Figure 22h

TIMBER USED FOR HEADBEAMS
(THE LOADS GIVEN ARE FOR DRESSED BEAMS, WHICH ARE SLIGHTLY SMALLER THAN NOMINAL SIZES LISTED)
Loads are in lbs concentrated at center of span.
Reduced listed loads to allow for beam weights.

VERTICAL

HORIZONTAL

SIZE (INCHES)	BEAM SPAN (FEET)										
	4	6	8	10	12	14	16	18	20	24
4 x 4 Hor	990	660	500	390	330	280				
4 x 6 Hor	1,530	1,000	750	600	500	430	370	330		
4 x 6 Vert	2,280	1,520	1,140	910	760	650	570	510	455	380
6 x 6	3,460	2,310	1,730	1,380	1,150	990	860	770	690	570
6 x 8 Hor	4,710	3,140	2,360	1,880	1,570	1,340	1,170	1,040	940	780
6 x 8 Vert	6,400	4,290	3,220	2,580	2,150	1,840	1,610	1,430	1,290	1,070
8 x 8	8,540	5,870	4,400	3,520	2,930	2,510	2,200	1,950	1,750	1,460
8 x 12 Vert	12,820	12,820	10,330	8,270	6,890	5,910	5,170	4,590	4,130	3,440
8 x 14 Vert	14,920	14,920	14,260	11,400	9,500	8,150	7,120	6,830	5,700	4,750
8 x 16 Vert	17,070	17,070	17,070	15,020	12,510	10,700	9,390	8,340	7,500	6,260
10 x 10	13,330	11,900	8,930	7,140	5,950	5,100	4,470	3,970	3,570	2,970
10 x 12 Vert	16,000	16,000	13,080	10,470	8,720	7,480	6,540	5,820	5,230	4,360
10 x 14 Vert	18,660	18,660	18,020	14,420	12,020	10,300	9,020	8,010	7,210	6,010

*General Note: 1 in. = 25.4 mm; 1 ft = 0.305 m; 1 lb = 0.454 kg

Figure 22i

ALLOWABLE CONCENTRATED LOADS ON AMERICAN STANDARD BEAMS

LOAD IN CENTER OF SPAN WITH BEAM FIXED AGAINST HORIZONTAL MOVEMENT

LOAD IN KIPS (1,000 LBS.)

SPAN (FEET)	NOMINAL DEPTH & WIDTH – WEIGHT PER FEET													
	10 x 4-3/4		8 x 4		7 x 3-3/4		6 x 3-3/8		5 x 3		4 x 2-3/4		3 x 2-3/8	
	35	25.4	23	18.4	20	15.3	17.25	12.15	14.75	10	9.5	7.7	7.5	5.7
3	65		35		26			16	13	10	7	6	4	3
4	48		26	23	20	17	14	12	10	8	5	5	3	2
5	39	32	21	19	16	14	11	9	8	6	4	4	2	2
6	32	27	18	16	13	11	9	8	6	5	3	3	2	1
7	28	23	15	13	11	9	8	6	5	4	3	2	1	1
8	24	20	13	12	10	8	7	6	5	4	2	2		
9	21	18	12	10	8	7	6	5	4	3	2	2		
10	19	16	10	9	8	6	5	4	4	3				
11	17	15	9		7									
12	16													

*General Note: 1 in. = 25.4 mm; 1 ft = 0.305 m; 1 lb = 0.454 kg

ALLOWABLE LOADS FOR WOOD PLANKS

(Pounds)

Total allowable uniformly distributed loads for timber planks supported at ends. The allowable concentrated load shall be one-half the distributed load.

Based on unit stress of 1,000 psi

	PLANKS							
Nom. Size (Inches)	6 x 2	8 x 2	10 x 2	12 x 2	14 x 2	8 x 3	10 x 3	12 x 3
Actual Size (Inches)	5-5/8 x 1-5/8	7-1/2 x 1-5/8	9-1/2 x 1-5/8	11-1/2 x 1-5/8	13-1/2 x 1-5/8	7-1/2 x 2-5/8	9-1/2 x 2-5/8	11-1/2 x 2-5/8
Area $In.^2$	9.15	12.20	15.45	18.70	21.95	19.70	25.0	30.2
Span (Feet)								
4	410	550	700	850	990	1440	1820	2200
5	330	440	560	680	790	1150	1460	1770
6	280	370	470	560	660	960	1220	1470
7	240	320	400	480	570	820	1040	1260
8	210	280	350	420	500	720	910	1100
9	180	250	310	380	440	640	810	980
10	.....	220	280	340	400	580	730	880
11	.....	200	250	310	360	520	660	800
12	.....	180	230	280	330	480	610	740
13	.....	.....	220	260	310	440	560	680
14	.....	.....	200	240	280	410	520	630
15	.....	.....	180	230	270	380	490	590
16	.....	.....	.....	210	250	360	460	550
17	.....	.....	.....	200	240	340	430	520
18	.....	.....	.....	190	220	320	400	490
19	.....	.....	.....	.....	210	300	380	460
20	.....	.....	.....	.....	200	290	370	440

*General Note: 1 in. = 25.4 mm; 1 ft = 0.305 m; 1 psi = 6.89 kPa; 1 $in.^2$ = 6.451 E-04 m^2

Figure 22j

ALLOWABLE LOADS FOR BEAMS

(Pounds)

Allowable uniformly distributed loads for timber beams supported at ends. The allowable concentrated load shall be one-half (1/2) the distributed load.

Based on unit stress of 1,000 psi

	BEAMS								
Nom. Size (Inches)	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	2 x 14	4 x 4	4 x 6	6 x 6
Actual Size (Inches)	1-5/8 x 3-5/8	1-5/8 x 5-5/8	1-5/8 x 7-1/2	1-5/8 x 9-1/2	1-5/8 x 11-1/2	1-5/8 x 13-1/2	3-5/8 x 3-5/8	3-5/8 x 5-5/8	5-1/2 x 5-1/2
Area In.^{2}	5.90	9.15	12.20	15.45	18.70	21.95	13.15	20.4	30.2
Span (Feet)									
4	600	1430	2540	4070	5970	8230	1330	3190	4600
5	480	1140	2030	3260	4780	6580	1060	2550	3690
6	400	950	1700	2720	3980	5490	890	2120	3080
7	340	820	1450	2320	3410	4700	760	1820	2630
8	300	710	1270	2040	2990	4110	660	1590	2300
9	.....	630	1130	1810	2650	3660	590	1420	2050
10	.....	570	1010	1630	2390	3290	530	1270	1840
11	.....	520	920	1480	2170	3000	480	1160	1670
12	.....	470	840	1360	1990	2740	440	1060	1530
13	.....	.....	780	1250	1840	2530	.....	980	1410
14	.....	.....	720	1160	1710	2350	.....	910	1310
15	.....	.....	670	1090	1590	2190	.....	850	1220
16	.....	.....	630	1020	1490	2060	.....	800	1150
17	.....	.....	.....	960	1400	1930	.....	750	1080
18	.....	.....	.....	900	1320	1820	.....	710	1020
19	.....	.....	.....	860	1260	1730	.....	670	970
20	.....	.....	.....	810	1200	1640	.....	640	930
*Allowable Load for Shear at 100 lbs/in.^{2}	800	1230	1640	2080	2520	2950	1770	2740	4050

*General Note: 1 in. = 25.4 mm; 1 ft = 0.305 m; 1 psi = 6.89 kPa; 1 in.^{2} = 6.451 E-04 m^2