XCT30_Y TRUCK CRANE

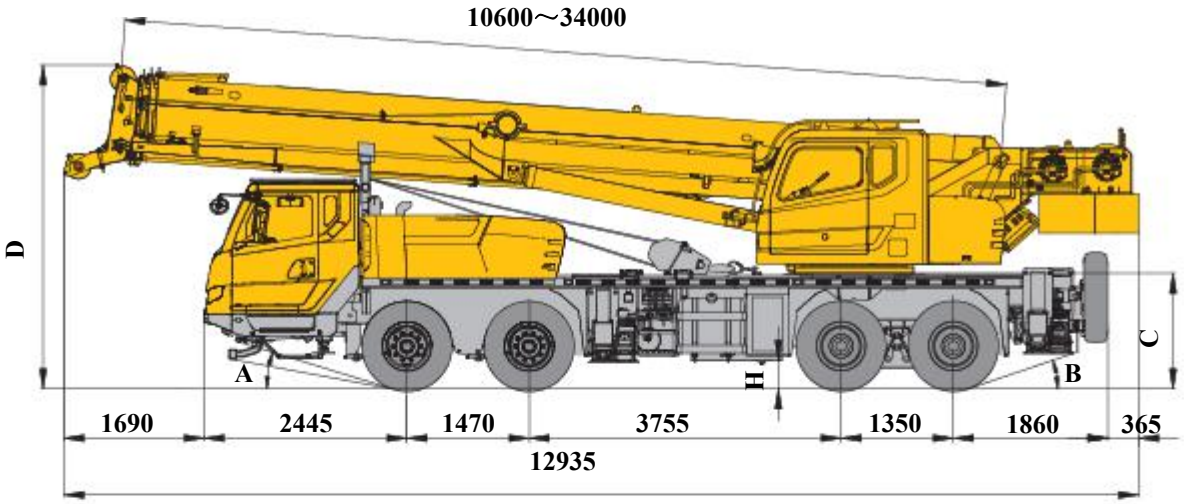
Technical specifications

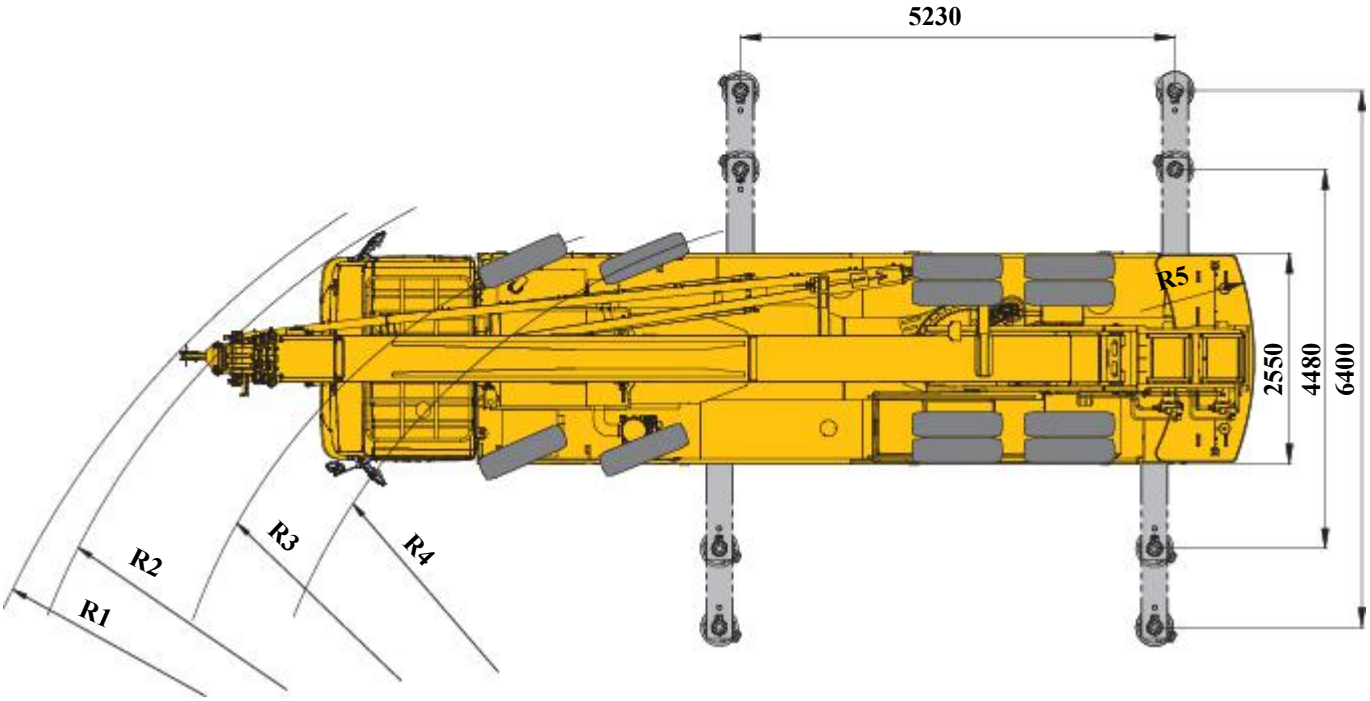
30 t

34 m

42.5 m

Dimensions





	A	B	C	D	H	R1	R2	R3	R4	R5
11.00-20	11°/17°	19°	1390	3890	261	13450	12900	11500	10850	3245

Technical specifications

	**Chassis**	
Frame	Designed and manufactured by XCMG, it is made of high strength steel with fully covered walking surface and anti-torsion box-typed structure.	●
Outriggers	Four outriggers arranged in H-shape are hydraulically controlled by control levers. There is an outrigger control station located at each side of the chassis, and there is a level gauge on each control station. The outrigger movements can be simultaneously or separately controlled at any side of the chassis. There is a check valve fitted in each outrigger cylinder, and a double-way hydraulic valve fitted in each jack cylinder. Fifth jack is equipped. Longitudinal × lateral (fully-extended): 5.23 m×6.40 m Outrigger float diameter: φ400 mm 5th jack float diameter: φ260 mm Reaction force of outrigger at max. lifting load: 326 kN	●
Engine	SC7H260Q3, in-line, 6-cylinder, supercharged, intercooled diesel engine, made by Shanghai Diesel Engine, with rated power of 192 kW/2200 rpm, max. torque of 1000 Nm/1400 rpm, compliant with China III emission standard. Fuel tank capacity: 240 L.	●
Transmission	Mechanical transmission with a synchronizer, made by Shaanxi Fast Gear Co., Ltd., 8-forward speed and 1-reverse speed.	●
Axles	High strength axles, made by famous makers through adoption of foreign advanced technology, with reliable performance.	●
Tyres	11.00-20, suitable for heave load vehicles, strong commonality.	●
	Tyre specifications: 11.00 R20	○

Suspensions	Rubber spring suspensions with V-type push rods are adopted for rear axles, light dead weight and free of maintenance.	●
Brakes	Service brake: controlled by foot pedal, double-circuit air pressure brake. The first circuit acts on the wheels of axles 1 and 2, and the second circuit acts on the wheels of axles 3 and 4. Parking brake: spring-loaded brake, acting on the wheels of axles 3 and 4. Auxiliary brake: engine exhaust brake, which is safe and reliable, and will prolong the service life of brake lining.	●
Steering	Mechanically steering mechanism with a hydraulic booster	●
Driver's cab	New type, steel, full dimension cab with 4-point connecting structure, has swing-out doors at both sides. Manually adjustable driver's seat in height is available. A simple sleeper for the co-driver's seat is installed to supply comfort and reduce fatigue. The cab has better thermal insulation effect. Safety glass, electrically operated door window lifters, electrically adjusted mirrors make operation convenient and safe. Steering wheel is adjustable in height and angle. Heater and Air conditioner is standard.	●
Electrical system	24 V DC, two sets of 12 V battery in series. Generator output voltage is 28±0.3 V, and output current is 70 A.	●
Safety devices	Double-way hydraulic valve	●
	ABS	○
	Backup camera	○
	Beacon lamp	○

Technical specifications

	**Superstructure**	
Frame	Designed and manufactured by XCMG, made of high strength steel.	●
Hydraulic system	Constant displacement pump + load-sensing multi-way valve; with confluence technology adopted for multi-way valve, double-pump confluence can be realized when lifting, elevating or telescoping operation is carried out independently. Max. hoisting speed of main and auxiliary winches is up to 135 m/min. For simultaneous movements of main/auxiliary winch, telescoping or elevating, the two pumps supply oil separately.	●
Operating mode	Mechanical control	● Mechanical
	Pilot hydraulic proportional control through left and right levers is used for controlling the superstructure. Stepless speed regulation is available.	● Pilot
Main and Auxiliary Winch System	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, balance valve and a grooved drum equipped. It has features of high speed with a light load and low speed with a heavy load.	●
Slewing system	Single-row, contact-ball, external tooth slewing ring, with a single slewing gear located at right side, is driven by the planetary gear reducer of slewing mechanism, which is driven by a hydraulic motor, and may continuously slew 360°. Power control or free slewing function is available, and the slewing speed may be infinitely regulated.	●
Elevating system	Single cylinder with self-compensation balanced valve.	●
Operators Cab	Ergonomically designed, with swing-out door and adjustable seat. It is equipped with safe glass and roof protective grille. Windshield is equipped with sun visor. Air conditioning is standard.	●
	Extension of control lever	○ Mechanical

Counterweight	Fixed counterweight of 4.2 t.	●
Safety devices	Hydraulic balance valve; Hydraulic relief valve; Load moment limiter; Spring centering system for control levers; Lowering limiter for preventing wire rope from over releasing; Anti-two block at boom head for preventing wire rope from over-winding; Free sliding and slewing locking.	●
	Angle indicator	○
	winch monitoring device	○
	tri colored light bar	○
	beacon lamp	○
Hook block	30 t hook block , 3 t hook block	●
	20 t hook block	○

Technical specifications

	**Boom and jib system**	
Boom	Four-section boom with U-shape profile, made of high strength steel, with special anti-deformation design. Single cylinder plus ropes is used to telescope the boom. Boom length: 10.6 m ~ 34 m	●
Single top	Fitted at boom head, used for single line operation. Its lifting performance is the same as that for boom, but the maximum lifting load does not exceed 2.8 t.	●
Under Slung jib	Box-type under lung jib, with offset angles of 5°, 15° and 30°. Fixed jib length: 8.3 m.	○

Product parts list is as mentioned above. Please refer to the product quotation for specific parts.
Symbol explanation:
● ——it means the standard configuration;
○ ——it means the optional configuration.

Weight

Axle	1	2	3	4	Total weight
t	4.85	4.85	9.5	9.5	28.70

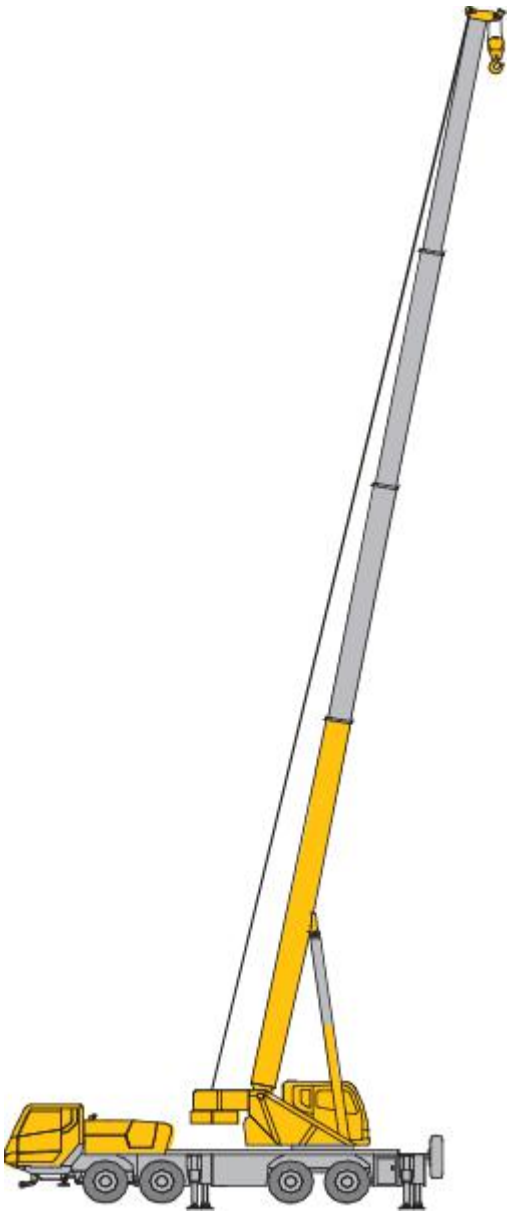
Hook	Parts of line	Weight (kg)	Dimensions (mm)	Remarks
30t	10	297	1175×450×417	Single hook， Standard
20t	7	200	1249×430×268	Single hook， Optional
3t	1	60	518×236×236	Single hook， Standard

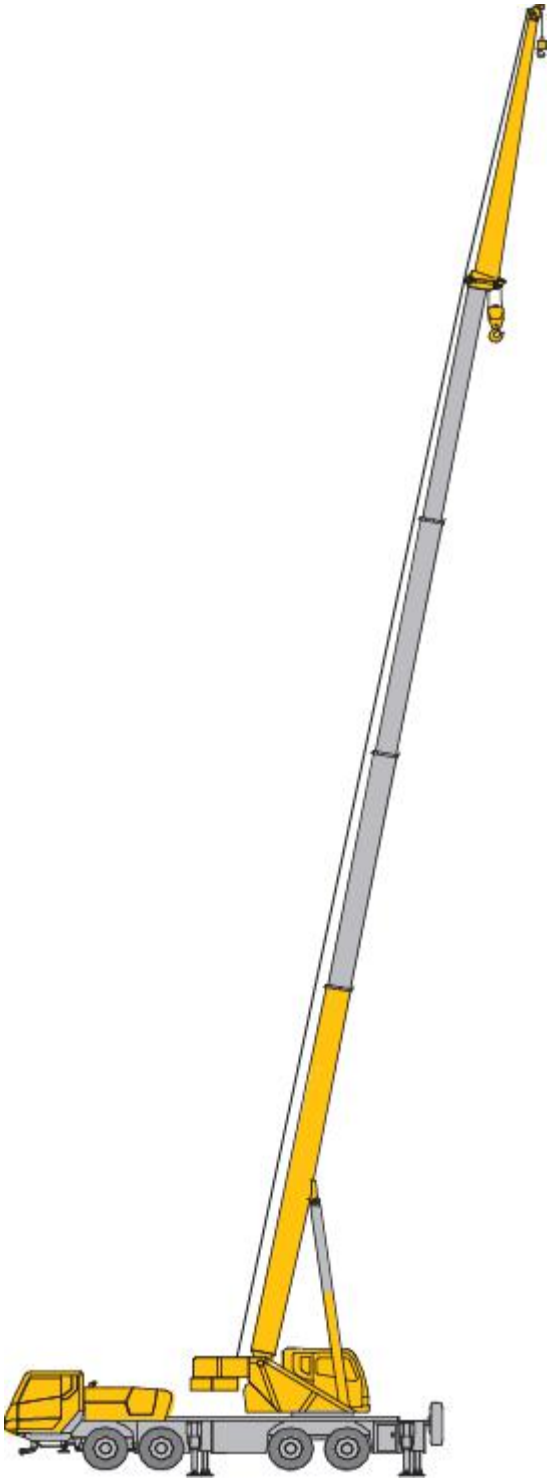
Working speeds

		
11.00-20	2～85	40%

Drive	Working speed	Max. single line pull	Rope diameter/ length
	0-135 m/min, single line, 4th layer	30 kN	14 mm/170 m
	0-135 m/min, single line, 4th layer	30 kN	14 mm/110 m
	0-3 r/min		
	Approx. 35 s for boom elevation from 0° to 80°		
	Approx. 53s for boom extension from 10.6 m to 34 m		

Boom / Jib combinations

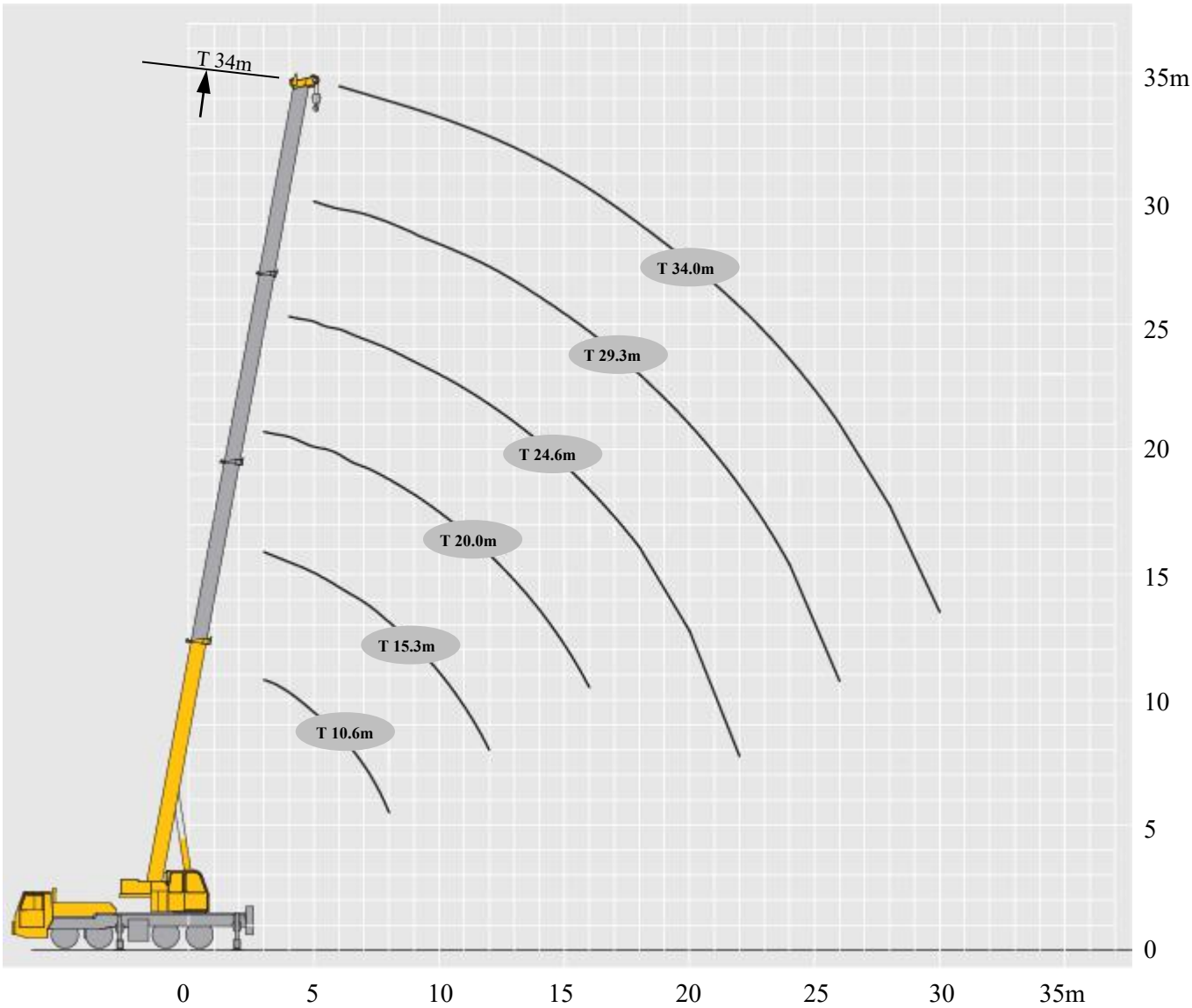




Telescopic boom	Jib
T：10.6~34.0m	T：34.0m J：8.3 m

Lifting heights

Boom



Lifting capacities

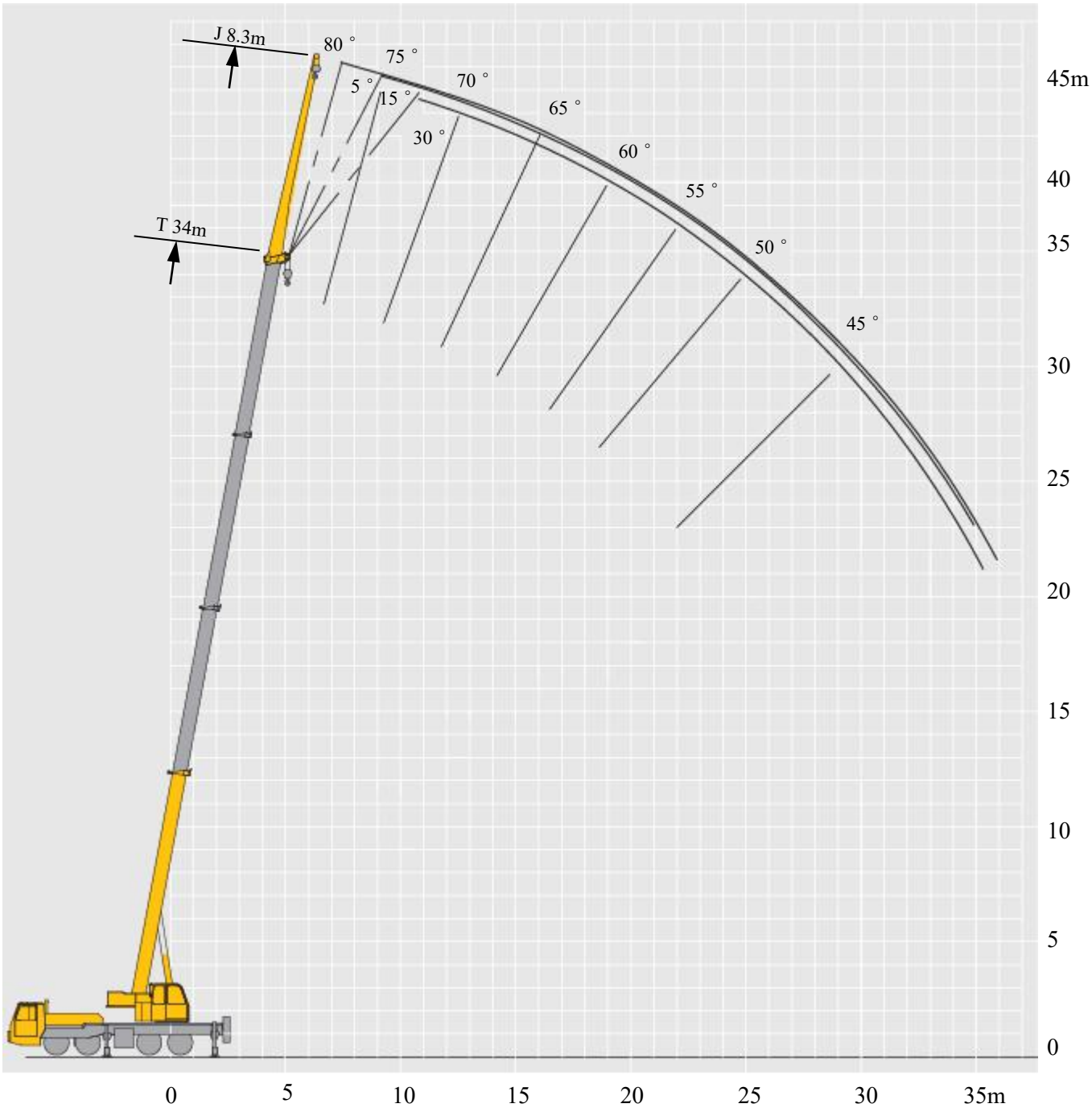
T 10.6~34m

	10.6m	15.3m	20m	24.6m	29.3m	34m	
3	30	16					3
3.5	25.5	16	16				3.5
4	23.3	16	16	13.5			4
4.5	21.8	16	16	13			4.5
5	19.6	16	16	12.8	10.5		5
5.5	17.9	16	15.2	12.5	10.5		5.5
6	16	15.5	14.3	11.8	10.5	7	6
7	13	12.6	12.8	10.8	10	7	7
8	10.5	10.4	10.6	9.8	9.2	6.9	8
9		8.5	8.7	8.8	8.4	6.7	9
10		7.1	7.3	7.4	7.5	6.3	10
12		5.2	5.3	5.4	5.5	5.3	12
14			4.1	4.2	4.2	4.3	14
16			3.2	3.3	3.3	3.4	16
18				2.6	2.7	2.75	18
20				2.1	2.1	2.2	20
22				1.6	1.7	1.8	22
24					1.4	1.45	24
26					1.1	1.2	26
28						0.9	28
30						0.7	30

The above rated load values are based on the crane being on firm level ground and are within 75% of tipping load

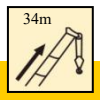
Lifting heights

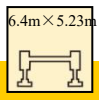
Jib



Lifting capacities

T 34m





	5°	15°	30°	
79	2.8	2	1.6	79
78	2.8	2	1.6	78
76	2.8	1.85	1.5	76
74	2.7	1.8	1.45	74
72	2.6	1.75	1.4	72
70	2.45	1.6	1.35	70
68	2.35	1.55	1.3	68
66	2.2	1.45	1.25	66
64	2.05	1.35	1.2	64
62	1.9	1.25	1.15	62
60	1.75	1.15	1.1	60
58	1.65	1.05	1.05	58
56	1.5	1	1	56
54	1.25	0.95	0.95	54
52	1.1	0.9	0.9	52
50	1	0.85	0.75	50
45	0.75	0.55	0.55	45
40	0.55	0.45	0.45	40
35	0.4	0.3	0.3	35
30	0.25			30

The above rated load values are based on the crane being on firm level ground and are within 75% of tipping load

Notes

1. The total rated loads given in the rated load charts are the maximum lifting capacity when the crane is set up on firm and level ground, which includes the weight of the hook block and slings. The weight of above-mentioned devices should be deducted from the rated lifting load.The above rated load values are based on the crane being on firm level ground and are within 75% of tipping load.

2. The working radius shown in the rated load charts is the radius when the load is lifted off the ground, and it is the actual value including loaded boom deflection. Take boom deflection into consideration before beginning a lifting operation.

3. A lifting operation is permissible only when the wind force is below grade 5 (instantaneous wind speed is 14.1 m/s, wind pressure is 125 N/m2).

4. Before beginning lifting operation, the operator should know the weight of the load to be lifted and its working range, and then select proper working conditions. Never operate the crane beyond the limit shown in the chart. Use the lower value from the chart when the boom length or working radius is between the range of values.

5. Observe the boom angle limit. Never operate the crane with the boom angle beyond the recommended limit even if a load is not being carried. Otherwise, the crane will tip.

6. The boom should be extended according to the telescoping code shown by percentage (or digits, which means the percentage of boom sections extended).

Description of symbols

General symbols

	Superstructure
	Lifting capacity
	Boom length
	Radius
	Boom angle
	Hoist height with boom
	Fixed jib length
	Jib offset angle
	Hoist height with jib
	Boom over side or over rear of the crane without 5th jack
	360° operation of the boom with 5th jack down

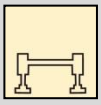
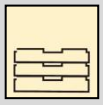
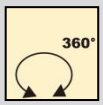
	Chassis
	Axle
	Driving speed
	Grade ability
	Tires
	Outriggers
	Hook block
	Counterweight
	Winch
	360° operation of the boom

Table of main technical parameters

Category	Item		Unit	Parameter
Dimensions	Dimensions (lengthxwidthxheight)		mm	12953×2550×3890
	Wheel base		mm	1470/3755/1350
	Track （Front/ Rear ）		mm	2055/1834
	Front/ Rear overhang		mm	2445/1860
	Front/ Rear extension		mm	1690/365
Weight	Total vehicle mass in travel configuration		kg	28700
	Axle load	1st axle	kg	4850
		2nd axle	kg	4850
		3rd axle	kg	9500
		4rd axle	kg	9500
Power	Engine model		——	SC7H260Q3
	Engine rated power/rpm		kW/(r/min)	192/2200
	Max. net power/rpm		kW/(r/min)	188/2200
	Max. output torque/rpm		N.m/(r/min)	1000/1400
Travel	Max. travel speed		km/h	≥85
	Min. stable travel speed		km/h	2～3
	Min. turning diameter		m	≤22
	Min. turning diameter at boom tip		m	≤25
	Min. ground clearance		mm	261
	Approach angle		°	17/11 (front protective device included)
	Departure angle		°	19
	Braking distance (at 30 km/h)		m	≤10
	Max. grade ability		%	≥40
	Fuel consumption per 100 km		L	30
Noise	Exterior noise level		dB(A)	≤84
	Noise level at seated position		dB(A)	≤90

Table of main technical parameters

Category	Item			Unit	Parameter
					Right-hand drive
Main performance	Max. total rated lifting capacity			t	30
	Min. rated working radius			m	3
	Turning radius at turntable tail			mm	3425
	Max. load moment	Base boom		kN.m	965
		Fully-extended boom		kN.m	623
		Fully-extended boom + Jib		kN.m	370
	Outrigger span	Longitudinal		m	5.23
		Lateral		m	6.4
	Hoist height	Base boom		m	10.9
		Fully-extended boom		m	34.5
		Fully-extended boom + Jib		m	42.5
	Boom length	Base boom		m	10.6
		Fully-extended boom		m	34
		Fully-extended boom + Jib		m	42.3
	Jib offset angle			°	5, 15, 30
Working Speed	Boom raising time			s	≤35
	Boom fully extending time			s	≤53
	Max. slewing speed			r/min	≥3
	Outrigger extending and retracting time	Horizontal Outrigger	Retracting	s	≤20
			Extending	s	≤25
		Vertical Outrigger	Retracting	s	≤20
			Extending	s	≤25
	Hoisting speed (single line, 4th layer, no load)	Main winch		m/min	≥135
		Auxiliary winch		m/min	≥135
Noise	Exterior noise level			dB（A）	≤120
	Noise level at seated position			dB（A）	≤90

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