ZOOMLION

TECHNICAL SPECIFICATIONS

ZAT1600E

All terrain crane

Edition 1 December 2024

160t

65m

74m

99.1m

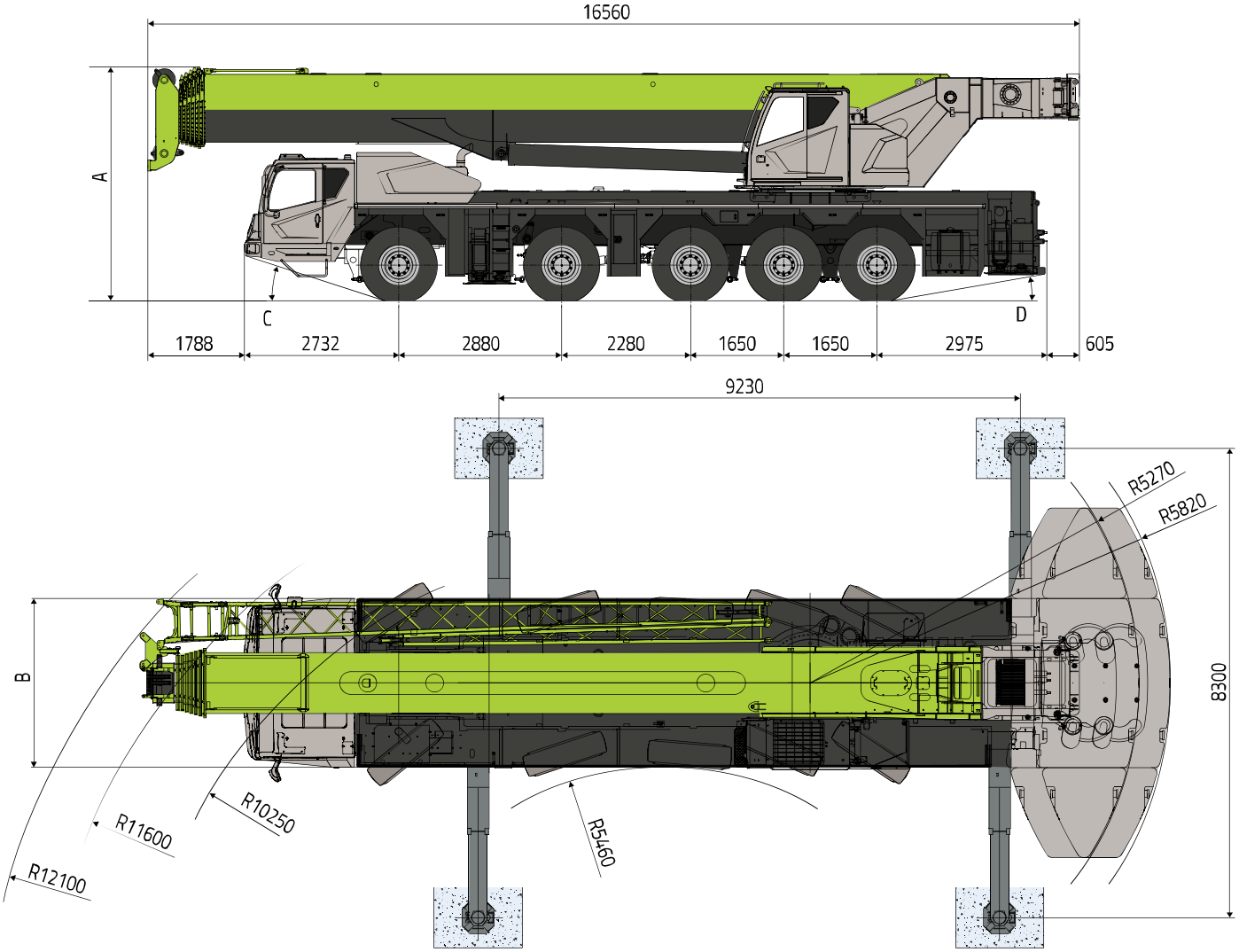
ZOOMLION

PROD 4.0

Contents

Dimensions

Operation condition (unit: mm)



	A(mm)	B(mm)	C(°)	D(°)
445/95R25	4000	3000	19°	12°

ZAT1600E introduction

65m

35m

57t

390kw

Technical data

Item			Value	Remarks
Work performance	Max. rated lifting capacity	t	160	
	Max. load moment of basic boom	kN.m	5008	
	Max. load moment of main boom (fully extended)	kN.m	3300	
	Max. lifting height of basic boom	m	14.9	
	Max. lifting height of main boom	m	65.2	These parameters do not include deflection of boom and jib.
	Max. lifting height of jib	m	99.1	
Work speeds	Max. hoist rope speed (main winch)	m/min	135	
	Boom derricking up time	s	65	
	Boom extending time	s	650	
	Slewing speed	r/min	0 - 1.6	
Driving	Max. operation altitude	m	2000	
	Max. driving speed	km/h	80	
	Max. gradeability	%	45	
	Min. turning radius	m	≤10.25	
	Min. ground clearance	mm	370	
	Limits for exhaust pollutants and smoke	/	Off-road Europe V	
	Front overhang angle	°	19	
	Rear overhang angle	°	12	
Mass	Deadweight in driving condition (total mass)	kg	< 60000	
	Single axle load	kg	< 12000	Without auxiliary boom and auxiliary boom yoke,spare tire, with 1t counterweight
Engine	Engine model		OM471LA.E5-1	
	Max. power	kW/rpm	390/1600	
	Max. output torque	N·m/rpm	2600/1300	

	Fuel consumption at a constant speed per 100 kilometers	L	82	In the 60t driving mode, the fuel consumption for traveling 100km at a constant speed of 50km/h
Dimensions	Overall dimensions (L×W×H)	mm	16560×3000×4000	
	Outrigger spread (W)	m	Completely extended: 8.3 m; intermediate extended: 5.5 m	
	Outrigger spread (L)	m	9.23	
	Slewing radius of counterweight tail	mm	5270 (counterweight front position) 5820 (counterweight rear position)	
	Main boom length	m	14 - 65	
	Boom angle	°	-0.5 - 80	
	Jib length	m	10.4, 19	Optional: 27m, 35m
	Offset	°	0, 20, 40	

Table of options

No.	Description	Remarks
1	Base plate of outrigger	Overall dimensions:1550mm*1550mm*120mm, 4 pieces
2	Extension	Including 2 pieces of 8m extensions
3	Hook	110t (ramshorn hook), 90t (ramshorn hook), 70t (ramshorn hook), 55t (single hook), 25t (single hook)
4	Auxiliary winch package	Select the auxiliary hoist mechanism
5	Hydraulic luff auxiliary arm	The form of the auxiliary arm tilt transformation is hydraulic drive type
6	Anti-interference system	Mainly targets radiation interference, common-mode interference, differential-mode interference, and ground loop interference for suppression and isolation, ensuring reliable and stable equipment operation.
7	360-degree monitoring	Real-time monitoring of the lifting state during operations, while also monitoring the blind spot state of operations.
8	Hanger arm rotary beacon	The hanger arm work lights can be motor-operated to adjust the viewing position, enhancing the angle of view and illuminance for nighttime

Hook

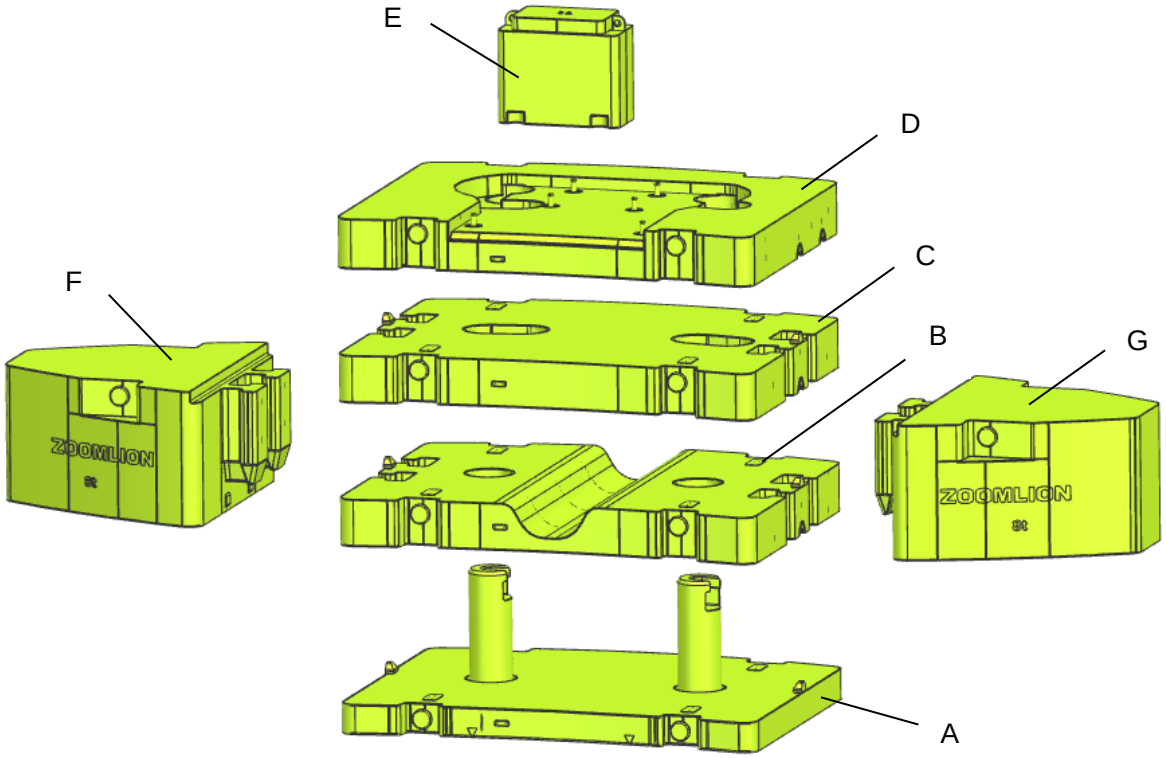
The hook needs to be transported individually.

Specification	Weight (kg)	Transport dimensions (mm)	Max. fall	Single hook	Double hook	Number of pulleys	Standard/ optional configuration
110t	1280	1835×805×650	14	-	Double	7	**O**
90t	1068	1665×650×755	14	-	Double	7	**O**
70t	920	1580×650×700	10	-	Double	5	**O**
60t	620	1355×528×480	10	-	Double	5	●
55t	750	1590×650×460	6	Single	-	3	**O**
25t	590	1410×650×390	3	Single	-	1	**O**
8t	310	Φ370×900	1	Single	-	/	●

Wire rope

	φ Diameter (mm)	Length (m)	F Max. pulling force for single rope (t)
① Main hoist rope	φ20	340	9.3
② Auxiliary hoist rope	φ20	245	9.3

Counterweight



The counterweight needs to be transported individually.

	Description	Mass (t)	Transport dimensions (mm)	Quantity (piece)
A	Lower counterweight	8	2355×2990×980	1
B	Intermediate counterweight	9	2355×2990×410	1
C	Upper counterweight	10	2355×2990×412	1
D	Fixed counterweight I	13	2355×2990×350	1
E	Fixed counterweight II	1	420×870×755	1
F	Side counterweight	8	1885×1855×950	1
G	Side counterweight	8	1885×1855×950	1

Counterweight combinations

Unit: piece

Combinations	A	B	C	D	E	F	G
1t	0	0	0	0	1	0	0
9t	1	0	0	0	1	0	0
14t	0	0	0	1	1	0	0
22t	1	0	0	1	1	0	0
31t	1	1	0	1	1	0	0
41t	1	1	1	1	1	0	0
57t	1	1	1	1	1	1	1

Equipment

The parts and components of this product are as shown below. As for the details, refer to the product configuration list.

● ——— standard configuration O ——— optional configuration

Superstructure

● Main boom	• 6-section telescopic boom made of high-tensile steel plate • Optimal oviform boom profile • It is with super load bearing capacity, light deadweight, large lateral stiffness and small end deflection.
● Jib	• It consists of two jib sections. They are folded on the side of main boom and can be installed and removed by inserted pins. • Jib variants: 10.4 m, 19 m, 27 m (One section of 8 m jib extension is available for options.), 35 m (Two sections of 8 m jib extensions are available for options.) • The jib can be assembled below an angle of 0° , 20° or 40° to the telescopic boom according to your needs. The offset can be conveniently changed in a mechanical way.
● Telescoping system	• The telescopic boom is telescoped by the single-stage telescoping cylinder with hydraulic interlocking device. • Rapid-cycle telescoping system with “automatic mode”, i.e. all-automatic telescoping to the desired boom length in sequence.
● Hoist gear	• Main winch + auxiliary winch • The main and auxiliary winches can be operated independently or simultaneously. • High-performance rotation-resistant ropes and the press nipple can be used for rapid reeving change.
● Luffing gear	• One hydraulic cylinder, providing the boom with smooth luffing movements from -0.5° to 80°
● Slewing gear	• Adopt the controllable free swing function. • The cushion valve and the normally closed brake make the slewing operation stable and reliable.
● Slewing table	• Box-type, torsion resistant design of high-tensile steel, providing super load bearing capacity
● Operator’s cab	• 4.0 series spacious panoramic cab with sliding door, outward pushing windshield, front foot pedal, safe guard rail around the roof of the cab • No instrument console and electric elements are in the front of the cab. And thus, you can have a good riding experience due to spacious room and comfortable feeling. • Integrated bus key panel with night vision background light is clear and makes night work safe. • Vertical 10.4 inch two-in-one LCD (touch screen) integrates all of functions and

	has good observation angle. And thus, you can have good operation experience. • It is with USB plug. And thus, it is chargeable. • The cab can be tilted for 0-20° to improve operator's field of vision and reduce the operation intensity. • Cab heater and air conditioning. • Vibrating hand grip: The hand grip vibrates according to the hoisting action, and the vibrating frequency of the hand grip is proportional to the hoisting speed.
● **Counterweight**	• Full counterweight 57 t • The counterweight can move backwards for 0.55 m.
● **Hook**	• Standard configuration main hook is 60 t ramshorn one, which is with the rotatable hook and the hook latch. • 8 t auxiliary hook, which is also with the hook latch, can prevent the load from rotating.
● **Hood**	• In frame-type structure of high functionality and convincing design • It is made of the aluminium alloy.
● **Control system**	• Superstructure operating mode consists of the electro-hydraulic proportional operation and the computer integrated control. Superstructure hydraulic system adopts open and closed combined system. • It is of these functions such as the counterweight self-assembly and dismantling function, the operator's cab tilting angle adjustment function, which have good starting and braking stability as well as the higher system reliability. • Operating condition adaptive speed control technology: The system intelligently matches the optimal operating speed based on current load, arm length, amplitude, and other operating condition information, balancing micromotion, efficiency, and safety. • Intelligent safety control system for the entire operation process: A brand-new intelligent safety control system, comprehensively upgrading intelligent detecting, assembly and disassembly operating conditions, safety limit actions, human-machine interaction, and intelligent lifting, achieving multi-dimensional and multi-level safety protecting to safeguard the entire operation process. • Visualized operation speed adjustment technology: Users can adjust the speed of each action at any time to achieve a customized control experience. • Servolubrication: Automatically lubricates key pin axle hinge points periodically, reducing manual work and ensuring better equipment condition and service age. • Wireless telecontrol device: Remotely controls all actions of getting on and off the vehicle, improving the convenience of product operation.
● **Safety system**	• Applying the bus technology, the superstructure and the chassis can monitor the outrigger pressures and the tilting angle of the chassis frame in real time. And thus, prevent the dangerous situations from happening. • The complete vehicle is equipped with several encoders and sensors which can monitor each system state of the vehicle in real time. Combining with the upgraded safety strategy, prevent the dangerous situations from happening. And thus, realize the high efficient safety operation. • Emergency power function: In case of engine defects or failure, the crane can still perform basic operations to ensure operational safety and equipment assurance.

Equipment

Chassis

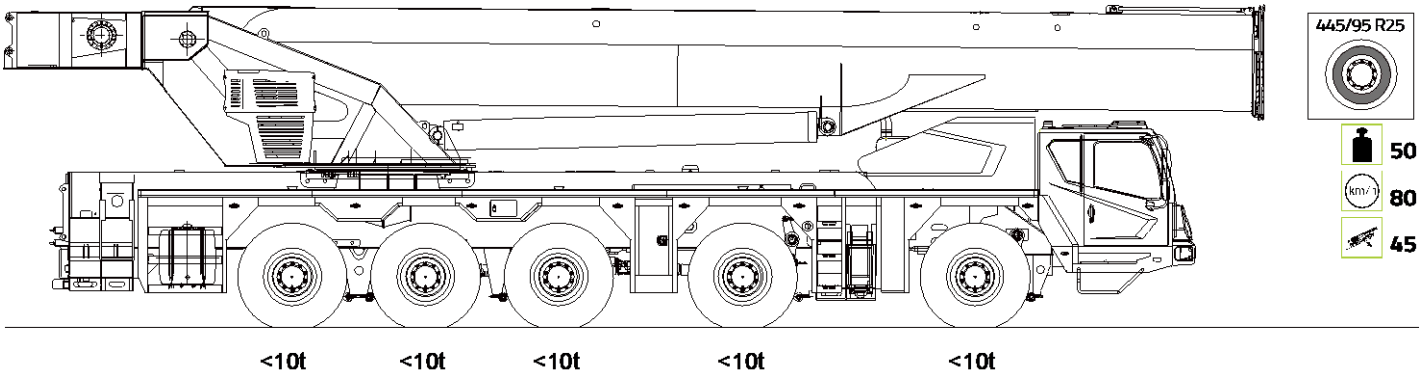
Engine	• Model: Benz OM471LA.E5-1 • Exhaust emission standard: off-road Europe V • Displacement: 12.8 L • Max. rated power: 390 kW at 1600 r/min • Max. output torque: 2600 N.m at 1300r/min • Capacity of diesel oil tank: 500 L.
Transmission	• ZF 12-gear automatic and manual integrated transmission (AMT) • 12 forward and 2 reverse speeds • Standard configuration: hydraulic retarder with the power takeoff port
Axles	• Homemade 13 t axle • Drive type: 10×6×10 • Axles 2, 4 as well as 5 are steer and drive ones, which are with the transversal differentials and the differential locks. Among which, axle 4, a through drive axle, is with the longitudinal differential and the differential lock. In addition, axles 1, 2, 4 and 5 are with ABS sensors. • All of axles adopt the disc brakes.
Outrigger	• H type two sectional outrigger, made of high-tensile steel
Tires	• Tire size: 445/95R25 (standard configuration),385/95R25(option) • Tire pressure: 1MPa (homemade 385/445 tire), 0.9MPa (imported 385/445 tire)
Steering system	• All axles steer • All-wheel variable steering system with 6 steering programs • Axles 1 and 2 are mechanically steered by the steering wheel. Axles 3, 4 and 5 are steered by the electric proportional valve. • The system is of an emergency steering function.
Suspension	• All axles with hydro-pneumatic suspension
Brake system	• It consists of service brake, parking brake (emergency brake) and auxiliary brake. • Service brake: dual-circuit air brake system, acting on all of wheels of all axles • Parking brake (Emergency brake): spring-loaded brake, acting on the wheels of axles 2, 3, 4 and 5 • Auxiliary brake: engine compression brake, hydraulic retarder brake • Double circuit brake system adopts the disc brakes. Each disc brake on axle 1 is equipped with two single-diaphragm brake chambers. One disc brake on axle 2 is equipped with a dual-compartment diaphragm spring brake chamber, the other one is with a single-diaphragm brake chamber. Each disc brake on the other axles is equipped with a dual-compartment diaphragm spring brake chamber. • The brake system is with ABS.

● **Electrical system**	• CAN data bus technology • The driver's cab is equipped with a large multifunctional electronic display screen (touch screen) in multiple interfaces with convenient interactive functions. • Generator: 28 V, 80 A • With visible reversing device and acoustic warning system • It can perform a vehicle fault diagnosis, display and storage. • Outrigger One-Key Leveling Technology: When the user presses the automatic leveling switch, the system automatically completes the frame leveling of the outriggers. • Speed Limitation Technology: Automatically limits speed based on vehicle weight and axle load, effectively preventing issues such as abnormal tyre tear and blowouts caused by overspeed and excess load. • Outrigger Length Detecting (PDO): Automatically detects the extension length and location of horizontal outriggers, and issues an audible and visual alarm when the set and actual detection do not match. • Outrigger Pressure Detecting: Real-time monitoring of the pressure in each vertical hydraulic cylinder of the outriggers, allowing for control strategies to be set according to specific needs to ensure equipment safety. • ECO Function: The system automatically adjusts engine rpm and power export based on load, achieving better energy saving and environmental protection.
● **Driver's cab**	• 4.0 series full-width and all-metal welded spacious cab with flexible lining is of convincing design and outstanding functionality • The control elements and displays are arranged according to ergonometric factors, thus for safe and convenient handling at permanent operation • The cab is with the following features: ➢ Height and inclination adjustable steering wheel, power windows, windshield wiper & washing device and large reflectors ➢ The instrument console equipped with all kinds of instruments, control lights, control switches, cigarette lighter, USB interface and MP3 player and so on ➢ Adjustable cab heater / defroster and single-cooling air conditioning ➢ Rearview camera ➢ The comfortable seats with armrests and high backrest. (The pneumatically suspended driver's seat can be adjusted automatically to suit any driver height and size.) • Reversing monitoring technology: reversing image + radar. • Automatic beacon control technology: automatically enable or turn off the low beam according to light strength.

Travel modes

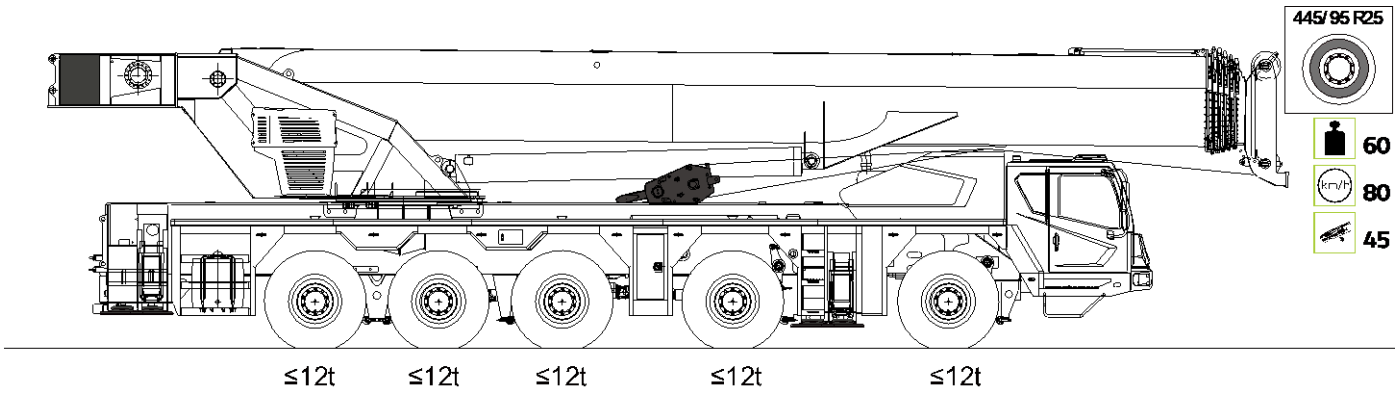
① Total mass less than 50 t travel mode (single axle load < 10 t)

Without auxiliary boom and auxiliary boom yoke, outrigger pad, hook,spare tire, 1t counterweight, rear outrigger, The main boom only carries sections 1, 2, and 3.



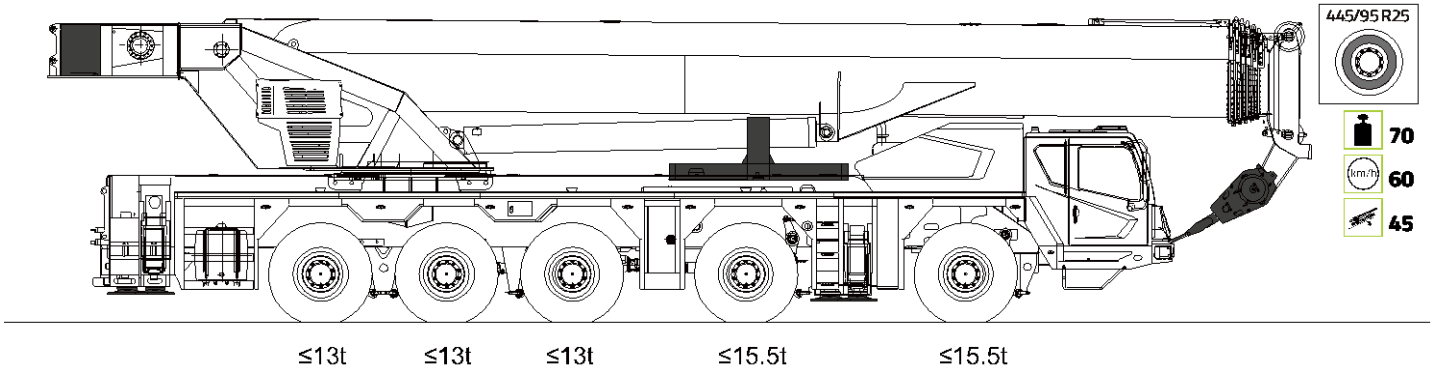
② Total mass less than 60 t travel mode (single axle load < 12 t)

Without auxiliary boom and auxiliary boom yoke,spare tire, with 1t counterweight



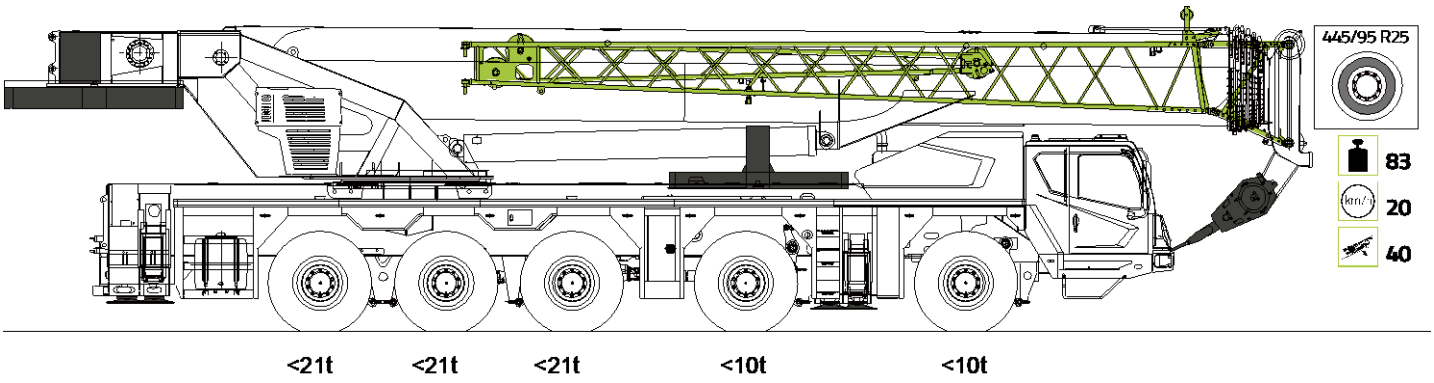
③ Total mass 70 t travel mode

Without auxiliary boom and auxiliary boom yoke,with outrigger pad, hook,spare tire,9t counterweight



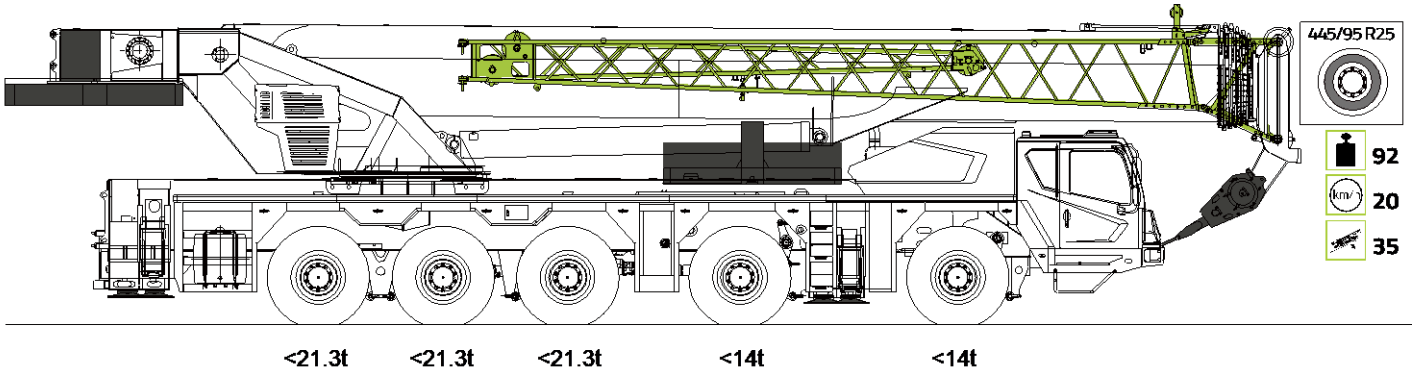
④ Total mass 83 t travel mode

With auxiliary boom and auxiliary boom yoke, outrigger pad, hook, 22t counterweight



⑤ Total mass 92 t travel mode

With auxiliary boom and auxiliary boom outrigger, outrigger pad, hook, 31t counterweight

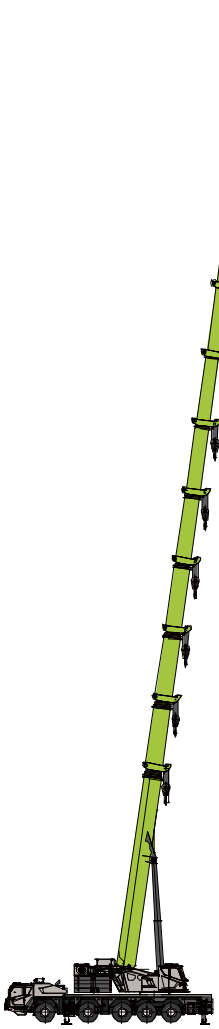


Note:

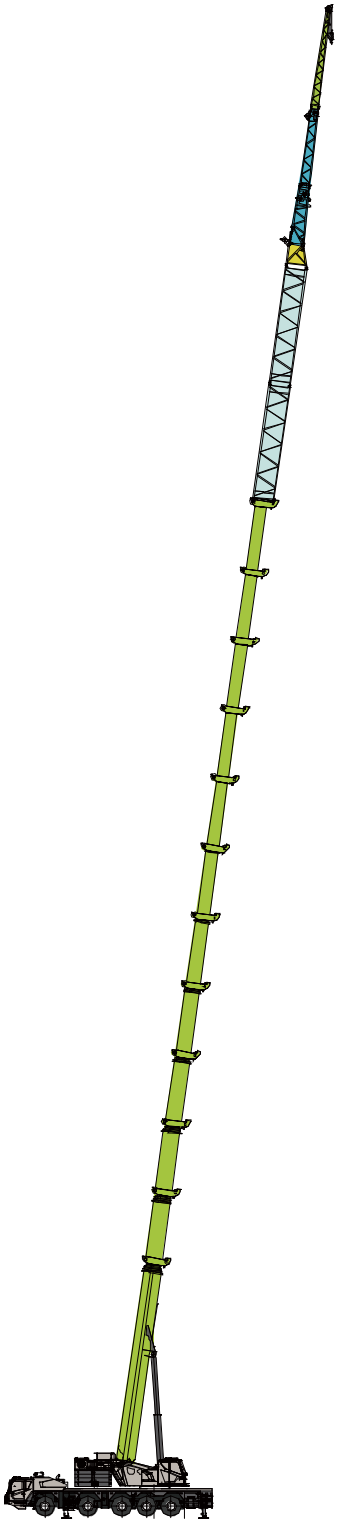
1. When this vehicle is in the driving order or in the transition order, the driver should obey the laws and regulations as well as the stipulations stated in the documents attached with this product. Furthermore, the driver should be fully responsible for any of illegal behaviors.
2. As for the above-mentioned driving or transition parameters, the following prerequisites should be fulfilled:
   - The vehicle is in an intact and good condition.
   - The road surface should be dry, level and solid asphalt or concrete one which has good adhesive force

   If the road is in the bad condition or it is wet and slippery, the gradeability and the parking grade will decrease. And the brake distance will become longer.
3. Travel modes ③/④/⑤ are applied to the short-distance transit off-road conditions with the counterweight. Before transition, the field engineer should confirm the safe transit plan according to the conditions of the vehicle, the road and the weather. After that, carry out the transition operation according to the transit plan.
4. The vehicle speed should be strictly limited under travel modes ③/④/⑤. Otherwise, the following situations will occur.
   - The steering will be out of control.
   - The brake distance will be too long.
   - The service life of the parts and components of the driving system will shorten. Or even the parts and components are damaged.

Boom /jib combinations



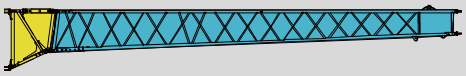
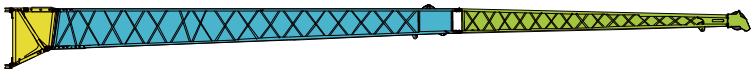
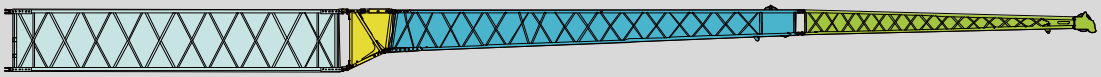
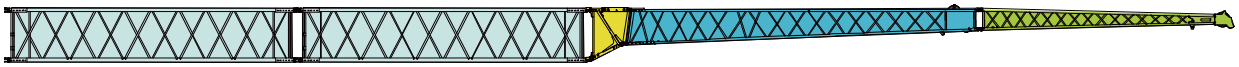
Main boom

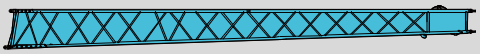
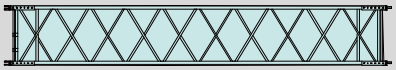


Main boom + Jib

Boom /jib combinations

Jib

10.4m	
19m	
27m	
35m	

Components	Structure type	Dimensions (L*W*H) mm	Mass kg
	Adaptor	2605×910×1570	260
	Jib section I	9400×675×1140	475
	Jib section II	8460×415×580	255
	8 m extension	8000×720×1300	520

Lifting heights + Lifting capacities

This crane has lifting capacity tables of multiple and different OMs. The operator should select the corresponding lifting capacity tables to determine the rated load according to the actual operation situations.

a) OMs marked with the asterisks (*) are nominal ones. When the lifting capacity is more than 100t, the hook and the pulley on the boom frame need to be modified. Contact the manufacturer in advance if necessary.

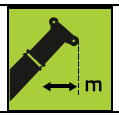
b) OMs marked with the pentacles (★) are optimal telescoping combinations.

c) Do not lift a load that is above the capacity of the crane under any condition, especially for small counterweight OM.

d) Do not perform the lifting operation when the wind speed exceeds the limit, especially for long boom length and large working radius OM.

e) A temperature difference occurs between the side facing the sun and the side facing away from the sun in cranes with telescopic booms. The sunshine will cause that the material of the boom frame expands in hot condition and shrinks in cold condition, which affect the straightness of the boom frame to some extent, especially on the lateral sunshine.

f) The graphic description is as follows.

Graphical representation	Description
	Main Boom OM
	Jib OM
	Weight of counterweight
	Working radius
N_{max}	Max. reevings
W_{max}	The max operating wind speed

Graphical representation	Description
	Outriggers completely extended
	Outriggers intermediately extended
	Over full range
	Counterweight rear position
EN	Standard

Lifting heights + Lifting capacities

Main boom OM: 14 m – 65 m

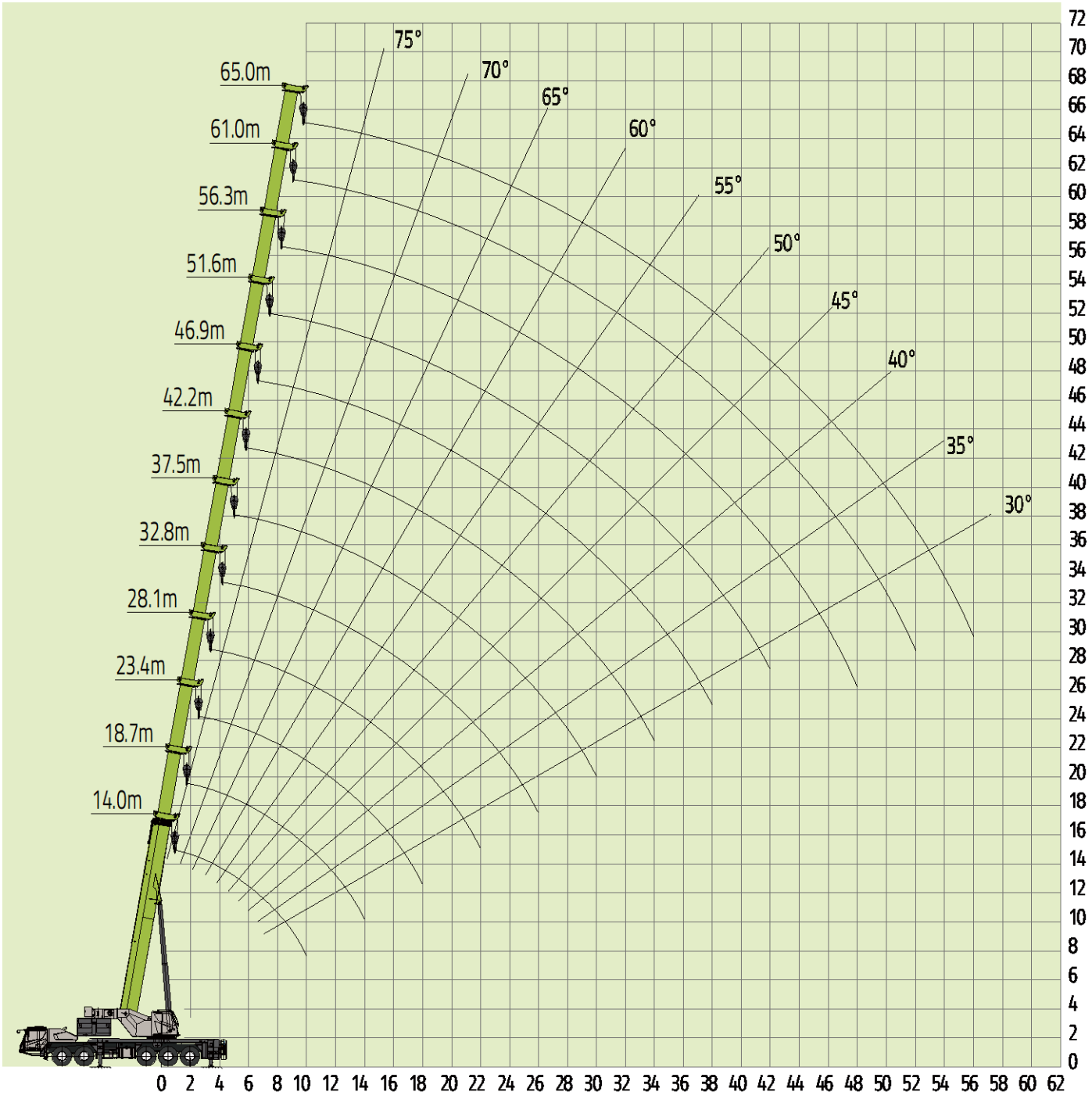


Table 1-1 main boom

Unit: t

14- 65m 8.3m 57t

m	14 ★	18.7	18.7	18.7	18.7 ★	23.4	23.4	23.4	23.4	23.4 ★	28.1	28.1	28.1	28.1	28.1 ★	m
2.5	160*															**2.5**
3.0	100	62.6	97.8	100	100	46.5	68.5	93	93	93						**3.0**
3.5	100	59.4	90.2	100	100	43.6	64.2	93	93	93						**3.5**
4.0	100	56.4	83.8	96	96	41.1	59.8	89.7	89.7	88.7	36.4	46.5	66.5	86	84	**4.0**
4.5	96	53.7	78.1	91	91	38.8	56.2	84.2	84.2	84.2	34.3	43.7	62.7	80	80	**4.5**
5.0	90	51.2	73.4	84	84	36.7	52.8	79.2	79.2	79.2	32.4	41.2	59.3	77	75	**5.0**
6.0	79	47.1	65.1	77.5	77	33.3	47.2	70.7	70.7	70.7	29.1	37.1	53.5	69	69	**6.0**
7.0	70.5	43.5	58.5	69.5	69	30.4	42.7	64.1	65.2	65.2	26.5	33.6	48.7	64	63	**7.0**
8.0	62.5	40.5	53.2	62.8	62	27.9	38.9	58.4	59.7	59.7	24.3	30.7	44.6	60.1	58.1	**8.0**
9.0	55	38	48.7	57	56.4	25.8	35.7	53.6	54.8	54.8	22.3	28.2	41.1	55.1	54.1	**9.0**
10.0	47	35.7	44.8	52	51.3	24	33	49.5	50.9	50.3	20.7	26.1	38.2	50.8	49.5	**10.0**
12.0		32	38.8	43	42.3	21.1	28.6	43	43.3	42.5	18	22.7	33.4	43.5	42.3	**12.0**
14.0		29.3	34.1	34.2	33.5	18.8	25.2	37.9	37.4	36.2	15.9	20	29.6	37.8	36.6	**14.0**
16.0						16.9	22.5	32.4	31.7	30.5	14.2	17.9	26.5	33.1	31.8	**16.0**
18.0						15.4	20.5	26.8	26	24.8	12.9	16.2	24.1	28.9	27.6	**18.0**
20.0											11.7	14.7	22.1	25	23.7	**20.0**
22.0											10.7	13.5	20.4	20.9	19.7	**22.0**
N_{max}	12					11					10					**N_{max}**
W_{max}	14.1m/s					12.8 m/s										**W_{max}**
Hook	110t										90t					**Hook**
Telescoping mode Ⅰ	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	Ⅰ Telescoping mode
Ⅱ	1	1	1	1	2	1	1	1	2	2	1	1	1	2	2	Ⅱ
Ⅲ	1	1	1	2	1	1	1	2	2	1	1	1	2	2	2	Ⅲ
Ⅳ	1	1	2	1	1	1	2	2	1	1	2	3	2	2	1	Ⅳ
Ⅴ	1	2	1	1	1	3	2	1	1	1	3	2	2	1	1	Ⅴ

Table 1-2 main boom

Unit: t

14- 65m 8.3m 57t

	32.8	32.8	32.8	32.8	32.8 ★	37.5	37.5	37.5	37.5	37.5 ★	42.2	42.2	42.2	42.2	42.2 ★	
4.0																**4.0**
4.5																**4.5**
5.0	33	42.1	42.3	66.1	69											**5.0**
6.0	30	38	38.1	60.1	64	32.1	34.4	38.1	49.1	61						**6.0**
7.0	27.3	34.5	34.6	55	58	29.5	31.2	34.6	44.7	59						**7.0**
8.0	25.1	31.6	31.6	50.8	54	27.2	28.5	31.6	41	54.5	26.5	29.1	34.7	41.5	48	**8.0**
9.0	23.2	29.1	29	47.1	50	25.3	26.2	29	37.8	50	24.4	26.8	32.2	38.4	44.4	**9.0**
10.0	21.5	26.9	26.9	44	48	23.7	24.3	26.8	35	47	22.6	24.8	29.9	35.6	41.2	**10.0**
12.0	18.9	23.4	23.3	38.7	42	20.8	21.1	23.3	30.5	41.4	19.6	21.5	26.2	31	36	**12.0**
14.0	16.7	20.7	20.5	34.5	36.6	18.6	18.5	20.4	26.9	36.7	17.3	18.9	23.2	27.3	31.7	**14.0**
16.0	15	18.4	18.3	31.2	32	16.8	16.4	18.1	23.9	32.5	15.3	16.7	20.7	24.3	28.1	**16.0**
18.0	13.6	16.6	16.4	28.4	28.4	15.1	14.7	16.2	21.5	29	13.8	15	18.7	21.8	25.2	**18.0**
20.0	12.4	15.1	14.9	25.9	25	13.7	13.3	14.7	19.5	25.6	12.5	13.5	17	19.8	22.8	**20.0**
22.0	11.4	13.8	13.6	23.3	21.8	12.5	12.1	13.4	17.8	22.7	11.3	12.3	15.5	18	20.7	**22.0**
24.0	10.5	12.7	12.5	20.8	19.4	11.5	11.1	12.2	16.3	20.3	10.4	11.2	14.3	16.4	18.9	**24.0**
26.0	9.7	11.7	11.5	17.6	16.4	10.6	10.2	11.2	15	18.2	9.5	10.3	13.1	15.1	17.2	**26.0**
28.0						9.8	9.4	10.3	13.9	15.6	8.8	9.4	12.2	13.9	15.8	**28.0**
30.0						9.1	8.7	9.5	12.9	13.8	8.1	8.7	11.3	12.8	13.4	**30.0**
32.0											7.5	8	10.5	11.9	11.9	**32.0**
34.0											7	7.5	9.8	11	10.6	**34.0**
N_{max}	8					7					6					**N_{max}**
W_{max}	11.1m/s															**W_{max}**
Hook	70t										55t					**Hook**
Telescoping mode Ⅰ	1	1	1	1	2	1	1	1	1	2	1	1	1	2	3	Ⅰ
Ⅱ	1	1	1	2	2	1	1	2	3	2	1	2	3	3	2	Ⅱ
Ⅲ	1	2	3	2	2	2	3	3	2	2	3	3	3	2	2	Ⅲ
Ⅳ	3	3	2	2	2	3	3	2	2	2	3	3	2	2	2	Ⅳ
Ⅴ	3	2	2	2	1	3	2	2	2	2	3	2	2	2	2	Ⅴ

Table 1-3 main boom

Unit: t

14- 65m 8.3m 57t

m	46.9	46.9	46.9	46.9 ★		51.6	51.6	51.6 ★		56.3	56.3 ★		61 ★		65 ★	m
8.0																**8.0**
9.0	25.2	29.2	34.5	39												**9.0**
10.0	23.4	27.3	32.3	36.4		25.3	29	33.1								**10.0**
12.0	20.4	23.9	28.5	32		22.2	25.7	29.7		23.6	25.2					**12.0**
14.0	17.9	21.1	25.5	28.4		19.8	23	26.4		21.2	24		19.4			**14.0**
16.0	15.9	18.9	22.8	25.5		17.7	20.8	23.7		19.2	21.8		19.4		15.8	**16.0**
18.0	14.2	17	20.4	22.8		16	18.8	21.1		17.4	19.9		18.3		15.8	**18.0**
20.0	12.9	15.5	18.4	20.5		14.5	17.2	19		15.9	18		16.8		15.8	**20.0**
22.0	11.7	14.1	16.8	18.5		13.3	15.7	17.1		14.6	16.3		15.5		15	**22.0**
24.0	10.7	12.9	15.3	16.8		12.2	14.5	15.6		13.5	14.8		14.2		13.7	**24.0**
26.0	9.8	11.9	14	15.4		11.2	13.4	14.2		12.5	13.5		13		12.5	**26.0**
28.0	9	11	12.9	14.1		10.3	12.4	13		11.6	12.3		11.9		11.5	**28.0**
30.0	8.3	10.2	11.9	13		9.6	11.4	11.9		10.8	11.3		11		10.5	**30.0**
32.0	7.7	9.5	11	12		8.9	10.6	11		10	10.4		10.1		9.7	**32.0**
34.0	7.1	8.8	10.2	11.1		8.3	9.8	10.2		9.4	9.7		9.4		8.9	**34.0**
36.0	6.6	8.2	9.5	9.5		7.7	9.1	9.4		8.7	8.9		8.7		8.3	**36.0**
38.0	6.2	7.7	8.8	8.6		7.2	8.4	8.7		8.1	8.3		8.1		7.7	**38.0**
40.0						6.8	7.9	8		7.6	7.7		7.5		7.1	**40.0**
42.0						6.4	7.3	7.4		7	7.1		7		6.6	**42.0**
44.0										6.6	6.6		6.5		6.1	**44.0**
46.0										6.1	6.1		6		5.7	**46.0**
48.0										5.7	5.7		5.6		5.3	**48.0**
50.0													5.2		4.9	**50.0**
52.0													4.9		4.5	**52.0**
54.0															4.2	**54.0**
56.0															3.9	**56.0**
58.0																**58.0**
N_{max}	5					5				4			3		3	**N_{max}**
W_{max}	11.1m/s					11.1m/s				11.1m/s			8.3m/s			**W_{max}**
Hook	55t												25t			**Hook**
Telescoping mode Ⅰ	1	1	2	3		1	2	3		2	3		3		4	Ⅰ Telescoping mode
Ⅱ	2	3	3	3		3	3	3		3	3		3		4	Ⅱ
Ⅲ	3	3	3	2		3	3	3		3	3		3		4	Ⅲ
Ⅳ	3	3	2	2		3	3	2		3	3		3		4	Ⅳ
Ⅴ	3	2	2	2		3	2	2		3	2		3		4	Ⅴ

Lifting heights + Lifting capacities

Main boom + 10.4m jib OM

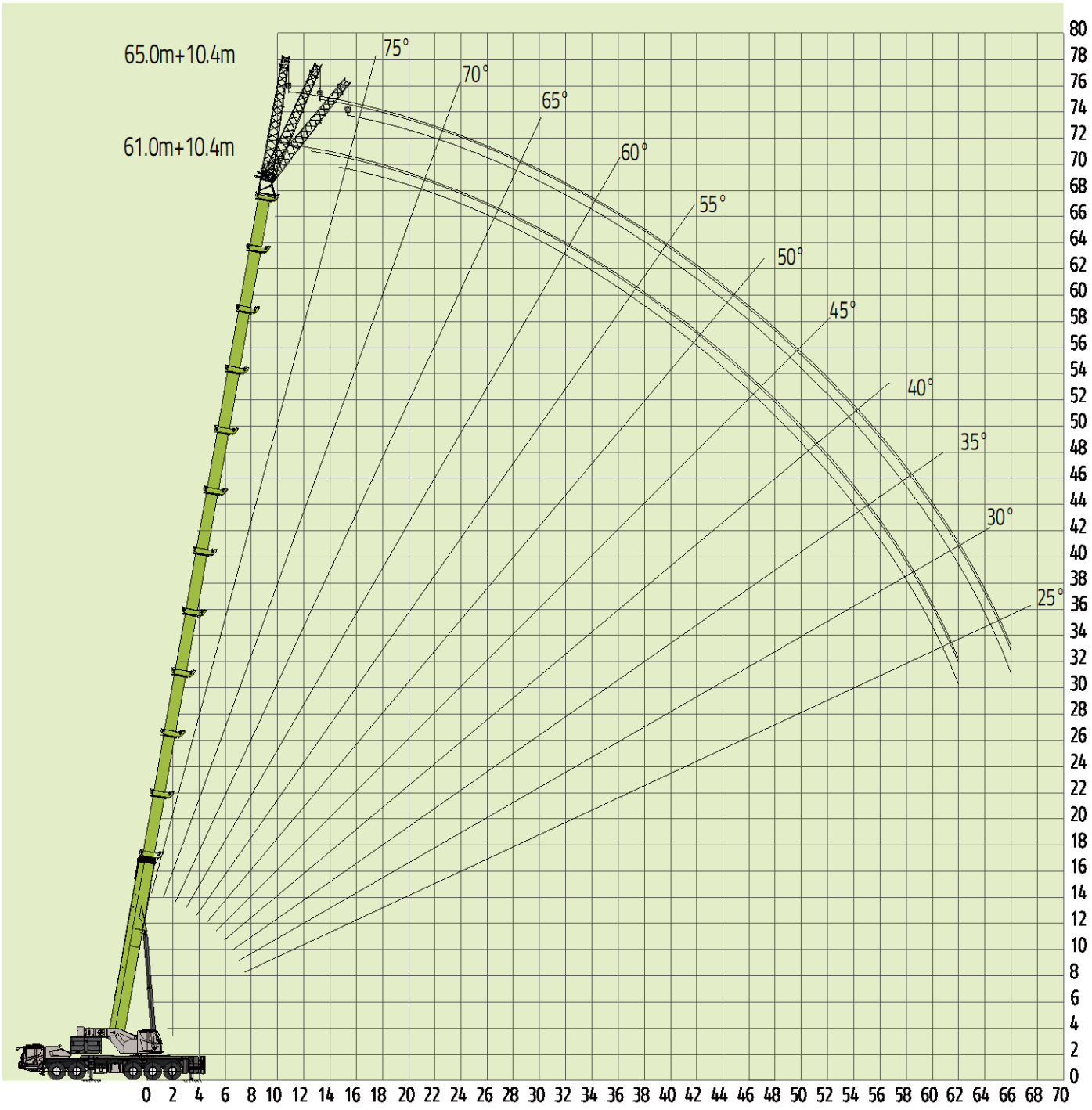


Table 2 main boom + jib

Unit: t

14-65m 10.4m 8.3m 57t

m	61+10.4			65+10.4									m
	0°	20°	40°	0°	20°	40°							
16.0													16.0
18.0	6.8												18.0
20.0	6.7	5.4		6.2									20.0
22.0	6.7	5.3	4.9	6.2	5.2								22.0
24.0	6.6	5.2	4.8	6.2	5.1	4.8							24.0
26.0	6.5	5.1	4.7	6.2	5	4.7							26.0
28.0	6.4	5	4.6	6.1	4.9	4.6							28.0
30.0	6.3	4.9	4.5	6	4.8	4.5							30.0
32.0	6.1	4.8	4.4	5.9	4.7	4.4							32.0
34.0	6	4.7	4.3	5.8	4.6	4.3							34.0
36.0	5.8	4.6	4.2	5.7	4.5	4.2							36.0
38.0	5.7	4.5	4.1	5.6	4.4	4							38.0
40.0	5.6	4.4	3.9	5.5	4.3	3.8							40.0
42.0	5.2	4.3	3.8	5	4.2	3.7							42.0
44.0	4.8	4.2	3.7	4.6	4.1	3.6							44.0
46.0	4.3	4.1	3.6	4.1	3.9	3.5							46.0
48.0	3.9	3.8	3.5	3.7	3.6	3.4							48.0
50.0	3.4	3.4	3.3	3.2	3.1	3.2							50.0
52.0	3.2	3.1	3.1	3	2.9	3							52.0
54.0	3	2.9	2.9	2.7	2.7	2.8							54.0
56.0	2.8	2.7	2.7	2.5	2.5	2.6							56.0
58.0	2.6	2.5	2.4	2.3	2.3	2.3							58.0
60.0	2.3	2.2	2.2	2	2	2.1							60.0
62.0	2.1	2	2	1.8	1.8	1.9							62.0
64.0				1.4	1.4	1.5							64.0
66.0				1.2	1.2	1.3							66.0
68.0													68.0
70.0													70.0
72.0													72.0
74.0													74.0
N_{max}	1			1									N_{max}
W_{max}	8.3m/s												W_{max}
Hook	8t												Hook
Telescoping mode Ⅰ	3			4									Ⅰ Telescoping mode
Ⅱ	3			4									Ⅱ
Ⅲ	3			4									Ⅲ
Ⅳ	3			4									Ⅳ
Ⅴ	3			4									Ⅴ

Lifting heights + Lifting capacities

Main boom + 19m jib OM

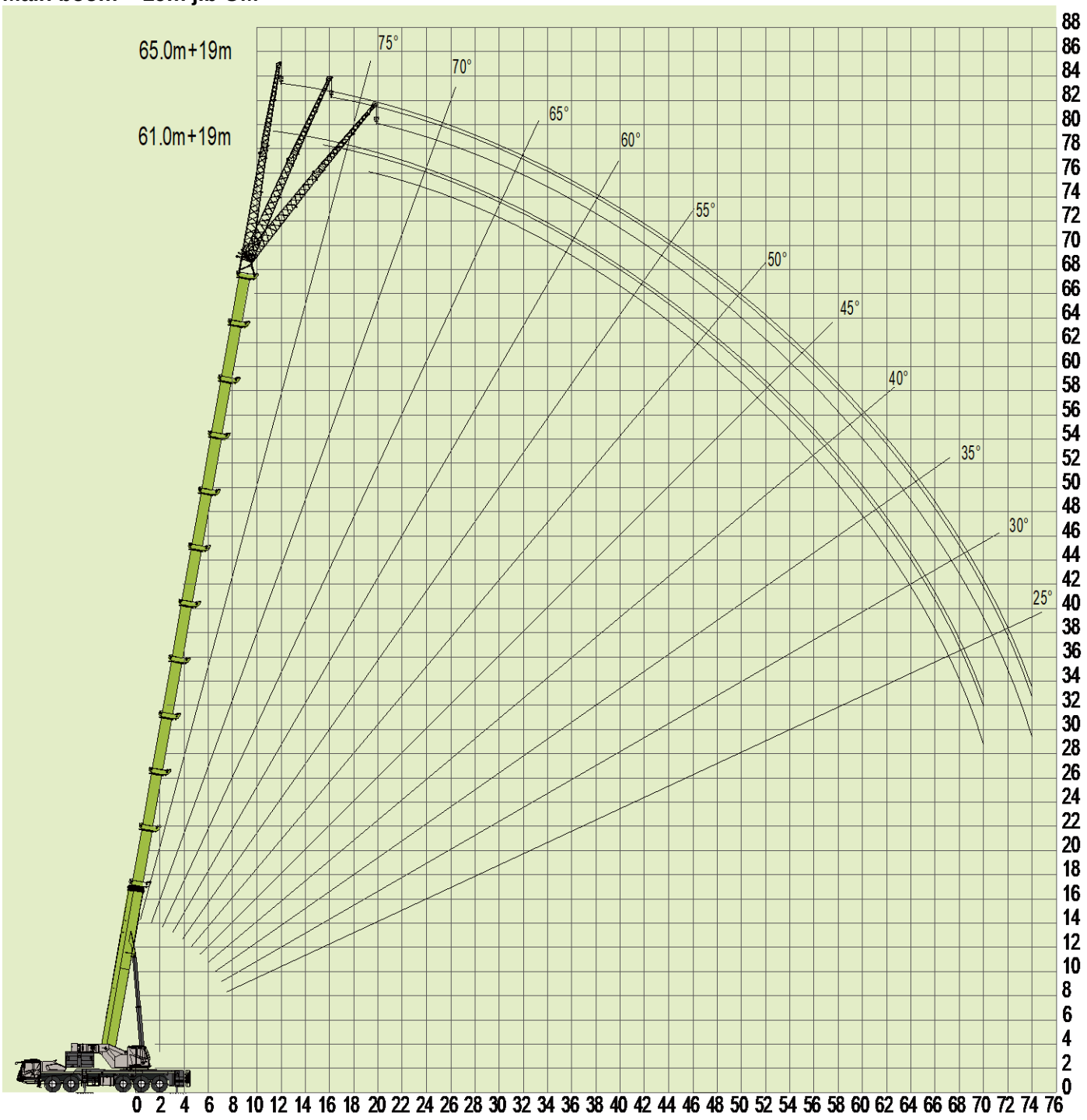


Table 3 main boom + jib

Unit: t

14-65m 19m 8.3m 57t

m	61+19			65+19									m
	0°	20°	40°	0°	20°	40°							
16.0													16.0
18.0													18.0
20.0	3.7												20.0
22.0	3.7			3.5									22.0
24.0	3.6	2.9		3.5									24.0
26.0	3.6	2.9		3.5	2.8								26.0
28.0	3.5	2.8	2.6	3.5	2.8								28.0
30.0	3.5	2.8	2.5	3.5	2.8	2.5							30.0
32.0	3.4	2.8	2.5	3.4	2.8	2.5							32.0
34.0	3.4	2.8	2.5	3.4	2.8	2.5							34.0
36.0	3.4	2.8	2.5	3.4	2.8	2.5							36.0
38.0	3.4	2.8	2.4	3.4	2.8	2.4							38.0
40.0	3.3	2.7	2.4	3.3	2.7	2.4							40.0
42.0	3.3	2.7	2.4	3.2	2.7	2.4							42.0
44.0	3.1	2.7	2.4	3	2.7	2.4							44.0
46.0	2.9	2.6	2.3	2.8	2.6	2.3							46.0
48.0	2.8	2.6	2.3	2.7	2.6	2.3							48.0
50.0	2.7	2.5	2.3	2.6	2.5	2.3							50.0
52.0	2.6	2.4	2.3	2.5	2.4	2.2							52.0
54.0	2.4	2.3	2.2	2.3	2.2	2.1							54.0
56.0	2.3	2.2	2.1	2.2	2.1	2							56.0
58.0	2.2	2.1	2	2.1	2	1.9							58.0
60.0	2.1	2	1.9	2	1.9	1.8							60.0
62.0	1.9	1.9	1.8	1.8	1.8	1.7							62.0
64.0	1.8	1.7	1.7	1.6	1.6	1.6							64.0
66.0	1.7	1.6	1.6	1.5	1.5	1.5							66.0
68.0	1.6	1.5	1.5	1.4	1.4	1.4							68.0
70.0	1.4	1.4	1.4	1.2	1.2	1.2							70.0
72.0				1.1	1.1	1.1							72.0
74.0				1	1	1							74.0
N_{max}	1			1									N_{max}
W_{max}	8.3m/s												W_{max}
Hook	8t												Hook
Telescoping mode I	3			4									I Telescoping mode
II	3			4									II
III	3			4									III
IV	3			4									IV
V	3			4									V

Lifting heights + Lifting capacities

Main boom + 27m jib OM

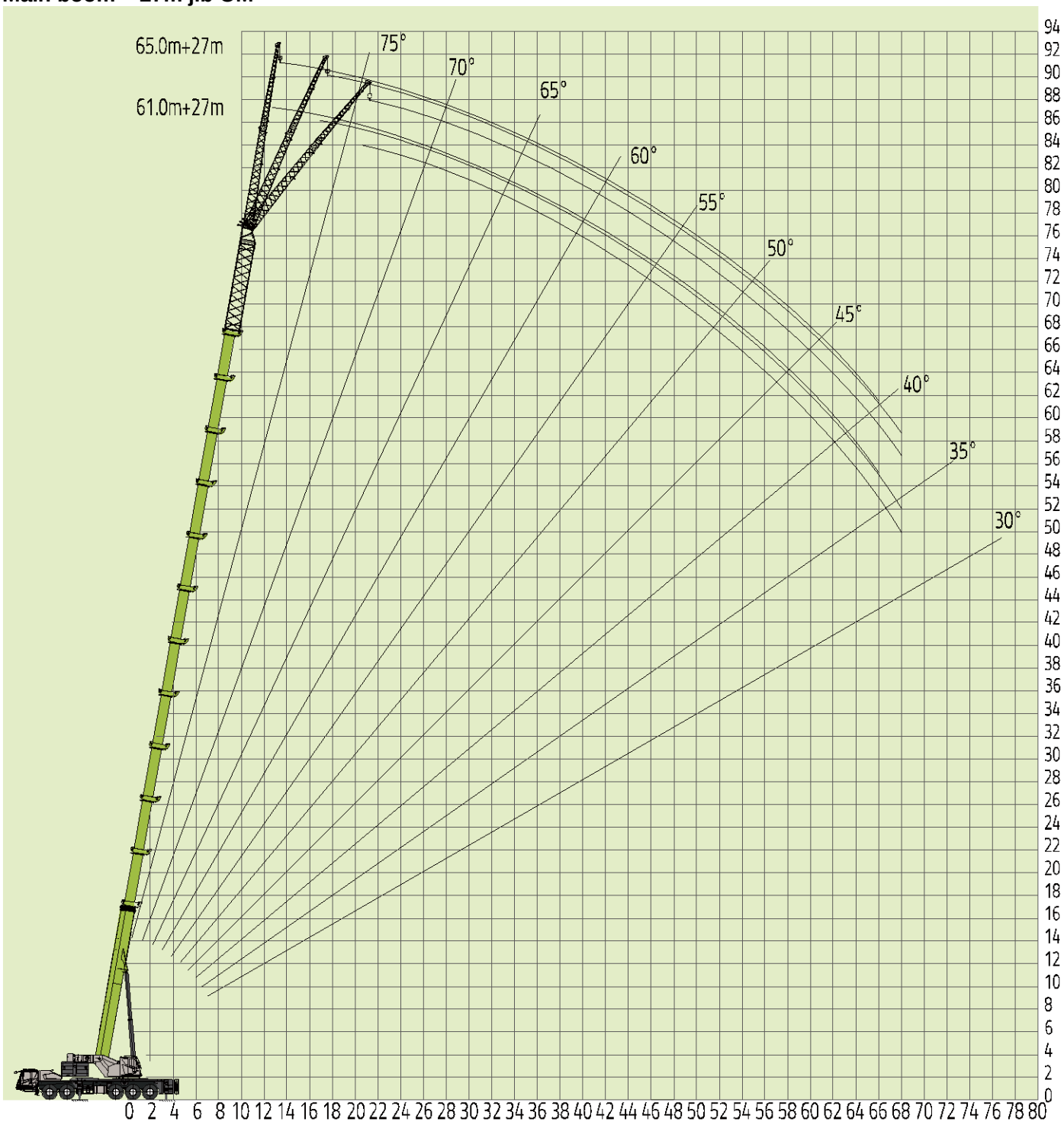


Table 4 main boom + jib Unit: t

14-65m 27m 8.3m 57t

m	61+27			65+27									m
	0°	20°	40°	0°	20°	40°							
16.0													16.0
18.0													18.0
20.0													20.0
22.0													22.0
24.0	2.8												24.0
26.0	2.7			2.5									26.0
28.0	2.7	2.3		2.5									28.0
30.0	2.6	2.3		2.5	2.2								30.0
32.0	2.6	2.3	2	2.5	2.2								32.0
34.0	2.5	2.2	1.9	2.4	2.2	1.9							34.0
36.0	2.5	2.2	1.9	2.4	2.2	1.9							36.0
38.0	2.5	2.2	1.9	2.4	2.2	1.9							38.0
40.0	2.5	2.2	1.9	2.4	2.1	1.9							40.0
42.0	2.4	2.1	1.8	2.3	2.1	1.8							42.0
44.0	2.4	2.1	1.8	2.3	2.1	1.8							44.0
46.0	2.4	2.1	1.8	2.3	2.1	1.8							46.0
48.0	2.3	2.1	1.8	2.2	2.1	1.8							48.0
50.0	2.2	2	1.8	2.1	2	1.8							50.0
52.0	2.1	2	1.8	2	2	1.8							52.0
54.0	2	2	1.8	1.9	1.9	1.8							54.0
56.0	1.9	1.9	1.7	1.8	1.8	1.7							56.0
58.0	1.8	1.8	1.7	1.7	1.7	1.6							58.0
60.0	1.7	1.7	1.6	1.6	1.6	1.5							60.0
62.0	1.6	1.5	1.5	1.4	1.4	1.3							62.0
64.0	1.5	1.4	1.5	1.3	1.3	1.3							64.0
66.0	1.3	1.3	1.4	1.1	1.2	1.2							66.0
68.0		1.1	1.2		1	1							68.0
70.0													70.0
72.0													72.0
74.0													74.0
N_{max}	1			1									N_{max}
W_{max}	8.3m/s												W_{max}
Hook	8t												Hook
Telescoping mode I	3			4									I Telescoping mode
II	3			4									II
III	3			4									III
IV	3			4									IV
V	3			4									V

Lifting heights + Lifting capacities

Main boom + 35m jib OM

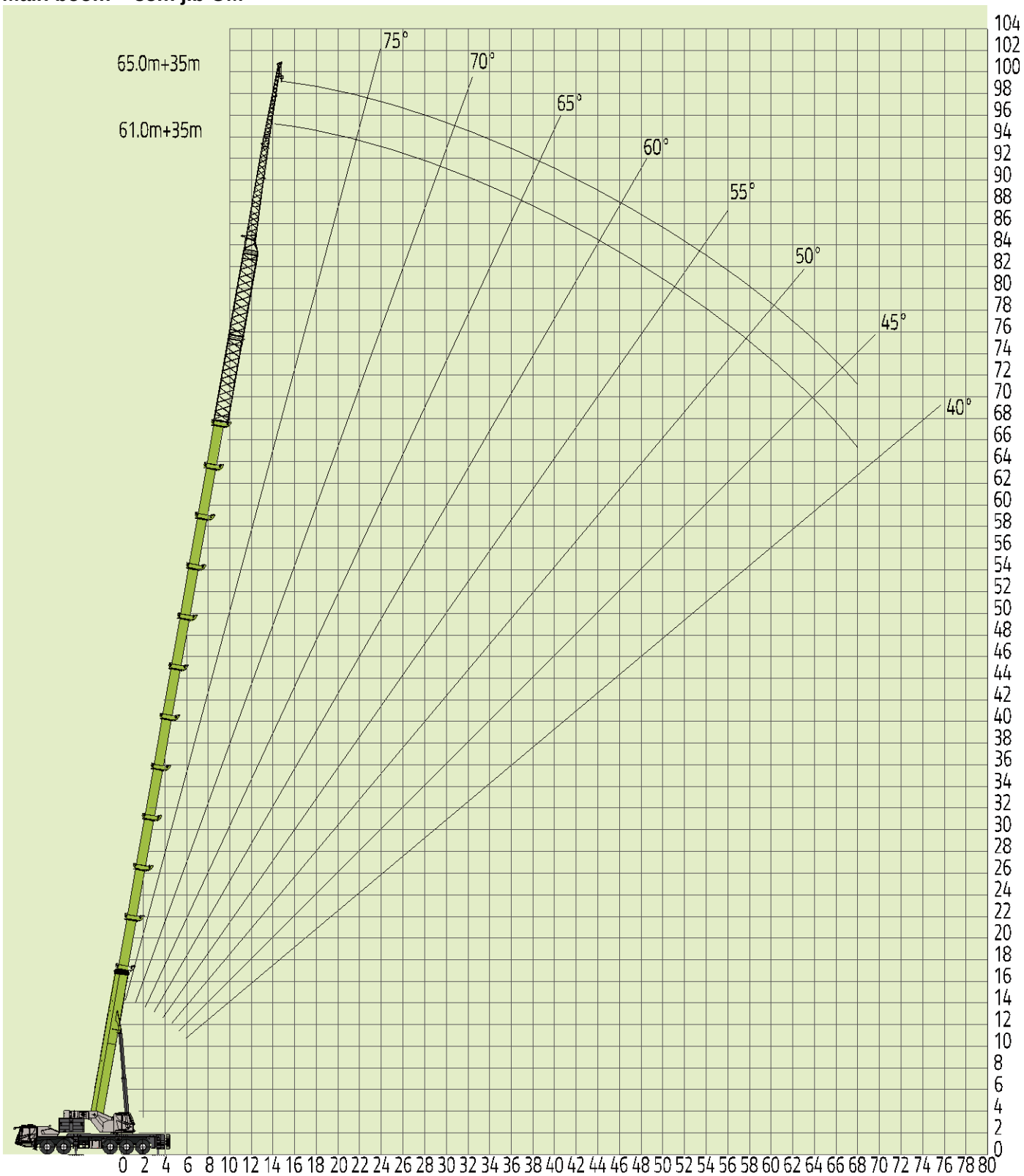


Table 5 main boom + jib Unit: t

14-65m 35m 8.3m 57t

m	61+35			65+35									m
	0°	20°	40°	0°	20°	40°							
16.0													16.0
18.0													18.0
20.0													20.0
22.0													22.0
24.0	2												24.0
26.0	1.9			1.8									26.0
28.0	1.9			1.8									28.0
30.0	1.8			1.7									30.0
32.0	1.8			1.7									32.0
34.0	1.8			1.7									34.0
36.0	1.8			1.7									36.0
38.0	1.8			1.7									38.0
40.0	1.7			1.6									40.0
42.0	1.7			1.6									42.0
44.0	1.7			1.6									44.0
46.0	1.7			1.6									46.0
48.0	1.6			1.5									48.0
50.0	1.6			1.5									50.0
52.0	1.6			1.5									52.0
54.0	1.6			1.5									54.0
56.0	1.5			1.4									56.0
58.0	1.5			1.4									58.0
60.0	1.4			1.3									60.0
62.0	1.3			1.2									62.0
64.0	1.2			1.1									64.0
66.0	1.1			1									66.0
68.0	1.1			1									68.0
70.0													70.0
72.0													72.0
74.0													74.0
N_{max}	1			1									N_{max}
W_{max}	8.3m/s												W_{max}
Hook	8t												Hook
Telescoping mode I	3			4									I Telescoping mode
II	3			4									II
III	3			4									III
IV	3			4									IV
V	3			4									V