

GROVE®

TMC750 Product Guide



 75 t

 48 m

 10,5 - 17,5 m

 65,7 m

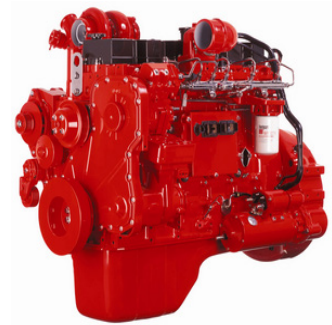
GROVE TMC750

48 m Strong, Swift 75 t Lifter



Features

- > Very compact dimensions and all equipment on board guarantee a fast set-up and immediate readiness even on tight jobsites. The TMC750 features a five section 48 m main boom and an extra 17.5 m jib.
- > 6.275 m x 7.9 m leg span, 1.5t fixed counterweight + 2.5 t / 4.25 t / 4.75 t movable counterweight, ensuring operational stability
- > Cummins 375 HP engine + Fast 9 speed transmission, optimized power matching, more powerful and fuel efficient, the maximum climb of 40°, the maximum speed of 90 km/h.



Customer Support

> Service

Our customer service extends beyond any borders. Our locations span the globe, with representation on five continents. Wherever you are, we are there to help.

> Parts

However, remote the job site, locating the correct part quickly is vital to managing your operations. With Manitowoc Customer Support, the parts you need are just a phone call or click away.

> Training

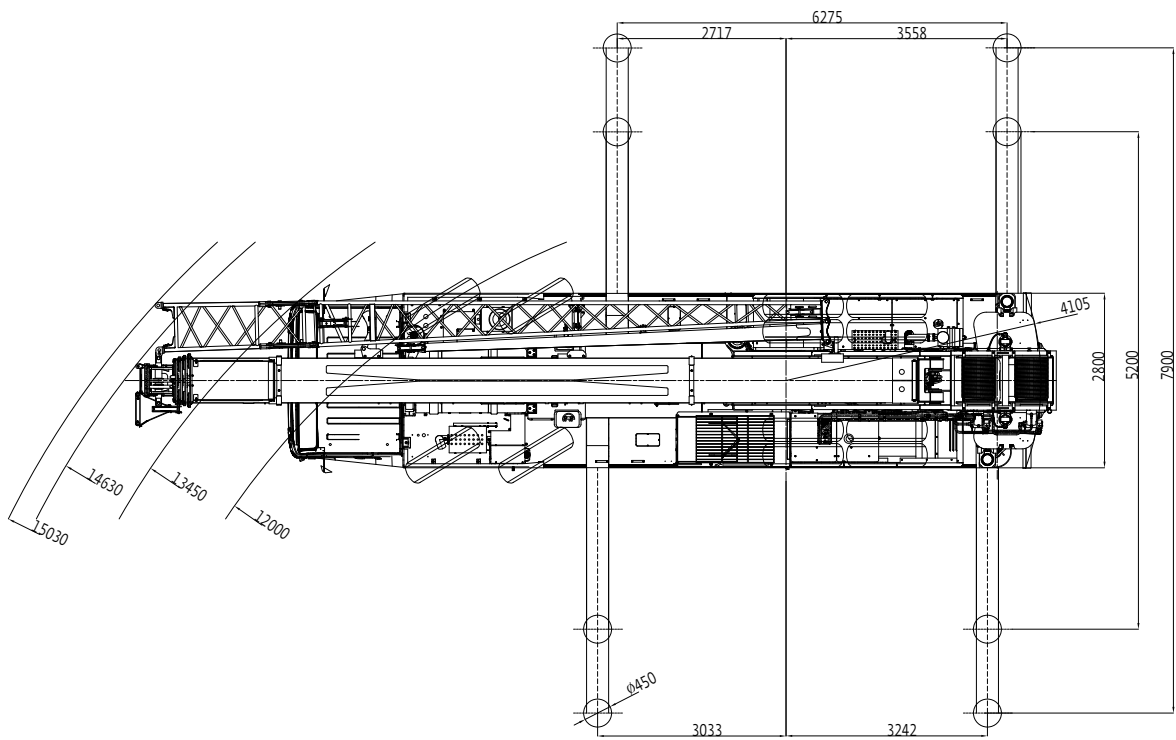
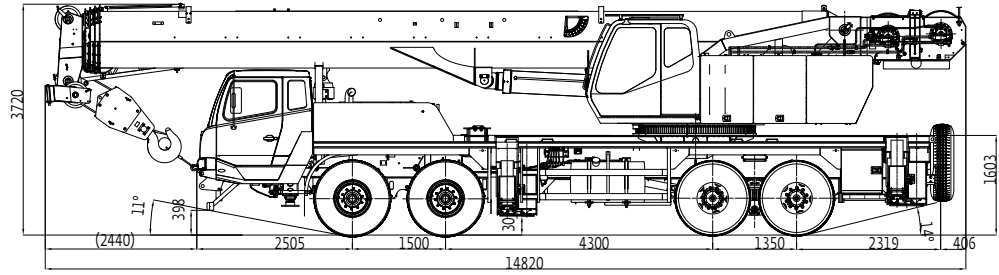
Manitowoc Training Centers offer courses for operators and technicians across the globe to provide in depth instruction on crane operation, maintenance and troubleshooting procedures.

> EnCORE

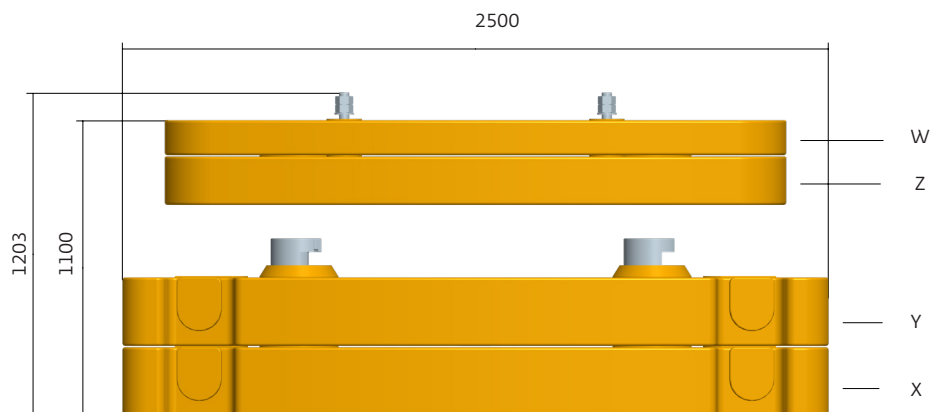
Manitowoc's EnCORE program maximizes your investment by rebuilding or repairing your crane to extend its life significantly. EnCORE also includes remanufactured parts.

Dimensions	4
Counterweight	5
Jib combinations	10
Data	11
Load charts	12
Work range	12
Telescopic boom	13
Swingaway	19
Specification	21
Load charts	22
Symbols	23
Notes	24

Dimensions



Counterweight



	X	Y	Z	W
1,65t				x
2,52t			x	
4,25t		x		
4,65t	x			

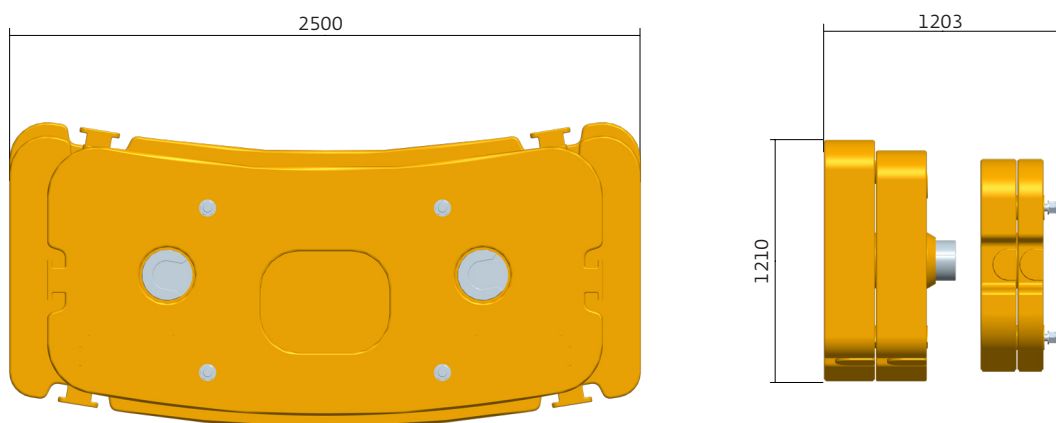
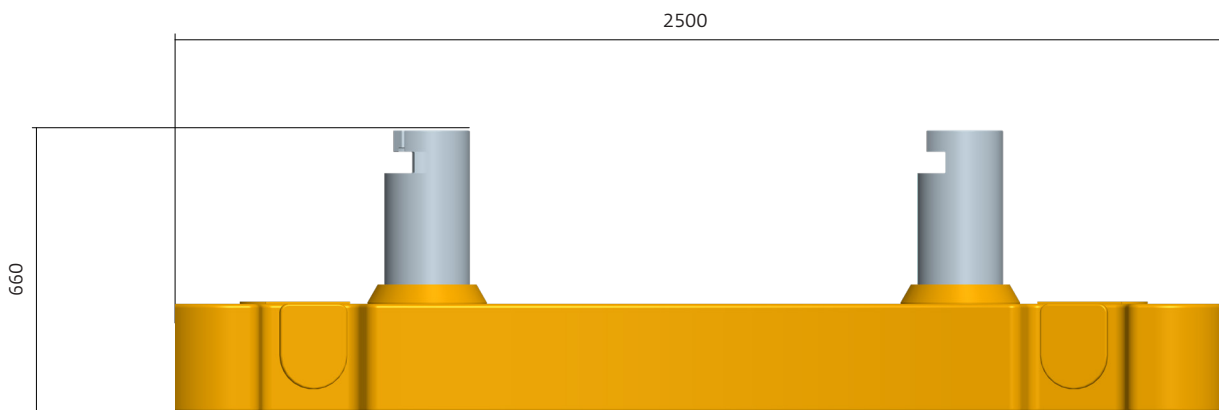


Plate	L×W×H(m)	kg
Y&X	2,5×1,21×1,203	13070

Dimensions

Counterweight




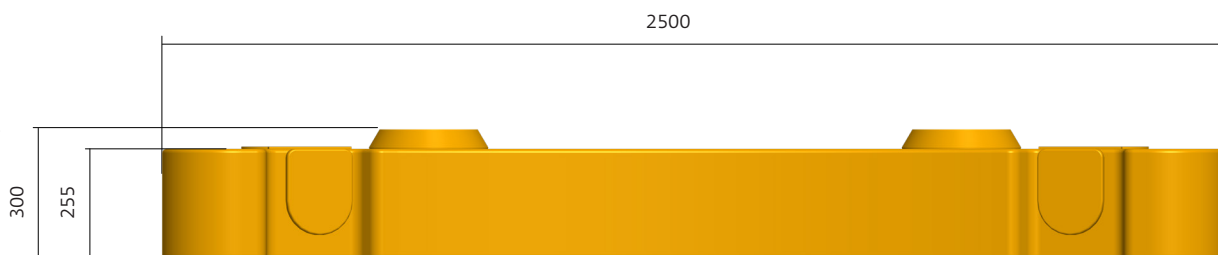

	X	Y	Z	W
1,65t				
2,52t				
4,25t				
4,65t	x			



Plate	L×W×H(m)	kg
Y&X	2,5×1,21×0,66	4650

Counterweight



	X	Y	Z	W
1,65t				
2,52t				
4,25t		x		
4,65t				

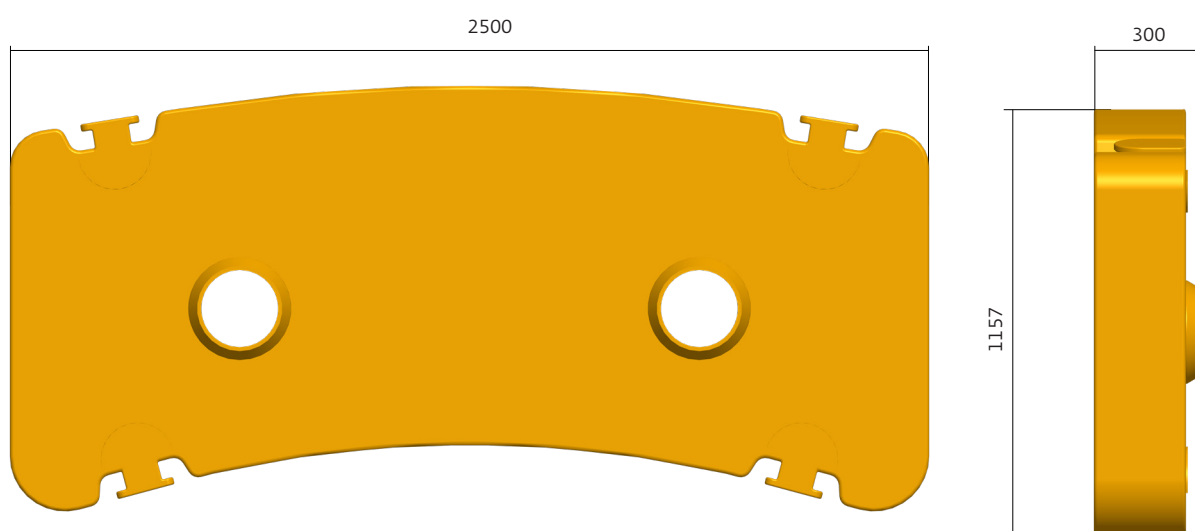



Plate	L×W×H(m)	kg
Y&X	2,5×1,157×0,3	4250

Dimensions

Counterweight



	X	Y	Z	W
1,65t				
2,52t			x	
4,25t				
4,65t				

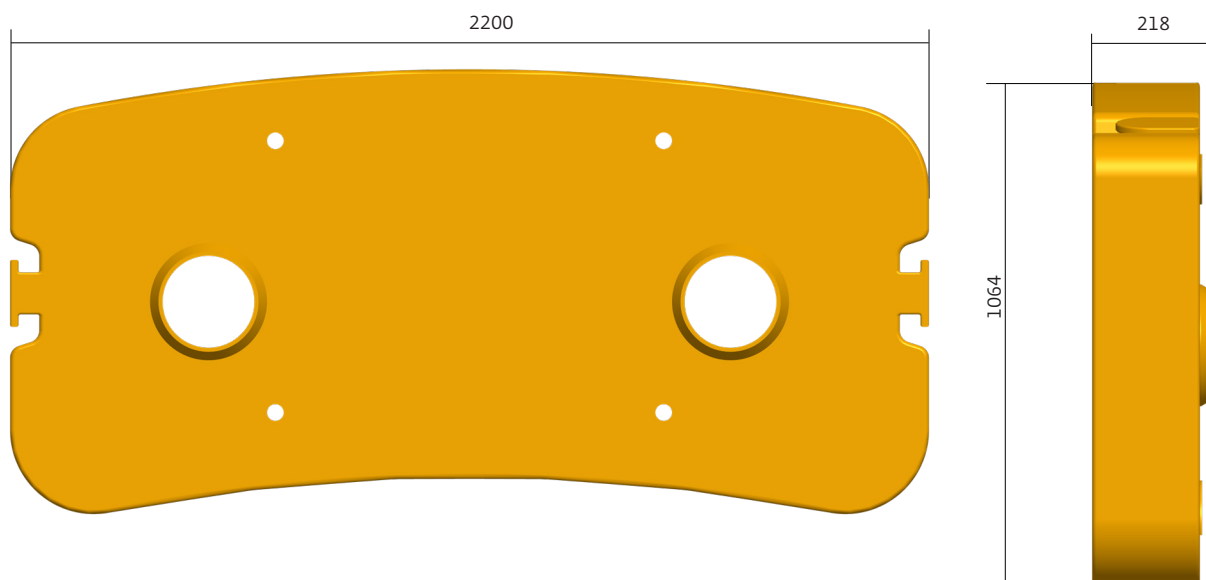
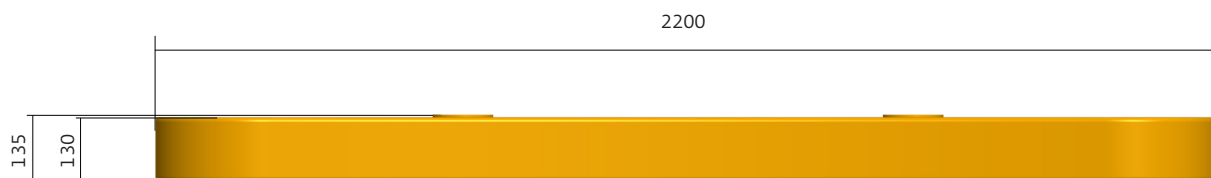



Plate	L×W×H(m)	kg
Y&X	2,2×1,164×0,218	2520

Counterweight



	X	Y	Z	W
1,65t				x
2,52t				
4,25t				
4,65t				

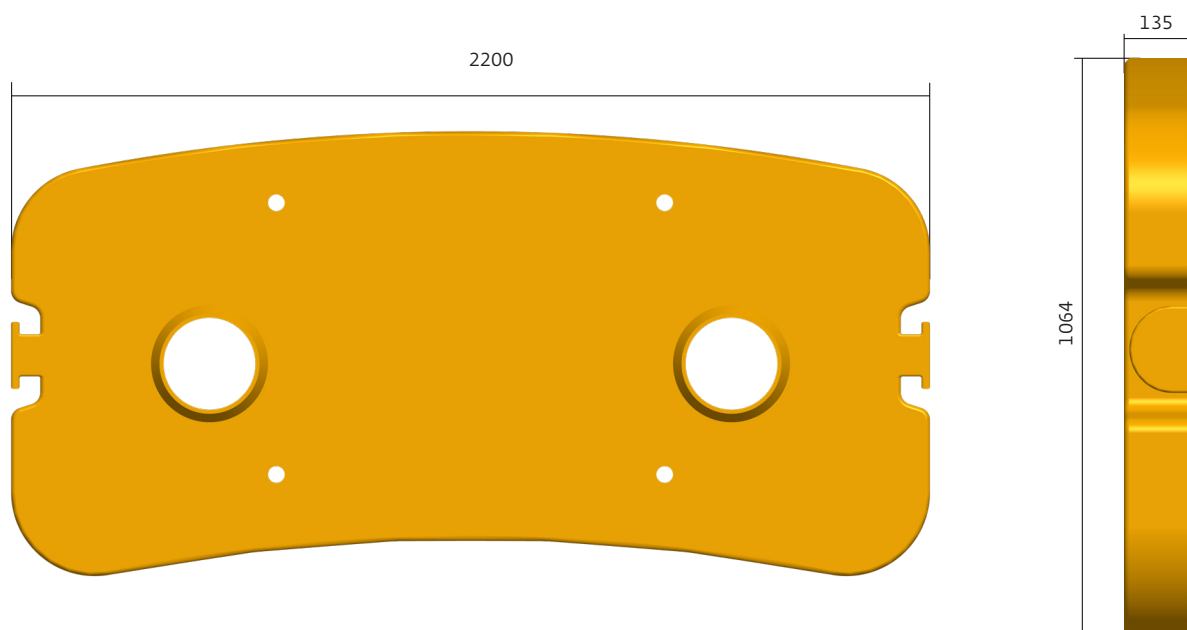
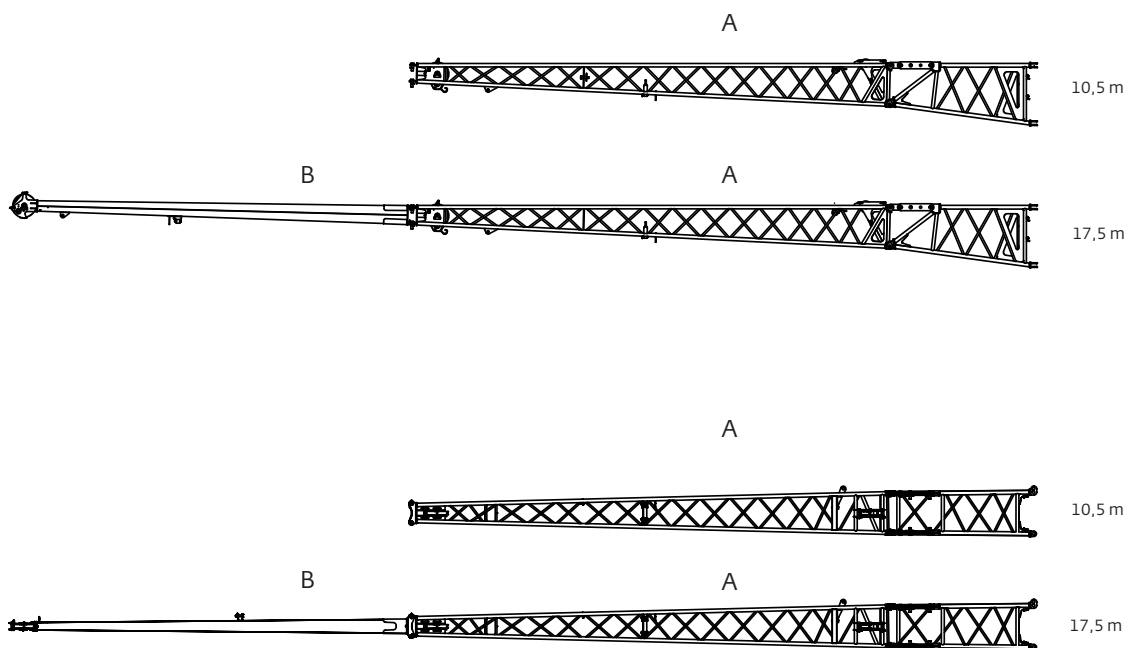







Plate	L×W×H(m)	kg
Y&X	2,2×1,064×0,135	1650

Dimensions

Jib combinations

	L×W×H(m)	kg
A	10,5×0,8×1,2	716
B	7,0×0,35×0,32	273



	Total				
10000	46000	8x4	14R20	6 sheave	13 t
10000	46000	8x4	14R20	6 sheave	13 t
13000	46000	8x4	12R24	6 sheave	13 t
13000	46000	8x4	12R24	6 sheave	13 t






Lifting capacity	Sheaves	Weight	Parts of line	Possible load with crane*
75 t	6	805 kg	12	75 t
7 t	/	150 kg	1	5 t






* Varies depending on national regulations.

** 0° over rear with additional equipment.



	1	2	3	4	5	6	7	8	9	R
km/h 	5	9	13	18	25	35	50	69	90	5
	14.00R20 20PR / 12.00R24 20PR									



	Infinitely variable	Rope	Max. single line pull
	0-130 m/min Single line	20 mm/220 m	66 kN
	0-130 m/min Single line	20 mm/145 m	50 kN
	0-2 r/min		
	< 50 S		
	105 S		

Working range

Telescopic boom



12,5 m - 48,0 m



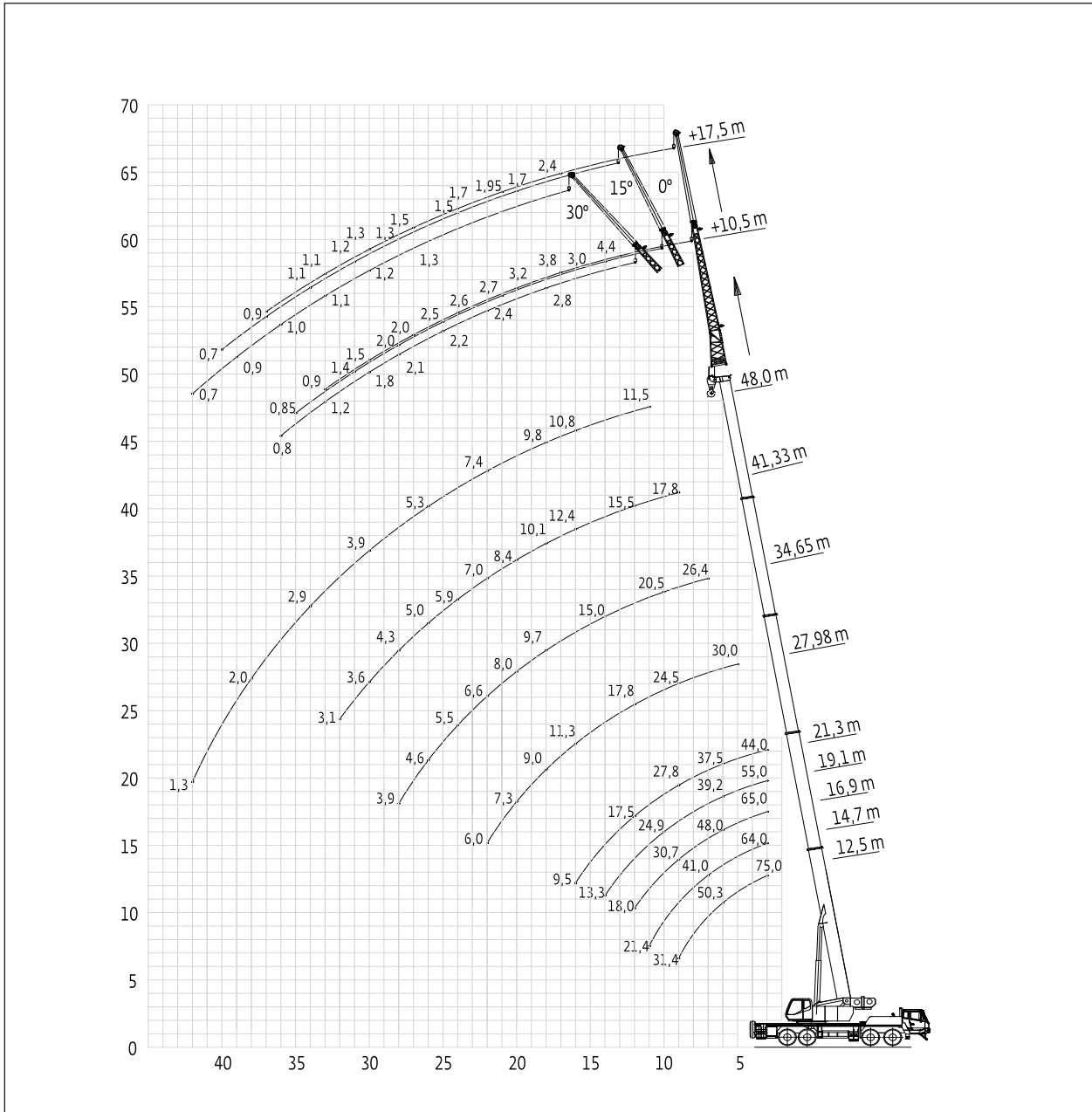
7,9 m



360°



13,0 t



	Hook block (t)	H (mm)
	75 t	2300
7 t	1500	

Telescopic boom



m	12,5	16,9	21,3	25,85	30,25	32,53	34,65	39,2	41,4	43,6	45,8	48,0	m
3,0	75,0	65,0	44,0										3,0
3,5	75,0	63,0	44,0										3,5
4,0	68,0	61,0	43,5	30,0									4,0
4,5	65,0	58,0	43,0	30,0									4,5
5,0	58,0	55,0	41,0	30,0									5,0
5,5	54,0	52,0	39,5	30,0	30,0								5,5
6,0	50,3	48,0	37,5	29,5	30,0	20,0							6,0
6,5	46,0	45,0	35,5	28,8	30,0	20,0							6,5
7,0	42,5	42,5	33,7	27,8	30,0	20,0	26,4						7,0
7,5	39,5	39,0	32,0	27,0	30,0	19,7	25,3						7,5
8,0	37,1	35,5	30,2	26,2	30,0	19,0	24,0	11,5					8,0
9,0	31,4	30,7	27,8	24,8	28,6	17,8	22,2	11,5	11,5				9,0
10,0		25,2	24,8	23,5	26,5	16,8	20,5	11,5	11,5	11,5			10,0
11,0		21,1	20,7	22,0	23,4	15,8	19,0	11,5	11,5	11,5	11,5	11,5	11,0
12,0		18,0	17,5	19,6	20,2	14,7	17,3	11,5	11,5	11,5	11,5	11,5	12,0
14,0			13,2	16,5	15,6	13,5	15,0	11,3	11,5	11,5	11,5	11,5	14,0
16,0			9,5	13,1	12,4	12,1	12,0	10,3	10,8	10,8	10,8	10,8	16,0
18,0				10,7	10,1	10,8	9,7	9,4	9,8	10,0	10,0	9,8	18,0
20,0				9,0	8,4	9,3	8,0	8,6	8,9	9,0	8,9	8,7	20,0
22,0					7,0	7,9	6,6	7,8	7,8	7,8	7,5	7,4	22,0
24,0					5,8	6,8	5,5	7,1	6,8	6,6	6,4	6,2	24,0
26,0						6,1	4,6	6,1	5,9	5,7	5,5	5,3	26,0
28,0							3,9	5,3	5,1	4,9	4,7	4,6	28,0
30,0								4,7	4,5	4,3	4,1	3,9	30,0
32,0								4,0	3,9	3,7	3,5	3,4	32,0
34,0									3,2	3,2	3,0	2,9	34,0
36,0										2,5	2,4	2,2	36,0
I	0%	50%	100%	0%	50%	0%	100%	0%	25%	50%	75%	100%	I
II	0%	0%	0%	50%	50%	75%	50%	100%	100%	100%	100%	100%	II
Rate	12,0	11,0	8,0	6,0	5,0	4,0	4,0	3,0	3,0	3,0	3,0	3,0	Rate

Load charts

Telescopic boom



12,5 - 48,0 m



7,9 m



360°



13,0 t



EN 13000

m	12,5	19,18	25,85	32,53	39,2	m
3,0	75,0	30,0				3,0
3,5	75,0	30,0				3,5
4,0	68,0	30,0	30,0			4,0
4,5	65,0	30,0	30,0			4,5
5,0	58,0	30,0	30,0			5,0
5,5	54,0	30,0	30,0			5,5
6,0	50,3	30,0	29,5	20,0		6,0
6,5	46,0	30,0	28,8	20,0		6,5
7,0	42,5	30,0	27,8	20,0		7,0
7,5	39,5	30,0	27,0	19,7		7,5
8,0	37,1	30,0	26,2	19,0	11,5	8,0
9,0	31,4	30,0	24,8	17,8	11,5	9,0
10,0		27,6	23,5	16,8	11,5	10,0
11,0		23,4	22,0	15,8	11,5	11,0
12,0		20,2	19,6	14,7	11,5	12,0
14,0		15,5	16,5	13,5	11,3	14,0
16,0			13,1	12,1	10,3	16,0
18,0			10,7	10,8	9,4	18,0
20,0			9,0	9,3	8,6	20,0
22,0				7,9	7,8	22,0
24,0				6,8	7,1	24,0
26,0				6,1	6,1	26,0
28,0					5,3	28,0
30,0					4,7	30,0
32,0					4,0	32,0
I	0%	0%	0%	0%	0%	I
II	0%	25%	50%	75%	100%	II
Rate	12,0	6,0	6,0	4,0	3,0	Rate

Telescopic boom



12,5 - 48,0 m



7,9 m



360°



13,0 t



EN 13000

m	14,7	21,38	28,05	34,73	41,4	m
3,0	64,0	30,0				3,0
3,5	62,0	30,0				3,5
4,0	60,0	30,0				4,0
4,5	58,0	30,0	30,0			4,5
5,0	55,0	30,0	30,0			5,0
5,5	52,0	30,0	30,0			5,5
6,0	48,0	30,0	30,0			6,0
6,5	44,0	30,0	30,0	20,0		6,5
7,0	41,0	30,0	30,0	20,0		7,0
7,5	38,5	30,0	30,0	20,0		7,5
8,0	35,2	30,0	29,2	20,0		8,0
9,0	31,0	30,0	27,6	19,1	11,5	9,0
10,0	25,5	27,1	26,0	17,9	11,5	10,0
11,0	21,4	22,9	23,7	16,8	11,5	11,0
12,0		19,5	20,5	15,5	11,5	12,0
14,0		15,2	15,9	14,2	11,5	14,0
16,0		12,0	12,7	12,5	10,8	16,0
18,0			10,4	10,8	9,8	18,0
20,0			8,7	9,0	8,9	20,0
22,0			7,0	7,7	7,8	22,0
24,0				6,6	6,8	24,0
26,0				5,6	5,9	26,0
28,0				4,8	5,1	28,0
30,0					4,5	30,0
32,0					3,9	32,0
34,0					3,2	34,0
I	25%	25%	25%	25%	25%	I
II	0%	25%	50%	75%	100%	II
Rate	11,0	6,0	6,0	4,0	3,0	Rate

Load charts

Telescopic boom



12,5 - 48,0 m



7,9 m



360°



13,0 t



EN 13000

m	16,9	23,57	30,25	36,92	43,6	m
3,0	65,0					3,0
3,5	63,0	30,0				3,5
4,0	61,0	30,0				4,0
4,5	58,0	30,0				4,5
5,0	55,0	30,0				5,0
5,5	52,0	30,0	30,0			5,5
6,0	48,0	30,0	30,0			6,0
6,5	45,0	30,0	30,0			6,5
7,0	42,5	30,0	30,0	20,0		7,0
7,5	39,0	30,0	30,0	20,0		7,5
8,0	35,5	30,0	30,0	20,0		8,0
9,0	30,7	30,0	28,6	19,2		9,0
10,0	25,2	26,7	26,5	18,2	11,5	10,0
11,0	21,1	22,6	23,4	17,2	11,5	11,0
12,0	18,0	18,8	20,2	16,1	11,5	12,0
14,0		14,8	15,6	14,6	11,5	14,0
16,0		11,5	12,4	12,8	10,8	16,0
18,0		9,2	10,1	10,6	10,0	18,0
20,0			8,4	8,8	9,0	20,0
22,0			7,0	7,4	7,8	22,0
24,0			5,8	6,3	6,6	24,0
26,0				5,4	5,7	26,0
28,0				4,6	4,9	28,0
30,0				4,0	4,3	30,0
32,0					3,7	32,0
34,0					3,2	34,0
36,0					2,5	36,0
I	50%	50%	50%	50%	50%	I
II	0%	25%	50%	75%	100%	II
Rate	11,0	6,0	5,0	4,0	3,0	Rate

Telescopic boom



12,5 - 48,0 m



7,9 m



360 °



13,0 t



EN 13000

m	19,1	25,78	32,45	39,12	45,8	m
3,0	55,0					3,0
3,5	52,5					3,5
4,0	50,2	30,0				4,0
4,5	47,2	30,0				4,5
5,0	44,0	30,0				5,0
5,5	41,5	30,0				5,5
6,0	39,2	30,0	30,0			6,0
6,5	37,1	29,5	28,8			6,5
7,0	35,2	29,2	27,4			7,0
7,5	33,5	29,0	26,2			7,5
8,0	31,2	27,6	24,5	19,5		8,0
9,0	28,5	25,2	22,9	18,9		9,0
10,0	24,9	23,1	21,1	18,1		10,0
11,0	20,9	21,2	19,5	17,3	11,5	11,0
12,0	17,6	18,5	17,7	16,0	11,5	12,0
14,0	13,3	14,6	15,3	14,5	11,5	14,0
16,0		11,5	12,2	12,6	10,8	16,0
18,0		9,2	9,9	10,3	10,0	18,0
20,0		7,1	8,2	8,6	8,9	20,0
22,0			6,8	7,2	7,5	22,0
24,0			5,7	6,1	6,4	24,0
26,0			4,8	5,2	5,5	26,0
28,0				4,5	4,7	28,0
30,0				3,8	4,1	30,0
32,0				3,1	3,5	32,0
34,0					3,0	34,0
36,0					2,4	36,0
I	75%	75%	75%	75%	75%	I
II	0%	25%	50%	75%	100%	II
Rate	9,0	6,0	5,0	4,0	3,0	Rate

Load charts

Telescopic boom



12,5 - 48,0 m



7,9 m



360°



13,0 t



EN 13000

m	21,3	27,98	34,65	41,33	48,0	m
3,0	44,0					3,0
3,5	44,0					3,5
4,0	43,5					4,0
4,5	43,0	30,0				4,5
5,0	41,0	30,0				5,0
5,5	39,5	30,0				5,5
6,0	37,5	30,0				6,0
6,5	35,5	30,0				6,5
7,0	33,7	29,6	26,4			7,0
7,5	32,0	28,2	25,3			7,5
8,0	30,2	26,5	24,0			8,0
9,0	27,8	24,5	22,2	17,8		9,0
10,0	24,8	22,5	20,5	17,2		10,0
11,0	20,7	20,5	19,0	16,5	11,5	11,0
12,0	17,5	17,8	17,3	15,5	11,5	12,0
14,0	13,2	14,4	15,0	14,1	11,5	14,0
16,0	9,5	11,3	12,0	12,4	10,8	16,0
18,0		9,0	9,7	10,1	9,8	18,0
20,0		7,3	8,0	8,4	8,7	20,0
22,0		6,0	6,6	7,0	7,4	22,0
24,0			5,5	5,9	6,2	24,0
26,0			4,6	5,0	5,3	26,0
28,0			3,9	4,3	4,6	28,0
30,0				3,6	3,9	30,0
32,0				3,1	3,4	32,0
34,0					2,9	34,0
36,0					2,2	36,0
I	100%	100%	100%	100%	100%	I
II	0%	25%	50%	75%	100%	II
Rate	8,0	6,0	4,0	3,0	3,0	Rate

Swingaway



12,5 - 48,0 m



17,5 m



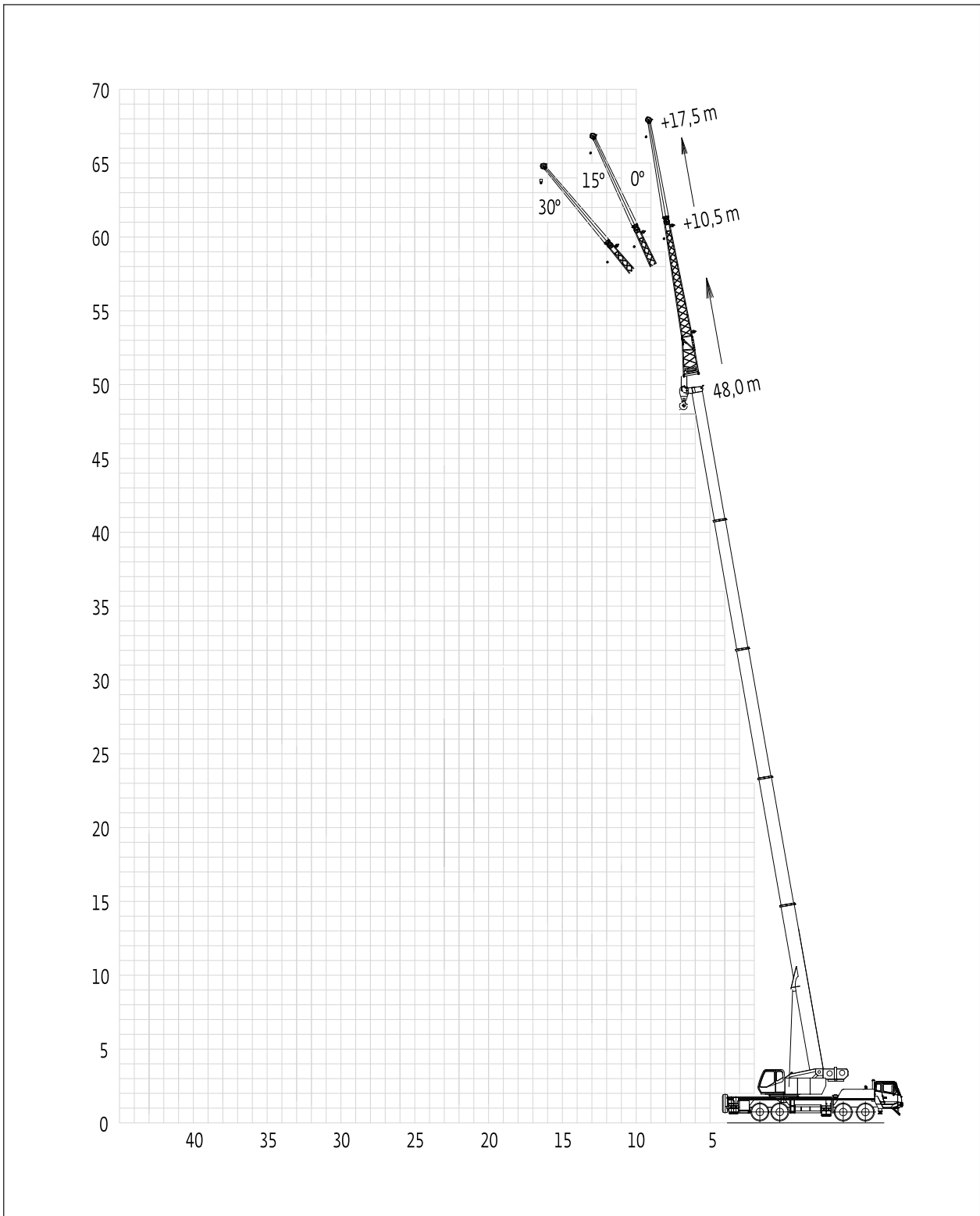
7,9 m



360°



13,0 t



Load charts

Swingaway



12,5 - 48,0 m



17,5 m



7,9 m



360°



13,0 t



EN 13000

m	48,0 + 10,5m			48,0 + 17,5m			m
	0°	15°	30°	0°	15°	30°	
80,0	5,0	3,5	3,0	3,0	1,7	1,3	80,0
78,0	4,7	3,3	2,8	2,7	1,6	1,2	78,0
76,0	4,4	3,2	2,6	2,4	1,5	1,2	76,0
74,0	4,1	3,0	2,5	2,1	1,4	1,1	74,0
72,0	3,8	2,8	2,4	2,0	1,3	1,1	72,0
70,0	3,5	2,7	2,3	1,9	1,3	1,0	70,0
68,0	3,2	2,6	2,2	1,7	1,2	1,0	68,0
66,0	3,0	2,5	2,2	1,6	1,2	1,0	66,0
64,0	2,6	2,5	2,1	1,5	1,1	1,0	64,0
62,0	2,3	2,3	2,1	1,4	1,1	1,0	62,0
60,0	2,0	2,0	1,8	1,3	1,0	0,9	60,0
58,0	1,8	1,7	1,4	1,2	0,9	0,9	58,0
56,0	1,5	1,4	1,2	1,1	0,9	0,8	56,0
54,0	1,2	1,1	1,0	0,9	0,8	0,7	54,0
52,0	0,9	0,9	0,8	0,8	0,7		52,0

Superstructure



Boom

12,5 m - 48,0 m, 5-section, Maximum tip height 65,7 m.



Boom elevation

Boom angle from -2° to +80° in 50 s.



Cab

Safety glass and corrosion-resistant steel, full vision, adjustable operator's seats, air conditioning and electric wipers; a 7-inch touchscreen display crane operating controls makes operation more convenient.



Slewing

Axial piston motor, hydraulic proportional control, unique slewing buffer design, start & stop smoothly. 360° slewing and max. slewing speed 2r/min.



Counterweight

Total 13 t (1.5-ton fixed counterweight ; 2.5-ton / 4.25-ton / 4.75-ton movable counterweight).



Hydraulic system

Load-sensitive hydraulic system, post-valve compensation technology, with 3 section gear pump, stable and reliable.



Control system

Equipped with LMI, three circle protector, lifting limit switch, night vision level indicator, ABS brake system to provide fully safety protection.



Hoist

High-pressure axial piston variable displacement motor drives the planetary gear with double lebus drum. NC hoisting brake with balance valve to prevent the hook from losing lifting load.

* Optional equipment

- 10,5 / 17,5 m folding lattice swingaway with integral offset mechanism for 0°, 15°, and 30°.

Carrier



Chassis

Special 4-axle chassis, all-welded with high strength steel.



Outriggers

H-type outriggers with a large span of 6.275 m x 7.9 m, providing super stability, made of high-strength steel, Dual-stage telescopic, flexible and reliable.



Engine

Cummins ISLe375 30 (Tier III), 6-cylinder turbo-charged after-cooled diesel engine, 275kW @ 2,100 rpm, 1,550 N-m torque @ 1,100 - 1,400 rpm.

Optional Euro V.



Transmission

FAST 9-Shift gearbox.



Drive/Steer

8 x 4 x 4.



Axle lines

4 Axles in pairs: 2 steering axles (front pair) 2 driven axles (rear pair).



Tyres

Front 2 axles; 315/80R22.5, Rear 2 axles; 12R22.5.



Brakes

ABS Brakes front & rear. Spring applied parking brake on rear axles.



Drive Cab

The cabin is equipped with a foldable bed for added comfort; The driver's seat features airbag suspension, which can be adjusted forward and backward, and the angle can be changed, effectively reducing driver fatigue.



Electrical system

2 x 12 V maintenance-free batteries, can manually cut off the whole crane power; carrier and superstructure with CAN bus control system.

Load charts

The lifting capacities correspond to EN 13000:2010.

The lifting capacities likewise fulfil the requirements of ISO 4305 with regard to stability.

The lifting capacities are given in tonnes.

Lifting capacity = Payload + weight of hook block and suspending device.

The lifting capacities for the main boom only apply with the jib dismantled.

The right is reserved to modify the load-carrying capacities.

Note: The details in this brochure serve only as general information. The determinant values for the operation of the crane are the lifting capacity tables belonging to it and the operating instructions.

Lifting capacities are indicated by boom length for different levels of extension. The actual boom length will be in accordance with the selected configuration for boom extension.

Symbols

 Axles	 Counterweight	 Main hoist	 Outriggers
 Axle load	 Crane functions	 Auxiliary hoist	 Radius
 Boom	 Crane travel	 Hookblock/Capacity	 Slewing/Working range
 Boom elevation	 Drive/Steer	 Hydraulic system	 Speed
 Boom telescoping	 Electrical system	 Lattice extension	 Suspension
 Brakes	 Engine	 Lattice extension (luffing)	 Transmission/Gear
 Cab	 Free on wheels	 Luffing jib	 km/h Travel speed
 Carrier frame	 Gradeability	 Low range	 Tyres
 Hose reel	 Swingaway	 Dolly	 Storage box + rigging gear
 Weight per axle in kg	 Driveline	 Brackets	

Notes





Manitowoc Cranes

Regional headquarters

Middle East and India

Dubai, UAE

Tel: +971 4 8862677

APAC

Shanghai, China

Tel: +86 21 6457 0066

Singapore, Singapore

Tel: +65 6264 1188

Sydney, Australia

Tel: +61 2 8822 4000

Seoul, Korea

Tel: +82 2 3439 0400

Fax: +82 2 3439 0405

Manila, Philippines

Tel: +632 844 9437

Fax: +632 844 4712

This document is non-contractual. Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.