OPERATING WEIGHT
252-265 ton 556,000-584,000 lb

SHOVEL CAPACITY
16 m³ 21 yd³ SAE 2:1 heaped

BACKHOE CAPACITY
15 m³ 19.5 yd³ SAE 1:1 heaped

KOMATSU

PC3000

SUPER SHOVEL
Quality
- Quality management ISO 9001 certified
- Environmental Management ISO 14001 certified
- 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 ground conditions
**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

**Advanced Hydraulics**

Extended reliability and control

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

**Powerful Diesel Engine**

Standard Komatsu SSA12V159 (Tier 1)
Optional Komatsu SSA12V159E-2 (Tier 2)

- Rated 940 kW 1260 HP, at 1800 rpm
- Electronic diagnostic engine management
- Low engine emission levels
- Optional time saving Engine Oil Management System: Centinel, Engine Reserve Oil Supply and Eliminator Oil Filter systems

**Easy and Safe Maintenance**

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

- Hydraulically operated ground access ladder; 60° angle
- 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
### Diesel Drive

**Tier 1 engine:**
- **Model:** Komatsu SSA12V159
- **Type:** 4-cycle, water-cooled, direct injection
- **Aspiration:** Turbocharged and aftercooled
- **Number of cylinders:** 12
- **Rated power:** 940 kW @ 1800 rpm
  - **Governor:** All-speed, electronic

**Optional Tier 2 engine:**
- **Model:** Komatsu SSA12V159E-2 Tier 2 certificated
- **Type:** 4-cycle, water-cooled, direct injection
- **Aspiration:** Turbocharged and aftercooled
- **Number of cylinders:** 12
- **Rated power:** 940 kW @ 1800 rpm
  - **Governor:** All-speed, electronic

### Swing System

**Hydraulic motors and drives:**
- 1

**Swing brake, service:**
- Hydraulic brake

**Swing brake, parking:**
- Wet, multiple-disc

**Swing ring teeth:**
- External

**Swing speed (maximum):** 4.6 rpm

**Electric Drive**

- **Type:** Squirrel-cage induction motor
- **Power output:** 900 kW
- **Volen:** 6000-7200 V*
- **Amperage (approximate):** 96-80 A
- **Frequency (standard):** 50 Hz @ 1500 rpm
- **Optional frequency:** 60 Hz @ 1800 rpm

*Other voltages available on request

### Undercarriage

The undercarriage consists of one center carbody and two track frames, each side attached by 38 high torque bolts.

**Center frame:**
- H-type

**Track frame:**
- Steel box-section

### Crawler Assembly

**Track adjustment:**
- Automatic hydraulic type

**Number of shoes:**
- 46 each side

**Number of top rollers:**
- 3 each side

**Number of bottom rollers:**
- 7 each side

### Cooling System

The high capacity engine radiator is cooled by a mechanically driven fan for superior cooling efficiency and requires little maintenance.

The hydraulic system includes two large swing-out vertical air-to-oil hydraulic coolers with temperature-regulated hydraulically driven fan.

### Automatic Centralised Lubrication

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 litre 53 gal. barrel. A second, identical system supplies open gear lubricant to the swing ring teeth through a lube pinion. Replenishment of the barrels is through the service arm.

### Service Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic oil tank</td>
<td>2.670 ltr</td>
<td>705 U.S. gal</td>
</tr>
<tr>
<td>Hydraulic system</td>
<td>4.400 ltr</td>
<td>1,160 U.S. gal</td>
</tr>
<tr>
<td>Fuel</td>
<td>4.500 ltr</td>
<td>1,190 U.S. gal</td>
</tr>
<tr>
<td>Engine coolant</td>
<td>0.254 ltr</td>
<td>67 U.S. gal</td>
</tr>
<tr>
<td>Engine oil</td>
<td>0.190 ltr</td>
<td>50 U.S. gal</td>
</tr>
</tbody>
</table>

### Electrics

**System:**
- 24 V

**Batteries (series/parallel):**
- 4 x 12 V

**Alternator:**
- 140 A

**Standard working lights:**
- 12 Xenon lights

### Hydraulics

The three-circuit Hydropilot system features electronic engine and pump management to optimise hydraulic power for smooth hydraulic action, fast response, simple system layout and a reduced number of components. Filtration is at the oil intake to pumps, valve blocks, heat exchangers and oil tank.

**Travel control:**
- 2 foot pedals

**Gradeability:**
- Up to 57%

**Travel speed (maximum):**
- 2.4 km/h @ 1.5 mph

**Service brake:**
- Hydraulic brake

**Parking brake:**
- Wet, multiple-disc

**Engine oil:**
- 190 ltr 50 U.S. gal
The large and comfortable cab incorporating the ISO 3449 FOPS structure is vibration isolated, based on 15 viscous combination pads and sound insulated to 77 dB(A). The whole body vibration shocks are below 0.5 m/s² according ISO 2631-1, hand-lever vibrations are lower than 2.5 m/s² according ISO 5349-1. 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 hydraulic joystick controls are combined with foot controls for front shovel clam, crawler and swing brake. Full instrumentation, KOMTRAX Plus and an AM/FM radio with MP3 ready CD player is fitted. Two windshield wash wipers are synchronised and have two speed and intermittent operation. Two heated rear view mirrors are externally mounted. External metal sun blinds on side windows and internal roller blinds on all windows are standard. There is a left hand sliding window. All windows are tinted parsol green.

### PC 3000 Backhoe:
Operating weight including 8,600 mm 28’3” boom, 4,000 mm 13’1” stick, 15 m³ 19.5 yd³ backhoe bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

<table>
<thead>
<tr>
<th>Shoe Width</th>
<th>Operating Weight</th>
<th>Ground Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>800 mm 31”</td>
<td>256 t 564,500 lb</td>
<td>24.0 N/cm² 34.8 psi</td>
</tr>
<tr>
<td>1,000 mm 39”</td>
<td>265 t 584,300 lb</td>
<td>19.9 N/cm² 28.9 psi</td>
</tr>
<tr>
<td>1,200 mm 47”</td>
<td>265 t 584,300 lb</td>
<td>16.6 N/cm² 24.1 psi</td>
</tr>
</tbody>
</table>

### PC 3000 Front Shovel:
Operating weight including 6,000 mm 19’8” boom, 4,300 mm 14’1” stick, 16 m³ 21 yd³ shovel bucket, operator, lubricant, coolant, full fuel tank and standard equipment.

<table>
<thead>
<tr>
<th>Shoe Width</th>
<th>Operating Weight</th>
<th>Ground Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>800 mm 31”</td>
<td>252 t 555,700 lb</td>
<td>23.6 N/cm² 34.2 psi</td>
</tr>
<tr>
<td>1,000 mm 39”</td>
<td>261 t 575,500 lb</td>
<td>19.6 N/cm² 28.4 psi</td>
</tr>
<tr>
<td>1,200 mm 47”</td>
<td>261 t 575,500 lb</td>
<td>16.3 N/cm² 23.6 psi</td>
</tr>
</tbody>
</table>

### KOMTRAX Plus
KOMTRAX Plus is designed for Komatsu mining equipment to provide real time information about the operating status of the machine via a text monitor. 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.
Boom length 8.600 mm 28'3"
Stick length 4.000 mm 13'1"
Break-out force (SAE) 850 kN 191,000 lb
Tear-out force (SAE) 800 kN 179,800 lb

Max. digging height 14.100 mm 46'3"
Max. dumping height 9.000 mm 29'6"
Max. digging depth 7.900 mm 25'11"
Max. digging reach 16.200 mm 53'2"
Max. digging reach at ground level 15.600 mm 51'2"

<table>
<thead>
<tr>
<th>Bucket Capacity (Heaped 1:1) SAE</th>
<th>Width</th>
<th>Teeth</th>
<th>Wear Package</th>
<th>Weight</th>
<th>Max. Material Density (Loose)</th>
<th>Recommended Mining Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>cum cuyd</td>
<td>mm</td>
<td>foot/inch</td>
<td>qty</td>
<td>t</td>
<td>lb</td>
<td>t/cum</td>
</tr>
<tr>
<td>12.0</td>
<td>15.7</td>
<td>3.045</td>
<td>9'12&quot;</td>
<td>5</td>
<td>15.2</td>
<td>33,500</td>
</tr>
<tr>
<td>15.0</td>
<td>19.5</td>
<td>3.260</td>
<td>10'8&quot;</td>
<td>5</td>
<td>15.6</td>
<td>34,400</td>
</tr>
<tr>
<td>16.5</td>
<td>21.5</td>
<td>3.045</td>
<td>9'12&quot;</td>
<td>5</td>
<td>16.5</td>
<td>36,400</td>
</tr>
</tbody>
</table>

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

Alternative buckets on request
**SUPER SHOVEL**

**PC3000**

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**FRONT SHOVEL ATTACHMENT**

<table>
<thead>
<tr>
<th>Bucket Capacity (Heaped 1:2) SAE</th>
<th>Width</th>
<th>Teeth</th>
<th>Wear Package</th>
<th>Weight</th>
<th>Max. Material Density (Loose)</th>
<th>Recommended Mining Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>cum</td>
<td>cuyd</td>
<td>mm</td>
<td>foot/inch</td>
<td>qty</td>
<td>t/cum</td>
<td>lb/cu yd</td>
</tr>
<tr>
<td>12,0</td>
<td>15.7</td>
<td>3.430</td>
<td>11’3”</td>
<td>5</td>
<td>22.3</td>
<td>49,000</td>
</tr>
<tr>
<td>16.0</td>
<td>21</td>
<td>3.630</td>
<td>11’11”</td>
<td>6</td>
<td>23.6</td>
<td>52,000</td>
</tr>
</tbody>
</table>

* WP 1 Non abrasive
  WP 2 Light abrasive
  WP 3 Medium abrasive
  WP 4 Severe abrasive

Alternative buckets on request

**Technical Specifications**

- **Boom length**: 6,000 mm (19’8”)
- **Stick length**: 4,300 mm (14’1”)
- **Break-out force (SAE)**: 1000 kN (225,000 lb)
- **Crowd force (SAE)**: 1100 kN (247,500 lb)
- **Max. cutting height**: 15,100 mm (49’6”)
- **Max. dumping height**: 10,200 mm (33’6”)
- **Max. digging depth**: 3,300 mm (10’10”)
- **Max. digging reach**: 13,300 mm (43’8”)
- **Level crowd at ground level**: 4,700 mm (15’5”)
- **Bucket opening width**: 2,330 mm (7’8”)

---

* 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 WITH DIESEL DRIVE TIER 1

FRONT SHOVEL ATTACHMENT
- 6.0 m 19'8" boom
- 4.3 m 14'1" stick
- Set of cylinders
- 16 m³ 21 yd³ (SAE 2:1) shovel bucket
  WP3, with hammerless GET system

OR

BACKHOE ATTACHMENT
- 8.6 m 28'3" boom
- 4.0 m 13'1" stick
- Set of cylinders
- 15 m³ 19.5 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
- 7 bottom rollers and 3 top rollers each side
- 800 mm 31" cast steel track shoes
- Hydraulic track adjustment and parking brake

SUPERSTRUCTURE
- Main frame mounted over an externally toothed swing circle carries the drive module
- Komatsu SSA12V159 diesel engine
- Oil and fuel reservoirs
- Hydraulic cooler
- Counterweight

LIGHTING
- 12 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 Sutrak
- Full suspension operator seat with belt
- Trainer seat with belt
- Controls in operator comfort zone
- KOMTRAX Plus (Monitoring System)
- Joysticks and controls are hydraulic
- 2 synchronised windshield wash wipers
- AM-FM radio with MP3 ready CD player
- External metal sun blinds on side windows
- Internal roller blinds on all windows
- All windows tinted parsol green

LUBRICATION
- LINCOLN central lubrication for basic machine, attachment, and bucket
- 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, and the evacuation of coolant, hydraulic and engine oils

ACCESSORIES
- Acoustic travel alarm
- Hydraulically actuated ground access ladder
- Electric air horn
- Service transfer oil pump
- Rails and steps on boom
- Tie off points on boom

OPTIONAL EQUIPMENT
- 1.000 mm 39" track shoes
- 1.200 mm 47" track shoes
- Additional lighting
- Fire suppression system
- Tier 2 engine
- Electric drive
- Low temperature package (-40°C; -50°C)
- Engine oil management package
  (Centinel, Reserve & Eliminator systems)

DIMENSIONS

BASIC MACHINE WITH COUNTERWEIGHT

<table>
<thead>
<tr>
<th>A</th>
<th>800 mm</th>
<th>2'7&quot;</th>
<th>I</th>
<th>2620 mm</th>
<th>8'7&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>1000 mm</td>
<td>3'3&quot;</td>
<td>J</td>
<td>2635 mm</td>
<td>8'8&quot;</td>
</tr>
<tr>
<td>C₈</td>
<td>5600 mm</td>
<td>18'4&quot;</td>
<td>K</td>
<td>6680 mm</td>
<td>21'11&quot;</td>
</tr>
<tr>
<td>C₀</td>
<td>5800 mm</td>
<td>19'</td>
<td>L</td>
<td>7455 mm</td>
<td>24'6&quot;</td>
</tr>
<tr>
<td>D</td>
<td>2210 mm</td>
<td>7'3&quot;</td>
<td>M</td>
<td>3010 mm</td>
<td>9'11&quot;</td>
</tr>
<tr>
<td>E</td>
<td>935 mm</td>
<td>3'1&quot;</td>
<td>N</td>
<td>3060 mm</td>
<td>10'1&quot;</td>
</tr>
<tr>
<td>F</td>
<td>3000 mm</td>
<td>9'10&quot;</td>
<td>O</td>
<td>6800 mm</td>
<td>22'6&quot;</td>
</tr>
<tr>
<td>G</td>
<td>6000 mm</td>
<td>19'8&quot;</td>
<td>P</td>
<td>5950 mm</td>
<td>19'6&quot;</td>
</tr>
<tr>
<td>H</td>
<td>7910 mm</td>
<td>25'11&quot;</td>
<td>Pₘ</td>
<td>6410 mm</td>
<td>21'</td>
</tr>
</tbody>
</table>

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