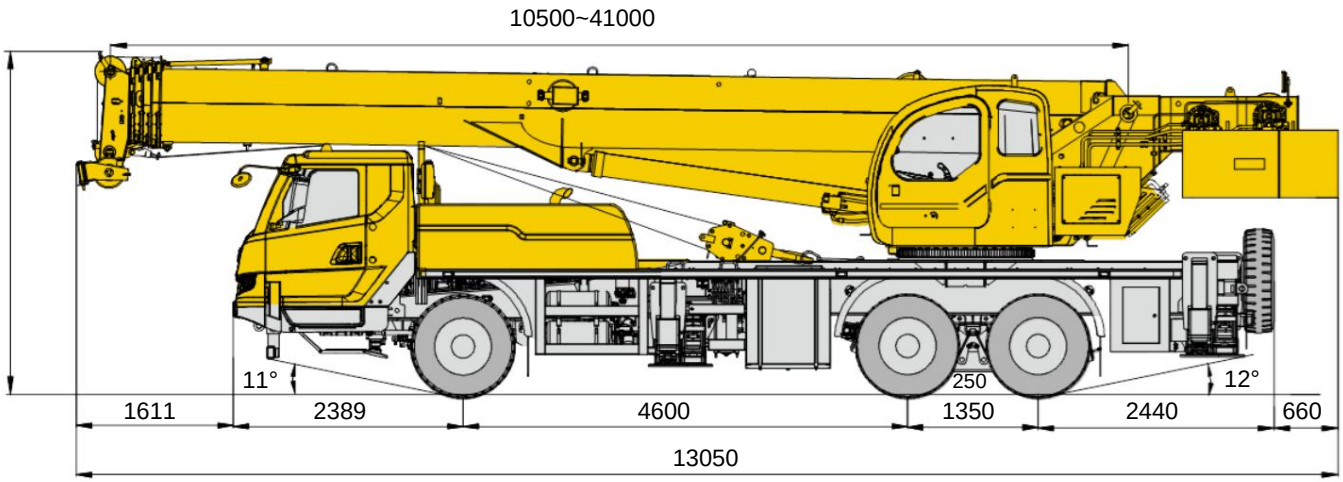
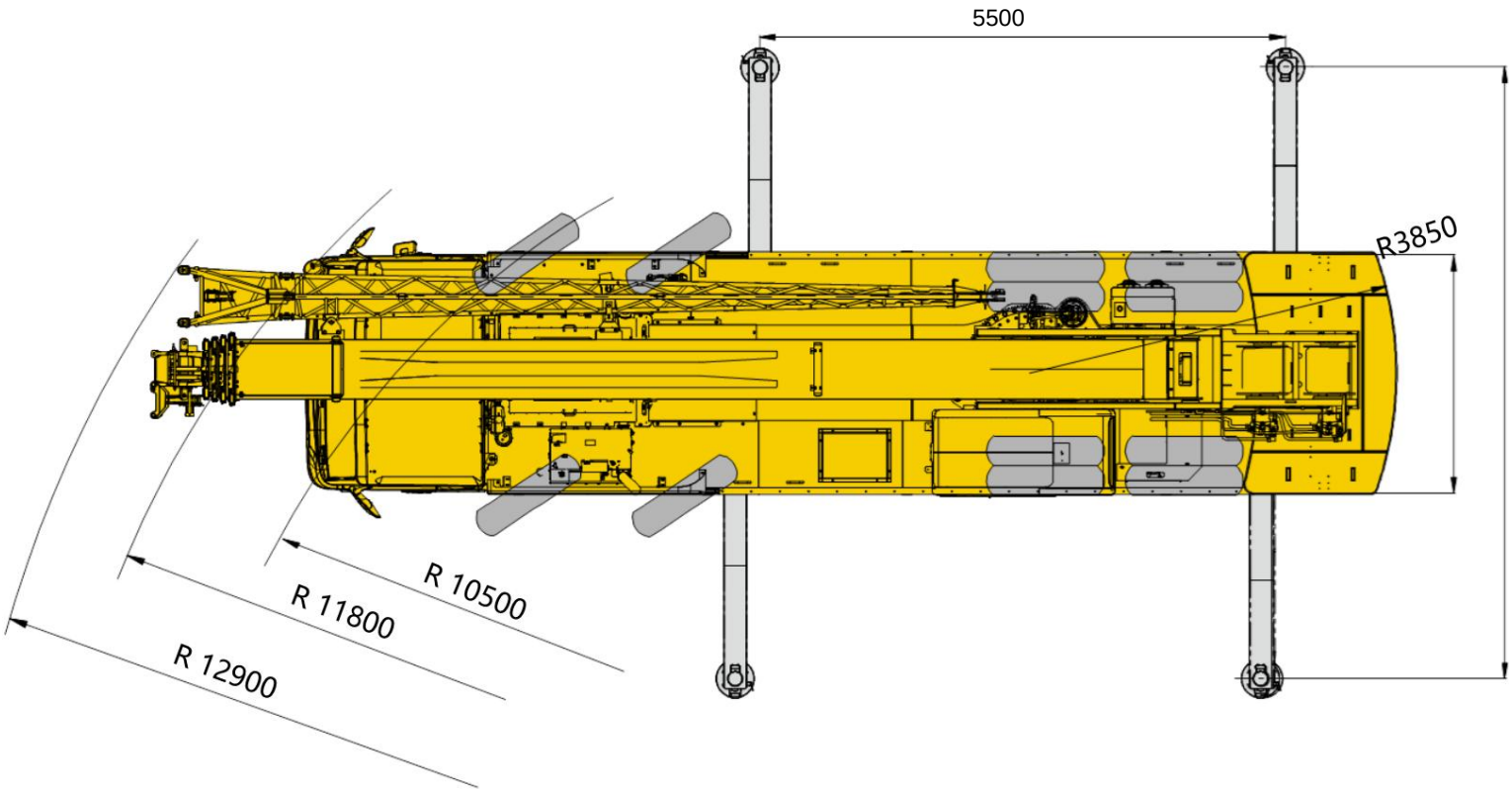
QY25K5D_5 (Model Year) Truck Crane

Technical Specifications

Max	25 t		41m		35.2 m		47.4m

Dimensions


10500~41000
11°
250
12°
1611
2389
4600
1350
2440
660
13050


5500
R3850
R 10500
R 11800
R 12900

Technical Specifications

chassis

frame	Designed and manufactured by XCMG, this fully covered walkway is made of high-strength steel and features an anti-torsion box-type structure.
outrigger	Four outriggers, H-shaped arrangement, hydraulically controlled by levers; each outrigger can be controlled simultaneously or individually from either side of the chassis; equipped with a level; includes a fifth outrigger; and the vertical outrigger has a hydraulic two-way lock. Outrigger plate size: 400mm; Outrigger reaction force at maximum lifting capacity: 323kN.
engine	SC7H300Q6P, inline six-cylinder water-cooled electronically controlled diesel engine, rated power 220kW/2200rpm, maximum output torque 1280Nm/1200-1500rpm; maximum reference torque: 1557N.m; meets China VI emission standards. Fuel tank capacity: 360L, urea tank capacity: 35L. Engine displacement: 7.15L.
Hydraulic system	The plunger pump is connected to the gearbox power take-off port via a drive shaft and is used to control the extension and retraction of the outriggers.
gearbox	Shaanxi Fast mechanical gearbox, 8 forward gears, 1 reverse gear, mechanical operation, with synchronizer.
axle	High-strength axles, 2- or 3-axle drive. Drive and steering configuration: 6×4×2.
suspension	The front axle uses leaf springs; the rear axle uses rubber spring suspension.
tire	10 tires, 1 spare tire, single tire on the front axle, and dual tires on the middle and rear axles. Tire specifications: 12R22.5.
brake	Service brake: Dual-circuit air pressure brake, operating on all wheels. Parking brake: Spring-energized brake, operating on wheels of axles 2 and 3. Auxiliary brake: Engine exhaust brake.
Turn	1-axle mechanical steering + hydraulic power steering.
driver's cab	The cab is full-width and can accommodate 3 people. It is equipped with a wide-view windshield safety glass, electric wipers, electric window regulators, a mechanical shock-absorbing seat for the driver, and a double seat for the passenger that can be unfolded into a simple sleeper berth to meet the operating comfort and riding convenience of the passengers. It is equipped with air conditioning with functions such as blowing on the face and feet, defrosting, and defogging. It also has a storage box and a cassette player.
Electrical system	24 volts DC, two 12-volt battery packs connected in series.

Technical Specifications

Get on the bus

structure	XCMG designs and manufactures high-strength steel.
Hydraulic system	The chassis engine drives a variable displacement piston pump for lifting, luffing, and telescoping. It features a load-sensitive proportional multi-way directional valve with anti-surge and anti-cavitation valves; and an air-cooled hydraulic oil cooler to effectively reduce system oil temperature. Hydraulic oil tank capacity: 500L.
Operation method	The hydraulic pilot control system is controlled by two control handles on the left and right, and the main movements of the crane are hydraulically piloted by a hydraulic pump and a proportional valve.
Main hoisting mechanism	The hydraulically controlled speed regulator is equipped with a double-grooved rope drum, driven by a hydraulic motor through a planetary gear reducer. It features a built-in normally closed brake and a balance valve. It operates independently from the auxiliary hoisting mechanism.
auxiliary lifting mechanism	It features hydraulic speed control, a double-grooved rope drum, and is driven by a hydraulic motor through a planetary gear reducer. It also includes a built-in normally closed brake and a balance valve. It operates independently of the main hoisting mechanism.
Slewing mechanism	The four-point contact ball slewing bearing is driven by a hydraulic motor and a planetary gear reducer, and can rotate continuously 360°; it has the function of power control or free rotation and can be steplessly speed adjusted.
luffing mechanism	A single-acting, front-mounted hydraulic luffing cylinder with a balance valve.
Control room	The new steel operator's cab is equipped with a front window with no blind spots, safety glass, sunshades on the windows, outward-opening doors, reclining seat backrests, control levers mounted on the armrests on both sides of the seat, windshield wipers on the front and top windows, and air conditioning.
Safety devices	Hydraulic balance valve; hydraulic relief valve; hydraulic two-way lock; torque limiter; three-turn protector to prevent over-release of wire rope; boom head height limit to prevent over-winding of wire rope.
Torque limiter	When the actual torque approaches overload, it issues audible and visual alarms and automatically stops dangerous actions before overload occurs. It has overload memory function (black box) and fault self-diagnosis function.
counterweight	A 6-ton fixed counterweight .
Hook	25t hook; 3t hook.

Technical Specifications

Get on the bus

Main arm	Five-section, U-shaped cylindrical welded structure, made of high-strength structural steel, with a double-cylinder rope telescopic mechanism. Main boom length: 10.5m～41m.
Fixed arm	A single-section truss-type welded structure with a fixed auxiliary boom length of 8.3m. It features a 0° fixed auxiliary boom installation angle.
single pulley at the end of the arm	A single pulley, installed at the top of the main boom, is used for single-strand wire rope lifting operations, with a maximum lifting capacity of no more than 3t.

Model

Model	Function Description
Standard type	The main boom has five sections and is 41m long, while the fixed auxiliary boom is 8.3m long.
Note: This product is only available in one model: the standard version.	

Weight

axle	1	2	3	gross weight
t	6.54	12.58	12.58	31.71)

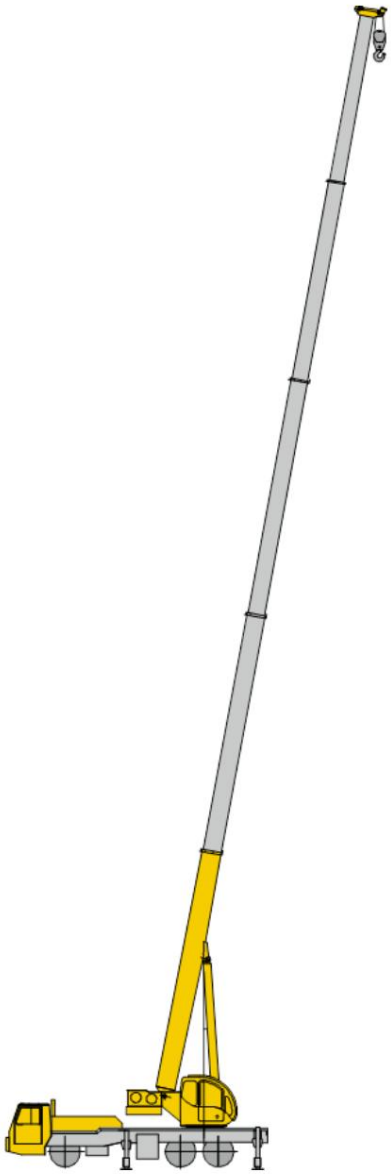
hook	magnification	Hook weight (kg)	Remark
25t	8	260	single hook
3t	1	60	single hook

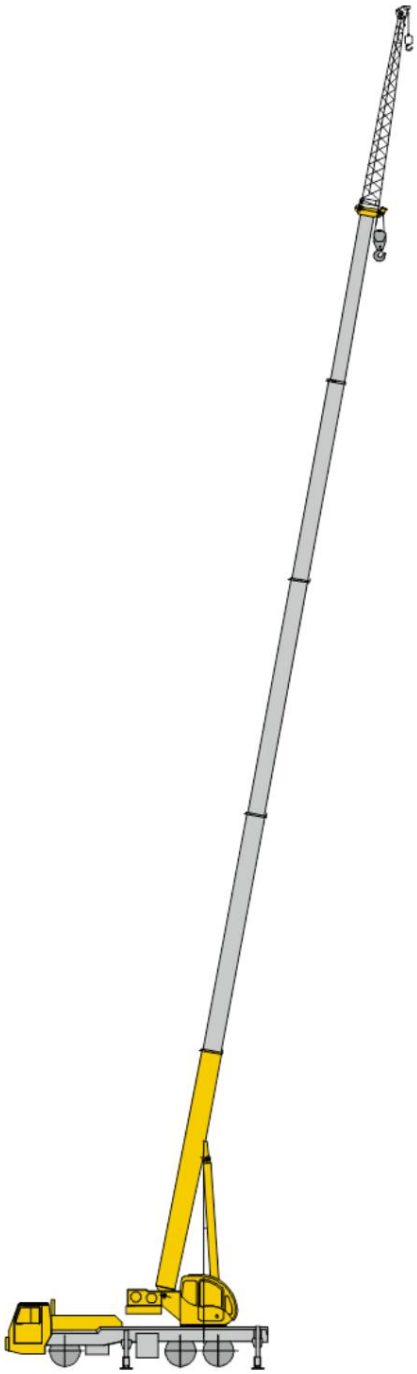
Work speed

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

	Max	F	ϕ	
①	0-125 m/min, single rope, no load	32.3 kN	14 mm	180 m
②	0-125 m/min, single rope, no load	32.3 kN	14 mm	105 m
	0-2.0 rpm			
	It takes about 35 seconds to rise from -1° to 80°.			
	Extending from 10.5m to 41m in approximately 90 seconds			

boom assembly solution

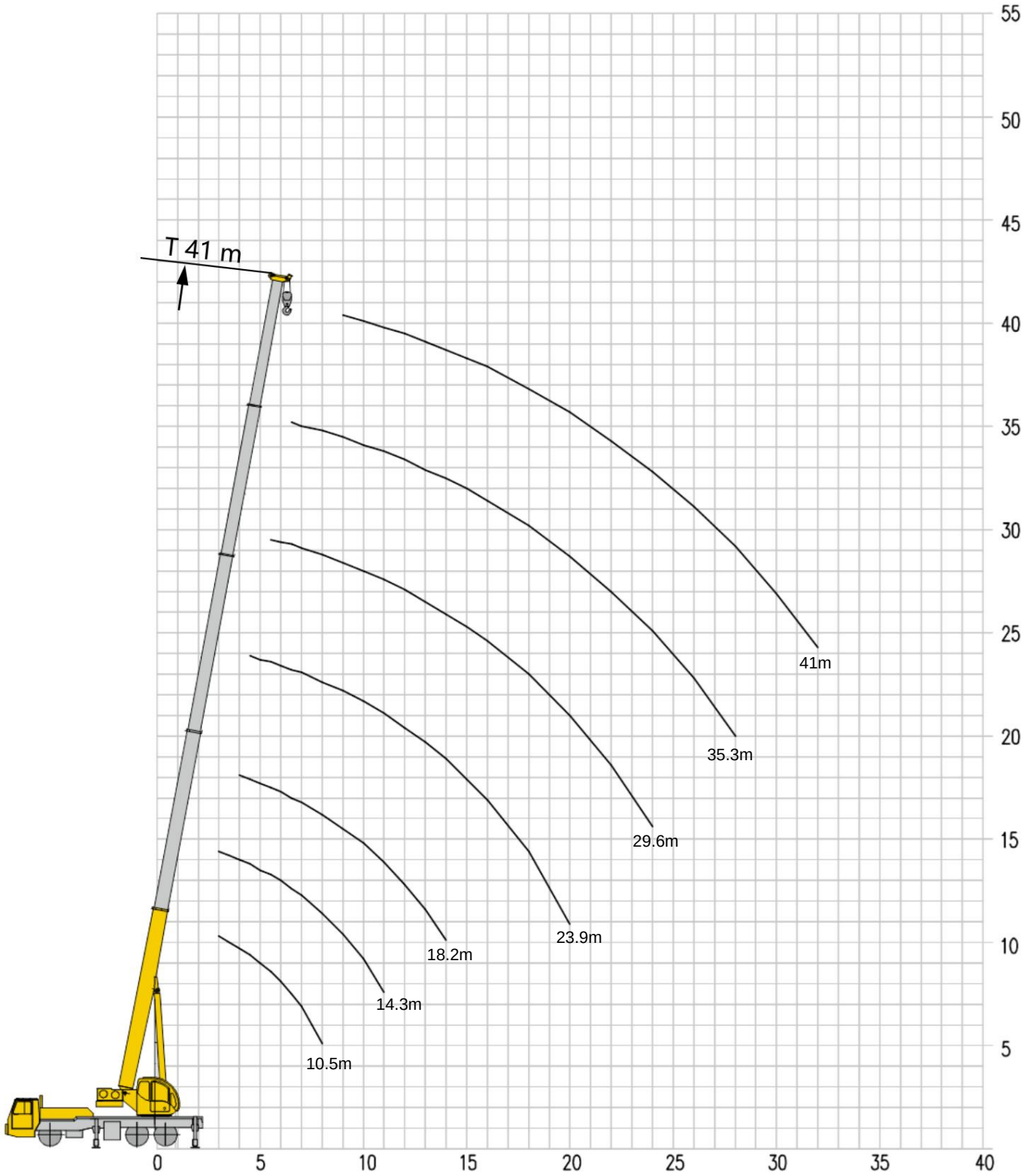




Main arm	Fixed arm
Tÿ10.5~41 m	T:41 m F:8.3 m

Lifting height curve

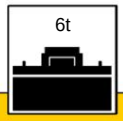
Main arm



Lifting performance table

Main arm

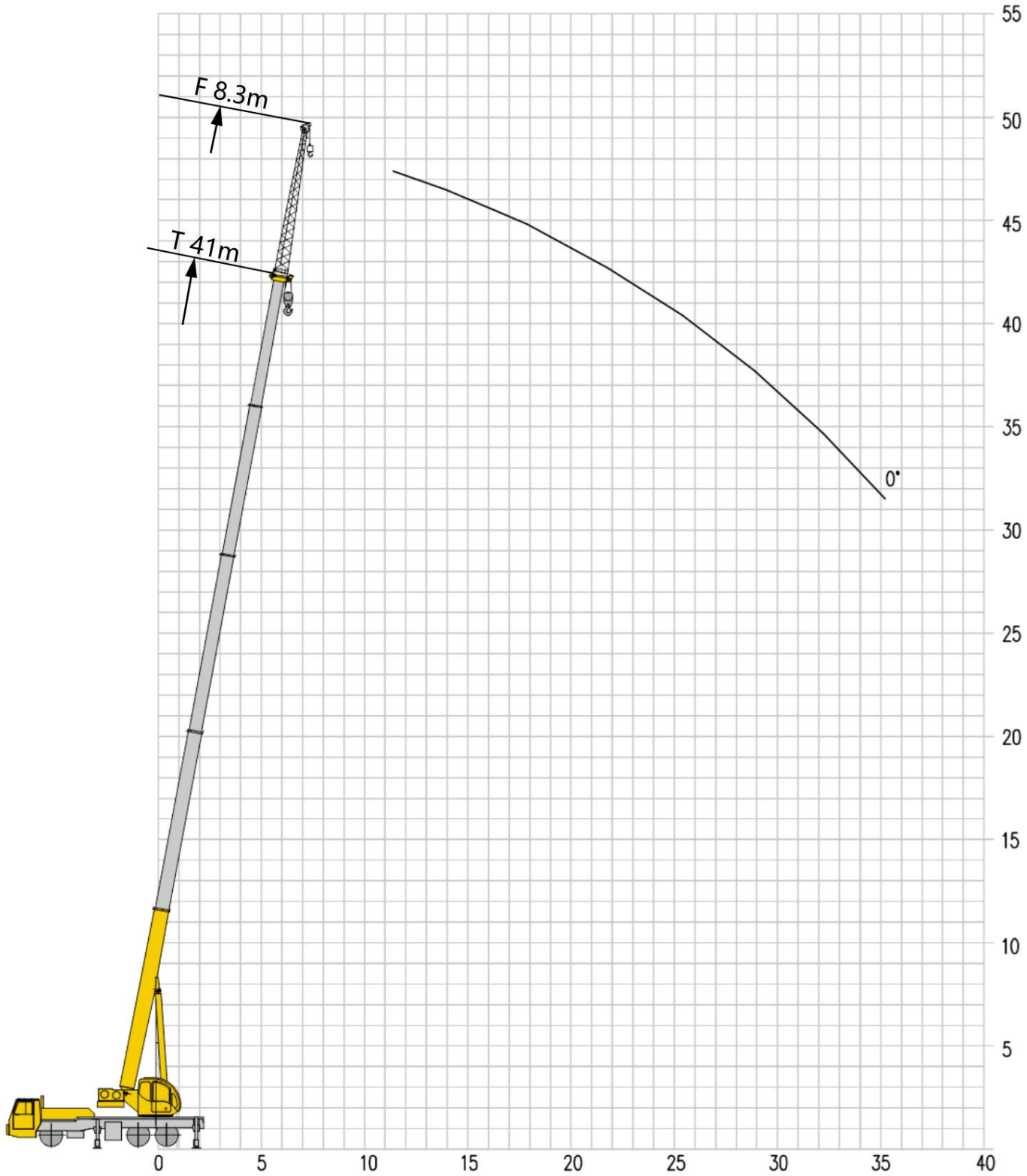
T 10.5-41m



	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

Lifting height curve

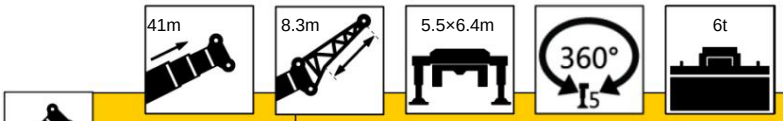
Fixed arm



Lifting performance table

Fixed 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

category	project		unit	parameter
Dimensions	External dimensions (length × width × height)		mm	13050×2550×3500
	wheelbase		mm	4600+1350
	Wheelbase		mm	2060/1840/1840 or 2085/1860/1860
	Front/Rear Suspension		mm	2389 (Qi Xing) / 2440
	Forward/backward		mm	1611 (Qi Xing) / 660
Weight parameters	Maximum permissible total mass		kg	31700
	Axle load	One axis	kg	6540
		Two-axis	kg	12580
		Three-axis	kg	12580
Power parameters	Engine Model		—	SC7H300Q6P
	Rated power/speed		kW/(rpm)	220/2200
	Maximum net power/speed		kW/(rpm)	218/2200
	Maximum output torque/speed		nm/(r/min)	1280/1200-1500
Driving parameters	Top speed		km/h	≥80
	Minimum stable speed		km/h	2.5~3
	Minimum turning diameter		m	≤21
	minimum turning diameter of boom head		m	≤25.8
	Minimum ground clearance		mm	250
	Approach angle		°	11
	Departure angle		°	12
	Braking distance (initial braking speed 30km/h)		m	≤10
	Maximum climbing ability		%	≥40
	fuel consumption per 100 kilometers		L	30
noise	Exterior noise during acceleration		dB(A)	≤84
	Driver's ear noise		dB(A)	≤90

Main technical parameters

category	project			unit	parameter
Main performance parameters	Maximum rated gross lifting capacity			t	25
	Minimum rated working radius			m	3
	Turntable tail rotation radius	Balance weight		mm	3850
		Supplementary Volume		mm	–
	Maximum lifting moment	Basic Arm		kN.m	1063
		Longest main arm		kN.m	672
		Longest main arm + secondary arm		kN.m	491
	outrigger stride	Vertical		m	5.5
		Horizontal		m	6.4
	Lifting height	Basic Arm		m	10.4
		Longest main arm		m	40.5
		Longest main arm + secondary arm		m	47.4
	boom length	Basic Arm		m	10.5
		Longest main arm		m	41.0
		Longest main arm + secondary arm		m	49.3
	Support boom mounting angle			°	0
Working speed parameters	Crane boom lifting time			s	≤35
	Crane boom full extension time			s	≤90
	Maximum rotational speed			rpm	≥2.0
	outrigger extension and retraction time	Horizontal outriggers	receive	s	≤30
			put	s	≤35
		Vertical support legs	receive	s	≤30
			put	s	≤35
	Lifting speed (Single rope, unloaded)	Main hoisting mechanism		m/min	≥125
		auxiliary lifting mechanism		m/min	≥125
noise	External radiation			dB(A)	≤108
	Driver's seat			dB(A)	≤85

Precautions

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

2. All lifting capacity units listed in the table are metric tons (t), which is the maximum total lifting capacity that the crane can guarantee on a stable and horizontal surface under the current boom length and radius, including the weight of the hook and lifting gear. The weight of the above-mentioned devices must be subtracted when lifting.

3. The working radius in the table is the horizontal distance from the crane's rotation axis to the load when it is lifted off the ground.

4. Operations should be carried out within the range of the boom elevation angle. Even when unloaded, the boom elevation angle should not be outside the range.

5. Work is only permitted in winds below level 5 (instantaneous wind speed 14.1 m/s, wind pressure 125 N/m2).