

Learning how to read and understanding Load Tables is a vital skill when working with rigging and truss, no matter what the truss application.

2 terms we need to understand:

Dead Load

is defined as the weight of the structural component and all material permanently attached to and supported by the structure.

Live Load

is considered the additional load or weight superimposed on or temporarily attached to a structure.

Uniformly Distributed Load (UDL)

Distributed evenly along the entire span of truss. Examples of a Uniformly Distributed Load would be a **curtain** or **video wall**.

SPANS	UDL	TOTAL LOAD	MAX. DEFL.	Point Loads	Third Point Loads	Quarter Point Loads	Fifth Point Loads
(ft) (m)	UDL	LOAD	MAX. DEFL.	LOAD	LOAD	LOAD	LOAD
5 (1.52)	1957 (569)	9785 (4430)	0.01 (0)	1 @ 9787 (4430)	2 @ 4894 (2215)	3 @ 3262 (1476)	4 @ 2447 (1109)
10 (3.05)	3914 (1138)	19570 (8860)	0.01 (0)	1 @ 19574 (8860)	2 @ 9787 (4430)	3 @ 6524 (2952)	4 @ 4894 (2215)
15 (4.57)	5871 (1707)	29355 (13290)	0.01 (0)	1 @ 29357 (13290)	2 @ 14680 (6645)	3 @ 9787 (4430)	4 @ 7341 (3322)
20 (6.10)	7828 (2342)	39140 (17720)	0.01 (0)	1 @ 39140 (17720)	2 @ 19574 (8860)	3 @ 12996 (5916)	4 @ 9787 (4430)
25 (7.62)	9785 (2977)	48930 (22650)	0.01 (0)	1 @ 48930 (22650)	2 @ 24471 (1109)	3 @ 16299 (7463)	4 @ 12249 (5622)
30 (9.14)	11742 (3612)	58710 (27080)	0.01 (0)	1 @ 58710 (27080)	2 @ 29357 (13290)	3 @ 19574 (8860)	4 @ 14680 (6645)
35 (10.67)	13699 (4247)	68500 (31510)	0.01 (0)	1 @ 68500 (31510)	2 @ 34251 (1564)	3 @ 23880 (10926)	4 @ 17171 (7866)
40 (12.20)	15656 (4882)	78280 (35940)	0.01 (0)	1 @ 78280 (35940)	2 @ 39140 (17720)	3 @ 28188 (12846)	4 @ 20149 (9214)
45 (13.72)	17613 (5517)	88070 (40370)	0.01 (0)	1 @ 88070 (40370)	2 @ 43930 (20070)	3 @ 32496 (14766)	4 @ 23129 (10594)
50 (15.24)	19570 (6152)	97860 (44800)	0.01 (0)	1 @ 97860 (44800)	2 @ 48720 (22440)	3 @ 36804 (16686)	4 @ 26109 (11984)

CENTER POINT LOAD

The maximum allowable point load applied at the **center** of a span.

SPANS	UDL	TOTAL LOAD	MAX. DEFL.	Center Point Loads	Point Loads	Quarter Point Loads	Fifth Point Loads
(ft) (m)	UDL	LOAD	MAX. DEFL.	LOAD	LOAD	LOAD	LOAD
5 (1.52)	1957 (569)	9785 (4430)	0.01 (0)	1 @ 9787 (4430)	2 @ 4894 (2215)	3 @ 3262 (1476)	4 @ 2447 (1109)
10 (3.05)	3914 (1138)	19570 (8860)	0.01 (0)	1 @ 19574 (8860)	2 @ 9787 (4430)	3 @ 6524 (2952)	4 @ 4894 (2215)
15 (4.57)	5871 (1707)	29355 (13290)	0.01 (0)	1 @ 29357 (13290)	2 @ 14680 (6645)	3 @ 9787 (4430)	4 @ 7341 (3322)
20 (6.10)	7828 (2342)	39140 (17720)	0.01 (0)	1 @ 39140 (17720)	2 @ 19574 (8860)	3 @ 12996 (5916)	4 @ 9787 (4430)
25 (7.62)	9785 (2977)	48930 (22650)	0.01 (0)	1 @ 48930 (22650)	2 @ 24471 (1109)	3 @ 16299 (7463)	4 @ 12249 (5622)
30 (9.14)	11742 (3612)	58710 (27080)	0.01 (0)	1 @ 58710 (27080)	2 @ 29357 (13290)	3 @ 19574 (8860)	4 @ 14680 (6645)
35 (10.67)	13699 (4247)	68500 (31510)	0.01 (0)	1 @ 68500 (31510)	2 @ 34251 (1564)	3 @ 23880 (10926)	4 @ 17171 (7866)
40 (12.20)	15656 (4882)	78280 (35940)	0.01 (0)	1 @ 78280 (35940)	2 @ 39140 (17720)	3 @ 28188 (12846)	4 @ 20149 (9214)
45 (13.72)	17613 (5517)	88070 (40370)	0.01 (0)	1 @ 88070 (40370)	2 @ 43930 (20070)	3 @ 32496 (14766)	4 @ 23129 (10594)
50 (15.24)	19570 (6152)	97860 (44800)	0.01 (0)	1 @ 97860 (44800)	2 @ 48720 (22440)	3 @ 36804 (16686)	4 @ 26109 (11984)

THIRD POINT LOAD

The maximum allowable point loads **evenly spaced** at each **third point** along a span.

SPANS	UDL	TOTAL LOAD	MAX. DEFL.	Center Point Loads	Third Point Loads	Quarter Point Loads	Fifth Point Loads
(ft) (m)	UDL	LOAD	MAX. DEFL.	LOAD	LOAD	LOAD	LOAD
5 (1.52)	1957 (569)	9785 (4430)	0.01 (0)	1 @ 9787 (4430)	2 @ 4894 (2215)	3 @ 3262 (1476)	4 @ 2447 (1109)
10 (3.05)	3914 (1138)	19570 (8860)	0.01 (0)	1 @ 19574 (8860)	2 @ 9787 (4430)	3 @ 6524 (2952)	4 @ 4894 (2215)
15 (4.57)	5871 (1707)	29355 (13290)	0.01 (0)	1 @ 29357 (13290)	2 @ 14680 (6645)	3 @ 9787 (4430)	4 @ 7341 (3322)
20 (6.10)	7828 (2342)	39140 (17720)	0.01 (0)	1 @ 39140 (17720)	2 @ 19574 (8860)	3 @ 12996 (5916)	4 @ 9787 (4430)
25 (7.62)	9785 (2977)	48930 (22650)	0.01 (0)	1 @ 48930 (22650)	2 @ 24471 (1109)	3 @ 16299 (7463)	4 @ 12249 (5622)
30 (9.14)	11742 (3612)	58710 (27080)	0.01 (0)	1 @ 58710 (27080)	2 @ 29357 (13290)	3 @ 19574 (8860)	4 @ 14680 (6645)
35 (10.67)	13699 (4247)	68500 (31510)	0.01 (0)	1 @ 68500 (31510)	2 @ 34251 (1564)	3 @ 23880 (10926)	4 @ 17171 (7866)
40 (12.20)	15656 (4882)	78280 (35940)	0.01 (0)	1 @ 78280 (35940)	2 @ 39140 (17720)	3 @ 28188 (12846)	4 @ 20149 (9214)
45 (13.72)	17613 (5517)	88070 (40370)	0.01 (0)	1 @ 88070 (40370)	2 @ 43930 (20070)	3 @ 32496 (14766)	4 @ 23129 (10594)
50 (15.24)	19570 (6152)	97860 (44800)	0.01 (0)	1 @ 97860 (44800)	2 @ 48720 (22440)	3 @ 36804 (16686)	4 @ 26109 (11984)

QUARTER POINT LOAD

The 3 maximum allowable point loads **evenly spaced** at each **quarter point** along a span.

SPANS	UDL	TOTAL LOAD	MAX. DEFL.	Center Point Loads	Third Point Loads	Quarter Point Loads	Fifth Point Loads
(ft) (m)	UDL	LOAD	MAX. DEFL.	LOAD	LOAD	LOAD	LOAD
5 (1.52)	1957 (569)	9785 (4430)	0.01 (0)	1 @ 9787 (4430)	2 @ 4894 (2215)	3 @ 3262 (1476)	4 @ 2447 (1109)
10 (3.05)	3914 (1138)	19570 (8860)	0.01 (0)	1 @ 19574 (8860)	2 @ 9787 (4430)	3 @ 6524 (2952)	4 @ 4894 (2215)
15 (4.57)	5871 (1707)	29355 (13290)	0.01 (0)	1 @ 29357 (13290)	2 @ 14680 (6645)	3 @ 9787 (4430)	4 @ 7341 (3322)
20 (6.10)	7828 (2342)	39140 (17720)	0.01 (0)	1 @ 39140 (17720)	2 @ 19574 (8860)	3 @ 12996 (5916)	4 @ 9787 (4430)
25 (7.62)	9785 (2977)	48930 (22650)	0.01 (0)	1 @ 48930 (22650)	2 @ 24471 (1109)	3 @ 16299 (7463)	4 @ 12249 (5622)
30 (9.14)	11742 (3612)	58710 (27080)	0.01 (0)	1 @ 58710 (27080)	2 @ 29357 (13290)	3 @ 19574 (8860)	4 @ 14680 (6645)
35 (10.67)	13699 (4247)	68500 (31510)	0.01 (0)	1 @ 68500 (31510)	2 @ 34251 (1564)	3 @ 23880 (10926)	4 @ 17171 (7866)
40 (12.20)	15656 (4882)	78280 (35940)	0.01 (0)	1 @ 78280 (35940)	2 @ 39140 (17720)	3 @ 28188 (12846)	4 @ 20149 (9214)
45 (13.72)	17613 (5517)	88070 (40370)	0.01 (0)	1 @ 88070 (40370)	2 @ 43930 (20070)	3 @ 32496 (14766)	4 @ 23129 (10594)
50 (15.24)	19570 (6152)	97860 (44800)	0.01 (0)	1 @ 97860 (44800)	2 @ 48720 (22440)	3 @ 36804 (16686)	4 @ 26109 (11984)

FIFTH POINT LOAD

The 4 maximum allowable point loads **evenly spaced** at each **fifth point** along a span.

SPANS	UDL	TOTAL LOAD	MAX. DEFL.	Center Point Loads	Third Point Loads	Quarter Point Loads	Fifth Point Loads
(ft) (m)	UDL	LOAD	MAX. DEFL.	LOAD	LOAD	LOAD	LOAD
5 (1.52)	1957 (569)	9785 (4430)	0.01 (0)	1 @ 9787 (4430)	2 @ 4894 (2215)	3 @ 3262 (1476)	4 @ 2447 (1109)
10 (3.05)	3914 (1138)	19570 (8860)	0.01 (0)	1 @ 19574 (8860)	2 @ 9787 (4430)	3 @ 6524 (2952)	4 @ 4894 (2215)
15 (4.57)	5871 (1707)	29355 (13290)	0.01 (0)	1 @ 29357 (13290)	2 @ 14680 (6645)	3 @ 9787 (4430)	4 @ 7341 (3322)
20 (6.10)	7828 (2342)	39140 (17720)	0.01 (0)	1 @ 39140 (17720)	2 @ 19574 (8860)	3 @ 12996 (5916)	4 @ 9787 (4430)
25 (7.62)	9785 (2977)	48930 (22650)	0.01 (0)	1 @ 48930 (22650)	2 @ 24471 (1109)	3 @ 16299 (7463)	4 @ 12249 (5622)
30 (9.14)	11742 (3612)	58710 (27080)	0.01 (0)	1 @ 58710 (27080)	2 @ 29357 (13290)	3 @ 19574 (8860)	4 @ 14680 (6645)
35 (10.67)	13699 (4247)	68500 (31510)	0.01 (0)	1 @ 68500 (31510)	2 @ 34251 (1564)	3 @ 23880 (10926)	4 @ 17171 (7866)
40 (12.20)	15656 (4882)	78280 (35940)	0.01 (0)	1 @ 78280 (35940)	2 @ 39140 (17720)	3 @ 28188 (12846)	4 @ 20149 (9214)
45 (13.72)	17613 (5517)	88070 (40370)	0.01 (0)	1 @ 88070 (40370)	2 @ 43930 (20070)	3 @ 32496 (14766)	4 @ 23129 (10594)
50 (15.24)	19570 (6152)	97860 (44800)	0.01 (0)	1 @ 97860 (44800)	2 @ 48720 (22440)	3 @ 36804 (16686)	4 @ 26109 (11984)

SELF WEIGHT or DEAD LOAD

of XSF Truss is taken into account in engineering calculations and **does NOT have to be included in the calculation of live loads.**

Therefore the user does not need to subtract the weight of the truss from the provided loads.

DEFLECTIONS

Actual deflections in the field may be higher due to tolerances designed into the truss.

SPANS	UDL	TOTAL LOAD	MAX. DEFL.	Center Point Loads	Third Point Loads	Quarter Point Loads	Fifth Point Loads
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20 (6.10)	7828 (2342)	39140 (17720)	0.01 (0)	1 @ 39140 (17720)	2 @ 19574 (8860)	3 @ 12996 (5916)	4 @ 9787 (4430)
25 (7.62)	9785 (2977)	48930 (22650)	0.01 (0)	1 @ 48930 (22650)	2 @ 24471 (1109)	3 @ 16299 (7463)	4 @ 12249 (5622)
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45 (13.72)	17613 (5517)	88070 (40370)	0.01 (0)	1 @ 88070 (40370)	2 @ 43930 (20070)	3 @ 32496 (14766)	4 @ 23129 (10594)
50 (15.24)	19570 (6152)	97860 (44800)	0.01 (0)	1 @ 97860 (44800)	2 @ 48720 (22440)	3 @ 36804 (16686)	4 @ 26109 (11984)

PANEL POINTS

All point loads should occur at, or near a Panel Point on the truss.



Basic terminology and layout of truss load tables and knowing how to properly interpret them for each specific real-world application are vital skills to keeping a safe work environment.

More Information on Truss Load Tables

YouTube <https://www.youtube.com/watch?v=23UZ3z8pDOU>

XSF website <https://www.xsftruss.com/load-table-and-ratings-guide/>

We invite you to call
XSF 1-903-438-1100 or email us at sales@xsftruss.com