

ZOOMLION
ITALIA

/ Rough
terrain crane

RTC500



RTC 500



Capacity CE
50 t



Boom length
9.5-37.1 m



Jib
8 m



Max height
47.4 m

CE



/ Rough terrain crane **RTC500**

CARRIER

Carrier Frame

Box section frame with internal ribs fabricated from high-strength steel

Outriggers

Four hydraulic outriggers moved by horizontal cylinders and jacks withhold valves

Excursion of the beams in three positions: 0%, 50% and 100%

Easily removable floats

Controls and bull's eye spirit level placed in the cabin

Planimetric sensor for viewing the inclination on the main display in the cabin

Engine

Diesel, electronically controlled turbo intercooler and water cooled

Dry air intake filter with safety cartridge and clogging indicator

CUMMINS B6.7 STAGE V ENGINE 129 kW @ 2100 rpm

Transmission

Torque converter ZF 5WG190 with Powershift gearbox with 5 forward and 3 reverse speeds

Hydraulic Pumps

LS pump for main operations

Gear pumps for slewing, outriggers and steering

Axles

Front: towing / steering with differential and hubs with planetary reductions, rigidly mounted on the chassis

Rear: tractor / steering with differential and hubs with planetary reductions, oscillating for use off-road or locked in a horizontal position for use on tires

Differential lockable by means of a button in the cabin

Steering

Front: hydraulically operated by steering wheel

Rear: hydraulically operated by an electrical switch, independent from the front axle, with wheel alignment indicator

Four steering modes: only front wheels, only rear wheels, coordinated, crab

Brakes

Service/Emergency: dual independent pneumatic circuit operated by pedal acting on all wheels

Parking: with spring cylinder acting on all wheels

Tyres

"Off-road" type, single mounted 16.00-25

Electrical Equipment

Two 12V / 160Ah batteries

Starting and lighting at 24 V





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UPPER STRUCTURE

Upper Structure Frame

Fabricated with high-strength steel plates and profiles
Dismountable counterweight

Telescopic Boom

Composed of five elements with a "U" section, hydraulically operated with the first section independent and the last three proportional
Two operating modes to maximize performance

Main Hoist

Grooved drum with cable press
Multiple disc negative brake and counterbalance valve

Slewing

Hydraulic motor coupled to reducer
Free rotation system
Continuous 360 ° rotation
Electro-pneumatic insertion of the rotation locking pin directly from the cab
Angular sensor for viewing the turret position on the main display in the cabin

Cabin

Large windows with panoramic visibility with the possibility of opening the front glass
Two electric washers / wipers
Ergonomic sliding seat and adjustable in height, depth and according to the weight of the operator
Security belt
Hot / cold air conditioning system
Main display for crane functions and vehicle functions
Secondary display for viewing winch cameras and rear camera

Crane Controls

Electric joysticks on the armrests of the operator seat for the independent or simultaneous control of the crane movements on the electrical system in can bus
Electric switches for controlling the stabilizers, the fast running of the winch and the free rotation on the electrical system in the can bus

Distributors

Nº2 Electro-hydraulic distributors that guarantee the simultaneous combination of crane movements
Main distributor for lifting, extension and winch maneuvers
Secondary distributor for rotation

Travel Controls

Steering wheel for the control of the front steering axle.
Electric switch for independent steering of the rear wheels
Manual gearshift and parking brake
Electric switch for the control of the low and high range speeds with automatic engagement of the 2 or 4 wheel drive
Engine alarm instrumentation

Load Moment Indicator

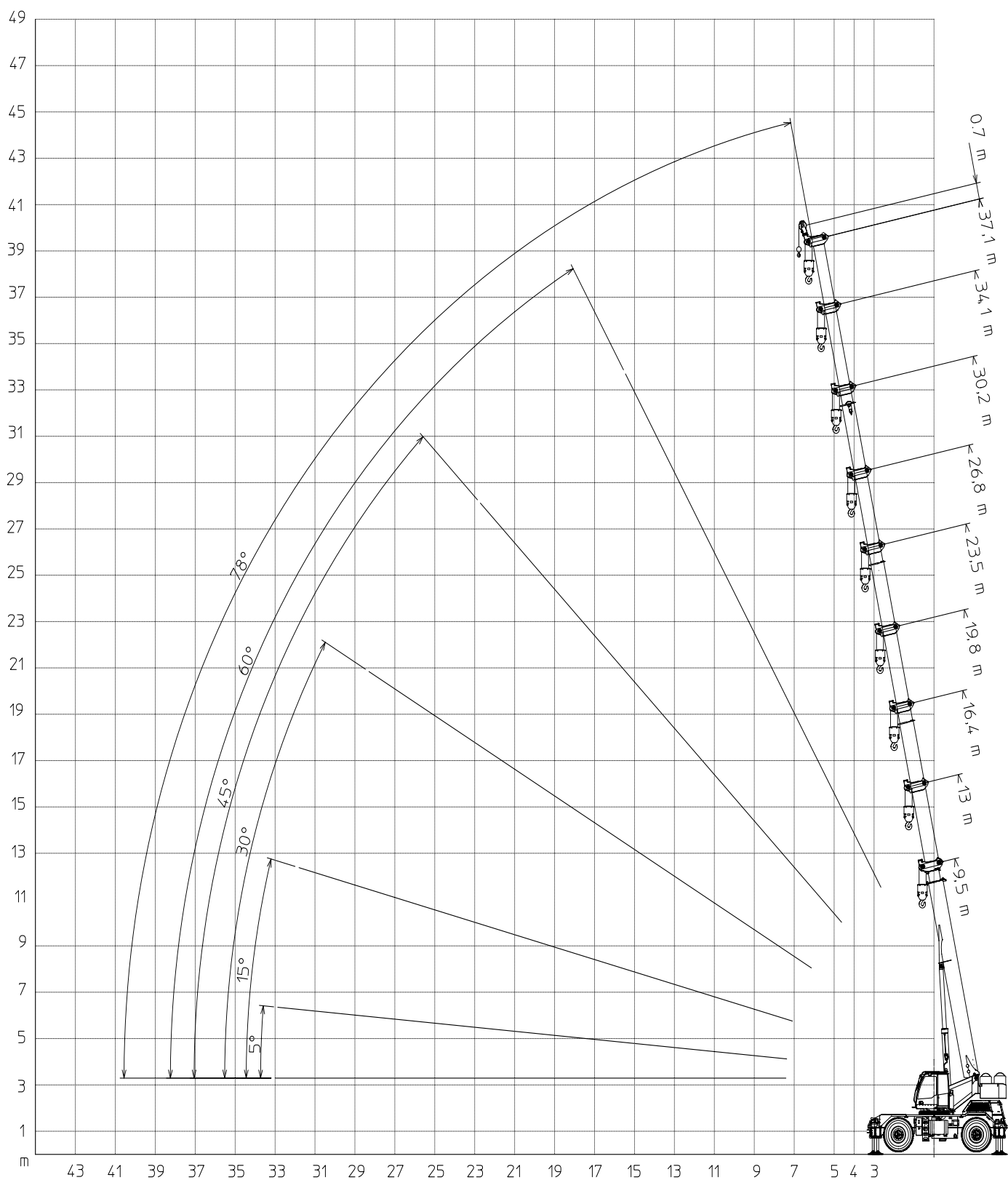
Limiter with 10" color touchscreen display
Anti-two block system for block limit switch
Movement locking system with acoustic and visual alarm
Angle recognition system and boom extension
Automatic recognition of stabilizer configuration on display



WORKING DIAGRAM

/Rough terrain crane

RTC500



WORKING DIAGRAM

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100%



37.1 m



5.5 t



360°

RTC500

Rated lifting capacity table

Main boom

Unit: metric t

Outriggers 100% - 360° - Counterweight 5.5 t

Boom length

(m)	9.5	13.0	16.4	19.8	23.5	26.8	30.2	34.1	37.1
2.5	50.00								
3	42.00	37.00	21.60						
3.5	38.20	33.50	21.50						
4	33.80	31.00	21.00	17.70					
4.5	30.50	29.00	20.70	17.40					
5	27.00	27.00	19.20	17.00	16.00				
6	22.10	22.40	18.00	15.00	14.00	10.00			
7		17.00	16.40	13.50	12.40	8.90	8.50		
8		13.50	13.70	12.00	11.00	8.00	7.60	7.20	
9		10.80	11.00	11.00	10.20	7.90	7.00	7.10	4.60
10		9.00	9.10	9.20	8.70	7.50	6.35	6.80	4.60
11			7.80	7.90	7.40	7.00	6.20	6.20	4.30
12			6.70	7.00	6.60	6.50	5.50	5.80	4.10
13			5.90	6.10	6.20	6.00	4.90	5.70	3.80
14			5.20	5.40	5.30	5.10	4.70	5.15	3.60
15				4.80	4.80	4.70	4.50	4.55	3.40
16				4.30	4.40	4.50	4.00	4.10	3.20
17				3.80	3.90	4.10	3.60	3.65	3.00
18					3.50	3.60	3.20	3.30	2.90
19					3.20	3.30	3.10	3.00	2.70
20					2.90	3.00	2.90	2.80	2.50
22						2.50	2.30	2.20	2.20
24						2.15	1.90	1.85	1.80
26							1.70	1.60	1.40
28							1.40	1.30	1.10
30								1.10	0.80
32									0.80
34									0.40
35									0.35
Reeving	12	8	8	6	6	4	4	2	2
Hook	50	50	40	40	40	40	20	20	20

WORKING DIAGRAM

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RTC500



0 Km/h



19.8 m



5.5 t

RTC500

Lifting capacity table - on tires

Main boom

Unit: metric t

Counterweight 5.5 T

MODE 1					MODE 2			
t1	0.00%	51.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%
t2 - t3 - t4	0.00%	0.00%	0.00%	16.42%	0.00%	17.00%	33.00%	50.23%
(m)	9.5	13.0	16.4	19.8	9.5	13.0	16.4	19.8
2.5								
3	15.00				15.00			
3.5	12.00				12.00			
4	10.00	9.00			10.00	10.00		
4.5	8.50	7.50			8.50	8.40		
5	7.20	6.30			7.20	7.50		
6	5.20	4.70	4.50		5.20	5.60	5.70	
7		3.60	3.50	3.70		4.40	4.60	4.50
8		2.80	2.70	2.90		3.50	3.70	3.80
9		2.10	2.00	2.20		2.80	3.00	3.10
10		1.60	1.40	1.70		2.30	2.50	2.60
11			1.10	1.30			2.10	2.20
12			0.70	1.00			1.70	1.80
13			0.45	0.75			1.40	1.50
14			0.20	0.50			1.20	1.30
15				0.30				1.10
16								0.90
17								0.70
18								
19								
20								
22								
24								
26								
28								
30								
32								
34								
35								
Reeving	12	8	8	6	6	4	4	2
Hook	50	50	40	40	40	40	20	20

WORKING DIAGRAM

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2 Km/h



19.8 m



5.5 t

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Rated lifting capacity table - 2 Km/h

Main boom

Unit: metric t

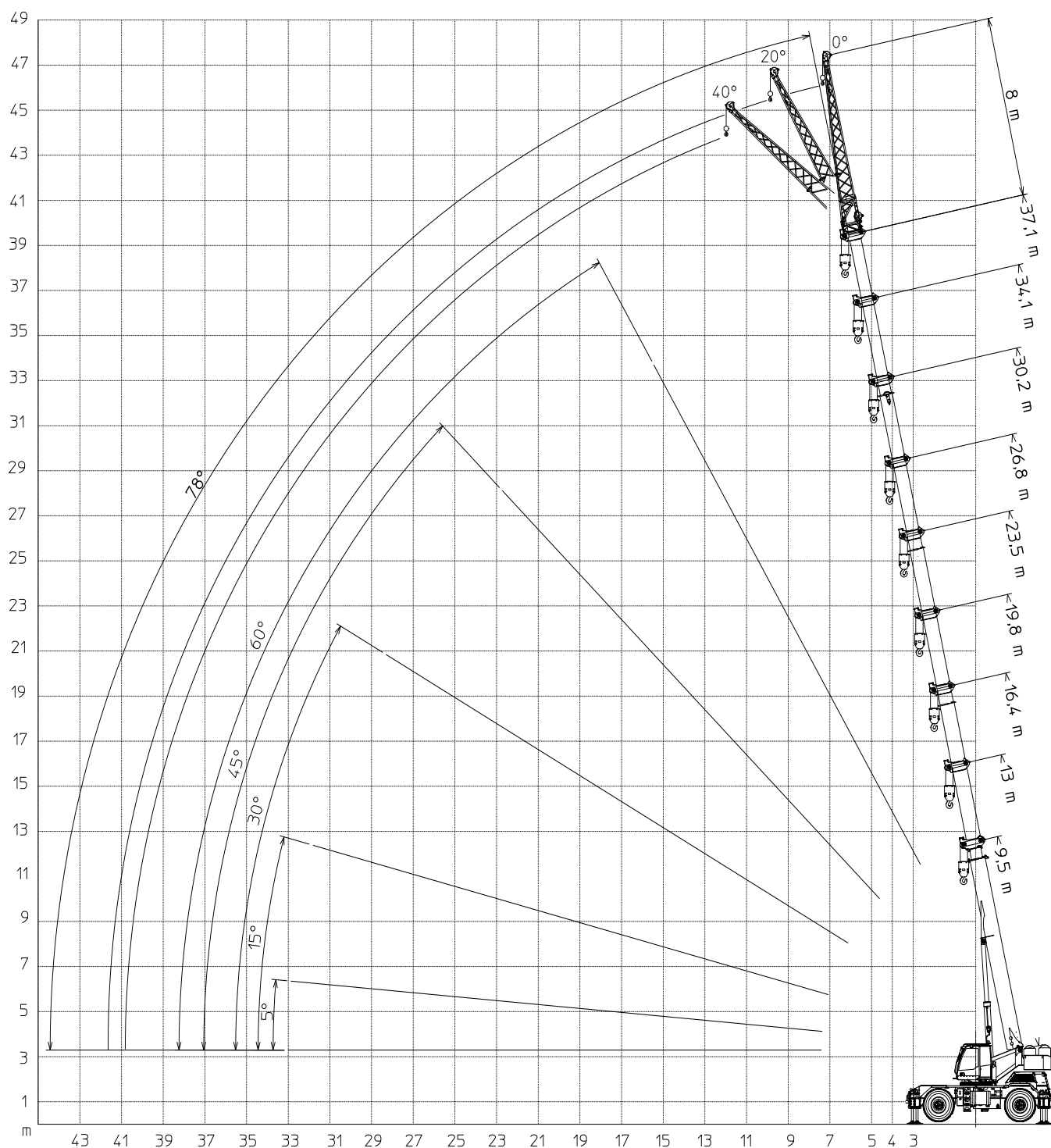
Counterweight 5.5 T

MODE 1					MODE 2				
t1	0.00%	51.00%	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
t2 - t3 - t4	0.00%	0.00%	0.00%	16.42%	0.00%	17.00%	33.00%	50.23%	100.00%
(m)	9.5	13.0	16.4	19.8	9.5	13.0	16.4	19.8	37.1
2.5									
3	11.00	9.90	9.00		11.00	10.30	9.70		
3.5	10.00	9.00	8.00		10.00	9.50	8.70		
4	9.20	8.20	7.50	7.10	9.20	8.80	8.20	7.50	
4.5	7.90	7.00	6.30	6.20	7.90	7.70	7.10	7.00	
5	6.60	6.00	5.40	5.40	6.60	6.80	6.20	6.00	
6	4.80	4.40	4.00	4.00	4.80	5.20	5.30	4.90	
7		3.30	3.00	3.10		4.00	4.20	4.20	
8		2.50	2.20	2.45		3.20	3.40	3.45	
9		1.90	1.70	1.90		2.60	2.80	2.85	
10		1.50	1.25	1.50		2.10	2.30	2.40	
11			0.90	1.20			1.90	2.00	
12			0.60	0.90			1.60	1.70	
13			0.40	0.60			1.30	1.40	
14			0.20	0.40			1.00	1.10	
15				0.25				1.00	
16								0.80	
17								0.60	
18									
19									
20									
22									
24									
26									
28									
30									
32									
34									
35									
Reeving	12	8	8	6	6	4	4	2	2
Hook	50	50	40	40	40	40	20	20	20

WORKING DIAGRAM

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WORKING DIAGRAM

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100%



5.5 t



8 m



360°



Outrigger extension 100% | Counterweight 5.5 t | Jib 8 m | 360° | M1

Unit: t

Boom		9.5			23.5			30.2			37.1			Boom	
T1		0%			100%			100%			100%			T1	
T2-T3-T4		0%			34.29%			66.67%			100%			T2-T3-T4	
Jib	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	Jib		
Radius													Radius		
3	5										3				
4	5										4				
5	5										5				
6	5										6				
7	5	2.6									7				
8	4.6	2.6	1.95	3.8							8				
9	3.8	2.6	1.95	3.8							9				
10	3.2	2.3	1.8	3.6	3.95		2.15				10				
11	2.8	2.1	1.7	3.6	3.6		2.1				11				
12	2.5	1.9	1.6	3.5	3.35	2.15	2				1.6	12			
13				3.6	3.1	2.1	2	2.15			1.6	13			
14				3.6	2.95	2	2	2.1			1.6	14			
15				3.4	2.75	1.9	1.9	2	1.5		1.6	1.6	15		
16				3	2.6	1.85	1.7	2	1.45		1.55	1.6	16		
17				2.7	2.5	1.75	1.5	1.75	1.4		1.5	1.5	1.5	17	
18				2.3	2.3	1.75	1.3	1.55	1.35		1.35	1.35	1.4	18	
19				2.1	2.2	1.7	1.3	1.4	1.35		1.3	1.3	1.25	19	
20				1.9	2.1	1.65	1.25	1.35	1.3		1.25	1.3	1.15	20	
21				1.7	2	1.65	1.25	1.3	1.25		1.2	1.25	1.15	21	
22				1.3	1.7	1.6	1.2	1.3	1.2		1.15	1.25	1.1	22	
23				1.2				1.15	1.25	1.2		1.1	1.2	1.1	23
24				1.1				1.1	1.2	1.15		1	1.2	1	24
25				1				1.1	1.2	1.1		0.9	1	0.9	25
26				0.9				0.9	1.1	1		0.75	0.9	0.8	26
28							0.7					0.6	0.7	0.6	28
30							0.5					0.45	0.55	0.5	30
32											0.3	0.4			32
34											0.2	0.3			34
36															36
Reeving	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Reeving
Hook	6	6	6	6	6	6	6	6	6	6	6	6	6	6	Hook

WORKING DIAGRAM

/Rough terrain crane

RTC500



100%



5.5 t



8 m



360°



Outrigger extension 100% | Counterweight 5.5 t | Jib 8 m | 360° | M2

Unit: t

Boom	9.5			23.5			30.2			37.1			Boom			
T1	0%			0%			0%			100%			T1			
T2-T3-T4	0%			68%			100%			100%			T2-T3-T4			
Jib	0°	20°	40°	0°	20°	40°	0°	20°	40°	0°	20°	40°	Jib			
Radius													Radius			
3	5										3					
4	5										4					
5	5										5					
6	5										6					
7	5	2.6									7					
8	4.6	2.6	1.95	4.2							8					
9	3.8	2.6	1.95	4.2							9					
10	3.2	2.3	1.8	4				1.3				10				
11	2.8	2.1	1.7	3.7	3.6			1.4				11				
12	2.5	1.9	1.6	3.4	3.3	2.15	1.4				1.6	12				
13				3.5	3.25	2.1	1.45	1.4			1.6	13				
14				3.4	2.95	2	1.45	1.4			1.6	14				
15				3.3	2.75	1.9	1.5	1.4	1.5			1.6	1.6	15		
16				3.1	2.6	1.85	1.55	1.4	1.45			1.55	1.6	16		
17				2.8	2.5	1.75	1.6	1.4	1.4			1.5	1.5	1.5	17	
18				2.6	2.35	1.75	1.5	1.45	1.4			1.35	1.35	1.4	18	
19				2.3	2.2	1.7	1.35	1.4	1.35			1.3	1.3	1.25	19	
20				2.1	2.15	1.65	1.35	1.35	1.35			1.25	1.3	1.15	20	
21				1.9	2	1.65	1.3	1.3	1.3			1.2	1.25	1.15	21	
22				1.8	1.9	1.6	1.3	1.3	1.3			1.15	1.25	1.1	22	
23				1.7				1.25	1.25	1.25			1.1	1.2	1.1	23
24				1.6				1.25	1.25	1.25			1	1.2	1	24
25				1.5				1.2	1.2	1.2			0.9	1	0.9	25
26				1.4				1.2	1.2	1.2			0.75	0.9	0.8	26
28							1						0.6	0.7	0.6	28
30							0.9						0.45	0.55	0.5	30
32												0.3	0.4			32
34												0.2	0.3			34
36															36	
Reeving	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Reeving
Hook	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	Hook



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SPECIFICATIONS



Capacity
CE

Capacity CE	Work radius
50 t	2,5 m



Hook

Capacity	Pulleys	Lines	Weight	Configuration
40 t	5	10	500 kg	Standard
20 t	3	6	200 kg	Optional
5 t	-	1	115 kg	Optional



Telescopic boom
and jib

Boom length	Max height	Sections	Luffing angle	Jib	Max height with jib
9.5 / 37.1 m	39,4 m	5	-2° / +78°	8 m	47.4 m



Working
speed

	Max speed	Line	Line pull	Length
Main winch	0 - 132 m/min. direct pull	Ø 16	41 kN	175 m
Secondary winch	0 - 132 m/min. direct pull	Ø 16	41 kN	140 m
Rotation 360°	0 - 1.5 r/min			
Boom lifting		from -2° to 78°	70 s/ca	
Boom extension		from 9.5 to 37.1 m	135 s/ca	



Engine

Engine	Model (Stage V)	Cylinders	Nominal power	Max torque	Fuel tank	Adblue tank
CUMMINS	QSB6.7	6	129kW@2200 rpm	800Nm@1500 rpm	300 l	25 l



Machine speed

Drive	F1	F2	F3	F4	F5	R1	R2	R3	Slope
Km/h	4.5	6.8	11	16	25	4.7	11	25	93%
Tires	16.00 R25								



Weights

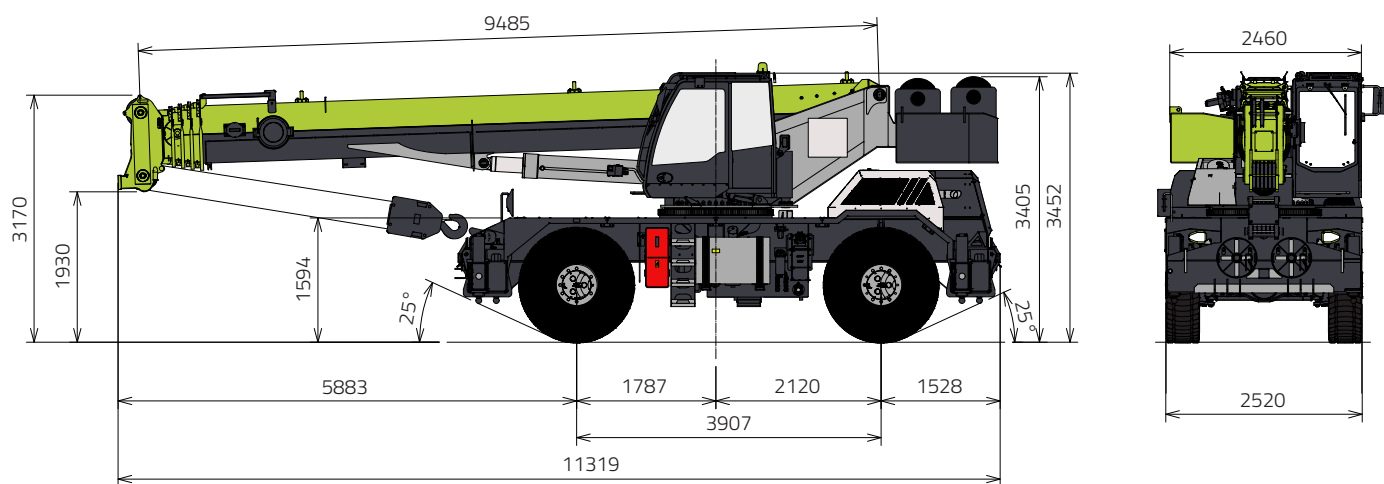
Axles	1	2	Total weight	Counterweight
Tons.	15.1	14.8	29.9*	5.5 (included)
Tons.	15.8	15.4	31.2	5.5 (included)

* without optionals

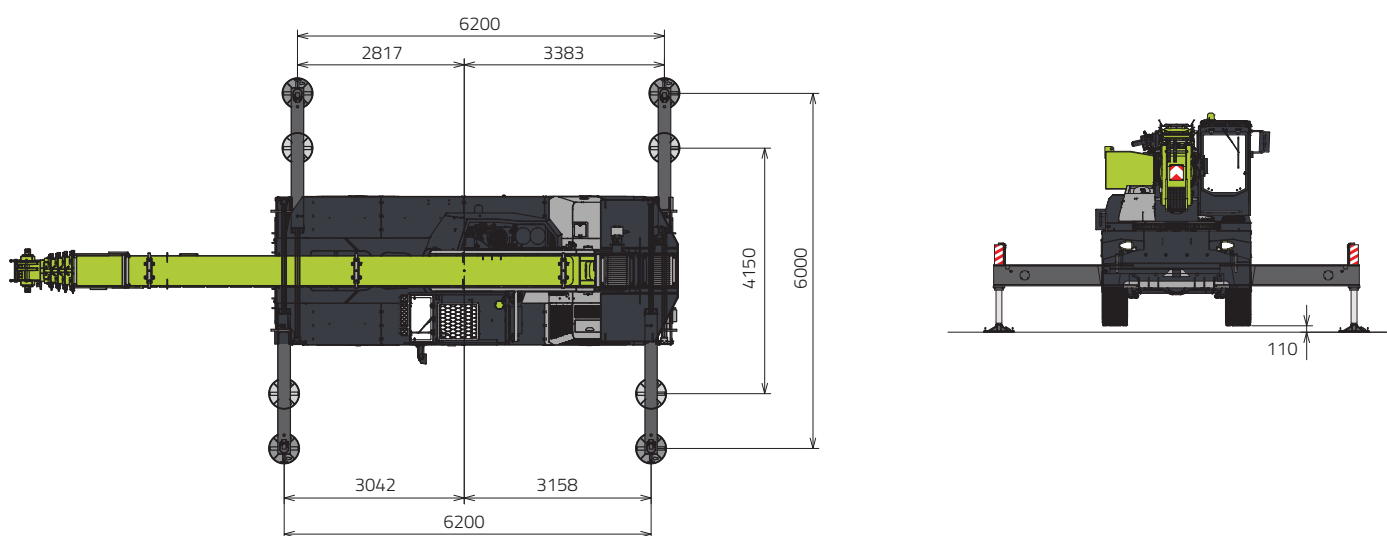


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DIMENSIONS



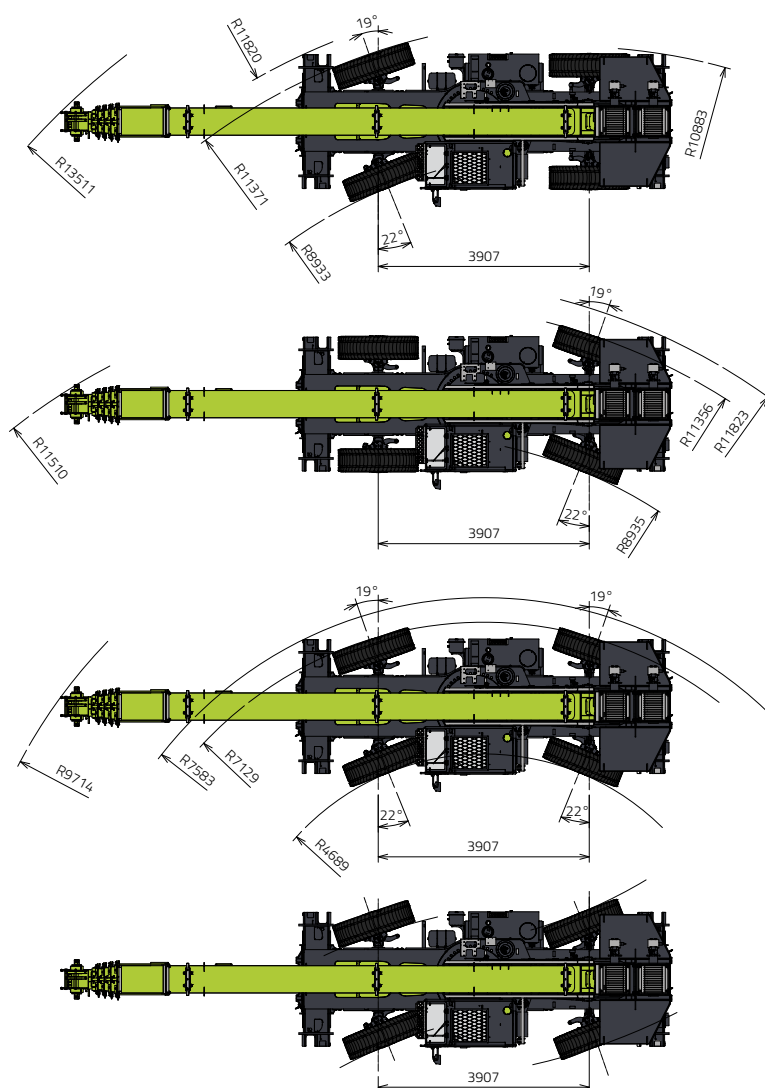
STABILIZATION





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STEERING MODE



Product specifications are subject to change without notice.
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