PC5500-6 Loading Shovel
PC5500-6 Backhoe

ENGINE POWER
2 x 940 kW / 1260 HP @ 1800 rpm

OPERATING WEIGHT
533 – 552 ton / 1,175,200 – 1,217,100 lb

SHOVEL CAPACITY
29 m³ 38 yd³ SAE 2:1 heaped

BACKHOE CAPACITY
29 m³ 38 yd³ SAE 1:1 heaped
Quality in Manufacturing
Commitment to "Quality and Reliability"
- 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

Powerful Diesel Engine
Two Komatsu SDA12V159E-2 Tier 2 engines
- Rated (each) 940 kW (1260 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

Reliability and Durability
Long life and low operating cost by design
- Robust structural design developed from field experience and finite element analysis

Undercarriage
- Large diameter rollers, idlers and sprockets
- Large surface area and extensive precision hardening of all engaging components reduce track wear
- Hardened track link pin bores

Access and Egress
- 45° primary access and egress stairways
- 45° access swing stairway
- 2 emergency egresses
  - cab and machinery house
  (two pieces flip down solid anti slip steel ladder)
- Illuminated accesses and egresses
**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  
- Various buckets and wear packages to suit all material densities and properties

**Advanced Hydraulics**  
Extended reliability and precise control  
- Comprehensive monitored filtration  
- Simple open circuit hydraulic system with high efficiency swing out oil coolers

**Large Comfortable Cab**  
Comfortable for the whole day  
- Komatsu low noise cab on multiple viscous mounts for reduced noise and vibration  
- Large volume cab with full height front window  
- Comprehensive climate control with pressurised filtered air ventilation and air conditioning  
- High specification multi-adjustable air suspension seat plus trainer seat  
- Well elevated operator position giving good all round view  
- Large wash wiper covers windshield area for excellent visibility

**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:**
- Model: 2 x Komatsu SDA12V159E-2
- Type: 4-cycle, water-cooled, direct injection
- Aspiration: Turbocharged and aftercooled
- Number of cylinders: 12
- Rated power: 2 x 940 kW 1260 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 up 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 DRIVE

**Type:** 2 x Squirrel cage induction motor
- Power Output: 2 x 900 kW
- Voltage: 6,000 – 7,200 V*
- Amperage (approximate): 2 x 96 A – 2 x 80 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 LED lights
- Standard service lights: throughout the platform

### UNDERCARRIAGE

Undercarriage consists of one centre 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: 46 each side
- Number of top rollers: 3 each side
- Number of bottom rollers: 7 each side

### TRAVEL AND BRAKE SYSTEMS

- Travel control: 2 foot pedals
- Gradeability: Up to 50 %
- Travel speed (maximum): 2.1 km/h / 1.4 mph
- Service brake: Hydraulic brake
- Parking brake: Wet, multiple-disk

### SWING SYSTEM

- Hydraulic motors and drives: 2
- Swing brake, service: Hydraulic brake
- Swing brake, parking: Wet, multiple-disc
- Swing ring teeth: External
- Swing speed (maximum): 3,1 rpm

### HYDRAULIC SYSTEM

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

- Rated flow (total output): 4,200 ltr/min / 1,110 gpm
- Relief valve setting: 310 bar / 4,495 psi
- Swing flow rate: 700 ltr/min / 185 gpm
- High pressure in line filters: 200 microns
- Full flow return line filters (5 elements): 10 microns
- 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 prioritises 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 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 lubrication circuits and open gear grease circuit are supplied by identical pump assemblies from refillable containers which have a capacity of 3 x 300 litres (3 x 80 gal). Replenishment of the containers is through the Wiggins connections on the service arm.

### SERVICE CAPACITIES

- Hydraulic oil tank: 3,715 ltr / 982 U.S. gal
- Hydraulic system: 6,000 ltr / 1,585 U.S. gal
- Fuel: 10,355 ltr / 2,736 U.S. gal
- Engine coolant: 2 x 360 ltr / 95 U.S. gal
- Engine oil: 2 x 190 ltr / 50 U.S. gal
- Reserve engine oil make up tank: 2 x 500 ltr / 132 U.S. gal
OPERATOR CAB

The large and comfortable cab is mounted on 18 viscous damping pads and sound insulated. The cab has 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 electro-hydraulic 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 with AUX in 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 and internal roller blinds on all windows are standard. The left hand window is an emergency exit. All windows are tinted parasol green. The front window is a 19mm thick impact resistant window. A walkway is mounted in front of cabin.

OPERATING WEIGHTS (APPROXIMATE)

PC 5500 Backhoe:
Operating weight including 11.000 mm 36'9” boom, 5.100 mm 16’9” stick, 29 m³ (38 yd³) backhoe bucket, operator, lubricant, coolant, 1/3 fuel and standard equipment.

<table>
<thead>
<tr>
<th>Shoe Width</th>
<th>Operating Weight</th>
<th>Ground Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.350 mm 53”</td>
<td>538 t 1,166,300 lb</td>
<td>23.8 N/cm² 34.5 psi</td>
</tr>
<tr>
<td>1.800 mm 71”</td>
<td>552 t 1,217,200 lb</td>
<td>18.3 N/cm² 26.5 psi</td>
</tr>
</tbody>
</table>

PC 5500 Front Shovel:
Operating weight including 7.600 mm 24’1” boom, 5.600 mm 18’4” stick, 29 m³ (38 yd³) shovel bucket, operator, lubricant, coolant, 1/3 fuel and standard equipment.

<table>
<thead>
<tr>
<th>Shoe Width</th>
<th>Operating Weight</th>
<th>Ground Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.350 mm 53”</td>
<td>533 t 1,175,300 lb</td>
<td>23.5 N/cm² 34.0 psi</td>
</tr>
<tr>
<td>1.800 mm 71”</td>
<td>546 t 1,203,900 lb</td>
<td>18.1 N/cm² 26.2 psi</td>
</tr>
</tbody>
</table>

KOMTRAX PLUS 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. Optionally available are W-LAN or Orbcmm satellite transmission (check for availability in your territory).

Major cab engineering standards are:
• ISO 3449 Falling Objects Protection Structure (FOPS)
• ISO 6396 Noise in operator’s cab is max. 75 dBA
• ISO 2631-1 Whole body vibration and shock below 0.5 m/s²
• ISO 5349-1 Hand-lever vibration lower than 2.5 m/s²
• ISO 10263-4 Heating and air conditioning
second heater or air conditioner as option
PC5500-6 Hydraulic Excavator

PRODUCTIVITY-FEATURES

BACKHOE ATTACHMENT

Bucket Capacity (Heaped 1:1) SAE cum cuyd Width mm foot/inch Teeth qty Wear Package acc. abrasiveness GET System Max. Material Density (Loose) t/cum lb/cuyd

<table>
<thead>
<tr>
<th>Bucket Capacity</th>
<th>Width</th>
<th>Teeth</th>
<th>Wear Package</th>
<th>GET System</th>
<th>Max. Material Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Heaped 1:1)</td>
<td></td>
<td></td>
<td>acc. abrasiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAE</td>
<td>cum</td>
<td>cuyd</td>
<td>qty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.0</td>
<td>34.0</td>
<td>4.380</td>
<td>14'4&quot;</td>
<td>5</td>
<td>heavy</td>
</tr>
<tr>
<td>29.0</td>
<td>38.0</td>
<td>4.380</td>
<td>14'4&quot;</td>
<td>5</td>
<td>standard</td>
</tr>
</tbody>
</table>

Max. digging height 15.500 mm 50’10"
Max. dumping height 10.100 mm 33’2”
Max. digging depth 8.300 mm 27’3”
Max. digging reach 19.800 mm 64’12”
Max. digging reach at ground level 18.700 mm 61’4”

Boom length 11.000 mm 36’1”
Stick length 5.100 mm 16’9”
Break-out force (ISO) 1.516 kN 340,750 lb
Tear-out force (ISO) 1.326 kN 298,050 lb

Alternative buckets on request *other systems on request
## Hydraulic Excavator

### PC5500

#### Front Shovel Attachment

<table>
<thead>
<tr>
<th>Bucket Capacity (Heaped 1:2) SAE cum cuyd</th>
<th>Width (mm foot/inch)</th>
<th>Teeth qty</th>
<th>Wear Package acc. abrasiveness</th>
<th>GET System</th>
<th>Max. Material Density (Loose) t/cum lb/cuyd</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.0 27.5</td>
<td>4.410 14'6&quot;</td>
<td>5</td>
<td>heavy</td>
<td>Hensley XS 640 *</td>
<td>2.6 4,400</td>
</tr>
<tr>
<td>26.0 34.0</td>
<td>4.570 14'12&quot;</td>
<td>6</td>
<td>heavy</td>
<td>Hensley XS 640 *</td>
<td>2.0 3,400</td>
</tr>
<tr>
<td>29.0 38.0</td>
<td>4.570 14'12&quot;</td>
<td>6</td>
<td>standard</td>
<td>Hensley XS 640 *</td>
<td>1.8 3,000</td>
</tr>
</tbody>
</table>

*alternative buckets on request

- Boom length: 7.600 mm 24'11"
- Stick length: 5.600 mm 18'4"
- Break-out force (ISO): 1.870 kN 420,320 lb
- Crowd force (ISO): 1.850 kN 415,830 lb
- Max. cutting height: 19.500 mm 63'12"
- Max. dumping height: 13.300 mm 43'8"
- Max. digging depth: 2.700 mm 8'10"
- Max. digging reach: 16.500 mm 54'2"
- Level crowd at ground level: 5.600 mm 18'5"
- Bucket opening width: 2.700 mm 8'10"
HYDRAULIC MINING SHOVEL

FRONT SHOVEL ATTACHMENT

- 7.6 m 24’11” boom
- 5.6 m 18’4” stick
- Set of cylinders
- 29 m³ (38 yd³) (SAE 2:1) shovel bucket incl. standard wear package with hammerless GET system

OR

BACKHOE ATTACHMENT

- 11.0 m 36’1” boom
- 5.1 m 16’9” stick
- Set of cylinders
- 29 m³ (38 yd³) (SAE 1:1) bucket incl. standard wear package 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
- 1350 mm 53” cast steel track shoes
- Hydraulic track adjustment and parking brake
- Drive gear box protection

SUPERSTRUCTURE

- Main frame mounted over an externally toothed swing circle carries the drive module
- 2 x Komatsu SDA12V159E-2 Tier 2 diesel engines
- Oil and fuel reservoirs
- Hydraulic components
- Counterweight

LIGHTING

- 14 LED high performance working lights
- Service lights throughout the platform

OPERATOR CAB

- Enclosed steel cab mounted on viscous pads
- FOPS according ISO 3449
- Air-conditioning unit Sutrak
- Full suspension operator seat with belt
- Trainer seat with belt
- Controls ergonomic
- KOMTRAX Plus (Monitoring System)
- Joysticks are electro-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
- Impact resistant front window (19mm)
- Walkway in front of cab

ACCESSORIES INCLUDED

- Acoustic travel alarm
- Hydraulically actuated ground access ladder
- 45° primary access and egress stairway
- 45° access swing stairway (hydraulically operated)
- Electric air horn
- Engine turbo and exhaust pipe covers
- Engine oil management package (Centinel, Reserve & Eliminator systems)
- Service transfer oil pump
- Sidewalks and stairs are provided with skid-resistant plates
- Guard rails and steps on boom
- Tie off points on boom
- Engine emergency stop at ground level

ATTACHMENT/BUCKET

- Alternative buckets on request
- Boom cylinder sliding guard
- Arm cylinder sliding guard
- Bucket cylinder sliding guard (BH)

UNDERCARRIAGE

- 1,800 mm 71” track shoes
- Travel motor protection

POWER

- Electro drive various voltages
- Cable drum without cable
- Fire suppression system, Ansul (Agent LVS+Powder), diesel drive

COLD WEATHER

- Cold weather package down to -40° C (diesel and electro drive)
- Arctic weather package down to -50° C (diesel and electro drive)
- Hotstart temperature treatment for ambient temperature down to -50° C (diesel and electro drive), external power source not included

SPECIFIC HYDRAULIC OIL

- Biodegradable hydraulic oil

MISCELLANEOUS

- Camera system acc. ISO5006
- Service Monitor (incl. all relevant manuals)
- Additional LED working lights
- Rotafare warning lights
- Additional cab A/C
- Additional cab heater
- Service crane
- Special painting

DIMENSIONS

BASIC MACHINE WITH COUNTERWEIGHT

| A    | 1350 mm 4’5” | I | 3310 mm 10’10” |
| B    | 1800 mm 5’11” | J | 3100 mm 10’2” |
| C_A | 7540 mm 24’9” | K | 7910 mm 25’11” |
| C_B | 7990 mm 26’3” | L | 8610 mm 28’10” |
| D    | 2715 mm 8’11” | M | 4600 mm 15’1” |
| E    | 995 mm 3’3” | M | 3970 mm 13’0” |
| F    | 3712 mm 12’2” | N | 3300 mm 10’10” |
| G    | 7424 mm 24’4” | O | 7900 mm 25’11” |
| H    | 9720 mm 31’11” | P | 7260 mm 23’10” |
| P_c | 7500 mm 24’9” | |

© 2016 Komatsu Printed in Germany