

CONSTRUCTION GUIDELINE

SAFE WORKING LOAD FOR ROPES AND SLINGS

New Manila Rope- Three Strand – Standard Lay						
Diameter Inches	Circumference Inches	Safe Working Load – Pounds				Breaking Strength Pounds
		Single Rope	Two Part Slings			
			60°	45°	30°	
1/4	3/4	120	208	170	120	600
3/8	1-1/8	270	467	382	270	1,350
1/2	1-1/2	530	917	749	530	2,650
5/8	2	880	1,522	1,244	880	4,400
3/4	2-1/4	1,080	1,868	1,527	1,080	5,400
7/8	2-3/4	1,540	2,664	2,178	1,540	7,700
1	3	1,800	3,114	2,545	1,800	9,000
1-1/8	3-1/2	2,400	4,152	3,394	2,400	12,000
1-1/4	3-3/4	2,700	4,671	3,818	2,700	13,500
1-5/16	4	3,000	5,190	4,242	3,000	15,000
1-1/2	4-1/2	3,700	6,401	5,232	3,700	18,500
1-5/8	5	4,500	7,785	6,363	4,500	22,500
1-3/4	5-1/2	5,300	9,169	7,494	5,300	26,500
2	6	6,200	10,726	8,767	6,200	31,000

Polypropylene Rope – Three Strand – Standard Lay						
Diameter Inches	Circumference Inches	Safe Working Load – Pounds				Breaking Strength Pounds
		Single Rope	Two Part Slings			
			60°	45°	30°	
1/4	3/4	210	365	300	210	1,050
3/8	1-1/8	450	780	645	450	2,250
7/16	1-1/4	620	1,075	810	620	3,100
1/2	1-1/2	760	1,310	1,090	760	3,800
5/8	2	1,320	2,265	1,895	1,320	6,600
3/4	2-1/4	1,700	2,917	2,441	1,700	8,500
7/8	2-3/4	2,260	3,910	3,245	2,260	11,300
1	3	2,800	4,805	4,020	2,800	14,000
1-1/8	3-1/2	4,100	7,095	5,885	4,100	20,500
1-1/4	3-3/4	4,500	7,855	6,515	4,500	22,700
1-5/16	4	5,180	8,960	7,435	5,180	25,900
1-1/2	4-1/2	6,500	11,245	9,325	6,500	32,500
1-5/8	5	7,560	13,080	10,810	7,560	37,800
1-3/4	5-1/2	9,040	15,640	12,970	9,040	45,200
2	6	10,820	18,720	15,525	10,820	54,100

Wire Rope – Improved Plow Strand – 6 Strands – 19 or 37 Wires per Strand – Hempcore						
Diameter Inches	Circumference Inches	Safe Working Load – Pounds				Breaking Strength Tons
		Single Rope	Two Part Slings			
			60°	45°	30°	
1/4	3/4	1,096	1,900	1,550	1,096	2.74
3/8	1-1/8	2,440	4,230	3,460	2,440	6.10
7/16	1-3/8	3,310	5,758	4,699	3,310	8.27
1/2	1-1/2	4,280	7,450	6,080	4,280	10.70
5/8	2	6,600	11,600	9,430	6,670	16.70
3/4	2-1/4	9,400	16,500	13,450	9,520	23.80
7/8	2-3/4	12,800	22,300	18,200	12,800	32.20
1	3	16,000	29,000	23,690	16,790	41.80
1-1/8	3-1/2	21,000	36,450	29,780	21,040	52.60
1-1/4	4	26,000	44,700	36,570	25,870	64.60
1-3/8	4-1/4	31,000	53,800	43,900	31,050	77.70
1-1/2	4-3/4	37,000	63,700	52,000	36,800	92.00
1-5/8	5	43,000	74,400	60,700	42,900	107.00
1-3/4	5-1/2	49,600	86,000	70,260	49,700	124.00
2	6-1/4	64,000	110,700	90,400	64,000	160.00

ORIGINATOR	STANDARDS COORDINATOR	STANDARDS SUPERVISOR	UNIT DIRECTOR
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