

KOMATSU

PC8000

OPERATION WEIGHT
752 – 777 ton 1,658,00 - 1,713,000 lb

SHOVEL CAPACITY
42 m³ 55yd³ SAE 2:1 heaped

BACKHOE CAPACITY
42 m³ 55yd³ SAE 1:1 heaped

PC
8000



SUPER SHOVEL

WALK-AROUND

Quality

- Quality management ISO 9001
- Environmental management ISO 14001
- Occupational health and safety management system BS OHSAS 18001:2007
- High consistent quality through continuous investment in personnel, design and manufacturing systems and processes

Reliability and Durability

Designed for lower operating costs

- Robust structural design developed from field experience and finite element analysis

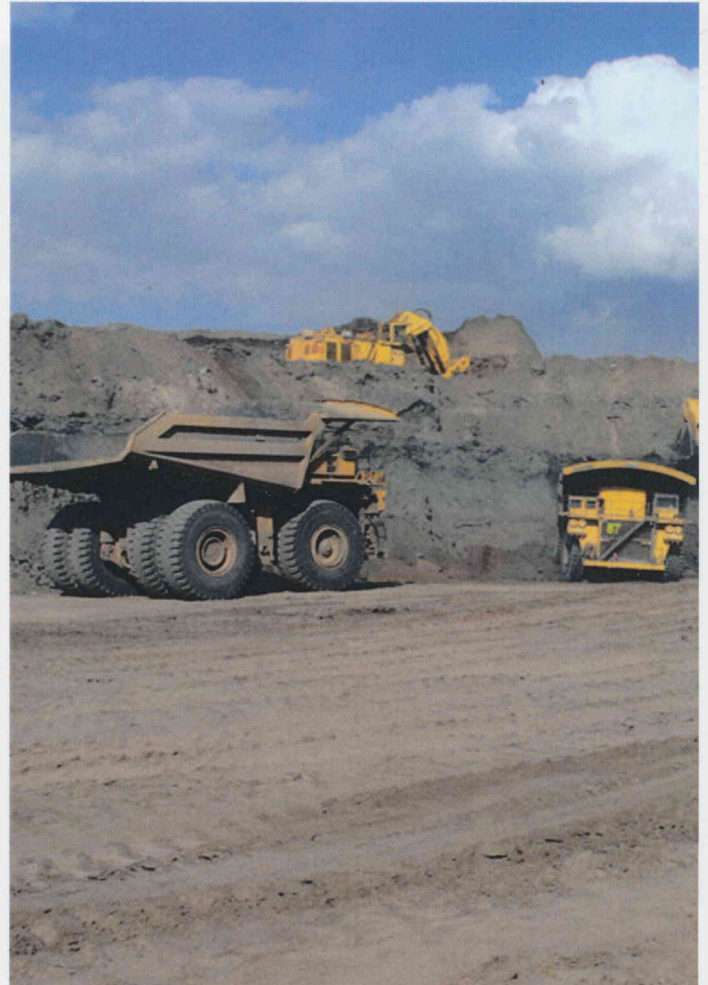
Undercarriage

- Big diameter rollers, idlers and sprockets
- Large surface area and extensive precision hardening reduce track pads wear
- Hardened track link pin bores

Productivity

Designed for more tons per hour

- Powerful digging forces
- Ease of bucket filling
- Proven attachment design
- All cylinders mounted in the shadow of the attachment for protection
- Buckets and wear packages to suit all material densities and properties



Large Comfortable Cab

Gives full shift comfort

- Komatsu low noise cab on multiple viscous mounts for reduced noise and vibration
- Large volume cab with large scale front window
- Comprehensive climate control with pressurised filtered air ventilation and air conditioning
- High specification multi-adjustable air suspension seat
- Well elevated operator position giving good all round view

MATCHES
240 to 400 U.S. ton
TRUCKS

SHOVEL AND BACKHOE
BUCKET CAPACITY
42 m³ 55 yd³ SAE

**Advanced Hydraulics**

Extended reliability and precise control

- Comprehensive monitored filtration
- Simple open circuit hydraulic system with high efficiency swing out oil coolers

Powerful Diesel Engine

Two Komatsu SDA16V160E-2 Tier 2 engines

- Rated (each) 1500 kW 2100 HP, at 1800 rpm
- Electronic engine management
- Low engine emission levels Tier 2 certificated
- Time saving Engine Oil Management System; Centinel, Engine Reserve Oil Supply and Eliminator Oil Filter System

Easy and Safe Maintenance

Simple, common-sense design provides easy access to all major components

- Generous access to all major service points from machinery house floor level
- Enclosed, walk-in machinery house with partition wall separating engine from pump area
- Automatic central lubrication
- KOMTRAX Plus electronic monitoring system providing real time information about the operating status of the machine
- Ground-level access to hydraulically powered swing down service arm with Wiggins connections
- Acknowledges EMESRT design philosophies

SPECIFICATIONS



DIESEL DRIVE

Tier 2 engine:
 Modell 2 x Komatsu SDA16V160E-2
 Type 4-cycle, water-cooled, direct injection
 Aspiration Turbocharged and aftercooled
 Number of cylinders 16
 Rated power 2 x 1500 kW 2010 HP @ 1800 rpm
 (SAE 1995/J1349)
 Governor All-speed, electronic
 The integrated engine oil and filter system combining the oil stabilising systems, Reserve and Centinel, with Eliminator oil filter extends the oil change interval to 4.000 hours based on oil analysis. The high capacity Mesabi engine radiators are cooled by a hydraulically driven fan for superior cooling efficiency.



ELECTRIC SYSTEM (Diesel Version)

System 24 V
 Batteries (series/parallel) 8 x 12 V
 Alternator 2 x 100 A
 Standard working lights 14 Xenon lights
 Standard service lights throughout platform



UNDERCARRIAGE

Undercarriage consists of one center carbody and two track frames, each side attached by high torque bolts.
 Centre frame H-type
 Track frame Steel box-section



CRAWLER ASSEMBLY

Track adjustment Automatic hydraulic type
 Number of track shoes 49 each side
 Number of top rollers 3 each side
 Number of bottom rollers 8 each side



TRAVEL AND BRAKE SYSTEMS

Travel control 2 foot pedals
 Gradeability Up to 50 %
 Travel speed (maximum) 2,4 km/h 1.5 mph
 Service brake Hydraulic brake
 Parking brake Wet, multiple-disc



SWING SYSTEM

Hydraulic motors and drives 3
 Swing brake, service Hydraulic brake
 Swing brake, parking Wet, multiple-disc
 Swing ring teeth External
 Swing speed (maximum) 2,7 rpm



ELECTRIC DRIVE

Type 2 x Squirrel-cage induction motor
 Power output 2 x 1450 kW
 Voltage 6.000 – 7.200 V*
 Amperage (approximate) 2 x 155 A – 2 x 128 A
 Frequency standard 60 Hz @ 1800 rpm
 Frequency option 50 Hz @ 1500 rpm
 * Other voltages available on request



ELECTRIC SYSTEM (Electric Version)

System 24 V
 Batteries (series/parallel) 4 x 12 V
 Standard working lights 14 Xenon lights
 Standard service lights throughout platform



HYDRAULIC SYSTEM

The power train consists of two main drives. Each of the two gearboxes drives four identical pumps which draw hydraulic oil from an unpressurized hydraulic tank. Open circuit hydraulics provide maximum cooling and filtering efficiency.
 Rated flow (total output) 8.280 ltr/min...2,190 gpm
 Relief valve setting 310 bar...4,495 psi
 Swing flow rate 2.070 ltr/min...547 gpm
 High pressure in line filters 200 microns
 one per pump located at the valve blocks
 Full flow return line filters (7 elements) 10 microns
 at head of hydraulic tank
 Case drain/by-pass return line filters 3 microns
 The four-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 giving smooth hydraulic response, simple hydraulic system layout, and a reduced number of components. The hydraulic system includes ten large swing-out vertical air-to-oil hydraulic coolers with temperature-regulated hydraulically driven fans.



AUTOMATIC CENTRALISED LUBRICATION

Three hydraulically powered Lincoln Single Line automatic lubrication systems are provided as standard, complete with time and volume variable controls. The two central lubrications and open gear lubricant are supplied by identical pump assemblies from a refillable twin container which has a capacity of 3 x 300 litres (3 x 80 gal.). Replenishment of the containers is through the Wiggings connections on the service arm.



SERVICE CAPACITIES

| | | |
|---------------------------------|---------------|------------------|
| Hydraulic oil tank | 8.350 ltr | 2,206 U.S. gal |
| Hydraulic system | 11.500 ltr | 3,040 U.S. gal |
| Fuel | 13.500 ltr | 3,564 U.S. gal |
| Engine coolant | 2 x 430 ltr | 2 x 113 U.S. gal |
| Engine oil | 2 x 290 ltr | 2 x 77 U.S. gal |
| Reserve engine oil make up tank | 2 x 1.056 ltr | 2 x 279 U.S. gal |



OPERATOR CAB

The large and comfortable cab is mounted on 18 viscous damping pads and sound insulated. The cab has an automatic climate control and is pressurised. The operator's seat is air suspended, electrically heated and has a lap seat belt and offers multiple adjustments. The trainer seat is also equipped with a seat belt. Low-effort joystick controls are electric over hydraulic with foot controls for front shovel clam, crawler and swing brake. Full instrumentation, KOMTRAX Plus and a AM/FM radio with MP3 ready CD player is fitted. The windshield wash wiper has two speeds and intermittent operation. Amenities include a refrigerator and storage cabinets. Powered and heated mirrors are adjusted from inside the cab. External metal sun blinds on the cab side window and internal roller blinds on all windows are standard. The right hand window is an emergency exit. All windows are tinted parsol green.

Cab engineering standards are:

- ISO 3449 Falling Objects Protection Structure
- ISO 6396 Noise in operator's cab is 78 dB(A)
- ISO 2631-1 Whole body vibration and shock below 0,5 m/s²
- ISO 5349-1 Hand-lever vibration lower 2,5 m/s²
- ISO 10263-4 Heating and air conditioning second heater and air conditioner as option



VEHICLE HEALTH MONITORING SYSTEM

KOMTRAX Plus is designed for Komatsu mining equipment to provide real time information about the operating status of the machine via a coloured display. The integrated digital storage provides a full event history and trend data, which can be downloaded by laptop, optional are W-LAN or satellite modem.



OPERATING WEIGHTS (APPROXIMATE)

PC 8000 Backhoe:

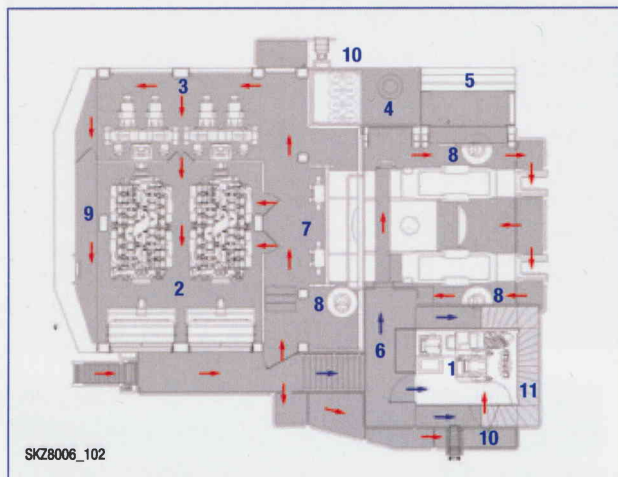
Operation weight including 11.500 mm 37'9" boom, 5.500 mm 18'0" stick, 42 m³ 55.0 yd³ backhoe bucket, operator, lubricant, coolant, 1/3 fuel tank and standard equipment.

| Shoe Width | Operating Weight | Ground Pressure |
|------------|------------------|------------------------|
| 1500 mm | 763 t | 27,9 N/cm ² |
| 59" | 1,671,000 lb | 40.4 psi |
| 1900 mm | 777 t | 22,4 N/cm ² |
| 75" | 1,713,000 lb | 32.5 psi |

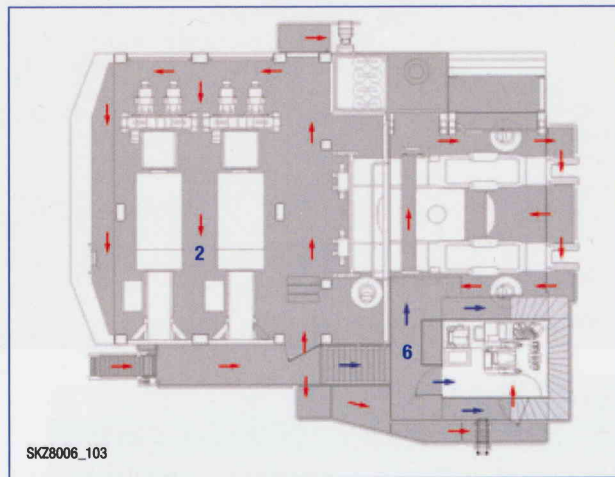
PC 8000 Front Shovel:

Operating weight including 8.150 mm 26'9" boom, 5.750 mm 18'9" stick, 42 m³ 55.0 yd³ shovel bucket, operator, lubricant, coolant, 1/3 fuel tank and standard equipment.

| Shoe Width | Operating Weight | Ground Pressure |
|------------|------------------|------------------------|
| 1500 mm | 752 t | 27,5 N/cm ² |
| 59" | 1,658,000 lb | 39.9 psi |
| 1900 mm | 767 t | 22,1 N/cm ² |
| 75" | 1,691,000 lb | 32.0 psi |



SKZ8006_102



SKZ8006_103

Diesel Drive

- | | |
|---------------------|-------------------------|
| 1 Cab | 7 Valve Blocks |
| 2 Diesel Engines | 8 Swing Motors |
| 3 Hydraulic Pumps | 9 Counterweight |
| 4 Hydraulic Tank | 10 Secondary Egress |
| 5 Hydraulic Coolers | 11 See-through Cat Walk |
| 6 Fuel Tank | |

Variation for Electric Drive Version

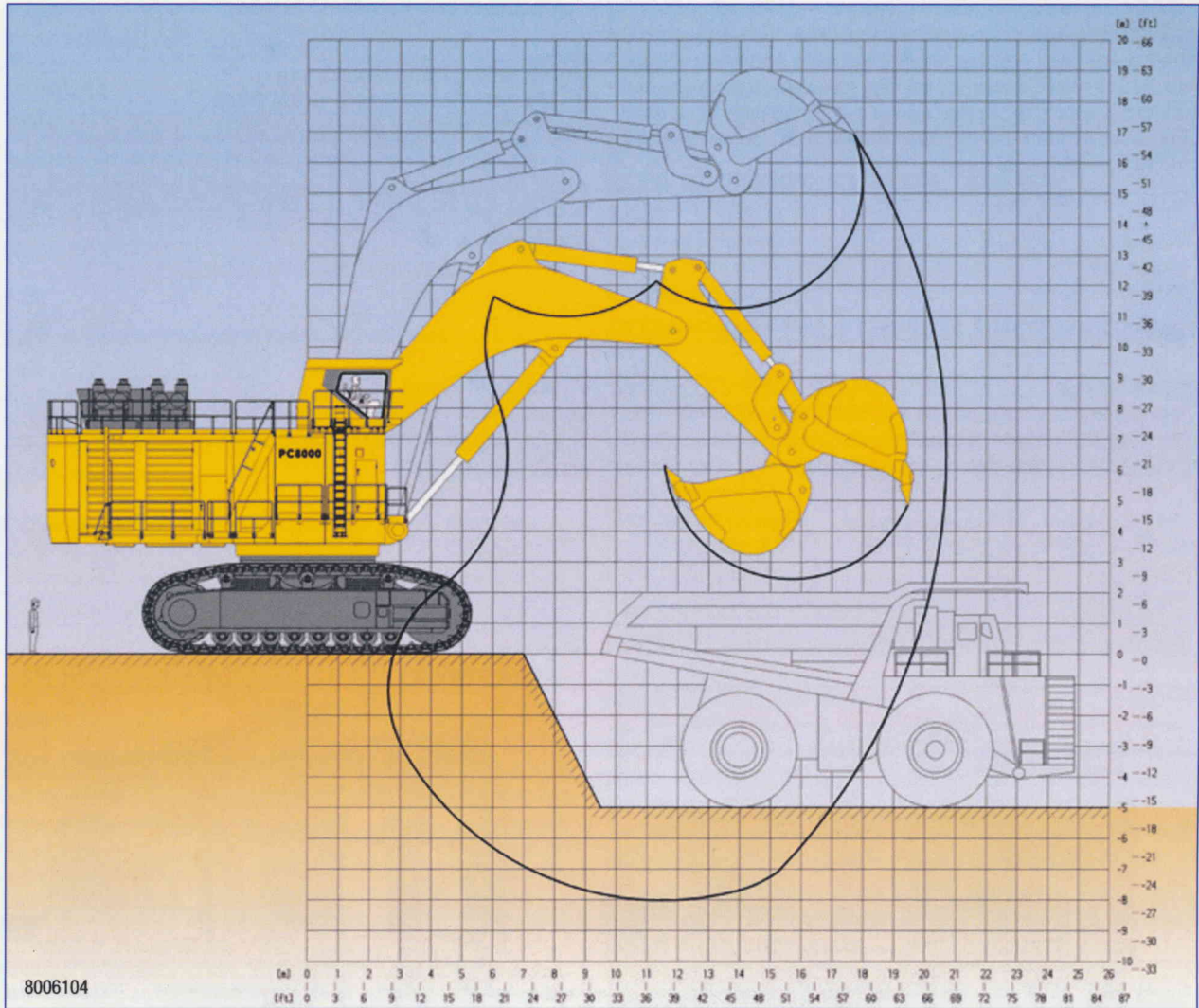
- | |
|---------------------------------|
| 2 Electric Motors |
| 6 High Voltage Electric Cabinet |

Walkways ← Lower-Level
 ← Upper-Level

PRODUCTIVITY-FEATURES



BACKHOE ATTACHMENT



8006104

| | | |
|-----------------------|-----------|------------|
| Boom length | 11.500 mm | 37'9" |
| Stick length | 5.500 mm | 27'7" |
| Break-out force (SAE) | 2.000 kN | 449,500 lb |
| Tear-out force (SAE) | 1.800 kN | 404,600 lb |

| | | |
|------------------------------------|-----------|-------|
| Max. digging height | 16.900 mm | 55'5" |
| Max. dumping height | 11.000 mm | 36'1" |
| Max. digging depth | 8.400 mm | 27'7" |
| Max. digging reach | 20.500 mm | 67'3" |
| Max. digging reach at ground level | 19.900 mm | 65'3" |

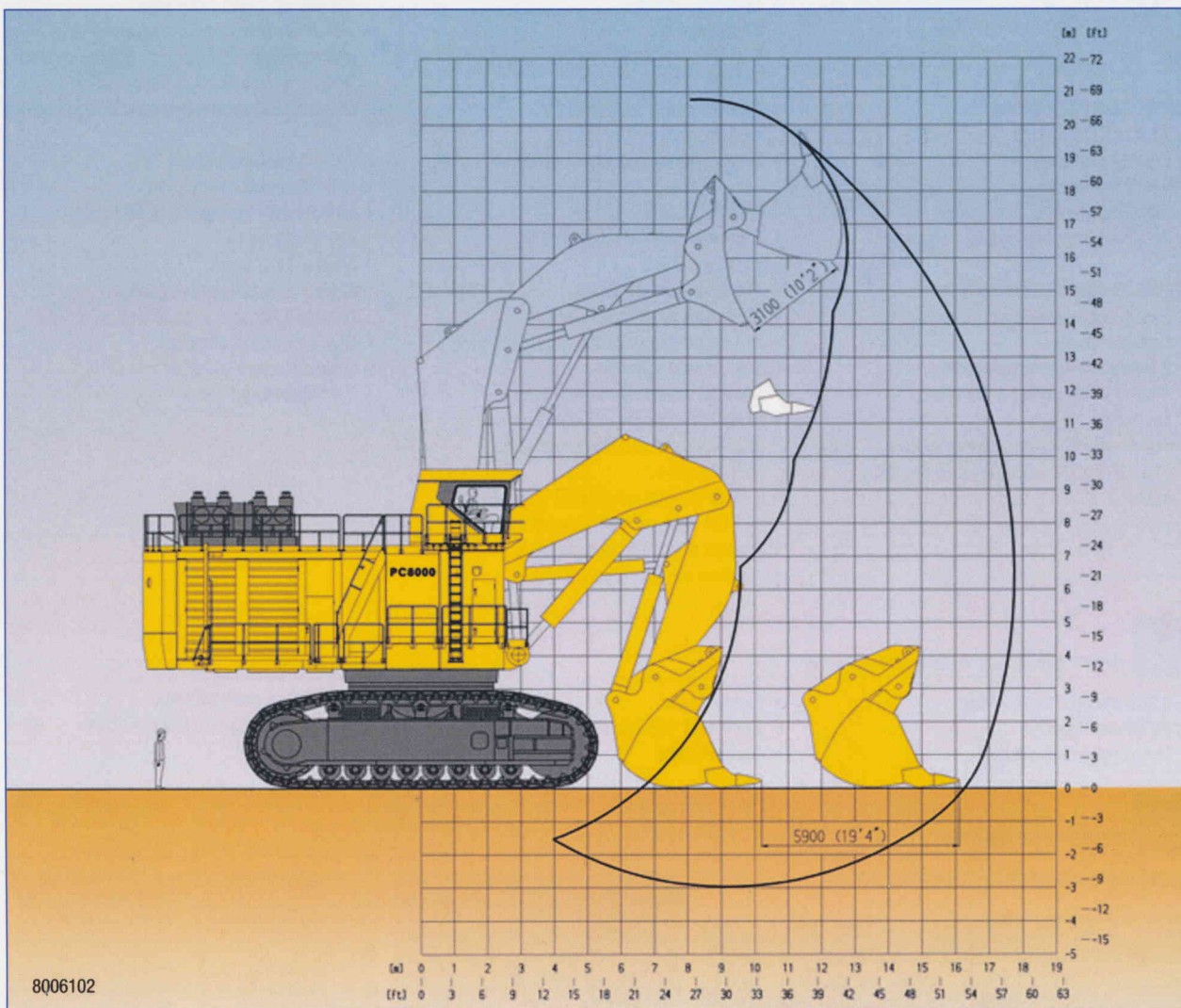
| Bucket Capacity (Heaped 1:1) SAE | | Width | | Teeth | Wear Package (*) | Weight | | Max. Material Density (Loose) | | Recommended Mining Uses |
|-------------------------------------|------|-------|-----------|-------|------------------------|--------|---------|-------------------------------|---------|-------------------------------|
| cum | cuyd | mm | foot/inch | qty | | t | lb | t/cum | lb/cuyd | |
| 42,0 | 55,0 | 4.575 | 15' | 6 | 2 | 48,0 | 105,840 | 1,8 | 3000 | Standard |

*) WP 1 Light abrasive
 WP 2 Medium abrasive
 WP 3 Severe abrasive

Alternative buckets on request



FRONT SHOVEL ATTACHMENT



8006102

| | | |
|-----------------------|----------|------------|
| Boom length | 8.150 mm | 26'9" |
| Stick length | 5.750 mm | 18'9" |
| Break-out force (SAE) | 2.320 kN | 521,500 lb |
| Tear-out force (SAE) | 2.320 kN | 521,500 lb |

| | | |
|----------------------|-----------|-------|
| Max. digging height | 20.500 mm | 67'3" |
| Max. dumping height | 13.900 mm | 45'7" |
| Max. digging depth | 3.100 mm | 10'2" |
| Max. digging reach | 17.800 mm | 58'5" |
| Max. digging reach | 5.900 mm | 19'4" |
| Bucket opening width | 3.150 mm | 10'4" |

| Bucket Capacity (Heaped 1:2) SAE | | Width | | Teeth | Wear Package | Weight | | Max. Material Density (Loose) | | Recommended Mining Uses |
|-------------------------------------|------|-------|-----------|-------|-----------------|--------|---------|-------------------------------|---------|-------------------------------|
| cum | cuyd | mm | foot/inch | qty | *) | t | lb | t/cum | lb/cuyd | |
| 28,0 | 37,0 | 4.575 | 15' | 6 | 4 | 62,3 | 137,370 | 2,8 | 4700 | Severe |
| 36,0 | 47,0 | 5.375 | 17'8" | 6 | 4 | 70,7 | 155,890 | 2,0 | 3400 | Severe |
| 42,0 | 55,0 | 5.375 | 17'8" | 6 | 3 | 69,7 | 153,690 | 1,8 | 3000 | Standard |

*) WP 1 Non abrasive
WP 2 Light abrasive

WP 3 Medium abrasive
WP 4 Severe abrasive

Alternative buckets on request



STANDARD EQUIPMENT

HYDRAULIC MINING SHOVEL

FRONT SHOVEL ATTACHMENT

- 8,15 m 26'9" boom
- 5,75 m 18'9" stick
- Set of cylinders
- 42 m³ 55 yd³ (SAE 2:1) shovel bucket WP3, with hammerless GET system

OR

BACKHOE ATTACHMENT

- 11,5 m 37'9" boom
- 5,5 m 18'0" stick
- Set of cylinders
- 42 m³ 55 yd³ (SAE 1:1) bucket WP2, with hammerless GET system

CRAWLER UNDERCARRIAGE

- Heavy-duty shovel type undercarriage
- Centre carbody
- 2 heavy box-type track frames
- 8 bottom rollers and 3 top rollers each side
- 1500 mm 59" cast steel track shoes
- Hydraulic track adjustment and parking brake

SUPERSTRUCTURE

- Main frame mounted over an externally toothed swing circle carries the drive module
- 2 x Komatsu SDA16V160E-2 Tier 2 diesel engines
- Hydraulic cooler
- Counterweight

LIGHTING

- 14 Xenon high performance working lights
- Service lights throughout platform

OPERATOR CAB

- Enclosed steel cab mounted on viscous pads
- FOP structure ISO 3449
- Air-conditioning unit Süttrak
- Full suspension operator seat with belt
- Trainer seat with belt
- Controls in operator comfort zone
- KOMTRAX Plus (Monitoring System)
- Joysticks and controls are electric over hydraulic
- 1 large parallel windshield wash wiper
- AM-FM radio with MP3 ready CD player
- Internal and external sun blinds
- All windows tinted parsol green

LUBRICATION AND SERVICE

- LINCOLN central lubrication for basic machine and attachment
- LINCOLN central lubrication for bucket and bucket stick assembly
- LINCOLN automatic pinion lubrication system for swing circle teeth
- WIGGINS service arm carrying fluid receiving connectors for filling of fuel, engine oil and coolant, hydraulic oil, grease, and the evacuation of coolant, hydraulic and engine oils

ACCESSORIES INCLUDED

- Acoustic travel alarm
- Hydraulically actuated ground access ladder
- Electric air horn
- Engine turbo cover
- Engine oil management package (Centinel, Reserve & Eliminator systems)
- Service transfer oil pump
- Rails and steps on boom
- Tie off points on boom



OPTIONAL EQUIPMENT

- 1.900 mm 75" track shoes
- Additional lighting
- Fire suppression system
- Electric drive
- Cable reel (Electric version)
- Service crane
- Low temperature package (-40 °C; -50 °C) incl. KIM hot start

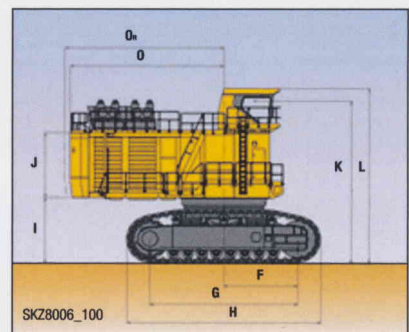
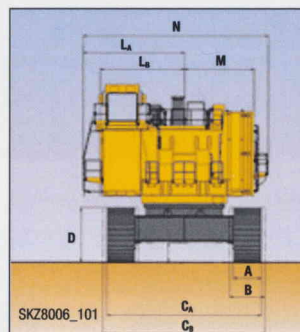


DIMENSIONS

BASIC MACHINE WITH COUNTERWEIGHT

| | | | | | |
|----------------|----------|--------|----------------|----------|--------|
| A | 1500 mm | 4'11" | I | 3560 mm | 11'8" |
| B | 1900 mm | 6'3" | J | 8950 mm | 29'4" |
| C _A | 8330 mm | 27'4" | K | 9655 mm | 31'8" |
| C _B | 8730 mm | 28'8" | L _A | 5480 mm | 17'12" |
| D | 3055 mm | 10'0" | L _B | 4550 mm | 14'11" |
| E | 4050 mm | 13'3" | M | 3750 mm | 12'4" |
| F | 8100 mm | 26'7" | N | 10010 mm | 32'10" |
| G | 10735 mm | 35'3" | O | 8410 mm | 27'7" |
| H | 3615 mm | 11'10" | O _R | 8710 mm | 28'7" |

Ground Clearance: 1095 mm 3'7"



QE550087 01

© 2011 Komatsu - Printed in Germany

KOMATSU®

KOMATSU MINING GERMANY GMBH
 BUSCHERHOFSTRASSE 10
 D-40599 DÜSSELDORF
 PHONE +49 (0) 211/71 09-0
 FAX +49 (0) 211/71 5822

www.komatsu-mining.de

Materials and specifications are subject to change without notice.
Komatsu is a trademark of Komatsu Ltd. Japan