SANY®

2023 0516-V1.1

SCA800TB

Telescopic Boom Crawler Crane
88 UST(80 Tons) Lifting Capacity

Quality Changes the World

Max. lifting moment: 2170Klb·ft(300t·m)
Max. boom length: 154.2ft(47m)
Max. boom + jib length: 154.2ft+57.4ft(47m+17.5m)

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

www.sanyglobal.com

Telescopic Boom Crawler Crane

SCA800TB

SCA800TB
TELESCOPIC BOOM CRAWLER CRANE
88 UST(80 TONS) LIFTING CAPACITY

QUALITY CHANGES THE WORLD

Major Specifications

> 03

Product Specification

Engine

- Model: Cummins L9-C325 242kW, Stage V.
- Type: 4 cycle, water-cooled, vertical in-line 6, direct injection, turbo-charger, intercooler.
- Displacement: 2.4Gal (8.9L).
- Rated power: 242kW/1800rpm.
- Operation power: 242kW/1800rpm.
- Max. torque: 1527N.m/1500rpm.
- Cooling system: Temperature-adjustable, pressurized water cycle system.
- Starter: 24V-5.0kW.
- Radiator: Fin type core in aluminum.
- Air cleaner: Dry type main filter element, safety element core and resistance indicator.
- Throttle: Grip type hand throttle, electrically controlled.
- Fuel filter: Replaceable paper element.
- Batteries: Two 12V×180Ah capacity batteries, connected in series.
- Fuel tank capacity: 105.7Gal (400L).

Electrical Control System

- SANY developed SYIC-II integrated control system is adopted with high integration, precise operation and reliable quality.
- Control system consists of power system, engine, main control system, LMI system, auxiliary system and safety monitoring system.
- CAN BUS is used for data communication between controller, monitor and the engine.
- Monitor: The working parameters and status are shown on the monitor, such as the engine speed, fuel volume, engine oil pressure, servo pressure, wind speed, engine working hours, lifting conditions and boom angle.

Hydraulic System

- Main pumps: Open variable displacement piston pumps of large displacement is adopted to provide oil supply for main actuators of main machine.
- Gear pump: Dual gear pump for swing, radiator and control circuit.
- Control: Main pump adopts electrically-controlled positive flow control, winch motor adopts limitless adjustable piston motor of variable displacement. The operating components are two cross hydraulic handle, one hydraulic pedal for telescopic boom, one dual travel pedal control valve to control various actuator proportionally.
- Way of cooling: Heat exchanger, fan core and multi-stage cooling.
- Filter: Large flow, high precision filter, with bypass valve and transmitter, which can remind the user to replace the filter element in time.
- Max. pressure of system:
  Main/aux. load hoist and travel system: 32Mpa.
  Boom hoist cylinder: 32 Mpa.
  Swing system: 20 MPa.
  Control system: 5 MPa.
- Hydraulic tank capacity: 251Gal (950L).

Main/aux. Load Hoist Mechanism

- Pump and motor: Dual variable displacement with speed adjustable, to realize higher efficiency and lower down the energy. Winch balance valve combined with anti-hook sliding technology can make sure the load lifting steady.
- Winch brake adopts wet type and spring loaded fin type normally engaged brake, spring force braking, oil pressure released.
- Main and aux. load hoist system adopts piston motor of variable displacement to drive planetary gearbox.

Main Load Hoist Winch	Rope speed on the outermost layer	0-459.3ft/min (0-140m/min)
	Wire rope diameter	0.87" (Φ22mm)
	Wire rope length	803'9" (245m)
	Rated single line pull	17.6Klb (8.0t)
Axu. Load Hoist Winch	Rope speed on the outermost layer	0-459.3ft/min (0-140m/min)
	Wire rope diameter	0.87" (Φ22mm)
	Wire rope length	475'8" (145m)
	Rated single line pull	17.6Klb (8.0t)

Product Specification

Boom Hoist Mechanism

- dual-acting single piston hydraulic cylinder, with safety balance valve, and a luffing angle of -1.5°~ 80°. Luffing down through self-weight to reduce energy consumption and increase stability of luffing down operation.

Swing Mechanism

- Swing brake adopts wet, spring loaded, normally-closed brake, and braking through spring force.
- Swing system, equipped with integrated swing buffer valve, has free slipping function. It is featured in steady start, control and excellent inching function.
- Unique swing buffer design and more steady brake.
- Swing drive: external gear swing drive with 360° swing range, and the max. swing speed is 2r/min. The max. drive pressure can reach 20MPa.
- Swing lock: cylinder lock device can make sure the upperworks can be locked on four directions after the work is done or during transport, which is more convenient and reliable.
- Swing ring: Single row ball bearing.

Counterweight

- Counterweight are designed into blocks for self-assembly and easier transport.
- Counterweight tray and blocks are piled up for easier assembly and transport.
- Rear counterweight: Total 57.3Klb(26t) and capable of self-assembly.
- Carbody counterweight: 6.6Klb×2(3t×2) at the front and rear of carbody.

Upperworks

- High-strength steel weld framework, with no torsion or deformation. The parts are laid out in the way that is easier for maintenance and service.

Cab and Control

- Novel operator's cab is bright with ample space, providing wider view and can tilt 20°. There are low and high-beam lights, back-view mirror, heater and A/C, radio and other functions. The layout of seat, handles, control buttons are designed with ergonomic principles to make operation more comfortable.
- Cab layout: Integrated 10.4-inch touch screen, programmable smart switches, vibration handles are offered as optional and man-machine interaction interface are more perfect.
- Armrest box: On the left and right armrest box are control handles, electrical switches, emergent stop and ignition switch. The armrest box can be adjusted along with the seat.
- Seat: Multi-way and multi-level floating adjustable seat with unload switch.
- A/C: Cool and heat air; optimized air channels and vents.
- Multiple cameras can be presented on the monitor at the same time to realize real-time monitoring of wire rope on each winch, conditions behind the counterweight and surrounding the machine.

Product Specification

Travel Drive
- Independent travel driving units are adopted for each side of the crawler, to realize straight walking and turning driven by travel motor through gearbox and drive wheel.
- There are high-speed and low-speed for travel as fast as 2.5km/h.
- Gradeability is 30%.

Travel Brake
- Embedded, wet, spring-loaded and normally-closed brake, which is braking with spring force and released by oil pressure.

Crawler Extension and Retraction
- The crawlers can extend and retract under high pressure provided by auxiliary system and electrically-controlled cylinder. During normal operation, the crawlers must be extended, and can be retracted during transport to stay on the machine.

Crawler Tensioning
- The jack is used to push the guide wheel and insert the shim to adjust crawler tension.

Steering System
- The machine is capable of pivot turning and single track turning.

Track Pad
- High-strength alloy cast steel track pad can prolong the service life. They are 2'9"(850mm) wide, and the total amount is 52pcs ×2.

Track Roller
- Maintenance-free track roller.

Outrigger
- Outrigger cylinder is offered to facilitate the track frame disassembly during jobsite transfer.

Boom
- The boom is made of high-strength steel structure with U-shape section area, with five sections, of which the basic boom is 40'(12.2m) and the max. length is 154'2"(47m);
- Dual cylinder full power rope row telescoping.

Fixed Jib
- Two lengths of fixed jib, 33'6"(10.2m) and 57'5"(17.5m), each can be installed in angle 0°, 15°, 30°.

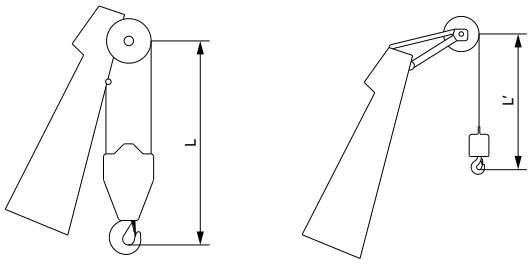
Boom Point Sheave Block
- Weld structures, connected to the boom through pins and used for aux. hook.

Hook Block

SN	Load Capacity	Sheave block	Weight	QTY
1	88UST (80t)	5	2.3Klb (1.05t)	1
2	50UST (45t)(optional)	3	1.1klb (0.48t)	1
3	16UST (15t)(optional)	1	0.28klb (0.34t)	1
4	10UST (9t)	0	0.6klb (0.26t)	1

- Note: the above-mentioned operating equipment is full-up configuration. The actual configurations are subject to contract.

Hook Limitation Height



Hook	L	Hook	L'
88UST (80t)	11.5ft (3.5m)	10UST (9t)	9.8ft (3m)

Safety Devices

Integrated LMI Control System

- LMI control system is standard offering and it is calibration-free. It ensures the operation safety and improves efficiency.
- LMI system can automatically detect the load weight, working radius and boom angle, to compare with rated load weight and actual load, work radius and boom angle. In normal operation, it can make judgment and cut off the actions towards dangerous directions. It also acts as black box to record overload information.
- Composition: Monitor, controller, length and angle sensor, pressure sensor.

Assembly/Work Mode Control Switch

- In assembly mode, the over-hoist protection, LML are all off work to facilitate crane assembly.
- In work mode, all safety devices activate to protect the operation.

Emergent Stop

- In emergent situation, this button is pressed down to cut off the power supply of whole machine and all actions stop.

Over-hoist Protection of the Main/ Auxiliary Hooks

- Height limit device is installed at the tip of main boom and jib, which prevents the hook lift up too much. When the hook lifts up to the limit height, the limit switch activates, buzzer on the left control panel sends alarm, and failure indicator light starts to flash, the hook hoisting action is cut off automatically.

Over-release Protection Device of the Main/Auxiliary Winch

- Three-wrap protector is installed on main and aux. load hoist winches to prevent over-release of wire rope. When the rope is paid out close to the last three wraps, the limit switch acts, and the system sends alarm through buzzer and show the alarm on the instrument panel, automatically cutting off the winch 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 accidental collision.

Swing Lock

- Electrical lock is equipped, and swing action can only happen when the lock is released, so as to prevent any operational error and ensure the safety.
- The cylinder lock can lock the upperworks at four directions.

Hook Latch

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

Monitoring System

- Remote Monitoring system is a standardized offering to provide functions like GPS locating, GPRS data transfer, machine status inquiry and statistics, operating data monitoring and analysis, remote diagnosis of failures.

Tri-color Load Indicator

- The load indication light has three colors, green, yellow and red, indicating the real-time load. When the actual load is smaller than 90% of rated load, the green light is on.
- When the actual load is>90% and≤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 on, the alarm light flashes and sends out continuous sirens.
- When the actual load is 102% of rated load, the system will automatically cut off the crane's dangerous operation.

Flash Alarm

- When the LMI system is powered on, the flash alarm starts to flash.

Swing Indicator Light

- The swing indicator light flashes during traveling or swing.

Seat interlock protection

- If the operator leaves the seat, all control handles will be locked immediately to prevent any mis-operation due to accidental collision.

Illuminating Light

- The machine is equipped with, low-beam light in front of machine, lamps in operator's cab and boom lights, so as to increase the visibility during work.

Rearview Mirror

- It is installed on the front of the operator's cab and the handrail of the right platform and the winch.

Electronic Level Gauge

- It can show the upperworks tipping angle on the monitor.

Monitor system (zoom camera)

- Two cameras and illumination lights are installed on the tail of rotating bed, which will show the conditions on the rear and winches on the monitor. The camera can zoom in/out as needed.
- Components: Wireless remote transmitter, wireless remote receiver, zoom camera.

B

SCA800TB
TELESCOPIC BOOM CRAWLER CRANE
88 UST(80 TONS) LIFTING CAPACITY

QUALITY CHANGES THE WORLD

Technical Parameters

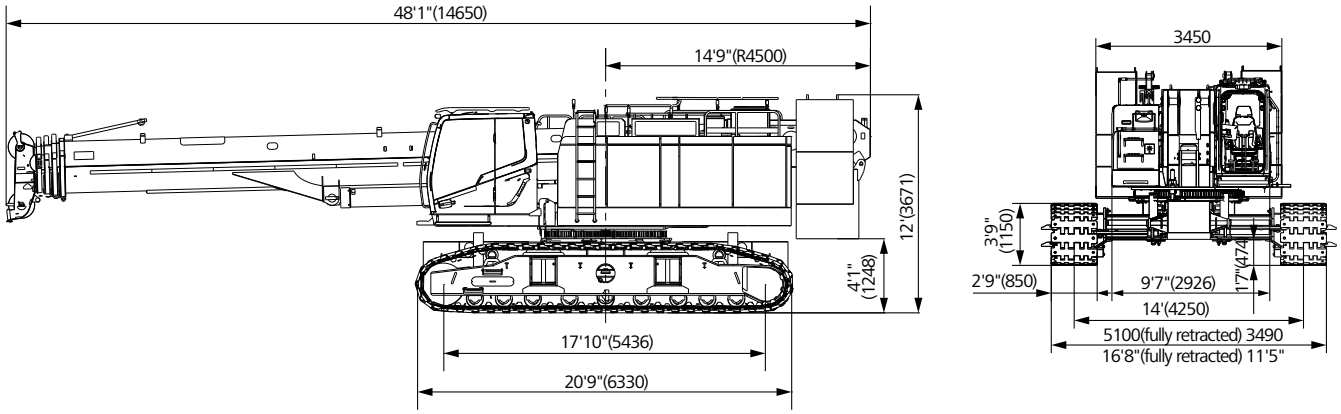
> 08

Main Performance Parameters

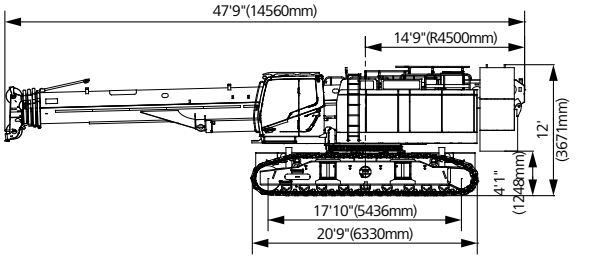
Major Performance & Specifications of SCA800TB			
Performance indicators		Unit	Parameter
Outline dimension	Machine length	ft(mm)	47.77(14560)
	Machine width	ft(mm)	16.73 (5100) (Extended) 11.45 (3490) (Retracted)
	Machine height	ft(mm)	12.0 (3670)
	Distance of centers between drive and idle wheels	ft(mm)	17.8 (5436)
	Track shoe width	ft(mm)	2.8 (850)
Boom configuration	Maximum rated load capacity	Klb(t)	176.4 (80)
	Boom length	ft(m)	40~154.2 (12.2~47)
	Boom angle	°	-1.5~80
	Max. rated load moment	Klb·ft(t·m)	2170Klb·ft(300)
Jib configuration	Longest boom + longest jib	ft(m)	154.2+57.4(47+17.5)
	Boom to jib angle	°	0、15、30
Operation speed	Rope speed of main/aux. load hoist	ft/min(m/min)	0-459.4 (0~140)
	Boom full up/down duration	s	80/105
	Boom full extension/retraction duration	s	100/125
	Swing speed	rpm	0~2
	Travel without load	km/h	0~2.5
Engine	Engine		L9-C325 242kW stage V
	Rated power	kW/rpm	242/1800
Wire rope	Diameter	in(mm)	0.87 (Φ22)
Transport parameter	Machine weight	Klb(t)	194.4 (88.2)
	Weight of largest single piece	Klb(t)	78.7 (35.7)
	Transport dimensions of basic crane (dismantling crawler frame) length×width×height	ft(mm)	48.1×9.8×10.2 (14560×3000×3100)
Other parameters	Average ground bearing pressure (base boom)	MPa	0.09
	Min. swing radius	ft(mm)	14.8 (4500)

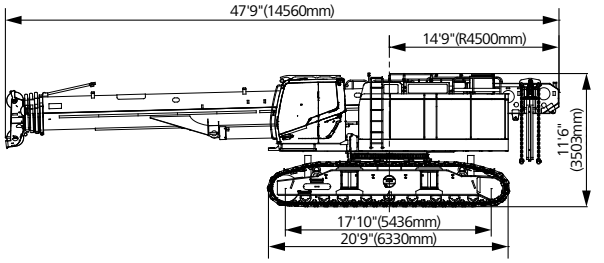
Unit: ft (mm)

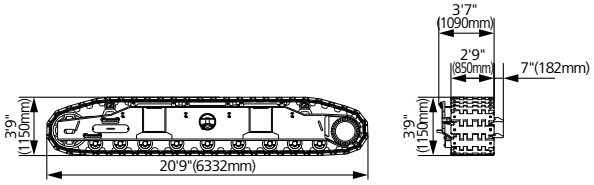
Dimensions

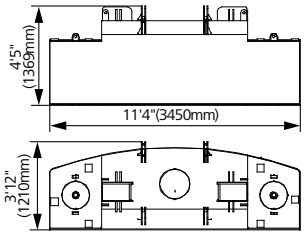


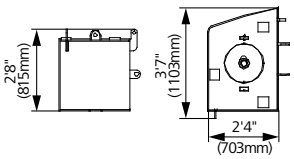
Transport Dimension

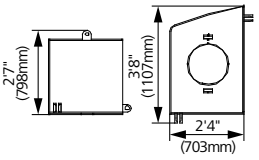












Whole machine	×1
Length (L)	47.8ft(14.56m)
Width (W)	11.5ft(3.49m)
Height (H)	12ft(3.67m)
Weight	194.4Klb(88.2t)

Basic machine (with jib)	×1
Length (L)	47.8ft(14.56m)
Width (W)	11.5ft(3.49m)
Height (H)	11.5ft(3.50m)
Weight	121Klb(54.9t)

Crawler frame	×2
Length (L)	20.8ft(6.33m)
Width (W)	3.6ft(1.09m)
Height (H)	3.8ft(1.15m)
Weight	21.2Klb(9.6t)

Counterweight tray	×1
Length (L)	11.3ft(3.45m)
Width (W)	3.97ft(1.21m)
Height (H)	4.49ft(1.37m)
Weight	36.4Klb(16.5t)

Rear counterweight I	×2
Length (L)	2.3ft(0.70m)
Width (W)	3.6ft(1.10m)
Height (H)	2.7ft(0.82m)
Weight	5.3Klb(2.4t)

Rear counterweight II	×2
Length (L)	2.3ft(0.70m)
Width (W)	3.64ft(1.11m)
Height (H)	2.62ft(0.80m)
Weight	5.3Klb(2.4t)

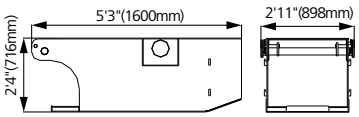
Transport Dimension

Remarks:

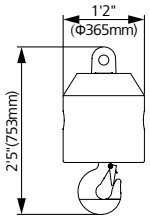
① . The transport dimensions of each part in the table are schematic, not proportional to the real parts. The dimensions are designed value without packing.

② . The Weight is designed value that the actual manufactured part may deviate a little. The total weight of counterweight is 57.3Klb(26t).

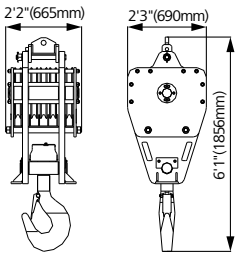
③ . The above dimensions and weight is subject to change due to product upgrading.



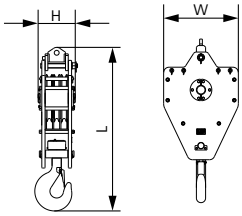
Carbody counterweight	×2
Length (L)	6.6ft(1.60m)
Width (W)	3.0ft(0.90m)
Height (H)	2.4ft(0.72m)
Weight	6.6Klb(3.0t)



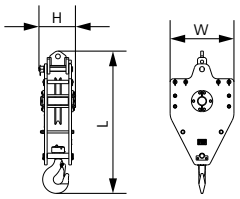
10UST (9t) hook block	×1
Length (L)	2.5ft(0.75m)
Width (W)	1.2ft(0.37m)
Height (H)	1.2ft(0.37m)
Weight	0.41Klb(0.19t)



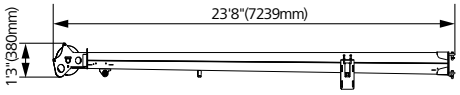
88UST (80t) hook block	×1
Length (L)	6.1ft(1.86m)
Width (W)	2.3ft(0.69m)
Height (H)	2.2ft(0.66m)
Weight	2.2Klb(1.0t)



50UST (45t) hook (optional)	×1
Length (L)	5.0ft(1.52m)
Width (W)	2.3ft(0.69m)
Height (H)	1.2ft(0.37m)
Weight	1.1Klb(0.48t)

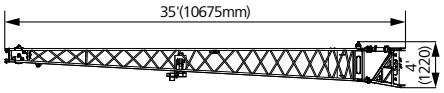


16UST (15t) hook (optional)	×1
Length (L)	4.4ft(1.34m)
Width (W)	1.9ft(0.60m)
Height (H)	1.1ft(0.34m)
Weight	0.61Klb(0.28t)



23.0ft (7m) swing-away	×1
Length (L)	23.8ft(7.24m)
Width (W)	1.2ft(0.38m)
Height (H)	1.7ft(0.51m)
Weight	0.57Klb(0.26t)

Transport Dimension

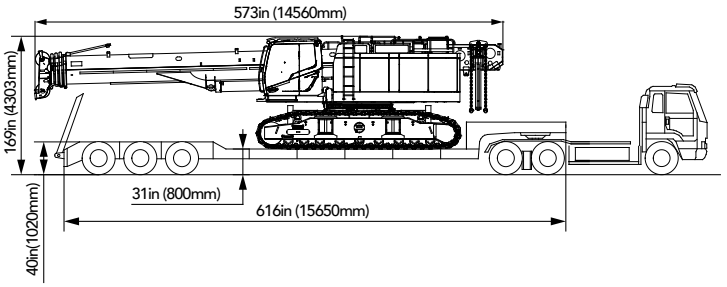


32.8ft (10m) jib section	×1
Length (L)	35.0ft(10.68m)
Width (W)	2.5ft(0.76m)
Height (H)	4.0ft(1.22m)
Weight	1.5Klb(0.69t)

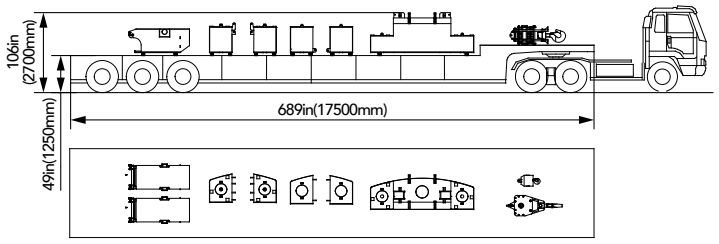
Transport Plan

Transport plan 1

Low-deck trailer 1	▪ 46ft (14m)
Part (s)	▪ Total width: 137in (3490mm) ▪ Basic machine ×1
Weight	▪ 121Klb (54.9t)



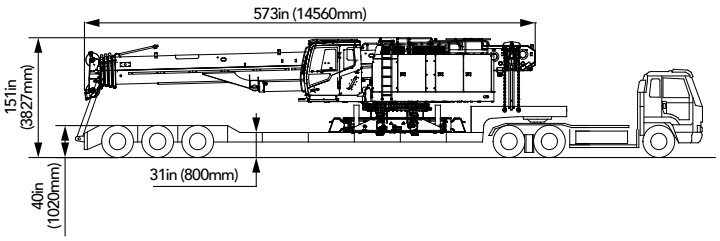
Trailer 2	▪ 57ft (17.5m)
Part (s)	▪ Total width: 118in (3000mm) ▪ Counterweight tray ×1 ▪ Counterweight block I ×2 ▪ Counterweight II ×2 ▪ Carbody counterweight ×2 ▪ 88UST (80t) hook block ×1 ▪ 10UST (9t) hook block ×1
Weight	▪ 73.4Klb (33.3t)



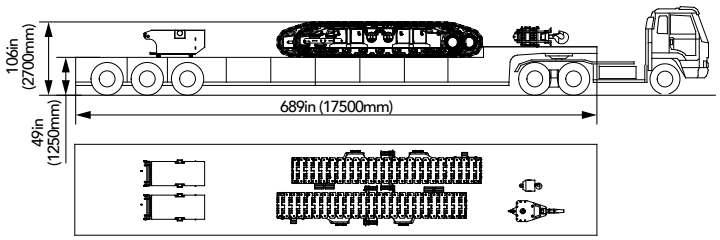
Transport Plan

Transport plan 2

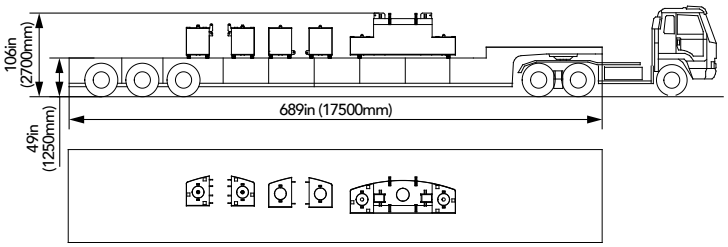
Low-deck trailer 1	▪ 46ft (14m)
Part (s)	▪ Total width: 137in (3490mm) ▪ Basic machine ×1
Weight	▪ 78.9Klb (35.8t)



Trailer 2	▪ 57ft (17.5m)
Part (s)	▪ Total width: 118in (3000mm) ▪ Carbody counterweight ×2 ▪ Left crawler ×1 ▪ Right crawler ×1 ▪ 88UST (80t) hook block ×1 ▪ 10UST (9t) hook block ×1
Weight	▪ 58.2Klb (26.39t)



Trailer 3	▪ 57ft (17.5m)
Part (s)	▪ Total width: 118in (3000mm) ▪ Counterweight tray ×1 ▪ Counterweight block I ×2 ▪ Counterweight II ×2
Weight	▪ 57.3Klb (26t)



Note:

① . The basic machine and other components transported shall be secured on the trailer with wire rope or slings, protected with anti-wearing pads.

② . Do not bind boom during boom transport to avoid any damage to the boom. Do not touch the boom/jib with wire rope or other hard slings to avoid abrasion.

③ . The transport plan provided in this section is only for reference. The actual plan needs to be adjusted based on the transport vehicle available and the transport codes.

④ . The components provided in this section are standard configuration. Make adjustment based on actual components if there are optional parts, and the dimension and weight will vary accordingly.

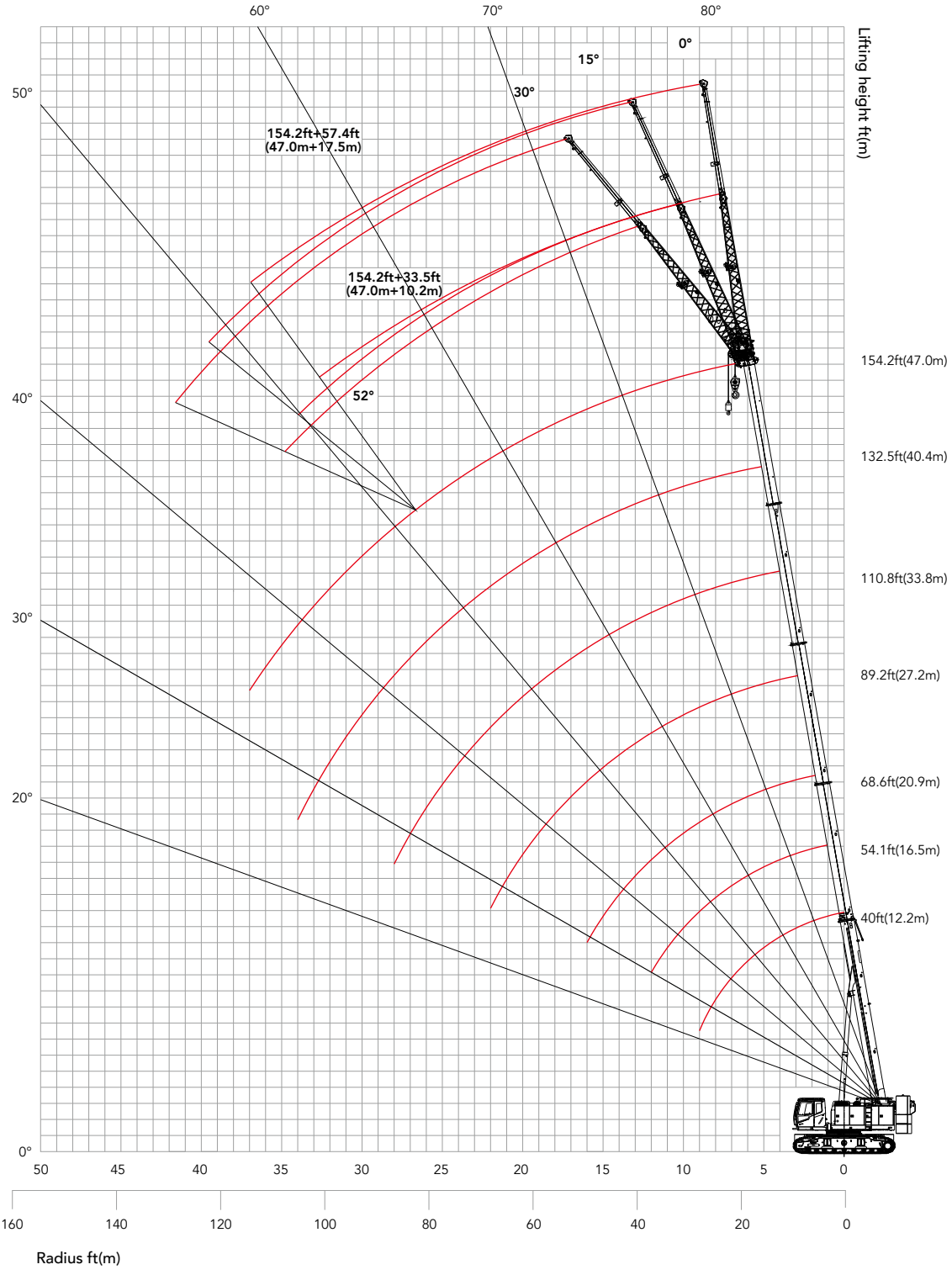
C

SCA800TB
TELESCOPIC BOOM CRAWLER CRANE
88 UST(80 TONS) LIFTING CAPACITY

QUALITY CHANGES THE WORLD

Configurations

Working range of H



Unit: Klb

Load Chart of H

H Configuration load chart (Metric)								
Radius (m)	Rear Counterweight is 26t, Carbody Counterweight 6t							Radius (m)
	12.2	16.5	20.9	27.2	33.8	40.4	47.0	
3.0	80.0	65.0						3.0
3.5	75.0	63.0						3.5
4.0	68.0	61.5	44.0					4.0
4.5	65.0	60.0	43.0					4.5
5.0	58.0	55.5	42.5	30.0	26.0			5.0
5.5	54.0	50.0	39.6	30.0	25.0			5.5
6.0	50.3	47.0	39.3	30.0	24.0	20.0		6.0
7.0	40.3	40.0	34.8	28.0	22.5	18.0		7.0
8.0	32.4	32.1	30.5	26.5	21.4	17.2		8.0
9.0	26.8	26.6	26.3	24.3	20.5	16.0	11.7	9.0
10.0		22.4	22.1	21.7	19.6	15.3	11.5	10.0
11.0		19.2	18.5	19.3	16.2	13.6	10.7	11.0
12.0		16.7	15.6	17.5	15.0	12.5	10.6	12.0
14.0			11.6	13.3	12.5	11.7	10.2	14.0
16.0			8.8	10.2	10.6	10.0	9.7	16.0
18.0				8.0	8.4	8.9	8.1	18.0
20.0				6.4	6.9	7.3	7.3	20.0
22.0				5.2	5.7	6.1	6.2	22.0
24.0					4.6	5.0	5.4	24.0
26.0					3.8	4.1	4.6	26.0
28.0					3.1	3.4	3.9	28.0
30.0						2.8	3.4	30.0
32.0						2.3	2.8	32.0
34.0						1.8	2.4	34.0
36.0							1.8	36.0
Parts of line	11	10	8	6	5	4	3	Parts of line
Min. Angle						26°	33°	Min. Angle
Telescoping Status（%）								
Telescoping Cylinder	I	I	I	I II	I II	I II	I II	Telescoping Cylinder
Section 2	0	50	100	100	100	100	100	Section 2
Section 3	0	0	0	25	50	75	100	Section 3
Section 4	0	0	0	25	50	75	100	Section 4
Section 5	0	0	0	25	50	75	100	Section 5

Unit: t

Load Chart of H

H Configuration load chart (Imperial)								
Radius(ft)	Rear Counterweight 57.3Klb, Carbody Counterweight 13.2Klb							Radius(ft)
	40	54.1	68.6	89.2	110.9	132.5	154.2	
10	173.6	141						10
12	158.2	132.9						12
15	141	130.2	93.3					15
20	109.1	102	85.3	65.1	52.1	43.4		20
25	80.7	80.3	67.3	58.2	45.6	38		25
30	58.2	57.7	57.1	52.7	44.5	34.7	25.8	30
35		42.3	40.8	42.5	35.7	30	23.6	35
40		36.2	33.8	38	32.5	27.1	23	40
45			25.6	29.3	27.6	25.8	22.5	45
50			19.4	22.5	23.4	22	21.4	50
55				19.1	20	19.9	18.7	55
60				17.4	18.2	19.3	17.6	60
65				14.1	15.2	16.1	16	65
70				11.5	12.6	13.4	13.7	70
75					10.1	11	11.9	75
80					8.9	9.6	10.6	80
85					8.4	9	10.1	85
90					6.8	7.5	8.6	90
95						6.5	7.7	95
100						6.1	7.4	100
105						5.1	6.2	105
110							5.3	110
120							3.9	120
Parts of line	11	10	8	6	5	4	3	Parts of line
Min. Angle						26°	33°	Min. Angle
Telescoping Status（%）								
Telescoping Cylinder	I	I	I	I II	I II	I II	I II	Telescoping Cylinder
Section 2	0	50	100	100	100	100	100	Section 2
Section 3	0	0	0	25	50	75	100	Section 3
Section 4	0	0	0	25	50	75	100	Section 4
Section 5	0	0	0	25	50	75	100	Section 5

Unit: Klb

Load Chart of FJ

FJ Configuration load chart (Metric)							
Boom operation angle	Rear Counterweight is 57.3Klb(26t), Carbody Counterweight 13.2Klb(6t)						Boom operation angle
	47+10.2m Jib			47+17.5m Jib			
	0°	15°	30°	0°	15°	30°	
80°	5.5	3.8	3.3	3.3	2.0	1.5	80°
78°	5.2	3.8	3.2	3.0	1.9	1.3	78°
76°	4.9	3.7	2.9	2.7	1.8	1.3	76°
74°	4.2	3.5	2.7	2.3	1.7	1.2	74°
72°	3.6	3.3	2.6	2.1	1.6	1.2	72°
70°	3.9	3.1	2.4	1.9	1.5	1.1	70°
68°	3.5	2.9	2.3	1.8	1.4	1.1	68°
66°	3.1	2.7	2.2	1.7	1.3	1.0	66°
64°	2.7	2.5	2.1	1.6	1.2	1.0	64°
62°	2.3	2.3	2.0	1.5	1.1	1.0	62°
60°	2.0	2.0	1.8	1.4	1.0	0.9	60°
58°	1.8	1.7	1.4	1.2	0.9	0.9	58°
56°	1.6	1.4	1.2	1.1	0.9	0.8	56°
54°	1.2	1.1	1.0	0.9			54°
52°	0.9						52°
Min. protection angle	52°						Min. protection angle

Note: rated capacity of crane

1. The rated load in the load chart is calculated complying with ASME B30.5.
2. The crawlers of crane must be extended during lifting;
3. All ratings in the table are calculated when the machine is sitting on firm and level ground with less than 1% gradient, and the load lifting is slowly and steadily.
4. All ratings in the table are calculated with wind speed under 9.8m/s and tipping load of 75%.
5. All ratings in the table are valid for 360° swing.
6. The rated load is no more than 12.1Klb(5.5t) when using boom point sheave block. If the jib is extended, the boom rated load shall reduce 5.1Klb(2.3t).
7. The ratings in the table include the weight of hook block and riggings (main hook block of 2.3Klb(1.05t), aux. hook block of 0.8Klb(0.35t). The weight of hook, riggings and wire ropes shall be deducted from the ratings to get the actual load capacity.

Unit: t

Load Chart of FJ

FJ Configuration load chart (Imperial)							
Boom operation angle	Rear Counterweight is 57.3Klb, Carbody Counterweight 13.2Klb						Boom operation angle
	154.2+33.5 jib			154.2+57.4 jib			
	0°	15°	30°	0°	15°	30°	
80°	12.1	8.4	7.3	7.3	4.4	3.3	80°
78°	11.5	8.4	7.1	6.6	4.2	2.9	78°
76°	10.8	8.2	6.4	6.0	4.0	2.9	76°
74°	9.3	7.7	6.0	5.1	3.7	2.6	74°
72°	7.9	7.3	5.7	4.6	3.5	2.6	72°
70°	8.6	6.8	5.3	4.2	3.3	2.4	70°
68°	7.7	6.4	5.1	4.0	3.1	2.4	68°
66°	6.8	6.0	4.8	3.7	2.9	2.2	66°
64°	6.0	5.5	4.6	3.5	2.6	2.2	64°
62°	5.1	5.1	4.4	3.3	2.4	2.2	62°
60°	4.4	4.4	4.0	3.1	2.2	2.0	60°
58°	4.0	3.7	3.1	2.6	2.0	2.0	58°
56°	3.5	3.1	2.6	2.4	2.0	1.8	56°
54°	2.6	2.4	2.2	2.0			54°
52°	2.0						52°
Min. protection angle	50°						Min. protection angle

318 Cooper Circle
Peachtree City, GA 30269
Tel: 678-251-2810
Fax: 770-632-7820