

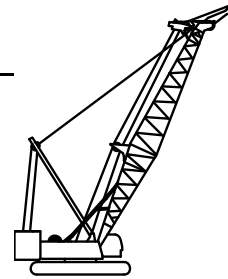
Liftcrane Boom Capacities

Boom No. 74

55 110 kg Crane Counterweight

16 010 kg Carbody Counterweight

360 Degree Rating



**MLC165
SERIES 2**



LIFTING CAPACITIES: Lifting capacities for various boom lengths and operating radii are for freely suspended loads and are calculated to comply with EN 13000, ISO 4305 and include factors based on a 4,0 degree tipping angle. Capacities based on structural competence are denoted by an asterisk (*).

Boom Backward Stability: A minimum of 4 parts hoist line is required for capacities denoted by (b), (c), and (d) for boom lengths 15,0 m thru 30,0 m. Capacities indicated by (b) require 1 360 kg minimum weight, (c) requires 3 400 kg minimum weight, and (d) requires 6 800 kg minimum weight.

Caution: Do not operate in areas indicated by (b), (c), or (d) without required minimum weights. Boom will not boom down and boom hoist wire rope may go slack causing wire rope damage or failure.

Upper boom point capacity for liftcrane service with single part whip line is 12 500 kg or 25 000 kg with two part whip line. When boom butt mounted auxiliary drum is used, capacity with single part whip line is 9 070 kg or 18 140 kg with two part whip line. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

63,0 m thru 81,0 m boom lengths require only the middle three sheaves in lower boom point. All other sheaves must be removed from lower boom point.

Weight of upper boom point, jib, all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom and jib point sheaves, is considered part of main boom load. Boom is not to be lowered beyond radii where combined weights are greater than rated capacity. Where no capacity is shown, operation is not intended or approved.

OPERATING CONDITIONS: Machine to operate in a level position on a firm uniformly supporting surface. Refer to Boom Rigging **No. 81019793** or **No. 83004083** and Wire Rope Specification chart **No. 9292-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, travel, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to Operator's Manual for operating guidelines.



WIND CONDITIONS: Machine may operate with full working load in wind speeds up to the maximum wind speed value provided crane operator judgment is used to allow for wind effect on lifted load and other considerations noted on capacity chart are followed. Wind speed to be measured at boom point elevation. Refer to Wind Conditions Chart **No. 9289-A** for effect of wind on lifted load, additional maximum wind speeds when lifting percentage of full working load, and instructions for parking when wind speed exceeds maximum operating wind speed.

MACHINE TRAVEL: Machine to travel on a firm, level, and uniformly supporting surface. *Travel with 100 percent of rated load prohibited.* Travel restricted to 90 percent of rated capacity with speed not to exceed 0,4 m/s. Boom must be within boom angle range shown in capacity chart. Refer to Maximum Allowable Travel Specification chart **No. 9290-A**.

MAX PERMISSIBLE SLEWING SPEED: Slew operation with working load shall not exceed 0,4 m/s as measured at the operating radius. The amount of time to brake or start slewing a working load shall not be less than 2,5 seconds.



OPERATING RADIUS: Operating radius is horizontal distance from axis of rotation to center of vertical hoist line or load block.

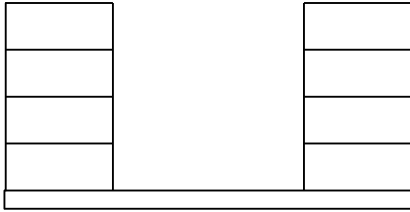


BOOM ANGLE: Boom angle in degrees (°) is angle between horizontal and centerline of boom butt and inserts, and is an indication of operating radius. In all cases, operating radius shall govern capacity.



BOOM POINT ELEVATION: Boom point elevation is vertical distance from ground level to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 7 986 mm crawlers, 1 100 mm treads, 7 200 mm live mast, 18 part boom hoist reeving, four 28 mm boom pendants, 55 110 kg crane counterweight, and two 8 005 kg carbody counterweights.



55 110 kg Crane Counterweight
8 Side Boxes

WARNING: Free fall operation is limited to 5 900 kg per part of line when lowering load with free fall clutch/brake pedal. Hydraulic power must be used for full line pull.

Deduct From Capacities When Jib Is Attached

Jib Length	Jib No. 134
9,1 m	1 800 kg
12,2 m	2 100 kg
15,2 m	2 500 kg
18,3 m	2 900 kg
21,3 m	3 200 kg
24,4 m	3 600 kg

Upper Boom Point Deduct

Deduct 600 kg from capacities when upper boom point, and adapter frame if equipped, is attached.

Auxiliary Drum Deduct

Deduct 900 kg from capacities when boom butt is equipped with auxiliary drum, and 6,0 m insert is equipped with wire rope guide sheaves.

Lower Boom Point Sheave Deduct

Deduct 300 kg from capacities for boom lengths 45,0 m thru 60,0 m when lower boom point is equipped with outer sheave clusters.

Third Line Deduct

Deduct 200 kg from capacities when boom is equipped for three line operation.

Refer to **Tables 1 and 2** for raising ability with the maximum weight of all load blocks, hooks, weight balls, slings, and hoist lines beneath lower and/or upper boom point and jib point sheaves. For block weights shown with #, a, or b, load blocks, hooks, weight balls, and slings must remain on ground until combined weights are within rated capacity of chart. For block weights with (a), auxiliary drum mounted in boom butt, wire rope guides in 6,0 m insert, and boom lights must be removed. For block weights shown with (b), upper boom point must be removed. Raising is not permitted in shaded areas of table.

Caution: Combined weight beneath lower and/or upper boom point and jib point sheaves must not exceed block weight shown.

Table 1

Raising Ability Over End or Side of Crawlers							
Boom Length (m)	Fixed Jib No. 134						
	—	9,1 m	12,2 m	15,2 m	18,3 m	21,3 m	24,4 m
	Block Weight (kg)						
15,0 - 24,0	3 500	—	—	—	—	—	—
27,0 - 39,0	3 500	3 500	3 500	3 500	3 500	3 500	3 500
42,0	3 500	3 500	3 500	3 500	3 500	3 500	2 650
45,0	3 500	3 500	3 500	3 500	3 500	2 650	2 650
48,0	3 500	3 500	3 500	2 650	2 650	750	750
51,0	3 500	2 650	2 650	750	750	750	750
54,0	3 500	750	750	750	750	750	750
57,0	2 650	750	750	750	750	750	#
60,0	750	750	750	#	#	#	#
63,0	750	#	#	#	a	a	
66,0	750	#	a				
69,0	#						
72,0	b	RAISING NOT PERMITTED					
75,0	a, b						
78,0 - 81,0							

Table 2

Raising Ability Over Front of Blocked Crawlers							
Boom Length (m)	Fixed Jib No. 134						
	—	9,1 m	12,2 m	15,2 m	18,3 m	21,3 m	24,4 m
	Block Weight (kg)						
15,0 - 24,0	3 500	—	—	—	—	—	—
27,0 - 45,0	3 500	3 500	3 500	3 500	3 500	3 500	3 500
48,0	3 500	3 500	3 500	3 500	3 500	3 500	2 650
51,0	3 500	3 500	3 500	3 500	3 500	2 650	2 650
54,0	3 500	3 500	3 500	2 650	2 650	750	750
57,0	3 500	2 650	2 650	750	750	750	750
60,0	3 500	750	750	750	750	750	750
63,0	2 650	750	750	750	750	750	#
66,0	750	750	750	750	#	#	#
69,0	750	#	#	#	a	a	
72,0	#	#	a				
75,0	#						
78,0	b	RAISING NOT PERMITTED					
81,0	a, b						

Explanation of Symbols



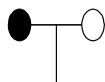
Boom No. 74



Crane Counterweight
+
Carbody Counterweight



360 Degree Rating



Maximum Wind Speed
(see page 1)



Boom Length



Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)



Lifting Capacities
(see page 1)



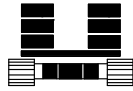
55 110 kg
+
16 010 kg



15,0 m 14 m/s			
m	o	m	kg
4,3	81,7	16,8	165 000 *d
4,5	80,8	16,8	165 000 *d
5,0	78,8	16,7	151 400 *d
5,5	76,8	16,5	138 000 *d
6,0	74,9	16,4	126 700 *d
7,0	70,8	16,0	108 800 *c
8,0	66,6	15,6	95 200 *b
9,0	62,3	15,0	83 700
10,0	57,8	14,4	71 700
11,0	53,0	13,6	62 400
12,0	47,8	12,7	55 000
13,0	42,1	11,6	49 100
14,0	35,7	10,3	44 300
15,0	27,9	8,5	40 100

18,0 m 11 m/s			
m	o	m	kg
4,9	81,1	19,8	153 200 *d
5,0	80,7	19,7	150 400 *d
5,5	79,1	19,6	138 000 *c
6,0	77,5	19,5	126 700 *c
7,0	74,1	19,2	108 800 *c
8,0	70,8	18,9	95 200 *b
9,0	67,3	18,4	83 900
10,0	63,7	17,9	71 900
11,0	60,1	17,3	62 600
12,0	56,2	16,7	55 300
13,0	52,2	15,9	49 400
14,0	47,9	15,0	44 500
15,0	43,3	13,9	40 400
16,0	38,1	12,7	36 900
18,0	25,2	9,1	31 300

21,0 m 11 m/s			
m	o	m	kg
5,2	81,6	22,8	142 900 *d
5,5	80,7	22,7	137 800 *c
6,0	79,3	22,6	126 400 *c
7,0	76,5	22,3	108 500 *c
8,0	73,6	22,0	94 300 b
9,0	70,7	21,7	81 600
10,0	67,8	21,3	71 700
11,0	64,7	20,8	62 500
12,0	61,6	20,2	55 200
13,0	58,4	19,6	49 300
14,0	55,1	18,9	44 400
15,0	51,6	18,1	40 400
16,0	47,9	17,2	36 900
18,0	39,8	15,0	31 400
20,0	29,7	11,9	27 100



55 110 kg
+
16 010 kg



24,0 m			
11 m/s			
m	o	m	kg
5,8	81,1	25,7	130 800 *c
6,0	80,6	25,7	126 400 *c
7,0	78,2	25,4	107 300 c
8,0	75,7	25,2	91 100 b
9,0	73,2	24,9	79 200
10,0	70,7	24,5	69 900
11,0	68,1	24,1	62 500
12,0	65,5	23,6	55 200
13,0	62,8	23,1	49 300
14,0	60,0	22,5	44 400
15,0	57,2	21,9	40 400
16,0	54,2	21,2	36 900
18,0	48,0	19,5	31 400
20,0	40,9	17,3	27 100
22,0	32,6	14,5	23 700
24,0	21,5	10,2	20 900

27,0 m			
11 m/s			
m	o	m	kg
6,1	81,5	28,7	121 500 c
7,0	79,5	28,5	103 200 b
8,0	77,4	28,3	88 300 b
9,0	75,2	28,0	77 000
10,0	72,9	27,7	68 100
11,0	70,7	27,3	61 000
12,0	68,4	26,9	55 100
13,0	66,1	26,5	49 300
14,0	63,7	26,0	44 500
15,0	61,3	25,4	40 400
16,0	58,8	24,8	37 000
18,0	53,6	23,4	31 400
20,0	48,0	21,7	27 200
22,0	41,8	19,6	23 800
24,0	34,7	16,9	21 000
26,0	25,9	13,3	18 700

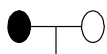
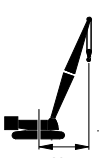
30,0 m			
11 m/s			
m	o	m	kg
6,7	81,2	31,6	104 500 b
7,0	80,6	31,6	99 800 b
8,0	78,6	31,4	85 500 b
9,0	76,7	31,1	74 800
10,0	74,7	30,8	66 300
11,0	72,7	30,5	59 500
12,0	70,7	30,2	53 800
13,0	68,6	29,8	49 100
14,0	66,5	29,3	44 400
15,0	64,4	28,8	40 300
16,0	62,2	28,3	36 900
18,0	57,8	27,1	31 300
20,0	53,1	25,7	27 100
22,0	48,0	23,9	23 700
24,0	42,5	21,9	20 900
26,0	36,3	19,3	18 600
28,0	29,0	16,0	16 700
30,0	19,1	11,2	15 000

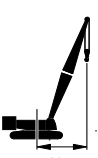


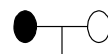
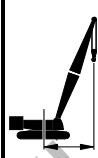
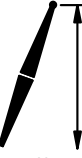
55 110 kg
+
16 010 kg

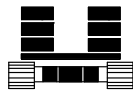


360°

 33,0 m  9 m/s			
 m	 o	 m	 kg
7,3	80,9	34,6	91 600 b
8,0	79,7	34,4	82 900 b
9,0	77,9	34,2	72 700
10,0	76,1	34,0	64 700
11,0	74,3	33,7	58 100
12,0	72,5	33,4	52 700
13,0	70,7	33,0	48 100
14,0	68,8	32,6	44 200
15,0	66,9	32,2	40 400
16,0	65,0	31,7	36 900
18,0	61,0	30,6	31 300
20,0	56,9	29,4	27 100
22,0	52,6	27,9	23 700
24,0	48,0	26,2	21 000
26,0	43,1	24,1	18 700
28,0	37,6	21,7	16 800
30,0	31,2	18,6	15 100
32,0	23,3	14,5	13 700

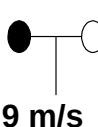
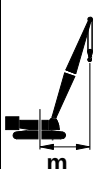
 36,0 m  9 m/s			
 m	 o	 m	 kg
7,3	81,7	37,6	88 600 b
8,0	80,6	37,5	80 400 b
9,0	78,9	37,3	70 700
10,0	77,3	37,1	63 000
11,0	75,7	36,8	56 700
12,0	74,0	36,5	51 500
13,0	72,3	36,2	47 100
14,0	70,6	35,8	43 300
15,0	68,9	35,4	40 000
16,0	67,2	35,0	36 900
18,0	63,7	34,0	31 200
20,0	60,0	32,9	27 000
22,0	56,2	31,6	23 600
24,0	52,3	30,1	20 800
26,0	48,0	28,4	18 600
28,0	43,5	26,4	16 600
30,0	38,6	24,0	15 000
32,0	33,0	21,1	13 600
34,0	26,3	17,4	12 300

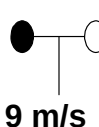
 39,0 m  9 m/s			
 m	 o	 m	 kg
7,9	81,4	40,5	78 800
8,0	81,3	40,5	78 100
9,0	79,8	40,3	68 800
10,0	78,3	40,1	61 400
11,0	76,8	39,9	55 400
12,0	75,3	39,6	50 300
13,0	73,7	39,3	46 100
14,0	72,2	39,0	42 400
15,0	70,6	38,7	39 200
16,0	69,1	38,3	36 400
18,0	65,9	37,4	31 200
20,0	62,6	36,4	26 900
22,0	59,2	35,2	23 500
24,0	55,6	33,9	20 700
26,0	51,9	32,4	18 500
28,0	48,0	30,6	16 600
30,0	43,9	28,6	14 900
32,0	39,4	26,3	13 500
34,0	34,4	23,5	12 200
36,0	28,6	20,1	11 100
38,0	21,3	15,6	10 200

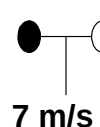


55 110 kg
+
16 010 kg



 42,0 m  9 m/s			
 m	 °	 m	 kg
8,5	81,2	43,5	70 800
9,0	80,5	43,4	67 000
10,0	79,1	43,2	59 900
11,0	77,8	43,0	54 100
12,0	76,3	42,7	49 200
13,0	74,9	42,5	45 000
14,0	73,5	42,2	41 500
15,0	72,1	41,8	38 400
16,0	70,6	41,5	35 700
18,0	67,7	40,7	30 900
20,0	64,7	39,8	26 700
22,0	61,6	38,7	23 300
24,0	58,4	37,5	20 600
26,0	55,1	36,2	18 300
28,0	51,7	34,6	16 400
30,0	48,1	32,9	14 800
32,0	44,2	30,9	13 300
34,0	40,1	28,6	12 100
36,0	35,5	25,9	11 000
38,0	30,4	22,7	10 000
40,0	24,2	18,7	9 100

 45,0 m  9 m/s			
 m	 °	 m	 kg
9,1	81,0	46,4	64 400
10,0	79,9	46,3	58 700
11,0	78,6	46,1	53 100
12,0	77,3	45,8	48 400
13,0	76,0	45,6	44 400
14,0	74,6	45,3	40 900
15,0	73,3	45,0	37 900
16,0	72,0	44,7	35 200
18,0	69,3	43,9	30 800
20,0	66,5	43,1	26 900
22,0	63,7	42,1	23 500
24,0	60,8	41,0	20 800
26,0	57,8	39,8	18 500
28,0	54,7	38,4	16 600
30,0	51,5	36,9	15 000
32,0	48,1	35,1	13 500
34,0	44,5	33,1	12 300
36,0	40,7	30,9	11 200
38,0	36,5	28,3	10 200
40,0	31,9	25,3	9 400
42,0	26,5	21,5	8 600
44,0	19,8	16,7	7 800

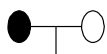
 48,0 m  7 m/s			
 m	 °	 m	 kg
9,1	81,6	49,5	62 700
10,0	80,5	49,3	57 200
11,0	79,3	49,1	51 800
12,0	78,1	48,9	47 300
13,0	76,9	48,7	43 400
14,0	75,6	48,4	40 100
15,0	74,4	48,1	37 100
16,0	73,1	47,8	34 500
18,0	70,6	47,1	30 200
20,0	68,0	46,4	26 700
22,0	65,4	45,5	23 400
24,0	62,8	44,4	20 600
26,0	60,0	43,3	18 300
28,0	57,2	42,1	16 400
30,0	54,3	40,7	14 800
32,0	51,2	39,1	13 400
34,0	48,1	37,3	12 100
36,0	44,7	35,4	11 000
38,0	41,2	33,2	10 100
40,0	37,3	30,7	9 200
42,0	33,1	27,7	8 400
44,0	28,3	24,3	7 700
46,0	22,6	19,9	7 000



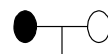
55 110 kg
+
16 010 kg

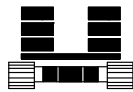


360°

 51,0 m  7 m/s			
m	°	m	kg
9,8	81,4	52,4	57 300
10,0	81,1	52,4	55 900
11,0	79,9	52,2	50 700
12,0	78,8	52,0	46 200
13,0	77,6	51,8	42 500
14,0	76,5	51,5	39 200
15,0	75,3	51,2	36 400
16,0	74,2	51,0	33 800
18,0	71,8	50,3	29 600
20,0	69,4	49,6	26 200
22,0	67,0	48,8	23 300
24,0	64,5	47,8	20 500
26,0	62,0	46,8	18 200
28,0	59,4	45,6	16 300
30,0	56,7	44,3	14 600
32,0	53,9	42,9	13 200
34,0	51,1	41,3	12 000
36,0	48,1	39,6	10 900
38,0	44,9	37,6	9 900
40,0	41,6	35,4	9 100
42,0	38,1	33,0	8 300
44,0	34,2	30,2	7 600
46,0	29,8	26,9	6 900
48,0	24,8	22,9	6 300
50,0	18,5	17,6	5 800

 54,0 m  7 m/s			
m	°	m	kg
10,4	81,2	55,3	52 600
11,0	80,5	55,2	49 500
12,0	79,4	55,0	45 200
13,0	78,3	54,8	41 600
14,0	77,3	54,6	38 400
15,0	76,2	54,4	35 600
16,0	75,1	54,1	33 200
18,0	72,8	53,5	29 000
20,0	70,6	52,8	25 700
22,0	68,3	52,0	22 900
24,0	66,0	51,1	20 300
26,0	63,7	50,2	18 000
28,0	61,2	49,1	16 100
30,0	58,8	47,9	14 500
32,0	56,2	46,6	13 100
34,0	53,6	45,2	11 800
36,0	50,9	43,6	10 700
38,0	48,1	41,8	9 700
40,0	45,1	39,9	8 900
42,0	42,0	37,7	8 100
44,0	38,7	35,3	7 400
46,0	35,1	32,6	6 800
48,0	31,1	29,4	6 200
50,0	26,6	25,7	5 700
52,0	21,2	21,0	5 100

 57,0 m  7 m/s			
m	°	m	kg
10,4	81,7	58,4	51 400
11,0	81,0	58,3	48 400
12,0	80,0	58,1	44 300
13,0	79,0	57,9	40 700
14,0	77,9	57,7	37 600
15,0	76,9	57,5	34 900
16,0	75,9	57,2	32 500
18,0	73,8	56,6	28 500
20,0	71,7	56,0	25 200
22,0	69,5	55,2	22 500
24,0	67,4	54,4	20 100
26,0	65,1	53,5	17 900
28,0	62,9	52,5	16 000
30,0	60,6	51,4	14 400
32,0	58,2	50,2	13 000
34,0	55,8	48,9	11 700
36,0	53,3	47,4	10 600
38,0	50,8	45,8	9 700
40,0	48,1	44,1	8 800
42,0	45,3	42,1	8 000
44,0	42,4	40,0	7 300
46,0	39,2	37,6	6 700
48,0	35,9	34,9	6 100
50,0	32,2	31,9	5 600
52,0	28,2	28,4	5 100
54,0	23,4	24,1	4 600
56,0	17,5	18,5	4 200



55 110 kg
+
16 010 kg



60,0 m 7 m/s			
m	°	m	kg
11,0	81,5	61,3	47 400
12,0	80,5	61,2	43 300
13,0	79,5	61,0	39 900
14,0	78,6	60,8	36 800
15,0	77,6	60,5	34 200
16,0	76,6	60,3	31 800
18,0	74,6	59,8	27 900
20,0	72,6	59,1	24 700
22,0	70,6	58,5	22 000
24,0	68,5	57,7	19 700
26,0	66,5	56,8	17 800
28,0	64,4	55,9	15 800
30,0	62,2	54,8	14 200
32,0	60,0	53,7	12 800
34,0	57,8	52,5	11 600
36,0	55,5	51,1	10 500
38,0	53,1	49,7	9 500
40,0	50,6	48,0	8 600
42,0	48,1	46,3	7 800
44,0	45,4	44,4	7 100
46,0	42,7	42,3	6 500
48,0	39,7	39,9	5 900
50,0	36,6	37,3	5 400
52,0	33,2	34,4	4 900
54,0	29,5	31,0	4 400
56,0	25,2	27,0	4 000
58,0	20,1	22,1	3 600

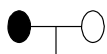
63,0 m 7 m/s			
m	°	m	kg
11,6	81,3	64,3	43 900
12,0	81,0	64,2	42 400
13,0	80,0	64,0	39 000
14,0	79,1	63,8	36 100
15,0	78,2	63,6	33 500
16,0	77,2	63,4	31 200
18,0	75,4	62,9	27 300
20,0	73,5	62,3	24 200
22,0	71,6	61,6	21 500
24,0	69,6	60,9	19 300
26,0	67,7	60,1	17 400
28,0	65,7	59,2	15 700
30,0	63,6	58,2	14 100
32,0	61,6	57,2	12 700
34,0	59,5	56,0	11 400
36,0	57,3	54,8	10 300
38,0	55,1	53,4	9 300
40,0	52,9	51,9	8 500
42,0	50,5	50,3	7 700
44,0	48,1	48,5	7 000
46,0	45,6	46,6	6 300
48,0	42,9	44,5	5 800
50,0	40,2	42,2	5 200
52,0	37,2	39,7	4 800
54,0	34,1	36,8	4 300
56,0	30,6	33,6	3 900
58,0	26,7	29,8	3 500
60,0	22,2	25,3	3 100

66,0 m 7 m/s			
m	°	m	kg
12,2	81,2	67,2	39 200*
13,0	80,5	67,1	38 300
14,0	79,6	66,9	35 300
15,0	78,7	66,7	32 800
16,0	77,8	66,5	30 600
18,0	76,0	66,0	26 800
20,0	74,2	65,4	23 700
22,0	72,4	64,8	21 100
24,0	70,6	64,1	18 900
26,0	68,7	63,3	17 000
28,0	66,8	62,5	15 400
30,0	64,9	61,6	13 900
32,0	63,0	60,6	12 500
34,0	61,0	59,5	11 200
36,0	59,0	58,3	10 100
38,0	56,9	57,0	9 200
40,0	54,8	55,6	8 300
42,0	52,7	54,1	7 500
44,0	50,4	52,5	6 800
46,0	48,1	50,8	6 200
48,0	45,7	48,9	5 600
50,0	43,2	46,8	5 100
52,0	40,6	44,5	4 600
54,0	37,8	42,0	4 100
56,0	34,8	39,2	3 700
58,0	31,6	36,1	3 300
60,0	28,0	32,5	2 900
62,0	24,0	28,3	2 600
64,0	19,1	23,1	2 200

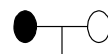


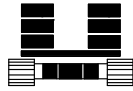
55 110 kg
+
16 010 kg



 69,0 m  7 m/s			
m	°	m	kg
12,2	81,6	70,2	35 000 *
13,0	80,9	70,1	34 400 *
14,0	80,1	69,9	33 700 *
15,0	79,2	69,7	32 300
16,0	78,4	69,5	30 000
18,0	76,7	69,1	26 200
20,0	74,9	68,5	23 200
22,0	73,2	68,0	20 700
24,0	71,5	67,3	18 500
26,0	69,7	66,6	16 700
28,0	67,9	65,8	15 100
30,0	66,1	64,9	13 600
32,0	64,3	63,9	12 300
34,0	62,4	62,9	11 100
36,0	60,5	61,8	10 000
38,0	58,6	60,6	9 000
40,0	56,6	59,3	8 200
42,0	54,5	57,9	7 400
44,0	52,5	56,4	6 700
46,0	50,3	54,8	6 100
48,0	48,1	53,0	5 500
50,0	45,8	51,1	4 900
52,0	43,4	49,0	4 400
54,0	40,9	46,8	4 000
56,0	38,3	44,3	3 600
58,0	35,5	41,6	3 200
60,0	32,5	38,6	2 800
62,0	29,2	35,1	2 500
64,0	25,5	31,2	2 100
66,0	21,2	26,4	1 800

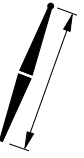
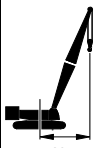
 72,0 m  7 m/s			
m	°	m	kg
12,8	81,4	73,2	34 000 *
13,0	81,3	73,2	33 900 *
14,0	80,5	73,0	33 300 *
15,0	79,7	72,8	31 400
16,0	78,9	72,6	29 200
18,0	77,2	72,2	25 600
20,0	75,6	71,7	22 600
22,0	73,9	71,1	20 100
24,0	72,3	70,5	18 000
26,0	70,6	69,8	16 200
28,0	68,9	69,0	14 600
30,0	67,2	68,2	13 200
32,0	65,4	67,3	12 000
34,0	63,6	66,3	10 800
36,0	61,8	65,2	9 700
38,0	60,0	64,1	8 800
40,0	58,1	62,9	7 900
42,0	56,2	61,6	7 100
44,0	54,3	60,2	6 400
46,0	52,3	58,6	5 800
48,0	50,2	57,0	5 200
50,0	48,1	55,2	4 700
52,0	45,9	53,3	4 200
54,0	43,6	51,3	3 700
56,0	41,3	49,0	3 300
58,0	38,8	46,6	2 900
60,0	36,1	44,0	2 500
62,0	33,3	41,0	2 200
64,0	30,2	37,7	1 900
66,0	26,8	33,9	1 600

 75,0 m  7 m/s			
m	°	m	kg
13,4	81,3	76,1	33 100 *
14,0	80,9	76,0	32 900 *
15,0	80,1	75,8	30 700
16,0	79,3	75,7	28 600
18,0	77,8	75,2	25 100
20,0	76,2	74,8	22 100
22,0	74,6	74,2	19 700
24,0	73,0	73,6	17 600
26,0	71,4	72,9	15 800
28,0	69,8	72,2	14 200
30,0	68,1	71,4	12 900
32,0	66,5	70,6	11 700
34,0	64,8	69,6	10 500
36,0	63,1	68,6	9 500
38,0	61,3	67,6	8 600
40,0	59,6	66,4	7 700
42,0	57,8	65,2	6 900
44,0	55,9	63,8	6 200
46,0	54,1	62,4	5 600
48,0	52,1	60,9	5 000
50,0	50,2	59,2	4 500
52,0	48,1	57,5	4 000
54,0	46,0	55,6	3 500
56,0	43,8	53,5	3 100
58,0	41,6	51,3	2 700
60,0	39,2	48,9	2 400
62,0	36,7	46,3	2 000
64,0	34,0	43,4	1 700



55 110 kg
+
16 010 kg



 78,0 m  7 m/s			
 m	 °	 m	 kg
13,4	81,7	79,2	30 000 *
14,0	81,2	79,1	29 800 *
15,0	80,5	78,9	29 500 *
16,0	79,7	78,7	28 400
18,0	78,2	78,3	24 500
20,0	76,7	77,8	21 700
22,0	75,2	77,3	19 200
24,0	73,7	76,8	17 200
26,0	72,1	76,1	15 400
28,0	70,6	75,4	13 900
30,0	69,0	74,7	12 500
32,0	67,4	73,8	11 300
34,0	65,8	73,0	10 200
36,0	64,2	72,0	9 300
38,0	62,5	71,0	8 400
40,0	60,9	69,9	7 500
42,0	59,2	68,7	6 800
44,0	57,4	67,4	6 100
46,0	55,6	66,1	5 400
48,0	53,8	64,7	4 800
50,0	52,0	63,1	4 300
52,0	50,1	61,5	3 800
54,0	48,1	59,7	3 300
56,0	46,1	57,8	2 900
58,0	44,0	55,8	2 500
60,0	41,8	53,6	2 200
62,0	39,6	51,2	1 800
64,0	37,2	48,7	1 500

 81,0 m  7 m/s			
 m	 °	 m	 kg
14,0	81,5	82,1	27 900 *
15,0	80,8	81,9	27 500 *
16,0	80,1	81,8	26 900
18,0	78,7	81,4	24 100
20,0	77,2	80,9	21 200
22,0	75,8	80,4	18 800
24,0	74,3	79,9	16 800
26,0	72,8	79,3	15 000
28,0	71,3	78,6	13 500
30,0	69,8	77,9	12 200
32,0	68,3	77,1	11 000
34,0	66,8	76,2	9 900
36,0	65,2	75,3	9 000
38,0	63,6	74,4	8 100
40,0	62,0	73,3	7 300
42,0	60,4	72,2	6 600
44,0	58,8	71,0	5 900
46,0	57,1	69,7	5 300
48,0	55,4	68,4	4 700
50,0	53,6	66,9	4 200
52,0	51,8	65,4	3 700
54,0	50,0	63,7	3 200
56,0	48,1	61,9	2 800
58,0	46,2	60,1	2 400
60,0	44,2	58,0	2 000
62,0	42,1	55,9	1 700
64,0	39,9	53,5	1 400