

PC9000-12

Excavator



Safety



Comfort



Productivity



Efficiency



The Komatsu PC9000 is the next class of hydraulic mining excavators engineered for maximum performance in large-scale mining operations. It is available in front shovel and backhoe configuration and can be equipped with diesel engines or electric motors to fit your unique mining application. It is optimized for Komatsu trucks in the range of 240 - 400 short-tons, up to the 980E series, ensuring optimal truck match and high productivity in demanding mining environments.

Operating capacities

	Front shovel	Backhoe
Operating weight	884 t	896 t
Standard bucket configuration	46 m ³ (60 yd ³)	49 m ³ (64 yd ³)
Engine power (2x)	1.678 kW (2,250 HP)	
Truck compatibility	240 - 400 short tons	
Swing speed	3,4 rpm	
Boom length	8.300 mm	11.700 mm
Stick length	5.850 mm	5.600 mm
Breakout force	2.395 kN	2.120 kN
Crowd force/*tear-out force	2.900 kN	1.955 kN
Tier 4 option	yes	yes
Electric drive option	yes	yes

PC9000-12

Diesel drive

Model (Tier 4 or non-certified engine)	Komatsu SSDA16V160E-3
Type	4-cycle, water-cooled, direct injection
Aspiration	two-stage turbocharged and aftercooled
Number of cylinders	16
Engines amount	2
Rated power per engine (2x)	1.678 kW (2,250 HP)
Revolutions per minute	1.800 rpm
Governor	All-speed, electronic
DEF tank capacity (only Tier 4)	2x 587 l (2x 155 gal)

Electric drive

Type	Innomotics 1NA1.506
Motor amount	2
Rated power per engine (2x)	1.700 kW (2.280 HP)
Voltage	6,0 - 7,2 kV
Amperage (approx.)	385 - 321 A
Frequency options	50 / 60 Hz

Electric system

System	24 V
Batteries	6x 12 V
Alternator (T4)	2x 260A
Standard working lights (amount)	14 LED lights
Standard service lights	Throughout the platform, on the roof and boom, including emergency egresses and stairways

Undercarriage

Track adjustment	Automatic hydraulic type
Number of track shoes each side	41
Number of top rollers each side	3
Number of bottom rollers each side	6

Travel and brake systems

Gradeability	48,8 %
Travel speed (max.)	2 km/h (1,2 mp/h)
Service brake	Hydraulic brake
Parking brake	Multiple brake

Swing system

Hydraulic motors and swing gears	3
Swing brake, dynamic	Hydraulic brake
Swing brake, parking	Multiple-disc
Swing ring teeth	External
Swing speed (max.)	3,4 rpm

Environment

Hand-lever (ISO 5349-1)	lower than 2,5 m/s ² (8.2 f/s ²)
Whole body vibration and shock (ISO 2631-1)	below 0,5 m/s ² (1.6 f/s ²)
Greenhouse gas	HFC-134a (GWP 1430)
PC9000-12 D Quantity of gas	4,4 kg (97 lbs)
PC9000-12 D CO ₂ equivalent	6,3 t (6.9 short tons)

Hydraulic system

The power train consists of two main drives. Each of the two gearboxes drives four identical main pumps which draw hydraulic oil from an unpressurised hydraulic tank. Open circuit hydraulics provide maximum cooling and filtering efficiency.

Main hydraulic pumps	8 swash plate pumps
Main hydraulic flow per pump	1.035 l/min (273 gpm)
Hydraulic pressure (all circuits)	320 bar (4,641 psi)
Swing flow rate	2.070 l/min (547 gpm)
High pressure Screens	200 microns

Flow description

The five-circuit systems feature a load-limiting governor with oil delivery summation to the working circuits and incorporates pressure cut-off control. Hydropilot prioritizes hydraulic flow giving smooth hydraulic response, simple hydraulic system layout, and a reduced number of components. The hydraulic system includes large vertical air-to-oil hydraulic coolers with temperature-regulated hydraulically driven fans.

Automatic Lubrication System

Three hydraulically powered single line automatic lubrication systems are provided as standard, complete with time and volume variable controls. The two central lubrication circuits and open gear grease circuit are supplied by identical pump assemblies from refillable containers which have a capacity of 1x 660l and 1x 330l (total 990l). Replenishment of the containers is through the quick coupling connections on the service arm.

Capacities

Hydraulic oil tank	7.344 l (1,940 gal)
Hydraulic system	12.700 l (3,354 gal)
Fuel tank - Usable volume including reserve	17.455 l (4,611 gal)
Engine coolant	1.148 l (303 gal)
Engine oil	590 l (156 gal)
Lubrication system (total)	990 l (262 gal)

Operator cab

Damping pads (amount)	Enclosed steel cab mounted on vis-cous pads
AC System	Automatic air-condition unit
Suspension of seat	Full suspension operator seat with belt
Heating of seat	Electrically heated
Seat belt	Operator and Trainer seat with belt
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 USB charging, Blue-tooth, Hands-free telephone function, DAB optional.
Windshield heating	Heated windshield
Windshield washers	1 large parallel windshield wash wiper
Windshield washer speed	Two speeds and intermittent operation
Additional mirrors	2 heated rear mirrors
Sun blinds	Internal and external
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

Electric System

Version	Komtrax Plus
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 a digital display and in the event of critical malfunctions the engines/motors is also shut down. The digital storage provides failure summary and analysis, which can be downloaded by laptop computer. This data will assist in predicting or reducing downtime. Optionally available is Iridium satellite transmission (check for availability in your territory).	
Argus PLM ready	Yes

Front shovel

Standard bucket configuration	46 m ³ (60 yd ³)
Wear package	Standard / Heavy duty
Max material density (with standard bucket)	1,8 t/m ³ (3,034 lb/yd ³)

Bucket

Width	5.890 mm (19'4"ft)
Teeth	6
GET system	Hensley P700 (further on request)

Front shovel attachment

Boom length	8.300 mm (27'3")
Stick length	5.850 mm (19'2")
Break-out force (ISO)	2.395 kN (538,417 lbf)
Crowd force (ISO)	2.900 kN (651,946 lbf)
Max. cutting height	20.984 mm (68'10")
Max. dumping height	13.355 mm (43'10")
Max. digging depth	3.300 mm (10'10")
Max. digging reach	18.700 mm (61'4")
Level crowd at ground level	5.531 mm (18'2")
Cutting width	5.890 mm (19'4")
Bucket opening width	3.252 mm (10'8")

Backhoe

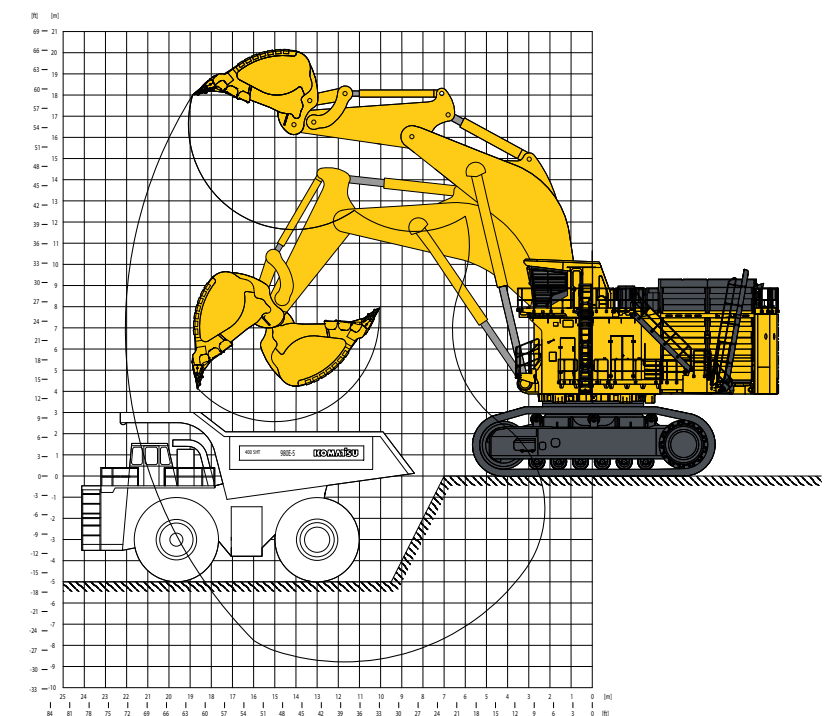
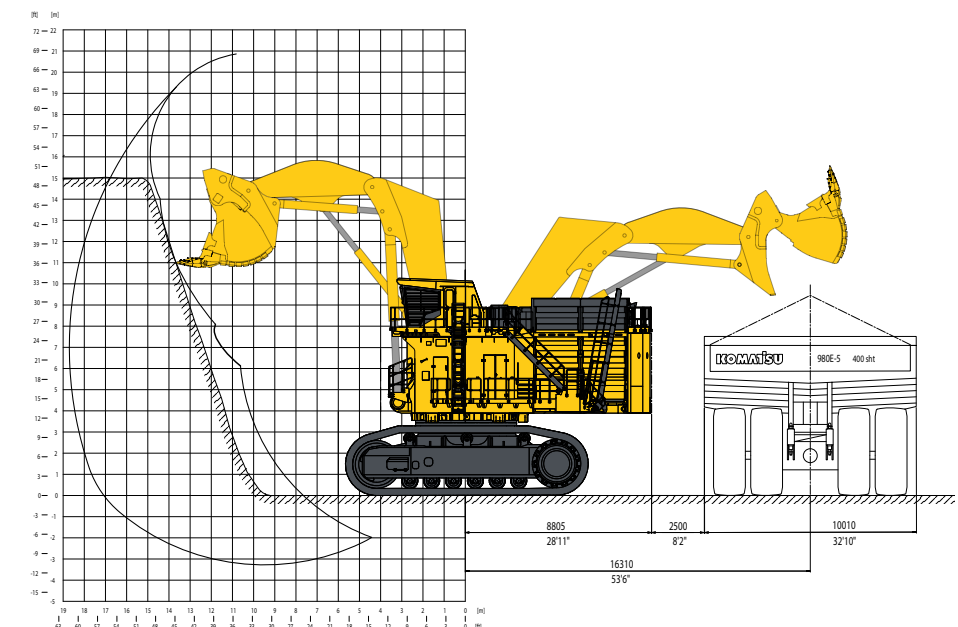
Standard bucket configuration	49 m ³ (64 yd ³)
Wear package	Standard
Max material density (with standard bucket)	1,8 t/m ³ (3,034 lb/yd ³)

Bucket

Width	5.285 mm (17'4"ft)
Teeth	6
GET system	Hensley P700 (further on request)

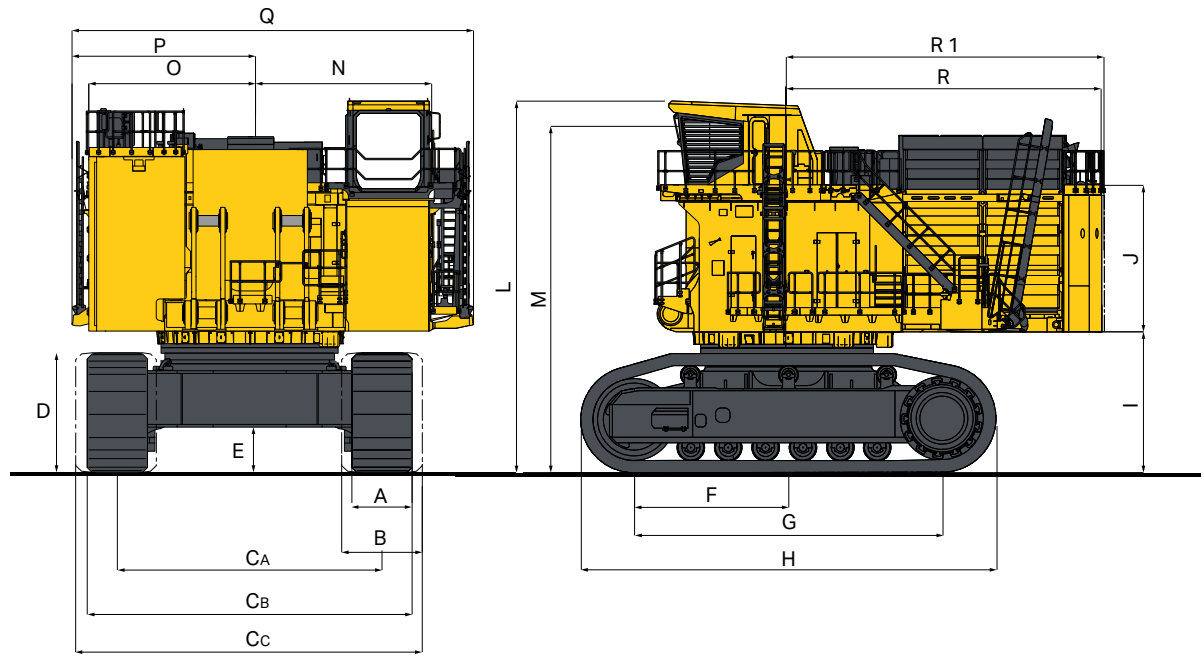
Backhoe attachment

Boom length	11.700 mm (38'5")
Stick length	5.600 mm (18'4")
Break-out force (ISO)	2.120 kN (476,594 lbf)
Tear-out force (ISO)	1.955 kN (439,501 lbf)
Max digging height	18.033 mm (59'2")
Max. dumping height	11.644 mm (38'2")
Max. digging depth	8.782 mm (28'10")
Max. digging reach	22.048 mm (72'4")
Cutting width	5.285 mm (17'4")



Dimensions

A	1.650 mm	5'5"
B	2.100 mm	6'11"
Ca	7.250 mm	23'9"
Cb	8.900 mm	29'2"
Cc	9.350 mm	30'11"
D	3.299 mm	10'10"
E	1.268 mm	4'2"
F	4.283 mm	14'1"
G	8.523 mm	27'12"
H	11.462 mm	37'7"
I	3.890 mm	12'9"
J	3.780 mm	12'5"
L	10.268 mm	33'8"
M	9.136 mm	29'11"
N	4.903 mm	16'1"
O	4.423 mm	14'6"
P	4.867 mm	16'0"
Q	10.969 mm	35'12"
R	8.730 mm	28'8"
R1	8.800 mm	28'10"



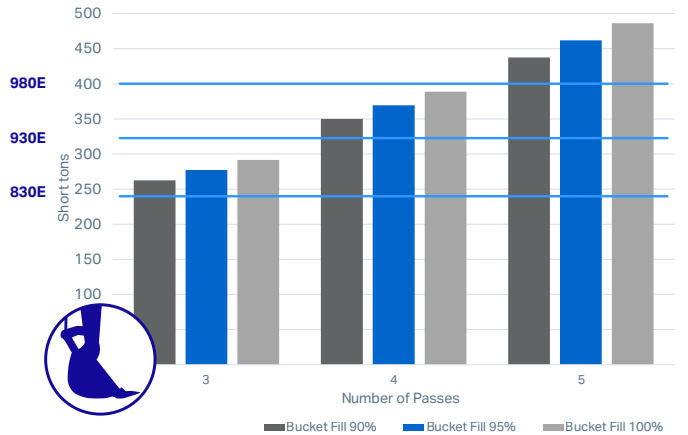
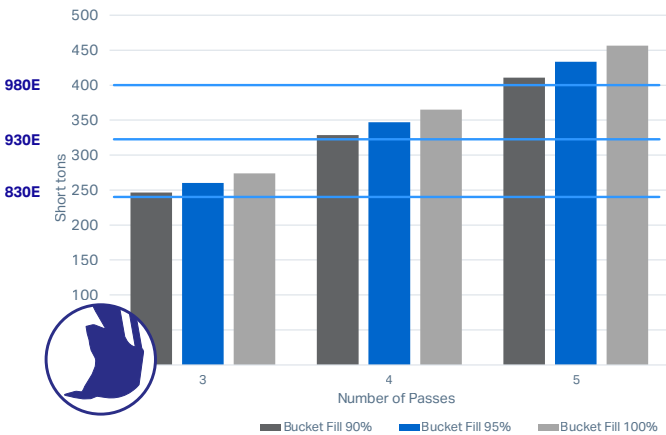
Operating Weights (Front shovel)

Boom dimensions	8.300 mm	27'3"
Stick dimensions	5.850 mm	19'2"
Standard bucket	46 m ³	60 yd ³
Shoe width and weight (1.650 mm)	1.650 mm	5'5"
Ground pressure	27,5 N/cm ²	39.9 psi
Operating weight	884 t	1,948,884 lbs
Shoe width and weight (2.100 mm)	2.100 mm	6'11"
Ground pressure	21,9 N/cm ²	31.8 psi
Operating weight	897 t	1,977,544 lbs

Operating Weights (Backhoe)

Boom dimensions	11.700 mm	38'5"
Stick dimensions	5.600 mm	18'4"
Standard bucket	49 m ³	64 yd ³
Shoe width and weight (1.650 mm)	1.650 mm	5'5"
Ground pressure	27,9 N/cm ²	40.5 psi
Operating weight	896 t	1,975,340 lbs
Shoe width and weight (2.100 mm)	2.100 mm	6'11"
Ground pressure	22,2 N/cm ²	32.2 psi
Operating weight	909 t	2,004,000 lbs

PC9000-12 Front shovel and backhoe truck match



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