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SANY INDIA NETWORK

PRODUCT SPECIFICATIONS

SANY



STC800C

SANY TRUCK CRANE
80T LIFTING CAPACITY

CEV STAGE-IV



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Material & specification are subject to change without prior notice in accordance with our continuous technical innovations. Featured machines in photos may include additional equipment.

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- 80 t
- 47.5 m
- 2881 kN·m



Five section boom welded by high-tensile steel plate, featuring good rigidity. Max. lifting height is lifted to 65m after mounting 17.5m fixed jib. Max. lifting moment 2881kN · m, capacity upgraded significantly.



SANY 0~20° tiltable large indoor space cab, relieving fatigue in long time operation.



Standard 7" HD screen with LMI, load data in real-time display. All new membrane touch button panel tilted by 45°, status displayed, easy to operate. One button switch of eco and strong modes.



Sufficient power and high efficiency ensured by double piston pumps with large flow intelligent distribution system



Control precision and stability are enhanced via new generation electrically controlled hydraulic system of electrical joystick and electro proportional main valve.

SANY TRUCK CRANE STC800C / 80T LIFTING CAPACITY





Full steel structure and rubber seals realize good shock absorption and noise reduction. 7" multimedia entertainment screen integrating reversing image. Multi-outlet air conditioning adjusts the internal temperature to the best one can feel. Driving is made more comfortable with cushioned seat, adjustable steering wheel, full set of controls and panel.



Powered by robust diesel from WEICHAO, complying with CEV Stage IV emission standard.



Rear axle rubber suspension, better shock absorption, better driving experience.



Large capacity fuel reservoir supporting great endurance mileage.



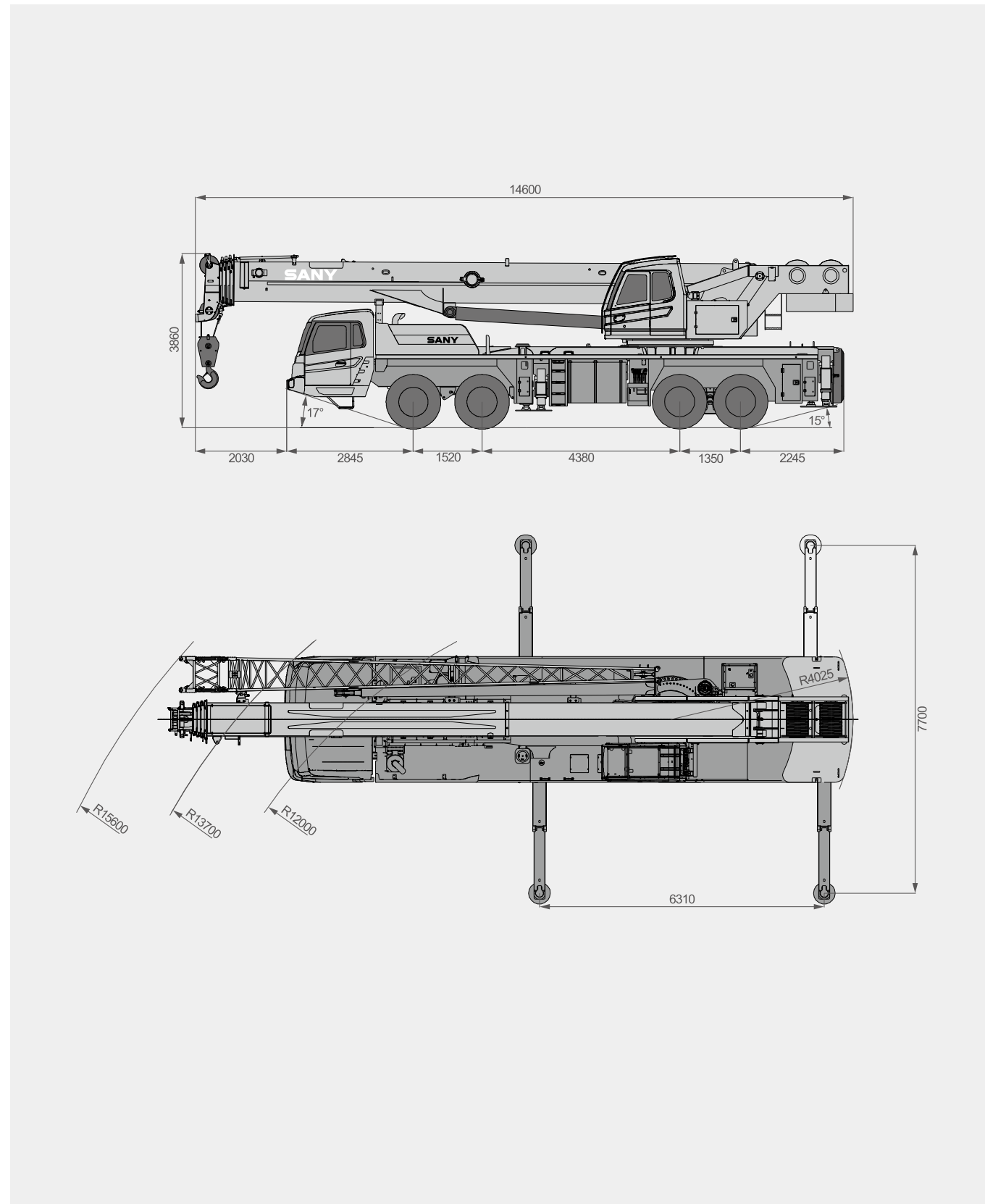
Radial tires sized 325/95R24-20, high endurance and reliability.



SANY TRUCK CRANE STC800C / 80T LIFTING CAPACITY

Two stage outriggers with the front pair positioned lower for better lifting stability. 3.5t fixed CW plus 5t movable CW, rounded structure making the crane slew at smaller radius. CW jacking device for convenient disassembly.

Overall Dimensions



Technical Specification

CATEGORY	ITEM	UNIT	VALUE	
CAPACITY	Max. lifting capacity	t	80	
WEIGHT	Gross weight	kg	52170	
POWER	Engine model	-	WEICHAI WP9H350E62 (CEV Stage IV)	
	Max. engine power	kW/rpm	257/1900	
	Max. engine torque	N·m/rpm	1700/(1100~1400)	
DIMENSIONS	Overall length	mm	14600	
	Overall width	mm	2800	
	Overall height	mm	3860	
TRAVEL	Max.travel speed	km/h	48	
	Steering radius	Min.steering radius	m	12
		Min.steering radius of boom tip	m	15.6
	Wheel formula	□	8× 4	
	Min.ground clearance	mm	316	
	Approach angle	°	≥17	
	Departure angle	°	≥15	
	Max.gradeability	%	41	
	Fuel consumption per 100km	L	≤40	
	Working temperature range	℃	-20~45	
MAIN PERFORMANCE	Min.rated lifting radius	m	3	
	Tail slewing radius	m	4.025	
	Boom sections (Qty.)	-	5	
	Boom shape	-	U shape	
	Max.lifting moment	Basic boom	kN·m	2881
		Full-extension boom	kN·m	1411
		Max.combination of boom + jib	kN·m	405.7
	Boom length	Basic boom	m	12.22
		Full-extension boom	m	47.5
		Max.combination of boom + jib	m	65
	Max.lifting height	Basic boom	m	12.7
		Full-extension boom	m	48
Max.combination of boom + jib		m	65	
Outrigger span (Longitudinal×Transverse)	m	6.31×7.7		
Jib offset	°	0/15/30		
AIRCONDITIONER	In operator's cab	-	Cooling	
	In driver's cab	-	Heating & cooling	

Technical Parameters



Axle Load

Axle	1	2	3	4	Gross weight
Axle load /t	10	10	13	13	46
Remark	-				



Hook

Load/t	Number of sheaves	Rope rate	Hook weight /kg
80	6	12	710
5	1	1	140



Operations

Item	Max.single rope lifting speed (empty load)	Rope diameter/length	Max. single line pull
Main winch	135m/min	20mm/245m	7t
Auxiliary winch	135m/min	20mm/145m	7t
Slewing speed		0~ 2r/min	
Full luffing up/down time of boom		70s/90s	
Full extension/retraction time of boom		110s/110s	
Outrigger jack	Retraction	35s	
	Extension	40s	
Outrigger beam	Retraction	20s	
	Extension	20s	

Crane Introduction

Carrier



Driver's cab

- Right hand drive. Integral steel structure cab in ergonomic design, featuring vibration and external noise isolation.
- The cab is furnished in concept of convenience, safety, and comfort with large rearview mirror, seats with headrest, demister, HVAC, stereo radio, full set of controls and panels.



Carrier frame

- Designed and manufactured by Sany, the torsion resistant box-type structure is welded by fine grain high-strength steel, featuring increased bearing capacity.



Engine

- Model: Inline six-cylinder diesel engine with watercooler and inter cooler.
- Emission standard: CEV Stage IV
- Fuel reservoir capacity: 400L.



Transmission

- 10-speed manual transmission with synchronizer, large speed ratio range, adaptable to slope climbing and high-speed traveling.



Transmission shaft

- Optimized layout, higher torque output via contrate gear connecting transmission shaft cardan.



Axle

- Axles 1 and 2 are steered; axles 3, 4 are drive axles with built-in differential lock, realizing tougher ability to rough-terrain travelling. Two-stage reducer gear and more compact axle bags contribute to better trafficability. Press welding process strengthens the axle cover, increasing bearing capacity.



Suspension system

- Front suspension is realized by independent leaf spring, and rear rubber. The system's strength is verified by 100,000 cycling fatigue tests, and ride comfort is ensured.



Steering

- Mechanical steering with hydro booster. Turn your steering wheel more easily.



Tires

- Radial tires sized 325/95R24-20, strong bearing capacity and durability.



Wheel formula

- 8× 4 × 4



Brake

- Air servo functions on all wheels with diagonally split system.
- Service brake: air servo, double circuit split; wedge brake and double air chambers functioning on front axles.
- Parking brake: functioning at axles 3 and 4 by spring in air chamber.
- Emergency brake: performed by accumulator.
- Assisting brake: exhaust brake, safety assured when driving down long slopes.



Electrical system

- 2×12V maintenance-free battery with a mechanical power switch, the overall power can be cut off manually. CAN instrument, data integration between superstructure and chassis.

Crane Introduction

superstructure

Operator's cab

- The cab is designed 0° -20° tiltable in ergonomic concept with deep consideration of convenience, safety, and comfort. Corrosion resistant bodywork with softened interior trim. The skylight, adjustable seat, air conditioning, electric windshield wiper, and load moment display screen make working on the crane more comfortable.

Boom & telescoping system

- U shape cross section welded by high strength structural steel. Telescoping is realized by two cylinders with rope arranger.

Hoist

- Hoist smoothness is guaranteed by the perfect combo of winch balance valve and exclusive anti-slip tech.
- Hook falling out of control is prevented by normally closed type winch brake and winch balance valve.
- Main hoist is driven by electro proportional variable motor, stepless speed regulation available.

Luffing system

- Passive luffing down, reducing energy cost. One luffing cylinder with hinge positioned to the front, making motion easier and boom stress optimized. Luffing angle: -2°~80°.

Hydraulics

- The combined motion performance is optimized by over 50% via all new double pump system which is applied at all T-series truck cranes.
- The control precision and stability are of higher level via load-sensing piston pump and electric main valve.
- Remarkable slewing inching motion performance with free-slip function.

Slewing

- The crane slewing brakes smoothly via balance design.

Control system

- Safety guarantee: SANY, Load Moment Indicator providing all-round protection.
- Fault diagnosis: BCM controller for fault detection and easy maintenance.
- Colored display & smart panel & IO power distribution: user friendly.

Outrigger

- H-type layout, four point support, easy to operate, outrigger beam hydraulically telescoping, jack telescoping protected by two-way pilot controlled valve.

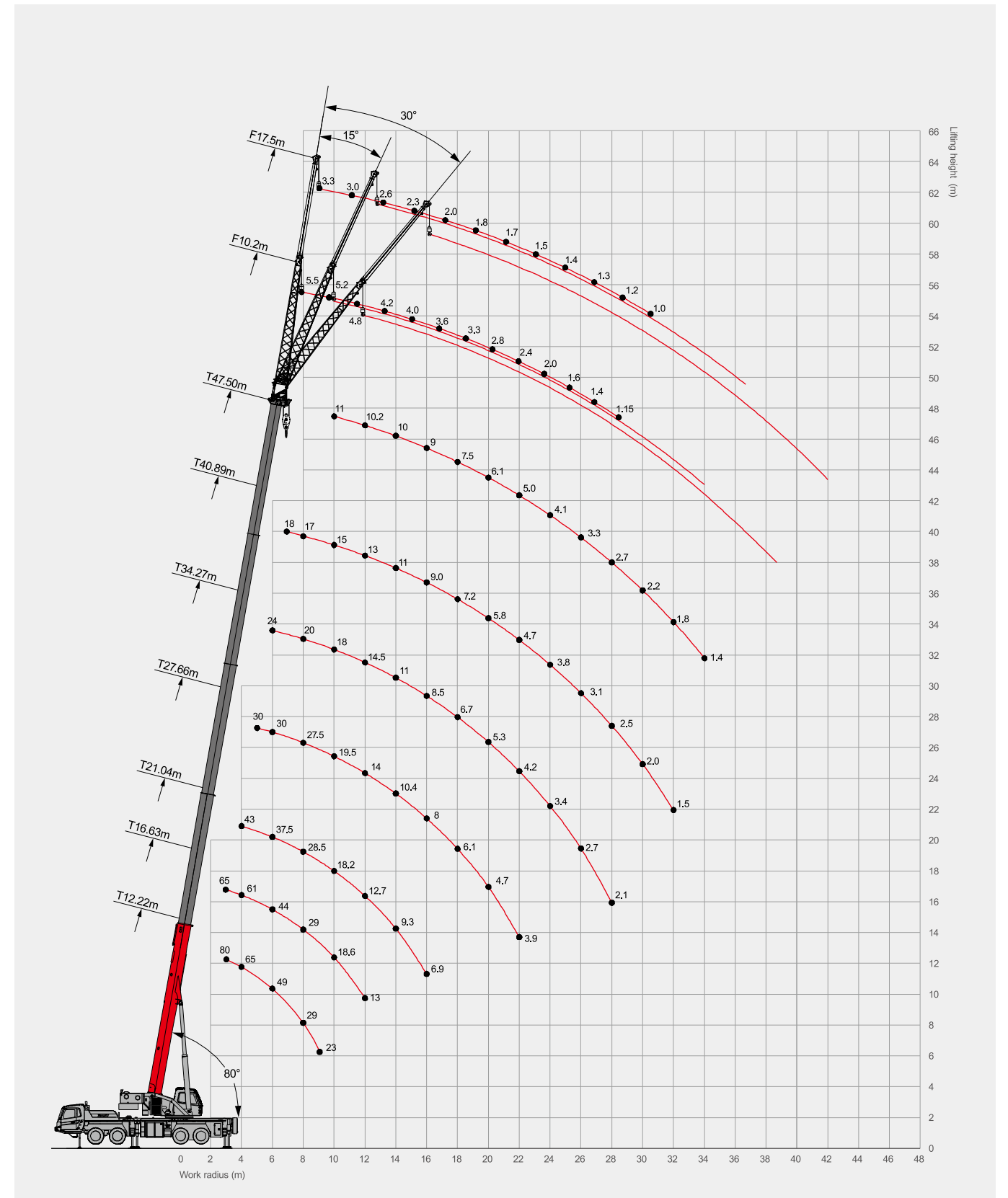
Counterweight

- Fixed CW 3.5t, movable CW 5t. Equipped with CW jacking device.

Safety equipment

- Self-developed LMI.
- Hydraulic balance valve, relief valve, two-way pilot-controlled valve.
- Three-circle protector at main and aux. winches, preventing wire rope from over-hoist down.
- Height limit switch at head of boom and fixed jib, preventing wire rope from over-hoist up.
- An all-round safety system covers load moment (LMI), hydraulics, winch, and wire rope. Motion of risks are cut off automatically with buzzer warning.

Operating Range



Load Chart-Telescopic Boom



Unit: kg

Radius (m)	12.2	16.6	21.0	27.7	34.3	40.9	47.5	18.8	25.5	32.1	38.7	23.2	29.9	36.5	43.1	Radius (m)
3	80000	65000	□	□	□	□	□	□	□	□	□	□	□	□	□	3
3.5	75000	63000	□	□	□	□	□	□	□	□	□	□	□	□	□	3.5
4	65000	61000	43000	□	□	□	□	□	□	□	□	□	□	□	□	4
4.5	64000	60000	43000	□	□	□	□	□	□	□	□	□	□	□	□	4.5
5	57000	54000	41000	30000	□	□	□	30000	29000	□	□	30000	□	□	□	5
5.5	53000	50000	40000	30000	□	□	□	30000	28000	□	□	30000	□	□	□	5.5
6	49000	44000	37500	30000	24000	□	□	30000	27000	21000	□	30000	27000	□	□	6
6.5	44000	42000	35500	29000	23000	□	□	30000	26000	20000	□	30000	26000	□	□	6.5
7	39000	38000	34000	28500	22000	18000	□	30000	25000	19000	□	30000	25500	19000	□	7
7.5	34000	33000	31500	28000	21000	17500	□	29500	24000	18500	□	29500	25000	18500	□	7.5
8	29000	29000	28500	27500	20000	17000	□	29000	23500	18000	14000	29000	24500	18000	□	8
9	23000	23000	22500	23500	19000	16000	□	25000	22000	16500	13000	24200	24000	17000	12000	9
10	□	18600	18200	19500	18000	15000	11000	20500	20500	15000	12000	20000	19700	16000	11500	10
11	□	15500	15200	16500	16500	14000	10500	17200	18000	14000	11500	16700	17300	14500	11000	11
12	□	13000	12700	14000	14500	13000	10200	14700	15400	13000	11000	14200	14800	14000	10700	12
14	□	□	9300	10400	11000	11000	10000	11200	11700	11500	9600	10600	11200	11600	10000	14
16	□	□	6900	8000	8500	9000	9000	□	9200	9500	8700	8200	8800	9200	9500	16
18	□	□	□	6100	6700	7200	7500	□	7500	7700	8000	6300	7000	7500	7600	18
20	□	□	□	4700	5300	5800	6100	□	6100	6300	6600	□	5600	6100	6200	20
22	□	□	□	3900	4200	4700	5000	□	□	5200	5500	□	4500	5000	5100	22
24	□	□	□	□	3400	3800	4100	□	□	4400	4600	□	3600	4100	4200	24
26	□	□	□	□	2700	3100	3300	□	□	3700	3900	□	□	3400	3500	26
28	□	□	□	□	2100	2500	2700	□	□	□	3300	□	□	2800	3000	28
30	□	□	□	□	□	2000	2200	□	□	□	2800	□	□	2300	2500	30
32	□	□	□	□	□	1500	1800	□	□	□	2400	□	□	□	2000	32
34	□	□	□	□	□	□	1400	□	□	□	□	□	□	□	1700	34
Telescoping status																
Cylinder I	0%	50%	100%	100%	100%	100%	100%	0%	0%	0%	0%	50%	50%	50%	50%	Cylinder I
Cylinder II	0%	0%	0%	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%	Cylinder II
Rope rate	12	10	7	5	4	3	3	5	5	4	3	5	5	3	3	Rope rate

Remark: the ratings are given for load over rear and side.

Load Chart-Jib



Unit: kg

Boom angle	47.5+10.2			47.5+17.5			Boom angle
	0°	15°	30°	0°	15°	30°	
80	5500	3800	3300	3300	2000	1400	80
78	5200	3700	3100	3000	1900	1300	78
76	4800	3600	2800	2600	1800	1250	76
74	4200	3500	2700	2300	1700	1200	74
72	4000	3300	2500	2000	1600	1150	72
70	3600	3100	2400	1800	1500	1100	70
68	3300	2800	2300	1700	1400	1050	68
66	2800	2600	2200	1500	1300	950	66
64	2400	2300	2100	1400	1200	920	64
62	2000	1950	1900	1300	1050	900	62
60	1600	1550	1500	1200	1000	880	60
58	1400	1350	1300	1000	900	850	58
56	1150	1050	1000	□	□	□	56

Remark :

- Value listed are the max. capacity when the crane is in a level condition on solid ground or surface;
- When the fifth outrigger is landed in position, value listed are applicable for 360 degree operation;
- Value above are calculated with hooks and lifting slings considered (710kg main hook block, 140kg aux. hook block);
- Load value is given according to the larger radius or boom length value when the actual radius or boom length falls between two numbers above;
- Rated lifting performance on boom point sheave equals 7000kg;
- Boom load capacity shall be 2300kg less than value given when jib unfolds.
- Rated lifting capacities in the stability area comply with ISO4305.

