TEKNOGRC

45 t

TK45 LS

CRAWLER CRANE

TK45 LS

Ideal for the installation and maintenance of high-altitude structures such as pylons, power lines, cableways and antennas

- the TK45 LS is suitable for the installation of high, medium and low voltage pylons
- the powerful Danfoss motors installed on the crawler chassis allow reaching work areas that are inaccessible to common lifting equipment
- the telescopic beam stabilization system allows lifting loads in the most difficult working conditions
- the three jib inclinations offer the possibility of lifting loads in restricted spaces without the aid of special equipment

45 t
MAX LOAD CAPACITY

42 m
MAX LIFTING HEIGHT

58 m
MAX LIFTING HEIGHT WITH JIB

4 km/h
MAX SPEED

32 t
TOTAL WEIGHT

149 kW
ENGINE

The TK45 LS is a compact crawler crane with an extendable beam stabilization system and independently controlled hydraulic jacks. Its steering wheel, its translation system managed by a Danfoss control unit and its small size allow the operator to maneuver the crane in restricted areas.

The self-levelling hydraulic stabilization jacks are easily operated from the machine.
The foldable jib allows the maximum loading height of 58 m to be reached, while the tilting cab offers the operator a complete view of the lifted load.

The supplied radio control facilitates loading and unloading of the crane.
Modern exhaust gas treatment systems ensure very low emissions.

BOOM

TELESCOPIC BOOM

Telescopic boom in high resistance steel. 1 base element, 1 independent extension and 3 synchronized extensions.

JIB

Inclinable in 3 positions (0°-10°-20°).
L= 9,930mm foldable into 2 halves.
Can be used in the fully extended version or in the reduced version.

BOOM EXTENSION CYLINDER

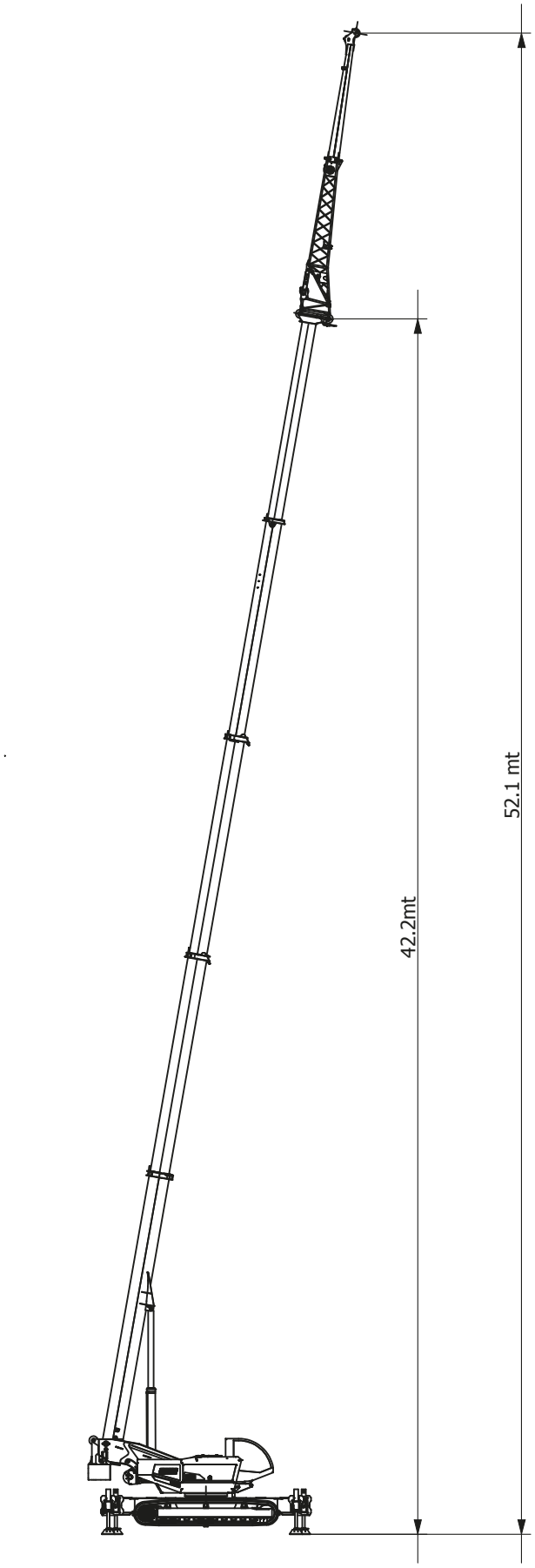
Single two-stage cylinder.

BOOM LENGHT WITH JIB

50 m

PICK & CARRY

Lifting up to 16.000 kg and 4 km/h.



CAB

DRIVING

Ergonomic driving with steering wheel and pedal accelerator. Dual Path mode with active counter-rotation. Automatic/manual Park Brake management.

DRIVER'S CAB

Cab tiltable to 30°.
Cab with great visibility, comfortable and equipped with sliding windows. Front and upper glass with wiper. Corrosion resistant paint. Wide visibility for different working conditions.

COMFORT

Air conditioning, heating and air suspension seat. Seat belts. Ample lighting of driver's cab.

RADIO CONTROL

Radio control with remote control for safe loading and unloading of the crane.

Ergonomic driving with steering wheel and pedal accelerator

Industry 4.0 display

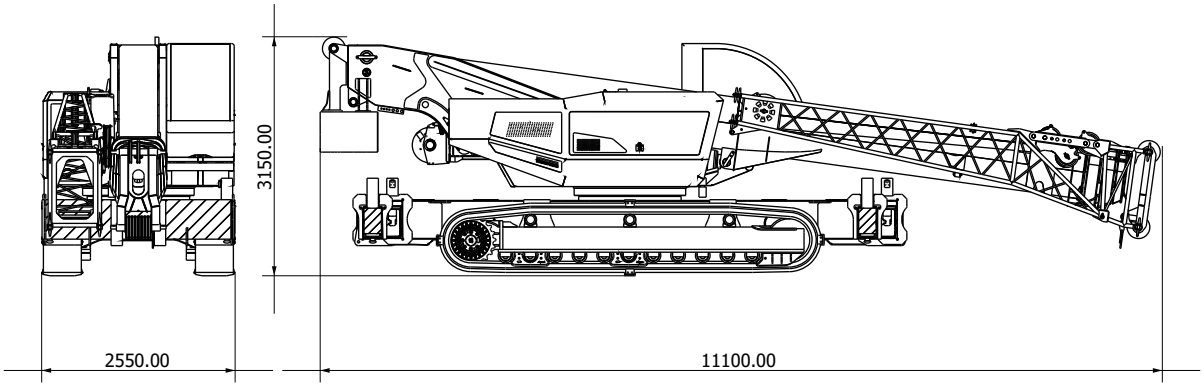
Clear and intuitive instrument panel

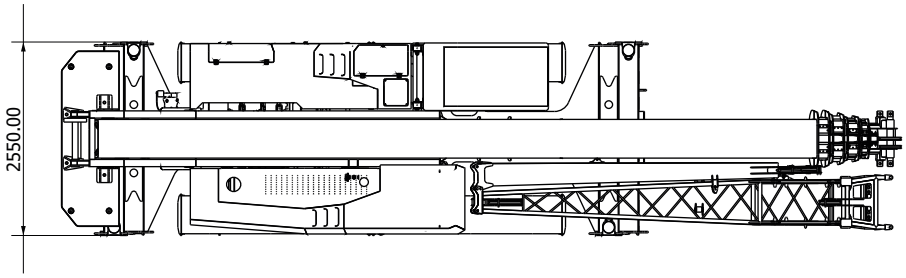
Control joystick for operating functions

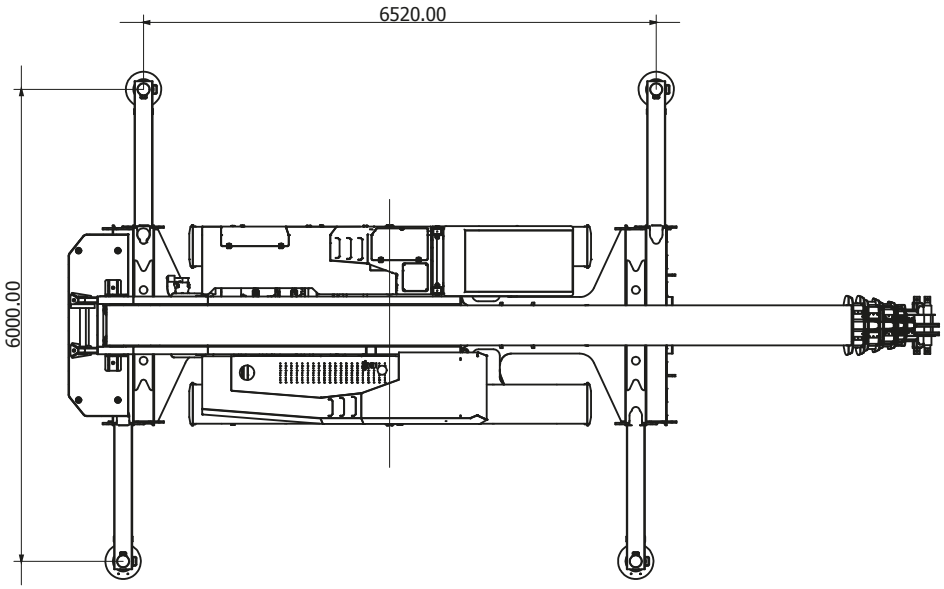
Optional possibility of remote control

TECHNICAL FEATURES	Maximum load capacity	45	t
	Capacity	45	t
	Maximum lifting height	42	m
	Maximum lifting height with jib	58	m
OPERATING SPEED	Winch speed	67/154	m/min
	Lenght and diameter of winch ropes	L 200 Ø 13	m - mm
	Boom lifting speed	55	s
	Boom extension speed	120	s
	Turret rotation speed	1	r/min
	Maximum speed	4	km/h
CRANE	Maximum slope	87.8	%
	Emissions	EU 2016/1628	
	Total weight	32	t
DIMENSIONS	Total size	11,100x2,550x3,150	mm
	Boom lenght	40	m
	Boom lenght with jib	50	m
	Boom tilt	-2 +80	°

DIMENSIONS







EQUIPMENT

UNDERCARRIAGE

Undercarriage	Pair of tracked semi-trucks with track width of 500mm. Stabilization with extensible beams and hydraulic jacks, lenght=6,520 mm and width=6,000 mm.
Translation	Hydraulic drive of the translation managed by a Danfoss control unit. Two pumps and two closed-circuit motors allow it to reach 4 km/h. The machine is equipped with an anti-dumping filter to absorb the oscillations on the pedal and on the steering wheel during the work phase.
Electrical system	CAN Bus data transmission. 24Volt direct current.

DRIVING

Driving	Ergonomic driving with steering wheel and pedal accelerator. Dual Path mode with active counter-rotation. Automatic/manual Park Brake management.
Driver's cab	Cab tiltable to 30°. Cab with great visibility, comfortable and equipped with sliding windows. Front and upper glass with wiper. Corrosion resistant paint. Wide visibility for different working conditions.
Comfort	Air conditioning, heating and air suspension seat. Seat belts. Ample lighting of driver's cabin.
Radio control	Radio control with remote control for safe loading and unloading of the crane.

BOOM

Telescopic boom	Telescopic in high resistance steel. 1 base element, 1 independent extension and 3 synchronized extensions.
Jib	Inclinable in 3 positions (0°-10°-20°). L= 9,930mm foldable in 2 parts. Can be used in the fully extended version or in the reduced version.
Boom extension cylinder	Single two-stage cylinder.
Boom lenght	40 m
Pick & Carry	Lifting up to 16,000 kg and 4 km/h.

EQUIPMENT

TURRET

Chassis	Anti-torsion welded structure, in high-strength steel.
Rotation	Continuous 360° using axial piston hydraulic motor. Planetary gearbox with internal toothed fifth wheel and double row of balls. Multiple disc negative brake.
Control	Hydraulically/electrically operated manipulators with the possibility of simultaneous proportional maneuvers.
Lifting winch	Axial piston variable displacement engine. Lifting drum with integrated planetary gearbox and parking brake with multiple discs. Block valve and descent control. Cable gland to improve the winding of the rope on the drum.
Hydraulic system	Open circuit system with axial piston hydraulic pumps. Proportional hydraulic distributors with load sensing power regulation. Possibility of performing multiple maneuvers simultaneously. Heat exchanger for oil cooling. Oil filtering through 1 cartridge filter on the return circuit.
Stabilization	With self-levelling performed with 4 independently controlled hydraulic jacks.
Hydraulic oil tank	450 l
Electrical system	24 V power supply. CAN Bus vehicle management network. 2 batteries, each with 143Ah.
Safety devices	Electronic load limiter with indication of boom tilt, boom length, lifted load, maximum liftable load. Limit switches. Safety valves on all hydraulic functions.
Ballast	In a single piece with a weight of 1.5 tons.
Cameras	1 camera located on the rear side to increase visibility during more restricted maneuvers. 1 camera for supervising the winding of the rope on the winch.

ENGINE

Engine	Cummins B 4.5 Stage V- Tier 4f- 149 kW@2200rpm.
Diesel tank	300 l
Def tank	38 l

TABLE 01

OVER FULL RANGE (360°). Main boom. Outriggers 100% - CWT 1500kg

RADIUS (m)	BOOM LENGHT								
	10,4	13,7	17,0	20,8	24,5	28,3	32,0	35,8	39,5
2,5	34.000	20.000	9.800	9.700	9.350				
3,0	30.000	19.000	10.000	9.850	9.500	9.050			
3,5	28.000	18.000	10.250	10.050	9.700	9.200	6.400		
4,0	23.000	16.500	10.550	10.300	9.900	9.350	6.400	5.000	
4,5	20.000	16.250	10.800	10.550	10.050	9.500	6.400	5.000	
5,0		16.000	11.150	10.850	10.300	9.700	6.400	5.000	4.000
6,0		13.000	12.100	11.500	10.850	10.250	6.400	5.000	4.000
7,0		11.000	12.100	11.100	11.000	10.000	6.400	5.000	4.000
8,0		8.350	9.550	10.200	9.950	9.000	6.400	5.000	4.000
9,0		6.500	7.600	8.400	8.000	7.700	6.400	5.000	4.000
10,0		5.200	6.250	6.950	6.600	6.300	6.400	5.000	4.000
11,0			5.200	5.900	5.550	5.250	5.700	5.000	4.000
12,0			4.500	5.050	4.700	4.450	4.900	4.650	4.000
13,0				4.300	4.050	3.800	4.200	4.000	3.500
14,0				3.600	3.500	3.250	3.700	3.450	3.000
15,0				3.100	3.050	2.800	3.250	3.000	2.500
16,0					2.700	2.450	2.850	2.650	2.000
17,0						2.100	2.500	2.300	1.800
18,0						1.800	2.300	2.000	1.600
19,0						1.500	2.000	1.800	1.550
20,0							1.800	1.500	1.450
21,0							1.500	1.350	1.200
22,0							1.200	1.100	1.100
23,0							1.000	900	850
25,0								600	550
27,0									400
28,0									
Reeving	**16**	**10**	**6**	**6**	**6**	**6**	**4**	**4**	**4**
Q_{MAX}	**45,4**	**26,7**	**16,5**	**16,5**	**16,5**	**16,5**	**11,2**	**11,2**	**11,2**
1a	0%	50%	100%	100%	100%	100%	100%	100%	100%
2a	0%	0%	0%	17%	33%	50%	67%	83%	100%
3a	0%	0%	0%	17%	33%	50%	67%	83%	100%
4a	0%	0%	0%	17%	33%	50%	67%	83%	100%
Stroke I [mm]	0	3325	6650	6650	6650	6650	6650	6650	6650
Stroke II [mm]	0	0	0	1250	2500	3750	5000	6250	7500
	Maximum permissible wind speed v = 49 km/h								

TABLE 01

OVER FULL RANGE (360°). Main boom. Outriggers 100% - CWT 1500kg

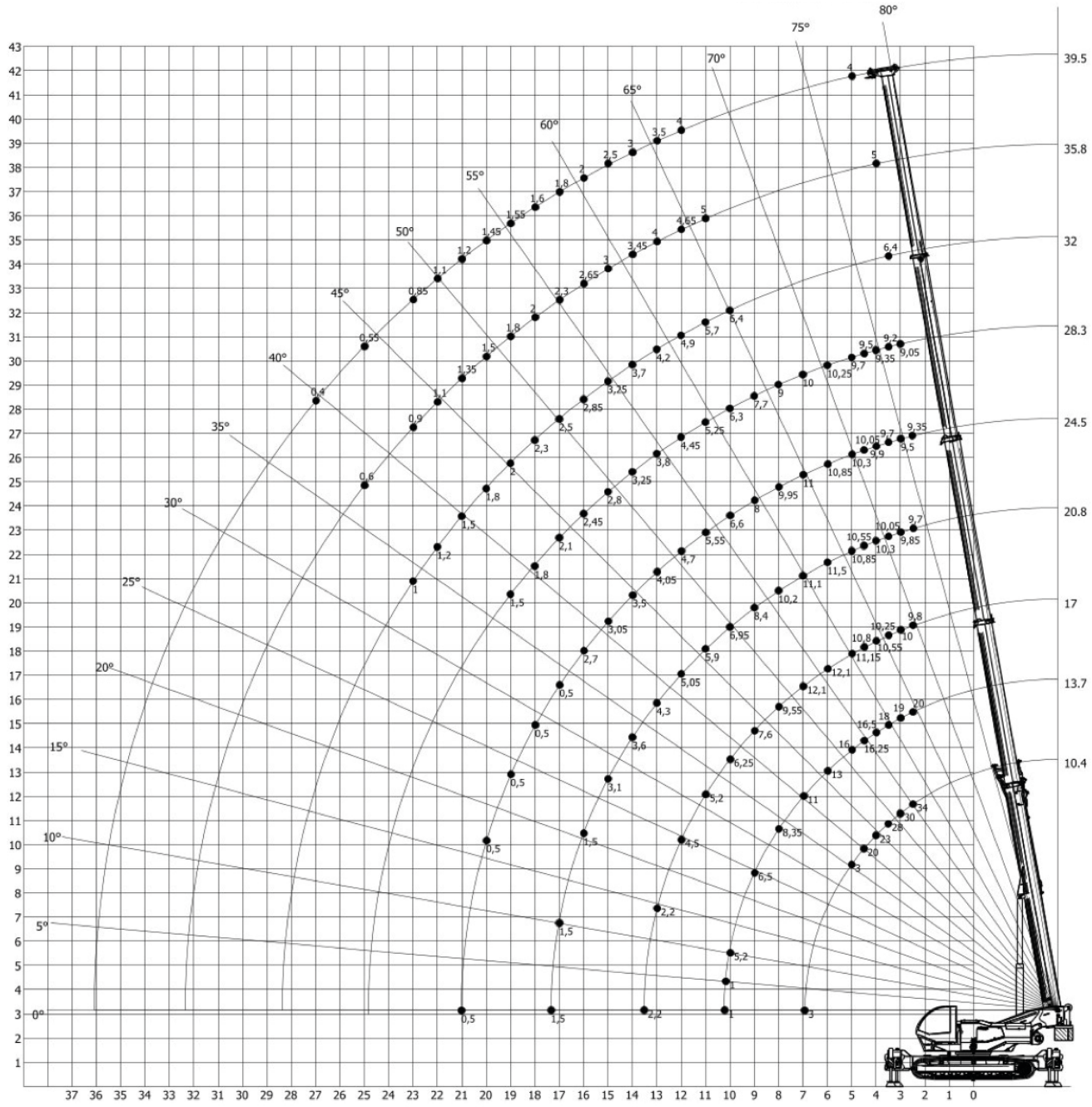


TABLE 02

ON FRONT (0°). Main boom. Outriggers 100% - CWT 1500kg

RADIUS (m)	BOOM LENGHT								
	10,4	13,7	17,0	20,8	24,5	28,3	32,0	35,8	39,5
2,0	45.000								
2,5	40.000	25.000	9.800	9.700	9.350				
3,0	37.000	23.000	10.000	9.850	9.500	9.050			
3,5	34.000	22.000	10.250	10.050	9.700	9.200	6.400		
4,0	30.000	21.000	10.550	10.300	9.900	9.350	6.400	5.000	
4,5	25.000	20.000	10.800	10.550	10.050	9.500	6.400	5.000	
5,0		16.000	11.150	10.850	10.300	9.700	6.400	5.000	4.000
6,0		14.000	12.100	11.500	10.850	10.250	6.400	5.000	4.000
7,0		12.000	12.100	11.100	11.000	10.000	6.400	5.000	4.000
8,0		9.000	9.550	10.200	9.950	9.000	6.400	5.000	4.000
9,0		7.500	7.600	8.400	8.000	7.700	6.400	5.000	4.000
10,0		6.000	6.250	6.950	6.600	6.300	6.400	5.000	4.000
11,0			6.000	6.100	5.700	5.250	5.700	5.000	4.000
12,0			5.000	5.300	5.200	4.450	4.900	4.650	4.000
13,0				4.600	4.500	3.800	4.200	4.000	3.500
14,0				4.200	4.100	3.250	3.700	3.450	3.000
15,0				3.200	3.400	2.800	3.250	3.000	2.500
16,0					3.000	2.450	2.850	2.650	2.000
17,0						2.100	2.500	2.300	1.800
18,0						1.800	2.300	2.000	1.600
19,0						1.500	2.000	1.800	1.550
20,0							1.800	1.500	1.450
21,0							1.500	1.350	1.200
22,0							1.200	1.100	1.100
23,0							1.000	900	850
25,0								600	550
27,0									400
Reeving	**16**	**10**	**6**	**6**	**6**	**6**	**4**	**4**	**4**
Q_{MAX}	**45,4**	**26,7**	**16,5**	**16,5**	**16,5**	**16,5**	**11,2**	**11,2**	**11,2**
1a	0%	50%	100%	100%	100%	100%	100%	100%	100%
2a	0%	0%	0%	17%	33%	50%	67%	83%	100%
3a	0%	0%	0%	17%	33%	50%	67%	83%	100%
4a	0%	0%	0%	17%	33%	50%	67%	83%	100%
Stroke I [mm]	0	3325	6650	6650	6650	6650	6650	6650	6650
Stroke II [mm]	0	0	0	1250	2500	3750	5000	6250	7500

TABLE 02

ON FRONT (0°). Main boom. Outriggers 100% - CWT 1500kg

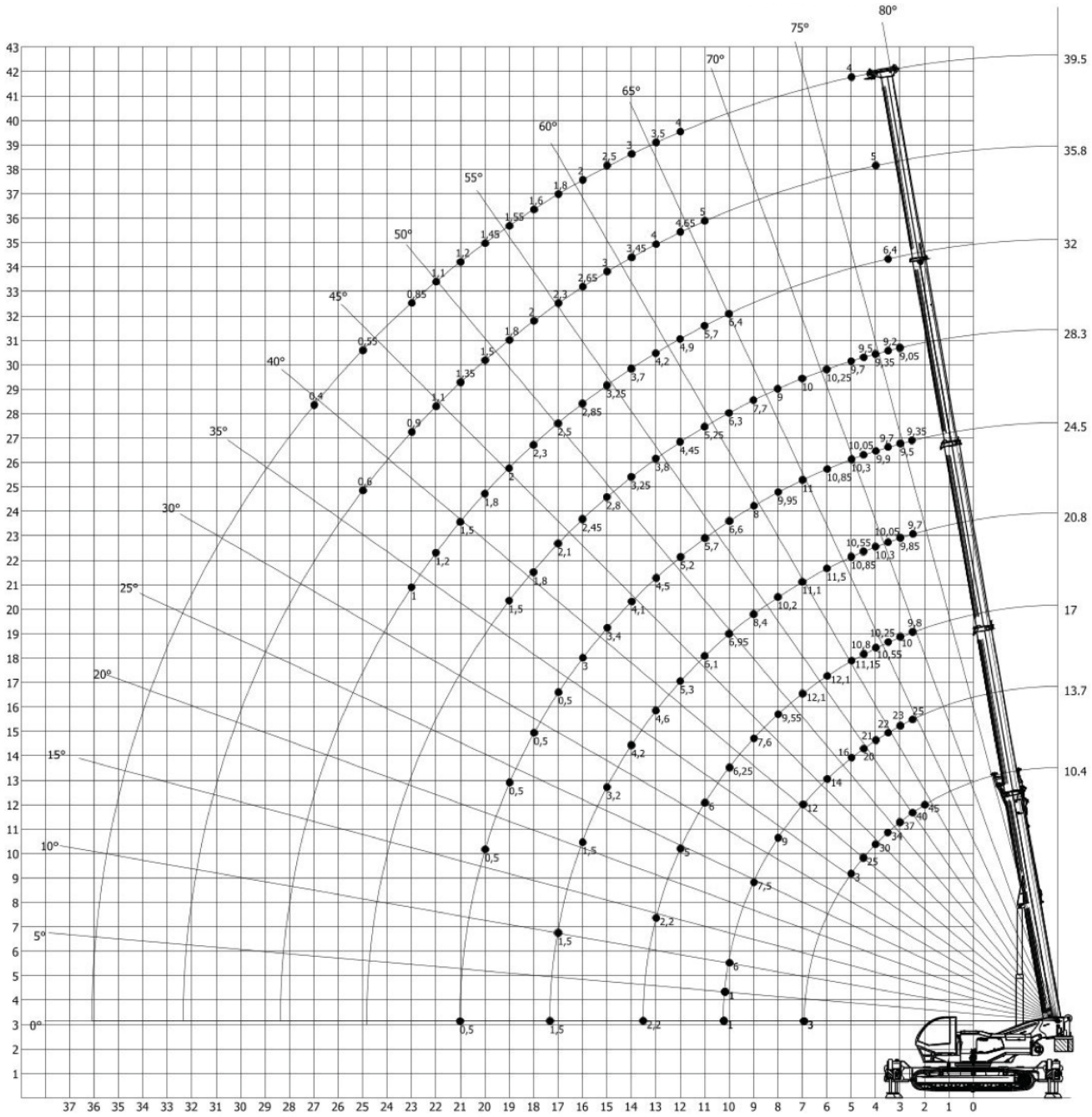


TABLE 03

ON IDLE WHEEL - Main boom - On crawlers - travelling speed 4 km/h - slope 3° - WITH & WITHOUT CWT 1500kg

RADIUS (m)	BOOM LENGHT								
	10,4	13,7							
2,5	16.000	11.900							
3,0	12.700	10.000							
3,5	12.000	8.500							
4,0	9.900	7.200							
4,5	8.100	6.100							
5,0		5.100							
6,0		3.800							
7,0		2.800							
8,0		2.000							
9,0		1.500							
10,0		1.000							
11,0									
12,0									
13,0									
14,0									
15,0									
16,0									
17,0									
18,0									
19,0									
20,0									
21,0									
22,0									
23,0									
25,0									
27,0									
28,0									
Reeving	**6**	**6**							
Q_{MAX}	**16,5**	**16,5**							
1a	0%	50%							
2a	0%	0%							
3a	0%	0%							
4a	0%	0%							
Stroke I [mm]	0	3325							
Stroke II [mm]	0	0							
	Maximum permissible wind speed v = 49 km/h								

TABLE 03

ON IDLE WHEEL - Main boom - On crawlers - travelling speed 4 km/h - slope 3° - WITH & WITHOUT CWT 1500kg

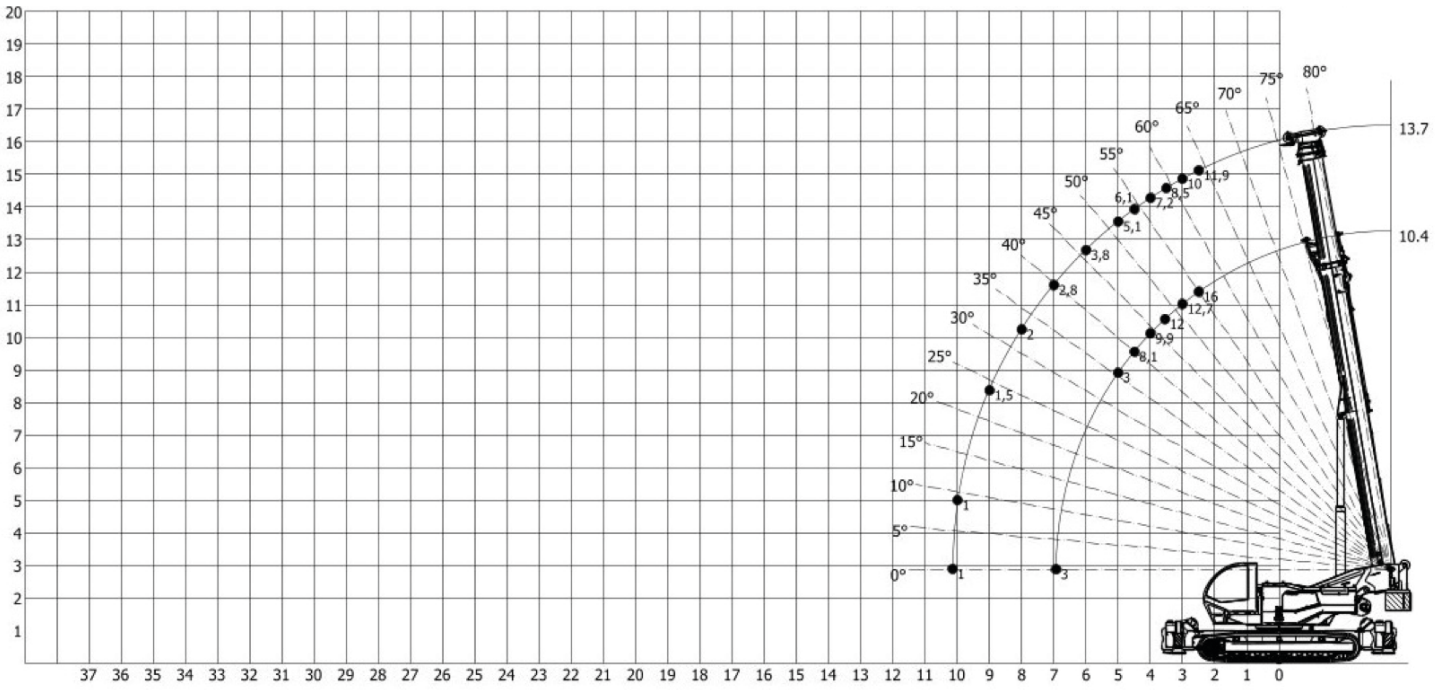


TABLE 04

Main boom + Jib - JIB OFFSET 0°/10°/20° - BOOM 35,8/39,5 m - OVER FULL RANGE (360°). Outriggers 100% - Jib length 9,93m - CWT 1500 kg

RADIUS (m)	JIB OFFSET 0°		JIB OFFSET 10°		JIB OFFSET 20°	
	BOOM LENGHT					
	35,8	39,5	35,8	39,5	35,8	39,5
8,0						
9,0	2.000					
10,0	2.000	2.000				
11,0	2.000	2.000	2.000			
12,0	2.000	2.000	2.000	2.000		
13,0	2.000	2.000	2.000	2.000	1.900	
14,0	2.000	2.000	2.000	2.000	1.800	1.700
15,0	2.000	2.000	2.000	1.900	1.700	1.600
16,0	2.000	2.000	1.900	1.800	1.600	1.500
17,0	2.000	2.000	1.800	1.700	1.500	1.400
18,0	2.000	1.800	1.700	1.600	1.400	1.300
19,0	2.000	1.700	1.600	1.500	1.300	1.200
20,0	2.000	1.500	1.500	1.400	1.200	1.100
21,0	1.800	1.300	1.400	1.300	1.100	1.000
22,0	1.600	1.100	1.300	1.200	1.000	950
23,0	1.300	950	1.200	1.000	950	900
24,0	1.200	800	1.100	900	850	800
25,0	1.000	700	1.000	800	750	700
26,0	800	600	800	700	650	600
27,0	700	500	700	600	600	500
28,0	500	400	600	500	500	400
29,0			500	400	400	300
30,0			400	300	300	250
31,0						
Reeving	**1**	**1**	**1**	**1**	**1**	**1**
Q_{MAX}	**3,7**	**3,7**	**3,7**	**3,7**	**3,7**	**3,7**
1a	100%	100%	100%	100%	100%	100%
2a	83%	100%	83%	100%	83%	100%
3a	83%	100%	83%	100%	83%	100%
4a	83%	100%	83%	100%	83%	100%
	Maximum permissible wind speed v = 49 km/h					

TABLE 04

Main boom + Jib - JIB OFFSET 0° - BOOM 35,8 - OVER FULL RANGE (360°). Outriggers 100% - Jib length 9,93m - CWT 1500 kg

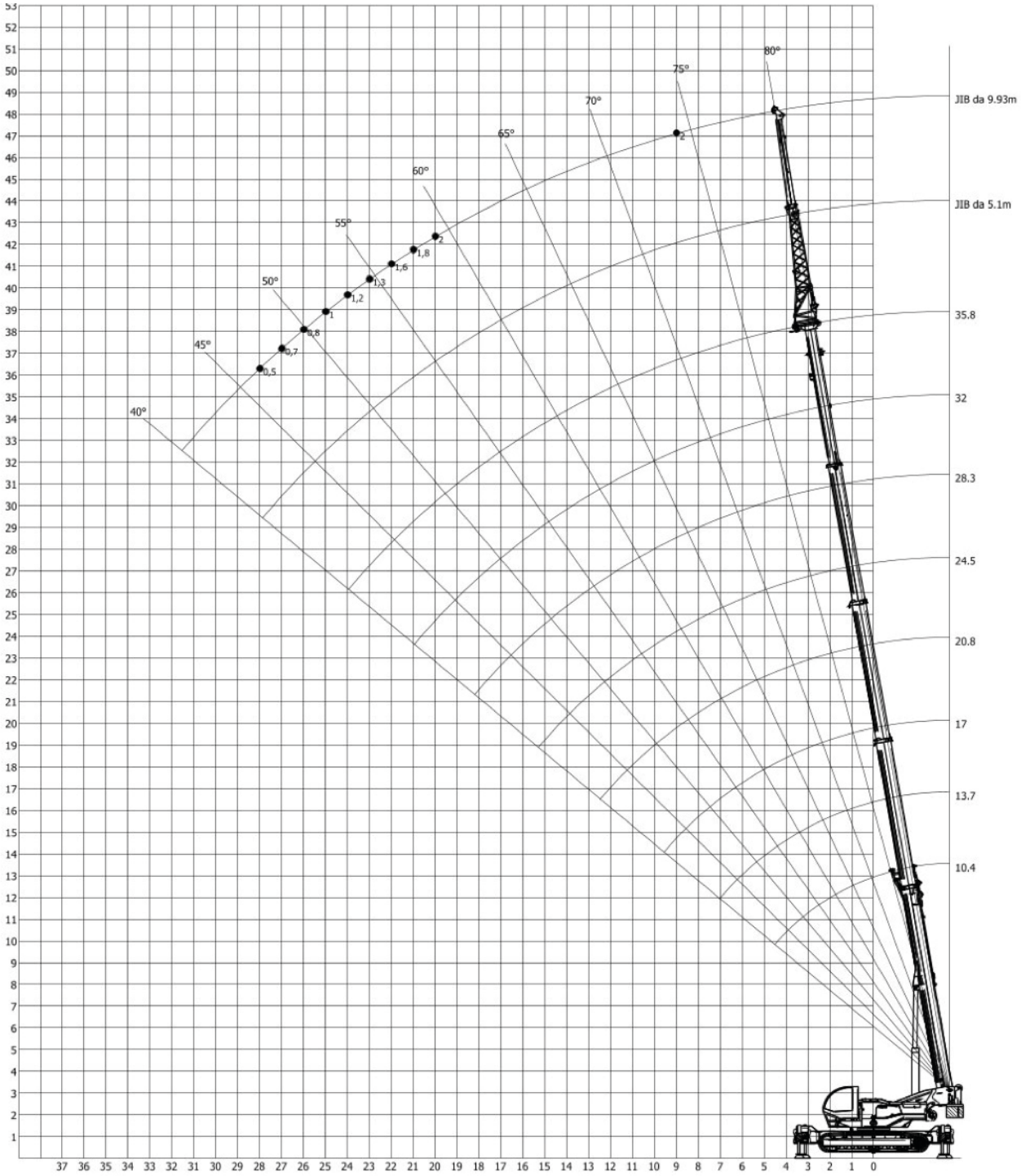


TABLE 04

Main boom + Jib - JIB OFFSET 0° - BOOM 39,5 - OVER FULL RANGE (360°). Outriggers 100% - Jib length 9,93m - CWT 1500 kg

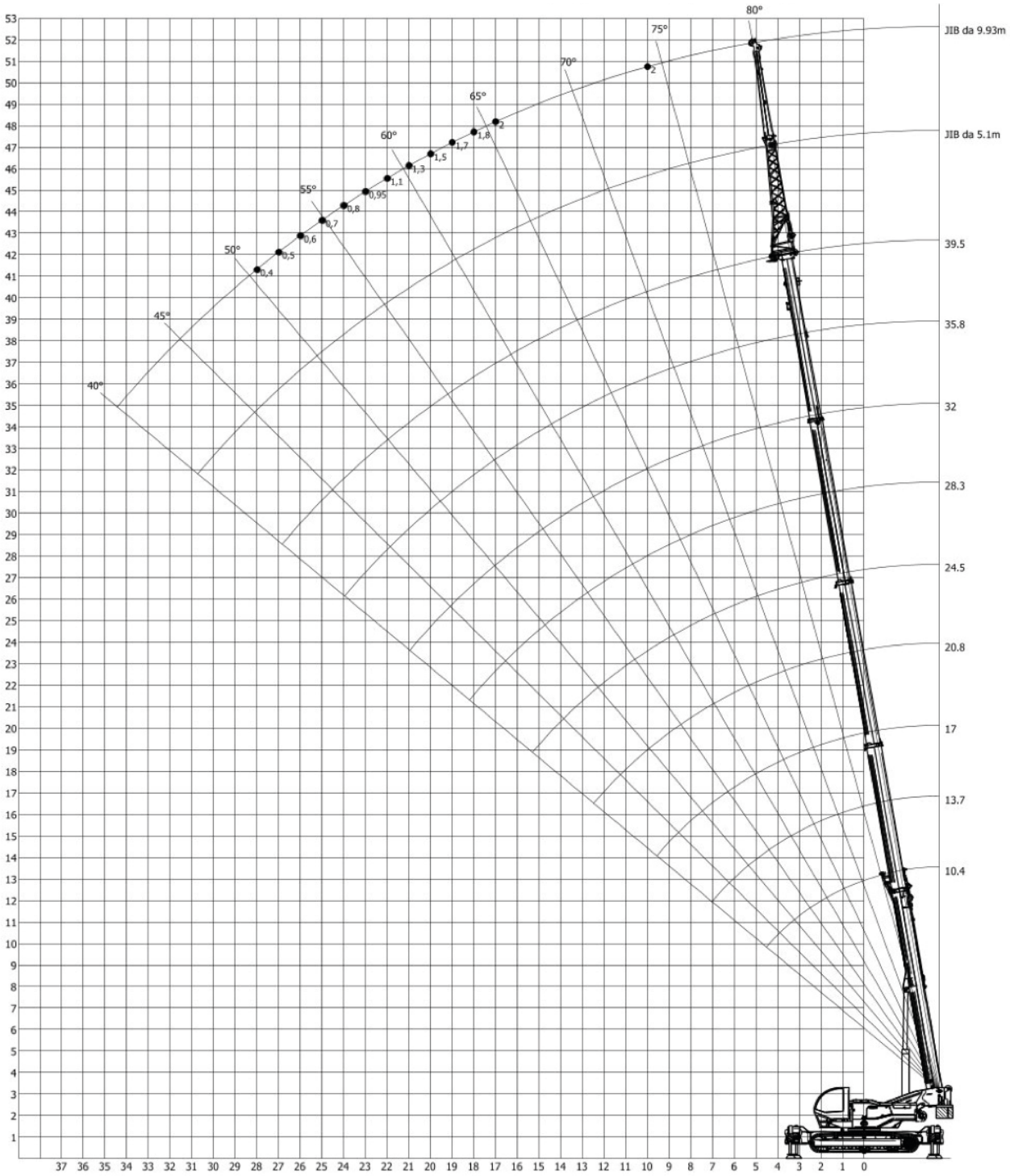


TABLE 04

Main boom + Jib - JIB OFFSET 10° - BOOM 35,8 - OVER FULL RANGE (360°). Outriggers 100% - Jib length 9,93m - CWT 1500 kg

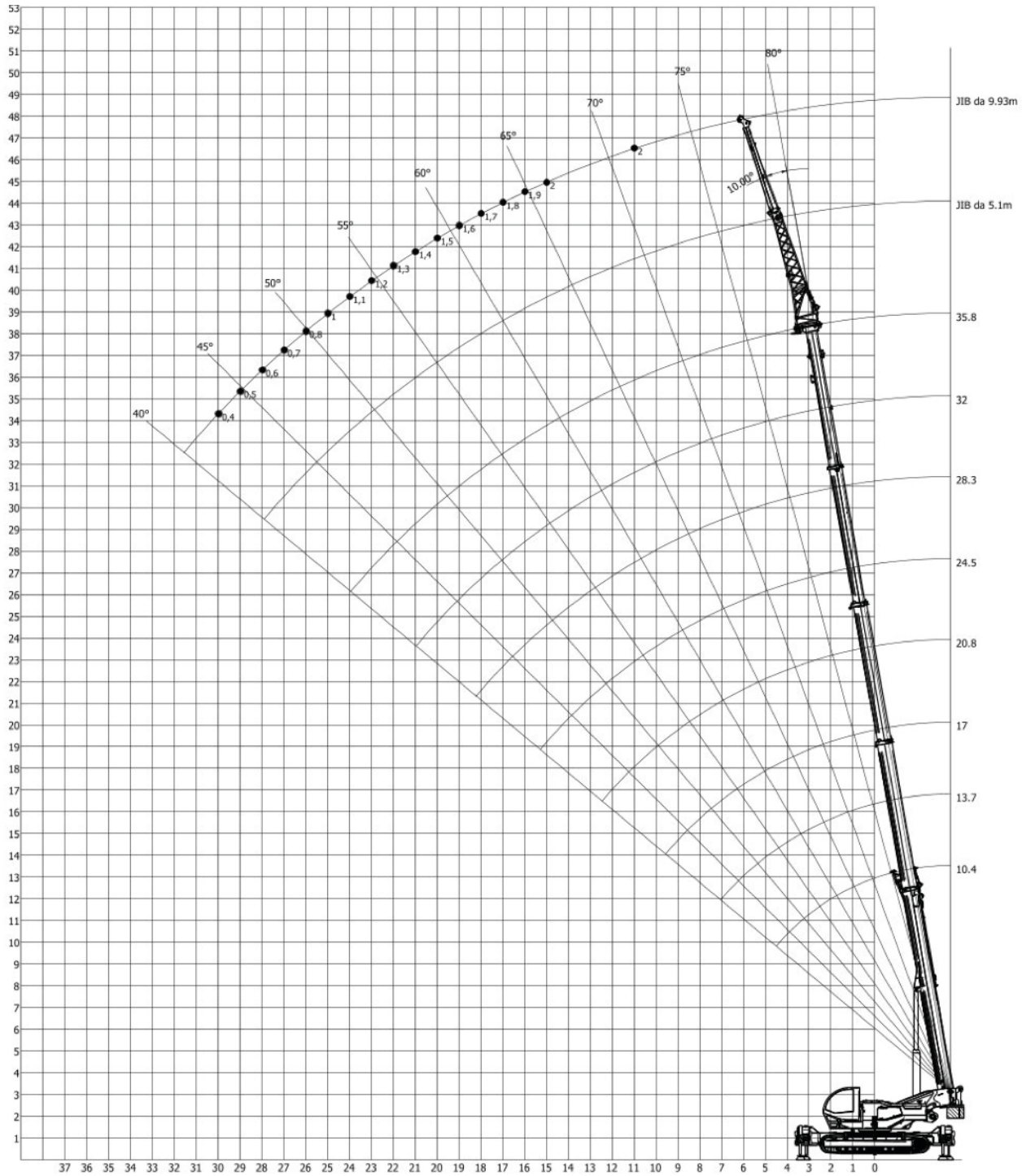


TABLE 04

Main boom + Jib - JIB OFFSET 10° - BOOM 39,5 - OVER FULL RANGE (360°). Outriggers 100% - Jib length 9,93m - CWT 1500 kg

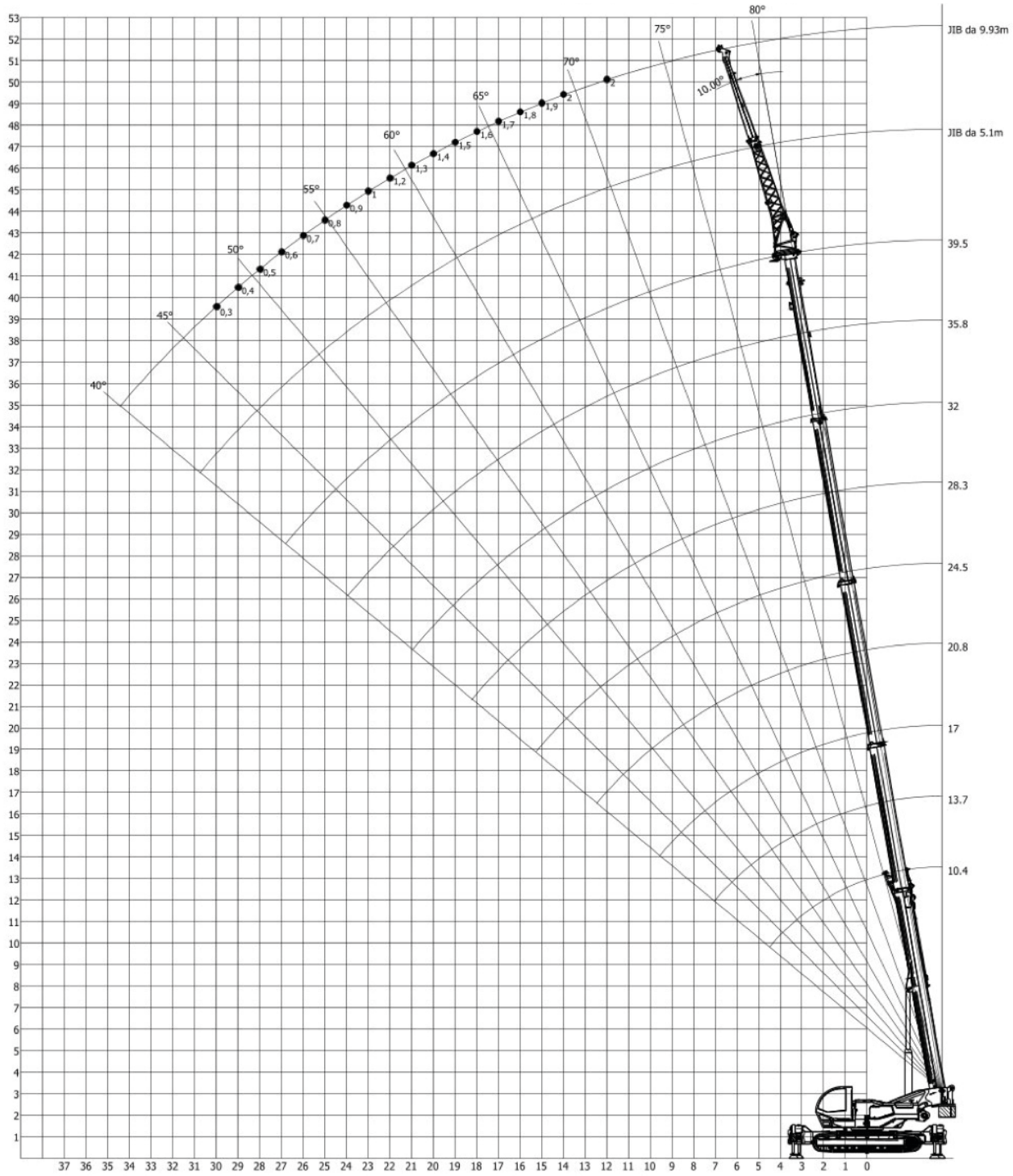


TABLE 04

Main boom + Jib - JIB OFFSET 20° - BOOM 35,8 - OVER FULL RANGE (360°). Outriggers 100% - Jib length 9,93m - CWT 1500 kg

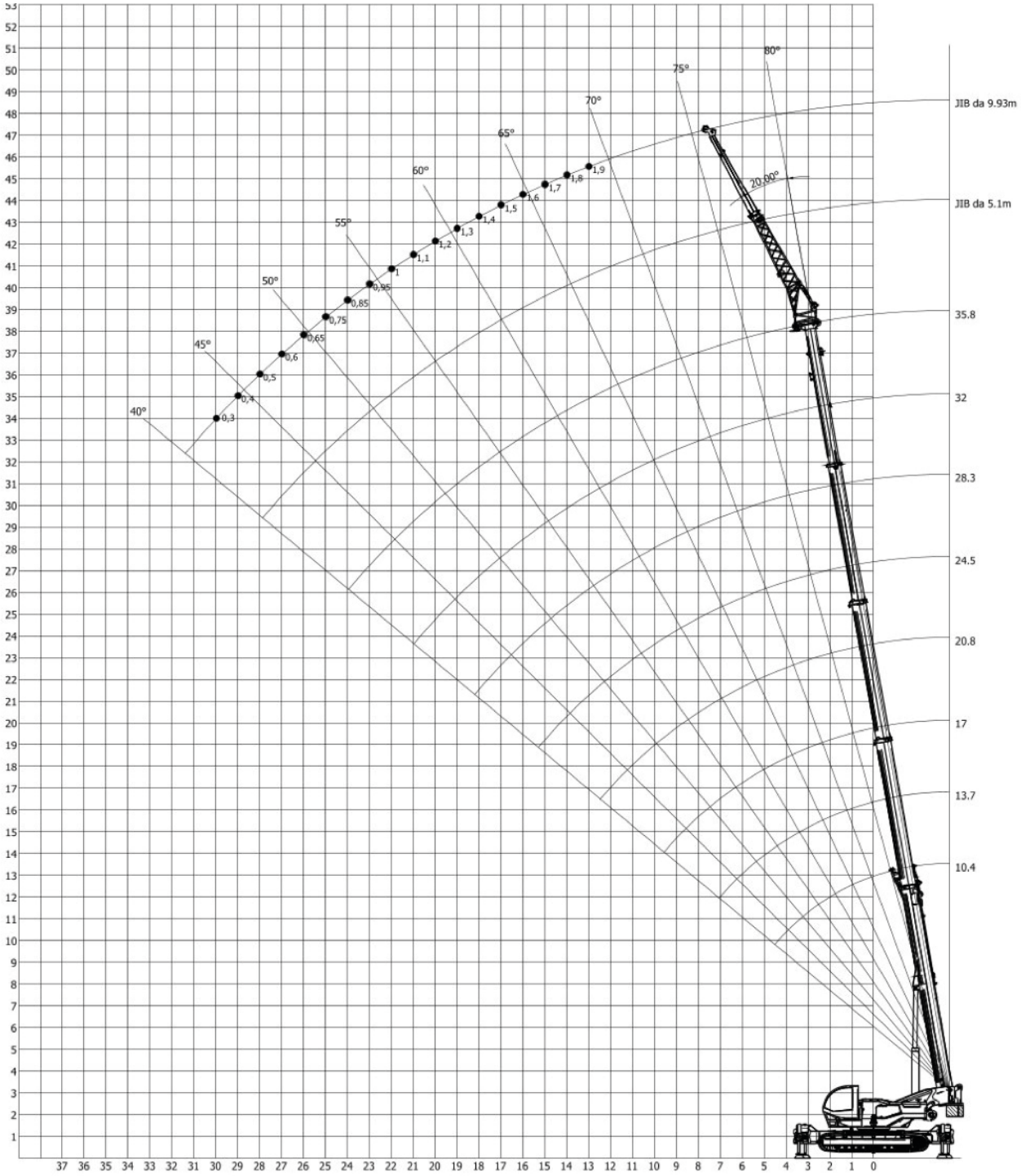
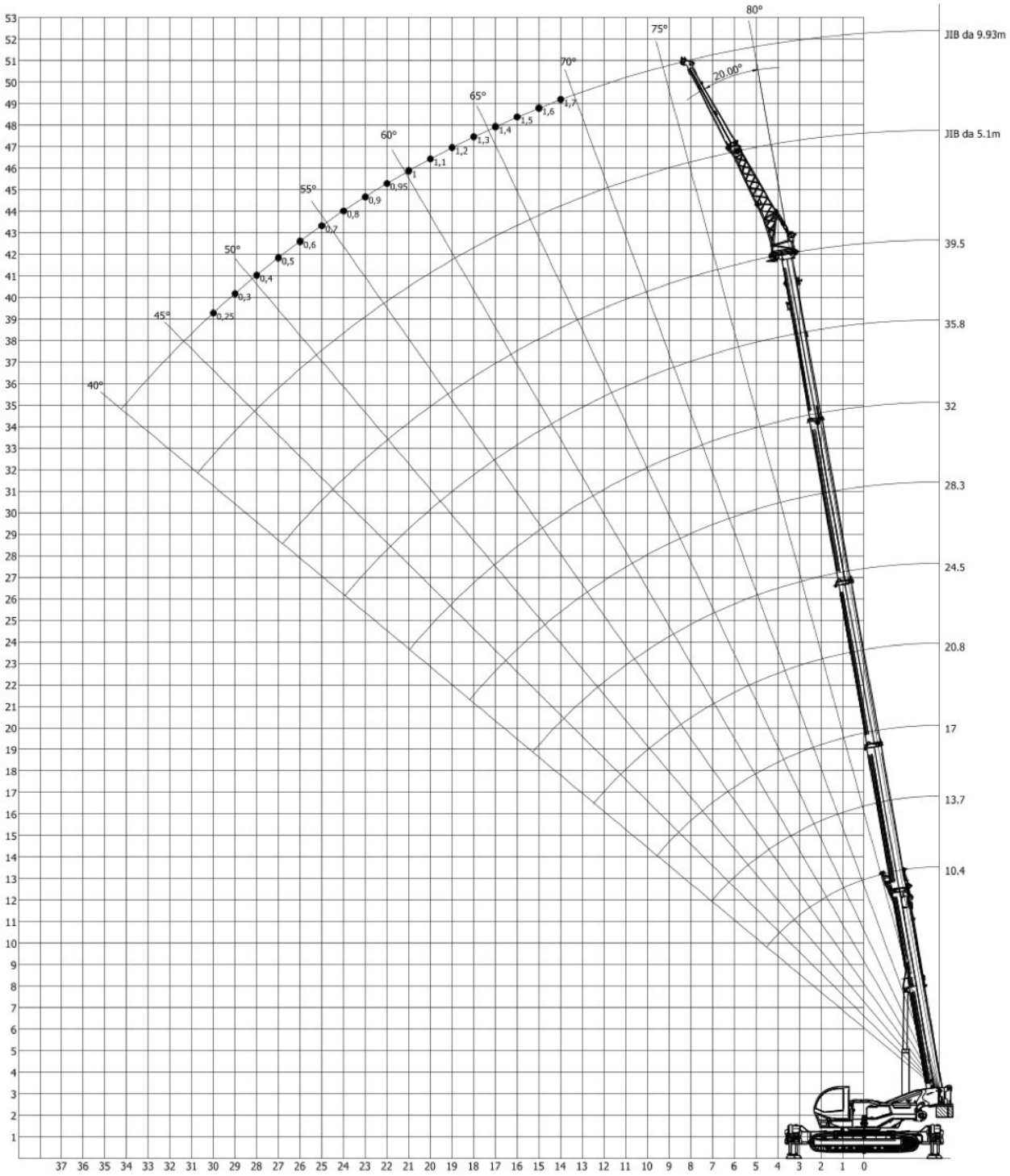


TABLE 04

Main boom + Jib - JIB OFFSET 20° - BOOM 39,5 - OVER FULL RANGE (360°). Outriggers 100% - Jib length 9,93m - CWT 1500 kg



OPTIONAL EXTRAS

- 2nd Winch
- Jib extension for 52 m
- Jib extension for 58 m
- Derrick 1,5 m
- Industry 4.0 kit
- Radio control
- 4 Toolboxes
- Tilting cab
- Custom lights
  (4 LED headlights + 2 work lights)
- Custom painting
- Rubber pads kit

All data, technical characteristics and information reported in this document are for informational purposes and are subject to change without any prior notice requirement. All specifications described do not constitute a guarantee since the performance of the machine varies depending on use.

Machine illustrations may contain optional and additional equipment. The dimensional data refers to average reference measurements indicated for informational purposes only.

The commissioning of the machine and its correct use require compliance with the use and maintenance manual.

The weights of hooks, blocks and all lifting accessories are part of the load and must be deducted from the loads indicated.

Please contact TeknoGRC for more information regarding optional and additional equipment.

OUR PRODUCTS

TK45 LS

CG-2040

TK30

TK40

TEKNOGRC

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