BAUER MC 76

Duty-Cycle Crane

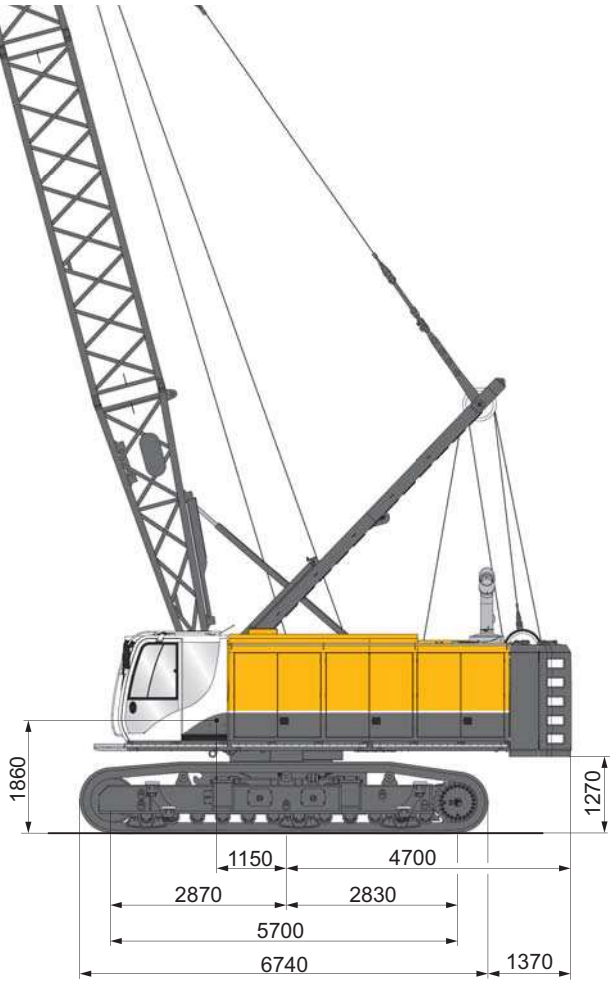
MC Line

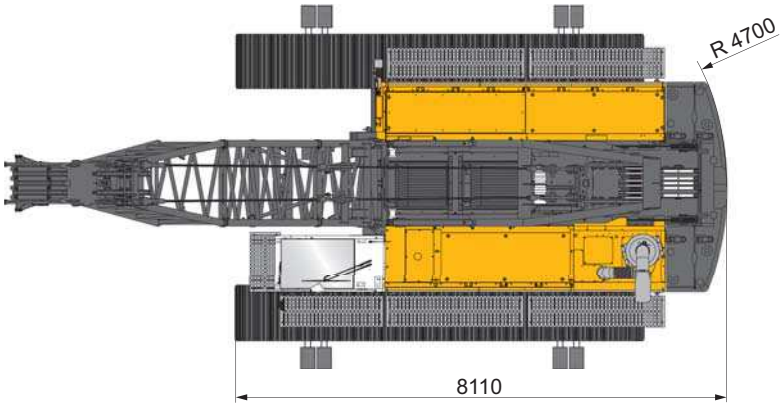
Energy-Efficient PowerEEP

BAUER

Courtesy of CraneMarket.com

Dimensions of Base Machine





Operating Weight
with HD undercarriage, 800 mm track shoes, upper carriage with 2 hoist winches and wire ropes, operating equipment
25 t standard counterweight, 18.4 m basic boom including A-frame, boom hoist, roller block, hoist rope, boom bottom piece, 6 m boom insert, boom top, guy ropes and roller head, 100 t hook block

Total weight **approx. 99 t**

Engine

CAT diesel engine	C 18	Twin-Turbo	Twin-Turbo	Turbo
Nominal output	kW	570	563	470
Operating speed	U/min	1,850	1,850	1,850
Exhaust emission standard				
EPA/CARB		Tier 2	Tier 4 final	Tier 4 final
CE			St. V ready	Stage IV St. V ready
				QPME ready
Diesel tank volume	l	1,000	1,000	1,000

Swing Gear

Slew ring driven by axial piston motor and planetary gear
- Slewing and dynamic braking in closed circuit for sensitive control
- Rotational speed can be pre-selected in stages up to 3 rpm
- Hydraulically activated multiple disk holding brake
- Extra large slewing ring, externally toothed
- Low-maintenance slew gear

Hydraulic System

Modern, high-performance hydraulic system with energy-saving flow control on demand and power management system in multiple-circuit technology

Flow Rates	
Main circuits for duty-cycle applications	2 x 430 l/min
Main winch circuits	2 x 400 l/min
Additional circuit	1 x 328 l/min
Swing-gear circuit	1 x 204 l/min
Hydraulic pressure	350 bar
Hydraulic tank capacity	1,000 l

- Closed circuits for the main winches
- Open hydraulic circuits for additional consumers (optional)
- Closed hydraulic system for slewing gear
- Additional gear pumps for cooling and control systems
- Electro-hydraulic pilot control
- Cleaning of the hydraulic oil by means of large-dimensioned return oil filters, leak oil filters and pressure filters in the pilot control system
- Cooling system with high power reserves for working under permanent load even when subjected to unfavorable climatic conditions

Load Hoist Assemblies

Low-maintenance, compact duty-cycle crane winches, powered by controlled hydraulic adjustable motors via integrated planetary gears

	Hoisting Winch	Free-fall Winch
Main winch 1	250 kN	300 kN
Main winch 2	250 kN	300 kN
Rope capacity Layer 1	50 m	38 m
Layer 1 - 2	112 m	87 m
Layer 1 - 3	178 m	139 m
Layer 1 - 4		195 m
Rope diameter	32 mm	34 mm
Drum diameter	800 mm	760 mm
Max. rope speed	94.3 m/min	103 m/min

Boom Hoist Assembly

Adjustment via winch	
Line pull of boom hoist winch	approx. 120 kN
Rope diameter	22 mm

Upper Carriage

Modular, torsion-resistant, precision welded construction, designed for high continuous load, pre-equipped for additional applications
- Variable counterweight concept, simple mounting/removal system for easy transport
- 4 headlights distributed on the upper carriage
- Walkways to the front and side of the cab
- Excellent accessibility of all major components for service procedures

Standard counterweight: 2-part	2 x 12.5 t
Additional counterweight	5.0 t

Undercarriage

Rigid fully hydraulic crawler undercarriage with adjustable tracks
- 4 access ladders on the crawler, either mountable on the inside or on the outside

Type	UW 110
Travel speed	approx. 1.25 km/h
Crawler type	B 7
Track shoe width	800 mm
Track width (retracted/extended)	2,580/4,160 mm
Crawler width (retracted/extended)	3,380/4,960 mm
Crawler length	6,740 mm

Control System

- Programmable microprocessor control system (PLC) with electro-proportional control for high adaptable operation
- Clearly arranged control panel for rig functions, located to the right-hand side of the operator's seat
- B-Tronic (electronic control, monitoring and visualization system)
  - Large, bright and non-glare LCD color display
  - Clearly arranged display of the relevant machine and process parameters
  - Optimum positioning of the screen thanks to an individual adjustment system
- Two joysticks on the operator's seat for all functions or double-T control lever for rope grab operation
- Two foot pedals for controlling the crawler

Boom

Robust tubular lattice boom with thick walled boom tubes, specifically designed for applications in specialist foundation engineering where high dynamic loads occur

- Basic boom consists of an A-frame, hoist winch, hoist rope, boom butt
- The boom is designed for use with Bauer hose drum systems
- Boom extensions and boom head according to the application

Operator's Cab

- Comfort cab, FOPS-certified
- Resiliently mounted, with exceptional sound suppression
- Excellent all-round visibility
- All weather design with safety glass
- Front windshield made of laminated safety glass
- Tinted glass (except front windshield)
- Sliding door with sliding window
- Large skylight window (bullet-proof glass)
- Wiper/washer system for front windshield and skylight
- Sun-blind
- Comfortable, mechanically sprung operator's seat
  - Weight and height adjustable
  - Inclination adjustment
  - Horizontally adjustable
  - Headrest and adjustable armrests
- Infinitely variable cab heating system
- Air conditioning system
- First aid box on the operator's seat
- Radio with CD player in the operator's cab

Energy-Efficient Power EEP

The EEP package contains the following modifications:

- Variable and intelligent cooler and fan control
- Reduction in flow rate losses as a result of optimized hydraulic components
- Smart ECO mode of the diesel engine
- Closed hydraulic circuits for main winch operation

Optional Equipment

- Rope pressure rollers for main winches
- Tensile load measurement via redundant load measuring sockets
- Winch synchronization for main winches
- Electronic load moment limitation for hoisting device operation, user interface (integrated in B-Tronic)
- Different roller heads for various applications
- Front windshield can be fully retracted underneath the cab roof
- Set of ropes for different applications
- Hydraulic and electronic equipment kits for various applications such as two rope grabs, hanging leaders, hydraulic hammers, depth vibrators and rotary heads
- Quick connection system for the crawlers with hydraulic quick couplings, assembling tool and lifting gear
- Rope pulling-in winch
- Fully hydraulic cylinders for self-lowering and mounting counterweights, individually controllable
- Automatic climate control
- Cab heater with timer
- Electric fuel pump for diesel tank
- Aircraft warning light
- Wind gauge
- Bauer GCS (data acquisition system for hydraulic grabs)
- Central lubrication system
- Additional counterweight for various types of application
- Adapter on undercarriage for Bauer casing oscillator
- Camera system with on-screen display in the cab
- Walkways on both sides of the upper carriage
- Access ladder to the roof of the upper carriage
- Stone guard
- Special coating available on customer request
- Sun protection systems for various types of application
- Fly jib
- Working at height system for boom walkway (patented)
- Hydraulic counterweight safety device
- On top handrails – upper carriage
- Working at height package with handrails
- Swing angle indicator
- Swing angle limitation
- Boom angle limitation
- Monitored rope anchorage with overload protection (patented)
- Muffler kit
- Cooling package
- Additional air conditioning system
- Fire extinguishing system
- DTR module
- High-pressure cleaner
- Rear frame for additional power packs

Duty-Cycle Crane Operation

Boom lengths from 18.4 m to 33.4 m, 300 kN winch, loads in t

with 25 t counterweight	with 30 t counterweight

Operating radius r (m)	Boom length (m)											
	18.4		21.4		24.4		27.4		30.4		33.4	
6.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
7.0	43.0	43.0	43.0	43.0	42.5	43.0	41.5	43.0	40.4	43.0	39.3	43.0
8.0	36.1	40.2	35.4	39.4	34.5	38.6	33.6	37.7	32.7	36.7	31.7	35.8
9.0	30.3	33.8	29.6	33.1	28.8	32.3	28.1	31.5	27.2	30.7	26.3	29.8
10.0	26.0	29.1	25.4	28.4	24.6	27.7	23.9	27.0	23.1	26.2	22.3	25.4
11.0	22.7	25.4	22.1	24.8	21.4	24.1	20.7	23.4	20.0	22.7	19.2	21.9
12.0	20.0	22.4	19.4	21.9	18.8	21.3	18.2	20.6	17.5	19.9	16.8	19.2
13.0	17.9	20.1	17.3	19.5	16.7	18.9	16.1	18.3	15.5	17.7	14.8	17.0
14.0	16.1	18.1	15.6	17.6	15.0	17.0	14.4	16.4	13.8	15.8	13.1	15.1
15.0	14.6	16.4	14.1	15.9	13.5	15.4	13.0	14.8	12.4	14.2	11.7	13.6
16.0	13.3	15.0	12.8	14.5	12.3	14.0	11.7	13.4	11.1	12.9	10.5	12.3
17.0			11.7	13.3	11.2	12.8	10.7	12.3	10.1	11.7	9.5	11.1
18.0			10.8	12.3	10.3	11.8	9.7	11.2	9.2	10.7	8.6	10.1
19.0			9.9	11.3	9.4	10.9	8.9	10.3	8.4	9.8	7.8	9.3
20.0			9.2	10.5	8.7	10.1	8.2	9.5	7.7	9.0	7.2	8.5
21.0					8.1	9.3	7.6	8.8	7.1	8.3	6.5	7.8
22.0					7.5	8.7	7.0	8.2	6.5	7.7	6.0	7.2
23.0					7.0	8.1	6.5	7.6	6.0	7.1	5.5	6.6

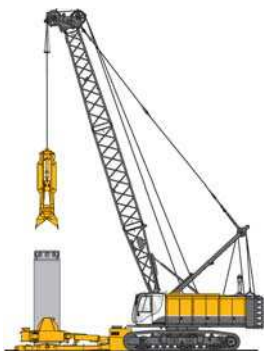
Notes:

1. The specified loads are maximum values and must not be exceeded.
2. The rated loads are valid for a planar, firm plane.
3. The rated loads are valid for a 360° swing angle.
4. The rated loads are valid for maximum undercarriage track width.
5. The rated loads do not exceed 75 % of the tipping load.
6. The weights of lifting accessories and ropes are part of the permissible total load.
7. When lifting loads that exceed the maximum pulling force of a winch, it must be ensured that no single winch is overloaded.
8. During operation with a mechanical two-rope grab, the maximum pulling force of a single winch – considering the rope layer – must not be exceeded.
9. The specified values are for information purposes only. The actual values can be found in the documentation supplied with the machine.

for two-rope grab operation with mechanical grabs

Diaphragm wall grab

Two-rope grab

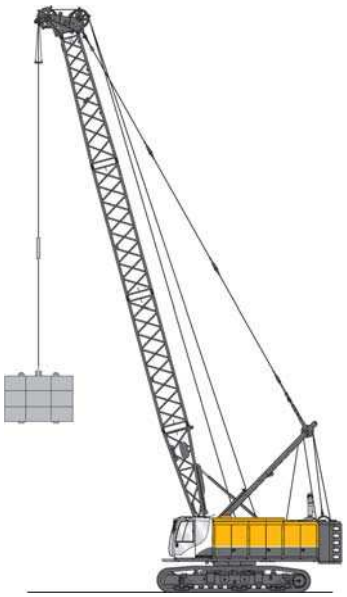


Grab and casing oscillator

Bauer Dynamic Compaction (BDC)

30 t counterweight, boom lengths from 21.4 m to 36.4 m, 300 kN winch, loads in t

Operating radius r (m)	Boom length (m)					
	21.4	24.4	27.4	30.4	33.4	36.4
8	38.2	36.8	35.8	34.9	34.2	33.6
9	34.7	33.6	32.5	31.7	31.1	30.5
10	30.3	29.8	29.4	28.9	28.3	27.7
11	26.4	26.0	25.5	25.1	24.5	24.0
12	23.3	22.9	22.5	22.0	21.5	21.0

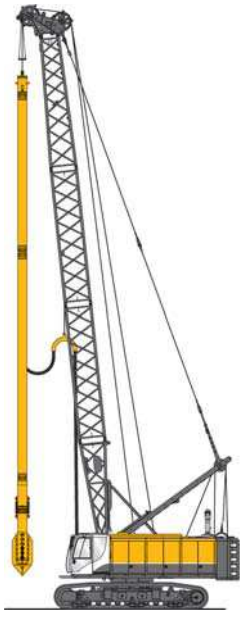


Notes:
1. The rated loads are valid for a planar, firm plane.
2. The rated loads are valid for a 360° swing angle.
3. The rated loads are valid for maximum undercarriage track width.
4. The rated loads do not exceed 75 % of the tipping load.
5. The weights of lifting accessories and ropes are part of the permissible total load.
6. The specified values are for information purposes only. The actual values can be found in the documentation supplied with the machine.

Equipment with Depth Vibrator TR 75 – RDV

25 t counterweight, main winch 300 kN single reeved (double strand) over masthead

	Boom length (m)				
	21.4	24.4	27.4	30.4	33.4
Penetration depth (m)	Max. permissible operating radius (m)*				
15.2	8 - 12				
18.7		8 - 11			
21.7			8 - 10		
24.7				8 - 10	
27.2					8 - 10



Notes:
1. The rated loads are valid for a planar, firm plane.
2. The rated loads are valid for a 360° swing angle.
3. The rated loads are valid for maximum undercarriage track width.
4. When the depth vibrator is not being used, it is to be placed on the ground.
5. The specified values are for information purposes only. The actual values can be found in the documentation supplied with the machine.

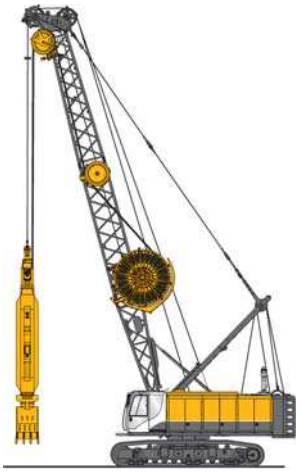
* max. operating radius limited by vibrator length / boom length

DHG Operation

Boom length 18.4 m, 300 kN winch, loads in t

Operating radius r (m)	Load with	
	25 t counterweight	30 t counterweight
4.2	25.0	33.0 (35.0*)
4.5	25.0	33.0 (35.0*)
5.0	25.0	33.0
5.5	25.0	31.8
6.0	25.0	29.1
6.5	25.0	26.9
7.0	23.2	25.0

Notes:
1. The rated loads are valid for a planar, firm plane.
2. The rated loads are valid for a 360° swing angle.
3. The rated loads are valid for maximum undercarriage track width.
4. The rated loads do not exceed 75% of the tipping load.
5. The weights of lifting accessories and ropes are part of the permissible total load.
6. Values designated with an * are valid for grabs suspended via a rope sheave.
7. The specified values are for information purposes only. The actual values can be found in the documentation supplied with the machine.



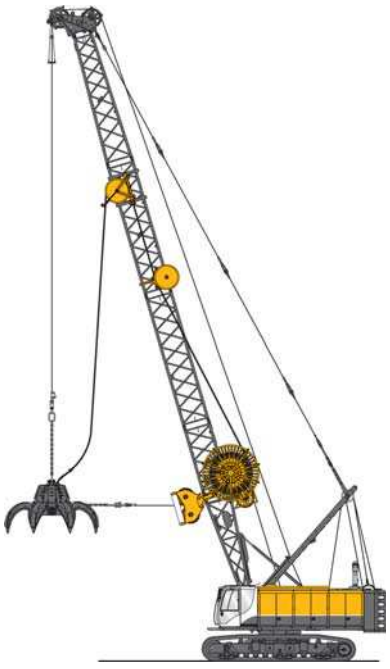
Hydraulic grab DHG with hose drum system HDSG 50/HDSG 80

MHG Operation with Hoisting Rope and Holding Rope

Boom length 27.4 m, 300 kN winch, loads in t

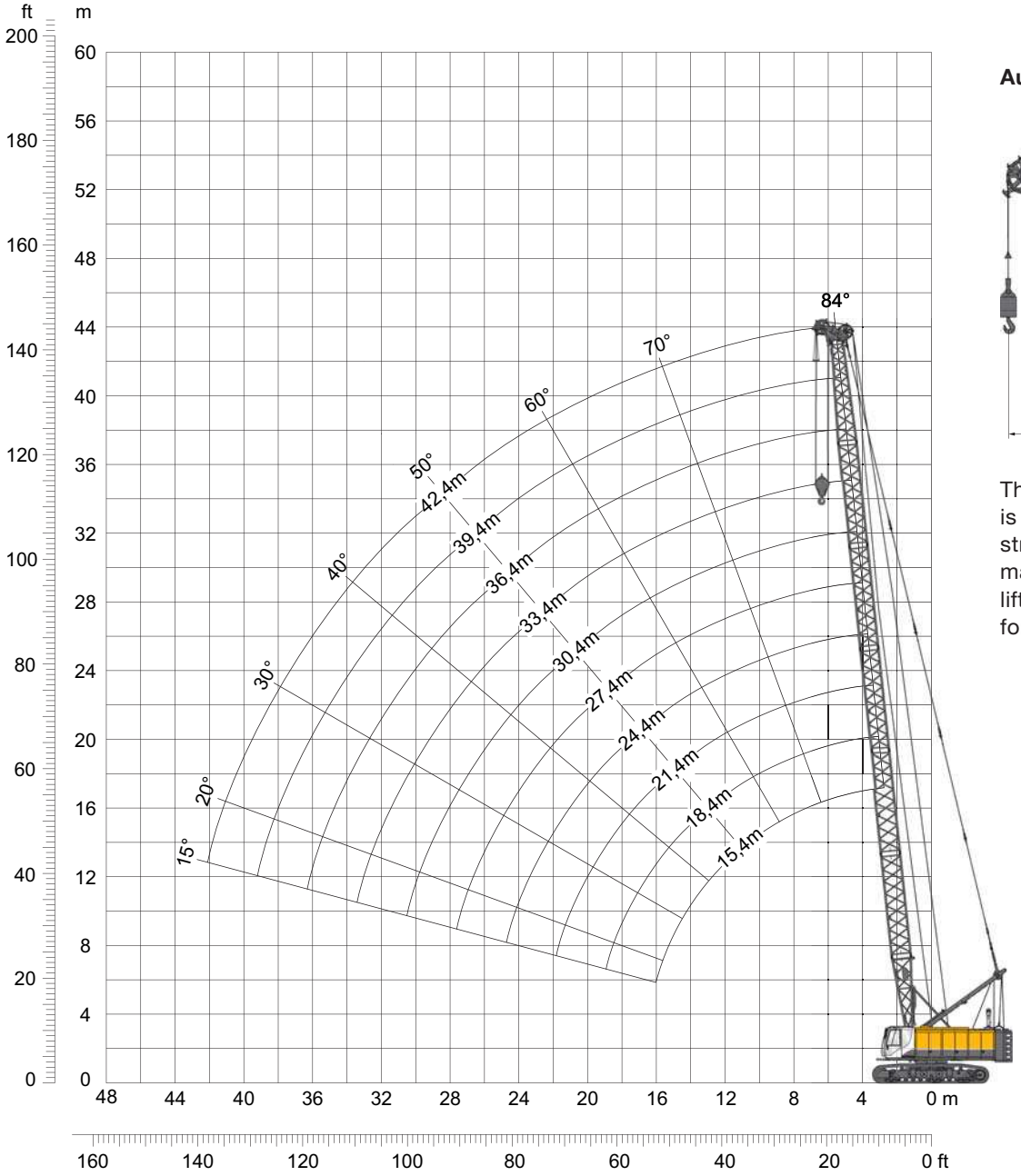
Operating radius r (m)	Load with 25 t counterweight
6.0	25.0
8.0	25.0
10.0	19.0
12.0	12.0
14.0	9.4
16.0	8.0

Notes:
1. The rated loads are valid for a planar, firm plane.
2. The rated loads are valid for a 360° swing angle.
3. The rated loads are valid for maximum undercarriage track width.
4. The rated loads do not exceed 66 % of the tipping load.
5. The weights of lifting accessories and ropes are part of the permissible total load.
6. The hose drum system is designed for a grabbing depth of 20 m under the working platform.
7. The specified values are for information purposes only. The actual values can be found in the documentation supplied with the machine.

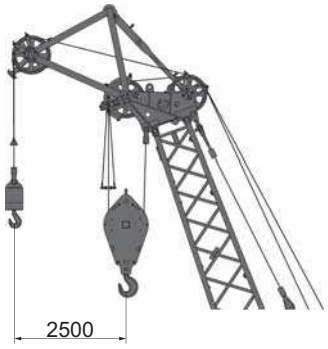


Hydraulic grab MHG with hose drum system HDSG

Lifting Operation



Auxiliary Jib



The optional auxiliary jib is designed for single strand operation up to max. 35 t. Conditions for lifting operations apply for rated loads.

Boom Configurations

	Length (m)	Boom total length (m)								
		18.4	21.4	24.4	27.4	30.4	33.4	36.4	39.4	42.4
Boom butt	**5.6**	1	1	1	1	1	1	1	1	1
Boom section	**3.0**		1		1		1		1	
Boom section	**6.0**	1	1	2	2	3	3	4	4	5
Boom top	**5.9**	1	1	1	1	1	1	1	1	1
Roller head	**0.9**	1	1	1	1	1	1	1	1	1

Lifting Operation

25 t counterweight, boom lengths from 18.4 m to 39.4 m, 300 kN winches, loads in t

Operating radius r (m)	Boom length (m)							
	18.4	21.4	24.4	27.4	30.4	33.4	36.4	39.4
3.8	90.0							
4.0	90.0							
4.1		84.0						
4.4			72.4					
4.8				63.5				
5.0	70.2	66.5	63.1	59.9	56.2			
5.4						50.3		
5.7							42.5	
6.0	56.0	53.5	51.0	48.8	46.6	44.7	41.5	38.1
7.0	46.4	44.5	42.7	40.9	39.3	37.7	36.2	34.8
8.0	39.3	37.9	36.5	35.1	33.7	32.4	31.2	29.9
9.0	33.1	32.9	31.6	30.5	29.4	28.2	27.2	26.1
10.0	28.3	28.1	27.8	26.8	25.9	24.9	24.0	23.1
11.0	24.6	24.4	24.2	23.8	23.0	22.1	21.4	20.5
12.0	21.7	21.5	21.3	21.1	20.6	19.9	19.1	18.3
13.0	19.2	19.0	18.9	18.6	18.4	17.9	17.2	16.4
14.0	17.2	17.0	16.9	16.6	16.4	16.2	15.6	14.9
15.0	15.5	15.3	15.2	14.9	14.7	14.4	14.1	13.4
16.0	14.1	13.9	13.7	13.5	13.3	12.9	12.7	12.2
17.0	12.7	12.6	12.4	12.2	12.0	11.7	11.5	11.1
18.0	11.6	11.5	11.3	11.1	10.9	10.5	10.4	10.0
19.0	10.5	10.5	10.4	10.1	9.9	9.6	9.4	9.0
20.0		9.6	9.5	9.2	9.0	8.7	8.5	8.2
21.0		8.8	8.7	8.5	8.2	7.9	7.7	7.4
22.0		8.0	8.0	7.7	7.5	7.2	7.0	6.6
23.0			7.3	7.1	6.9	6.6	6.3	6.0
24.0			6.7	6.5	6.3	6.0	5.7	5.4
25.0				5.9	5.7	5.4	5.2	4.9
26.0				5.4	5.2	4.9	4.7	4.4
27.0				4.9	4.8	4.5	4.2	3.9
28.0					4.3	4.0	3.8	3.5
29.0					3.9	3.6	3.4	3.1
30.0					3.6	3.3	3.1	2.7
31.0						2.9	2.7	2.4
32.0						2.6	2.4	2.1
33.0						2.3	2.1	1.8
34.0							1.8	1.5
35.0							1.5	1.2
36.0							1.3	1.0
37.0								
38.0								

Notes:

1. The rated loads are determined acc. to EN 13000.
2. The rated loads are valid for a planar, firm plane.
3. The rated loads are valid for a 360° swing angle.
4. The rated loads are valid for maximum undercarriage track width.
5. Steel structures are designed acc. to EN 13001.
6. The weights of lifting accessories and ropes are part of the permissible total load.
7. When travelling with a load, the rated load must be reduced.
8. The specified values are for information purposes only. The actual values can be found in the documentation supplied with the machine.

Lifting Operation

30 t counterweight, boom lengths from 18.4 m to 42.4 m, 300 kN winches, loads in t

Operating radius r (m)	Boom length (m)								
	18.4	21.4	24.4	27.4	30.4	33.4	36.4	39.4	42.4
3.8	90.0								
4.0	90.0								
4.1		88.5							
4.4			79.5						
4.8				69.7					
5.0	77.0	73.1	69.4	65.9	61.9				
5.4						55.4			
5.7							42.7		
6.0	61.7	58.8	56.2	53.8	51.5	49.3	41.7	38.1	
6.3									34.3
7.0	51.1	49.0	47.0	45.2	43.4	41.7	38.7	35.4	32.8
8.0	43.4	41.8	40.3	38.8	37.3	35.9	34.7	33.0	30.6
9.0	36.6	36.3	35.1	33.8	32.6	31.4	30.3	29.2	28.1
10.0	31.4	31.2	31.0	29.8	28.8	27.7	26.8	25.7	24.9
11.0	27.3	27.2	27.0	26.6	25.7	24.8	23.9	23.0	22.1
12.0	24.0	23.9	23.8	23.5	23.1	22.2	21.5	20.6	19.9
13.0	21.5	21.3	21.1	20.9	20.6	20.1	19.4	18.6	18.0
14.0	19.2	19.1	18.9	18.6	18.4	18.1	17.6	16.9	16.2
15.0	17.4	17.2	17.0	16.8	16.6	16.3	16.1	15.4	14.7
16.0	15.8	15.6	15.5	15.2	15.0	14.7	14.4	14.1	13.5
17.0	14.3	14.3	14.1	13.8	13.6	13.3	13.1	12.8	12.3
18.0	13.1	13.0	12.8	12.6	12.4	12.1	11.9	11.6	11.2
19.0	12.0	11.9	11.8	11.5	11.3	11.0	10.8	10.5	10.3
20.0		10.9	10.8	10.5	10.4	10.1	9.9	9.5	9.3
21.0		10.1	10.0	9.7	9.5	9.2	9.0	8.6	8.4
22.0		9.2	9.2	8.9	8.7	8.5	8.2	7.9	7.7
23.0			8.5	8.3	8.1	7.8	7.5	7.2	6.9
24.0			7.8	7.6	7.4	7.1	6.9	6.6	6.3
25.0				7.0	6.8	6.5	6.3	6.0	5.7
26.0				6.5	6.3	6.0	5.8	5.4	5.2
27.0				6.0	5.8	5.5	5.3	4.9	4.7
28.0					5.3	5.0	4.8	4.5	4.2
29.0					4.9	4.6	4.4	4.0	3.8
30.0					4.5	4.2	4.0	3.6	3.4
31.0						3.8	3.6	3.3	3.0
32.0						3.4	3.2	2.9	2.7
33.0						3.1	2.9	2.6	2.3
34.0							2.6	2.3	2.0
35.0							2.3	2.0	1.7
36.0							2.0	1.7	1.5
37.0								1.4	1.2
38.0								1.2	

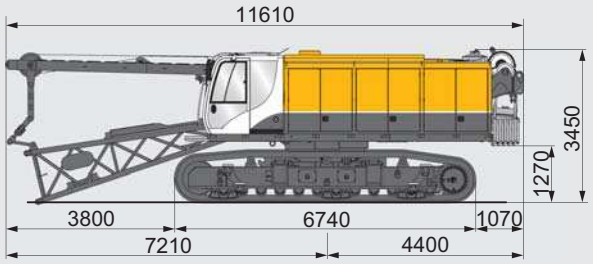
Notes:

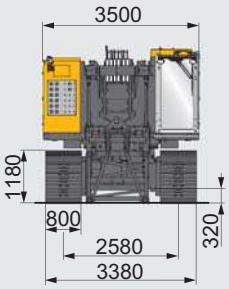
1. The rated loads are determined acc. to EN 13000.
2. The rated loads are valid for a planar, firm plane.
3. The rated loads are valid for a 360° swing angle.
4. The rated loads are valid for maximum undercarriage track width.
5. Steel structures are designed acc. to EN 13001.
6. The weights of lifting accessories and ropes are part of the permissible total load.
7. When travelling with a load, the rated load must be reduced.
8. The specified values are for information purposes only. The actual values can be found in the documentation supplied with the machine.

Transport – Dimensions and Weights

Base Machine

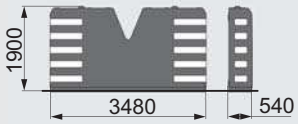
G = 67.3 t



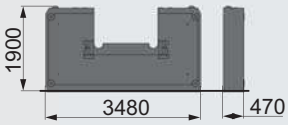


Counterweights

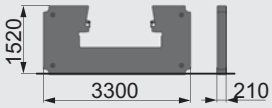
Standard Counterweight 1
G = 12.5 t



Standard Counterweight 2
G = 12.5 t

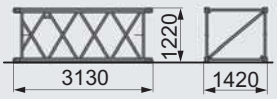


Additional Counterweight
G = 5 t

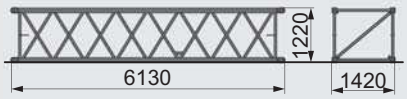


Boom Components

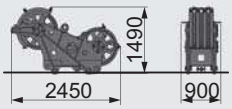
Boom Section 3 m
G = 1 t



Boom Section 6 m
G = 1.6 t



Roller Head
G = 2 t



Boom Top
G = 1.3 t

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