


Liftcrane Boom Capacities

Boom No. B10:290
33 120 kg Crane Counterweight
10 500 kg Carbody Counterweight
Crawler Machine on a Barge
0 Degree thru 3 Degree Static Machine List
No Travel - 360 Degree Rating


MLC90A-1 SERIES 2


 **LIFTING CAPACITIES:** Lifting capacities are for a crawler machine when operating on a barge. Machine shall be positively secured to prevent shifting. Lifting capacities for various boom lengths and operating radii are for freely suspended loads and may be based on percent of static tipping or strength of structural components. Capacities must be reduced by applicable deducts.


Upper boom point capacity for liftcrane service with single part whip line from Drum 3 is 9 070 kg. When Drum 1 or Drum 2 is used, capacity with single part whip line is 12 520 kg. In all cases, upper boom point capacities cannot exceed those listed for main boom capacity.

Weight of all load blocks, hooks, weight ball, slings, hoist lines, etc., beneath boom point sheaves, is considered part of 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 on a firm and uniformly supporting surface with machine list not to exceed degrees noted. Refer to Boom Rigging **No. 80121887**, Wire Rope Specifications chart **No. 9751-A**, Counterweight Arrangements chart **No. 9745-A**, and Wind Conditions chart **No. 9750-A**. Crane operator judgment must be used to allow for dynamic load effects of swinging, hoisting or lowering, wind conditions, as well as adverse operating conditions and physical machine depreciation. Refer to the Operator Manual for operating guidelines.

 **OPERATING RADIUS:** Operating radius is horizontal distance from axis of rotation at barge deck 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 barge deck to centerline of boom point shaft.

MACHINE EQUIPMENT: Machine equipped with 6 480 mm crawlers, 900 mm treads, 4 390 mm gantry, 8 part boom hoist reeving, two 32 mm boom pendants, 33 120 kg crane counterweight, and 10 500 kg carbody counterweight.

Consult chart **No. 9762-AM** when Jib No. 117 is attached.

Upper Boom Point Deduct
Deduct 260 kg from capacities when upper boom point is attached. Deduct does not apply to 19,0 m boom length.

Third Line Deduct
Deduct 120 kg from capacities when boom top is equipped with optional 3rd sheave wire rope guide.

Deduct From Capacities When Jib No. 117 Is Attached	
Jib Length (m)	Deduct (kg)
9,1	2 050
12,2	2 400
15,2	2 800
18,3	3 350
Weight of jib and 325 kg suspended beneath jib point have been included in determination of deduct.	

Refer to Table 1 for raising ability with the maximum weight of all load blocks, hooks, weight ball, slings, and hoist lines beneath boom point sheaves. For block weights shown with #, load blocks, hooks, weight ball, and slings must remain on barge deck until combined weights are within rated capacity of chart. Raising is not permitted in shaded areas of table.

Combined weight beneath boom point sheaves must not exceed block weight shown.

Table 1

Boom Length (m)	Over End or Side of Crawlers	
	Machine List	
	0°	1° - 3°
	Block Weight (kg)	
19,0 - 49,0	1 725	1 725
52,0	1 200	325
55,0 - 61,0	325	#

REFERENCE ONLY!

Explanation of Symbols



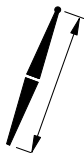
Boom No. B10:290



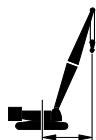
Crane Counterweight
+
Carbody Counterweight



360 Degree Rating



Boom Length



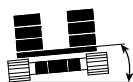
Operating Radius
(see page 1)



Boom Angle
(see page 1)



Boom Point Elevation
(see page 1)

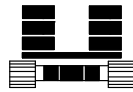
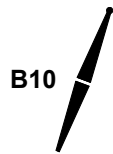


Machine List



Lifting Capacities
(see page 1)

MLC90A-1 S-2



33 120 kg
+
10 500 kg

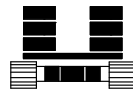


19,0 m

m		°		m		kg	kg	kg	kg	m	
4,6	80,3	20,8				79 300					4,6
5,0	78,9	20,7				73 300	61 800				5,0
5,5	77,4	20,6				66 800	60 400	50 500	43 300		5,5
6,0	75,8	20,5				61 500	56 700	49 500	42 600		6,0
6,5	74,3	20,3				55 200	50 600	46 000	41 300		6,5
7,0	72,7	20,2				49 400	45 400	41 900	38 700		7,0
7,5	71,1	20,0				44 400	41 100	38 200	35 700		7,5
8,0	69,5	19,8				40 300	37 500	35 100	32 900		8,0
9,0	66,2	19,4				34 000	32 000	30 200	28 500		9,0
10,0	62,8	18,9				29 300	27 800	26 400	25 100		10,0
11,0	59,4	18,3				25 700	24 500	23 300	22 300		11,0
12,0	55,8	17,7				22 800	21 900	20 900	20 100		12,0
13,0	52,0	16,9				20 500	19 700	18 900	18 200		13,0
14,0	48,0	16,1				18 500	17 900	17 300	16 700		14,0
15,0	43,8	15,1				16 900	16 400	15 800	15 300		15,0
16,0	39,1	13,9				15 500	15 100	14 700	14 200		16,0
17,0	34,0	12,5				14 300	13 900	13 600	13 200		17,0
18,0	28,0	10,8				13 200	12 900	12 600	12 300		18,0

REFERENCE ONLY

MLC90A-1 S-2



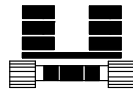
33 120 kg
+
10 500 kg



 m	 °	 m	 kg	 kg	 kg	 kg	 m
4,9	80,8	23,8	72 100				4,9
5,0	80,5	23,8	71 600				5,0
5,5	79,1	23,7	66 900	54 900			5,5
6,0	77,8	23,6	61 500	53 800	44 600		6,0
6,5	76,5	23,5	55 400	49 700	43 800	37 600	6,5
7,0	75,1	23,3	49 500	45 000	41 200	36 600	7,0
7,5	73,8	23,2	44 500	40 800	37 600	34 900	7,5
8,0	72,4	23,0	40 400	37 300	34 600	32 200	8,0
9,0	69,6	22,7	34 100	31 900	29 800	28 000	9,0
10,0	66,8	22,3	29 500	27 700	26 100	24 700	10,0
11,0	64,0	21,8	25 800	24 400	23 200	22 000	11,0
12,0	61,0	21,3	23 000	21 800	20 800	19 900	12,0
13,0	58,0	20,6	20 600	19 700	18 800	18 000	13,0
14,0	54,8	20,0	18 700	17 900	17 200	16 500	14,0
15,0	51,5	19,2	17 000	16 400	15 800	15 200	15,0
16,0	48,1	18,3	15 700	15 100	14 600	14 100	16,0
17,0	44,4	17,4	14 400	14 000	13 500	13 100	17,0
18,0	40,5	16,2	13 400	13 000	12 600	12 200	18,0
19,0	36,3	15,0	12 500	12 100	11 800	11 500	19,0
20,0	31,6	13,4	11 600	11 300	11 000	10 800	20,0
21,0	26,0	11,6	10 900	10 600	10 400	10 200	21,0

REFER TO

MLC90A-1 S-2



33 120 kg
+
10 500 kg



25,0 m


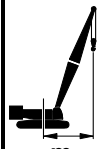


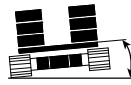
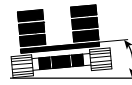
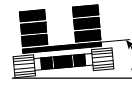
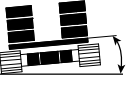
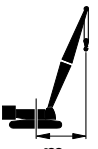
m	°	m	kg	kg	kg	kg	kg	m	°
5,5	80,5	26,7	64 700					5,5	
6,0	79,3	26,6	61 400	49 200				6,0	
6,5	78,1	26,5	55 300	47 800				6,5	
7,0	76,9	26,4	49 500	44 500	38 800	33 300		7,0	
7,5	75,8	26,3	44 500	40 400	36 900	32 600		7,5	
8,0	74,6	26,1	40 400	36 900	33 900	31 300		8,0	
9,0	72,2	25,8	34 100	31 500	29 300	27 300		9,0	
10,0	69,7	25,5	29 400	27 400	25 700	24 100		10,0	
11,0	67,3	25,1	25 700	24 200	22 800	21 500		11,0	
12,0	64,7	24,6	22 900	21 600	20 500	19 400		12,0	
13,0	62,2	24,1	20 500	19 500	18 600	17 700		13,0	
14,0	59,5	23,5	18 600	17 700	16 900	16 200		14,0	
15,0	56,8	22,9	17 000	16 200	15 500	14 900		15,0	
16,0	54,0	22,2	15 600	15 000	14 400	13 800		16,0	
17,0	51,1	21,4	14 400	13 800	13 300	12 800		17,0	
18,0	48,1	20,6	13 300	12 800	12 400	12 000		18,0	
19,0	44,9	19,6	12 400	12 000	11 600	11 200		19,0	
20,0	41,5	18,5	11 500	11 200	10 800	10 500		20,0	
21,0	37,9	17,3	10 800	10 500	10 200	9 900		21,0	
22,0	33,9	15,9	10 100	9 900	9 600	9 300		22,0	
23,0	29,5	14,2	9 500	9 300	9 100	8 800		23,0	
24,0	24,3	12,2	9 000	8 800	8 600	8 400		24,0	

MLC90A-1 S-2

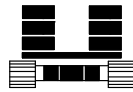



33 120 kg
+ 10 500 kg



 28,0 m							
 m	 °	 m	 0° kg	 1° kg	 2° kg	 3° kg	 m
5,8	80,9	29,7	58 600				5,8
6,0	80,5	29,7	57 900				6,0
6,5	79,4	29,6	54 300				6,5
7,0	78,4	29,5	49 500	42 600	35 600		7,0
7,5	77,3	29,4	44 500	40 000	34 800	29 800	7,5
8,0	76,3	29,3	40 300	36 600	33 300	29 300	8,0
9,0	74,2	29,0	34 100	31 300	28 800	26 700	9,0
10,0	72,0	28,7	29 400	27 200	25 300	23 600	10,0
11,0	69,8	28,3	25 700	24 000	22 500	21 100	11,0
12,0	67,6	27,9	22 900	21 500	20 200	19 100	12,0
13,0	65,4	27,5	20 500	19 400	18 300	17 300	13,0
14,0	63,1	27,0	18 600	17 600	16 700	15 900	14,0
15,0	60,8	26,5	16 900	16 100	15 400	14 600	15,0
16,0	58,4	25,9	15 600	14 900	14 200	13 600	16,0
17,0	56,0	25,2	14 300	13 700	13 200	12 600	17,0
18,0	53,4	24,5	13 300	12 800	12 200	11 800	18,0
19,0	50,8	23,7	12 400	11 900	11 400	11 000	19,0
20,0	48,1	22,8	11 500	11 100	10 700	10 300	20,0
21,0	45,3	21,9	10 800	10 400	10 100	9 700	21,0
22,0	42,3	20,8	10 100	9 800	9 500	9 200	22,0
23,0	39,1	19,6	9 500	9 200	8 900	8 700	23,0
24,0	35,7	18,3	9 000	8 700	8 500	8 200	24,0
25,0	32,0	16,8	8 500	8 200	8 000	7 800	25,0
26,0	27,9	15,0	8 000	7 800	7 600	7 400	26,0
27,0	23,0	12,8	7 600	7 400	7 200	7 100	27,0

MLC90A-1 S-2



33 120 kg
+
10 500 kg



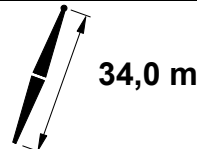
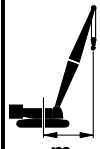


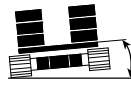
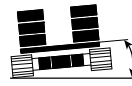
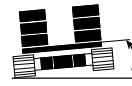
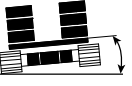

31,0 m								
m	°	m	0° kg	1° kg	2° kg	3° kg	m	
6,7	80,1	32,6	51 900				6,7	
7,0	79,5	32,6	49 100				7,0	
7,5	78,6	32,5	44 400	38 800	32 200		7,5	
8,0	77,6	32,3	40 300	36 200	31 600	26 800	8,0	
9,0	75,7	32,1	34 000	30 900	28 300	25 800	9,0	
10,0	73,8	31,8	29 300	26 900	24 900	23 100	10,0	
11,0	71,9	31,5	25 600	23 800	22 100	20 600	11,0	
12,0	69,9	31,1	22 800	21 300	19 900	18 700	12,0	
13,0	67,9	30,8	20 400	19 200	18 000	17 000	13,0	
14,0	65,9	30,3	18 500	17 400	16 500	15 600	14,0	
15,0	63,8	29,8	16 900	16 000	15 100	14 300	15,0	
16,0	61,8	29,3	15 500	14 700	14 000	13 300	16,0	
17,0	59,6	28,7	14 300	13 600	12 900	12 300	17,0	
18,0	57,5	28,1	13 200	12 600	12 000	11 500	18,0	
19,0	55,2	27,4	12 300	11 700	11 300	10 800	19,0	
20,0	52,9	26,7	11 400	11 000	10 500	10 100	20,0	
21,0	50,6	25,9	10 700	10 300	9 900	9 500	21,0	
22,0	48,1	25,0	10 000	9 700	9 300	9 000	22,0	
23,0	45,6	24,1	9 400	9 100	8 800	8 500	23,0	
24,0	42,9	23,0	8 900	8 600	8 300	8 000	24,0	
25,0	40,1	21,9	8 400	8 100	7 900	7 600	25,0	
26,0	37,1	20,6	7 900	7 700	7 400	7 200	26,0	
27,0	33,8	19,2	7 500	7 300	7 100	6 900	27,0	
28,0	30,3	17,6	7 100	6 900	6 700	6 500	28,0	

MLC90A-1 S-2

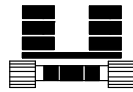



33 120 kg
 +
10 500 kg



								
 m	 °	 m	 0° kg	 1° kg	 2° kg	 3° kg	 m	
6,7	80,9	35,7	48 000					6,7
7,0	80,4	35,6	47 000					7,0
7,5	79,6	35,5	44 400	36 300				7,5
8,0	78,7	35,4	40 200	35 500	29 100			8,0
9,0	77,0	35,2	33 900	30 600	27 600	23 900		9,0
10,0	75,3	34,9	29 200	26 700	24 500	22 600		10,0
11,0	73,5	34,6	25 600	23 600	21 800	20 200		11,0
12,0	71,7	34,3	22 700	21 100	19 600	18 300		12,0
13,0	69,9	34,0	20 400	19 000	17 800	16 700		13,0
14,0	68,1	33,6	18 400	17 300	16 200	15 300		14,0
15,0	66,3	33,1	16 800	15 800	14 900	14 100		15,0
16,0	64,4	32,7	15 400	14 600	13 800	13 000		16,0
17,0	62,5	32,2	14 200	13 400	12 700	12 100		17,0
18,0	60,6	31,6	13 100	12 500	11 900	11 300		18,0
19,0	58,7	31,0	12 200	11 600	11 100	10 600		19,0
20,0	56,7	30,4	11 300	10 800	10 400	9 900		20,0
21,0	54,6	29,7	10 600	10 200	9 700	9 300		21,0
22,0	52,5	28,9	9 900	9 500	9 200	8 800		22,0
23,0	50,3	28,1	9 300	9 000	8 600	8 300		23,0
24,0	48,1	27,3	8 800	8 500	8 100	7 800		24,0
25,0	45,8	26,3	8 300	8 000	7 700	7 400		25,0
26,0	43,3	25,3	7 800	7 600	7 300	7 000		26,0
27,0	40,8	24,2	7 400	7 200	6 900	6 700		27,0
28,0	38,1	22,9	7 000	6 800	6 600	6 400		28,0
29,0	35,3	21,6	6 700	6 500	6 300	6 100		29,0
30,0	32,2	20,0	6 300	6 100	6 000	5 800		30,0
31,0	28,9	18,3	6 000	5 900	5 700	5 500		31,0
32,0	25,1	16,3	5 700	5 600	5 400	5 300		32,0

MLC90A-1 S-2



33 120 kg
+
10 500 kg




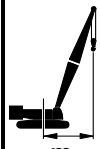
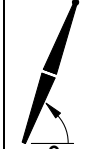
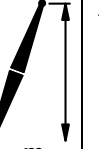
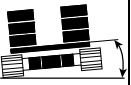
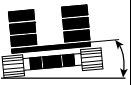
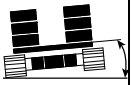


			 0°	 1°	 2°	 3°		
m	°	m	kg	kg	kg	kg	m	
7,3	80,7	38,6	43 600					7,3
7,5	80,4	38,6	42 700					7,5
8,0	79,7	38,5	40 200	33 100				8,0
9,0	78,1	38,3	33 900	30 300	26 200			9,0
10,0	76,5	38,0	29 200	26 400	24 100	21 400		10,0
11,0	74,9	37,8	25 500	23 300	21 400	19 800		11,0
12,0	73,3	37,5	22 600	20 900	19 300	17 900		12,0
13,0	71,6	37,2	20 300	18 800	17 500	16 300		13,0
14,0	70,0	36,8	18 300	17 100	16 000	14 900		14,0
15,0	68,3	36,4	16 700	15 600	14 700	13 800		15,0
16,0	66,7	36,0	15 300	14 400	13 600	12 800		16,0
17,0	65,0	35,5	14 100	13 300	12 500	11 800		17,0
18,0	63,2	35,0	13 000	12 300	11 700	11 000		18,0
19,0	61,5	34,5	12 100	11 500	10 900	10 300		19,0
20,0	59,7	33,9	11 200	10 700	10 200	9 700		20,0
21,0	57,9	33,3	10 500	10 000	9 500	9 100		21,0
22,0	56,0	32,7	9 800	9 400	9 000	8 600		22,0
23,0	54,1	32,0	9 200	8 800	8 400	8 100		23,0
24,0	52,2	31,2	8 700	8 300	8 000	7 600		24,0
25,0	50,2	30,4	8 200	7 900	7 500	7 200		25,0
26,0	48,1	29,5	7 700	7 400	7 100	6 900		26,0
27,0	46,0	28,6	7 300	7 000	6 800	6 500		27,0
28,0	43,8	27,6	6 900	6 700	6 400	6 200		28,0
29,0	41,5	26,5	6 600	6 300	6 100	5 900		29,0
30,0	39,1	25,3	6 200	6 000	5 800	5 600		30,0
31,0	36,5	24,0	5 900	5 700	5 500	5 400		31,0
32,0	33,8	22,5	5 600	5 400	5 300	5 100		32,0
33,0	30,9	20,9	5 300	5 200	5 000	4 900		33,0
34,0	27,7	19,1	5 100	4 900	4 800	4 700		34,0
35,0	24,1	17,0	4 800	4 700	4 600	4 500		35,0

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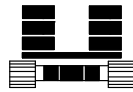
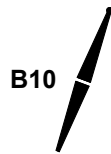



33 120 kg
+ 10 500 kg



 40,0 m								
 m	 °	 m	 0° kg	 1° kg	 2° kg	 3° kg	 m	
7,9	80,6	41,5	39 600				7,9	
8,0	80,4	41,5	39 200				8,0	
9,0	79,0	41,3	33 800	29 600			9,0	
10,0	77,5	41,1	29 100	26 200	23 400	19 900	10,0	
11,0	76,0	40,9	25 400	23 100	21 100	19 400	11,0	
12,0	74,6	40,6	22 600	20 700	19 000	17 500	12,0	
13,0	73,1	40,3	20 200	18 600	17 200	16 000	13,0	
14,0	71,6	40,0	18 300	16 900	15 700	14 700	14,0	
15,0	70,0	39,6	16 600	15 500	14 400	13 500	15,0	
16,0	68,5	39,2	15 300	14 300	13 400	12 500	16,0	
17,0	66,9	38,8	14 000	13 200	12 400	11 600	17,0	
18,0	65,4	38,4	13 000	12 200	11 500	10 800	18,0	
19,0	63,8	37,9	12 000	11 400	10 700	10 100	19,0	
20,0	62,2	37,4	11 200	10 600	10 000	9 500	20,0	
21,0	60,5	36,8	10 400	9 900	9 400	8 900	21,0	
22,0	58,9	36,2	9 800	9 300	8 800	8 400	22,0	
23,0	57,2	35,6	9 200	8 700	8 300	7 900	23,0	
24,0	55,4	34,9	8 600	8 200	7 900	7 500	24,0	
25,0	53,7	34,2	8 100	7 800	7 400	7 100	25,0	
26,0	51,9	33,4	7 700	7 300	7 000	6 700	26,0	
27,0	50,0	32,6	7 200	6 900	6 700	6 400	27,0	
28,0	48,1	31,7	6 900	6 600	6 300	6 100	28,0	
29,0	46,1	30,8	6 500	6 200	6 000	5 800	29,0	
30,0	44,1	29,8	6 200	5 900	5 700	5 500	30,0	
31,0	42,0	28,7	5 900	5 600	5 400	5 200	31,0	
32,0	39,8	27,5	5 600	5 400	5 200	5 000	32,0	
33,0	37,5	26,3	5 300	5 100	4 900	4 800	33,0	
34,0	35,0	24,9	5 000	4 900	4 700	4 600	34,0	
35,0	32,4	23,4	4 800	4 600	4 500	4 300	35,0	
36,0	29,6	21,7	4 600	4 400	4 300	4 200	36,0	
37,0	26,6	19,8	4 400	4 200	4 100	4 000	37,0	
38,0	23,1	17,6	4 200	4 000	3 900	3 800	38,0	

MLC90A-1 S-2



33 120 kg
+
10 500 kg



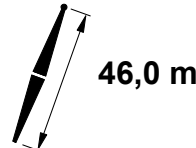
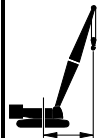


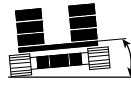
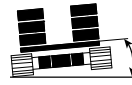
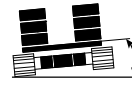
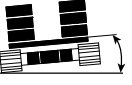
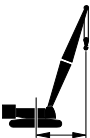
m	°	m	kg	kg	kg	kg	kg	m	
8,5	80,4	44,5	35 300					8,5	
9,0	79,8	44,4	33 500					9,0	
10,0	78,4	44,2	29 000	25 900	21 800			10,0	
11,0	77,0	44,0	25 300	22 900	20 800	17 900		11,0	
12,0	75,7	43,7	22 500	20 500	18 700	17 100		12,0	
13,0	74,3	43,5	20 100	18 400	17 000	15 700		13,0	
14,0	72,9	43,2	18 200	16 700	15 500	14 400		14,0	
15,0	71,5	42,8	16 500	15 300	14 200	13 200		15,0	
16,0	70,1	42,5	15 200	14 100	13 100	12 300		16,0	
17,0	68,7	42,1	13 900	13 000	12 200	11 400		17,0	
18,0	67,2	41,7	12 900	12 000	11 300	10 600		18,0	
19,0	65,8	41,2	11 900	11 200	10 500	9 900		19,0	
20,0	64,3	40,8	11 100	10 400	9 800	9 300		20,0	
21,0	62,8	40,3	10 300	9 800	9 200	8 700		21,0	
22,0	61,3	39,7	9 700	9 200	8 700	8 200		22,0	
23,0	59,7	39,1	9 100	8 600	8 200	7 700		23,0	
24,0	58,2	38,5	8 500	8 100	7 700	7 300		24,0	
25,0	56,6	37,9	8 000	7 600	7 300	6 900		25,0	
26,0	55,0	37,2	7 600	7 200	6 900	6 500		26,0	
27,0	53,3	36,5	7 100	6 800	6 500	6 200		27,0	
28,0	51,6	35,7	6 800	6 500	6 200	5 900		28,0	
29,0	49,9	34,9	6 400	6 100	5 800	5 600		29,0	
30,0	48,1	34,0	6 100	5 800	5 600	5 300		30,0	
31,0	46,3	33,1	5 700	5 500	5 300	5 100		31,0	
32,0	44,4	32,1	5 500	5 200	5 000	4 800		32,0	
33,0	42,5	31,0	5 200	5 000	4 800	4 600		33,0	
34,0	40,5	29,8	4 900	4 700	4 600	4 400		34,0	
35,0	38,3	28,6	4 700	4 500	4 300	4 200		35,0	
36,0	36,1	27,3	4 500	4 300	4 200	4 000		36,0	
37,0	33,8	25,8	4 300	4 100	4 000	3 800		37,0	
38,0	31,3	24,3	4 000	3 900	3 800	3 700		38,0	
39,0	28,6	22,5	3 900	3 700	3 600	3 500		39,0	
40,0	25,6	20,5	3 700	3 600	3 500	3 300		40,0	

MLC90A-1 S-2

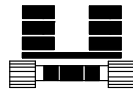
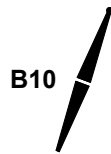



33 120 kg
+
10 500 kg



								
 m	 °	 m	 0° kg	 1° kg	 2° kg	 3° kg	 m	
9,1	80,3	47,4	32 000					9,1
10,0	79,2	47,2	28 900	24 900				10,0
11,0	77,9	47,0	25 300	22 600				11,0
12,0	76,6	46,8	22 400	20 200	19 800	15 800		12,0
13,0	75,3	46,6	20 000	18 300	16 700	15 300		13,0
14,0	74,0	46,3	18 100	16 600	15 200	14 100		14,0
15,0	72,7	46,0	16 400	15 100	14 000	13 000		15,0
16,0	71,4	45,6	15 100	13 900	12 900	12 000		16,0
17,0	70,1	45,3	13 800	12 800	12 000	11 200		17,0
18,0	68,8	44,9	12 800	11 900	11 100	10 400		18,0
19,0	67,4	44,5	11 800	11 100	10 400	9 700		19,0
20,0	66,1	44,1	11 000	10 300	9 700	9 100		20,0
21,0	64,7	43,6	10 300	9 600	9 100	8 500		21,0
22,0	63,3	43,1	9 600	9 000	8 500	8 000		22,0
23,0	61,9	42,6	9 000	8 500	8 000	7 600		23,0
24,0	60,5	42,0	8 400	8 000	7 500	7 100		24,0
25,0	59,0	41,4	7 900	7 500	7 100	6 700		25,0
26,0	57,6	40,8	7 500	7 100	6 700	6 400		26,0
27,0	56,1	40,1	7 000	6 700	6 400	6 000		27,0
28,0	54,5	39,4	6 700	6 300	6 000	5 700		28,0
29,0	53,0	38,7	6 300	6 000	5 700	5 400		29,0
30,0	51,4	37,9	6 000	5 700	5 400	5 200		30,0
31,0	49,8	37,1	5 700	5 400	5 200	4 900		31,0
32,0	48,1	36,2	5 400	5 100	4 900	4 700		32,0
33,0	46,4	35,3	5 100	4 900	4 700	4 500		33,0
34,0	44,7	34,3	4 800	4 600	4 400	4 200		34,0
35,0	42,9	33,2	4 600	4 400	4 200	4 000		35,0
36,0	41,0	32,1	4 400	4 200	4 000	3 900		36,0
37,0	39,0	30,9	4 200	4 000	3 800	3 700		37,0
38,0	37,0	29,6	4 000	3 800	3 700	3 500		38,0
39,0	34,9	28,2	3 800	3 600	3 500	3 400		39,0
40,0	32,6	26,7	3 600	3 500	3 300	3 200		40,0
42,0	27,6	23,2	3 300	3 100	3 000	2 900		42,0
44,0	21,5	18,8	2 900	2 900	2 800	2 700		44,0

MLC90A-1 S-2



33 120 kg
+
10 500 kg



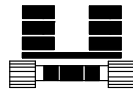
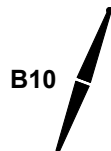
 m	 °	 m	 kg	 kg	 kg	 kg	 kg	 m
			0°	1°	2°	3°		
9,1	80,9	50,5	28 500					9,1
10,0	79,8	50,3	27 800					10,0
11,0	78,7	50,1	25 200	22 400	17 300			11,0
12,0	77,5	49,9	22 300	20 000	17 200	13 600		12,0
13,0	76,3	49,7	19 900	18 100	16 400	13 500		13,0
14,0	75,0	49,4	18 000	16 400	15 000	13 500		14,0
15,0	73,8	49,1	16 300	15 000	13 800	12 700		15,0
16,0	72,6	48,8	15 000	13 800	12 700	11 800		16,0
17,0	71,4	48,5	13 700	12 700	11 800	10 900		17,0
18,0	70,1	48,1	12 700	11 700	10 900	10 200		18,0
19,0	68,9	47,8	11 700	10 900	10 200	9 500		19,0
20,0	67,6	47,3	10 900	10 200	9 500	8 900		20,0
21,0	66,4	46,9	10 100	9 500	8 900	8 300		21,0
22,0	65,1	46,5	9 500	8 900	8 300	7 800		22,0
23,0	63,8	46,0	8 900	8 300	7 800	7 400		23,0
24,0	62,5	45,5	8 300	7 800	7 400	7 000		24,0
25,0	61,1	44,9	7 800	7 400	7 000	6 600		25,0
26,0	59,8	44,3	7 400	6 900	6 600	6 200		26,0
27,0	58,4	43,7	6 900	6 600	6 200	5 900		27,0
28,0	57,0	43,1	6 600	6 200	5 900	5 600		28,0
29,0	55,6	42,4	6 200	5 900	5 600	5 300		29,0
30,0	54,2	41,7	5 900	5 600	5 300	5 000		30,0
31,0	52,7	41,0	5 500	5 300	5 000	4 800		31,0
32,0	51,2	40,2	5 200	5 000	4 700	4 500		32,0
33,0	49,7	39,3	5 000	4 700	4 500	4 300		33,0
34,0	48,1	38,5	4 700	4 500	4 300	4 100		34,0
35,0	46,6	37,5	4 500	4 300	4 100	3 900		35,0
36,0	44,9	36,6	4 300	4 100	3 900	3 700		36,0
37,0	43,2	35,5	4 000	3 900	3 700	3 500		37,0
38,0	41,5	34,4	3 800	3 700	3 500	3 400		38,0
39,0	39,7	33,2	3 700	3 500	3 300	3 200		39,0
40,0	37,8	32,0	3 500	3 300	3 200	3 000		40,0
42,0	33,8	29,2	3 100	3 000	2 900	2 800		42,0
44,0	29,3	25,9	2 800	2 700	2 600	2 500		44,0
46,0	24,0	21,8	2 500	2 500	2 400	2 300		46,0

MLC90A-1 S-2



 m	 °	 m	 kg	 kg	 kg	 kg	 kg	 m
			0°	1°	2°	3°		
9,8	80,7	53,4	24 100					9,8
10,0	80,4	53,4	23 900					10,0
11,0	79,3	53,2	23 400	20 000				11,0
12,0	78,2	53,0	22 100	19 600	14 900			12,0
13,0	77,1	52,7	19 900	17 900	14 800	11 700		13,0
14,0	75,9	52,5	17 900	16 200	14 700	11 600		14,0
15,0	74,8	52,2	16 300	14 800	13 600	11 600		15,0
16,0	73,6	51,9	14 900	13 600	12 500	11 200		16,0
17,0	72,5	51,6	13 600	12 500	11 600	10 700		17,0
18,0	71,3	51,3	12 600	11 600	10 700	10 000		18,0
19,0	70,2	50,9	11 600	10 800	10 000	9 300		19,0
20,0	69,0	50,6	10 800	10 000	9 300	8 700		20,0
21,0	67,8	50,2	10 100	9 400	8 700	8 200		21,0
22,0	66,6	49,7	9 400	8 800	8 200	7 700		22,0
23,0	65,4	49,3	8 800	8 200	7 700	7 200		23,0
24,0	64,2	48,8	8 200	7 700	7 200	6 800		24,0
25,0	62,9	48,3	7 700	7 300	6 800	6 400		25,0
26,0	61,7	47,8	7 300	6 800	6 400	6 100		26,0
27,0	60,4	47,2	6 900	6 500	6 100	5 700		27,0
28,0	59,1	46,6	6 500	6 100	5 800	5 400		28,0
29,0	57,8	46,0	6 100	5 800	5 400	5 100		29,0
30,0	56,5	45,4	5 800	5 500	5 200	4 900		30,0
31,0	55,2	44,7	5 500	5 200	4 900	4 600		31,0
32,0	53,8	44,0	5 200	4 900	4 600	4 400		32,0
33,0	52,5	43,2	4 900	4 600	4 400	4 200		33,0
34,0	51,0	42,4	4 600	4 400	4 200	4 000		34,0
35,0	49,6	41,6	4 400	4 200	4 000	3 800		35,0
36,0	48,1	40,7	4 200	4 000	3 800	3 600		36,0
37,0	46,6	39,8	4 000	3 800	3 600	3 400		37,0
38,0	45,1	38,8	3 800	3 600	3 400	3 200		38,0
39,0	43,5	37,7	3 600	3 400	3 200	3 100		39,0
40,0	41,9	36,7	3 400	3 200	3 100	2 900		40,0
42,0	38,4	34,3	3 100	2 900	2 800	2 700		42,0
44,0	34,7	31,5	2 800	2 600	2 500	2 400		44,0
46,0	30,6	28,4	2 500	2 400	2 300	2 200		46,0
48,0	25,9	24,6	2 200	2 100	2 100	2 000		48,0

MLC90A-1 S-2



33 120 kg
+
10 500 kg



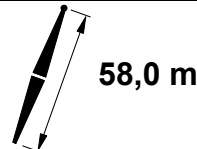
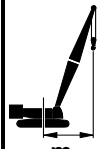


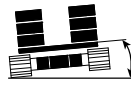
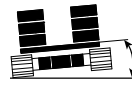
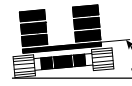
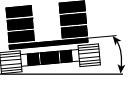

m	°	m	kg	kg	kg	kg	m	
10,4	80,6	56,3	20 800					10,4
11,0	79,9	56,2	20 500	17 500				11,0
12,0	78,8	56,0	20 100	17 400				12,0
13,0	77,8	55,8	19 400	17 200	13 000	10 100		13,0
14,0	76,7	55,6	17 800	16 000	12 900	10 100		14,0
15,0	75,6	55,3	16 200	14 600	12 800	10 000		15,0
16,0	74,5	55,1	14 800	13 500	12 200	10 000		16,0
17,0	73,5	54,8	13 500	12 400	11 400	9 900		17,0
18,0	72,4	54,4	12 500	11 500	10 600	9 600		18,0
19,0	71,3	54,1	11 500	10 600	9 800	9 100		19,0
20,0	70,2	53,8	10 700	9 900	9 200	8 500		20,0
21,0	69,1	53,4	10 000	9 200	8 600	8 000		21,0
22,0	67,9	53,0	9 300	8 600	8 000	7 500		22,0
23,0	66,8	52,6	8 700	8 100	7 500	7 000		23,0
24,0	65,7	52,1	8 100	7 600	7 100	6 600		24,0
25,0	64,5	51,6	7 600	7 100	6 700	6 200		25,0
26,0	63,3	51,2	7 200	6 700	6 300	5 900		26,0
27,0	62,2	50,6	6 700	6 300	5 900	5 600		27,0
28,0	61,0	50,1	6 400	6 000	5 600	5 300		28,0
29,0	59,8	49,5	6 000	5 600	5 300	5 000		29,0
30,0	58,6	48,9	5 700	5 300	5 000	4 700		30,0
31,0	57,3	48,3	5 400	5 000	4 700	4 500		31,0
32,0	56,1	47,6	5 100	4 800	4 500	4 200		32,0
33,0	54,8	46,9	4 800	4 500	4 300	4 000		33,0
34,0	53,5	46,2	4 500	4 300	4 000	3 800		34,0
35,0	52,2	45,4	4 300	4 100	3 800	3 600		35,0
36,0	50,9	44,6	4 100	3 800	3 600	3 400		36,0
37,0	49,5	43,8	3 900	3 600	3 400	3 300		37,0
38,0	48,1	42,9	3 700	3 500	3 300	3 100		38,0
39,0	46,7	42,0	3 500	3 300	3 100	2 900		39,0
40,0	45,3	41,0	3 300	3 100	2 900	2 800		40,0
42,0	42,2	38,9	3 000	2 800	2 700	2 500		42,0
44,0	39,0	36,5	2 700	2 500	2 400	2 300		44,0
46,0	35,5	33,9	2 400	2 300	2 100	2 000		46,0
48,0	31,8	30,9	2 100	2 000	1 900	1 800		48,0
50,0	27,5	27,3	1 900	1 800	1 700			50,0

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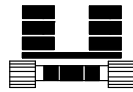
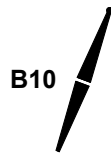



33 120 kg
+ 10 500 kg



								
 m	 °	 m	 0° kg	 1° kg	 2° kg	 3° kg	 m	
11,0	80,5	59,3	19 700					11,0
12,0	79,4	59,1	19 300	15 300				12,0
13,0	78,4	58,9	18 900	15 300	11 400			13,0
14,0	77,4	58,7	17 700	15 200	11 400	8 800		14,0
15,0	76,4	58,4	16 000	14 500	11 400	8 800		15,0
16,0	75,4	58,2	14 700	13 300	11 300	8 700		16,0
17,0	74,3	57,9	13 400	12 200	11 100	8 700		17,0
18,0	73,3	57,6	12 400	11 300	10 300	8 700		18,0
19,0	72,3	57,3	11 400	10 500	9 600	8 500		19,0
20,0	71,2	57,0	10 600	9 700	9 000	8 300		20,0
21,0	70,2	56,6	9 800	9 100	8 400	7 800		21,0
22,0	69,1	56,2	9 200	8 500	7 800	7 300		22,0
23,0	68,1	55,8	8 600	7 900	7 400	6 800		23,0
24,0	67,0	55,4	8 000	7 400	6 900	6 400		24,0
25,0	65,9	55,0	7 500	7 000	6 500	6 000		25,0
26,0	64,8	54,5	7 000	6 600	6 100	5 700		26,0
27,0	63,7	54,0	6 600	6 200	5 800	5 400		27,0
28,0	62,6	53,5	6 200	5 800	5 400	5 100		28,0
29,0	61,5	53,0	5 900	5 500	5 100	4 800		29,0
30,0	60,4	52,4	5 500	5 200	4 800	4 500		30,0
31,0	59,2	51,8	5 200	4 900	4 600	4 300		31,0
32,0	58,1	51,2	4 900	4 600	4 300	4 100		32,0
33,0	56,9	50,6	4 700	4 400	4 100	3 800		33,0
34,0	55,7	49,9	4 400	4 100	3 900	3 600		34,0
35,0	54,5	49,2	4 200	3 900	3 700	3 400		35,0
36,0	53,3	48,5	3 900	3 700	3 500	3 300		36,0
37,0	52,0	47,7	3 700	3 500	3 300	3 100		37,0
38,0	50,8	46,9	3 500	3 300	3 100	2 900		38,0
39,0	49,5	46,0	3 300	3 100	3 000	2 800		39,0
40,0	48,1	45,2	3 200	3 000	2 800	2 600		40,0
42,0	45,4	43,3	2 800	2 700	2 500	2 300		42,0
44,0	42,6	41,2	2 500	2 400	2 200	2 100		44,0
46,0	39,5	38,9	2 200	2 100	2 000	1 900		46,0
48,0	36,3	36,3	2 000	1 900	1 800			48,0
50,0	32,8	33,4	1 800					50,0

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33 120 kg
+
10 500 kg



m	°	m	kg	kg	kg	kg	kg	m
11,0	80,9	62,3	17 600					11,0
12,0	79,9	62,1	17 200					12,0
13,0	79,0	61,9	16 900	13 400				13,0
14,0	78,0	61,7	16 500	13 400	10 000			14,0
15,0	77,1	61,5	15 800	13 300	10 000	7 600		15,0
16,0	76,1	61,3	14 600	12 800	9 900	7 600		16,0
17,0	75,1	61,0	13 300	12 000	9 900	7 600		17,0
18,0	74,2	60,7	12 200	11 100	9 900	7 500		18,0
19,0	73,2	60,4	11 300	10 300	9 400	7 500		19,0
20,0	72,2	60,1	10 500	9 600	8 800	7 500		20,0
21,0	71,2	59,8	9 700	8 900	8 200	7 400		21,0
22,0	70,2	59,4	9 000	8 300	7 700	7 100		22,0
23,0	69,2	59,1	8 400	7 800	7 200	6 600		23,0
24,0	68,2	58,7	7 900	7 300	6 700	6 200		24,0
25,0	67,2	58,2	7 400	6 800	6 300	5 900		25,0
26,0	66,2	57,8	6 900	6 400	5 900	5 500		26,0
27,0	65,1	57,3	6 500	6 000	5 600	5 200		27,0
28,0	64,1	56,9	6 100	5 700	5 300	4 900		28,0
29,0	63,0	56,4	5 700	5 300	5 000	4 600		29,0
30,0	62,0	55,8	5 400	5 000	4 700	4 400		30,0
31,0	60,9	55,3	5 100	4 700	4 400	4 100		31,0
32,0	59,8	54,7	4 800	4 500	4 200	3 900		32,0
33,0	58,7	54,1	4 500	4 200	3 900	3 700		33,0
34,0	57,6	53,5	4 300	4 000	3 700	3 500		34,0
35,0	56,5	52,8	4 000	3 800	3 500	3 300		35,0
36,0	55,3	52,2	3 800	3 600	3 300	3 100		36,0
37,0	54,2	51,4	3 600	3 400	3 100	2 900		37,0
38,0	53,0	50,7	3 400	3 200	3 000	2 800		38,0
39,0	51,8	49,9	3 200	3 000	2 800	2 600		39,0
40,0	50,6	49,1	3 000	2 800	2 600	2 500		40,0
42,0	48,1	47,4	2 700	2 500	2 300	2 200		42,0
44,0	45,6	45,5	2 400	2 200	2 100	1 900		44,0
46,0	42,8	43,4	2 100	2 000	1 800			46,0
48,0	40,0	41,1	1 900					48,0