



Journeyman Rigger's Reference Card

Sling Capacities

MECHANICAL SPLICE IN POUNDS

DESIGN FACTOR 5.1

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Wire Rope	Size in inches	VERTICAL ↓ .00	CHOKER ↑ .75	2 legs or ??? 90° 2.00	60° 1.33	45° 1.41	30° 1.00	60° 2.60	3 legs, only if 1/3 each leg	Size in mm	Wire Rope
EPS WPC	1/4	1,300	960	2,600	2,200	1,820	1,300	3,300	6.4	EIPS IWRC	
	5/16	2,000	1,480	4,000	3,400	2,800	2,000	5,100	8.0		
	3/8	2,800	2,200	5,600	5,000	4,000	2,800	7,400	9.6		
	7/16	3,800	2,800	7,600	6,800	5,400	3,800	10,000	11.0		
	1/2	5,000	3,800	10,000	8,800	7,200	5,000	13,200	13.0		
	9/16	6,400	4,800	12,800	11,000	9,000	6,400	16,500	14.0		
	5/8	7,800	5,800	15,600	13,600	11,000	7,800	20,000	16.0		
	3/4	11,200	8,200	22,400	19,400	15,800	11,200	29,100	19.0		
	7/8	15,200	11,200	30,400	26,000	22,000	15,200	39,000	22.0		
	1	19,600	14,400	39,200	34,000	28,000	19,600	51,000	25.4		
	1-1/8	24,000	18,000	48,000	42,000	34,000	24,000	62,000	28.5		
1-1/4	30,000	22,500	60,000	52,000	42,000	30,000	76,000	32.0			
				MULTIPLIER →				← MULTIPLIER			

Formula to find sling length Total distance between pick points x Multiplier = Sling Length

Rigging Hardware Capacities

FORGED STEEL

5

Size in inches	Shackle Eye Bolt 5:1		Turnbuckle 5:1 Eye	Master Link 5:1	Shackle 6:1 SF Anchor	Wire Rope Clip			Flat Shackle 5:1	Web Eye Width Inches
	Vertical	45 deg				Min # clips	Turnback in inches	Torque in ft. lbs.		
1/4	500	125	500	-----	1,000	2	4.75	15	6,500	1-2
5/16	800	200	800	-----	1,500	2	5.25	30	9,000	3
3/8	1,200	300	1,200	-----	2,000	2	6.50	45	12,500	4
7/16	-----	-----	-----	-----	3,000	2	7.00	65	17,000	5
1/2	2,200	550	2,200	4,920	4,000	3	11.50	65	Swivel Hoist Rings Size 5:1 WLL	
9/16	-----	-----	-----	-----	-----	3	12.00	95		
5/8	3,500	875	3,500	6,600	6,500	3	12.00	95	3/8	1,000
3/4	5,200	1,300	5,200	10,320	9,500	4	18.00	130	1/2	2,500
7/8	7,200	1,800	7,200	-----	13,000	4	19.00	225	5/8	4,000
1	10,000	2,500	10,000	24,360	17,000	5	28.00	225	3/4	5,000
1-1/8	-----	-----	-----	-----	19,000	6	34.00	225	7/8	8,000
1-1/4	15,200	3,800	15,200	35,160	24,000	7	44.00	350	1	10,000

Coefficients of Friction

D/d Ratios

Concrete on concrete	.65	Continuous lubricated surface	.15	30:1 = .94	8:1 = .83
Metal on concrete	.60	Steel on steel	.10	20:1 = .92	5:1 = .77
Wood on concrete	.45	Load on Wheels	.05	15:1 = .89	2:1 = .65
Wood on metal	.30			10:1 = .86	1:1 = .50