN</b>	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b>	33 31 32 37 39 35 40 45 47 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH16 60DLH16 56DLH16 52DLH16 48LH17 52DLH17	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742 815	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461	21 25 24 26 26 28 30 36 32 34 38 40 38 38 41 45 45
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18  70 40LH8 44LH9 40LH9 44LH10	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275 276 304	291 387 333 432 387 487 461 542 475 618 796 GTH	29 28 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18 70 40LH8 44LH9 40LH10	608 623 660 683 687 726 737 771 780 834 848 963 <b>6' LEN</b> 196 259 283	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b>	33 31 32 37 39 35 40 45 47 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16 52DLH16 48LH17	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461 439	21 25 24 26 26 28 30 36 32 34 38 40 38 40 38 41 45
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18  70 40LH8 44LH9 40LH9 44LH10 40LH10	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275 276 304 305	291 387 333 432 387 487 461 542 475 618 796 GTH 112 162 147 179 162	29 28 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18 70 40LH8 44LH9 40LH10 44LH10	608 623 660 683 687 726 737 771 780 834 848 963 <b>6' LEN</b>	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b>	33 31 32 37 39 35 40 45 47 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16 56DLH16 52DLH16 48LH17 52DLH17 60DLH18	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742 815 926	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461 439 526 677	21 25 24 26 26 28 30 36 32 34 38 40 38 38 41 45 45
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18  70 40LH8 44LH9 40LH9 44LH10 40LH10 44LH11	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275 276 304	291 387 333 432 387 487 461 542 475 618 796 GTH	29 28 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18 70 40LH8 44LH9 40LH10	608 623 660 683 687 726 737 771 780 834 848 963 <b>6' LEN</b> 196 259 283	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b>	33 31 32 37 39 35 40 45 47 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16 56DLH16 52DLH16 48LH17 52DLH17 60DLH18	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742 815 926	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461 439 526 677	21 25 24 26 26 28 30 36 32 34 38 40 38 38 41 45 45
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18  70 40LH8 44LH9 40LH9 44LH10 40LH10	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275 276 304 305	291 387 333 432 387 487 461 542 475 618 796 GTH 112 162 147 179 162	29 28 31 31 35 38 38 45 44 46	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18 70 40LH8 44LH9 40LH10 44LH10	608 623 660 683 687 726 737 771 780 834 848 963 <b>6' LEN</b> 196 259 283 286	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b>	33 31 32 37 39 35 40 45 47 40 45 47	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16 56DLH16 52DLH16 48LH17 52DLH17 60DLH18	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742 815	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461 439 526 677	21 25 24 26 26 28 30 36 32 34 38 40 38 38 41 45 45
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18  70 40LH8 44LH9 40LH9 44LH10 40LH10 44LH11	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275 276 304 305 329	291 387 333 432 387 487 461 542 475 618 796 GTH 112 162 147 179 162 193	29 28 31 31 35 38 38 45 44 46 15 17 18 18 20 19	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18 40LH8 44LH9 40LH10 44LH10 48LH11	608 623 660 683 687 726 737 771 780 834 848 963 6' LEN 196 259 283 286 287 310	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b> 100 146 144 162 177 175	33 31 32 37 39 35 40 45 47 40 45 47 15 17 20 19 18 21	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH16 60DLH16 56DLH16 52DLH16 48LH17 52DLH17 60DLH18	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742 815 926	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461 439 526 677	21 25 24 26 26 28 30 36 32 34 38 40 38 38 41 45 45 46
52DLH13 44LH14 52DLH14 44LH15 52DLH15 48LH16 52DLH16 44LH17 52DLH17 60DLH18  70 40LH8 44LH9 40LH9 44LH10 40LH10 44LH11 56DLH11	554 564 633 656 712 716 767 812 883 1003 3' LEN 211 275 276 304 305 329 387	291 387 333 432 387 487 461 542 475 618 796 GTH 112 162 147 179 162 193 305	29 28 31 31 35 38 38 45 44 46 15 17 18 18 20 19 20	52DLH14 44LH15 60DLH15 52DLH15 48LH16 60DLH16 52DLH16 48LH17 44LH17 60DLH17 52DLH17 60DLH18 40LH8 44LH9 40LH10 48LH11 48LH11	608 623 660 683 687 726 737 771 780 834 848 963 <b>6' LEN</b> 196 259 283 286 287	398 352 511 449 425 571 499 475 438 649 570 733 <b>GTH</b> 100 146 144 162 177	33 31 32 37 39 35 40 45 47 40 45 47 15 17 20 19 18	44LH11 44LH12 52DLH11 52DLH12 48LH13 44LH13 52DLH13 40LH15 56DLH14 52DLH14 52DLH15 48LH16 60DLH16 56DLH16 56DLH16 52DLH16 48LH17 52DLH17 60DLH18	295 365 377 421 422 433 511 524 569 585 657 661 698 702 708 742 815 926	162 200 249 272 252 236 329 258 394 368 415 393 528 495 461 439 526 677	21 25 24 26 26 28 30 36 32 34 38 40 38 38 41 45 45