

**PRODUCT
SPECIFICATIONS**



SAC5000S

SANY ALL TERRAIN CRANE
500T LIFTING CAPACITY



Max. Lifting Capacity: 500 t
Max. Boom Length: 84 m
Max. Combination of Boom + Fixed Jib: 117.3m

Model **SAC5000S** | SERIES

CONTENTS

Crane Highlights	02
Overall Dimensions	08
Technical Specification	10
Counterweight Combinations	12
Fixed Jib Assembly	13
Luffing Jib Assembly	13
Crane Introduction	14
Working Conditions & Codes Description	16
Operating Range & Load Chart	18
T4	19
T4S	20
T	22
TS	24
TSEAJ	26
TF	28
TSEF	31
TSEL	34
TF(Z)	36
TSEF(Z)	39
TSEL(Z)	43

**SANY ALL TERRAIN CRANE
SAC5000S / 500T LIFTING CAPACITY**

Specially designed jib for wind energy project operation.
A powerful role in 1.5MW turbine installation and 2.0MW
turbine overhauling.

SANY ALL TERRAIN CRANE SAC5000S / 500T LIFTING CAPACITY

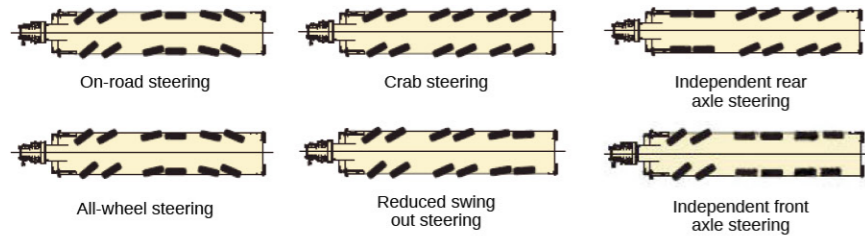
Independent 4-section boom working

- The 5th to 7th boom sections removed, the specially designed boom tip mounted, this crane can handle 50m lifting height by four section boom independently. Cut the transport cost whenever it's possible.



Versatile Steering System

- Servo-assisted steering mechanism with dual-circuit hydraulic cylinder and emergency steering pump. Axle 3 & 4 stops steering at 30km/h and above; axle 5 & 6 stops steering at 60km/h and above.
- SIX steering modes feature both functionality and safety. Clear display of button switches and quick activation guarantee high efficiency, good maneuverability and safety.



More power, less fuel cost

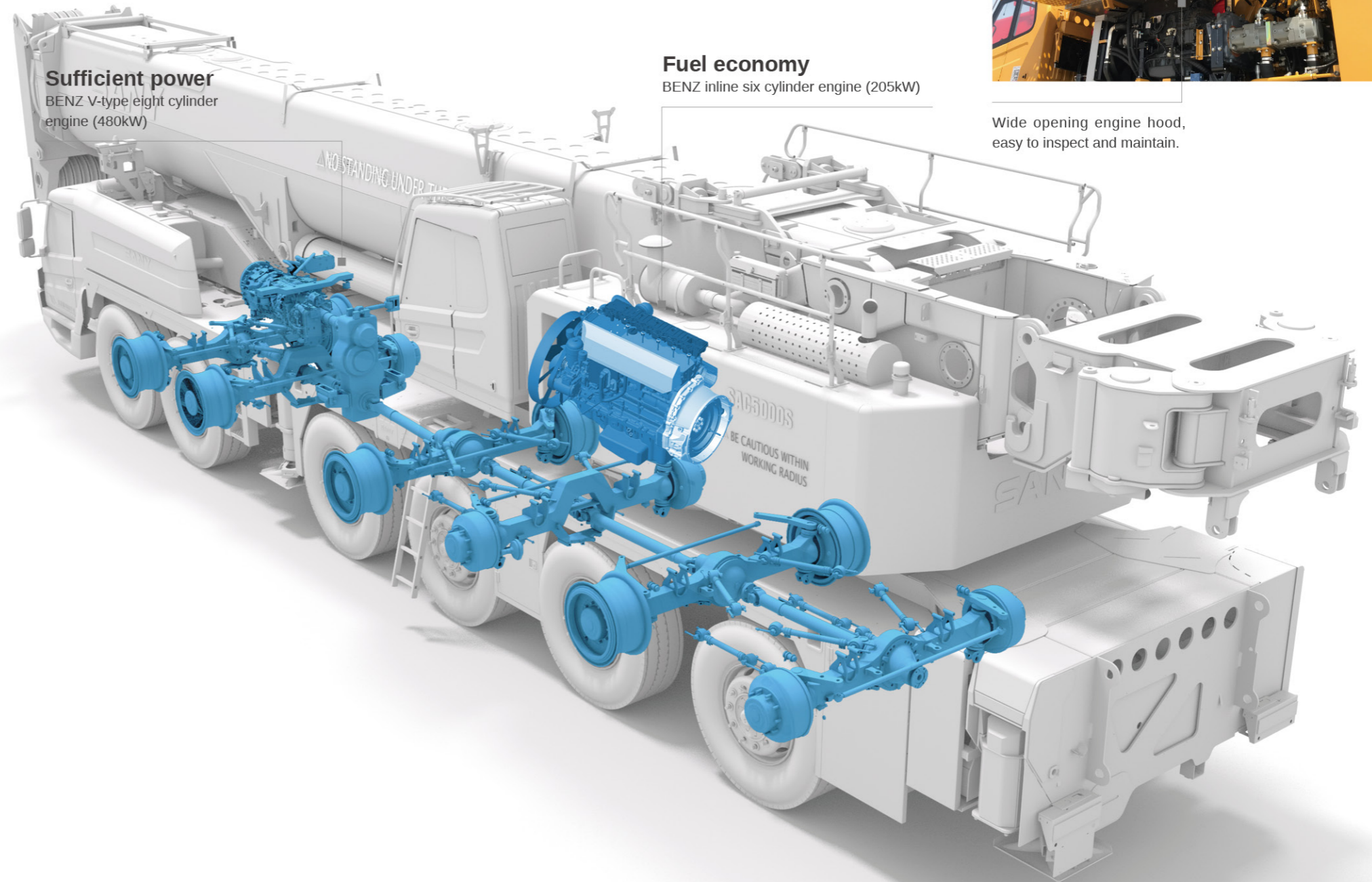
- The chassis and superstructure are incorporated with its own engine respectively. The engine models are selected with full consideration to guarantee both strong power and maximized fuel utilization.



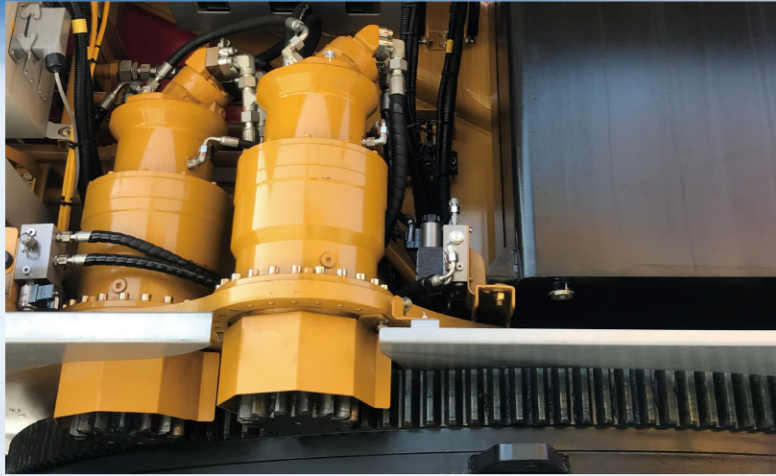
Wide opening engine hood, easy to inspect and maintain.

Sufficient power
BENZ V-type eight cylinder engine (480kW)

Fuel economy
BENZ inline six cylinder engine (205kW)



SANY ALL TERRAIN CRANE SAC5000S / 500T LIFTING CAPACITY



Double slewing motors

- 360° slewing is facilitated by two powerful motors with stepless speed regulation.



- Ladder with handrail is attached to the walking deck by adjustable hinge. Get safe access to the operator's cab and spin it up on the deck without taking up unnecessary space.
- Getting to work in 20° tiltable cab with skylight and real-time feedback from E-TOUCH screen, every lifting moments are well monitored by the operator.



- Sitting on pneumatic cushion with armrest and headrest, easily pushing the electrical joystick, the operator will find work is no more tough.

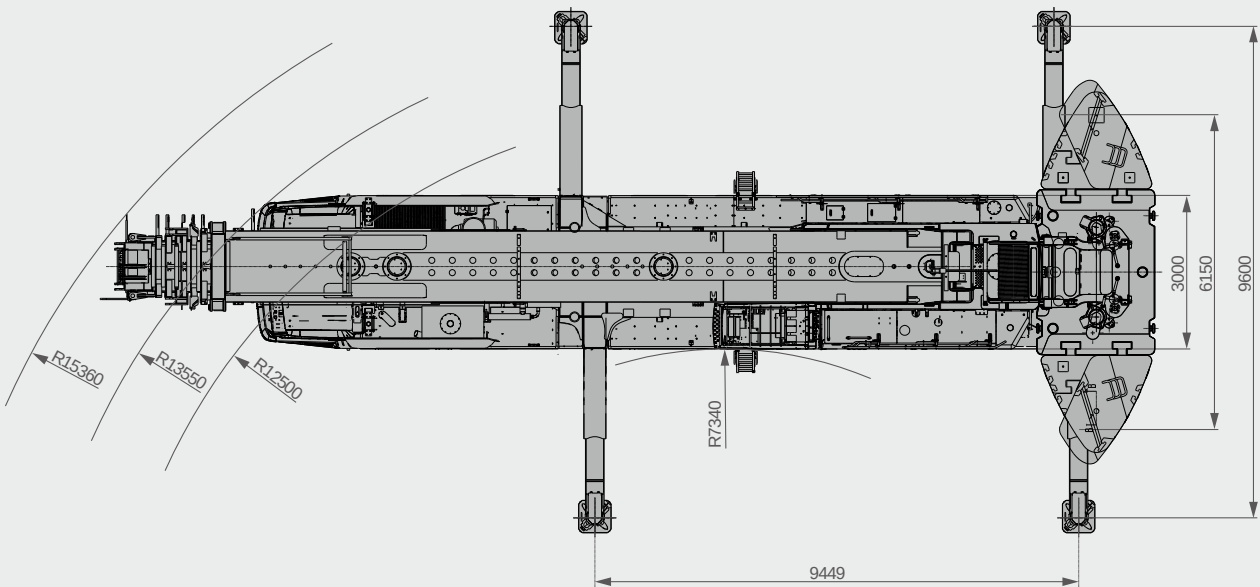
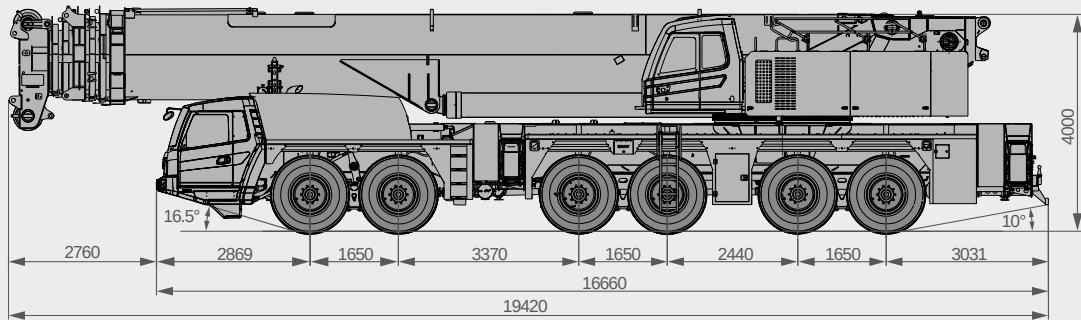


Variable Position Counterweight

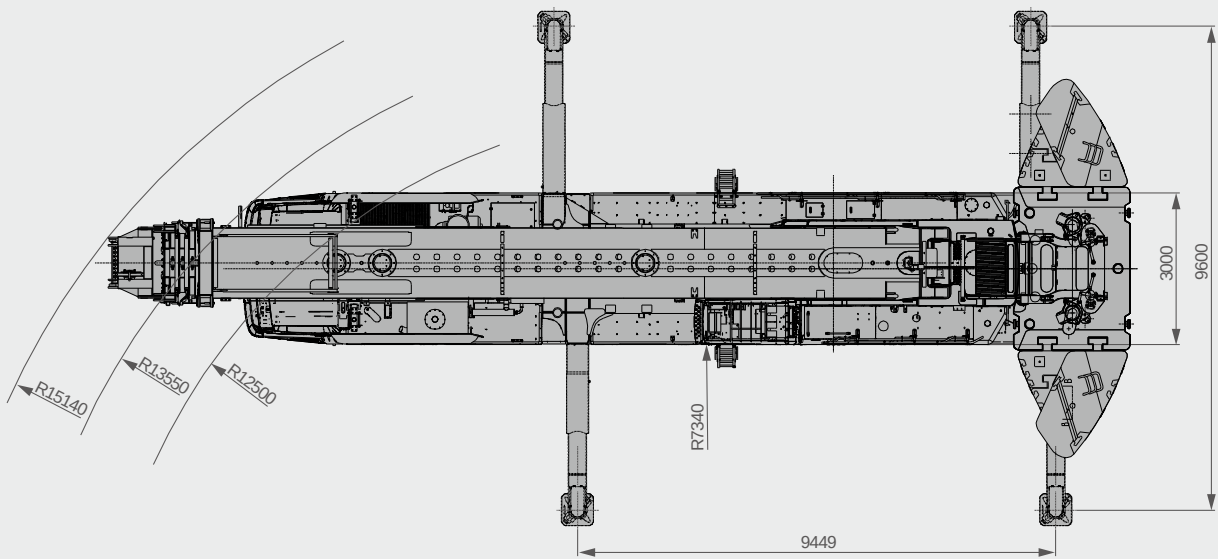
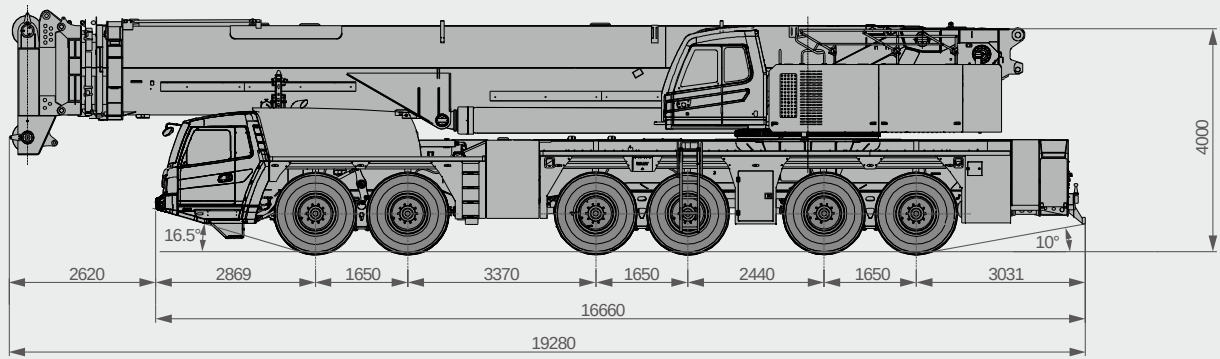
- The whole counterweight can be moved backward by 715mm, which allows less counterweight to be transported for the same loading performance.



Overall Dimensions (T)



Overall Dimensions (T4)



Technical Specification

CATEGORY	ITEM	UNIT	VALUE	
CAPACITY	Max. lifting capacity	t	500	
WEIGHT	Road weight	kg	60000	
POWER (CHASSIS)	Engine emission	-	Euro 5	
	Max. engine power	kW/rpm	480/1800	
	Max. engine torque	N·m/rpm	2900/1300	
POWER (SUPERSTRUCTURE)	Engine emission	-	Euro 3	
	Max. engine power	kW/rpm	205/2200	
	Max. engine torque	N·m/rpm	1100/1400	
DIMENSIONS	Overall length	mm	18000	
	Overall width	mm	3000	
	Overall height	mm	4000	
	Axle base	Axle 1 & 2	mm	1650
		Axle 2 & 3	mm	3370
		Axle 3 & 4	mm	1650
Axle 4 & 5		mm	2440	
Axle 5 & 6		mm	1650	
TRAVEL	Max.travel speed	km/h	70	
	Min.steering radius	m	12.5	
	Wheel formula	-	12×8×12	
	Min.ground clearance	mm	300	
	Approach angle	°	16	
	Departure angle	°	10	
	Max.gradeability	%	45	
MAIN PERFORMANCE	Working temperature range	°C	-20 ~ +40	
	Min.rated lifting radius	m	3	
	Boom sections (Qty.)	-	7	
	Boom shape	-	U-shape	
	Boom length	Basic boom	m	16.1
		Full-extend boom	m	84
		Max. combination of boom + fixed jib	m	117.3 (73.4+1.9+42)
	Max. lifting height	Full extension boom	m	84
		Max. combination of boom + fixed jib	m	116
		Max. combination of boom + luffing jib	m	136
Outrigger span (Longitudinal×Transverse)	m	9.6×9.4		
Jib offset	°	0, 20, 40		
OPERATION SPEED	Max.single rope lifting speed of main winch (empty load)	m/min	130	
	Max.single rope lifting speed of auxiliary winch (empty load)	m/min	130	
	Full extension/retraction time of boom	s	800/800	
	Full luffing up/down time of boom	s	95/95	
	Slewing speed	r/min	1.3	
AIRCONDITIONER	In operator's cab	-	Heating & cooling	
	In driver's cab	-	Heating & cooling	

Technical Specifications



Axle Load

Axle	1	2	3	4	5	6	Total weight
Load per axle / t	8	8	8	12	12	12	60
Note	Boom sections 2 to 7, outriggers, and counterweight are removed.						



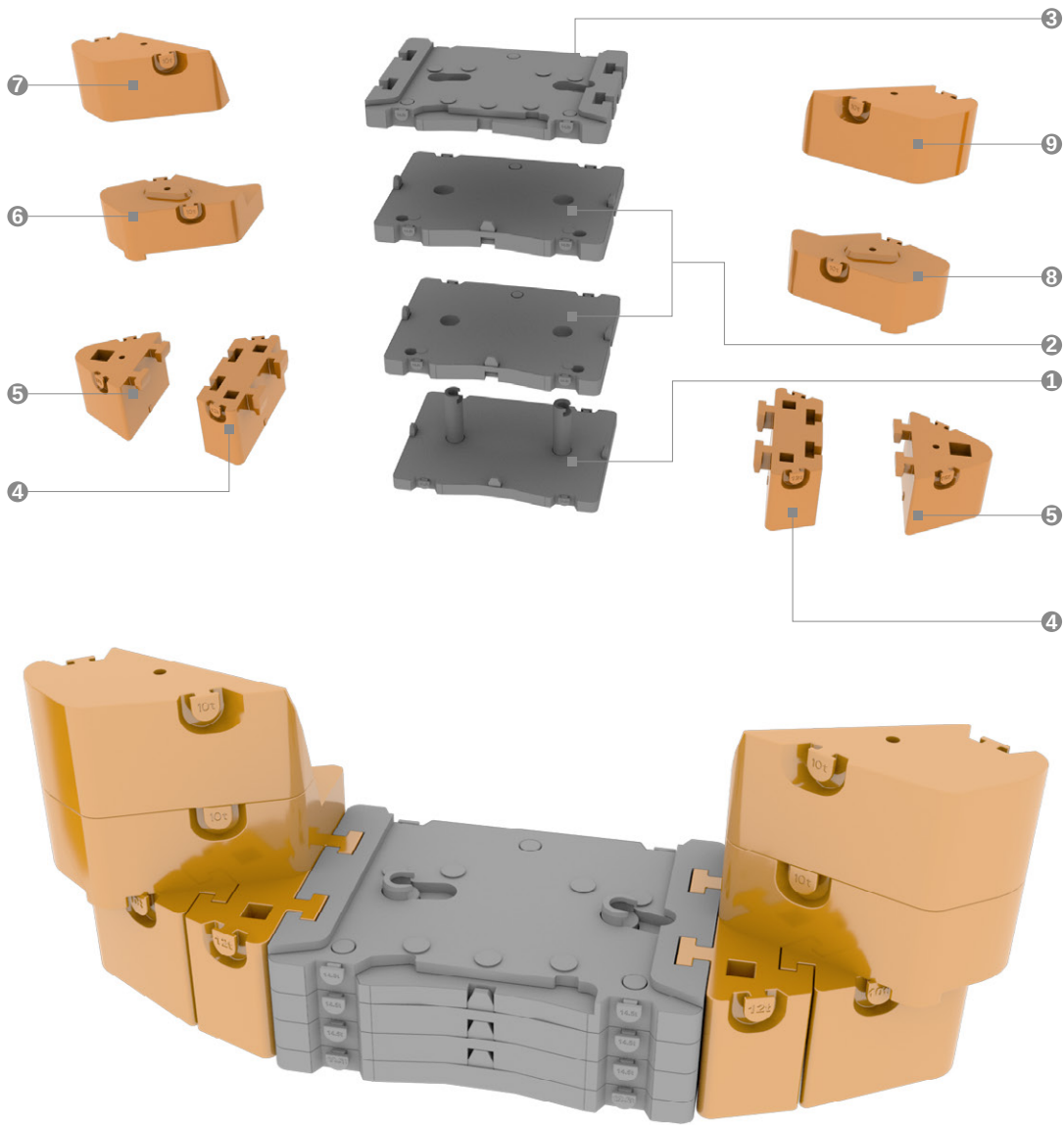
Hook block

Rated load/t	Number of sheaves	Rope rate	Hook weight/kg	Remark
200	9	19	3242	Optional
160	7	15	2886	Standard
80	3	7	1982	Standard
12.5	0	1	676	Standard
32	1	2	1324	Optional

Parts of World-famous Brands

No	Item	Supplier
1	Chassis engine	Mercedes-Benz
2	Superstructure engine	Mercedes-Benz
3	Axle	KESSLER-CO
4	Transmission	ZF
5	Transfer case	KESSLER-CO
6	Main hoist piston pump	Dresser
7	Luffing piston pump	rexroth A Bosch Company
8	Telescoping piston pump	rexroth A Bosch Company
9	Telesoping balance valve	WESSEL

Counterweight Combinations

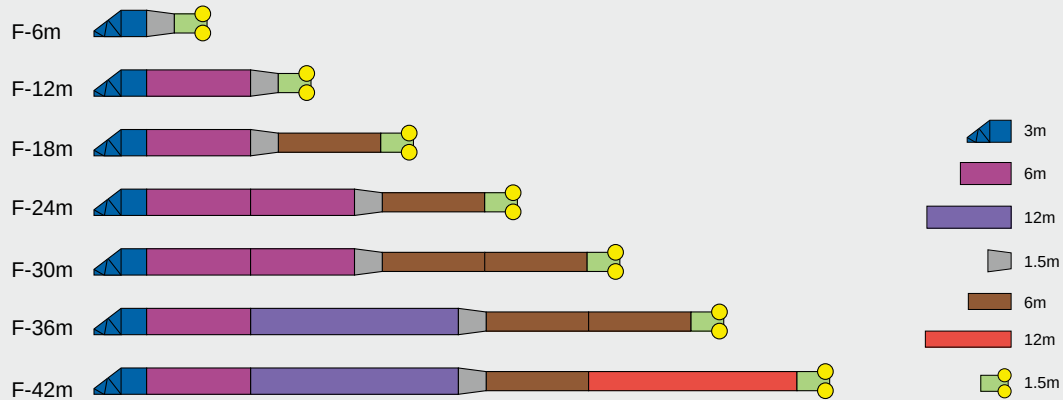


Variable weights (t)	Combinations
14.5	①
29	① + ②
43.5	① + ② × 2
58	① + ② × 2 + ③
82	① + ② × 2 + ③ + ④ × 2
102	① + ② × 2 + ③ + ④ × 2 + ⑤ × 2
122	① + ② × 2 + ③ + ④ × 2 + ⑤ × 2 + ⑥ + ⑦
142	① + ② × 2 + ③ + ④ × 2 + ⑤ × 2 + ⑥ + ⑦ + ⑧ + ⑨

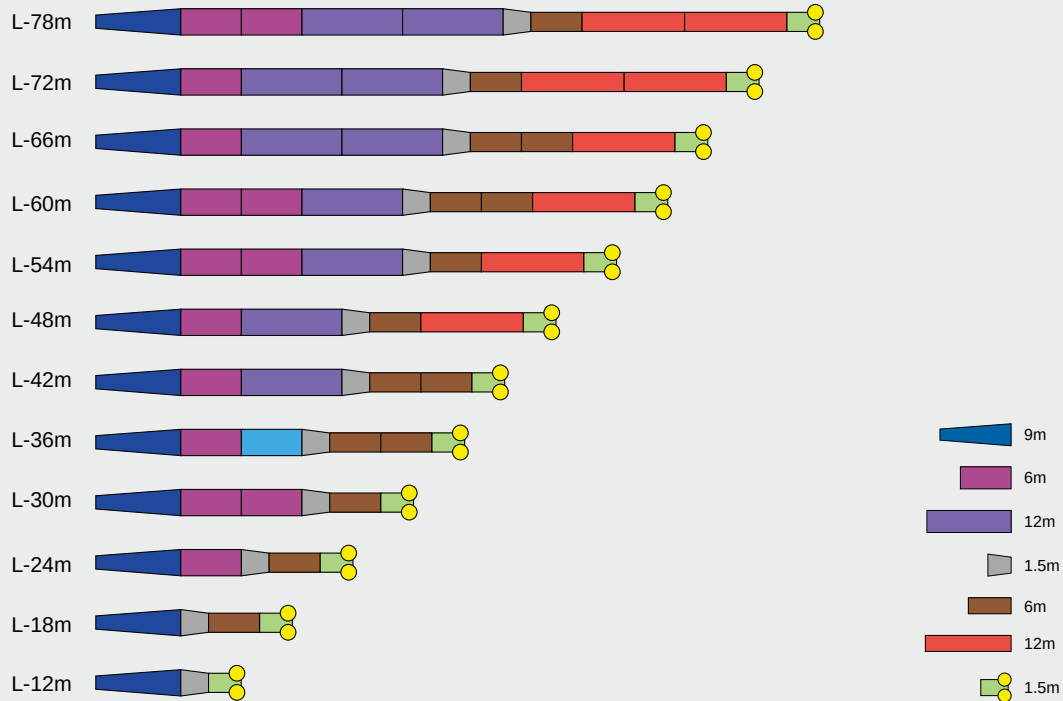
Note: the same counterweights can be used on SAC3000S.

Boom / Jib Combinations

Fixed jib assembly



Luffing jib assembly



Note: the same fixed jib and luffing jib can be used on SAC3500S.
Optional heavy fixed jib & heavy luffing jib now available!

Crane Introduction

superstructure

Operator's cab

- The cab is designed in ergonomic concept with deep consideration of convenience, safety, and comfort. Key operation parts including main boom, luffing jib and superlift hoist winch are well monitored from multiple angles in multiple images.

Engine

- Model: BENZ Inline six-cylinder diesel engine with watercooler and inter cooler, EFI.
- Emission standard: Euro 3.
- Fuel reservoir capacity: 300L.

Boom System

- Telescopic boom: Bending resistant ellipse structure welded by high tensile steel plate. Single cylinder pin telescoping. Seven sections in full extension is 84m.
- Jib: 42m fixed jib (standard equipment), 78m luffing jib (optional). The connection section, jib head, 6m and 12m large (small) cross section inserts are applicable to both fixed and luffing jibs.
- Superlift device: Self assembly and disassembly. With superlift the long boom defection is reduced by over 20% and lifting capacity up by 200%.

Slewing System

- Stepless speed regulation. Close type system reduces energy loss. Emergency brake available.

Hydraulic System

- Superstructure is designed with independent hydraulic system of integrated open and close type. Auto adjustable oil pump with higher power use ratio and less energy cost. Variable piston pump featuring load sensing and constant power control.
- Self-developed double pump confluence and shunt main valve, higher efficiency for single motion and better maneuverability for combined motions.
- Main oil pump, slewing pump, winch motor, balance valve and other hydraulic components are of high quality and high durability.

Hoisting System

- Planetary reducer gear driven by hydraulic motor and special rope groove winching drum with built-in brake. Efficient switchover of rope rate. Rotation resistant wire rope spec. 24mm in diameter and 605m in length.

Luffing system

- Electric proportional control, integrated active and passive luffing down, luffing speed and stability both secured.

Control System

- 24V DC power supply, PLC integrated programmable controller, CAN-BUS instrument featuring real-time monitoring and self-diagnosis.
- Lifting, slewing and luffing are controlled by electric proportional joystick, telescoping by pedal, CW lifting/lowering, cab tilting and slewing platform lock by panel buttons.

Safety Device

- Self-developed LMI.
- Hydraulic balance valve, relief valve, two-way pilot-controlled valve.
- Three-circle protector at boom winch and luffing jib winch, preventing wire rope from over-hoist down.
- Height limit switch at head of boom and fixed jib, preventing wire rope from over-hoist up.
- Anemometer at boom and jib head.
- Superlift wire line pull protection program.

Counterweight

- Movable counterweight, see variable CW combination chart. CW assembly and disassembly controlled by remote device.

Outrigger

- H-type two-stage outriggers, hydraulically telescoping, remotely controlled and auto levelling. Outrigger load can be read on control pane.

Optional equipment at extra fees

- 32.5t capacity hook block.
- 200t capacity hook block.
- Luffing jib assembly (78m).
- Specially designed jib for wind power (8m).
- Boom tip for independent 4-section boom operation.
- Hydraulically adjustable jib.
- Outrigger pad.
- Spare tire bracket.
- Heavy fixed jib 42m
- Heavy luffing jib 84m
- Customized painting.
- Other equipment available upon request.

Crane Introduction

Carrier

Driver's cab

- Vibration and external noise isolation. Equipped with pneumatic suspension seats with headrest, adjustable steering wheel, large rear-view mirror, reversing camera, demister, HVAC, and stereo radio.

Carrier frame

- Lightweight torsion resistant box-type structure welded by fine grain high-strength steel. Front and rear towing device equipped.

Chassis Engine

- Model: V-type eight-cylinder diesel engine with watercooler and inter cooler, EFI.
- Emission standard: Euro 5.
- Fuel reservoir capacity: 550L.

Transmission

- 12-speed AMT, large speed ratio range, adaptable to slope climbing and high-speed traveling.

Axle

- Kessler. Axles 1, 3, 5 are drive axles on highway traveling; axles 1, 3, 5, 6 are drive axles on rough terrains. All axle steering. Axles 1, 2 are steered mechanically with hydraulic booster; axles 3 to 6 are steered hydraulically.

Wheel formula

- 12×8×12

Suspension

- Hydro-pneumatic suspension with hydraulic lock featuring 5 different modes. Ride comfort and vehicle lateral stability are ensured regardless of any rough terrains.

Tires

- Thirteen tires sized 16.00R25(445/95 R25), incl. one spare tire.

Brake System

- Service brake: air servo, double circuit, equipped with disc brake.
- Parking brake: Functioning at axle 2 to 6 by pressure reservoir.
- Assistant brake: Engine brake, exhaust brake, transmission hydraulic retarder brake.

Steering System

- Emergency steering pump. Axles 3, 4 stop steering when traveling speed exceeds 30km/h; axles 5,6 stop steering when it exceeds 60km/h.

Electrical System

- 24V DC power supply. Vehicle illumination available. Its own strong logic realizes self-diagnosis, integrated display and self-protection (IP65).
- CAN instrument, LCD display.

Working Conditions & Codes Description

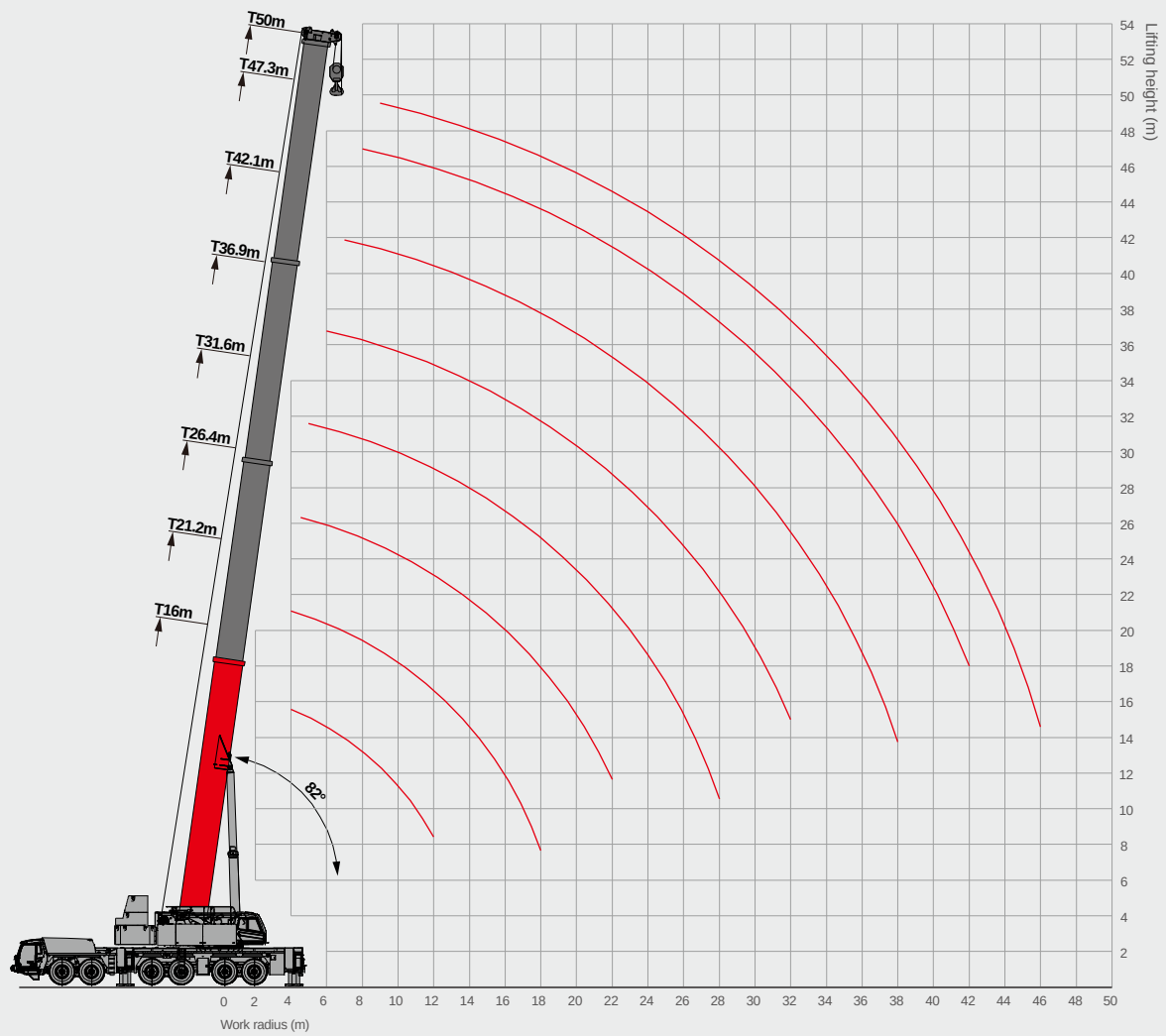
- T - Telescopic boom
- T4 - Independent four section boom
- S - Superlift device
- F - Fixed jib
- L - Luffing jib
- E - Boom extension
- AJ - Auxiliary jib
- F(Z) - Heavy fixed jib
- L(Z) - Heavy luffing jib



Working Conditions & Codes Description



Operating Range - T4



Load Chart - T4

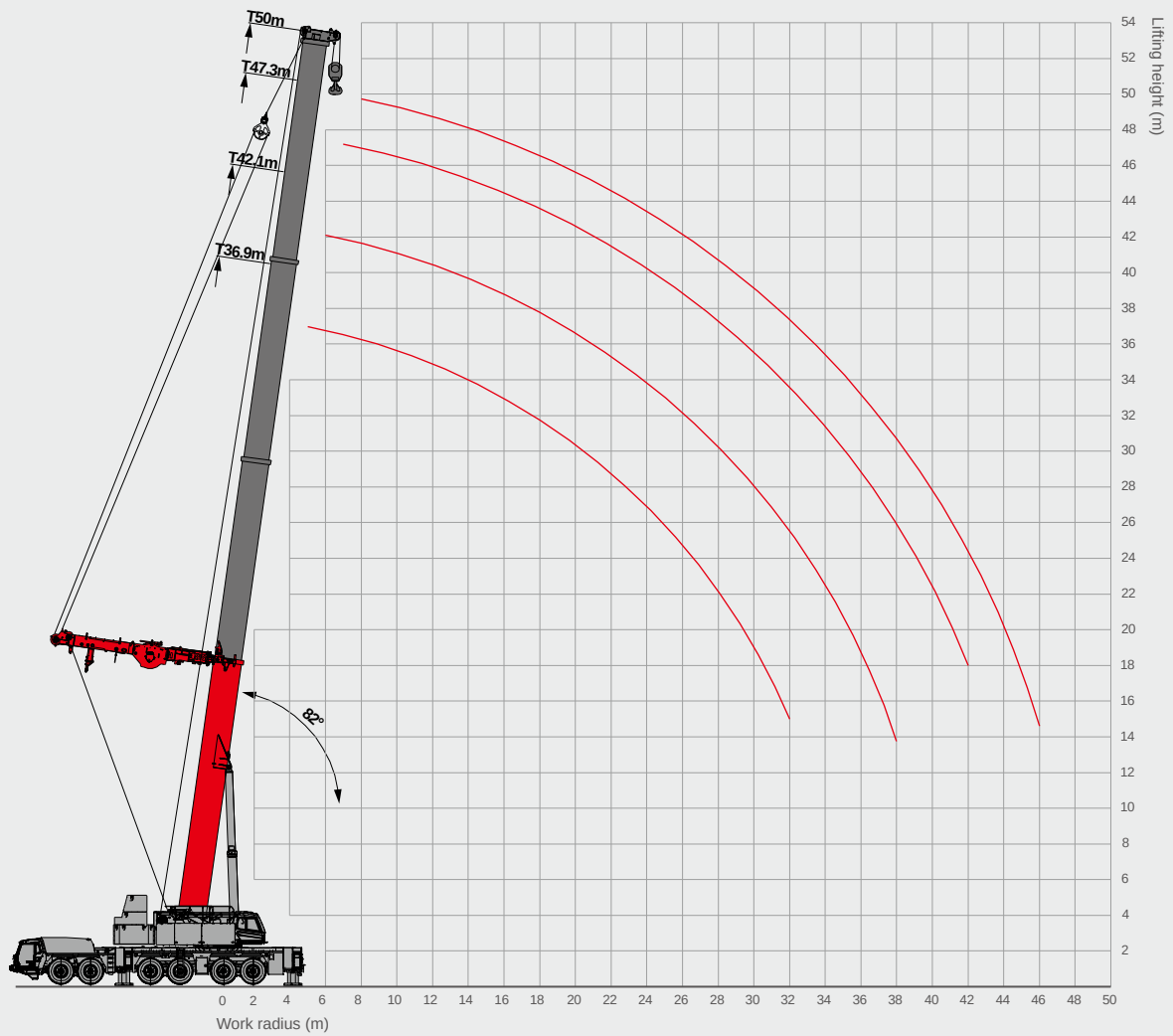


Unit: metric ton

Radius (m)	16	21.2	26.4	31.6	36.9	42.1	47.3	50	Radius (m)
4	201.5	200.0							4
4.5	201.5	196.2	191.0						4.5
5	201.5	191.1	190.5	180.9					5
6	190.0	191.0	185.1	174.6	162.7				6
7	173.0	173.0	173.0	164.2	155.0	123.0			7
8	156.0	156.0	154.0	149.9	147.4	116.3	103.3		8
9	136.9	135.0	134.0	135.6	135.0	109.6	98.1	67.0	9
10	121.1	122.0	122.0	121.4	122.0	104.2	92.9	64.3	10
12	103.2	104.4	104.3	103.6	100.0	94.3	83.6	59.2	12
14		77.7	77.6	76.9	71.4	71.1	67.2	51.1	14
16		68.1	68.1	67.3	66.5	66.0	61.2	47.8	16
18		62.0	60.3	59.6	55.4	64.1	55.3	44.9	18
20			53.7	53.0	48.3	57.5	50.7	42.1	20
22			53.5	47.0	42.0	51.8	46.8	39.7	22
24				41.9	41.1	46.7	42.9	37.7	24
26				37.6	40.9	42.3	39.1	35.7	26
28				35.0	37.1	38.5	36.4	33.7	28
30					33.8	34.9	33.8	31.8	30
32					20.0	31.6	31.0	30.1	32
34						28.8	28.2	28.4	34
36						26.2	25.7	26.7	36
38						23.9	23.5	24.7	38
40							21.5	22.7	40
42							15.3	20.9	42
44								19.3	44
46								17.8	46
48									48
Telescoping status (%)									
2nd boom	0	46	46	46	92	92	92	100	2nd boom
3rd boom	0	0	46	46	46	92	92	100	3rd boom
4th boom	0	0	0	46	46	46	92	100	4th boom
Rope rate	18	17	16	15	14	13	12	11	Rope rate

Remark: Three other boom sections are removed and counterweight units are moved backwards.

Operating Range - T4S



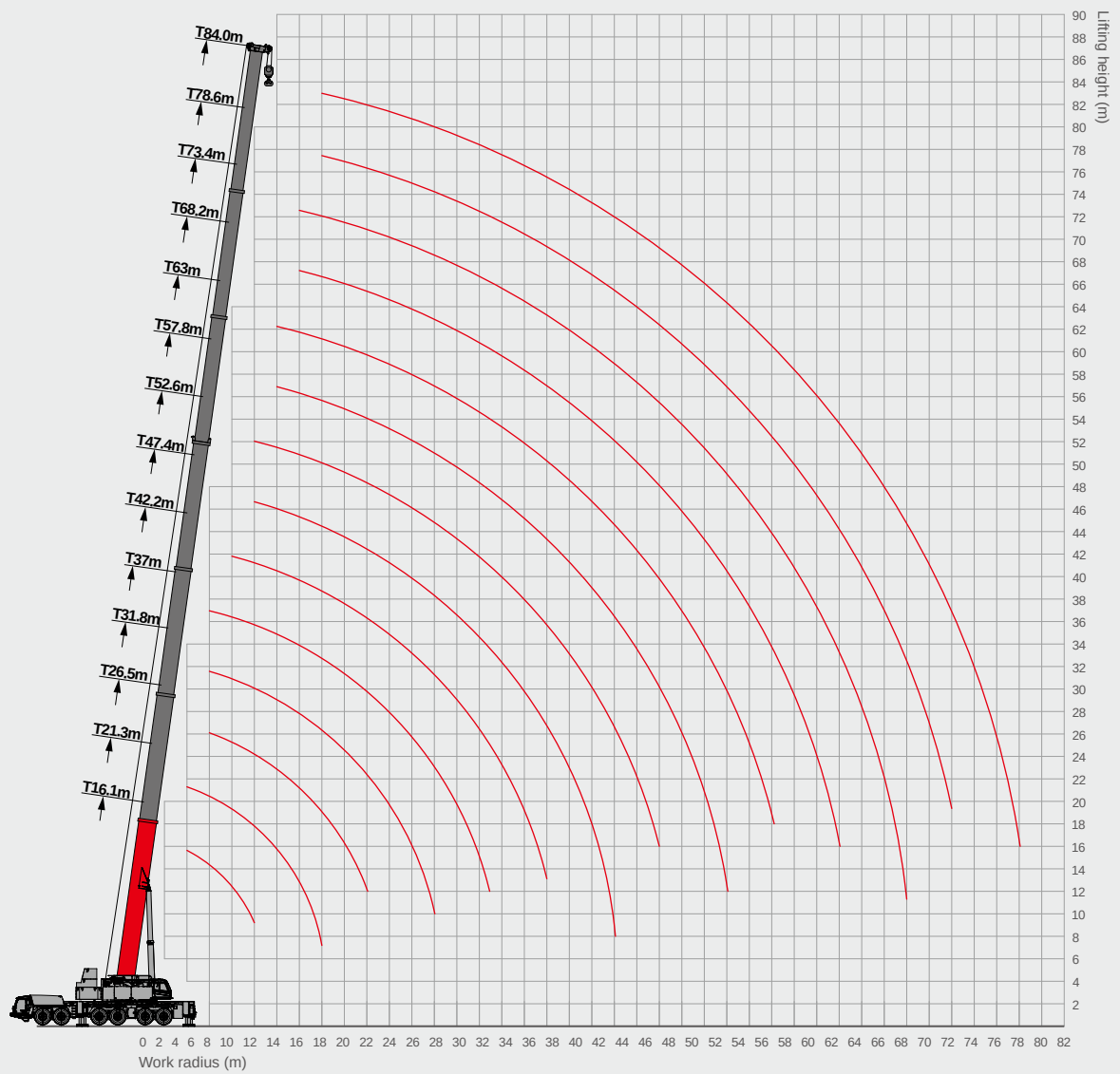
Load Chart - T4S



Unit: metric ton

Radius(m)	36.9	42.1	47.3	50	Radius(m)
4.5					4.5
5	178.5				5
6	168.0	135.5			6
7	159.6	133.4	147.0		7
8	149.1	131.3	137.6	112.4	8
9	139.7	127.1	129.2	106.1	9
10	123.5	122.9	120.8	101.9	10
12	102.8	104.8	105.1	95.6	12
14	88.4	90.5	90.8	89.8	14
16	76.0	78.1	78.5	79.2	16
18	66.0	68.0	68.6	69.2	18
20	57.8	59.9	60.3	61.0	20
22	50.9	53.0	53.4	54.2	22
24	45.0	47.3	47.6	48.2	24
26	40.1	42.2	42.4	43.3	26
28	35.8	37.7	38.2	38.9	28
30	32.0	33.6	34.4	35.1	30
32	28.7	30.0	31.0	31.8	32
34		26.9	28.0	28.8	34
36		24.1	25.3	26.0	36
38		21.5	22.9	23.6	38
40			20.8	21.5	40
42			18.9	19.4	42
44				17.6	44
46				15.8	46
Telescoping status (%)					
2nd boom	92	92	92	100	2nd boom
3rd boom	46	92	92	100	3rd boom
4th boom	46	46	92	100	4th boom
Rope rate	15	11	12	9	Rope rate

Operating Range - T



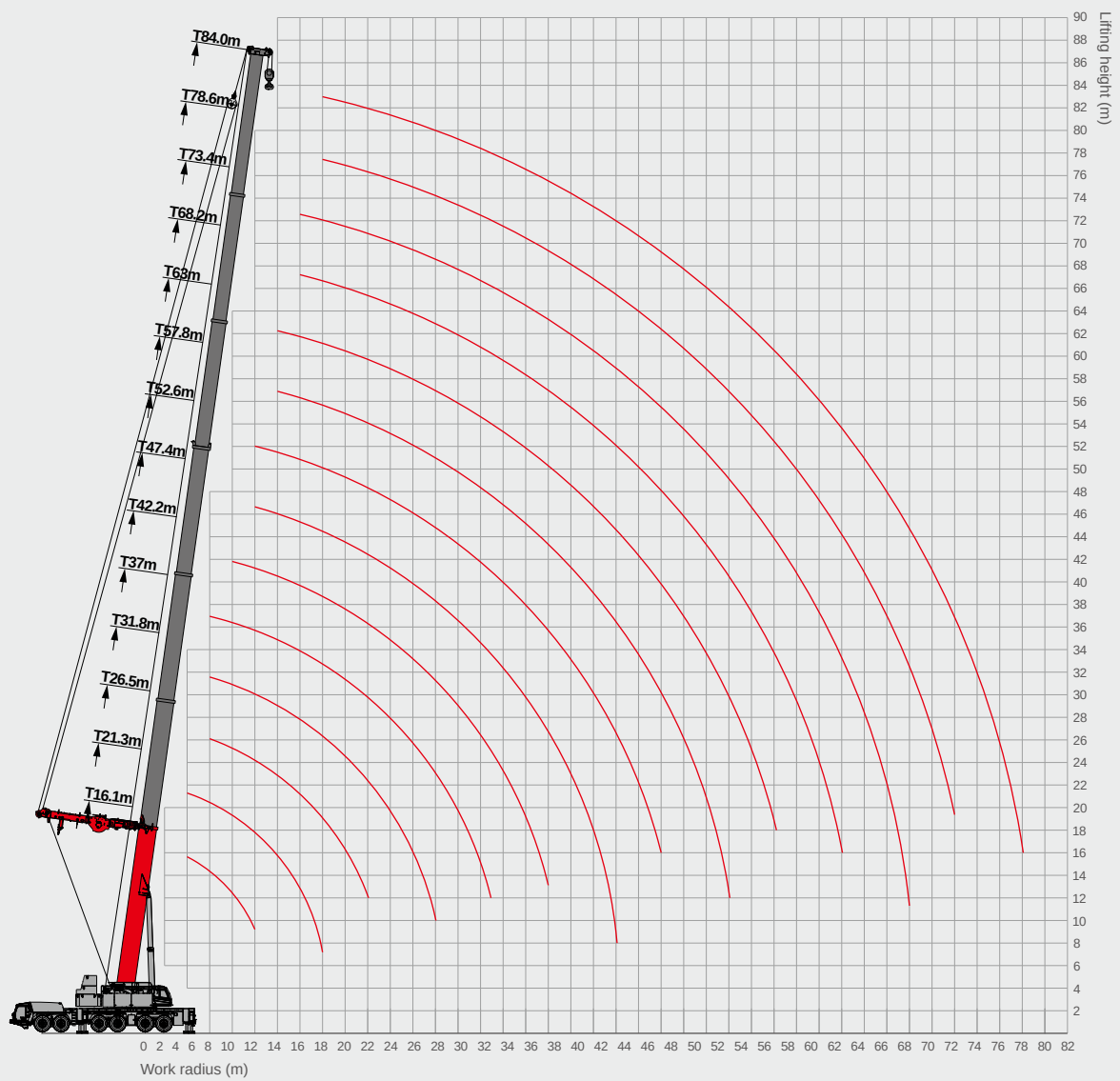
Load Chart - T



Unit: metric ton

Radius (m)	16.1	21.3	26.5	31.8	37	42.2	47.4	52.6	57.8	63	68.2	73.4	78.6	84	Radius (m)
3															3
3.5															3.5
4	201.5	196.2													4
4.5	201.5	196.2	191.0												4.5
5	201.5	191.1	190.5	180.9											5
6	195.0	191.0	185.1	174.6	162.7										6
7	175.0	173.0	173.0	164.2	155.0	123.0									7
8	157.6	156.0	154.0	149.9	147.4	116.3	103.3								8
9	136.9	135.0	134.0	135.6	135.0	109.6	98.1	67.0							9
10	125.0	122.0	122.0	124.6	122.0	104.2	92.9	64.3	57.0						10
12	105.1	104.0	106.3	105.5	108.5	94.3	83.6	59.2	52.4	43.8	38.6				12
14		90.0	90.4	91.7	94.6	85.7	74.7	55.1	48.6	41.0	36.2	31.2			14
16		78.0	79.8	79.8	82.4	78.8	67.2	51.1	45.3	38.4	33.7	29.6	25.2	20.0	16
18		70.5	71.6	69.5	72.3	71.7	61.2	47.8	42.0	36.0	31.4	28.0	24.2	19.2	18
20			64.8	60.4	63.8	64.1	55.3	44.9	39.2	33.6	29.3	26.4	23.2	18.4	20
22			57.6	53.0	56.5	57.5	50.7	42.2	36.8	31.5	27.2	24.8	22.1	17.5	22
24				47.0	52.4	51.8	46.8	39.7	34.4	29.7	25.2	23.3	20.9	16.7	24
26				42.9	47.5	46.7	42.9	37.7	32.1	28.0	23.6	21.8	19.7	15.9	26
28				39.9	43.1	42.3	39.1	35.7	30.4	26.2	21.9	20.6	18.6	15.1	28
30					39.4	38.5	36.4	33.7	28.8	24.8	20.3	19.6	17.5	14.3	30
32					36.1	35.2	33.8	31.8	27.1	23.6	18.9	18.6	16.5	13.5	32
34						32.3	31.1	30.1	25.5	22.3	17.7	17.6	15.5	12.8	34
36						29.7	28.5	28.4	24.0	21.1	16.7	16.8	14.6	12.1	36
38						27.5	26.2	26.7	22.8	19.9	15.8	16.1	13.6	11.5	38
40							24.8	25.1	21.6	18.8	14.9	15.3	12.9	10.8	40
42							23.7	23.6	20.6	18.0	14.2	14.7	12.2	10.2	42
44								22.0	19.2	17.0	13.2	14.0	11.4	9.6	44
46								19.6	17.8	15.8	12.3	13.0	10.6	9.0	46
48									17.0	15.1	11.7	12.5	9.8	8.5	48
50									16.2	14.4	11.2	11.9	9.2	8.0	50
52									15.4	13.8	10.7	11.4	8.6	7.5	52
54										13.2	10.1	10.9	8.0	7.0	54
56										12.2	9.2	10.0	7.8	6.5	56
58										11.7	8.4	9.6	7.0	6.1	58
60											7.6	9.2	6.3	5.7	60
62											6.9	8.9	5.9	5.3	62
64											5.4	8.4	5.5	4.9	64
66												7.9	5.0	4.5	66
68												7.6	4.6	4.0	68
70													4.2	3.9	70
72													3.8	3.6	72
74													3.5	3.3	74
76														3.0	76
78														2.7	78
80															80
82															82

Operating Range - TS



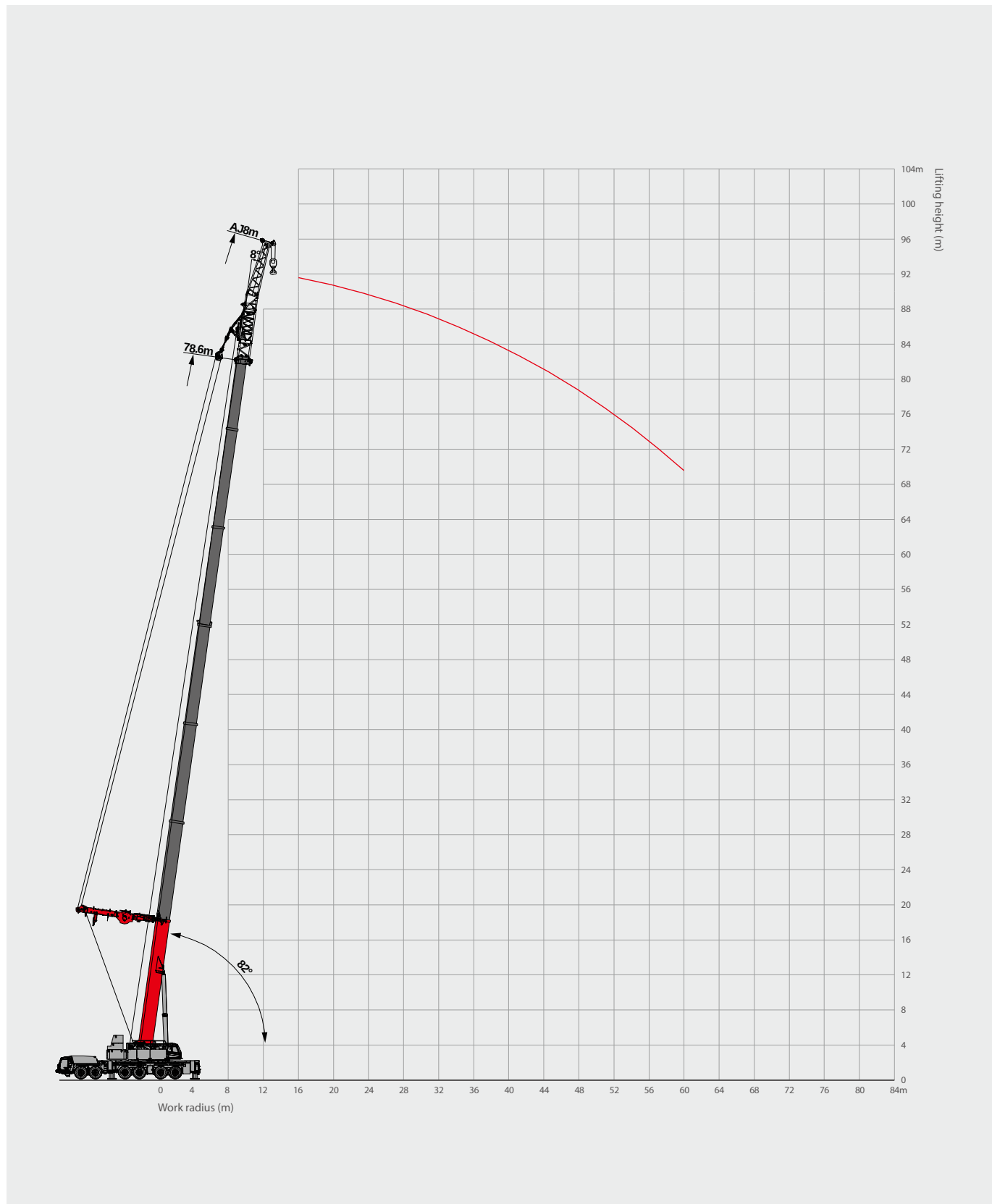
Load Chart - TS



Unit: metric ton

Radius (m)	37	42.2	47.4	52.6	57.8	63	68.2	73.4	78.6	84	Radius (m)
4.5											4.5
5	170.0										5
6	160.0	129.0									6
7	152.0	127.0	140.0								7
8	144.0	125.0	131.0	107.0							8
9	136.0	121.0	123.0	101.0							9
10	119.5	117.0	115.0	98.0	93.5						10
12	102.1	101.8	100.6	91.0	85.0	78.0					12
14	88.6	90.4	88.8	85.5	78.5	72.9	65.0	55.8			14
16	76.7	78.6	77.0	77.2	72.0	69.3	59.4	53.1	46.8	42.0	16
18	67.3	69.1	67.5	67.7	67.0	66.6	56.7	51.3	44.5	39.5	18
20	59.6	61.3	59.7	59.9	59.6	60.3	53.1	48.6	42.6	36.5	20
22	53.0	54.8	53.1	53.3	54.9	54.0	49.5	46.8	41.0	34.6	22
24	47.5	49.3	47.6	47.7	51.3	49.5	46.8	44.1	39.6	33.0	24
26	42.8	44.5	42.9	43.1	47.4	45.8	44.6	41.0	37.8	31.5	26
28	38.8	40.4	38.8	38.8	43.1	41.7	41.9	37.8	36.0	30.2	28
30	35.3	37.0	35.2	35.3	39.7	38.1	38.7	35.1	34.6	28.8	30
32	32.2	33.7	32.0	32.1	36.4	35.0	35.8	32.8	32.4	27.5	32
34		31.0	29.2	29.2	33.6	32.2	33.0	30.2	30.2	26.5	34
36		28.0	26.7	26.6	31.1	29.6	30.4	27.4	27.9	25.3	36
38		26.4	24.5	24.4	28.8	27.3	28.1	25.5	25.8	24.2	38
40			22.5	22.4	26.7	25.0	25.9	23.4	23.8	23.2	40
42			20.6	20.5	24.8	23.0	23.9	21.6	22.1	21.8	42
44				18.8	22.8	21.0	22.0	19.8	20.5	20.2	44
46				17.2	21.2	19.5	20.3	18.1	19.0	18.7	46
48					19.6	18.0	18.8	16.5	17.5	17.4	48
50					18.3	16.6	17.5	15.1	16.0	16.1	50
52					17.0	15.2	16.1	13.8	14.8	15.0	52
54						14.0	14.9	12.7	13.6	13.6	54
56						13.0	13.8	11.5	12.4	12.6	56
58							12.7	10.5	11.4	11.5	58
60							11.8	9.6	10.4	10.6	60
62							10.9	8.6	9.5	9.6	62
64								7.8	8.6	8.8	64
66								7.0	7.8	8.0	66
68									7.1	7.3	68
70									6.3	6.5	70
72									5.3	5.8	72
74										5.2	74
76										4.5	76
78											78
80											80

Operating Range - TSEAJ



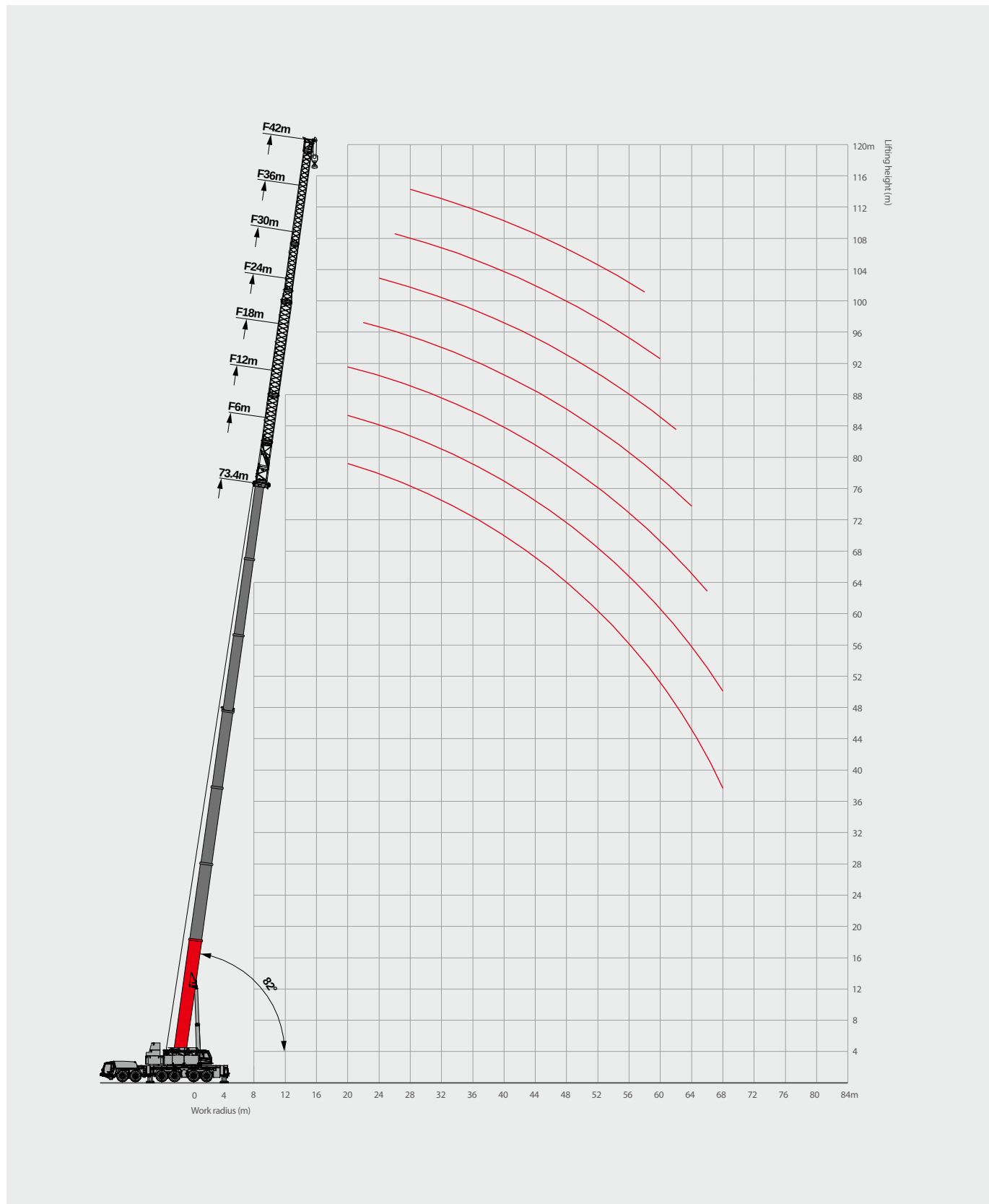
Load Chart - TSEAJ



Unit: metric ton

Radius (m)	68.2	73.4	78.6	Radius (m)
Jib offset	8°	8°	8°	Jib offset
16	65	56	45	16
18	54	42	38	18
20	42	30	30	20
22	32.2	28.2	24	22
24	31.1	26.3	23	24
26	26.8	24.1	22.1	26
28	23.3	21	21.2	28
30	20.4	19.1	20.4	30
32	17.8	17.4	19.2	32
34	15.5	16.3	16.9	34
36	13.6	14.3	15	36
38	11.8	12.6	13.2	38
40	10.4	11	11.7	40
42	9.1	9.7	10.2	42
44	7.8	8.4	8.9	44
46	6.6	7.4	7.6	46
48	5.6	6.3	6.5	48
50	4.7	5	6	50
52	3.2	4.1	4.8	52
54	2.8	3.2	3.4	54
56	2	2.2	2.8	56
58	1.2	1.5	2.1	58
60			1.2	60
Rope rate	6	5	4	Rope rate

Operating Range - TF



Load Chart - TF



Unit: metric ton

Radius (m)	57.8						63						Radius (m)	
	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m		42m
Jib offset	0°						0°						Jib offset	
14														14
16	21.1						20.8							16
18	20	17.3					19.7	16.6	13.2					18
20	18.7	16.4	13.2	9.1			18.4	15.8	13.0	10.9				20
22	17.5	15.6	12.8	8.8	7.5		17.0	15	12.6	10.7	8.1			22
24	16.4	14.6	12.1	8.5	7.2	6.4	16.0	14.2	12.1	10.1	8.0	6.6		24
26	15.4	13.8	11.2	8.1	6.9	6.1	14.9	13.3	11.5	9.3	7.8	6.4	5.4	26
28	14.3	13.0	10.2	7.8	6.7	5.9	13.8	12.5	10.9	8.5	7.5	6.3	5.3	28
30	13.3	12.1	9.2	7.4	6.4	5.6	12.8	11.6	10.3	7.7	7.3	6.0	5.0	30
32	12.5	11.4	8.7	7.1	6.2	5.4	12.0	10.9	9.8	7.2	6.9	5.8	4.8	32
34	11.6	10.7	8.2	6.8	5.8	5.2	11.2	10.2	9.2	6.9	6.6	5.7	4.7	34
36	10.9	10.0	7.7	6.5	5.6	4.9	10.4	9.5	8.6	6.5	6.2	5.5	4.4	36
38	10.1	9.4	7.2	6.2	5.3	4.8	9.6	8.9	8.2	6.1	5.9	5.2	4.3	38
40	9.4	8.8	6.7	5.9	5.1	4.6	8.9	8.3	7.6	5.8	5.7	5.0	4.2	40
42	8.6	8.2	6.3	5.7	4.9	4.3	8.3	7.7	7.1	5.4	5.4	4.7	4.0	42
44	8	7.6	5.9	5.4	4.6	4.1	7.6	7.2	6.6	5.1	5.0	4.4	3.8	44
46	7.3	7.0	5.5	5.1	4.3	4.0	7.0	6.6	6.2	4.7	4.7	4.2	3.7	46
48	6.8	6.5	5.1	4.7	4.1	3.8	6.4	6.1	5.8	4.4	4.4	3.9	3.5	48
50	6.2	6.0	4.8	4.4	3.9	3.6	5.9	5.6	5.4	4.1	4.0	3.6	3.4	50
52	5.8	5.5	4.4	4.1	3.7	3.5	5.3	5.2	4.9	3.8	3.7	3.3	3.1	52
54	5.3	5.0	4.1	3.8	3.5	3.2	4.8	4.7	4.6	3.5	3.5	3.1	2.9	54
56	4.6	4.6	3.8	3.5	3.3	3.1	4.4	4.2	4.2	3.2	3.1	2.9	2.6	56
58	3.7	4.2	3.5	3.2	3.1	3.0	4.0	3.8	3.8	3.0	2.9	2.6	2.4	58
60	3.1	3.2	2.6	3.0	2.6	2.8	3.6	2.9	2.9	2.2	2.6	2.2	2.2	60
62	2.4	2.9	2.4	2.2	2.2	2.1	3.2	2.6	2.6	2.0	2.0	1.7	1.6	62
64	1.7	2.6	2.1	2.0	1.9	1.9	3.0	2.3	2.3	1.8	1.8	1.5		64
66	1.2	2.0	2	1.8	1.7	1.7	2.2	1.7	2.1	1.5	1.5			66
68		1.5	1.7	1.6	1.5	1.5		1.2	1.8					68
70			1.5											70
72														72
74														74

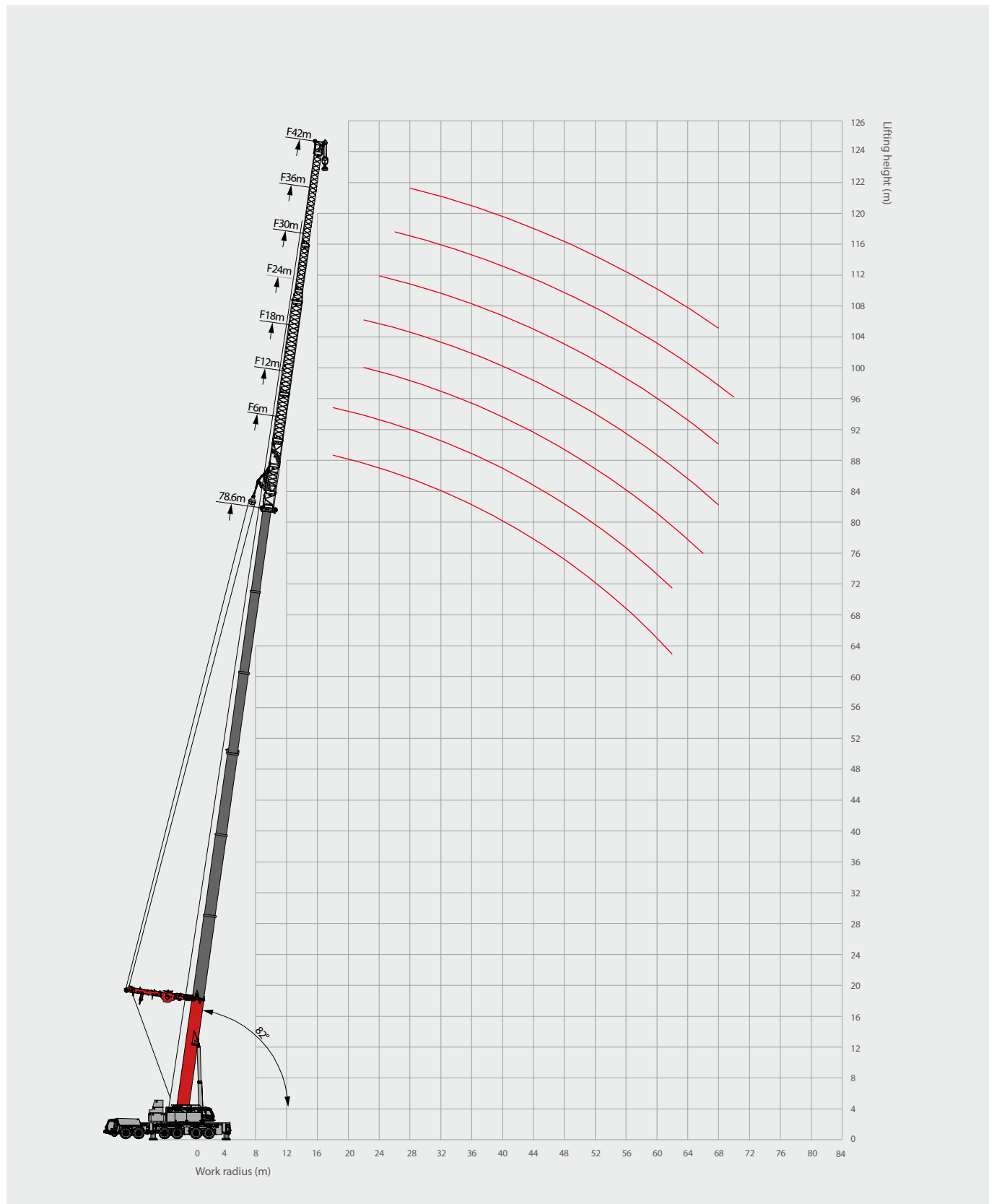
Load Chart - TF



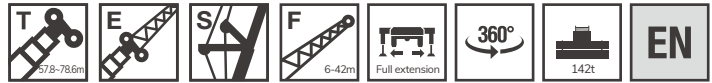
Unit: metric ton

Radius (m)	68.2							73.4							Radius (m)
	6m	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m	42m	
14															14
16															16
18	16.6														18
20	15.7	13.1	10.4					13.1							20
22	14.9	12.6	10.2	8.4				12.4	10.5	8.5	7.0				22
24	14.0	12.0	9.8	8.0	6.1			11.7	10.0	8.2	6.7				24
26	13.2	11.4	9.5	7.5	6.0	4.7		11.0	9.5	7.9	6.3	5.0			26
28	12.4	10.8	9.1	6.8	5.8	4.6	3.6	10.3	9.0	7.6	5.7	4.8	3.8		28
30	11.5	10.2	8.8	6.2	5.6	4.4	3.6	9.6	8.5	7.3	5.2	4.7	3.7	3.0	30
32	10.8	9.6	8.4	6.0	5.4	4.4	3.5	9.0	8.0	7.0	5.0	4.5	3.7	2.9	32
34	10.1	9.0	7.9	5.7	5.1	4.3	3.4	8.4	7.5	6.6	4.8	4.3	3.6	2.8	34
36	9.4	8.5	7.6	5.5	4.9	4.1	3.4	7.8	7.1	6.3	4.6	4.1	3.4	2.8	36
38	8.8	7.9	7.2	5.2	4.7	3.9	3.2	7.3	6.6	6.0	4.3	3.9	3.2	2.7	38
40	8.2	7.4	6.7	4.9	4.6	3.8	3.1	6.8	6.2	5.6	4.1	3.8	3.1	2.6	40
42	7.6	7.0	6.4	4.7	4.4	3.5	3.0	6.3	5.8	5.3	3.9	3.6	2.9	2.5	42
44	7.0	6.5	5.9	4.4	4.1	3.4	2.9	5.8	5.4	4.9	3.7	3.4	2.9	2.4	44
46	6.5	6.0	5.5	4.1	3.9	3.3	2.8	5.4	5.0	4.6	3.4	3.3	2.8	2.3	46
48	6.0	5.5	5.2	3.9	3.7	3.1	2.5	5.0	4.6	4.3	3.2	3.1	2.6	2.1	48
50	5.5	5.2	4.8	3.6	3.3	3	2.4	4.6	4.3	4.0	3.0	2.8	2.5	2.0	50
52	5.0	4.7	4.4	3.3	3.1	2.7	2.3	4.2	3.9	3.7	2.7	2.6	2.3	1.9	52
54	4.6	4.3	4.1	3.1	2.9	2.5	2.2	3.8	3.6	3.4	2.6	2.4	2.1	1.8	54
56	4.1	4.0	3.7	2.8	2.7	2.3	1.9	3.4	3.3	3.1	2.3	2.2	1.9	1.6	56
58	3.7	3.6	3.5	2.6	2.5	2.2	1.8	3.1	3.0	2.9	2.1	2.0	1.8		58
60	3.4	2.7	2.6	2.0	2.1	1.9		2.8	2.7	2.6	2.0	1.8	1.6		60
62	3.1	2.4	2.3	1.7	1.7			2.6	2.4	2.3	1.7				62
64	2.8	2.1	2.1	1.5				2.3	2.1	2.1	1.5				64
66	2.4	1.9	1.8					2.0	1.9	1.8					66
68	2.2	1.7						1.8							68
70	1.9							1.6							70
72															72
74															74

Operating Range - TSEF



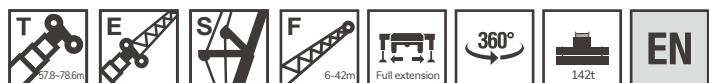
Load Chart - TSEF



Unit: metric ton

Radius (m)	57.8						63						68.2						Radius (m)					
	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m		36m	42m			
14	41.7																						14	
16	39.5	28.8					41.5																	16
18	37.4	27.2	21.1	16.2			40.5	36.6	26.7					36.2	32.7									18
20	35.4	25.7	20.1	15.3	12.7	10.3	39.0	35.2	25.3	19.8	15.1			35.3	32.0	24.9	19.0							20
22	33.7	24.5	19.0	14.6	12.1	9.8	37.4	33.7	24.2	18.8	14.3	11.9		34.2	31.4	24.0	18.2	13.8						22
24	32.2	23.2	18.2	13.8	11.5	9.3	35.9	32.2	23.1	17.9	13.7	11.4	9.0	32.9	30.3	23.0	17.4	13.3	11.0	9.0				24
26	30.8	22.2	17.3	13.2	11.0	8.8	33.5	31.0	22.1	17.2	13.1	10.7	8.5	31.6	29.1	22.1	16.7	12.7	10.5	8.5				26
28	28.8	21.1	16.5	12.6	10.4	8.4	31.2	29.1	21.1	16.4	12.5	10.4	8.2	29.8	27.9	21.2	16.1	12.2	10.0	8.2				28
30	25.4	20.3	15.8	12.1	10.0	7.9	27.4	25.8	20.3	15.8	12.0	9.9	7.8	26.4	26.2	20.4	15.4	11.7	9.6	7.8				30
32	22.6	19.4	15.1	11.6	9.5	7.5	24.1	22.9	19.5	15.1	11.5	9.5	7.5	23.4	23.3	19.6	14.8	11.2	9.3	7.5				32
34	20.1	18.6	14.4	11.1	9.1	7.3	21.2	20.4	18.8	14.6	11.1	9.1	7.2	20.7	20.8	17.6	14.3	10.9	8.9	7.2				34
36	17.9	17.9	13.8	10.6	8.8	6.9	18.7	18.2	17.0	14.0	10.6	8.8	6.9	18.4	18.7	15.9	13.8	10.5	8.5	7.0				36
38	16.0	16.3	13.3	10.1	8.4	6.7	16.4	16.3	15.3	13.5	10.3	8.4	6.5	16.4	16.7	14.3	13.3	10.1	8.3	6.5				38
40	14.3	14.6	12.7	9.8	8.0	6.3	14.5	14.3	13.8	13.0	9.8	8.0	6.3	14.6	14.8	13.0	12.7	9.8	8.0	6.3				40
42	12.7	13.2	12.2	9.3	7.7	6.1	12.7	12.5	12.4	12.4	9.4	7.8	6.1	12.9	12.9	11.7	11.5	9.4	7.7	6.1				42
44	11.3	11.9	11.2	8.9	7.4	5.8	11.2	10.9	11.2	11.3	9.0	7.5	5.8	11.5	11.4	10.6	10.5	9.0	7.4	6.0				44
46	10.1	10.7	10.1	8.5	7.0	5.6	9.7	9.5	10.1	10.3	8.6	7.2	5.6	10.1	9.9	9.6	9.6	8.6	7.2	5.7				46
48	8.9	9.6	9.2	8.2	6.8	5.3	8.3	8.1	9.1	9.3	8.4	6.9	5.3	8.9	8.6	8.7	8.7	8.4	6.9	5.3				48
50	7.9	8.4	8.4	7.7	6.5	5.1	7.1	6.9	8.2	8.5	7.7	6.7	5.2	7.8	7.3	7.9	8.0	7.8	6.7	5.1				50
52	6.9	7.4	7.6	7.0	6.3	4.9	6.0	5.8	7.4	7.7	7.5	6.4	4.9	6.8	6.3	7.1	7.2	7.2	6.4	4.6				52
54	6.0	6.3	6.9	6.4	5.9	4.7	4.2	4.8	6.6	7.0	7.3	6.2	4.7	4.5	5.2	6.4	6.6	6.6	6.2	4.1				54
56	5.2	5.3	6.2	5.9	5.7	4.4	3.5	3.8	5.9	6.3	6.6	5.8	4.6	3.8	4.3	5.7	6.0	6.0	5.9	3.5				56
58	4.0	4.5	5.3	5.3	5.3	4.2	2.8	3.0	5.1	5.7	6.2	5.3	4.3	3.2	3.4	5.1	5.4	5.5	5.4	3.1				58
60	2.8	3.6	4.5	4.9	4.9	4.1	2.1	2.1	3.5	5.0	5.7	4.9	4.2	2.5	2.5	3.5	4.9	5.0	5.0	3.0				60
62		2.9	3.6	4.4	4.5	3.8		1.3	3.1	3.5	4.9	4.5	4.0	1.8	1.9	3.1	3.4	4.6	4.6	2.9				62
64		2.2	3.1	3.2	4.1	3.7			2.3	2.9	4.1	4.1	3.8			2.7	3.0	3.2	4.2	2.3				64
66		1.5	2.5	2.8	3.0	2.8				2.6	3.5	3.0	2.9			2.1	2.5	2.6	2.9	1.8				66
68			1.7	2.2	2.6	2.7				1.8	2.9	2.6	2.5			1.9	1.9	2.5	1.3					68
70				1.6	1.9	2.0					2.3	1.9	2.2						1.9	0.7				70
72						1.5					1.7		1.8											72
74						1.1					1.2		1.1											74
Rope rate	4	3	2	2	1	1	4	3	3	2	2	1	1	3	3	2	2	2	1	1				Rope rate

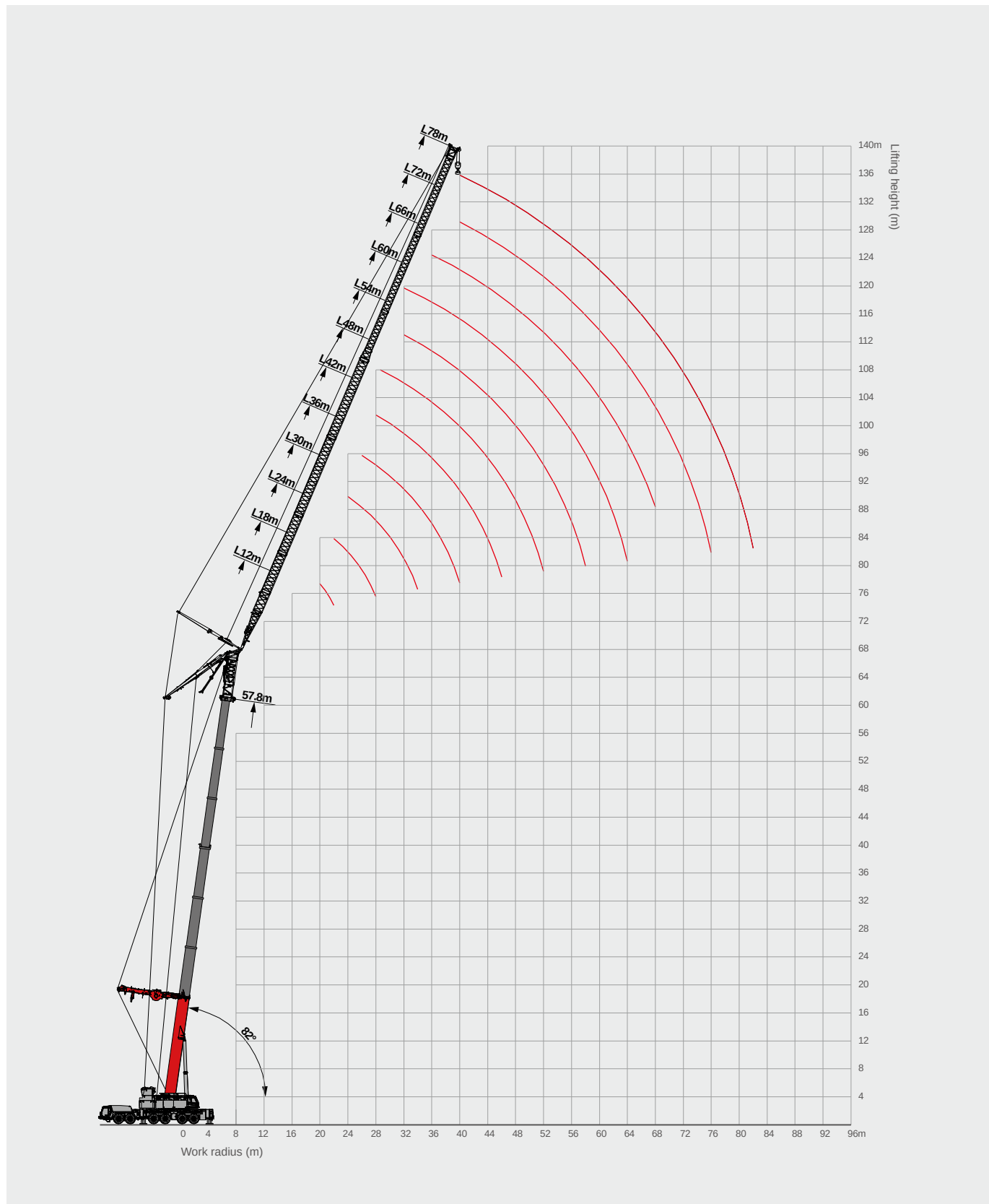
Load Chart - TSEF



Unit: metric ton

Radius (m)	73.4							78.6							Radius (m)
	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m	42m	6m	
14															14
16															16
18	29.0	26.2						23.2	20.9						18
20	28.3	26.0	19.9					24.0	20.5						20
22	27.4	25.8	19.7	17.0	12.4		9.0	21.9	20.1	17.0	13.6				22
24	26.4	24.8	18.9	16.2	12.0	10.0	8.5	21.1	19.6	16.2	12.9	9.6			24
26	25.3	23.9	18.1	15.5	11.4	9.5	8.0	20.3	19.2	15.4	12.4	9.1	8.6		26
28	23.9	22.9	17.4	15.0	11.0	9.0	7.7	19.1	18.8	14.6	12.0	8.8	8.0	6.7	28
30	21.1	21.5	16.7	14.3	10.5	8.6	7.3	16.9	17.6	14.1	11.5	8.4	7.7	6.4	30
32	18.7	19.1	16.1	13.8	10.1	8.4	7.1	15.0	15.7	13.5	11.0	8.1	7.4	6.2	32
34	16.6	17.1	14.4	13.3	9.8	8.0	6.8	13.3	14.0	12.1	10.6	7.8	7.1	5.9	34
36	14.7	15.3	13.0	12.8	9.5	7.7	6.6	11.8	12.6	11.0	10.3	7.6	6.8	5.8	36
38	13.1	13.7	11.7	12.4	9.1	7.5	6.1	10.5	11.2	9.8	9.9	7.3	6.6	5.3	38
40	11.7	12.3	10.7	11.8	8.8	7.2	5.9	9.4	10.1	9.0	9.4	7.1	6.4	5.2	40
42	10.3	11.1	9.6	10.7	8.5	6.9	5.7	8.3	9.1	8.1	8.6	6.8	6.2	5.0	42
44	9.2	9.9	8.7	9.8	8.1	6.7	5.6	7.4	8.1	7.3	7.8	6.5	5.9	4.9	44
46	8.1	8.9	7.9	8.9	7.7	6.5	5.4	6.5	7.3	6.6	7.1	6.2	5.8	4.7	46
48	7.1	8.0	7.1	8.1	7.6	6.2	5.0	5.7	6.5	6.0	6.5	6.0	5.5	4.4	48
50	6.2	7.1	6.5	7.4	7.0	6.0	4.8	5.0	5.8	5.4	6.0	5.6	5.4	4.2	50
52	5.4	6.3	5.8	6.7	6.5	5.8	4.3	4.4	5.2	4.9	5.4	5.2	5.1	3.8	52
54	4.0	5.6	5.2	6.1	5.9	5.6	3.9	3.2	4.6	4.4	4.9	4.8	5.0	3.4	54
56	3.3	4.9	4.7	5.6	5.4	5.3	3.3	2.6	4.0	3.9	4.5	4.3	4.7	2.9	56
58	2.9	3.4	4.2	5.0	5.0	4.9	2.9	2.3	2.8	3.5	4.0	4.0	4.3	2.5	58
60	2.3	2.9	2.9	4.6	4.5	4.5	2.8	1.8	2.4	2.4	3.6	3.6	4.0	2.5	60
62	1.7	2.0	2.5	3.2	4.1	4.1	2.7	1.4	1.6	2.1	2.5	3.3	3.7	2.4	62
64			2.2	2.8	2.9	3.8	2.5			1.9	2.2	2.3	3.4	2.2	64
66			1.7	2.3	2.3	2.6	2.4			1.4	1.9	1.9	2.3	2.1	66
68				1.8	2.0	2.3	2.2				1.4	1.7	2.0	1.9	68
70							2.1						1.8		70
72															72
74															74
Rope rate	3	3	2	2	1	1	1	2	2	2	2	1	1	1	Rope rate

Operating Range - TSEL



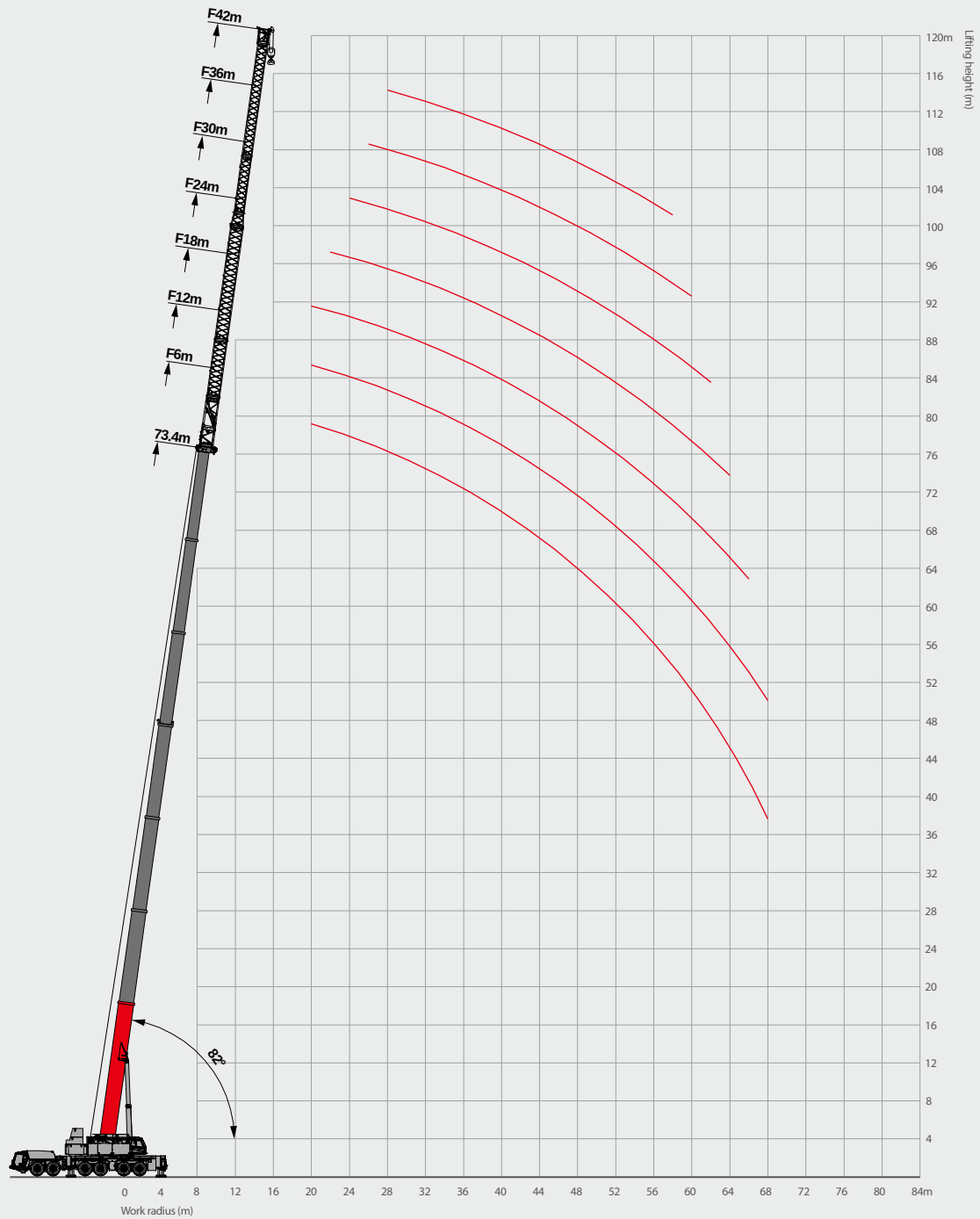
Load Chart - TSEL



Unit: metric ton

Radius (m)	57.8												63						68.2				Radius (m)	
	18m	24m	30m	36m	42m	48m	54m	60m	66m	72m	78m	18m	24m	30m	36m	42m	48m	18m	24m	30m	36m			
14																							14	
16																								16
18																								18
20	31.8																	29.4						20
22	31.2	27.6																28.2	24					22
24	30.6	26.5	23.4															27.6	23.4	20.4				24
26		26.4	22.6	19.2														27.0	23.4	19.8	16.8			26
28		25.6	22.2	19.0	13.8	12.0												22.8	19.2	16.2	13.7			28
30		25.2	21.6	19.0	15.6	12.4	9.4											21.6	18.7	16.2	13.6	11.2		30
32			21.0	18.4	15.6	12.7	9.9	7.2										20.6	18.2	16.2	13.4	11.4		32
34			20.4	18.4	15.6	13.2	10.2	7.4	4.2	3.0	3.0							18	15.8	13.3	11.4		15.72	34
36			20.3	18.0	15.6	13.0	10.4	7.8	4.8	3.4	3.4							17.8	15.6	13.2	11.4			36
38				17.5	15.0	12.7	10.4	7.8	5.4	3.6	3.6							16.8	15.2	13.8	11.4			38
40				17.4	14.8	12.5	10.4	7.8	6.0	4.2	4.2								15.0	12.8	11.2			40
42				16.8	14.5	12.2	10.2	7.8	6.0	4.4	4.4								14.8	12.5	11.4			42
44					14.3	12.0	10.2	7.8	6.0	4.4	4.4								14.4	12.2	10.9			44
46					13.8	11.8	10.1	7.8	6.0	4.4	4.4									12.1	10.7			46
48					13.2	11.5	9.8	7.8	6.0	4.4	4.4									12.0	10.4			48
50						11.3	9.7	7.8	6.0	4.4	4.4									10.8	10.2			50
52						11.4	9.6	7.8	6.0	4.4	4.4										10.0			52
54						10.8	9.4	7.6	6.0	4.4	4.4										9.7			54
56							9.1	7.4	6.0	4.4	4.4										9.4			56
58							8.8	7.3	5.9	4.4	4.4													58
60							8.4	7.2	5.8	4.4	4.4													60
62								7.0	5.6	4.4	4.4													62
64								6.7	5.5	4.4	4.4													64
66								6.6	5.4	4.4	4.4													66
68									5.3	4.3	4.3													68
70									5.0	4.2	4.2													70
72									4.8	4.1	4.1													72
74										3.8	3.8													74
76										3.6	3.6													76
78										3.2	3.2													78
80																								80
82																								82
84																								84

Operating Range - TF(Z)



Load Chart - TF(Z)



Unit: metric ton

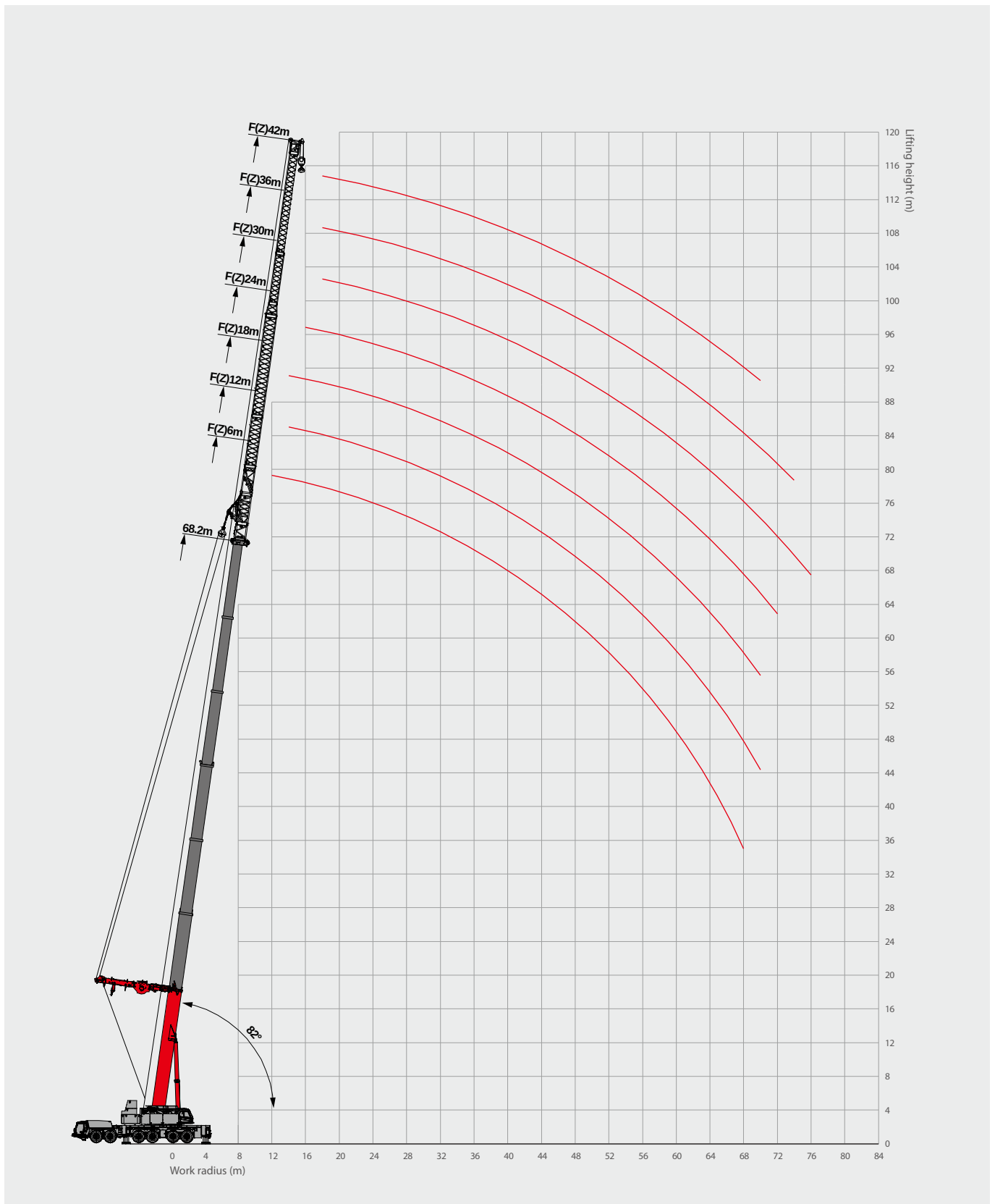
Radius (m)	47.4					52.6						57.8						Radius (m)	
	18m	24m	30m	36m	42m	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m		42m
12						30.6						29.6							12
14	23.9	19.2	16.8			27.4	21.8	18.6				26.5	26.3	21.4					14
16	22.5	18.4	15.6	12.9		25.7	21.0	17.8	15.2	12.6		25	24.7	20.0	16.4	14.5			16
18	21.0	17.3	14.5	12.2	11.1	23.9	20.1	16.5	14.3	11.9	10.8	23.6	23.2	19.0	15.8	13.5	11.2	9.8	18
20	19.7	16.6	13.5	11.7	10.1	22.1	18.9	15.7	13.4	11.3	9.8	22	21.5	18.0	15.2	12.6	10.8	9.4	20
22	18.7	15.9	12.5	10.9	9.2	20.6	18.1	15.0	12.6	10.6	8.9	20.3	20.0	17.2	14.7	11.5	10.2	8.8	22
24	17.5	15.0	11.6	10.0	8.4	19.1	17.1	14.0	11.6	9.8	8.1	19	18.5	16.1	13.9	10.9	9.4	8.2	24
26	16.5	13.8	10.8	9.3	7.8	17.6	16.3	12.8	10.9	9.0	7.6	17.7	17.2	15.2	12.9	10.1	8.6	7.6	26
28	15.6	12.3	10.3	8.5	7.3	16.2	15.3	11.7	10.1	8.3	7.1	16.3	15.9	14.3	11.7	9.5	8.0	7.0	28
30	14.6	11.0	9.6	7.8	6.9	15.1	14.6	10.5	9.4	7.6	6.7	15.1	14.6	13.3	10.6	8.8	7.4	6.4	30
32	14.0	10.5	9.1	7.1	6.6	13.9	13.9	9.9	8.7	6.9	6.4	14.1	13.6	12.5	10.0	8.2	6.8	6.0	32
34	13.2	9.9	8.5	6.9	6.2	12.9	13.0	9.5	8.0	6.7	6.1	13.1	12.5	11.8	9.4	7.7	6.4	5.7	34
36	12.5	9.3	7.9	6.5	6.0	11.9	12.2	9.0	7.5	6.3	5.8	12.1	11.7	11.0	8.9	7.2	6.2	5.4	36
38	12.0	8.9	7.3	6.1	5.7	11.0	11.3	8.6	6.8	5.9	5.5	11.2	10.7	10.3	8.3	6.6	5.8	5.3	38
40	11.3	8.3	6.8	5.8	5.4	9.9	10.6	8.0	6.3	5.6	5.3	10.3	9.9	9.7	7.7	6.1	5.6	5.1	40
42	10.8	7.9	6.4	5.4	5.2	9.2	9.9	7.7	6.0	5.3	5.1	9.6	8.9	9.0	7.2	5.9	5.4	4.7	42
44	10.3	7.6	5.9	5.1	4.9	8.3	9.0	7.4	5.8	5.0	4.7	8.8	8.2	8.4	6.8	5.6	5.1	4.5	44
46	9.9	7.2	5.5	4.9	4.6	7.6	8.4	6.9	5.5	4.7	4.5	8	7.4	7.7	6.3	5.3	4.7	4.4	46
48	9.3	6.9	5.2	4.6	4.5	6.9	7.8	6.5	5.3	4.5	4.4	7.3	6.9	7.2	5.9	4.9	4.5	4.2	48
50	8.7	6.6	4.9	4.4	4.2	6.4	7.4	6.1	5.0	4.3	4.1	6.7	6.2	6.6	5.5	4.6	4.3	4.0	50
52	8.1	6.3	4.7	4.2	4.1	5.8	6.7	5.6	4.8	4.1	4.0	6	5.7	6.1	5.1	4.3	4.1	3.9	52
54	7.5	6.1	4.5	4.1	3.9	5.2	6.2	5.2	4.6	4.0	3.7	5.4	5.2	5.5	4.7	4.0	3.9	3.5	54
56	6.9	5.9	4.3	3.9	3.6	4.6	5.7	4.8	4.4	3.7	3.5	5	4.7	5.1	4.4	3.6	3.6	3.4	56
58	6.3	5.5	4.1	3.7	3.5	3.5	5.3	4.4	4.1	3.6	3.4	4.5	4.1	4.6	4.0	3.3	3.4	3.3	58
60	4.8	4.3	4.0	3.4	3.4	3.1	4.0	3.4	3.7	3.3	3.3	4	3.1	3.5	3.0	3.1	2.9	3.1	60
62	4.3	4.0	3.1	2.8	2.7	2.8	3.7	3.1	2.8	2.8	2.6	3.1	2.8	3.2	2.8	2.3	2.4	2.3	62
64		3.7	3.0	2.6	2.5	2.5	3.4	2.9	2.7	2.5	2.4	2.2	2.6	2.9	2.4	2.1	2.1	2.1	64
66		3.5	2.9	2.4	2.4		3.0	2.6	2.4	2.3	2.3		2.5	2.6	2.3	1.9	1.8	1.9	66
68		3.0	2.7	2.3	2.3			2.3	2.2	2.2	2.2			2.4	2.0	1.8	1.5	1.7	68
70			2.6	2.0	2.2			2.2	2.0	2.0	2.1			2.0	1.7	1.6		1.6	70
72			2.4		1.9			2.0	1.8		1.9							1.5	72
74			2.1						1.5									1.4	74
76																			76
78																			78
80																			80
Rope rate	2	2	1	1	1	3	2	2	1	1	1	3	3	2	2	1	1	1	Rope rate

Load Chart - TF(Z)

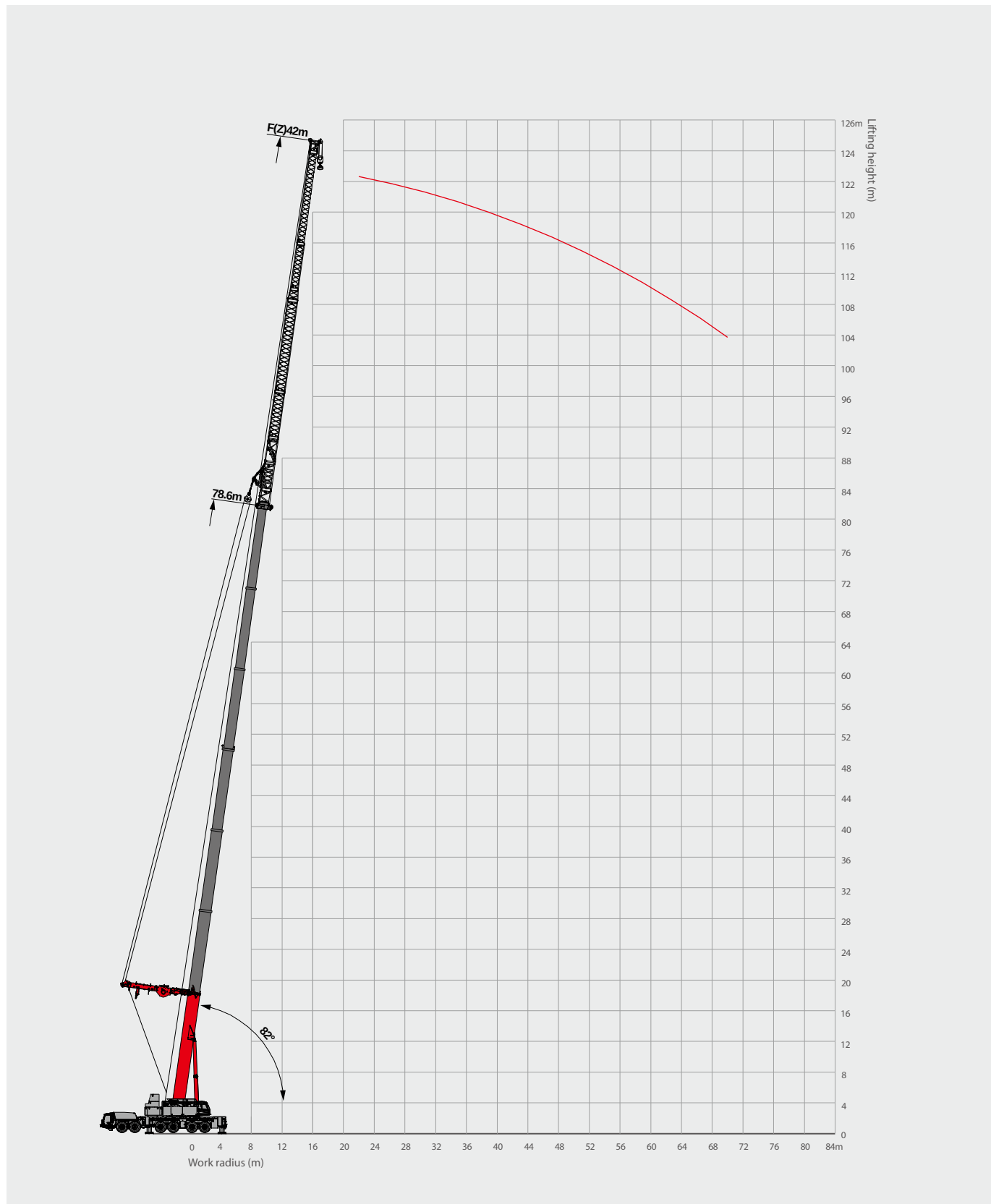


Radius (m)	63							68.2							73.4							Radius (m)			
	6m	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m	42m				
12																							12		
14	22.0		19.5																					14	
16	20.8	22.5	18.2	15.1	13.5			17.8	19.0	14.9	13.8				15.1		11.9							16	
18	19.7	21.3	16.7	14.4	12.4	10.6		17.2	18.0	12.9	12.3	10.6			14.6	14.4	10.3	8.6	8.4					18	
20	18.4	20.4	15.6	13.6	11.7	10.2	9.2	16.6	17.0	12.4	11.2	9.9	8.8	7.3	14.1	13.6	9.9	7.8	7.9	7.0	5.1			20	
22	17.0	19.3	14.5	12.6	10.5	9.5	8.5	15.7	16.0	12.1	10.2	8.9	8.1	6.7	13.3	12.8	9.7	7.1	7.1	6.5	4.7			22	
24	16.0	18.2	13.9	11.6	9.6	8.6	7.8	14.9	15.2	11.6	9.4	8.1	7.4	6.2	12.7	12.2	9.3	6.6	6.5	5.9	4.3			24	
26	14.9	17.0	13.2	10.7	9.0	8.0	7.1	14.0	14.4	11.2	8.6	7.6	6.8	5.8	11.9	11.5	8.9	6.0	6.1	5.4	4.1			26	
28	13.8	15.8	12.5	9.8	8.4	7.6	6.6	13.2	13.6	10.6	7.8	7.1	6.4	5.5	11.2	10.9	8.5	5.5	5.7	5.1	3.8			28	
30	12.8	14.8	11.8	8.9	8.4	6.9	6.0	12.4	12.7	10.3	7.3	7.1	6.0	5.0	10.5	10.2	8.2	5.1	5.7	4.8	3.5			30	
32	12.0	13.6	11.3	8.3	7.7	6.4	5.5	11.5	11.9	9.7	6.9	6.5	5.6	4.6	9.8	9.5	7.8	4.8	5.2	4.5	3.3			32	
34	11.2	12.6	10.6	7.9	7.2	6.3	5.2	10.8	11.1	9.1	6.6	6.1	5.3	4.4	9.2	8.9	7.3	4.6	4.9	4.3	3.0			34	
36	10.4	11.7	9.9	7.5	6.5	6.1	4.8	10.1	10.4	8.7	6.3	5.5	5.0	4.1	8.6	8.3	7.0	4.4	4.4	4.0	2.9			36	
38	9.6	10.8	9.4	7.0	6.0	5.7	4.7	9.4	9.7	8.2	6.0	5.1	4.7	4.0	8.0	7.8	6.6	4.2	4.1	3.8	2.8			38	
40	8.9	10.1	8.7	6.7	5.6	5.5	4.6	8.8	8.9	7.6	5.6	4.8	4.3	3.9	7.5	7.1	6.1	3.9	3.8	3.4	2.7			40	
42	8.3	9.3	8.2	6.2	5.3	5.2	4.4	8.2	8.3	7.3	5.4	4.5	4.0	3.8	7.0	6.6	5.8	3.8	3.6	3.2	2.7			42	
44	7.6	8.5	7.6	5.9	4.9	4.8	4.2	7.6	7.8	6.7	5.1	4.2	3.7	3.7	6.5	6.2	5.3	3.5	3.3	3.0	2.6			44	
46	7.0	7.9	7.1	5.4	4.6	4.6	4.1	7.0	7.2	6.2	4.7	3.9	3.6	3.6	6.0	5.7	5.0	3.3	3.1	2.9	2.5			46	
48	6.4	7.2	6.7	5.1	4.3	4.3	3.9	6.5	6.5	5.8	4.5	3.6	3.4	3.3	5.5	5.2	4.7	3.1	2.9	2.7	2.3			48	
50	5.9	6.6	6.2	4.7	4.0	4.0	3.7	6.0	5.9	5.4	4.1	3.5	3.2	3.1	5.1	4.8	4.3	2.9	2.8	2.6	2.2			50	
52	5.3	6.0	5.6	4.4	3.8	3.6	3.4	5.5	5.6	4.9	3.8	3.3	3.0	3.0	4.7	4.5	3.9	2.6	2.6	2.4	2.1			52	
54	4.8	5.5	5.3	4.0	3.6	3.4	3.2	5.0	5.0	4.5	3.5	3.1	2.8	2.9	4.3	4.0	3.6	2.5	2.5	2.2	2.0			54	
56	4.4	4.9	4.8	3.7	3.2	3.2	2.9	4.6	4.5	4.1	3.2	2.7	2.5	2.6	3.9	3.6	3.3	2.2	2.2	2.0	1.8			56	
58	4.0	4.4	4.4	3.5	3.0	2.9	2.6	4.1	4.2	3.8	2.9	2.6	2.3	2.5	3.5	3.3	3.1	2.1	2.1	1.8	1.7			58	
60	3.6	3.9	4.0	3.0	2.7	2.5	2.4	3.7	3.7	3.4	2.7	2.3	2.1		3.1	3.0	2.7	1.9	1.8	1.7				60	
62	3.2	3.0	3.6	2.7	2.1	2.3	1.8	3.4	2.8	3.0	2.3	1.8	1.9		2.9	2.2	2.4	1.6	1.4	1.5				62	
64	3.0	2.6	3.2	2.5	1.9	2.0		3.1	2.4	2.7	2.1	1.6	1.7		2.6	1.9	2.2	1.5	1.3	1.3				64	
66	2.2	2.4	2.9	2.1	1.6	1.3		2.8	2.1	2.3	1.9	1.4			2.4	1.7	1.9	1.3							66
68		2.1	2.5	1.9				2.4	1.9	2.1	1.5				2.0		1.6	1.1							68
70		1.9	2.2	1.6				2.2	1.7	1.8					1.9		1.4								70
72			1.7							1.5							1.2								72
74																									74
76																									76
78																									78
80																									80
Rope rate	2	2	2	1	1	1	1	2	2	1	1	1	1	1	2	1	1	1	1	1	1				Rope rate

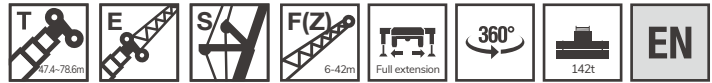
Operating Range - TSEF(Z)



Operating Range - TSEF(Z)



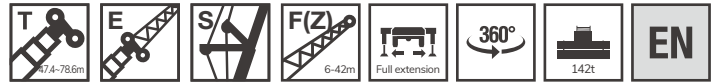
Load Chart - TSEF(Z)



Unit: metric ton

Radius (m)	47.4					52.6					57.8						Radius (m)
	18m	24m	30m	36m	42m	18m	24m	30m	36m	42m	12m	18m	24m	30m	36m	42m	
12																	12
14	46.0	36.5	28.9			44.6	35.4	28.1			49.8	45.1	33.4				14
16	42.8	32.5	26.9	22.5	19.4	41.6	31.6	26.1	21.8		44.7	40.9	31.5	25.8			16
18	40.1	30.6	24.9	21.1	18.1	38.9	29.7	24.2	20.5	17.5	40.8	37.1	29.6	24.2	20.2	17.2	18
20	36.4	28.5	23.4	19.9	17.0	35.3	27.7	22.7	19.3	16.4	37.8	33.2	28.0	22.7	19.1	16.2	20
22	31.8	26.9	21.9	18.6	16.1	30.8	26.1	21.3	18.0	15.6	34.7	28.7	26.4	21.5	18.1	15.3	22
24	28.4	25.2	20.7	17.5	15.1	27.6	24.5	20.1	17.0	14.6	32.6	26.6	24.9	20.5	17.1	14.3	24
26	26.2	24.2	19.7	16.5	14.3	25.4	23.5	19.1	16.0	13.9	30.8	24.6	23.0	19.4	16.1	13.6	26
28	24.2	22.9	18.7	15.5	13.6	23.5	22.3	18.1	15.1	13.1	28.8	22.7	21.6	18.4	15.3	12.8	28
30	22.5	21.3	17.7	14.7	12.9	21.8	20.7	17.2	14.3	12.5	25.7	21.1	20.1	17.5	14.5	12.2	30
32	21.0	19.9	16.9	14.0	12.2	20.4	19.3	16.4	13.6	11.8	23.3	19.5	18.8	16.7	13.9	11.6	32
34	19.4	18.5	16.2	13.3	11.6	18.9	17.9	15.7	12.9	11.2	21.6	18.1	17.5	16.0	13.1	11.0	34
36	17.9	17.4	15.4	12.8	11.0	17.4	16.9	14.9	12.4	10.7	20.0	17.0	16.3	15.3	12.6	10.6	36
38	16.8	16.2	14.7	12.1	10.6	16.3	15.7	14.3	11.8	10.3	18.5	15.8	15.3	14.2	12.1	10.1	38
40	15.5	15.1	14.1	11.6	10.0	15.1	14.6	13.7	11.2	9.9	17.2	14.8	14.3	13.3	11.6	9.6	40
42	14.4	14.1	13.2	11.1	9.6	14.0	13.7	12.8	10.8	9.3	15.9	14.1	13.5	12.4	11.1	9.3	42
44	13.6	13.2	12.3	10.7	9.1	13.2	12.8	12.0	10.4	8.9	14.7	13.4	12.6	11.7	10.7	8.9	44
46	12.9	12.3	11.5	10.3	8.6	12.5	12.0	11.2	10.0	8.5	13.8	12.7	11.8	11.0	10.3	8.5	46
48	12.2	11.6	10.8	9.8	8.2	11.9	11.2	10.6	9.5	8.1	12.5	11.9	11.1	10.3	9.6	8.2	48
50	11.6	11.0	10.3	9.5	7.9	11.2	10.7	10.1	9.2	7.8	10.8	11.0	10.5	9.6	9.0	7.8	50
52	10.4	10.4	9.7	9.0	7.6	10.1	10.1	9.2	8.7	7.5	9.3	10.1	9.9	9.0	8.5	7.5	52
54	9.2	9.7	9.2	8.4	7.2	8.8	9.4	8.6	8.2	7.1	7.9	9.0	9.2	8.5	7.8	7.2	54
56	8.2	9.1	8.6	7.9	6.9	7.6	8.7	8.3	7.6	6.7	6.6	7.9	8.7	8.0	7.4	6.9	56
58	7.2	8.4	7.9	7.3	6.7	6.4	7.6	7.7	7.1	6.5	5.4	6.7	7.7	7.4	6.9	6.5	58
60	6.3	7.6	7.3	6.9	6.3	5.2	6.5	7.1	6.7	6.1	4.3	5.5	6.6	7.0	6.5	6.0	60
62	5.4	6.9	6.9	6.3	6.0	4.2	5.4	6.4	6.1	5.8	3.2	4.5	5.6	6.5	6.0	5.6	62
64		6.2	6.5	5.9	5.7	3.1	4.3	5.4	5.7	5.5	2.2	3.5	4.6	5.5	5.5	5.2	64
66		5.3	5.5	5.5	5.2	2.3	3.5	4.5	5.2	4.6		2.6	3.6	4.6	5.1	4.5	66
68		4.4	4.7	4.9	4.9		2.5	3.7	4.2	3.8		1.8	2.8	3.8	4.2	3.6	68
70			4.0	4.3	4.6			2.8	3.5	2.9			2.0	2.9	3.5	2.8	70
72			3.4	3.8	4.2			2.0	2.6	2.2				2.1	2.8	2.1	72
74				3.4	3.8				2.0	1.5				1.5	2.0	1.4	74
76				2.9	3.3				1.2								76
78				2.4													78
80																	80
Rope rate	4	3	3	2	2	4	4	3	2	2	5	4	3	3	3	2	Rope rate

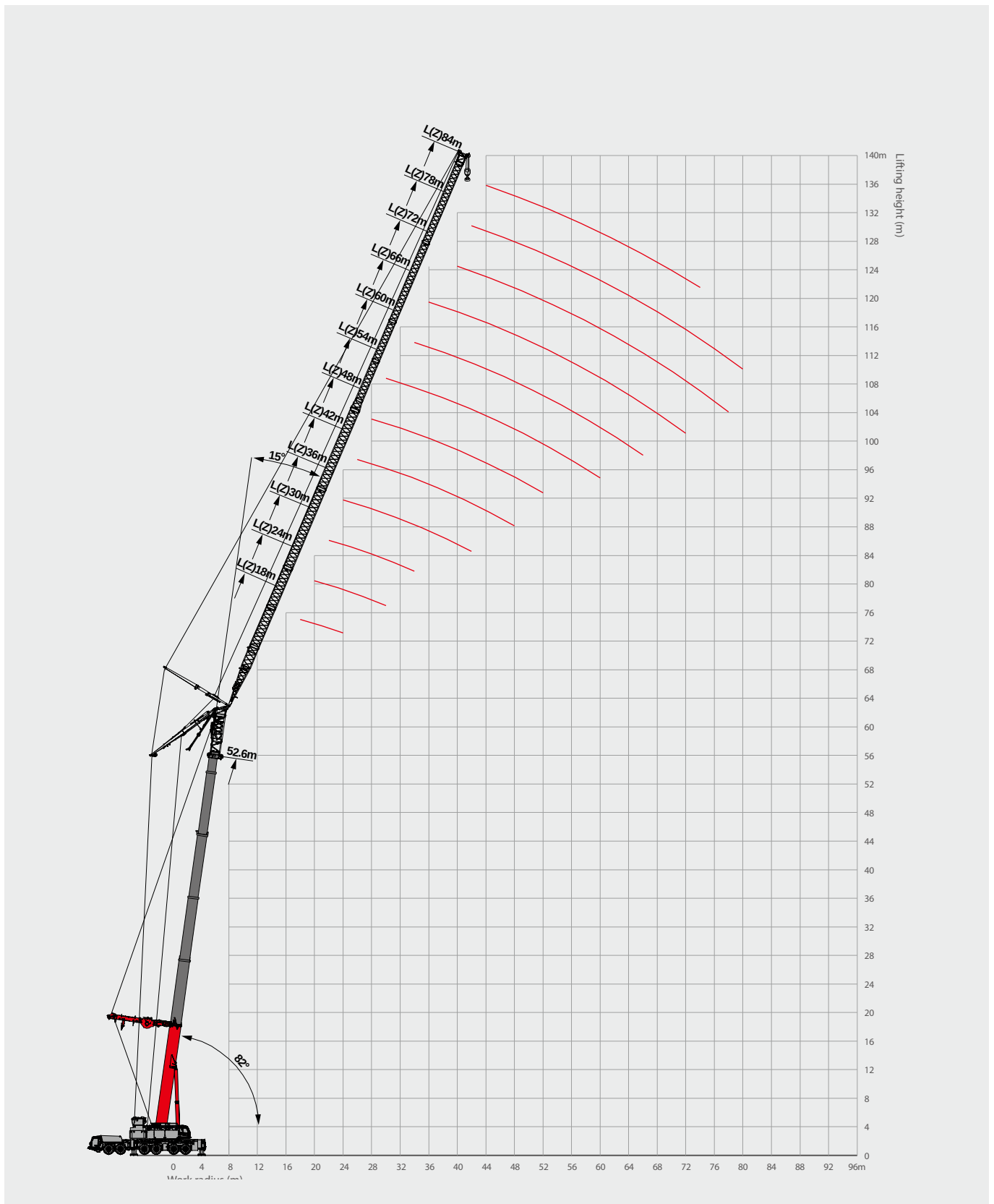
Load Chart - TSEF(Z)



Unit: metric ton

Radius (m)	63							68.2							73.4	78.6	Radius (m)
	6m	12m	18m	24m	30m	36m	42m	6m	12m	18m	24m	30m	36m	42m	42m	42m	
12	58.5							53.0									12
14	52.8	47.6	42.5					48.8	44.5	35.5							14
16	48.2	43.0	39.4	31.3				44.5	40.6	33.6	30.4						16
18	44.8	39.2	35.8	29.8	24.2	20.0		41.2	37.0	31.8	28.6	23.2	19.0	15.4			18
20	41.5	35.7	33.1	28.1	22.9	19.0	16.6	37.8	33.8	29.4	26.3	22.3	18.2	14.8			20
22	38.4	33.7	28.1	26.0	21.8	18.0	15.6	35.5	31.4	26.2	24.5	21.3	17.5	14.2	12.1	11.0	22
24	35.9	32.2	26.0	24.1	20.8	17.1	14.6	33.6	30.3	24.3	22.7	20.4	16.7	13.7	11.7	10.6	24
26	33.5	31.0	24.2	22.4	19.7	16.2	13.7	31.3	29.1	22.5	21.2	19.5	16.0	13.1	11.2	10.2	26
28	31.2	29.1	22.3	20.9	18.8	15.5	13.0	28.7	27.9	20.1	19.7	18.2	15.3	12.5	10.7	9.7	28
30	28.4	25.8	20.9	19.4	17.9	14.7	12.4	26.3	26.2	18.8	18.3	17.0	14.5	12.0	10.2	9.3	30
32	25.6	22.9	19.5	18.0	16.7	14.1	11.9	23.4	23.3	17.4	17.1	15.9	13.9	11.6	9.9	9.0	32
34	23.3	20.4	18.0	16.7	15.7	13.5	11.2	20.8	20.8	16.4	15.9	14.8	13.4	10.9	9.4	8.5	34
36	21.7	18.2	16.9	15.7	14.6	12.8	10.8	19.2	18.7	15.7	14.9	13.8	12.8	10.6	9.0	8.2	36
38	19.3	17.0	15.9	14.6	13.7	12.3	10.4	17.4	16.7	14.8	14.0	13.0	12.2	10.0	8.5	7.7	38
40	17.3	15.9	15.1	13.7	12.8	11.9	10.0	16.3	15.4	14.1	13.1	12.2	11.3	9.4	8.0	7.3	40
42	16.0	14.8	14.4	12.8	12.0	11.3	9.5	15.2	14.3	13.6	12.2	11.3	10.7	9.0	7.7	7.0	42
44	14.6	13.9	13.6	12.0	11.1	10.6	9.1	14.2	13.3	12.9	11.3	10.6	10.0	8.7	7.4	6.7	44
46	13.0	12.9	12.8	11.1	10.5	9.9	8.8	12.9	12.3	11.9	10.7	9.9	9.2	8.3	7.0	6.4	46
48	11.4	12.1	11.9	10.5	9.8	9.2	8.4	11.7	11.4	11.0	10.2	9.2	8.6	7.7	6.6	6.0	48
50	10.2	10.8	11.0	9.9	9.0	8.6	8.1	10.3	10.8	10.3	9.7	8.6	8.1	6.9	5.8	5.3	50
52	9.0	9.5	10.2	9.4	8.5	8.0	7.5	9.0	9.6	9.5	9.2	8.0	7.5	6.3	5.4	4.9	52
54	7.6	8.4	9.2	8.9	8.1	7.4	7.0	7.9	8.5	8.7	8.8	7.4	7.0	5.3	4.5	4.1	54
56	6.3	7.3	8.3	8.3	7.5	7.0	6.5	6.7	7.5	7.9	8.2	6.9	6.6	4.7	4.0	3.6	56
58	5.1	6.3	7.3	7.7	7.0	6.5	6.0	5.9	6.6	7.1	7.6	6.5	6.0	3.8	3.3	3.0	58
60	4.0	5.2	6.3	6.8	6.6	5.9	5.6	5.1	5.8	6.2	6.8	6.2	5.6	3.3	2.9	2.6	60
62	2.9	4.1	5.2	6.1	6.1	5.5	5.2	4.1	5.0	5.5	6.0	5.8	5.2	2.8	2.4	2.2	62
64	2.0	3.2	4.2	5.1	5.4	5.2	4.8	3.2	4.1	4.8	5.2	5.4	4.8	2.4	2.1	1.9	64
66		2.2	3.3	4.3	4.9	4.7	4.5	2.2	3.1	4.1	4.6	5.1	4.3	2.1	1.8	1.6	66
68			2.5	3.3	4.2	4.1	3.9	1.3	2.2	3.1	3.9	4.5	3.9	1.9	1.7	1.5	68
70			1.6	2.5	3.3	3.7	3.2		1.5	2.3	3.1	3.8	3.5	1.6	1.3	1.2	70
72				1.9	2.5	3.1	2.3				2.3	3.1	3.2				72
74					1.8	2.3	1.6					2.3	2.7				74
76					1.1							1.7					76
78																	78
80																	80
Rope rate	5	4	4	3	2	2	2	5	4	3	3	2	2	2	1	1	Rope rate

Operating Range - TSEL(Z)



Load Chart - TSEL(Z)



Unit: metric ton

Radius (m)	37												Radius (m)	
	18m	24m	30m	36m	42m	48m	54m	60m	66m	72m	78m	84m		
14	60.5													14
16	56.7	51.2												16
18	54.1	50.4	45.2											18
20	53.2	50.0	43.4	36.8										20
22		49.3	42.5	36.5	30.7									22
24		48.6	41.8	35.8	30.7	28.1								24
26		45.7	41.0	34.4	30.7	27.1	24.4							26
28			40.3	33.8	30.3	26.0	23.3	18.9						28
30			39.0	33.1	29.6	25.0	22.4	18.2	16.1					30
32			36.0	32.7	28.4	24.6	21.5	17.4	15.6	13.7				32
34			34.0	30.2	27.3	24.3	20.5	16.8	14.9	13.2	12.8			34
36				30.0	26.0	23.9	19.7	16.2	14.4	12.7	12.4	9.0		36
38				28.7	24.3	23.6	19.5	15.6	13.9	12.3	12.1	9.0		38
40				27.2	23.0	23.2	19.3	15.0	13.4	11.9	11.7	9.0		40
42					21.8	22.9	19.0	14.5	13.0	11.5	11.3	9.0		42
44					20.7	22.3	18.7	14.0	12.6	11.1	10.9	9.0		44
46					20.0	21.1	18.6	13.8	12.2	10.7	10.7	9.0		46
48						20.1	18.4	13.7	11.8	10.3	10.5	9.0		48
50						19.0	18.3	13.5	11.5	10.0	10.4	9.0		50
52							17.6	13.4	11.2	9.6	10.0	9.0		52
54							16.5	13.2	11.0	9.4	10.0	9.0		54
56							15.6	13.1	10.8	9.2	9.7	9.0		56
58							14.8	13.0	10.7	8.9	9.4	9.0		58
60								12.7	10.5	8.7	9.2	8.7		60
62								12.2	10.4	8.5	8.8	8.4		62
64									10.2	8.4	8.8	8.2		64
66									9.8	8.2	8.4	7.9		66
68									9.2	8.1	8.1	7.6		68
70									8.4	7.9	7.4	7.5		70
72										7.8	7.0	7.2		72
74										7.6	6.6	6.9		74
76										7.2	6.0	6.8		76
78											6.0	6.5		78
80												6.4		80
82												6.1		82
72												5.8		72
74														74
Rope rate	5	5	4	3	3	3	2	2	2	2	2	1		Rope rate

Load Chart - TSEL(Z)



Unit: metric ton

Radius (m)	42.2												Radius (m)	
	18m	24m	30m	36m	42m	48m	54m	60m	66m	72m	78m	84m		
14	56.0													14
16	54.6	47.5												16
18	53.2	47.0												18
20	52.8	46.6	38.6	35.2										20
22	51.5	46.1	38.6	35.2	28.3									22
24		44.6	38.6	35.2	28.3	27.0								24
26		41.8	38.0	34.0	28.3	27.0	23.9							26
28		39.3	36.8	32.9	27.1	25.9	23.2	18.1						28
30			35.0	31.7	26.6	24.9	22.1	17.5	15.6					30
32			34.0	31.0	25.9	24.0	21.2	16.8	15.0	12.6				32
34				29.5	25.5	23.0	20.4	16.2	14.5	12.3	10.6			34
36				28.2	24.8	22.2	19.1	15.7	14.0	12.0	10.6	8.8		36
38				26.9	23.8	21.6	18.5	15.1	13.6	11.6	10.4	8.8		38
40				25.3	22.5	21.3	18.3	14.6	13.1	11.1	10.0	8.8		40
42				25.0	21.3	20.9	17.9	14.2	12.7	10.8	9.5	8.8		42
44					20.3	20.4	17.2	13.8	12.4	10.4	9.2	8.8		44
46					19.4	19.9	17.0	13.7	12.0	10.0	8.8	8.8		46
48					19.0	19.2	16.8	13.5	11.6	9.6	8.5	8.8		48
50						18.0	16.4	13.4	11.3	9.3	8.3	8.8		50
52							15.6	13.2	11.0	9.0	8.0	8.8		52
54								14.8	13.1	10.8	8.7	7.6	8.8	54
56								14.0	13.0	10.5	8.5	7.4	8.6	56
58								13.3	12.5	10.2	8.2	7.1	8.2	58
60									11.8	9.9	8.1	6.9	7.9	60
62									11.2	9.8	7.9	6.7	7.6	62
64									10.2	9.6	7.8	6.5	7.5	64
66										9.5	7.6	6.3	7.2	66
68										9.1	7.5	6.2	7.1	68
70										8.2	7.3	6.0	6.8	70
72											7.2	5.8	6.7	72
74											7.1	5.7	6.5	74
76											6.9	5.5	6.4	76
78												5.3	6.3	78
80												5.2	6.0	80
82													5.7	82
72													5.6	72
74													5.3	74
Rope rate	5	4	4	3	3	3	2	2	2	1	1	1		Rope rate

Load Chart - TSEL(Z)



Unit: metric ton

Radius (m)	47.4												Radius (m)	
	18m	24m	30m	36m	42m	48m	54m	60m	66m	72m	78m	84m		
14														14
16														16
18	52.8													18
20	52.1	41.8												20
22	51.4	41.8	35.0	28.8										22
24	48.7	41.8	34.3	28.8	24.9									24
26		41.0	34.3	28.8	24.9	22.5								26
28		40.3	34.3	28.8	24.9	22.5	18.5							28
30		38.7	33.0	28.8	24.5	21.8	18.3	16.5						30
32			32.7	28.5	23.8	21.4	17.9	16.3	11.8					32
34			30.1	28.1	23.5	20.9	17.5	15.2	11.8	9.1				34
36				27.4	23.0	20.5	17.1	14.8	11.8	9.1				36
38				26.8	22.8	20.0	16.6	14.5	11.8	9.1	8.8	8.2		38
40				25.9	22.3	19.4	16.0	14.0	11.8	9.1	8.5	8.2		40
42				24.5	21.6	19.2	15.6	13.8	11.8	9.1	8.3	8.2		42
44					20.2	18.9	15.2	13.3	11.5	8.8	8.0	8.2		44
46					19.4	18.6	14.9	12.8	11.0	8.6	7.6	8.2		46
48					18.7	18.3	14.6	12.4	10.6	8.3	6.9	8.2		48
50						17.8	14.4	12.2	10.2	8.0	6.6	8.2		50
52							14.1	12.1	10.0	7.7	6.3	8.2		52
54							13.8	12.0	9.6	7.5	6.0	7.9		54
56							13.5	11.8	9.2	7.3	5.8	7.5		56
58							13.0	11.7	9.1	7.2	5.8	7.2		58
60							12.8	11.5	8.9	7.1	5.7	6.9		60
62								11.1	8.8	6.9	5.7	6.8		62
64								10.0	8.5	6.8	5.5	6.5		64
66								9.8	8.2	6.6	5.5	6.4		66
68									7.9	6.5	5.4	6.1		68
70									7.5	6.3	5.2	6.0		70
72									7.1	6.2	5.0	5.8		72
74										6.0	4.9	5.7		74
76										5.8	4.7	5.6		76
78											4.4	5.3		78
80											4.3	5.0		80
82											4.1	4.9		82
72												4.6		72
Ro pe rate	5	4	3	3	2	2	2	2	1	1	1	1		Ro pe rate

Load Chart - TSEL(Z)



Unit: metric ton

Radius (m)	52.6												Radius (m)	
	18m	24m	30m	36m	42m	48m	54m	60m	66m	72m	78m	84m		
14														14
16														16
18	46.4													18
20	45.7	38.2												20
22	44.6	37.4	32.4											22
24		36.3	31.7	26.6										24
26		36.0	31.0	26.6	21.6									26
28		34.7	30.2	25.9	21.6	20.0								28
30		33.1	31.1	25.9	21.6	20.0	16.8	13.6						30
32			29.2	25.9	21.6	19.3	16.4	13.6	9.2					32
34			28.5	25.3	21.6	18.8	15.9	13.6	9.2	6.8				34
36				24.5	20.9	18.5	15.5	13.6	9.2	6.8	5.0			36
38				23.9	20.4	18.0	15.1	13.6	9.2	6.8	5.0	5.0		38
40				23.3	20.2	17.3	14.8	13.2	9.2	6.8	5.0	5.0		40
42				23.0	19.6	17.1	14.4	12.8	9.2	6.8	5.0	5.0		42
44					19.2	16.8	14.0	12.4	9.2	6.8	5.0	5.0		44
46					18.9	16.6	13.8	11.8	9.2	6.8	5.0	4.8		46
48					18.5	16.3	13.7	11.5	9.2	6.8	5.0	4.6		48
50						16.0	13.5	11.1	9.2	6.8	5.0	4.5		50
52						15.7	13.2	10.8	9.2	6.8	5.0	4.3		52
54							12.5	10.7	9.2	6.5	5.0	4.1		54
56							11.7	10.5	8.8	6.5	5.0	3.9		56
58							11.0	10.4	8.4	6.5	5.0	3.9		58
60							10.4	10.2	8.2	6.5	5.0	3.7		60
62								10.1	8.1	6.3	4.9	3.6		62
64								9.8	7.9	6.2	4.7	3.4		64
66								9.5	7.8	6.0	4.6	3.3		66
68									7.5	5.9	4.4	3.1		68
70									7.3	5.8	4.3	3.0		70
72									6.8	5.6	4.1	2.8		72
74										5.5	4.0	2.5		74
76										5.2	3.8			76
78										4.9	3.7			78
80											3.5			80
82														82
72														72
Ro pe rate	4	4	3	3	2	2	2	2	2	1	1	1	1	Ro pe rate

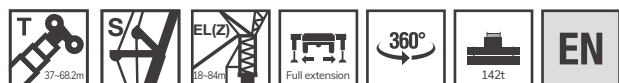
Load Chart - TSEL(Z)



Unit: metric ton

Radius(m)	57.8									Radius (m)
	18m	24m	30m	36m	42m	48m	54m	72m	78m	
14										14
16										16
18										18
20	37.8									20
22	37.1	33.1								22
24	36.4	31.8	28.1							24
26		31.7	27.1	23.0						26
28		30.7	26.6	22.8	18.7					28
30		30.2	25.9	22.8	18.7	16.8				30
32			25.2	22.0	18.7	16.2	14.2			32
34			24.5	22.0	18.7	15.8	13.9			34
36			24.3	21.6	18.7	15.6	13.5			36
38				21.0	18.0	15.3	13.2	5.3		38
40				20.4	17.7	15.0	12.8	5.3	4.0	40
42				20.2	17.4	14.7	12.5	5.3	4.0	42
44					17.1	14.4	12.2	5.3	4.0	44
46					16.6	14.1	12.1	5.3	4.0	46
48					15.8	13.8	11.8	5.3	4.0	48
50						13.5	11.7	5.3	4.0	50
52						13.2	11.5	5.3	4.0	52
54							11.2	5.3	4.0	54
56							10.9	5.3	4.0	56
58							10.5	5.3	4.0	58
60							10.1	5.3	4.0	60
62								5.3	4.0	62
64								5.3	4.0	64
66								5.3	4.0	66
68								5.2	4.0	68
70								5.0	3.7	70
72								4.9	3.4	72
74								4.6	3.2	74
76								4.3	3.1	76
78								3.9	2.9	78
80									2.8	80
82									2.6	82
Rope rate	4	3	3	2	2	2	2	1	1	Rope rate

Load Chart - TSEL(Z)



Unit: metric ton

Radius(m)	63						68.2				Radius (m)
	18m	24m	30m	36m	42m	48m	18m	24m	30m	36m	
14											14
16											16
18											18
20	35.0										20
22	33.6	28.8					30.0				22
24	32.8	28.1	24.5				28.6	25.2			24
26		27.6	23.8	20.2				23.8	21.5		26
28		27.4	23.0	19.4	16.4			23.0	20.2	18.0	28
30		25.9	22.5	19.4	16.3	15.3		21.6	19.7	17.3	30
32		24.8	21.9	19.4	16.1	15.1			19.3	17.3	32
34			21.6	19.0	16.0	14.6			18.9	16.3	34
36			21.3	18.7	15.8	14.0			18.0	16.0	36
38				18.3	15.7	13.7				15.7	38
40				18.0	15.4	13.4				15.4	40
42				17.7	15.0	13.2				15.0	42
44				17.3	14.7	13.1				13.7	44
46					14.5	12.8					46
48					14.4	12.5					48
50					13.0	12.2					50
52						12.0					52
54						11.7					54
56											56
58											58
60											60
62											62
64											64
66											66
68											68
70											70
72											72
74											74
76											76
78											78
80											80
82											82
Rope rate	3	3	2	2	2	2	3	2	2	2	Rope rate

Remark:

1. Load value listed are the max. capacity (incl. hook block and lifting slings) when the crane is in a level condition on solid ground or surface.
2. Radius listed are calculated with boom deflection considered.
3. Operation planning shall be made properly. Load value are given according to the larger radius or boom length value when the actual radius or boom length falls between two numbers above.
4. Operating range shall be strictly within boom angle permitted in case of tipping over.
5. Rated load charts above are extracts from load charts manual which can be referred for more details and must be observed.
6. Wind speed shall be less than 9m/s.



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Reminder:

For safe and reliable operation of the diesel engines, please fill Grade IV machines with Grade IV diesel and urea solution conforming to related national standards. Please refer to the operating instructions and related standards for details.

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