QY25K5D_5 (Economy Model)
Truck Crane 2025

Technical Specification Documents

Max	25T		41m		35.2		47.4m

First edition November 2024

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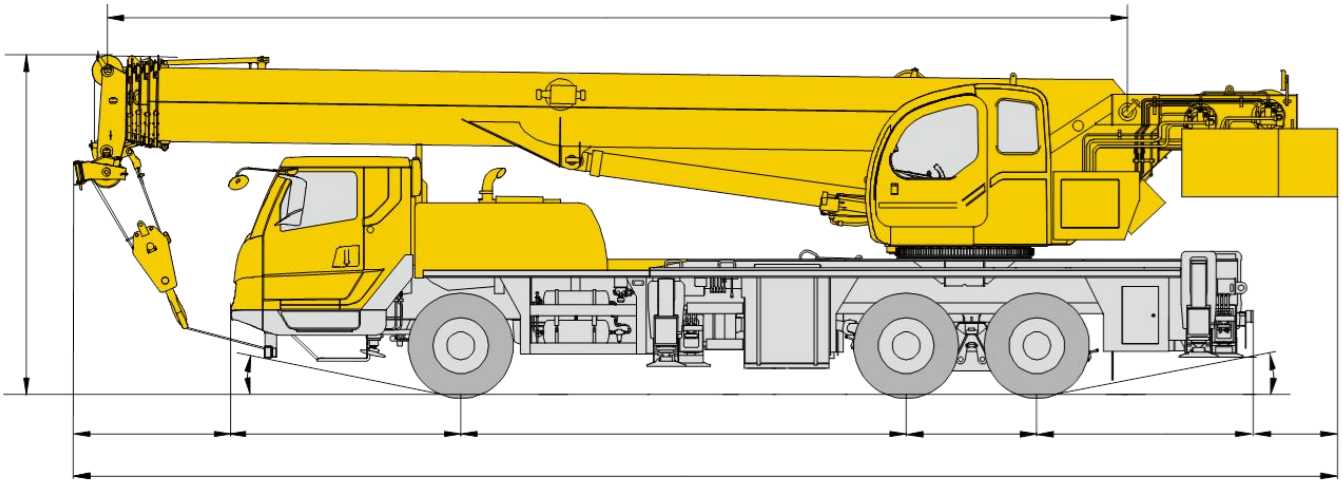
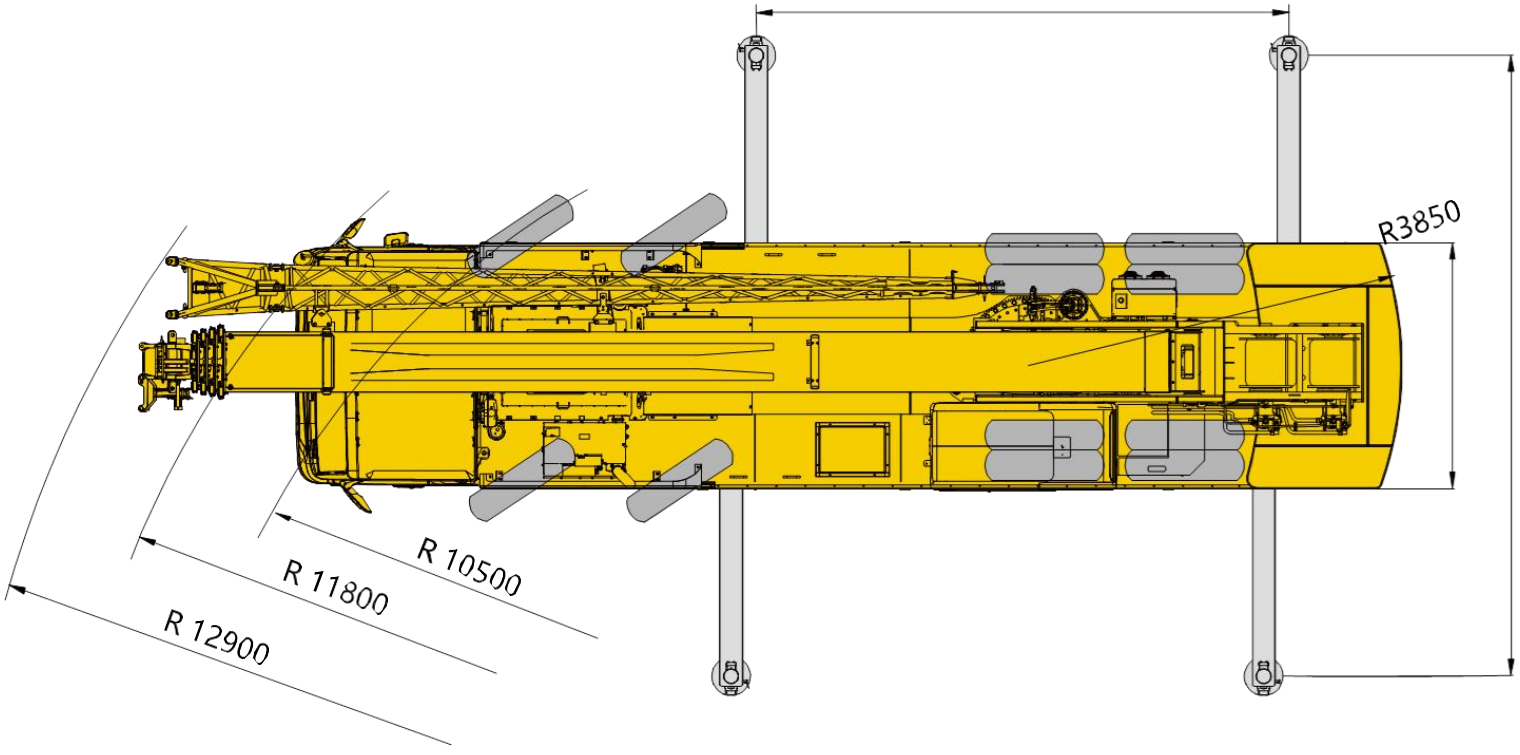
Size Parameters





Note: When the Qixing cab is configured, the forward extension is 1611mm and the front suspension is 2389mm; when the Xugong car cab is configured, the forward extension is 1624mm and the front suspension is 2376mm.

Technical Specifications

Undercarriage

Chassis	Designed and manufactured by XCMG, featuring a fully covered walkway platform, constructed with high-strength steel and a torsion-resistant box-type structure.
Support Leg	4-support legs arranged in an H-shape, with hydraulic operations controlled by a joystick. Each leg can be controlled individually or simultaneously from either side of the chassis. Equipped with a level gauge. Includes a fifth support leg. The vertical support legs are equipped with hydraulic bidirectional locks. Footpad size: ϕ400mm Support leg reaction force at maximum lifting capacity: 323kN.
Engine	SC7H300Q6P, inline six-cylinder water-cooled electronically controlled diesel engine by SDEC (Shanghai Diesel Engine Co.). Rated power: 220 kW/2200 rpm Maximum output torque: 1280 Nm/1200-1500 rpm Maximum benchmark torque: 1557 Nm, Complies with China VI emission standards Fuel tank capacity: 300 liters, Urea tank capacity: 35 liters, Engine displacement: 7.15 liters
Hydraulic system	The hydraulic system uses a fixed displacement gear pump connected to the transmission power take-off (PTO) via a drive shaft, and it is used to control the extension and retraction of the outriggers.
Transmission	Shaanxi Fast mechanical transmission, 8 forward gears, 1 reverse gear, mechanically operated, equipped with synchronizer.
Axle	High-strength axles, with the 2nd and 3rd axles providing drive. Drive and steering configuration: 6×4×2.
Suspension	The front axle uses leaf spring suspension; the rear axle uses rubber spring suspension.
Tire	10 tires and 1 spare tire; single tires are mounted on the front axle, while dual tires are mounted on the middle and rear axles. Tire specification: 12R22.5.
Braking	Service brake: Dual-circuit air brake system, acting on all wheels. Parking brake: Spring energy storage brake, acting on the 2nd and 3rd axle wheels. Auxiliary brake: Engine exhaust brake.
Steering	1st axle mechanical steering with hydraulic power assistance.
Cabin	Full-width cabin, accommodates 2 occupants; equipped with a wide-view front safety windshield, electric wipers, electric window lifters, and air conditioning with both cooling and heating functions. It provides face and foot ventilation, defrosting, and defogging capabilities. Also includes a storage box and a radio.
Electrical System	DC 24 volts, with two 12-volt battery packs connected in series.

Technical Specifications

Upper Structure

Structure	Designed and manufactured by XCMG, made of high-strength steel.
Hydraulic system	The chassis engine drives a fixed displacement gear pump, used for lifting, luffing, and telescoping operations. The system features a load-sensing proportional multi-way directional valve equipped with shock-resistant and anti-cavitation valves. An air-cooled hydraulic oil cooler is included to effectively reduce the system oil temperature. Hydraulic oil tank capacity: 500 liters.
Control Method	Hydraulic pilot control system, operated by two control levers (left and right). The main crane functions are controlled through hydraulic pilot control using a hydraulic pump and proportional
Main Hoisting mechanism	Hydraulically controlled speed regulation, equipped with a double-helix groove drum, driven by a hydraulic motor through a planetary gear reducer. It includes a normally closed brake and is fitted with a balance valve. Operates independently from the auxiliary hoisting mechanism.
Auxiliary Hoisting Mechanism	Hydraulically controlled speed regulation, equipped with a double-helix groove drum, driven by a hydraulic motor through a planetary gear reducer. It includes a normally closed brake and a balance valve. Operates independently from the main hoisting mechanism.
Slewing Mechanism	Four-point contact ball-type slewing bearing, driven by a hydraulic motor through a planetary gear slewing reducer, capable of continuous 360° rotation; features power-controlled or free rotation functions with stepless speed regulation.
Luffing Mechanism	Single-rod double-acting front-mounted hydraulic luffing cylinder, equipped with a balance valve.
Operator's Cabin	New-type steel operator's cabin, equipped with a wide-view front window with no blind spots, made of safety glass. The windows have sunshades, and the outward-opening door provides easy access. The seat features an adjustable reclining backrest, and the control levers are mounted on armrest consoles on both sides of the seat. The front and roof windows are equipped with wipers, and the cabin is fitted with air conditioning for both cooling and heating.
Safet Devices	Hydraulic balance valve; hydraulic overflow valve; hydraulic bidirectional lock; load moment limiter; three-turn protector to prevent wire rope over-release; boom tip equipped with height limiter to prevent wire rope over-winding.
Load Moment Limiter	When the actual load moment approaches overload, it triggers audible and visual alarms and automatically stops dangerous operations before an overload occurs. It is equipped with overload memory (black box) and self-diagnostic functions for system faults.
Counterweight	6-ton Fixed counterweight
Hook	25-ton hook 3-ton hook

Technical Specifications

Upper Structure

Main Boom	Main boom consists of 5 sections with a “U”-shaped cross-section tubular welded structure, made of high-strength structural steel. It features a double-cylinder cable retraction mechanism. Main boom length: 10.5 m to 41 m.
Fix Jib	One-section lattice-type welded structure. Fixed jib length: 8.3 meters.
Boom Tip Single Sheave (or Single Pulley)	Single sheave pulley installed at the tip of the main boom for single-line wire rope lifting operations, with a maximum lifting capacity not exceeding 3 tons.

Motorcycle type	Functional Description
Normalized form	The five main arms are 41m long and the fixed auxiliary arms are 8.3m long.
Note: This product is only a standard model.	

Axle	1	2	3	Total weight
T	6.8	12.4	12.4	31.6[1)]

Cliver	Multiplying Power	Hook weight (kg)	Remarks
25t	8	260	Single hook
3t	1	60	Single hook

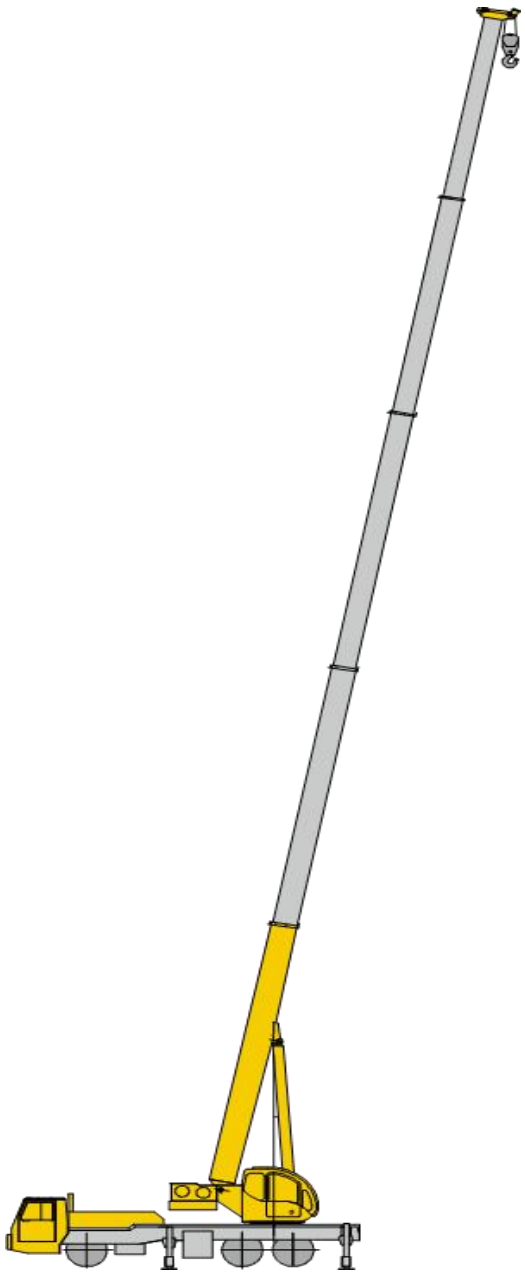
Operating Speeds

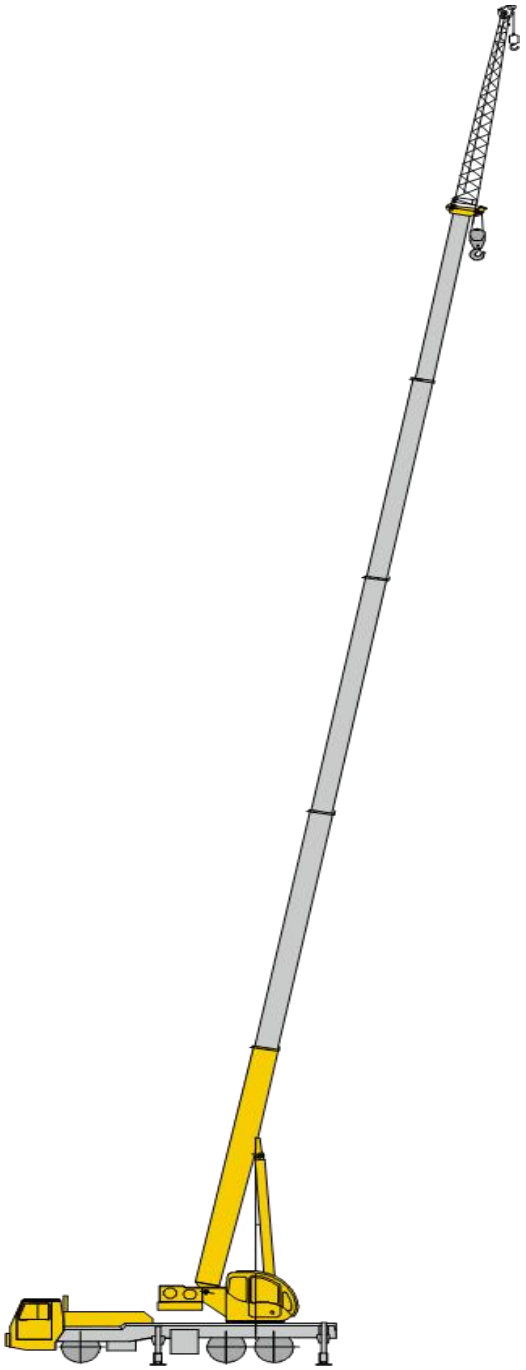
12R22.5	2.5~80km/h	40%

	0-125m/min Single line, No Load	32.3 kn	14mm	180 m
	0-125m/min, Single line, No Load	32.3 kn	14mm	105m
	0-2.5 r/min			
	From -2° to 79° in approximately 38 seconds.			
	From 10.5 to 41 in approximately 38 seconds.			

Note: The standard is a single fixed subarm; the optional is a double fixed subarm.

Boom Configuration Option

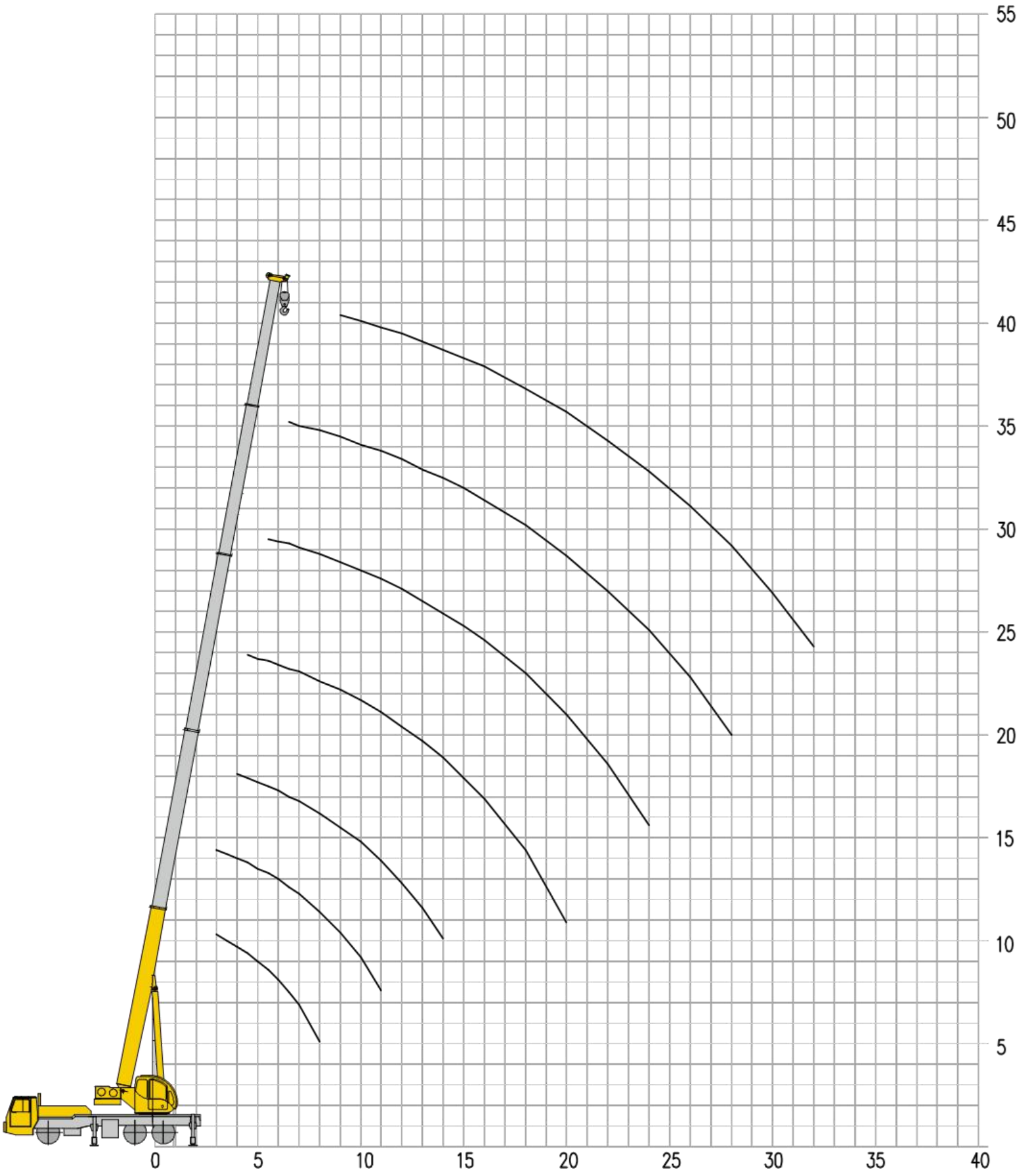




Main jib	Fixed Auxiliary Arm
T: 10.5~41 m	T: 41 m F: 8.3 m

Main Boom Lifting Height

Curve Chart

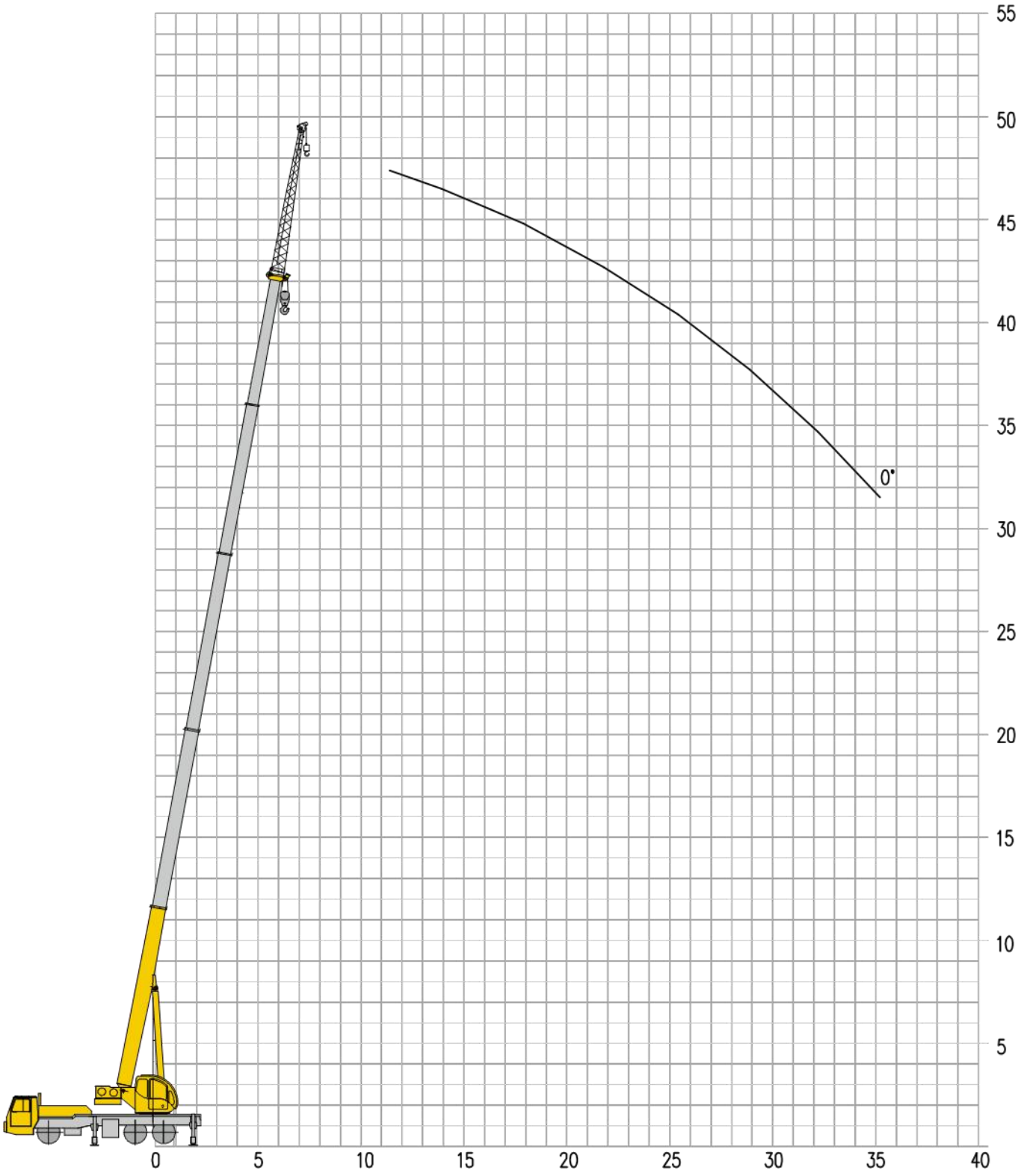


Main Boom Lifting Capacity Table

	 10.5	 14.3	 18.2	23.9	29.6	35.3	41	
3	25	25						3
3.5	25	25						3.5
4	24.5	23.5	19.5					4
4.5	23	22.2	19.5	16.6				4.5
5	21.7	21.2	18.6	16.5				5
5.5	19.5	19.4	17.3	15.5	12.8			5.5
6	18	18	16	14.5	12.8			6
6.5	16.2	16.3	14.8	13.5	12.5	9		6.5
7	15.1	14.9	14.3	12.9	11.5	9		7
8	13.3	12.8	12.5	11.3	11	8.9		8
9		10.3	10	10.5	10.1	8.2	6.5	9
10		8.45	8.25	9	8.7	7.6	6.2	10
11		7.1	6.85	7.6	7.6	7.1	5.8	11
12			5.75	6.45	6.9	6.7	5.6	12
13			4.9	5.55	6	6.2	5.2	13
14			4.1	4.8	5.2	5.5	4.9	14
15				4.15	4.6	4.8	4.4	15
16				3.6	4	4.3	4.1	16
18				2.7	3.1	3.4	3.6	18
20				2	2.4	2.7	2.9	20
22					1.9	2.15	2.3	22
24					1.4	1.7	1.9	24
26						1.3	1.5	26
28						1	1.2	28
30							0.9	30
32							0.7	32

Elevation rise curve

Fixed auxiliary arm



Lift performance chart

Fixed auxiliary arm

T 41m

	8.3 m 0°	
78	3	78
75	2.9	75
72	2.8	72
70	2.8	70
65	2.3	65
60	1.6	60
55	1.1	55
50	0.8	50
45	0.5	45

Main technical parameters

class	project		unit	parameter
Size parameters	External dimensions (length x width x height)		mm	13050×2550×3500
	wheel base		mm	4600+1350
	Track width (front/rear)		mm	2085/1860
	Front suspension / rear suspension		mm	2376 (Xugong Automobile) 2389 (Qixing)/ 2440
	Forward/backward		mm	1624 (Xugong Automobile) 1611 (Qixing) / 660
weight parameter	maximum autohrozed total mass		kg	31600
	axle weight	uniaxial	kg	6800
		Two axes	kg	12400
		triaxial	kg	12400
dynamic parameter	engine type		——	SC7H300Q6P
	Rated power/speed		kW/(r/min)	220/2200
	Maximum net power/speed		kW/(r/min)	218/2200
	Maximum output torque/speed		N.m/(r/min)	1280/1200-1500
Driving parameters	maximum speed		km/h	⩾80
	Minimum stable speed		km/h	2.5 ~ 3
	Minimum turning diameter		m	⩽21
	Minimum turning diameter at the head		m	⩽25.8
	Minimum ground clearance		mm	250
	approach angle		°	12
	departure angle		°	12
	Braking distance (initial braking speed 30km/h)		m	⩽10
	Maximum climbing capacity		%	⩾40
	100 km fuel consumption		L	30
noise	Accelerate engine noise		dB(A)	⩽84
	Noise in the driver's ear		dB(A)	⩽90

Main technical parameters

Class	Project		unit	Parameter
Main performa- nce parameters	Maximum rated gross lifting capacity		T	25
	Minimum rated working amplitude		m	3
	Swivel radius at the tail of the swivel table	Balance is key	mm	385
		The secondary roll	mm	---
	Maximum lifting torque	Basic arm	knm	1063
		Longest main arm	kn.m	672
		Longest main arm + seco- ndary arm	kn.m	491
	Leg span	direction	m	
		broadwise	m	
	lifting altitude	Basic arm	m	
		Longest main arm	m	
		Longest main arm + seco- ndary arm	m	
	Lift arm len- gth	Basic arm	m	
		Longest main arm	m	
		Longest main arm + seco- ndary arm	m	
	Sub-arms installation Angle		°	
Work speed pa- rameters	Lift time of the boom		s	
	Full extension time of the boom		s	
	Maximum rotary speed		r/min	

	Leg retraction time	Horizontal legs	put away	s	2.5
			release	s	20
		Vertical legs	put away	s	40
			release	s	20
	Rise sp- eed (1 rope, no lo- ad)	Main lifting mechanism		m/ min	40
		Secondary lifting mecha- nism		m/ min	125
noise	Off-vehicle radiation			dB (A)	108
	Driver's position			dB (A)	85

Matters Need Attention

1. This manual is for reference only. All information is for illustrative purposes and should not be relied upon for crane operation. For proper operating instructions, please refer to the product’ s official operation manual.

2. The lifting capacities listed in the table are in metric tons (t). These represent the maximum gross lifting weights the crane can safely handle at the specified boom length and working radius on a firm, level surface. The values include the weight of the hook and lifting attachments — their weight must be deducted from the listed lifting capacity.

3. The working radius shown in the table refers to the horizontal distance from the slewing centerline of the crane to the load when it is just lifted off the ground.

4. Operations must be conducted within the specified boom angle range. Even when unloaded, the boom angle should not exceed the defined limits.

5. Operations are only permitted in wind conditions of Level 5 or below (instantaneous wind speed ≤ 14.1 m/s, wind pressure ≤ 125 N/m²).