Crawler Crane Series SCC2500C





SCC2500C crawler crane	03
Dimensions	04
Main Technical Features	05
Main Performance Data	06
Transport Dimensions	07
Assembly/Disassembly Diagram	12

B Specifications Superworks Lowerworks Operation Devices

Safety Devices

С

Operating Combination	21
Operating Condition Combination	22
H Operating Condition of Boom	25
FJ Operating Condition of Fixed Jib	31
LJ Operating Condition of Luffing Jib	37
SF _H Operating Condition of Heavy-duty Fixed Short Jib	96

14

15

17

18

19



- 04 Dimensions
- 05 Main Technical Features
- 06 Main Performance Data
- 07 Transport Dimensions
- 12 Assembly/Disassembly Diagram

Dimensions



A

Main Technical Features

1. Safe control system: The two operating modes of working and assembling are convenient and reliable; the crane has the functions of real-time display of levelness, off-line stop action, emergency electric control, lightning protection, automatic traveling direction adjustment, CCTV monitoring, etc., electric and mechanical devices provide safety and reliability.

2. New Design of Hoisting Operating Condition: With 19.5m boom + 7m fixed jib, the crane may be used for hoisting shield machines for metro construction and similar products; it may automatically complete the turnover work of shield machine without an auxiliary crane; and the maximum hoisting capacity of auxiliary hook is up to 80t. The high-definition camera equipped can observe the orientation of the hoisted weight from many perspectives. The load moment limiter can dynamically reflect the load amount of main hook and auxiliary hook.

3. Outstanding operating performance: Load sensing, limit load adjustment and electro-hydraulic proportion dead slow control offer the perfect inching performance of actions, and more stable operation;

4. Reliable function assurance: Famous brand key component is used; the designed safety margin of structures and members are sufficient; the control system can operate stably under the harsh environments like extreme cold, high temperature, plateau or sand wind;

5. Convenient maintenance technology: the

access time of a position requiring adjustment is no more than 10min/person, that of a position requiring daily care is no more than 30min/person, and the maximum maintenance access time is no more than 2h/person; GPS remote monitoring system is equipped to facilitate maintenance and management of equipment;

6. Powerful lifting capacity: The maximum lifting capacity of boom is $260t \times 4.8m = 1248t \cdot m$, the longest boom is 91.5m; the maximum lifting capacity of luffing jib is $54.9t \times 16m = 878.4t \cdot m$, the longest arm support combination is 61.5 m + 61m; the heavy-duty fixed jib can realize the self-turnover function of weight ($\leq 130T$).

7. Efficient self assembly and disassembly technology: The whole machine can be assembled and disassembled by itself, and the assembly of basic machine only requires 3h; the patented synchronic control technology of one-key lifted mast has independent property right;

8. Large-chassis design: The chassis designed with 6m gauge ensures excellent operation stability within 360° slewing range;

9. 100% load travel: Powerful tracking force and travel smoothness bring the advantages of crawler crane into full play.

10. Broad adaptability: Meet certification requirements of CE, North America, Australia, Russia and Taiwan; the engine emission complies with the European and U.S. Non-highway Stage 3 Standards.

Main Performance Data

Maii	n performance data of SCC25	00C craw	ler crane
	Performance index	Unit	Data
	Max. lifting capacity	t	260
Boom operating condition	Max. rated lifting moment	t•m	1442
	Length of boom	m	16.5~91.5
	Boom luffing angle	o	30°~81°
Operating Condition of	Fully extended boom + fully extended fixed jib	m	76.5,31
Fixed Jib	Included angle between boom and jib	0	10°,30°
	Boom + Jib	m	(37.5~76.5) +7
Operating condition of heavy-duty fixed jib	Boom + jib (applicable to construction of metro shield)		19.5+7
	Included angle between boom and jib	o	30°
	Max. lifting capacity	t	71.4
Operating condition of luffing jib	Fully extended boom + fully extended luffing jib	m	61.5,61
0,7	Jib luffing angle	o	63°~88°
	Rope speed of main (auxiliary) winch (outermost working layer)	m/min	0~143
	Rope speed of main luffing winch (outermost working layer)	m/min	(0~31) ×2
Speed parameters	Rope speed of auxiliary luffing winch (outermost working layer)	m/min	0~34
	Slewing speed	rpm	0~1.8
	Travel Speed	km/h	0~1.04/0~0.51 (two speeds)
	Gradeability		30%
Engino	Output power	kW	242
Engine	Rated speed	rpm	2100
Transportation	maximum transport weight of single piece (including main/auxiliary hoisting winch)	t	59
parameters	Transport dimensions (length X width X height)	mm	13700×3400×3400
	Average ground pressure	MPa	0.11

SCC2500C CRAWLER CRANE
Transport Dimensions



Transport Dimensions

Basic machine	x1
Length	13.70m
Width	3.40m
Height	3.40m
Weight	59 t
Crawler assembly	x2
Length	9.15m
Width	1.22m
Height	1.38m
Weight	27 t
Boom tip	x1
Length	9.34m
Width	2.34m
Height	3.08m
Weight	4.5 t
Boom base	x1
Length	8.57m
Width	2.34m
Height	2.21m
Weight	4.9 t
Including auxiliary luffing winch	nt 7.3t
Boom 3m insert	×1
Length	3.14m
Width	2.34m
Height	2.4m
Weight	1.1 t
6m Boom insert	×2
Length	6.14m
Width	2.34m
Height	2.4m
Weight	1.7 t
12m Boom insert	×5
Length	12.14m
Width	2.34m
Height	2.4m
Weight	2.9 t



Transport Dimensions

Tower operating condition	
combination	x1
Length	11.85m
Width	1.75m
Height	3.20m
Weight	7.1 t
Luffing jib tip	x1
Length	7.8m
Width	1.50m
Height	1.8m
Weight	1.1 t
3m Luffing jib insert	x1
Length	3.15m
Width	1.50m
Height	1.51m
Weight	0.3 t
6m Luffing jib insert	x1
Length	6.11m
Width	1.50m
Height	1.31m
Weight	0.6 t
12m Luffing jib insert	х3
Length	12.15m
Width	1.50m
Height	1.51m
Weight	1.4 t
Extension Arm of Boom	x1
Length	2.81m
Width	0.29m
Height	0.8m
Weight	0.3 t
Fixed jib base and strut	x1
Length	5.18m
Width	1.01m
Height	1.5m
Weight	0.7 t















SCC2500C CRAWLER CRANE
Transport Dimensions



Transport Dimensions

Fixed jib tip	x1
Length	5.47m
Width	1.01m
Height	0.84m
Weight	0.4t
3m Fixed jib insert	x1
Length	3.08m
Width	1.01m
Height	0.84m
Weight	0.2t
6m Fixed jib insert	x3
Length	6.08m
Width	1.01m
Height	0.84m
Weight	0.4t
Transitional section	×1
Length	3.70m
Width	2.23m
Height	2.33m
Weight	1.2t
Tray counterweight block	x1
Length	4.65m
Width	1.96m
Height	0.68m
Weight	13.2t
Counterweight block	x12
Length	1.96m
Width	1.33m
Height	0.42m
Weight	6t
Counterweight of lowerworks	×2
Length	1.75m
Width	1.44m
Height	0.97m
Weight	12.4t









Transport Dimensions

260t hook block	x1
Length	1.24m
Width	0.90m
Height	2.61m
Weight	4.3t
150t hook block	x1
Length	0.99m
Width	0.90m
Height	3.0m
Weight	3.1 t
100t hook block (optional)	×1
Length	0.90m
Width	0.81m
Height	2.17m
Weight	2 t
80t hook block	x1
80t hook block Length	x1 0.90m
80t hook block Length Width	x1 0.90m 0.57m
80t hook block Length Width Height	x1 0.90m 0.57m 2.07m
80t hook block Length Width Height Weight	x1 0.90m 0.57m 2.07m 1.5 t
80t hook blockLengthWidthHeightWeight35t hook block	x1 0.90m 0.57m 2.07m 1.5 t x1
80t hook blockLengthWidthHeightWeight35t hook blockLength	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m
80t hook blockLengthWidthHeightWeight35t hook blockLengthWidth	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m 0.48m
80t hook blockLengthWidthHeightWeight35t hook blockLengthWidthHeight	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m 0.48m 1.91m
80t hook blockLengthWidthHeightWeight35t hook blockLengthWidthHeightWeight	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m 0.48m 1.91m 1.2 t
80t hook blockLengthWidthHeightWeight35t hook blockLengthWidthHeightWeight13.5t hook block	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m 0.48m 1.91m 1.2 t x1
80t hook blockLengthWidthHeight35t hook blockLengthWidthHeightWeight13.5t hook blockLength	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m 0.48m 1.91m 1.2 t x1 0.47m
80t hook blockLengthWidthHeightWeight35t hook blockLengthWidthHeightWeight13.5t hook blockLengthWeight13.5t hook blockLengthWidth	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m 0.48m 1.91m 1.2 t x1 0.47m 0.47m
80t hook blockLengthWidthHeightWeight35t hook blockLengthWidthHeightWeight13.5t hook blockLengthWidthHeight	x1 0.90m 0.57m 2.07m 1.5 t x1 0.90m 0.48m 1.91m 1.2 t x1 0.47m 0.47m 0.93m





Transport Dimensions

Additional counterweight	x1
Length	1.0m
Width	0.86m
Height	1.54m
Weight	5.8 t
7m fixed jib	x1
7m fixed jib Length	x1 7.59m
7m fixed jib Length Width	x1 7.59m 1.45m
7m fixed jib Length Width Height	x1 7.59m 1.45m 1.34m



Notes:

(1) The transport dimensions of the parts are marked on schematic diagrams, but not drawn by scale; the dimensions indicated are the design values excluding package.

(2) The weight is the design value and there may be difference due to the manufacturing error.

Assembly/Disassembly Diagram

The machine has the functions of self-assembly/disassembly of crawler travel units, counterweights of superworks and lowerworks, and arm supports. In the process of assembly, the counterweights of lowerworks shall be first assembled, and then crawler travel units, counterweight of superworks, finally arm supports. Reverse the order in the process of disassembly, and see the figure below for specific operation process.



Self-assembly diagram of crawler frame and counterweight (as for disassembly, reverse the procedure)



Assembly diagram of fixed jib

Assembly/Disassembly Diagram



Assembly diagram of luffing jib