ANSI/ASME B 30.5

SCA2600A

LATTICE BOOM CRAWLER CRANE

SANY

Max Boom Length: 301.8ft (92m)
Max Fixed Jib Combination: 203.4ft + 137.8ft (62m + 42m)
Max Luffing Jib Combination: 203.4ft + 206.7ft (62m + 63m)

The parameters and diagrams in the brochure is only for reference, which is subject to further update in real machine.

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Lattice Boom Crawler Crane

SCA2600A

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SCA2600A
LATTICE BOOM CRAWLER CRANE
300 UST (272 mt) LIFTING CAPACITY

MADE FOR AMERICA

Main Characteristics

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Product Specification

Engine

- Model: Cummins QSG12 Diesel engine;
- Type: 4-stroke, water-cooled, vertical in-line 6 cylinders, direct injection, turbo-charger, intercooler, complied with US EPA Tier F4(f) Emission Standard;
- Displacement: 720 in3 (11.8L);
- Max. Rated Power: 450 HP/1800rpm;
- Max. Torque: 1,600 ft-lb/1400rpm;
- Starter: 24V-8 HP;
- Radiator: Fin type aluminum plate core;
- Air cleaner: Dry type system with main filter element, safety element and resistance indicator;
- Throttle: Electrically controlled hand and foot throttle;
- Fuel filter: Replaceable paper element;
- Batteries: Two 12V×180Ah capacity batteries, connected in series (24V system);
- Fuel tank capacity: 132Gal (500L).

Hydraulic System

- Main pumps: Three variable displacement piston pumps provide power for the main machine functions;
- Gear Pumps: Two gear pumps provide power for radiator and control circuit;
- Control: Electrically controlled positive hydraulic flow control allows for safe and precise multifunction operation;
- Oil Cooler: Fan cooled heat exchanger provides multi stage hydraulic oil cooling;
- Filter: Peak flow, high efficiency filter with bypass valve and replacement filter indicator. Indicator will remind user when its time to replace filter;
- Max. pressure of system: 4,786 psi;
- Main/aux. hoist and travel system: 4,796 psi;
- Swing system: 4,602 psi;
- Control system: 508 psi;
- Hydraulic Tank Capacity: 211Gal (800L).

Main and Aux Hoist Winches

- The main and aux. winches are driven independently and feature a compact design that is easy to assemble. The maintenance-free wet brake ensure safe winch operation;
- Variable displacement hydraulic motor is load sensing and adjust automatically to provide high line speed while maintaining line pull;
- Rotation resistance rope provides safe load lifting and long service life;
- Wire rope button end termination provides convenient and easy socket installation;
- Free fall winches are optional.

Main Hoisting Winch	Drum diameter (non free fall)	24.8" (630mm)
	Drum diameter (free fall)	33" (837mm)
	Rope speed on the outermost work layer (non free fall)	0~410ft/min (0~125m/min)
	Rope speed on the outermost work layer (free fall)	0~384ft/min (0~117m/min)
	Wire rope diameter	1.1" (28mm)
	Wire rope length for main hoisting winch	1,804.5' (550m)
	Rated single line pull	33.1Klb (15t)
Auxiliary Hoisting Winch	Drum diameter (non free fall)	24.8" (630mm)
	Drum diameter (free fall)	33" (837mm)
	Rope speed on the outermost work layer (non free fall)	0~410ft/min (0~125m/min)
	Rope speed on the outermost work layer (free fall)	0~384ft/min (0~117m/min)
	Wire rope diameter	1.1" (28mm)
	Wire rope length for aux. hoisting winch	1,279.5' (390m)
	Rated single line pull	33.1Klb (15t)

Product Specification

Boom Hoist Winches

- Including: winches for boom and luffing jib;
- Winches with grooved lagging allow for multilayer spooling. Hydraulic motor drives the planetary gear reducer to provide multifunction and fine inching control. Spring load brake is hydraulic released.

Boom Hoist Winch	Drum diameter	24.8"' (630mm)
	Rope speed on the outermost work layer	0~427ft/min (0~130m/min)
	Wire rope diameter	1.1" (28mm)
	Wire rope length of boom luffing winch	925.2' (282m)
	Rated single line pull	50.7Klb (23t)
Luffing Jib Hoist Winch	Drum diameter	1'6" (470mm)
	Rope speed on the outermost work layer	0~253ft/min (0~77m/min)
	Wire rope diameter	.79" (20mm)
	Wire rope length of jib luffing winch	1345.1' (410m)
	Rated single line pull	17.6Klb (8t)

Swinging Mechnism

- Large swing motor drives a planetary gear reducer to provide smooth 360° rotation. The swing speed is variable and the max speed is 1.8 rpm. Swing system has free swing and auto brake mode. Swing brake is automatic applied when control lever is in neutral to prevent movement during travel and transportation. Swing bearing is a three-row roller with external gears.

Cab and Control

- The new operator cab is designed with PORSCHE and features a smooth outline that has a distinct brand identification. The spacious cab has a fully enclosed steel frame, sliding door, and large areas of high strength tempered glass that provide the operator a wide field of vision. The cab tilts up 25° providing the operator a panorama view and reducing fatigue. The cab and control layout allow for ergonomic operation keeping the operator comfortable;
- Monitor: Dual touch screen display with simple user friendly interface;
- Armrest Console: Control handles electrical switches, emergency stop, and ignition switch are located on the left and right. Arm console can be adjusted independent of the seat;
- Seat: Multi-way adjustable floating seat;
- HVAC: Powerful air conditioner and heater with optimized vent locations. Air conditioner can drop cab temperature from 131°F (55°C) to 81.5°F (27.5°C) within 20 minutes;
- Cameras: Multiple cameras can be displayed on the monitor at the same time. This provides the operator with a real time view of winches, right side of machine, rear of machine , and view from boom tip;
- Dual axis controls for travel, swing, main, aux, boom hoist, and luffing jib hoist winches.

Counterweight

- Counterweight tray and block nest together for east assembly, disassembly and transportation;
- Rear counterweight: total weight 220.5Klb (100mt), 13.2Klb (6mt) counterweight block x 14, 35.3Klb (16mt) counterweight tray x 1;
- Carbody counterweight: total weight 88.2Klb (40mt), 44.1 Klb (20mt) x 2.

Name	Quantity	Length	Width	Height	Unit Weight
Carbody Counterweight	2	18' (5.48m)	5'8" (1.72m)	2' (0.6m)	44.1Klb (20mt)
Rear Counterweight Block	14	7'1" (2.17m)	6'5" (1.96m)	1'8" (0.51m)	13.2Klb (6mt)
Rear Counterweight Tray	1	24'7" (7.5m)	6'5" (1.96m)	2'4" (0.7m)	35.3Klb (16mt)

Product Specification

Carbody

- Side frames pin with hydraulic cylinders to the carbody for easy assembly and disassembly. High-strength steel welded frame is designed with a large chassis to improve the stability of the crane.

Crawler Assembly

- Each side frame is equipped with an independent travel driving motor. The variable speed travel system is configured with speed options to meet various requirements: low speed provides max tractive effort and provides 100% pick and carry. High speed provides fast job site transfer.

Track Pad

- Manufactured by advance casting techniques and materials providing high strength and excellent wear resistance;
- 47.2in (1200mm) wide and each side frame has 74 track pads.

Jack Cylinder

- Standard jack cylinders make jobsite transport easier.

Boom

- Lattice structure with high-strength steel chords. Each section is pinned together with pins;
- The length of the boom ranges from that (65.6ft/20m) of the basic boom to the maximum length (301.8ft/92m) and it can be incrementally changed by 9.8ft (3m).

Fixed Jib

- Lattice structure with high-strength steel chords. Each section is pinned together with pins;
- The length of fixed jib ranges from 42.7ft (13m) to 137.8ft (42m), which can be incrementally changed by 19.7ft (6m) and can be installed on boom from 95.1ft (29m)–203.4ft (62m).

Luffing Jib

- Lattice structure with high-strength steel chords. Each section is pinned together with pins;
- The length of the luffing jib ranges from 68.9ft (21m) to 206.7ft (63m), incrementally changed by 9.8ft (3m), which can be installed on boom from 85.3ft (26m)–203.4ft (62m).

Hook Block

- There are five hook capacity for options:

Hook Type	Max. lifting weight	QTY	No. of sheaves	Unit weight
330 UST	661.4Klb (300mt)	1	9	10.9Klb (4.9mt)
176 UST	352.7Klb (160mt)	1	5	7.1Klb (3.2mt)
110mt	220.5Klb (100mt)	1	3	5.1Klb (2.3mt)
55mt	110.2Klb (50mt)	1	1	3.7Klb (1.7mt)
17.6 UST ball hook	35.3Klb (16mt)	1	None	2.0Klb (0.9mt)

Safety Devices

Assembly/Work Mode Switch

- In assembly mode, some of the safety devices are bypassed for helping crane assembly, for example, jib lower limit, boom angle limit and overload;
- In work mode, all safety devices are active.

Emergency Stop

- When this button is pressed down power supply to whole machine is cut off and all actions are stopped.

Load Moment Indicator (LMI)

- The proprietary load moment indicator is independently -developed by Sany, which is a specially designed over-load protective system for SCA series crawler crane, with performance structural parameters of all series of crawler cranes directly stored inside, such as bearing curve, boom and jib weight, center of gravity, and other geometrical parameters. This system maximizes the utilization efficiency of the crane while guaranteeing the lifting safety;
- The independent safety control system fully controlled by computer, the LMI can automatically detect the load weight, work radius, and boom angle, compare rated capacity with actual load, actual radius and actual boom angle. In normal operation, the LMI can intelligently determine and cut off the crane from dangerous operation. It also has a black box function and record overload information;
- LMI consists of a 13.6in (345mm) large colorful display, computer, angle sensors, load sensors and pressure sensors.

Over-hoist Protection of the Main and Auxiliary Hooks (Anti Two Block)

- It is used to prevent the over-hoist of the hook. When the lifting hook is raised to a certain height, the limit switch is activated, and hook hoisting will be automatically cut off by the control system. Warning will be displayed in monitor and alarm will sound. At this moment, only hook lowering is allowed to prevent over-hoist action.

Over-release Protection Device of the Main and Auxiliary Hook (Third Wrap Indicator)

- It is used to prevent the wire rope over-release. When the wire rope is released to the last three wraps, the limit switch will activate, and the releasing of rope will be automatically stopped by the control system. Warning will be displayed in monitor and alarm will sound. At this moment, only rope retraction is allowed to prevent over release action.

Function Lock

- If the function lock level is not in work position, all the other handles won't work, which prevents any mis-operation caused by control handle movement.

Boom/Luffing Jib Hoist Drum Lock

- Pawl lock is used on boom hoist winch, which needs to unlock by switch before operation, in order to prevent mis-operation of handles and ensure safety during nonwork time.

Safety Devices

Crane boom/jib limit device

- When the boom angle exceeds 85° or 88° (LJ configuration) jib angle exceeds 75°, corresponding limit switch will be triggered, and the control system will automatically cut off the boom hoisting. Warning will be displayed in monitor and alarm will sound. At this moment, boom/jib luffing winch won't hoist but it can still lower down;
- When the boom angle is less than 30° or jib down angle is less than 15°, the control system will automatically cut off the boom/jib from further lowering. Warning will be displayed in monitor and alarm will sound. At this moment, boom/jib luffing winch won't be able to lower. This protection is automatically controlled by Load Moment Indicator.

Boom Angle Indicator

- It is a pendulum-type angle indicator fixed on one side of the boom base.

Hook Latch

- The lifting hook is installed with a baffle plate to prevent wire rope from falling off.

Backstop Device

- The boom and the jib are respectively equipped with a pair of backstop cylinders. The high pressure of the cylinder limit boom travel at high angles and provide cushion to prevent vibration. When the jib reaches max angle the backstop limit jib travel.

Camera System

- High-definition camera on boom tip, on each winch, at the rear of the upper and dual displays consist of the camera, which can display four camera views at the same time. Real-time monitoring of each winch help ensure safe operation. The boom tip camera can zoom in/out as needed;
- Components of the boom tip camera: wireless remote transmitter, wireless remote receiver, zoom camera;
- The video recorder can store up to 76 hours of video.

Tri-color Load Indicator

- The load indication light has three colors, green, yellow and red, and the real time load status is presented on the display. When the actual load is smaller than 90% of rated load, the green light is on;
- When the actual load is larger than 90% and smaller than 100%, the yellow light is on, the alarm light flashes and sends out intermittent sirens;
- When the actual load reaches 100% of rated load, the red light is on, the alarm light flashes and sends out continuous sirens;
- When the actual load reaches 102% of rated load, the system will automatically cut off the crane operation.

Black Box

- It is able to record the operation data and machine movement, and analyze the remaining running conditions and service life of machine based on the actual performance.

Safety Devices

Pharos (Aircraft Warning Light)

- Light mounted on the top of boom/jib that flashes at night.

Anemometer

- It is mounted on the top of the boom/jib and displays the wind speed in the monitor in the cab.

Electronic Level Indicator

- It displays the tilting angle of the crane on the monitor in real time and protects the safe operation of the crane.

Lightning Protection Device

- It includes the lightning protection device and the surge protection device, which can effectively protect the electric system elements and workers from lightning.

Swing and Traveling Alarm

- During swing and traveling, the alarm will sound to alert the personnel around the crane. The alarm can be shut off through the display.

Engine Power Limit Load Adjustment and Stalling Protection

- The controller can monitor the engine power to prevent stalling.

Proactive Safety Control Technology

- Reduce the swinging speed automaticlly based on boom length;
- Reduce the action speed when approaching safety limit, to prevent sudden stops;
- Real-time monitor of hydraulic oil temperature. Based on hydraulic temperature activity may be limited to protect hydraulic components.

Illuminating Light

- The machine is equipped with the low beam light and high beam light at the front of the cab, illumination light in cab, and other lights for night operation, boom lights to improve the visibility during operation.

Rear View Mirror

- It is installed on the left of the operator's cab for monitoring the rear part of the machine.

Service

When we say that SANY machines are built to endure, we're really talking about service. SANY equipment is intentionally designed to be easily and efficiently serviced, with features such as wide compartment doors and easy access to make maintenance more efficient. Because ease of service means back in service.

We've Got Your Back

To provide peace of mind and ensure maximum uptime, all SANY cranes are backed by a robust 3-year/3,000-hour standard warranty. That's our commitment to keeping your fleet running at peak performance.

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***WARRANTY APPLIES TO 2022 MODELS**

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