

XGC25T Telescopic Crawler Crane



RONCO GROUP



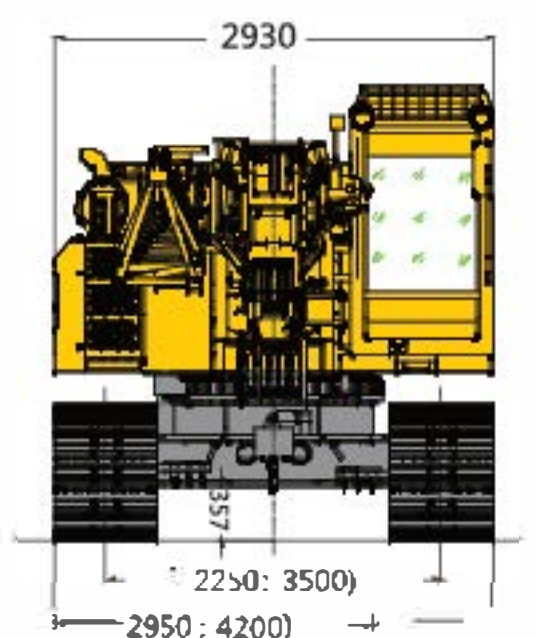
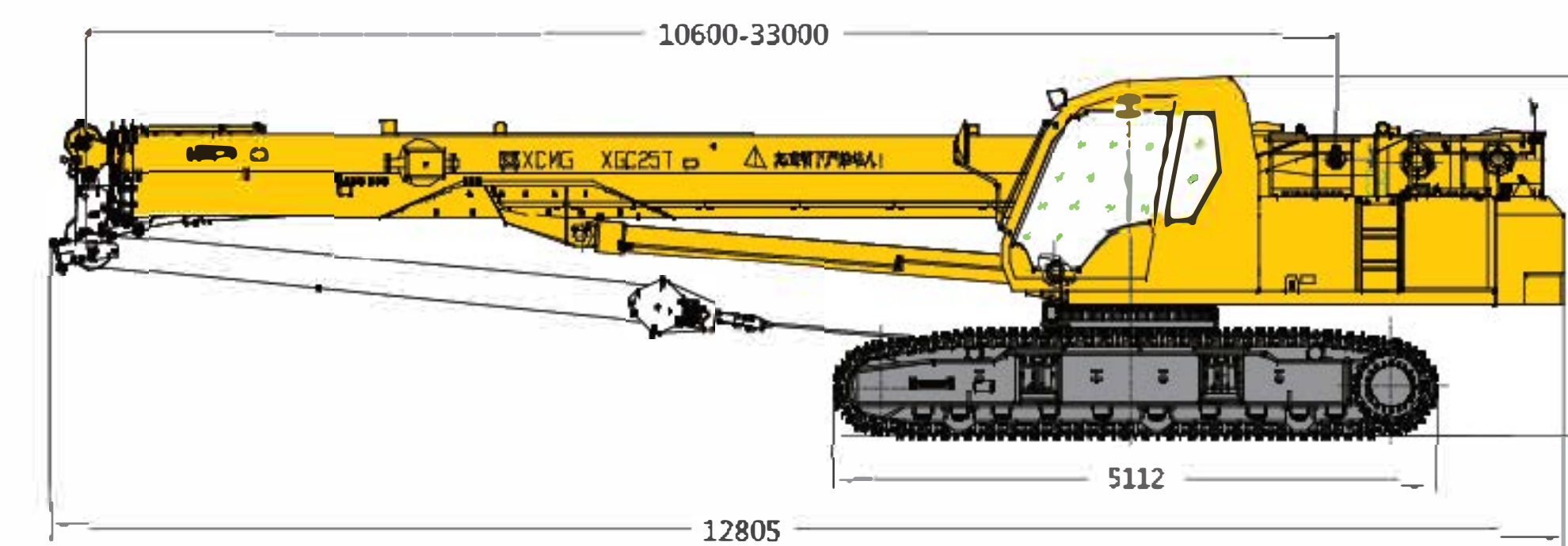
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The Main Technical Parameters

Type	Items	Unit	Data	
Dimension	Overall length	mm	12805	
	Overall width (extension/retraction)	mm	4200/2950	
	Overall height	mm	3000	
	Central distance from drive roller to driven roller	mm	4330	
	Track shoe width	mm	700	
Weight	Total mass in travel state	kg	34960	
Travel	Max. travel speed with no load	km/h	26	
	Max. travel speed with full load	km/h	15	
	Min. ground clearance	mm	357	
	Max. grade-ability	%	45	
	Ground pressure	MPa	0.06	
Power	Noise at ear in the cab	dB (A)	80	
	Engine model	-	QS86.7	
	Engine rated output power	kW	142	
	Engine rated rotation speed	r/min	1800	
	Engine emission standard	-	EU Stage IIIA	
Capacity	Hydraulic oil tank	L	400	
	Fuel tank	L	450	
Main Performance	Max rated lifting capacity	t	25	
	Min. rated working radius	m	3	
	Slewing radius at turntable tail	mm	3726	
	Max. load moment	Base boom	kN·m	970
		Max. length boom	kN·m	576
	Lifting height	Base boom	m	99
		Max. length boom	m	32.3
		Max. length boom + Jib	m	39.8
	Boom length	Base boom	m	10.6
		Max. length boom	m	33
		Max. length boom + Jib	m	41.15
	Jib offset angle	°	0, 15, 30	
Working Speed	Boom raising time	s	48	
	Boom full extension time	s	56	
	Max. slewing speed	r/min	2.5	
	Hoisting speed(no load at the 4th layer)	Main winch	m/min	140
		Auxiliary winch	m/min	140

Pictures and data in this catalog will change with the update and modification of products, so please take the actual vehicle as reference.



Brief Introduction

Crane Superstructure

Engine

配置东风康明斯QSB6.7-C190发动机 (EU Stage IIIA)。
额定功率/转速: 142kW/1800rpm。空滤器采用曼胡默尔空滤器, 可靠的除尘效果保证主机平稳长时间运行。
燃油箱: 有效容积450L。

Dongfeng Cummins QSB6.7C190 engine (EU Stage IIIA), rated power / speed: 142kW/1800rpm., Mann Hummel air filter, reliable and stable dust-proof ensure the machine smooth and long time running.
Fuel tank: effective capacity 450L.

Hoist Gear

起升机构描述:	Hoist winch description:
空载起升速度: 0~140m/min.	Hoisting speed with no load: 0~140m/min.
钢丝绳直径/长度:	Wire rope diameter / length:
主卷钢丝绳: 14mm/160m.	Main winch rope: 14mm / 160m.
副卷钢丝绳: 14mm/95m.	Auxiliary winch rope: 14mm / 95m.
额定单绳拉力: 2.8t.	Rated single line pull: 2.8t.

Luffing Gear

变幅机构描述: 单缸前支变幅
主臂起升时间 ≤ 48S
Luffing winch description: single cylinder front support luffing.
Boom lifting time ≤ 48S.

Slewing Gear

回转机构布置于转台右前端, 由马达驱动。
行星减速机与回转支承齿轮外啮合进行回转, 具有自动滑转功能, 可调整臂架起重作用线与重物为铅直线, 保证作业安全。行星齿轮减速机具备常闭、片式制动器工作可靠维修方便。
回转支承: 采用单排四点接触球式回转支承, 承载能力强, 保证上车360°回转作业安全、平稳。
回转速度: 0~2.5r/min
Slewing unit is arranged at turntable right front, driven by the motor with planetary gear reducer, external engaged by slewing ring for rotation, with hydraulic buffer and freeswing function, adjust the boom lifting active line with the lead line in the straight line, to ensure safe operation. Planetary gear reducer has a constant closed disc brake for reliable work and easy maintenance.
Slewing ring: it is single row 4 point contact ball type slewing ring, with strong load bearing capacity, to ensure the superstructure 360° slewing operation, safe and stable.
Slewing speed: 0~2.5r/min.

Electric Control System

采用ECU控制器, 脚油门, 手油门, 通过CAN实现对发动机转速的高效控制。
系统采用供电方式为DC 24V, 负极搭铁单线制。采用PLC可编程控制器作为控制系统的核心, 系统由发动机控制、安全控制、先导控制、力矩限制器控制、辅助功能控制等几部分组成。通过显示器实时监控发动机水温、机油压力, 当超过安全临界值时, 蜂鸣器自动报警; 同时, 通过力矩器对当前工况的分析, 当吊重量、仰角或幅度任一值超出安全范围时, 三色报警灯和蜂鸣器会发出“声光报警”并通过程序控制, 限制危险动作的进行。

Use of ECU controller, foot accelerator, hand accelerator, efficient control of the engine speed by CAN. The system uses DC 24V for power supply, negative ground and single cable system. PLC programmable controller is used as the core of the control system, the system consists of several parts such as engine control, safety control, pilot control, load moment limiter control, auxiliary function control. Real-time monitoring through the display of engine temperature, oil pressure, buzzer warning when the load exceeds the safety limit; at the same time, analysis of current conditions such as lifting load weight, boom elevation angle or radius through load moment limiter, if any values exceed safe limits, a three-color warning light and buzzer will give "sound and light warning", and control and restriction of hazardous actions by program control.

Hydraulic System

液压先导控制, 控制精准, 机动性好, 调速范围广。起重作业伸缩、变幅及起升液压系统与行驶作业液压系统共用一恒功率A8V107双泵, 回转系统和先导系统分别由排量为40m³/r和10m³/r的齿轮泵供油。
采用成熟可靠的液压元件, 成熟稳定的液压传动控制技术。操作简单, 维修维护方便。与电气系统相配合, 保证主机安全稳定。

Hydraulic pilot control, precision control, good fine motion, and wide speed range. the hydraulic system for lifting operations of telescoping, luffing and lifting, and the travel hydraulic system share one constant power A8V107 twin pump, slewing system and pilot system is respectively supplied oil by displacement 40m³/r. and 10m³/r gear pump oil.
Hydraulic components use mature and reliable hydraulic units, mature and stable hydraulic drive control technology. Simple operation, easy maintenance and repair, combined with electrical system to ensure the machine safety and stability.

Crane Carrier

下车包括车架、履带架、行走装置。车架和履带架采用插入式连接, 拉板限位。
Crane carrier comprises car-body, crawler track and travel gear. Car-body and crawler are using the plug-in connection.

履带伸缩 / Track Frame Extension/Retraction

将下车行走切换阀, 切换到收梁状态, 通过履带伸缩油缸实现履带架的扩张与收缩。方便转场及狭窄环境通过。

Track frame extension/retraction is achieved by track frame telescopic cylinder, facilitate site transition and narrow environment through.

行走装置 / Travel Gear

由行走马达、减速机、驱动轮来实现整机的直线行走及转弯。空载行驶速度为0~2.6 km/h, 带载行驶速度为0~1.5 km/h。

By travel motor, speed reducer, drive sprocket to achieve the machine walk in straight line or turn around, while no load travel speed 0~2.6km/h with a load travel speed 0~1.5km/h.

吊钩 / Hook Block

名称 Name	25t吊钩 25t hook block	副起重吊钩 (2.8t) Auxiliary hook block (2.8t)
数量Qty.	1	1
备注Remark	标配standard	标配standard

平衡重 / Counterweight

零件名称Parts name	重量(吨)Weight (t)	数量Qty.
平衡重Counterweight	9	1

Safety Devices

安全装置包括急停开关、先导控制开关、力矩限制器、起升高度限位器、水平仪、回转锁止装置、三圈保护器等。

Safety devices comprise: emergency stop switch, pilot control switch, load moment limiter, hoist limit switch, level meter, slewing locking device, rope-end limiter, etc.

急停开关 / Emergency Switch

按下急停开关, 发动机熄火, 整车动作停止。
Press the emergency stop switch to stop the engine, and to stop all the machine movements.

先导控制开关 / Pilot Control Switch

按下开关后, 起重作业电气系统才能正常操作。
Press the switch, the electric system for lifting operation starts to a normal work.

力矩限制器 / Load Moment Limiter

当吊重量大于额定起重量, 吊臂仰角超出额定范围时, 力矩器会发出信号, 限制危险动作的继续进行。
When lifting load exceeds the total rated lifting capacity, and boom angle exceeds the rated limit, the load moment limiter will send a warning signal, and cut off crane movement to dangerous direction.

起升高度限位器 / Height Limiter

由主、副臂端部限位开关和重锤构成, 当吊钩中心起升至距吊臂滑轮中心约710mm时, 起升动作自动停止。
It consists of boom and jib end limit switch and the weight, which will automatically stop the hoisting movement when hook block center is raised 710mm to boom sheave center.

水平仪 / Level Meter

机棚前方装有水平仪, 监控地面是否满足作业要求。
A level meter is set on the front of engine hood, to monitor the ground surface for operation requirements.

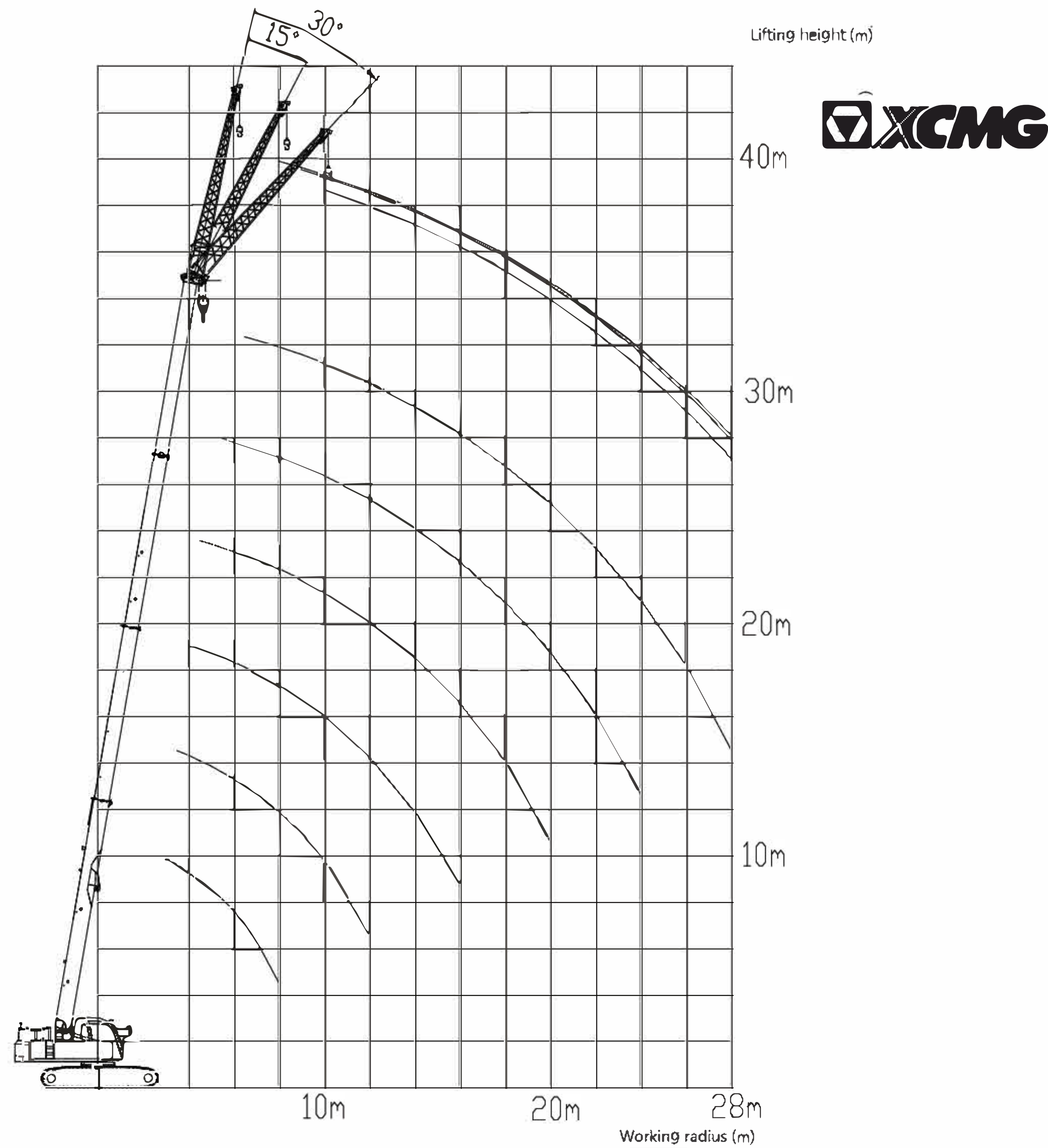
回转锁止机构 / Slewing Lock Mechanism

保证运输时转台有效锁止, 防止其自由滑转。
The device is used to lock the turntable during transport to avoid free swing.

三圈保护器 / Rope-end Limiter

当吊钩下降至卷扬钢丝绳剩余三至五圈时, 落钩自动停止。
The device is used to stop hook block lowering when the hook block lowering down and only three to five turns of wire rope left on the winch drum.

Working Area



Boom Lifting Load Chart

Boom condition, crawler track full extension, lifting standstill (no travel), Counterweight 9t, for 360° operation

Radius	10.6	15.1	19.6	24	28.5	33	Radius
3	25						3
3.5	25	17					3.5
4	24	17	16.9				4
4.5	22	17	16	12.2			4.5
5	18.9	17	15.2	11.6			5
5.5	16.1	16.5	14.5	11.1	9.1		5.5
6	14	14.4	13.8	10.7	8.7		6
6.5	12.2	12.6	12.9	10.2	8.4	7.4	6.5
7	10.9	11.2	11.4	9.8	8.1	7.2	7
8	8.7	9.1	9.3	9.1	7.5	6.6	8
9		7.6	7.8	7.9	7	6.1	9
10		6.4	6.6	6.7	6.5	5.7	10
12		4.8	4.9	5	5.1	4.9	12
14			3.8	3.9	4	4	14
16			3	3.1	3.2	3.2	16
18				2.5	2.6	2.6	18
20				2	2.1	2.2	20
22					1.7	1.8	22
24					1.4	1.5	24
26						1.2	26
28						0.9	28
Hook block	25t Hook block (299kg)						Hook block
Parts of line	10	9	7	5	4	3	Parts of line
Min. angle (°)	28.4	28.7	28.9	29.2	29.4	29.7	Min. angle (°)
Max. angle (°)	68.5	73.9	76.9	78.8	79.2	79.5	Max. angle (°)
2nd section	0	20%	40%	60%	80%	100%	2nd section
3rd section	0	20%	40%	60%	80%	100%	3rd section
4th section	0	20%	40%	60%	80%	100%	4th section

Boom Lifting Load Chart

Boom condition, crawler track full extension, travel with a load, Counterweight 9t, Travel with stable speed

Radius	10.6	15.1	19.6	Radius
3	25			3
3.5	25	17		3.5
4	23.7	17	16.9	4
4.5	19.1	17	16	4.5
5	15.8	16.2	15.2	5
5.5	13.5	13.8	14	5.5
6	11.7	12	12.2	6
6.5	10.2	10.6	10.7	6.5
7	9.1	9.4	9.6	7
8	7.3	7.6	7.8	8
9		6.3	6.5	9
10		5.4	5.5	10
12		4	4.1	12
14			3.2	14
16			2.5	16
Hook block	25t Hook block (299kg)			Hook block
Parts of line	10	9	7	Parts of line
Min. angle (°)	28.4	28.7	28.9	Min. angle (°)
Max. angle (°)	68.5	73.9	76.9	Max. angle (°)
2nd section	0	20%	40%	2nd section
3rd section	0	20%	40%	3rd section
4th section	0	20%	40%	4th section

Jib Lifting Load Chart

Jib condition, crawler track full extension, lifting standstill (no travel)

Crawler track full extension, Counterweight 9t, for 360°operation, Boom length 33m, Jib length 8.15m

Radius	0°		15°		30°		Radius
	Lifting load (t)	Lifting height (m)	Lifting load (t)	Lifting height (m)	Lifting load (t)	Lifting height (m)	
8	2.6	39.8					8
9	2.45	39.6	2.1	39.5			9
10	2.4	39.3	2	39.2	1.4	38.6	10
12	2.4	38.6	1.85	38.5	1.3	38	12
14	2.3	37.8	1.65	37.7	1.25	37.1	14
16	2.05	36.9	1.5	36.8	1.15	36.2	16
18	1.95	35.8	1.4	35.7	1.1	35.1	18
20	1.75	34.7	1.3	34.5	1.1	33.9	20
22	1.6	33.3	1.2	33.2	1.05	32.5	22
24	1.3	31.8	1.1	31.6	1	30.9	24
26	1	30	1.05	29.9	0.95	29.1	26
28	0.8	28.1	0.7	27.9	0.7	27.1	28

Note:

1. The values given in the table are the rated lifting capacity for the crane set up on the solid and level ground, rated lifting cranes. The radius in the table is the actual radius of the boom with a lifting load.

2. The crane can travel with a load with boom length $\leq 19.6m$, the other boom and jib conditions do not allow travel with a load and travel with no-load.

3. Fully extended crawler track must be required for travel with a load.

4. Total two kinds of hook block, 25t hook block (for boom), 2.8t hook block (for jib), the weight of each hook block is in the right table:

Type	Weight of hook block	
	25t hook block	2.8t hook block
Weight	299kg	58kg

