



HYDRAULIC CRAWLER CRANE

MODEL : PCC4000SL-II WITH SUPERLIFT

TECHNICAL SPECIFICATIONS

POWERPLUS
POWERPLUS GROUP INC., USA





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Safety Devices

over-hoist prevention device	Boom and hook the over-hoist prevention device is used for preventing the crane from the accidents because of the over-hoist.
Hook over-hoist prevention device	When the hook lifts up to certain height and touches the plumb ,at the moment control relay is power cut. The buzzer alarms ,the alarm indicator light is on ,the controller lock the hook to lift .then the hook stop hoisting automatically
Boom over-hoist prevention device	The boom upper limit angle is controlled by moment limiter and boom upper limit switch ,If overed the angle,then the boom limit switch is cut off, the boom stops rising
Moment limiter	The moment limiter monitor the working of crane in real time .all the working condition parameter shows on the screen of moment limiter display when the crane works .which can make the driver be clear the crane at a glance
Load indicator light	Easy to know the load condition for the field personnel ,at the same time equip with interphone for driver and hoisting operation manager.
Anemometer	Anemometer is installed to the top of boom to test the wind speed and the moment limiter display the wind speed.
Brake	There are main and auxiliary drums brakes ,main and auxiliary derricking drums brake ,slewing brake .
Locking device	There is slewing lock device
Load sensor	The load sensor is installed on the boom and pulling plate to test the load.
Angle sensor	The angle sensor is installed on the boom and tower boom foot to test their angle.
Level instrument	Check the crane locate whether horizontal or not , which is easy to keep the safety of crane .
Angle scale	The angle scale is installed on the boom foot to show the current angle of boom.
Three-circles protective device	Main and auxiliary drums install three-circle protective device , which protect over-discharging the wire rope on the winch .
Slewing ,travel alarm	Through buzzer to alarm



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Specifications

Superstructure

Power device

Model : VOLVO diesel engine
Type : water-cooling , Direct Injection , with turbocharger.
Rated power : 310KW/2100rpm
Max . torque : 1719 N.M
Hydraulic oil tank capacity:900L

Hydraulic system

The hydraulic system adopt the electronic proportional with pump control and valve control combined,control include computer program with CAN-BUS ,include seven pumps ,there are three AIIVO electric control variable pumps of main loops , interflow in the valve .Advanced system , energy saving, smooth running, good fine motion.

Control system

Adopts international advanced pump-controlling system and electronic controlling system .

Machinery working monitor

Monitor the working of machinery at any time ,which has the functions of auto-checking and alarming.

Main and auxiliary lifting winch device

main and auxiliary lifting winch device ,which was driven by variable plunger motor through planet reducer,the wet-disc brake is often engaged.

Main lifting winch

The diameter of the drum:	650mm
The diameter of wire rope:	26 mm
The length of wire rope:	640*2m
Max. rope speed	135 m/min

Main variable amplitude device

was driven by two quota plunger motors through planet reducer,the wet-disc brake is often engaged.

The diameter of the drum:	620mm
The diameter of wire rope:	26 mm
The length of wire rope:	238m each strip

Variable amplitude device of tower boom

The diameter of the drum:	650 mm
The diameter of wire rope:	26mm
The length of wire rope:	465 m

Variable amplitude device of super lifting

The diameter of the drum:	650mm
The diameter of wire rope:	26mm
The length of wire rope:	765m

Stringing winch

The diameter of wire rope:	10 mm
The length of wire rope:	320 m

Slewing system

Which was driven by motor through planet reducer driving gear .can be turned by 360°
Speed: 0---1.1 km/h
pin is locked.

The cabin

The width is 1100mm, the cabin can pitch by 20 ° ,the front window adopt surface of arc of great circle ,with air conditioner , big screen electronic controller , torque limiter and adjustable seat etc.

Concentrated Lubrication system

Periodically and automatically lubricate the driving wheel ,guiding wheel ,thrust wheel and under roller of the carriage.

Counterweight

The working conditions of each boom , the upper body counterweight is 150 ton , including two pieces of 5-ton pallet ,14 pieces of in-ton-counterweight .The super lifting counterweight is 200ton on every super lifting working conditions . including one 10-ton pallet and 19 pieces of 10-ton -counterweight .

Undercarriage structure

Separating device

Dismantle and install automatically . The hoist crane and consigned vehicle can load and unload with the help of itself equipment .And the crawler girder £-rotary table counter weight and arm support etc. can automatic disassemble and install .

Lower frame

Box type structure with high-intensity plate soldering, track frame is connected by hydraulic driven pin and middle frame , which is easy to install and disassemble.

Center ballast

30 ton ,including two 10T counterweight and two 5T counterweight ,they all install to the front and rear of the crane frame .

Track shoe

The left and right crawler device has 128 pieces track shoes.each track shoe is 1200mm width . the tension of the track shoe can be adjusted by inner hydraulic cylinder, through adjusting the position of washer to the ideal system .

Travel speed 0.45---1.2 km/h

Working device

The main pipe of boom adopts advanced high-intensity boom .the variable amplitude device adopt high-intensity pulling plate structure which improve the effective load .

Heavy duty boom

Combination boom length:81-96mWith waist rope

Standard boom

Boom length:24-84m

Boom with superlift

Three types:the center from superlift counterweight to slewing are 11000mm, 13000mm and 15000mm,
Superlift boom length:36~90m

Superlift mast

Mast length:30m,including 6m foot insert, 6m mast insert ,12 mast insert and 6m top insert.

Tower boom with superlift

Boom length:36~84m

Tower boom length:24~78m

Combination length(Boom+tower boom): 36m+24m

Max.Combination length(Boom+tower boom):84m+78m

Fixed jib status

Boom length:36-78m

Fixed jib length:12-36m

Install angle:10° ,30°

Fixed jib status with superlift

Boom length:36-84m

Fixed jib length:12-36m

Install angle:10° ,30°

Hook blocks

350T hook block,200T hook block,100T hook block,50T hook block.



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SPECIFICATION			UNIT	DATA	REMARKS
Basic Working Status	Boom Working Status	Max Load Capacity	ton	400	
		Boom Length	m	24~84	
	Boom + Tower Boom Working Status	Max Load Capacity	ton	155	
		Max Height of Boom & Tower Jib	m	150	72+78
		Boom Angle		85°75°65°	
	Boom + Fixed Boom Working Status	Max Load Capacity	ton	65.9	
		Max Length of Boom & Fixed Boom	m	114	78+36
		Fixed Boom Angle	°	10°30°	
	Light Boom Working Status	Max Load Capacity	ton	87.2	
		Light Boom Length	m	81~96	
Super-Lifting Working Status	Boom Working Status	Max Load Capacity	ton	400	
		Boom Length	m	36~90	
	Boom + Tower Boom Working Status	Max Load Capacity	ton	155	
		Max Height of Boom & Tower Jib	m	162	84+78
		Boom Angle		85°75°65°	
	Boom + Fixed Boom Working Status	Max Load Capacity	ton	65.9	
		Max Length of Boom & Fixed Boom	m	120	84+36
		Fixed Boom Angle	°	10°30°	
	Light Boom Working Status	Max Load Capacity	ton	71.1	
		Light Boom Length	m	96~108	
Working Speed	Travelling Speed		km/h	0~0.45/1.2	
	Slewing Speed		rpm	0~1.1	
	Main Hoisting Line Speed		m/min	135	
	Subsidiary Hoisting Line Speed		m/min	135	
	Main Radius-changing Line Speed		m/min	48×2	
	Tower Boom Radius-changing Line Speed		m/min	126	
	Super-lifting Radius-changing Line Speed		m/min	142	
Engine	Model			TWD1240VE	Sweden VOLVO
	Rated Power		HP/rpm	420/2100	
	Max Torque		N.m/rpm	1719/1500	
Mass Specifications	Total Mass(Boom)		ton	326	
	Rotary Ballast + Bodywork counterweight +Super-lifting Ballast		ton	150+30+200	
	Ground Pressure(Boom)		Mpa	0.152	
Transportation Specifications	Max. Transportation Weight of Single Part		ton	76.36	
	Max. Transportation Dimension of Single Part (LxWxH)		m	14.455x3.16x3.25	

