

## PC4000-11 Hydraulic Mining Excavator



Safety



Sustainability



Productivity



The PC4000-11 hydraulic mining excavator is built to reduce your cost per ton. We listened to input from our mining customers and incorporated features such as state-of-the-art technologies and the latest solutions for sustainable and efficient operation. The optional Tier 4 Final diesel drive complies with the strictest EPA emissions requirements for enhanced sustainability.

Size matching with 165-265 st trucks promotes increased loading efficiency.

### General machine information

	Front shovel (FS)	Backhoe (BH)
Operating weight	~398 mt (439 st)	~404 mt (445 st)
Standard bucket configuration	22 m <sup>3</sup> (29 yd <sup>3</sup> )	
Engine power	1,400 kW (1,875 HP)	
Truck compatibility	165 st - 265 st	
Swing speed	4.0 rpm	
Boom length	7,150 mm (281 in)	9,750 mm (384 in)
Stick length	4,900 mm (193 in)	4,500 mm (177 in)
Break-out force	1,349 kN (138 tf)	1,239 kN (126 tf)
Crowd force/*tear-out force	1,330 kN (136 tf)	*1,058 kN (108 tf)
Powertrain options	Diesel Tier 2 (-11), Diesel Tier 4 final (-11) Electric Motor (-11)	

# PC4000-11

## Diesel drive

Model Tier 4	Komatsu SDA16V160E-3
Model Tier 2	Komatsu SDA16V160E-2
Type	4-cycle, water-cooled, direct injection
Aspiration	Turbocharged and aftercooled
Number of cylinders	16
Number of engines	1
Rated power per engine	1,400 kW (1,875 HP) @ 1,800 rpm
Governor	All-speed, electronic
DEF tank capacity Tier 4	643 L (170 gal)

## Electric drive

Type	Squirrel cage induction motor
E-drive availability -11	Available
Number of engines	1
Rated power per engine	1,350 kW (1,810 HP)
Voltage	4,000 to 7,200 V
Amperage	120 to 145 A
Frequency standard	50 Hz @ 1,500 rpm
Frequency option	60 Hz @ 1,800 rpm

## Electric system

System	24 V
Batteries	4 x 2 x 12 V
Alternator	260 A
Standard working lights amount	14 x LED lights
Standard service lights	Throughout the platform, including emergency egresses and stairways

## Undercarriage

Track adjustment	Automatic hydraulic type
Number of track shoes each side	49
Number of top rollers each side	3
Number of bottom rollers each side	7

## Travel and brake systems

Gradeability	Up to 50%
Travel speed max.	2.1 kph (1.3 mph)
Service brake	Hydraulic brake
Parking brake	Multiple brake

## Swing system

Hydraulic motors and swing gears	2
Swing brake, dynamic	Hydraulic brake
Swing brake, parking	Multiple-disc
Swing ring teeth	External
Swing speed max.	4 rpm

## Hydraulic system

Description	The power train consists of one main drive. One gearbox drives four identical main pumps that draw hydraulic oil from an unpressurized hydraulic tank. Open circuit hydraulics provide maximum cooling and filtering efficiency.
Main hydraulic pumps	Komatsu
Main hydraulic pumps	4,140 L/min (1,096 gpm)
Relief valve setting	310 bar (4,495 psi)
Swing flow rate	1,590 L/min (420 gpm)
High pressure screens	200 microns
Flow description	The four-circuit system features a load-limiting governor with oil delivery summation to the working circuits and incorporates pressure cut-off control. Hydro-pilot prioritizes hydraulic flow giving smooth hydraulic response, simple hydraulic system layout, and a reduced number of components. The hydraulic system includes large swing-out vertical air-to-oil hydraulic coolers with temperature-regulated hydraulically driven fans.

## Automatic lubrication system

Description	Two hydraulically powered Lincoln single line automatic lubrication systems are provided as standard, complete with time and volume variable controls. The central lube grease system is supplied from a refillable 200 L (53 gal) barrel. A second, identical system supplies open gear lubricant to the swing ring teeth through a lube pinion. The containers are replenished through the Wiggins connections on the service arm.
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## Service capacities

Hydraulic oil tank	3,900 L (1,030 gal)
Hydraulic system	5,900 L (1,559 gal)
Fuel tank: usable volume including reserve	6,781 L (1,791 gal)
Fuel tank: reserve	211 L (56 gal)
Engine coolant	475 L (125 gal)
Engine oil	262 L (69 gal)
Engine reserve oil	474 L (126 gal)
Lubrication system	400 L (106 gal)

## Environment

Hand-lever (ISO 5349-1)	Lower than 2.5 m/sec
Whole body vibration and shock (ISO 2631-1)	Lower than 0.5 m/sec
Greenhouse gas	HFC-134a (GWP 1430)
PC4000-11 D quantity of gas	5.0-9.5 kg
PC4000-11 D CO <sup>2</sup> equivalent	7.15-13.59 t (7.88-14.98 st)
PC4000-11 E quantity of gas	8.2-13.1 kg
PC4000-11 E CO <sup>2</sup> equivalent	10.58-17.02 t (11.66-18.76 st)

## Operator cab

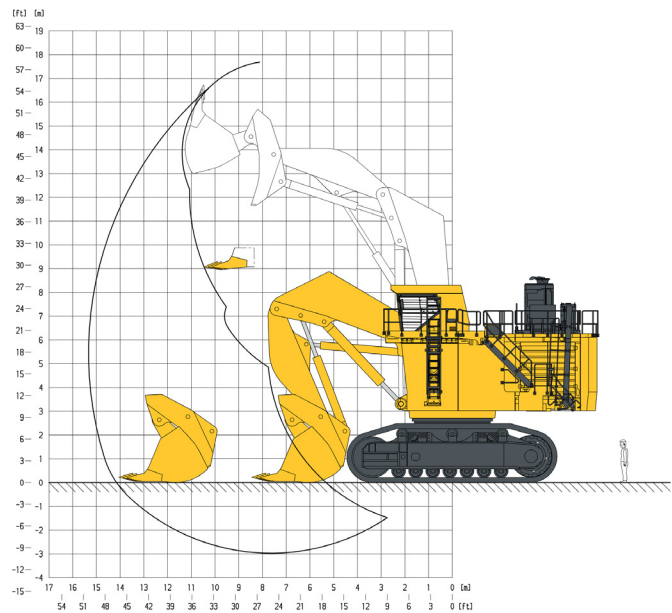
Damping pads	Enclosed steel cab mounted on viscous pads
AC system	Konvekta
Suspension of seat	Full suspension operator seat with belt
Heating of seat	Electrically heated
Seat belt	Driver and trainer seats
Adjustments of seat	Multiple adjustments
Joystick controls	Electro-hydraulic joystick controls
Foot controls	Foot control for shovel clam, crawler and swing brake
Radio version	AM-FM radio with MP3-ready CD player and AUX-in jack
Windshield washers	1 large parallel windshield wiper
Windshield washer speed	Two speeds and intermittent operation
Additional mirrors	2 heated rear mirrors
Sun blinds	Internal and external blinds
Roller blinds	Standard on all windows (excluding rear door)
Sliding window	ESG escape window, VSG according to ECE R43
Window tinting	Parsol green
Penetration-proof windows	Impact-resistant front window (21 mm and tolerances)
Walkway	Walkway around the cab
Engineering standards	ISO 3449, ISO 6394, ISO 10263-4 TL: EN474-1, EN 474-5, DIN 15018, BR2-S DIN EN 1063, ECE R43, ISO 10262
Komtrax Plus availability	Komtrax Plus Upgrade
	The Komtrax Plus monitoring system is designed for Komatsu mining equipment to provide real-time and stored information about the operating status of the machine. Fault messages are immediately available to the operator via digital display. In the event of critical malfunctions the engine is also shut down. Digital storage provides failure summary and analysis, which can be downloaded using a laptop. This data will assist in predicting or reducing downtime. Optionally available is Orbcomm satellite transmission. Check for availability in your area.
Argus Payload-Meter	Yes, optional

## Front shovel attachment

Boom length	7,150 mm (23.5 ft.)
Stick length	4,900 mm (16.1 ft.)
Break-out force (ISO)	1,349 kN (303,267 lbf.)
Crowd force (ISO)	1,330 kN (298,996 lbf.)
Maximum cutting height	17,690 mm (58 ft.)
Maximum dumping height	11,710 mm (38.4 ft.)
Maximum digging depth	2,970 mm (9.7 ft.)
Maximum digging reach	15,330 mm (50.3 ft.)
Level crowd at ground level	5,700 mm (18.7 ft.)
Bucket opening width	2,650 mm (8.7 ft.)

## Front shovel capacities

Standard capacity	22 m <sup>3</sup> (28.8 yd <sup>3</sup> )
Width	4,020 mm (13.2 ft.)
Teeth	5
Wear package	Standard
GET system	Hensley XS 390
Max. material density	1.8 t/m <sup>3</sup> (3,034 lbs./yd <sup>3</sup> )

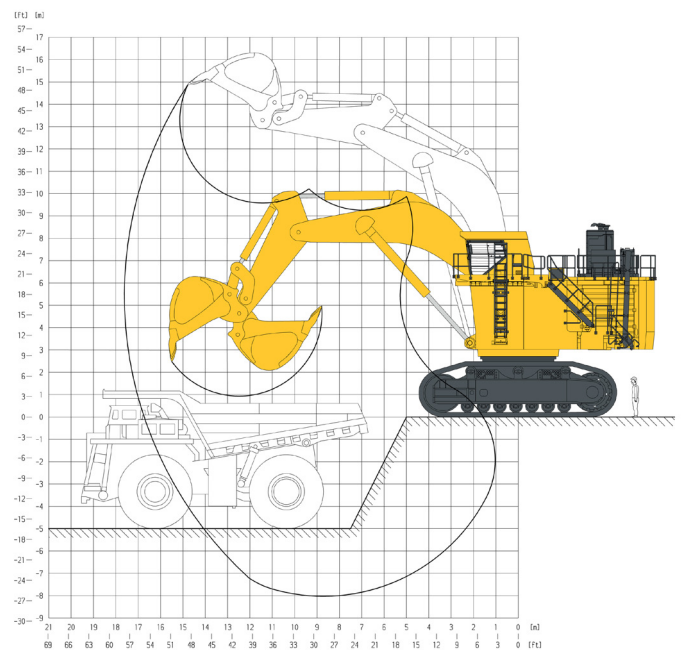


## Backhoe attachment

Boom length	9,750 mm (32.0 ft.)
Stick length	4,500 mm (14.8 ft.)
Break-out force (ISO)	1,239 kN (278,538 lbf.)
Tear-out force (ISO)	1,058 kN (237,848 lbf.)
Max digging height	14,880 mm (48.8 ft.)
Max. dumping height	9,610 mm (31.5 ft.)
Max. digging depth	8,000 mm (26.2 ft.)
Max. digging reach	17,610 mm (57.8 ft.)
Max. digging reach at ground level	16,650 mm (54.6 ft.)

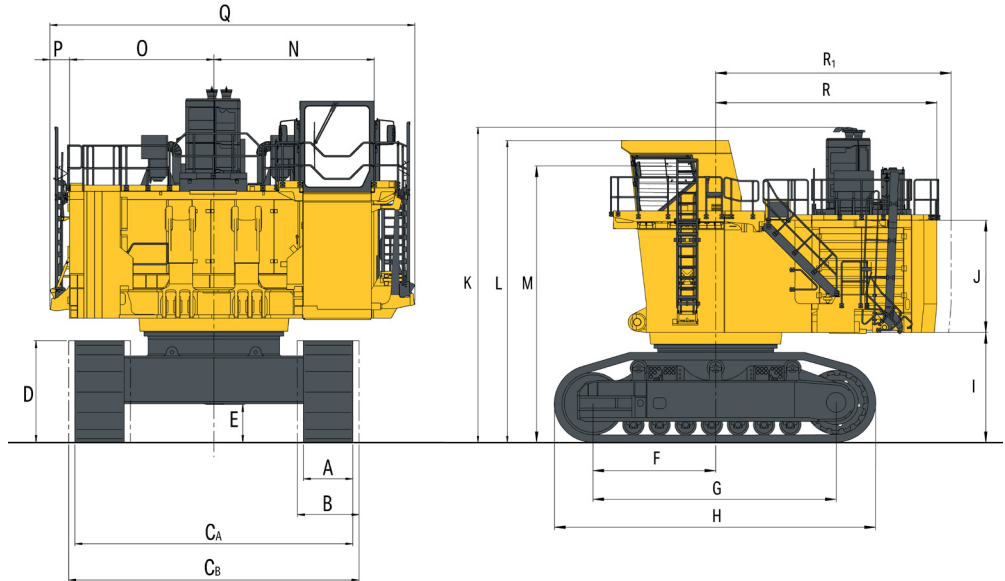
## Backhoe capacities

Standard capacity	22 m <sup>3</sup> (28.8 yd <sup>3</sup> )
Width	3,790 mm (12.4 ft.)
Teeth	6
Wear package	Standard
GET system	Hensley XS 342
Max. material density	1.8 t/m <sup>3</sup> (3,034 lbs./yd <sup>3</sup> )



## Dimensions

A	1,200 mm (3.9 ft.)
B	1,500 mm (4.9 ft.)
C <sub>A</sub>	6,750 mm (22.1 ft.)
C <sub>B</sub>	7,050 mm (23.1 ft.)
D	2,480 mm (8.1 ft.)
E	930 mm (3.1 ft.)
F	3,380 mm (11.1 ft.)
G	6,700 mm (22.0 ft.)
H	8,842 mm (29.0 ft.)
I	3,020 mm (9.9 ft.)
J	3,085 mm (10.1 ft.)
K	8,670 mm (28.4 ft.)
L	7,600 mm (24.9 ft.)
M	8,310 mm (27.3 ft.)
N	4,032 mm (13.2 ft.)
O	3,505 mm (11.5 ft.)
Q	8,870 mm (29.1 ft.)
R	6,095 mm (20.0 ft.)
R <sub>1</sub>	6,500 mm (21.3 ft.)



### Front shovel operating weights\*

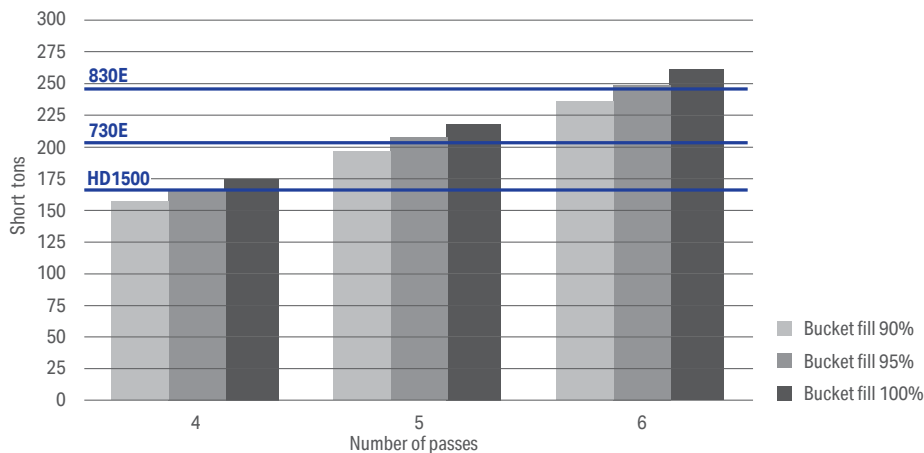
Boom dimensions	7,150 mm (23.5 ft.)
Stick dimensions	4,900 mm (16.1 ft.)
Standard bucket	22 m <sup>3</sup> (29 yd <sup>3</sup> )
Shoe width and weight	1,200 mm (3.9 ft.)
Ground pressure	21.8 N/cm (31.6 psi)
Operating weight	~398 mt (439 st)
Shoe width and weight	1,500 mm (4.9 ft.)
Ground pressure	17.7 N/cm (25.7 psi)
Operating weight	~403 mt (444 st)

### Backhoe operating weights\*

Boom dimensions	9,750 mm (32.0 ft.)
Stick dimensions	4,500 mm (14.8 ft.)
Standard bucket	22 m <sup>3</sup> (29 yd <sup>3</sup> )
Shoe width and weight	1,200 mm (3.9 ft.)
Ground pressure	22.2 N/cm (25.7 psi)
Operating weight	~404 mt (445 st)
Shoe width and weight	1,500 mm (4.9 ft.)
Ground pressure	17.9 N/cm (26.0 psi)
Operating weight	~409 mt (451 st)

\*Weight varies in relation to the drive and track shoe width. Weights are only averages.

## PC400-11 truck/shovel match



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