

PC8000 Super Shovel

KOMATSU®

**Service Weight**

685 t

1,510,000 lb

Shovel Capacity

35 m³ 46 yd³

SAE 2:1 heaped

Main Drive

Diesel

2780 kW

3730 HP

Electrical

2700 kW



HYDRAULIC MINING SHOVEL

PC8000 Super Shovel

SPECIFICATIONS

PC8000 Super Shovel

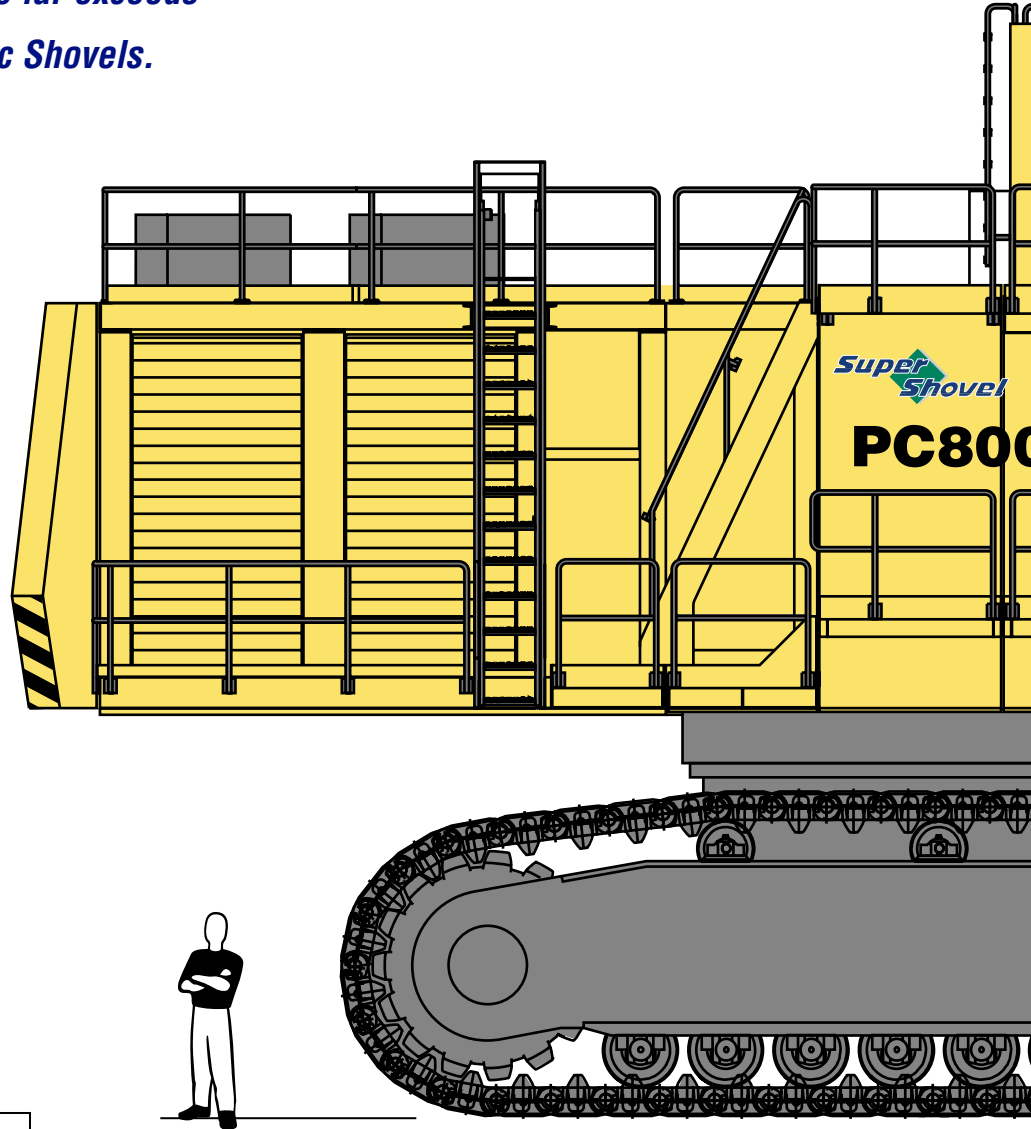
WALK-AROUND

The sheer size of this machine far exceeds all other series-built Hydraulic Shovels.

The existing world population testifies to the acceptability of this model.

In-house Design and Manufacture

- Experience and quality control, confirmed by ISO 9001 certification.
- Components are designed to combine high production, easy maintenance, and extended reliability.
- Robust structural design developed from field experience and finite element analysis expertise.
- Produced by a company committed to continuous improvement.



Undercarriage Built for Mining

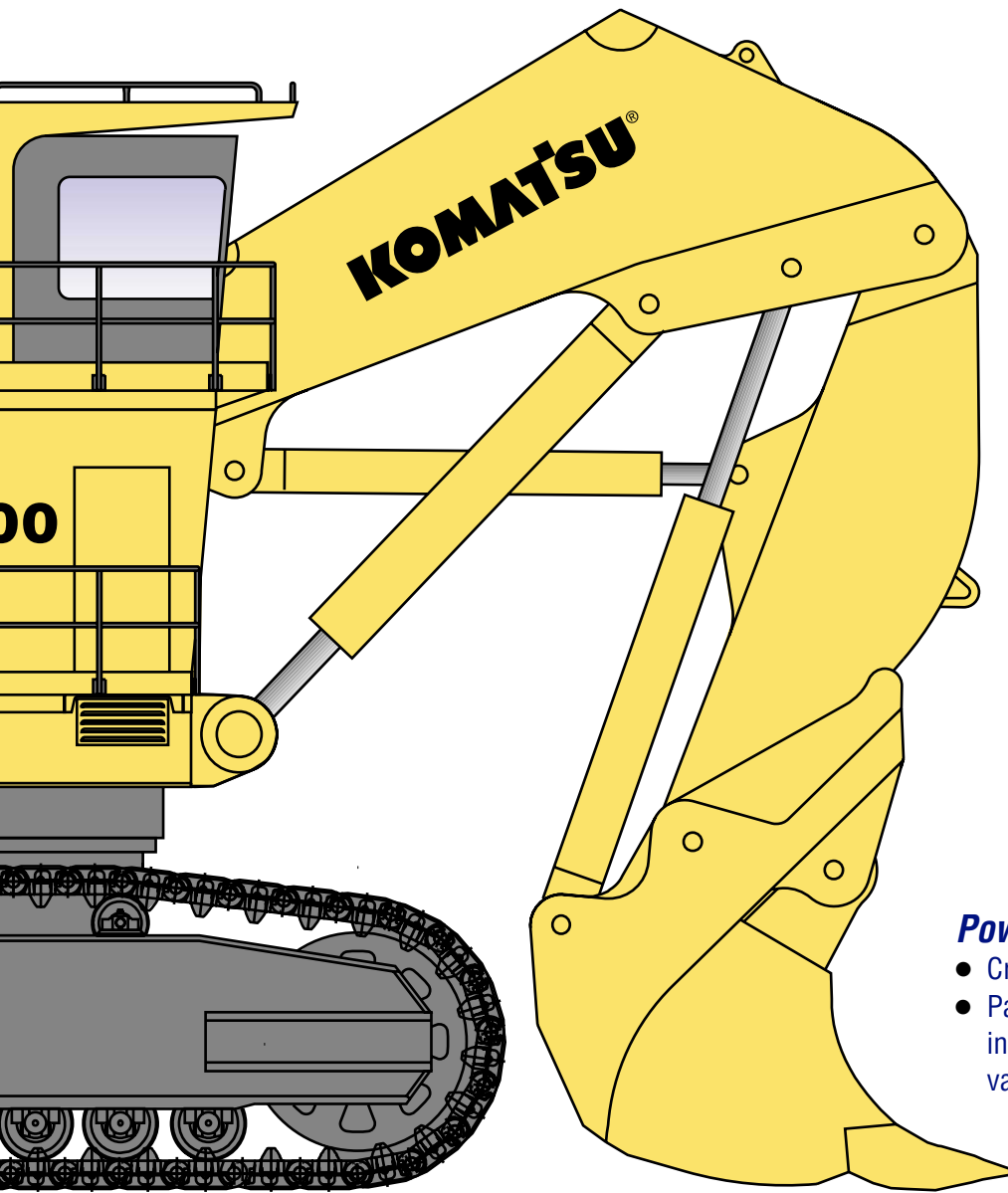
- Large diameter rollers, idlers, and drive sprockets.
- Extensive detailed hardening of running gear.
- Track pad pin bores hardened for extended service life.

Matched for 240T Trucks

SHOVEL BUCKET
35 m³ 46 yd³

CROWD/BREAKOUT FORCE
2320 kN 521,500 lb

MAIN DRIVE
ELECTRIC: 2700 kW
DIESEL: 2780 kW **3730 HP**



Operator's Cab

- Full shift climate-controlled comfort.
- Large glass area and high position allows good all-round visibility.
- Operator's eye level is 8.45 m **28'**.
- Light to operate joystick controls.
- Integrated service data monitoring for operator and service personnel.

Powerful Digging Forces

- Crowd/breakout force 2320 kN **521,500 lb.**
- Parallel-type shovel attachment results in increased bucket fill, more flexibility at various face heights.

Worldwide Experience

PC8000 population is found in key mining areas throughout the world. Each shovel symbol represents one or several PC8000s in operation.



SPECIFICATIONS



DIESEL DRIVE

Make and model	2 x Caterpillar 3516 EUI
Type	4-cycle, water-cooled, direct injection
Aspiration	Turbocharged and aftercooled
Number of cylinders	16
Rated brake power (each)	2 x 1390 kW 1865 HP @ 1800 rpm
Gross power	2780 kW 3730 HP @ 1800 rpm
Governor	All-speed, electronic



ELECTRIC DRIVE

Type	Squirrel-cage induction motors
Power output	2 x 1350 kW
Gross power	2700 kW
Voltage	6600 V*
Amperage (approximate)	290 A
Frequency (standard)	50 Hz @ 1500 rpm
Optional frequency	60 Hz @ 1800 rpm

*Other voltages available on request



ELECTRIC SYSTEM

System	24 V
Batteries: Electric version	4 x 12 V
Diesel version	8 x 12 V
Alternator: Diesel version	2 x 100 A



HYDRAULIC SYSTEM

The power train consists of two drive units. Diesel engines or electric motors can be specified. Each of the two gearboxes drive four identical main pumps which draw oil from an unpressurized hydraulic tank. Open circuit hydraulics provide maximum cooling and filtering efficiency.

Rated flow (total output)	7200 ltr/min 1,900 gpm
Pressure	310 bar 4,495 psi
Swing flow rate (total output)	1800 ltr/min 475 gpm



HYDROPILOT

The three-circuit system features a load-limiting governor with oil delivery summation to the working circuits and incorporates pressure cut-off control. Hydropilot prioritizes hydraulic flow based on demand, allowing for smooth hydraulic responses, simple system layout, and fewer components.



SWING SYSTEM

Hydraulic motors and drives	2
Swing brake, service	Hydraulic brake
Swing brake, parking	Wet, multiple-disc
Ring teeth	External
Swing speed	3.45 rpm



COOLING SYSTEM

The high-capacity diesel engine radiators are cooled by hydraulically driven fans for superior cooling efficiency and reduced maintenance. The hydraulic system includes four large swing-out vertical air-to-oil hydraulic coolers with temperature-regulated hydraulically driven fans.



DRIVES AND BRAKES

Drive control	2 foot pedals
Travel speed (maximum)	2.14 km/h 1.34 mph
Gradeability	Up to 60%
Service brake	Hydraulic brake
Parking brake	Wet, multiple-disc



UNDERCARRIAGE

Center frame	H-type
Track frame	Steel box-section
Track adjuster	Automatic hydraulic type
Number of track pads per side	48
Number of carrier rollers per side	3
Number of track rollers per side	8

Undercarriage consists of one center carbody and two side frames each attached by four large diameter hardened pins.



CRAWLER ASSEMBLY

Track width	1500 mm 59"
Ground pressure	25.8 N/cm ² 37.3 psi
Track width (optional)	1900 mm 75"
Ground pressure	20.9 N/cm ² 30.2 psi



CAB

Fully enclosed and insulated steel cab is rubber mounted with external ISO 3449 FOPS structure. Dampened air suspension operator's seat and second fold-away seat. Two levers control digging and swing functions. Two pedals control all crawler motions, swing brake, and clam operation. Windshield wiper/washer with two-speed and intermittent operation. Air-conditioner, heater/defogger, AM/FM radio, and sun visor. Right-hand sliding window.



ECS MONITORING SYSTEM

The ECS diagnostic system with text display, mounted in the operator's console, continuously monitors the performance of the engine, gearbox, autolube and hydraulic systems. Fault messages are immediately available to the operator via a digital display, and service history can be downloaded with a laptop computer.



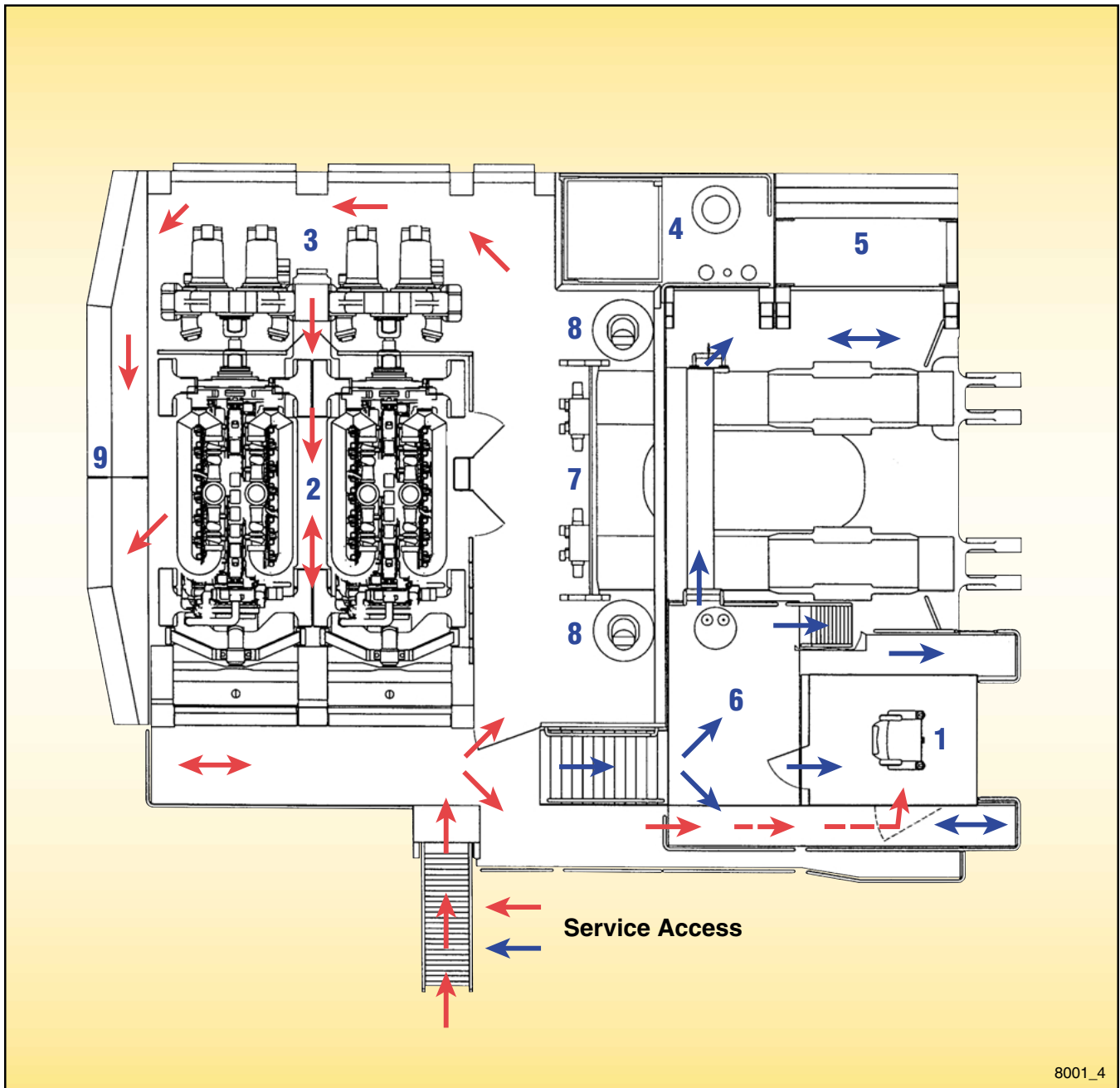
SERVICE WEIGHT

Machine without attachments	.516 t	1,138,500 lb
Shovel attachment	.110 t	242,500 lb
Bucket with wear package	.59 t	129,000 lb
Total	.685 t	1,510,000 lb



SERVICE CAPACITIES

Fuel	.10700 ltr	2,830 U.S. gal
Hydraulic oil tank	.8350 ltr	2,205 U.S. gal
Hydraulic system	.9500 ltr	2,510 U.S. gal
Engine coolant	.2 x 475 ltr	2 x 125 U.S. gal
Engine oil	.2 x 400 ltr	2 x 105 U.S. gal



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Diesel Version

- 1 Cab
- 2 Diesel Engines
- 3 Hydraulic Pumps
- 4 Hydraulic Tank

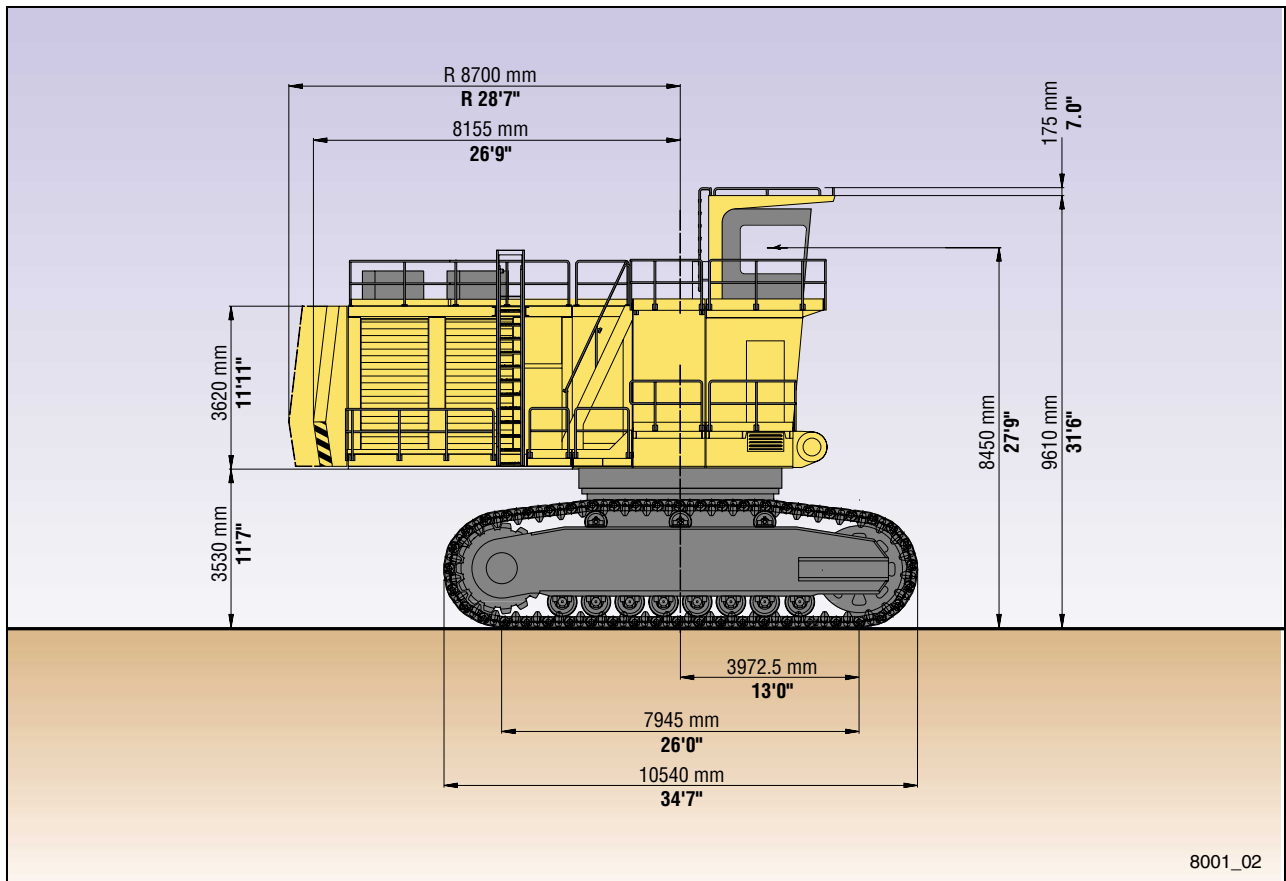
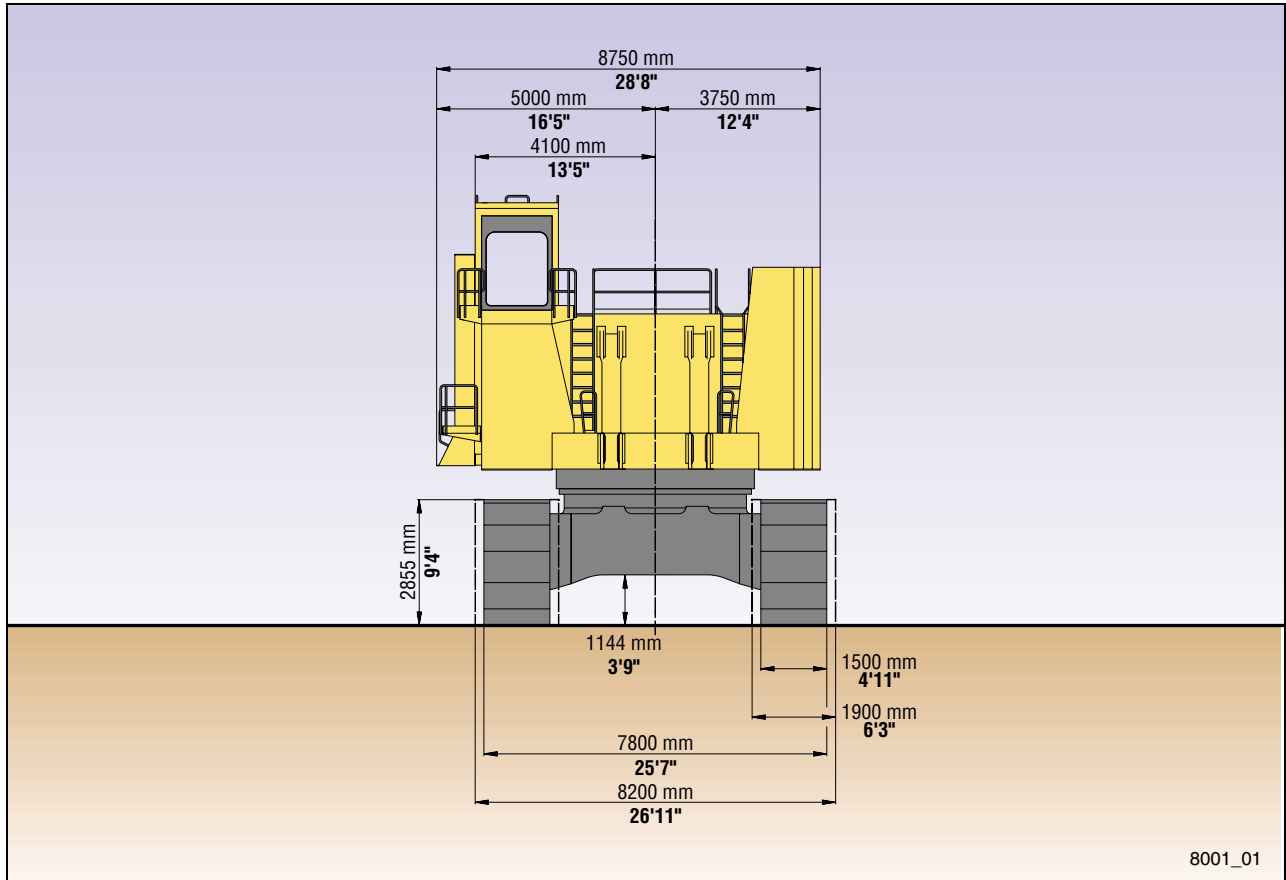
5 Hydraulic Coolers

- 6 Fuel Tank
- 7 Valve Blocks
- 8 Swing Motors
- 9 Counterweight

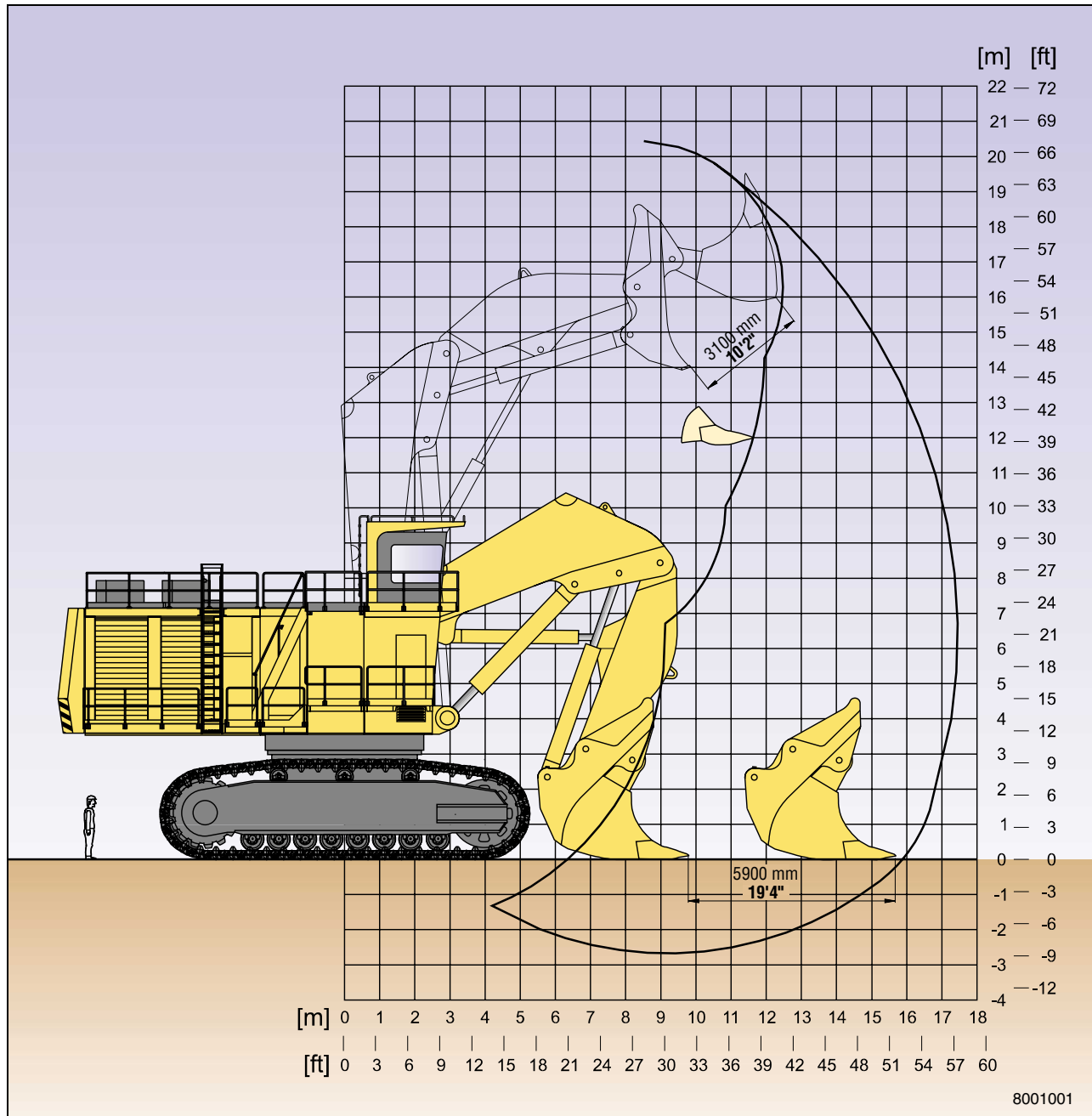
Variation for Electric Drive Version

- 2 Electric Motors
- 6 Medium Tension Electric Cabinet

PC8000 Basic Dimensions



PC8000 Shovel



BUCKET

Capacity (SAE/CECE) 2:1 heaped 35 m³ **46 yd³**
 1:1 heaped 42 m³ **55 yd³**
 For material weight 1.8 t/m³ **3,050 lb/yd³**
 Width 5330 mm **17'6"**
 Number of teeth 6

ATTACHMENT

Boom length 8150 mm **26'9"**
 Stick length 5750 mm **18'10"**

FORCES

Breakout force 2320 kN **521,500 lb**
 Crowd force 2320 kN **521,500 lb**
 Level crowd 5900 mm **19'4"**
 Maximum dump height 14000 mm **45'11"**

STANDARD EQUIPMENT

MINING SHOVEL ATTACHMENT

8.15 m **26'9"** boom and 5.75 m **18'10"** stick complete with cylinders. 35 m³ **46 yd³** (SAE 2:1) front shovel bucket with ESCO teeth and lip system.

CRAWLER UNDERCARRIAGE

Heavy-duty shovel type undercarriage consisting of center carbody and 2 heavy box-type side frames, each having 8 track rollers, 3 top rollers, and 1500 mm **59"** cast steel crawler shoes. Hydraulic track adjustment and parking brake provided.

Electric version (only) fitted with slip-ring connectors mounted on the hydraulic turning joint.

SUPERSTRUCTURE

Main frame mounted over externally toothed swing ring carries the platform component modules and the counterweight.

Electric version

- Two squirrel-cage induction motors, each with soft start and mounted with four identical main hydraulic pumps per motor
- Drive module
- Electrical cabinet module
- Medium tension electrical control including SF6 vacuum master contactor, main fuses, and transformer for 415 V and 240 V supply

Diesel version

- Two Caterpillar 3516 EUI diesel engines, each mounted with four identical main hydraulic pumps
- Drive module
- Fuel tank module

HYDRAULIC TANK

OIL COOLER MODULE

CAB BASE

Includes the low tension electrical cabinet.

OPERATOR'S CAB

Fully enclosed and insulated steel cab mounted on rubber pads with external ISO 3449 FOPS structure. GRAMMER dampened air suspension operator's seat with lap-belt. Fold-away second seat. CARRIER SUTRAK air-conditioning unit. Full selection of controls, switches, and ECS (Electronic Control System). Joystick and pedal-operated controls are electric over hydraulic. Windshield wiper/washer with two-speed and intermittent operation. Radio. Right-hand sliding window. All windows tinted parasol green.

LIGHTING

- 3 x 200 W halogen working lights

Electric version

- 8 x 36 W fluorescent service lights
- 3 x 18 W fluorescent service lights

Diesel version

- 12 x 70 W halogen service lights

LUBRICATION

LINCOLN central lubrication for basic machine, attachment, and bucket. 200 ltr **53 gal** refillable barrel.

LINCOLN automatic pinion lubrication system for swing gear with 200 ltr **53 gal** refillable barrel.

WIGGINS service center mounted on swing-down arm for fill of fuel, engine oil and coolant (not electric version), hydraulic oil, grease, and the evacuation of hydraulic and engine oils (not electric version).

ACCESSORIES

- ECCO acoustic travel alarm
- Mechanically assisted ground access ladder

OPTIONAL EQUIPMENT

- Backhoe version, 33 m³ **43 yd³** (SAE 1:1)
- 1900 mm **75"** track pads
- Cable reel (electric version)
- KIM Hot Start
- Low temperature specification
- Auxiliary diesel generator
- Service crane
- Fire-suppression system
- Extra or alternative lighting
- Rotary warning light
- Bucket wear packages

KOMATSU®

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Featured machines may include optional or special equipment. Materials and specifications are subject to change without notice.