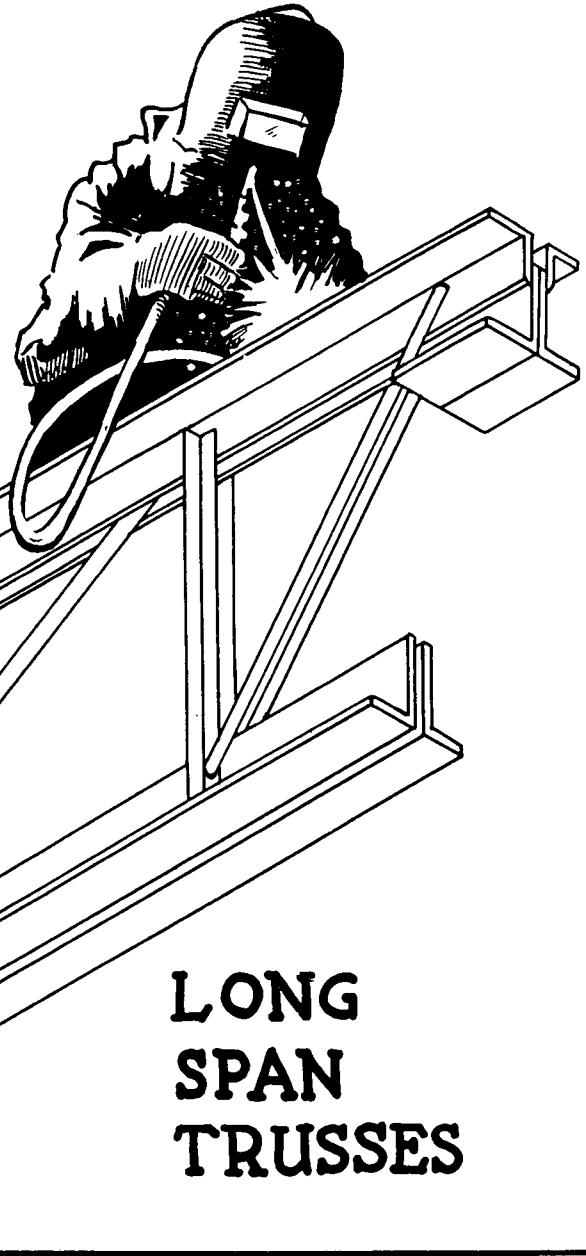


J. L. KELLOGG



LONG  
SPAN  
TRUSSES

**DELONG'S**  
**INC.**

JEFFERSON CITY, MISSOURI.

## LONGSPAN TRUSSES

LONGSPAN TRUSSES are relatively lightweight steel trusses, used for the direct support of floor or roof slabs or decks between walls, beams and main structural members.

The Longspan Series of Open Web Steel Joists have been designed for the purpose of extending the use of the joists on spans in excess of those covered by "Short Span" Series Joists. Longspan Trusses have been standardized in depths from 18" to 48", in spans to 96 feet and in carrying capacities as tabulated on pages 6 and 7.

To meet the demand for pitched top chord members (when necessary for roof drainage) a standard pitch of  $\frac{1}{8}$ " per foot has been fixed.

All Longspan Trusses (with either parallel or pitched top chords) are fabricated with a camber as specified on page 4.

Longspan Trusses reduce the necessity for intermediate columns and permit rearrangement of office partitions, display counters, etc., and permit the use of large unobstructed floor areas for garages, bowling alleys, auditoriums, show rooms, gymnasiums, super markets, and similar buildings.

The shallow depth of Longspan Trusses facilitates the design of pleasing architectural lines for exterior building elevations and at the same time provides a saving in masonry work, by reducing the required height of building walls.

Open Web Steel Trusses are completely standardized as to lengths, depths and carrying capacities. Floors and roofs are thereby more quickly, easily and accurately designed and constructed.

Open Web Longspan Steel Trusses are completely fabricated in the shop. The standard bearing ends are made 5" deep which is the approximate height of two courses of brick. The point of support is thereby raised above the center of gravity of the truss, and trusses will, therefore, remain upright and not overturn when set in place.

The open webs in the Trusses permit the ready passage and concealment of pipes, heating, ventilating and air-conditioning ducts and electric conduits within the depth of floor, thereby making such installations extremely economical. In most cases, the need for expensive furred ceilings is eliminated.

Longspan Steel Truss construction with metal lath and plaster ceiling provides adequate fire resistance at low cost. The lightness of Longspan Steel Truss construction permits the use of lighter framing and footings. Where bad soil conditions must be considered, the light weight of such construction makes its use particularly desirable.

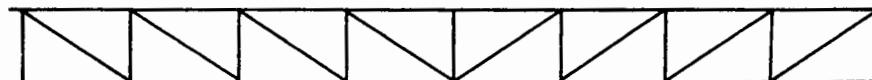
# STANDARD TYPES

Longspans can be furnished with either underslung or square ends, with parallel chords or with single or double pitched top chords to provide sufficient slope for roof drainage. Square end trusses are primarily intended for bottom chord bearing. Standard pitch is  $\frac{1}{8}$ " per foot. If pitch exceeds this standard, the load table does not apply. The Longspan Truss designation is determined by its nominal depth at the center of the span and by its chord size designation.

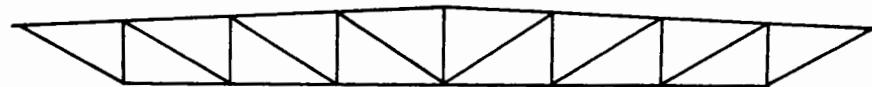
Underslung ends with top chord flat—parallel chords.



Square end with top chord flat—Parallel chords—usually bottom bearing.



Underslung ends with top chord pitched  $\frac{1}{8}$ " per foot each way from center.



Underslung ends with top chord pitched  $\frac{1}{8}$ " per foot toward one end.

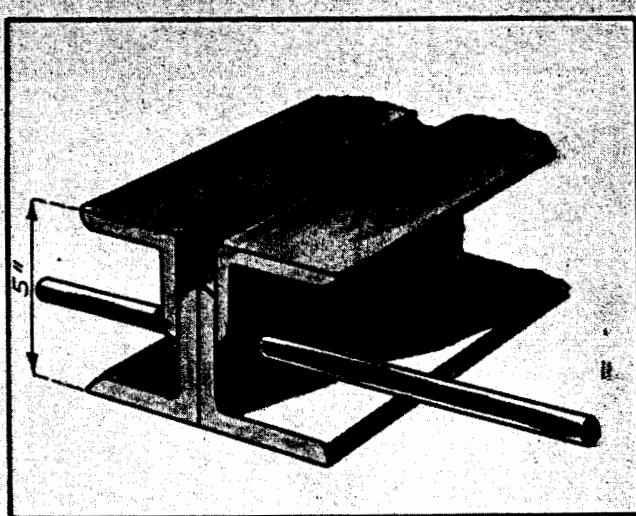
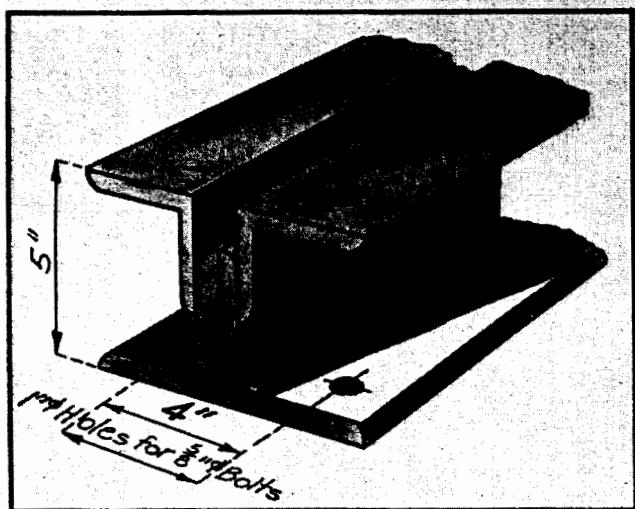


Underslung ends with top chord extended for outriggers.



Trusses with an odd number of panels have two diagonals in the center panel.

2-10a



## BOLTED CONNECTIONS

When trusses are supported on structural steel members, it is generally desired to have a bolted connection. Holes may be provided in the ends of trusses for this purpose. Trusses may also be welded if desired.

## WALL ANCHOR

Where the supporting walls are of masonry construction, the ends of trusses may be anchored thereto by means of  $\frac{5}{8}$ " round bars as shown, or 2— $\frac{5}{8}$ "  $\phi$  x 12" anchor bolts with 1" holes in seat angle as shown on the left.

# STANDARD SPECIFICATIONS

## Section 1. Scope

- (a) These specifications cover the design and use of Longspan Series Open Web Trusses in any structure to be erected under the provisions of these specifications.
- (b) Longspan Steel Truss construction as governed by these specifications shall be that type of construction where decks and top slabs are supported directly by separate steel members herein referred to as Longspan Steel Trusses. The span and spacing of Longspan Steel Trusses shall be as defined in Section 6 of these specifications.

## Section 2. Definition of Longspan Steel Trusses

- (a) The term "Longspan" Steel Truss as used herein refers to relatively light-weight steel trusses, having substantially parallel chords and designed for the direct support of floors, roof slabs and decks, between walls, beams and main structural trusses at spans and spacings specified in Section 6.
- (b) This specification shall not be construed to cover steel joists or steel joist construction as defined by the Standard Specifications for Open Web Steel Joist Construction of the Steel Joist Institute.

## Section 3. Materials

- (a) The steel used shall conform to the American Society for Testing Materials Standard Specifications for Steel for Bridges and Buildings, Designation A7 of latest adoption.
- (b) All Longspan Steel Trusses shall receive one coat of rust-inhibitive paint before leaving the manufacturer's shop.
- (c) Top and bottom chords of Longspan Steel Trusses shall be composed of angles or other shapes. Web members shall consist of rods, angles, bars, or other shapes.

## Section 4. Connections

- (a) All joints of Longspan Steel Trusses shall be made by welding, bolting, riveting or other approved methods. Connections at ends of members shall be proportioned to develop the actual design stress but not less than 50% of the allowable design strength of the member.

## Section 5. Design and Stresses

- (a) Except as otherwise specified herein, Longspan Steel Trusses shall be designed as structural trusses in accordance with the American Institute of Steel Construction "Specifications for Design, Fabrication and Erection of Structural Steel for Buildings."
- (b) The top chords shall be designed as continuous members subject to direct and bending stresses. The allowable bending stress at mid-panels and at panel points shall be 20,000 PSI and 24,000 PSI, respectively.
- (c) The unsupported length of top chord for the purpose of computing the permissible axial compressive stress, at mid-panel and at panel point shall be considered equal to the panel length and half the panel length respectively.
- (d) The method of attachment of floors or roof decks and slabs shall be adequate to support the top chords laterally.

## Section 6. Span and Spacing

- (a) The clear span of Longspan Steel Trusses shall not exceed twenty-four times the depth for roofs or twenty times the depth for floors.
- (b) Where Longspan Steel Trusses rest on masonry walls, it is recommended that the clear span be limited to 80'-0" and that the masonry walls be adequately designed with respect to height, thickness and spacing of pilasters.
- (c) The spacing of the Longspan Steel Trusses shall not exceed the safe span of the floor slab or roof deck.

## Section 7. Approximate Camber

- (a) All Longspan Steel Trusses shall have approximate cambers in accordance with the following:

TOP CHORD LENGTH	CAMBER
30'-0"	3/8"
40'-0"	3/4"
50'-0"	1 1/8"
60'-0"	1 1/2"
70'-0"	2 1/8"
80'-0"	2 3/4"
90'-0"	3 1/2"
96'-0"	4"

## STANDARD SPECIFICATIONS (Cont'd)

### Section 8. Bearing and Anchorage

(a) Where Longspan Steel Trusses are supported by masonry or concrete walls, the trusses shall be anchored by a  $\frac{5}{8}$ " round bar anchor not less than 12" long or other equivalent method. Where Longspan Steel Trusses rest on steel beams or steel trusses, they shall be connected with not less than two  $\frac{3}{4}$ " bolts or welds of equal strength.

(b) The ends of Longspan Trusses shall bear not less than 6" on masonry or concrete, and not less than 4" on steel. The bearing areas shall be such that the average bearing pressure does not exceed 250 pounds per square inch on brick or stone masonry and 600 pounds per square inch on poured concrete.

### Section 9. Bridging

Bridging shall consist of a cross-bracing with  $1/r$  ratio of not more than 200 where "1" is the distance in inches between connections and "r" is the least radius of gyration of the bracing member. Where cross-bracing members are connected at their point of intersection, the "1" distance shall be taken as the distance in inches between connections at the point of intersection of the bracing members and the connection to the chord of the Longspan Truss. The maximum spacing of lines of bridging for the different truss types shall not exceed the values tabulated below:

TRUSS TYPE	MAXIMUM SPACING OF LINES OF BRIDGING
No. 2 to No. 8 inc.	10'-0"
No. 9 to No. 16 inc.	12'-0"
No. 17 to No. 19 inc.	16'-0"

### Section 10. Inspection

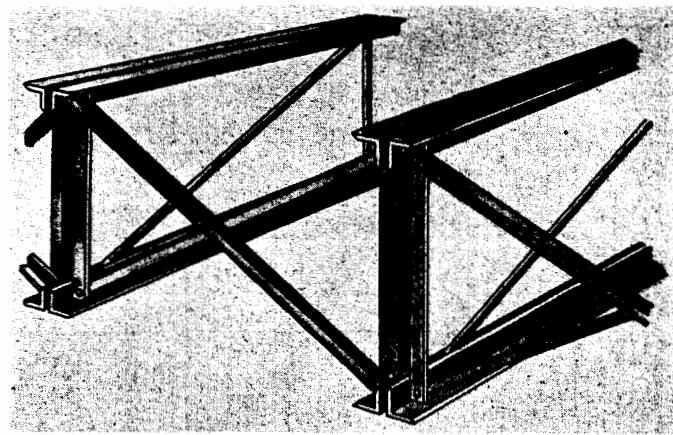
(a) All Longspan Trusses shall be thoroughly inspected before shipment to make certain that materials and workmanship conform to the requirements of these specifications.

### Section 11. Erection

(a) Longspan Steel Trusses shall be unloaded from shipping facilities, erected and hoisted into place by hooking to the top chord of trusses at approximately the third points. Hoisting facilities shall not be released during erection procedure until the line of bridging nearest mid-span is installed, and in the case of bottom chord bearing Longspan Trusses, the ends of the top chords shall be restrained laterally. Care shall be exercised at all times to avoid damage through careless handling. As soon as Longspan Trusses are erected, they shall be permanently fastened in place and all bridging completely installed before the application of loads.

### Section 12. Additional Counter Diagonals

Trusses are designed to carry uniformly distributed loads. In roof construction where uplift wind forces may exceed the dead weight of the roof, where light hoist loads are carried by the lower chord, or where trusses are framed into columns to add rigidity to the structure, the web system may be overstressed and should be investigated. Counter Diagonals should be specified where necessary in such cases. In floor construction, where the live load may cover less than one-half of the span, Counter Diagonals should be used for shear reversals. One Counter Diagonal is provided in the center panel, when the longspan contains an odd number of panels. Additional Counter Diagonals must be specified by the architect or engineer.



BRIDGING

# STANDARD LOADING TABLE

## For "Longspan" Steel Trusses

**Adopted by the Steel Joist Institute, April 28, 1953. Effective April 28, 1953.**

The following table gives the TOTAL safe uniformly distributed load-carrying capacities of Steel Joist Institute "Longspan" Trusses in pounds per linear foot of span.

This load table applies to "Longspan" Trusses with either parallel chords or standard pitched top chords.

The carrying capacities of "Longspans" with top chords pitched is determined by the nominal depth of the "Longspan" Trusses at the center of the span.

**Standard pitch is  $\frac{1}{8}$ " per foot. If pitch exceeds this standard, the load table does not apply.**

Loads below heavy broken lines are governed by maximum end reaction.

Truss Designation	Depth in Inches	Apprx. Wt., Lbs. Per Ft.	Maximum End Reaction	Clear Opening or Net Span in Feet											
				25	26	27	28	29	30	31	32	33	34	35	36
18L02	18	12	3,632	283	267	251	237	224	211	200	190	180	171	163	155
18L03	18	12	4,094	319	300	283	267	253	239	227	215	204	194	185	176
18L04	18	14	4,941	385	361	339	319	301	284	268	254	241	229	217	207
18L05	18	15	5,364	418	394	372	351	331	313	298	282	268	254	242	231
18L06	18	17	6,417	500	469	440	414	391	369	349	330	313	297	282	268
18L07	18	19	6,880	536	516	486	458	432	408	386	365	346	329	313	296
18L08	18	21	7,482	583	561	541	522	491	463	437	414	392	371	352	335
18L09	18	23	7,697	600	577	556	537	519	502	474	449	425	403	383	364
18L10	18	25	8,265	644	620	597	577	557	539	522	493	466	442	419	398
18L11	18	27	8,753	682	656	633	611	590	571	553	536	520	493	469	445
18L12	18	30	9,166	714	687	663	639	618	598	579	561	544	529	514	488
				25	26	27	28	29	30	31	32	33	34	35	36
20L03	20	12	4,235	330	312	296	280	266	252	240	228	217	207	197	188
20L04	20	14	5,185	404	381	360	340	320	304	288	273	259	247	235	224
20L05	20	15	5,557	433	409	387	367	348	331	314	299	285	271	259	247
20L06	20	17	6,763	527	496	467	441	417	395	374	355	337	320	305	290
20L07	20	19	7,110	554	533	514	486	459	435	412	391	372	354	337	321
20L08	20	21	7,832	610	587	566	546	528	499	472	447	425	403	383	365
20L09	20	23	8,107	632	608	586	566	547	529	512	485	460	437	416	396
20L10	20	25	8,568	668	643	619	598	578	559	541	525	509	483	459	436
20L11	20	27	9,095	709	682	657	634	613	593	574	557	540	525	510	485
20L12	20	30	9,605	748	720	694	670	647	626	607	588	571	554	539	524
20L13	20	35	10,533	821	790	761	735	710	687	665	645	626	608	591	575
				33	34	35	36	37	38	39	40	41	42	43	44
24L04	24	14	4,798	285	272	260	249	238	228	219	210	201	193	186	179
24L05	24	15	5,117	304	292	279	268	257	247	237	228	219	211	203	196
24L06	24	17	6,245	371	354	339	324	310	297	284	273	262	251	242	232
24L07	24	19	6,868	408	390	373	357	342	328	314	301	289	278	267	257
24L08	24	21	7,996	475	453	432	412	394	377	361	346	332	318	306	294
24L09	24	23	8,652	514	490	468	447	427	409	391	375	360	345	331	319
24L10	24	25	9,345	555	539	524	500	477	456	436	417	400	383	368	353
24L11	24	27	9,686	575	559	543	528	514	501	480	460	441	424	407	391
24L12	24	30	10,431	619	601	585	569	554	539	526	513	491	471	452	434
24L13	24	35	11,479	682	662	644	626	610	594	579	565	551	538	526	514
24L14	24	37	12,087	718	697	678	659	642	625	609	594	580	567	554	541
				41	42	43	44	45	46	47	48	49	50	51	52
28L06	28	17	5,875	282	272	262	253	244	235	227	220	212	205	199	192
28L07	28	19	6,479	311	300	289	279	269	260	251	243	235	227	220	213
28L08	28	21	7,542	362	348	335	323	312	300	290	280	270	261	252	244
28L09	28	23	8,167	392	377	363	350	337	325	314	303	293	283	274	265
28L10	28	25	9,208	442	425	408	393	378	365	351	339	327	316	305	295
28L11	28	27	10,000	480	463	445	429	414	399	385	372	359	347	336	325
28L12	28	30	10,960	526	514	502	483	465	448	432	417	402	388	375	363
28L13	28	35	12,202	586	572	559	546	534	523	512	494	477	460	445	430
28L14	28	37	12,793	614	600	586	573	561	549	537	526	515	505	488	471
28L15	28	41	13,443	645	630	616	602	589	576	564	552	541	531	520	510

# STANDARD LOADING TABLE (Cont'd)

Truss Designation	Depth in Inches	Apprx. Wt., Lbs. Per Ft.	Maximum End Reaction	Clear Opening or Net Span in Feet																	
				49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		
32L07	32	19	6,159	248	240	233	226	220	213	207	201	196	190	185	180	175	171	166	162		
32L08	32	21	7,177	289	280	271	263	256	248	241	234	227	220	214	208	202	197	191	186		
32L09	32	23	7,798	314	304	295	285	277	269	260	253	246	239	232	225	219	213	207	202		
32L10	32	25	8,791	354	343	332	321	311	302	292	283	275	267	259	252	245	238	231	225		
32L11	32	27	9,586	386	374	362	351	340	330	321	311	302	294	285	277	270	262	255	249		
32L12	32	30	10,827	436	422	409	396	383	371	360	349	339	329	319	310	301	293	285	277		
32L13	32	35	12,667	510	500	485	469	453	440	427	414	401	390	378	367	357	347	338	328		
32L14	32	37	13,470	543	532	522	512	502	486	471	457	443	429	417	404	393	382	371	360		
32L15	32	41	14,445	582	570	559	549	538	528	519	510	501	484	468	452	438	424	411	398		
32L16	32	48	15,729	633	621	609	597	586	575	565	555	546	536	527	519	510	502	487	472		
				57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		
36L08	36	21	6,920	240	234	227	221	216	210	205	199	194	189	185	180	176	172	167	164		
36L09	36	23	7,497	260	253	246	240	233	227	221	216	210	205	200	195	191	186	182	177		
36L10	36	25	8,506	295	287	279	271	264	257	250	243	237	231	225	219	214	209	204	199		
36L11	36	27	9,198	319	310	302	294	286	279	272	265	258	252	246	240	234	228	223	218		
36L12	36	30	10,467	363	352	343	333	324	316	307	299	291	284	277	270	263	257	250	244		
36L13	36	35	12,398	430	418	406	395	384	374	364	355	346	337	328	320	312	304	297	290		
36L14	36	37	13,782	478	464	451	438	426	414	403	392	382	372	362	353	344	336	327	319		
36L15	36	41	15,275	530	521	512	497	484	471	458	446	434	423	412	400	389	378	368	357		
36L16	36	48	16,482	572	562	552	543	535	526	518	510	502	489	476	464	453	442	431	420		
36L17	36	54	17,765	616	606	595	586	576	567	558	549	541	533	525	517	510	497	485	473		
				65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80		
40L09	40	23	7,223	220	215	210	205	200	196	191	187	183	179	175	171	168	164	161	157		
40L10	40	25	8,208	250	244	238	233	227	222	217	212	207	202	198	193	189	185	181	177		
40L11	40	27	8,865	270	264	258	252	246	241	235	230	225	220	215	211	206	202	198	193		
40L12	40	30	10,113	308	301	294	287	280	273	267	261	255	249	243	238	233	228	223	218		
40L13	40	35	12,017	366	357	348	340	332	324	316	309	302	295	289	282	276	270	264	259		
40L14	40	37	13,396	408	397	387	378	369	360	351	343	335	327	320	312	305	299	292	286		
40L15	40	41	15,136	461	450	439	428	418	408	399	389	380	372	363	355	347	341	332	324		
40L16	40	48	17,187	523	516	508	495	483	472	461	450	440	430	420	410	401	392	384	376		
40L17	40	54	18,421	561	553	545	537	529	521	514	507	495	484	473	463	452	442	433	423		
40L18	40	61	19,981	609	599	591	582	574	566	558	550	542	535	528	521	515	508	496	485		
				73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88		
44L10	44	25	7,993	217	212	208	203	199	195	191	187	183	179	176	172	169	165	162	159		
44L11	44	27	8,582	233	228	224	219	215	210	206	202	198	194	191	187	183	180	177	173		
44L12	44	30	9,835	267	261	256	250	245	240	235	230	225	221	216	212	208	204	200	196		
44L13	44	35	11,639	316	310	303	297	290	284	278	273	267	262	257	251	246	242	237	232		
44L14	44	37	13,039	354	346	338	331	324	317	310	304	297	291	285	279	274	268	263	258		
44L15	44	41	14,733	400	392	383	375	367	359	352	344	337	330	324	317	311	305	299	293		
44L16	44	48	17,054	463	453	443	434	424	415	407	398	390	382	374	367	360	352	345	339		
44L17	44	54	19,040	517	510	499	489	478	468	458	449	439	430	422	413	405	397	389	382		
44L18	44	61	20,743	563	556	548	541	534	527	521	514	508	497	487	477	467	457	448	439		
44L19	44	69	22,311	606	598	590	582	575	567	560	553	546	540	533	527	521	515	509	498		
				81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96		
48L11	48	27	8,330	204	200	197	193	189	186	183	179	176	173	170	167	164	162	159	156		
48L12	48	30	9,596	235	230	226	221	217	213	209	205	201	198	194	191	187	184	181	178		
48L13	48	35	11,352	278	273	268	262	257	253	248	243	239	234	230	226	222	218	214	211		
48L14	48	37	12,740	312	305	299	294	288	282	277	272	266	261	257	252	247	243	238	234		
48L15	48	41	14,373	352	345	338	332	326	319	313	308	302	296	291	285	280	275	270	266		
48L16	48	48	16,660	408	400	392	384	377	370	363	356	349	343	337	331	325	319	313	308		
48L17	48	54	18,743	459	450	441	433	425	416	409	394	386	379	372	366	359	353	346			
48L18	48	61	21,336	523	516	510	504	494	485	475	466	457	448	440	432	424	416	408	401		
48L19	48	69	23,029	564	557	550	544	538	531	525	519	514	508	498	489	480	471	462	454		

The weight of dead loads, including the weight of "Longspans," must in all cases be deducted to determine the live load-carrying capacities which must be reduced for concentrated loads.

Figures to the right of the heavy vertical lines to be used for roof construction only.

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

The top chords are considered as being stayed laterally by floor slab or roof deck.

# **DELONG'S INCORPORATED**

*Dix Road and Industrial Drive*

*Phone 6-6168*

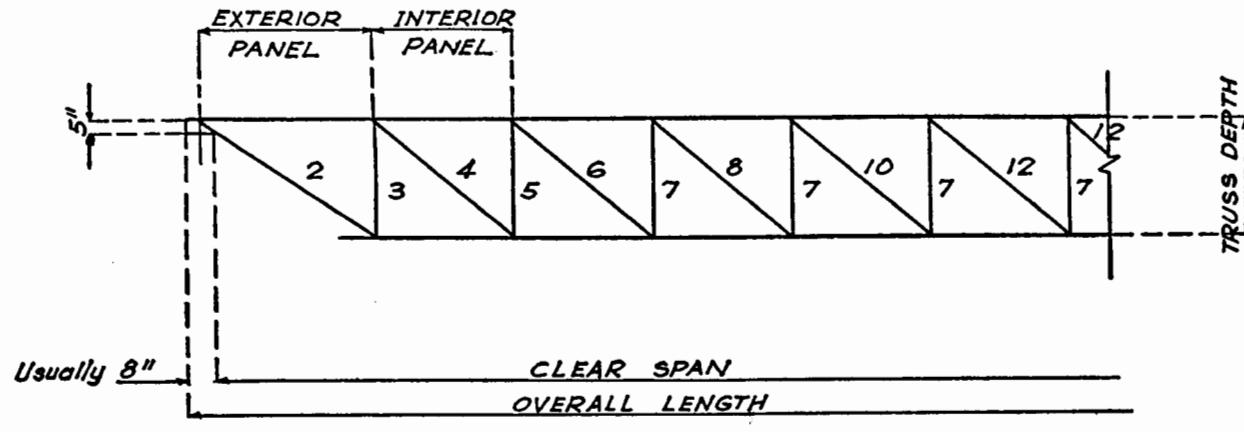
**JEFFERSON CITY, MISSOURI**

# DeLong's, INCORPORATED

Dix Road and Industrial Drive

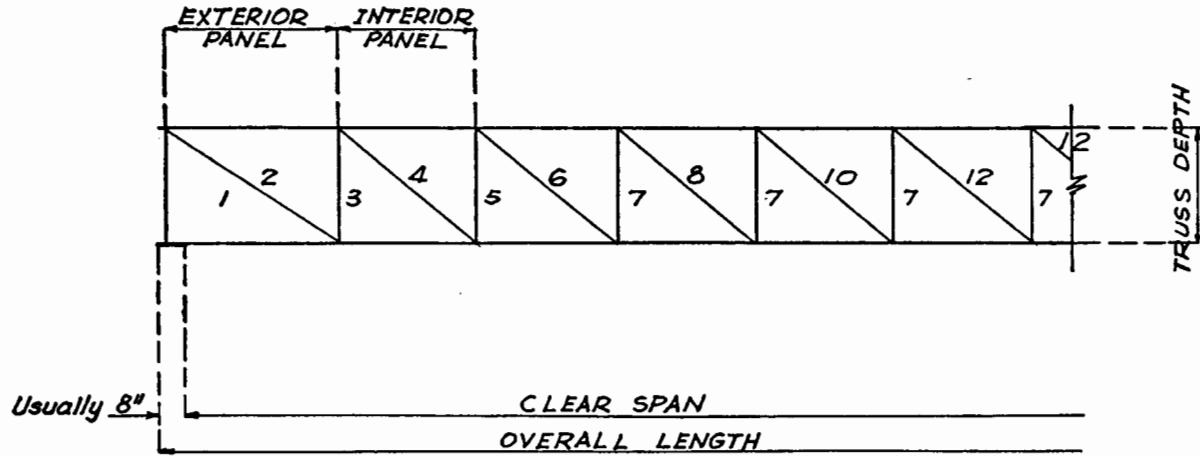
Jefferson City, Missouri

## PROPERTIES AND DIMENSIONS OF LONGSPAN TRUSSES



TOP BEARING TRUSS

Truss Type	Truss Depth in Inches	PANEL LENGTHS		CHORDS		VERTICALS 2 Angles				DIAGONALS 1 Round Bar Except (2)						Truss Type		
		Exterior		Interior	Top 2 Angles	Bottom 2 Angles	1	3	5	7	2	4	6	8	10	12		
		Max.	Min.				(2 Bars)											
36L08	36"	5'-11"	3'-7"	4'-9"	3 x 2 $\frac{1}{2}$ x $\frac{1}{4}$	2 $\frac{1}{2}$ x2 x $\frac{1}{4}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{1}{8}$	1 x1 x $\frac{1}{8}$	7/8	7/8	3/4	3/4	3/4	3/4	36L08		
36L09	"	"	"	"	3 x 3 x $\frac{1}{4}$	2 $\frac{1}{2}$ x2 x $\frac{1}{2}$ x $\frac{1}{4}$	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{1}{8}$	"	7/8	7/8	13/16	3/4	3/4	3/4	36L09		
36L10	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{1}{4}$	3 x 2 $\frac{1}{2}$ x $\frac{1}{4}$	"	"	"	7/8	1	7/8	3/4	3/4	3/4	36L10		
36L11	"	"	"	"	3 x 3 x $\frac{5}{16}$	3 x 3 x $\frac{1}{4}$	2 x 1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	"	7/8	11/16	15/16	7/8	3/4	3/4	36L11		
36L12	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	3 x 2 $\frac{1}{2}$ x $\frac{5}{16}$	"	"	"	7/8	15/16	1	7/8	3/4	3/4	36L12		
36L13	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{8}$	3 x 3 x $\frac{5}{16}$	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	"	15/16	13/16	11/16	7/8	3/4	3/4	36L13		
36L14	"	"	"	"	4 x 3 x $\frac{3}{8}$	3 x 2 $\frac{1}{2}$ x $\frac{3}{8}$	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	"	1	13/16	13/16	1	7/8	3/4	36L14		
36L15	"	"	"	"	4 x 4 x $\frac{3}{8}$	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	"	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	11/16	11/14	13/16	11/16	7/8	3/4	36L15		
36L16	"	"	"	"	4 x 4 x $\frac{5}{16}$	4 x 3 x $\frac{3}{8}$	"	"	"	1/8	15/16	13/16	13/16	1	7/8	3/4	36L16	
36L17	"	"	"	"	4 x 4 x $\frac{1}{2}$	3 $\frac{1}{2}$ x3 x $\frac{7}{16}$	"	1 $\frac{3}{4}$ x1 $\frac{3}{4}$ x $\frac{3}{16}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/8	13/8	1/4	13/16	1	7/8	3/4	36L17	
36L18	"	"	"	"	5 x 5 x $\frac{5}{16}$	4 x 4 x $\frac{7}{16}$	"	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	13/16	13/16	13/8	13/16	11/16	7/8	3/4	36L18	
40L09	40"	6'-6"	4'-0"	5'-3"	3 x 3 x $\frac{1}{4}$	2 $\frac{1}{2}$ x2 x $\frac{1}{2}$ x $\frac{1}{4}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{1}{8}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{1}{8}$	7/8	7/8	3/4	3/4	3/4	3/4	40L09		
40L10	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{1}{4}$	3 x 2 $\frac{1}{2}$ x $\frac{1}{4}$	"	"	"	7/8	1	7/8	3/4	3/4	3/4	40L10		
40L11	"	"	"	"	3 x 3 x $\frac{5}{16}$	3 x 3 x $\frac{1}{4}$	2 x 1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	"	7/8	11/16	15/16	7/8	3/4	3/4	40L11		
40L12	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	3 x 2 $\frac{1}{2}$ x $\frac{5}{16}$	"	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	"	7/8	11/8	1	7/8	3/4	3/4	40L12	
40L13	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{8}$	3 x 3 x $\frac{5}{16}$	"	"	"	15/16	13/16	11/16	7/8	3/4	3/4	40L13		
40L14	"	"	"	"	4 x 3 x $\frac{3}{8}$	3 x 2 $\frac{1}{2}$ x $\frac{3}{8}$	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	"	11/4x1 $\frac{1}{4}$ x $\frac{3}{16}$	1	13/16	11/16	1	7/8	3/4	40L14	
40L15	"	"	"	"	4 x 4 x $\frac{3}{8}$	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	"	"	"	11/16	11/14	13/16	11/16	7/8	3/4	40L15		
40L16	"	"	"	"	4 x 4 x $\frac{5}{16}$	4 x 3 x $\frac{3}{8}$	"	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/8	13/8	1/4	13/16	1	7/8	3/4	40L16	
40L17	"	"	"	"	4 x 4 x $\frac{1}{2}$	3 $\frac{1}{2}$ x3 x $\frac{7}{16}$	"	1 $\frac{3}{4}$ x1 $\frac{3}{4}$ x $\frac{3}{16}$	"	1/4	13/8	1/4	13/16	1	7/8	3/4	40L17	
40L18	"	"	"	"	5 x 5 x $\frac{5}{16}$	4 x 4 x $\frac{7}{16}$	2 x 2 x $\frac{3}{16}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/4	11/16	13/8	13/16	11/16	7/8	3/4	40L18	
44L10	44"	7'-2"	4'-4"	5'-9"	3 $\frac{1}{2}$ x3 x $\frac{1}{4}$	3 x 2 $\frac{1}{2}$ x $\frac{1}{4}$	2 x 1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{1}{8}$	7/8	7/8	3/4	3/4	3/4	3/4	44L10		
44L11	"	"	"	"	3 x 3 x $\frac{5}{16}$	3 x 3 x $\frac{1}{4}$	"	"	"	7/8	11/16	15/16	7/8	3/4	3/4	3/4	44L11	
44L12	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	3 x 2 $\frac{1}{2}$ x $\frac{5}{16}$	"	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	"	7/8	11/8	1	7/8	3/4	3/4	44L12	
44L13	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{8}$	3 x 3 x $\frac{5}{16}$	"	"	"	15/16	13/16	11/16	7/8	3/4	3/4	44L13		
44L14	"	"	"	"	4 x 3 x $\frac{3}{8}$	3 x 2 $\frac{1}{2}$ x $\frac{3}{8}$	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	"	1	13/16	11/16	1	7/8	3/4	44L14		
44L15	"	"	"	"	4 x 4 x $\frac{3}{8}$	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	"	"	"	11/6	11/4	13/16	11/6	7/8	3/4	44L15		
44L16	"	"	"	"	4 x 4 x $\frac{5}{16}$	4 x 3 x $\frac{3}{8}$	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/8	13/8	1/4	13/16	1	7/8	3/4	44L16	
44L17	"	"	"	"	4 x 4 x $\frac{1}{2}$	3 $\frac{1}{2}$ x3 x $\frac{7}{16}$	"	"	"	1/4	17/16	1/4	13/16	1	7/8	3/4	44L17	
44L18	"	"	"	"	5 x 5 x $\frac{5}{16}$	4 x 4 x $\frac{7}{16}$	2 x 2 x $\frac{3}{16}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/4	17/16	1/4	13/16	1	7/8	3/4	44L18	
44L19	"	"	"	"	5 x 5 x $\frac{1}{2}$	4 x 4 x $\frac{1}{2}$	"	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/4	17/16	1/4	13/16	1	7/8	3/4	44L19	
48L11	48"	7'-9"	4'-8"	6'-3"	3 x 3 x $\frac{5}{16}$	3 x 3 x $\frac{1}{4}$	2 x 1 $\frac{1}{2}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{1}{8}$	7/8	11/6	15/16	7/8	3/4	3/4	48L11		
48L12	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	3 x 2 $\frac{1}{2}$ x $\frac{5}{16}$	"	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	"	7/8	11/8	1	7/8	3/4	3/4	48L12	
48L13	"	"	"	"	3 $\frac{1}{2}$ x3 x $\frac{5}{8}$	3 x 3 x $\frac{5}{16}$	"	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	1	13/16	11/16	7/8	3/4	3/4	48L13		
48L14	"	"	"	"	4 x 3 x $\frac{3}{8}$	3 x 2 $\frac{1}{2}$ x $\frac{3}{8}$	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	"	1	13/16	11/16	1	7/8	3/4	48L14		
48L15	"	"	"	"	4 x 4 x $\frac{3}{8}$	3 $\frac{1}{2}$ x3 x $\frac{5}{16}$	"	"	"	11/6	11/4	13/16	11/6	7/8	3/4	48L15		
48L16	"	"	"	"	4 x 4 x $\frac{5}{16}$	4 x 3 x $\frac{3}{8}$	"	1 $\frac{1}{4}$ x1 $\frac{1}{4}$ x $\frac{3}{16}$	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/8	13/8	1/4	13/16	1	7/8	3/4	48L16	
48L17	"	"	"	"	4 x 4 x $\frac{1}{2}$	3 $\frac{1}{2}$ x3 x $\frac{7}{16}$	2 x 2 x $\frac{3}{16}$	"	1 $\frac{3}{4}$ x1 $\frac{3}{4}$ x $\frac{3}{16}$	"	1/4	17/16	1/4	13/16	1	7/8	3/4	48L17
48L18	"	"	"	"	5 x 5 x $\frac{5}{16}$	4 x 4 x $\frac{7}{16}$	2 x 2 x $\frac{3}{16}$	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$ x $\frac{3}{16}$	1/4	17/16	1/4	13/16	1	7/8	3/4	48L18	
48L19	"	"	"	"	5 x 5 x $\frac{1}{2}$	4 x 4 x $\frac{1}{2}$	2 x 1 $\frac{1}{2}$ x $\frac{1}{4}$	"	2 x 2 x $\frac{3}{16}$	2	13/8	1/4	13/16	1	7/8	3/4	48L19	



### BOTTOM BEARING TRUSS

Truss Type	Truss Depth in Inches	PANEL LENGTHS		CHORDS		VERTICALS 2 Angles				DIAGONALS 1 Round Bar Except (2)						Truss Type				
		Exterior		Interior	Top 2 Angles		1	3	5	7	2 (2 Bars)	4	6	8	10	12				
		Max.	Min.		Bottom 2 Angles	Top 2 Angles														
18L02	18"	3'-1"	1'-10"	2'-6"	2 x 2 x 3/16	1 1/2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/16	1 x 1 "	x 1/8	1 x 1 "	x 1/8	1 x 1 "	x 1/8	1 1/16	3/4	11/16	11/16	11/16	18L02	
18L03	"	"	"	"	2 x 2 x 3/16	1 1/2 x 1 1/2 x 3/16	"	"	"	"	"	"	"	3/4	3/4	11/16	11/16	11/16	18L03	
18L04	"	"	"	"	2 1/2 x 2 x 3/16	2 x 1 1/2 x 3/16	"	"	"	"	"	"	"	3/4	3/4	11/16	11/16	11/16	18L04	
18L05	"	"	"	"	2 x 2 x 3/16	2 x 2 x 3/16	"	"	"	"	"	"	"	3/4	3/4	11/16	11/16	11/16	18L05	
18L06	"	"	"	"	2 1/2 x 2 x 3/16	2 1/2 x 2 x 3/16	"	"	"	"	"	"	"	3/4	3/4	11/16	11/16	11/16	18L06	
18L07	"	"	"	"	2 1/2 x 2 1/2 x 3/16	2 1/2 x 2 1/2 x 3/16	"	"	"	"	"	"	"	3/4	7/8	3/4	3/4	11/16	18L07	
18L08	"	"	"	"	3 x 2 1/2 x 3/4	2 1/2 x 2 x 3/4	1 1/2 x 1 1/2 x 3/16	"	"	"	"	"	"	3/4	7/8	13/16	11/16	11/16	18L08	
18L09	"	"	"	"	3 x 3 x 3/4	2 1/2 x 2 1/2 x 3/4	"	"	"	"	"	"	"	3/4	1	7/8	3/4	3/4	18L09	
18L10	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	1 1/4 x 1 1/4 x 3/8	"	"	"	"	"	7/8	1 1/16	7/8	3/4	3/4	18L10	
18L11	"	"	"	"	3 x 3 x 3/4	3 x 3 x 3/4	"	"	"	"	"	"	"	7/8	11/16	15/16	7/8	3/4	18L11	
18L12	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	"	"	"	"	"	"	7/8	1 1/8	1	7/8	3/4	18L12	
20L03	20"	3'-5"	2'-1"	2'-9"	2 x 2 x 3/16	1 1/2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/16	1 x 1 "	x 1/8	1 x 1 "	x 1/8	1 x 1 "	x 1/8	3/4	3/4	11/16	11/16	11/16	20L03	
20L04	"	"	"	"	2 1/2 x 2 x 3/16	2 x 1 1/2 x 3/16	"	"	"	"	"	"	"	3/4	7/8	3/4	11/16	11/16	20L04	
20L05	"	"	"	"	2 x 2 x 3/4	2 x 2 x 3/4	"	"	"	"	"	"	"	3/4	7/8	3/4	11/16	11/16	20L05	
20L06	"	"	"	"	2 1/2 x 2 x 3/4	2 1/2 x 2 x 3/4	"	"	"	"	"	"	"	3/4	7/8	3/4	11/16	11/16	20L06	
20L07	"	"	"	"	2 1/2 x 2 1/2 x 3/4	2 1/2 x 2 1/2 x 3/4	"	"	"	"	"	"	"	3/4	7/8	3/4	3/4	11/16	20L07	
20L08	"	"	"	"	3 x 2 1/2 x 3/4	2 1/2 x 2 x 3/4	1 1/2 x 1 1/2 x 3/16	"	"	"	"	"	"	3/4	7/8	13/16	3/4	3/4	20L08	
20L09	"	"	"	"	3 x 3 x 3/4	2 1/2 x 2 1/2 x 3/4	"	1 1/4 x 1 1/4 x 3/8	"	"	"	"	"	3/4	1	7/8	3/4	3/4	20L09	
20L10	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	"	"	"	"	"	"	7/8	1 1/16	7/8	3/4	3/4	20L10	
20L11	"	"	"	"	3 x 3 x 3/4	3 x 3 x 3/4	"	"	"	"	"	"	"	7/8	11/16	15/16	7/8	3/4	20L11	
20L12	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	1 1/4 x 1 1/4 x 3/8	"	"	"	"	"	7/8	1 1/8	1	7/8	3/4	20L12	
20L13	"	"	"	"	3 1/2 x 3 x 3/8	3 x 3 x 3/4	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	"	15/16	13/16	11/16	7/8	3/4	20L13	
24L04	24"	4'-0"	2'-5"	3'-3"	2 1/2 x 2 x 3/16	2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/16	1 x 1 "	x 1/8	1 x 1 "	x 1/8	1 x 1 "	x 1/8	3/4	7/8	3/4	3/4	3/4	24L04	
24L05	"	"	"	"	2 x 2 x 3/4	2 x 2 x 3/4	"	"	"	"	"	"	"	3/4	7/8	3/4	3/4	3/4	24L05	
24L06	"	"	"	"	2 1/2 x 2 x 3/4	2 1/2 x 2 x 3/4	"	"	"	"	"	"	"	7/8	7/8	3/4	3/4	3/4	24L06	
24L07	"	"	"	"	2 1/2 x 2 1/2 x 3/4	2 1/2 x 2 1/2 x 3/4	1 1/2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/8	"	"	"	"	"	7/8	7/8	3/4	3/4	3/4	24L07	
24L08	"	"	"	"	3 x 2 1/2 x 3/4	2 1/2 x 2 x 3/4	"	"	"	"	"	"	"	7/8	7/8	13/16	3/4	3/4	24L08	
24L09	"	"	"	"	3 x 3 x 3/4	2 1/2 x 2 1/2 x 3/4	"	"	"	"	"	"	"	7/8	1	7/8	3/4	3/4	24L09	
24L10	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	1 1/4 x 1 1/4 x 3/8	"	"	"	"	"	7/8	1 1/16	15/16	7/8	3/4	24L10	
24L11	"	"	"	"	3 x 3 x 3/4	3 x 3 x 3/4	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	"	7/8	11/16	15/16	7/8	3/4	24L11	
24L12	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	7/8	1 1/8	1	7/8	3/4	24L12	
24L13	"	"	"	"	3 1/2 x 3 x 3/8	3 x 3 x 3/4	2 x 1 1/2 x 3/16	"	"	1 1/4 x 1 1/4 x 3/8	"	"	"	15/16	13/16	11/16	7/8	3/4	24L13	
24L14	"	"	"	"	4 x 3 x 3/8	3 x 2 1/2 x 3/8	"	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	1	13/16	11/16	1	7/8	3/4	24L14
28L06	28"	4'-8"	2'-10"	3'-9"	2 1/2 x 2 x 3/4	2 1/2 x 2 x 3/4	1 1/2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/8	1 x 1 "	x 1/8	1 x 1 "	x 1/8	1 x 1 "	7/8	7/8	3/4	3/4	3/4	28L06	
28L07	"	"	"	"	2 1/2 x 2 1/2 x 3/4	2 1/2 x 2 1/2 x 3/4	"	"	"	"	"	"	"	7/8	7/8	3/4	3/4	3/4	28L07	
28L08	"	"	"	"	3 x 2 1/2 x 3/4	2 1/2 x 2 x 3/4	"	"	"	"	"	"	"	7/8	7/8	13/16	3/4	3/4	28L08	
28L09	"	"	"	"	3 x 3 x 3/4	2 1/2 x 2 1/2 x 3/4	"	"	"	"	"	"	"	7/8	1	7/8	3/4	3/4	28L09	
28L10	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	"	"	"	"	"	"	13/16	11/16	15/16	7/8	3/4	28L10	
28L11	"	"	"	"	3 x 3 x 3/4	3 x 3 x 3/4	2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	7/8	1 1/8	1	7/8	3/4	28L11	
28L12	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	7/8	11/16	1	7/8	3/4	28L12	
28L13	"	"	"	"	3 1/2 x 3 x 3/8	3 x 3 x 3/4	"	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	15/16	13/16	11/16	7/8	3/4	28L13	
28L14	"	"	"	"	4 x 3 x 3/8	3 x 2 1/2 x 3/8	"	1 1/2 x 1 1/2 x 3/16	"	"	"	"	"	1	13/16	11/16	1	7/8	3/4	28L14
28L15	"	"	"	"	4 x 4 x 3/8	3 1/2 x 3 1/2 x 3/16	"	1 1/2 x 1 1/2 x 3/16	"	"	"	"	"	13/16	11/16	1	7/8	3/4	28L15	
32L07	32"	5'-4"	3'-3"	4'-3"	2 1/2 x 2 1/2 x 3/4	2 1/2 x 2 1/2 x 3/4	1 1/2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/8	1 x 1 "	x 1/8	1 x 1 "	x 1/8	1 x 1 "	7/8	7/8	3/4	3/4	3/4	32L07	
32L08	"	"	"	"	2 1/2 x 2 x 3/4	2 1/2 x 2 x 3/4	"	"	"	"	"	"	"	7/8	7/8	13/16	3/4	3/4	32L08	
32L09	"	"	"	"	3 x 3 x 3/4	2 1/2 x 2 1/2 x 3/4	"	"	1 1/4 x 1 1/4 x 3/8	"	"	"	"	7/8	1	7/8	3/4	3/4	32L09	
32L10	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	"	1 1/4 x 1 1/4 x 3/8	"	"	"	"	7/8	11/16	7/8	3/4	3/4	32L10	
32L11	"	"	"	"	3 x 3 x 3/4	3 x 3 x 3/4	2 x 1 1/2 x 3/16	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	7/8	1 1/8	1	7/8	3/4	32L11	
32L12	"	"	"	"	3 1/2 x 3 x 3/4	3 x 2 1/2 x 3/4	"	1 1/4 x 1 1/4 x 3/16	"	"	"	"	"	15/16	13/16	11/16	7/8	3/4	32L12	
32L13	"	"	"	"	3 1/2 x 3 x 3/8	3 x 3 x 3/4	"	"	1 1/4 x 1 1/4 x 3/16	"	"	"	"	1	13/16	11/16	7/8	3/4	32L13	
32L14	"	"	"	"	4 x 3 x 3/8	3 x 2 1/2 x 3/8	"	1 1/2 x 1 1/2 x 3/16	"	"	"	"	"	1	13/16	11/16	1	7/8	3/4	32L14
32L15	"	"	"	"	4 x 4 x 3/8	3 1/2 x 3 1/2 x 3/16	"	"	1 1/4 x 1 1/4 x 3/16	"	"	"	"	13/16	11/16	13/16	7/8	3/4	32L15	
32L16	"	"	"	"	4 x 4 x 3/16	4 x 3 x 3/8	"	"	1 1/2 x 1 1/2 x 3/16	"	"	"	"	13/16	13/16	11/16	1	7/8	32L16	