Wire Rope Specifications

Liftcrane - Boom No. 22E With Open Throat Top

888 SERIES 1
888 SERIES 2

European Standards

Wire Rope Lengths											
Boom Length		Rear Drum Whip Line 1 Part		Rear Drum Whip Line 2 Part		Front Drum Hoist Line		Front Drum Maximum Required Parts of Line	Auxiliary Drum Auxiliary Hoist Line		Auxiliary Drum Maximum Required Parts of Line
Ft.	Meters	Ft.	Meters	Ft.	Meters	Ft.	Meters	Top Inline	Ft.	Meters	Top Inline
70	21.3	180	55	260	79	1150	351	14	---	---	---
80	24.4	200	61	290	88	1300	396	14	1300	396	14
90	27.4	220	67	320	98	1350	411	13	1450	442	14
100	30.5	240	73	350	107	1500	457	13	1600	488	14
110	33.5	260	79	380	116	1500	457	11	1750	533	14
120	36.6	280	85	410	125	1525	465	11	1900	579	14
130	39.6	300	91	440	134	1525	465	9	2050	625	14
140	42.7	320	98	470	143	1525	465	8	2050	625	12
150	45.7	340	104	500	152	1525	465	8	2050	625	12
160	48.8	360	110	530	162	1525	465	7	2050	625	11
170	51.8	380	116	560	171	1525	465	7	2050	625	10
180	54.9	400	122	590	180	1525	465	7	2050	625	9
190	57.9	420	128	620	189	1525	465	6	2050	625	9
200	61.0	440	134	650	198	1525	465	6	2050	625	8
210	64.0	460	140	680	207	1525	465	5	2050	625	7
220	67.1	480	146	710	216	1525	465	5	2050	625	7
230	70.1	500	152	740	226	1525	465	5	2050	625	7
240	73.2	520	158	770	235	1525	465	4	2050	625	6
250	76.2	540	165	800	244	1525	465	4	2050	625	6
260	79.2	560	171	830	253	1525	465	4	2050	625	6
270	82.3	580	177	860	262	1525	465	4	2050	625	5
280	85.3	600	183	890	271	1525	465	3	2050	625	5
290	88.4	620	189	920	280	1525	465	3	2050	625	4

Note: Hoist line and whip line lengths given in table will allow hook to touch ground. When block travel below ground is required, add additional rope equal to parts of line times added travel distance. Hoisting distance or line pull may be limited when block travel below ground is required. Maximum block travel will be restricted when hoist line length exceeds 1,600 Ft. (488m) using auxiliary drum. Auxiliary drum can not be used with 70 Ft. (21.3m) boom length.

Capacity chart restrictions will occur when auxiliary drum is used. Maximum capacity is 280,000 Lbs. (127 010 kg) with 14 parts of line.

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Hoist Reeving for Main Load Block - Front Drum							
No. Parts of Line	1	2	3	4	5	6	7
Maximum Load Lbs.	29,500	59,000	88,500	118,000	147,500	177,000	206,500
Maximum Load kg	13 380	26 760	40 140	53 520	66 900	80 290	93 670
No. Parts of Line	8	9	10	11	12	13	14
Maximum Load Lbs.	236,000	265,500	295,000	324,500	354,000	383,500	460,000*****
Maximum Load kg	107 050	120 430	133 810	147 190	160 570	173 950	208 600*****

***** Requires 139,200 Lb. (619.6 kN) minimum breaking strength wire rope.

Auxiliary Hoist Reeving for Main Load Block - Auxiliary Drum							
No. Parts of Line	1	2	3	4	5	6	7
Maximum Load Lbs.	20,000	40,000	60,000	80,000	100,000	120,000	140,000
Maximum Load kg	9 070	18 140	27 220	36 290	45 360	54 430	63 500
No. Parts of Line	8	9	10	11	12	13	14
Maximum Load Lbs.	160,000	180,000	200,000	220,000	240,000	260,000	280,000
Maximum Load kg	72 570	81 650	90 720	99 790	108 860	117 930	127 010

Maximum Spooling Capacities

Front Drum: (Hoist Line)	26 mm Wire Rope -	7 Layers - 1,609 Ft. (490m) 7 Layers - 1,716 Ft. (523m) with 21-1/4 in. (540 mm) Dia. Lagging
Rear Drum: (Whip Line)	26 mm Wire Rope -	7 Layers - 1,609 Ft. (490m) 7 Layers - 1,716 Ft. (523m) with 21-1/4 in. (540 mm) Dia. Lagging 4 Layers - 1,061 Ft. (323m) with 27 in. (686 mm) Dia. Lagging
Auxiliary Drum: (Aux. Hoist Line)	26 mm Wire Rope -	6 Layers - 1,323 Ft. (403m) 6 Layers - 1,415 Ft. (431m) with 21-1/4 in. (540 mm) Dia. Lagging

17 Ft. (5m) [22 Ft. (7m) with 27 in. (686 mm) Dia. lagging] is deducted from maximum spooling capacities for 3 dead wraps per drum or lagging.

Refer to drum and lagging chart **No. 6119-A**.

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Rotation Resistant Wire Rope - 4.5 : 1 Safety Factor

Hoist Line:	26 mm -	2 160 N/mm^2 Wire Rope (MCC Part No. 719379) Minimum Breaking Strength 161,070 Lbs. (716.5 kN) Maximum Capacity with 14 Parts Hoist Line = 414,900 Lbs. (188 200 kg) Approx. Weight = 2.13 Lbs. Per Ft. (3.17 kg/m)
Whip Line:	26 mm -	2 160 N/mm^2 Wire Rope (MCC Part No. 719379) Minimum Breaking Strength 161,070 Lbs. (716.5 kN) Maximum Load = 29,500 Lbs. (13 380 kg) Per Line. Approx. Weight = 2.13 Lbs. Per Ft. (3.17 kg/m)
Auxiliary Hoist Line:	26 mm -	1 960 N/mm^2 Wire Rope (MCC Part No. 719378) Minimum Breaking Strength 146,200 Lbs. (650.6 kN) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line. Approx. Weight = 2.13 Lbs. Per Ft. (3.17 kg/m)

Not Non-twisting Wire Rope - 3.55 : 1 Safety Factor

Hoist Line:	26 mm -	6 X 25 Filler Wire, Extra Extra Improved Plow Steel, Right Regular Lay, IWRC (MCC Part No. 719383) Minimum Breaking Strength 119,400 Lbs. (531.1 kN) Maximum Capacity with 14 Parts Hoist Line = 389,900 Lbs. (176 860 kg) Approx. Weight = 1.94 Lbs. Per Ft. (2.89 kg/m)
Whip Line:	26 mm -	6 X 25 Filler Wire, Extra Extra Improved Plow Steel, Right Regular Lay, IWRC (MCC Part No. 719383) Minimum Breaking Strength 119,400 Lbs. (531.1 kN) Maximum Load = 29,500 Lbs. (13 380 kg) Per Line. Approx. Weight = 1.94 Lbs. Per Ft. (2.89 kg/m)
Auxiliary Hoist Line:	26 mm -	6 X 25 Filler Wire, Extra Improved Plow Steel, Right Regular Lay, IWRC (MCC Part No. 719387) Minimum Breaking Strength 108,600 Lbs. (483.1 kN) Maximum Load = 20,000 Lbs. (9 070 kg) Per Line Approx. Weight = 1.94 Lbs. Per Ft. (2.89 kg/m)

Wire Rope Required for 460,000 Lb. (208 600 kg) Maximum Capacity With 14 Parts of Line

Hoist Line:	26 mm -	2 160 N/mm^2 Wire Rope (MCC Part No. 719407) 8 x 25 Filler Wire, Right Regular Lay, IWRC Minimum Breaking Strength 139,200 Lbs. (619.6 kN) Approx. Weight = 2.16 Lbs. Per Ft. (3.21 kg/m)

Note: Block Spin May Occur With 6 X 25 and 8 x 25 Construction Wire Rope Under Certain Operating Conditions.