HORSEPOWER
Gross: 370 kW 496 HP / 1800 rpm
Net: 363 kW 487 HP / 1800 rpm

OPERATING WEIGHT
78600 – 79800 kg
173,280 – 175,930 lb

PC850-8R1 BACKHOE

HYDRAULIC EXCAVATOR

Photo may include optional equipment.
**Productivity Features**

- **High Work Equipment Speed**
  Arm quick return circuit enables loading work to be quicker than ever, by reducing hydraulic pressure loss of arm dumping.

- **Heavy Lift Mode**
  The heavy lift mode increases lifting force by 10%.

- **Large Digging Force**
  Pressing the Power Max function button temporarily increases the digging force.

- **Two-mode Setting for Boom**
  Switch selection allows either powerful digging or smooth boom operation.

- **Large Drawbar Pull and Steering Force**
  provide excellent mobility.

- **Swing Priority Mode**
  The swing priority mode improves efficiency for loading dump trucks.

- **Shockless Boom Control**
  Switch selection reduces chassis vibration after sudden stops.

See page 5.

---

**Excellent Reliability and Durability**

- **Strengthened Boom and Arm**

- **KMAX Bucket Teeth** offer superior penetration and long-term sharpness.

- **Removed Water and Contamination in Fuel**
  - Fuel pre-filter with water separator
  - High efficiency fuel filter
  - Water separator

- **O-ring Face Seals**, which have excellent sealing performance, are used for the hydraulic hoses.

- **High-pressure In-line Filtration**
  The cool-running hydraulic system is protected with the most extensive filtration system available, including a high pressure in-line filter for each main pump.

**Maintenance Features**

- **Easy Cleaning of Cooling Unit**
  Fan reverse-rotation function facilitates clogged radiator cleaning.

- **Easy Checking and Maintenance of Engine**

- **Large Handrail, Step and Catwalk**
  provide easy access to the engine and hydraulic equipment.

See page 11.

---

**Highly Reliable Electronic Devices**

Exclusively designed electronic devices have passed severe testing.

- Controllers
- Sensors
- Connectors
- Heat resistant wiring
- Circuit breaker

**Boom Foot Hoses**

are arranged under the boom foot, improving hose life and safety.

See pages 6, 7.
Ecology and Economy Features

- **High Power Komatsu SAA6D140E-5 Engine**
  A powerful, turbocharged and air-to-air aftercooled Komatsu SAA6D140E-5 provides **363 kW** 487 HP. This engine is U.S. EPA Tier 2 and EU Stage 2 emissions equivalent.

- **Economy Mode Four-level Setting**
  Enables operator to select the appropriate Economy mode level to match production requirement with lowest fuel consumption.

- **Low Ambient Noise**
  - Electronically controlled variable speed fan drive
  - Large hybrid fan
  - Low-noise muffler

- **Mode Selection**
  - Economy mode improves fuel consumption.
  - ECO gauge for energy-saving operations
  - Extended idling caution for fuel conservation
  - Auto deceleration and auto idling system reduce fuel consumption.

See pages 4, 5.

Working Environment

- **Large Comfortable Cab**
  - Low-noise cab
  - Low vibration with cab damper mounting
  - Highly pressurized cab with optional air conditioner
  - Operator seat and console with armrest that enables operations in the appropriate operational posture.
  - OPG top guard level 2 (By ISO 10262 standard) capable with bolt-on top guard

Large Liquid Crystal Display (LCD) Monitor

- Easy-to-see and use 7" large multi-function color monitor
- Can be displayed in 12 languages for global support.

See page 10.
Komatsu Technology

Komatsu develops and produces all major components, such as engines, electronics and hydraulic components, in house. With this “Komatsu Technology,” and adding customer feedback, Komatsu is achieving great advancements in technology. To achieve both high levels of productivity and economical performance, Komatsu has developed the main components with a total control system. The result is a new generation of high performance and environment friendly excavators.

High Power Komatsu SAA6D140E Engine

Powerful turbocharged and air-to-air aftercooled Komatsu SAA6D140E-5 engine provides 363 kW 487 HP. This engine is U.S. EPA Tier 2 and EU Stage 2 emissions equivalent. This Komatsu SAA6D140E engine actualizes high-power to low fuel consumption with the optimum fuel injection by electronic heavy duty HPCR fuel injection system.

Electronically Controlled Variable Speed Fan Contributes to Low Fuel Consumption and Low Noise

The electronic control system sets the revolution speed of the cooling fan according to the coolant, hydraulic oil, and ambient temperature; effectively uses the engine output to prevent wasteful fuel consumption; and reduces noise during low-speed fan revolution.

Lower and Economical Fuel Consumption Using Economy Mode

Enables operator to set the Economy mode to four levels according to working conditions so that production requirement is achieved at the lowest fuel consumption.

Low Ambient Noise

Reduced noise by adoption of an electronically controlled variable speed fan drive, large hybrid fan and low-noise muffler.

ECO gauge that Assists Energy-saving Operations

ECO gauge is equipped for environment friendly energy-saving operations. Operation in the green range allows reduction of CO2 emission and fuel consumption.
Idling Caution
To prevent unnecessary fuel consumption, an idling caution is displayed on the monitor if the engine idles for 5 minutes or more.

Auto Deceleration and Auto Idling System
Auto deceleration system is equipped to reduce fuel consumption and operating noise. Also, engine idling speed can be reduced on the monitor with the auto idling system.

Working Modes Selectable
P and E work modes are further improved.

P mode – Power or work priority mode has low fuel consumption, but fast equipment speed and maximum production and power are maintained.

E mode – Economy or fuel saving mode further reduces fuel consumption, but maintains the P-mode-like work equipment speed for light duty work.

You can select Power or Economy modes using a one-touch button on the monitor panel depending on the workload.

Heavy Lift Mode
Gives 10% more lifting force when needed for handling rock or heavy lifting applications.

Swing Priority Mode
The swing priority mode allows the operator to use the same easy motion for 180° loading as 90° loading operations. By altering the oil flow, this setting allows you to select either boom or swing as the priority for increased production.

<table>
<thead>
<tr>
<th>Selection</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON</td>
<td>Oil flow to the swing motor is increased. 180° loading operations are most efficient.</td>
</tr>
<tr>
<td>OFF</td>
<td>Oil flow to the boom is increased. 90° loading operations are most efficient.</td>
</tr>
</tbody>
</table>

Large Digging Force
With the one-touch Power Max. function digging force is further increased. (8.0 seconds of operation)

Maximum arm crowd force (ISO): 298 kN (30.4 tonf) ➞ 327 kN (33.3 tonf) **9.4% UP** (with Power Max.)

Maximum bucket digging force (ISO): 363 kN (37.0 tonf) ➞ 397 kN (40.5 tonf) **9.4% UP** (with Power Max.)

*Measured with Power Max function, 3600 mm 11’10” arm and ISO rating

Work Equipment Speed
An arm quick return circuit is provided for arm dumping. This returns a portion of oil flow directly to the hydraulic tank at arm dumping to reduce the hydraulic pressure loss. Speedier loading work can be accomplished by work equipment with quicker movement.

Large Drawbar Pull and Steering Force
Since the machine has a large drawbar pull and a high steering force, it demonstrates excellent mobility even when it is on inclined sites.

Two-mode Setting for Boom
Smooth mode provides easy operation for gathering blasted rock and scraping operations. When maximum digging force is needed, switch to power mode for more effective excavating.

Shockless Boom Control
The PC850-8R1 boom circuit features a shockless valve (Double-check slow return valve) to automatically reduces the amount of vibration present when operating the boom. Operator fatigue is reduced (Which can improve safety and productivity), and spillage caused by vibration is minimized.
Excellent Reliability and Durability

**Boom Foot Hoses**
The boom foot hoses are arranged under the boom foot to reduce hose bend during operation, extending hose life and improving operator safety.

**High-pressure In-line Filtration**
The PC850-8R1 has the most extensive filtration system available, providing in-line filters as standard equipment. An in-line filter in the outlet port of each main hydraulic pump reduces failures caused by contamination.

**Sturdy Undercarriage**
The undercarriage is strengthened to provide excellent reliability and durability when working on rocky ground or blasted rock.

**Strengthened Boom and Arm**
Thanks to the large cross-sectional structure employing a high tensile strength steel with a thick plate, partition wall, etc., the boom and arm exhibit excellent durability and are highly resistant to bending and torsional stress.

**Metal Guard Rings**
Metal guard rings protect all the hydraulic cylinders and improve reliability.

**Sturdy guards** shield the travel motors and piping against damage from rocks.

**O-ring Face Seal**
The hydraulic hose seal method has been changed from a conventional taper seal to an O-ring seal. This provides improved sealing performance during operation.

**Frame Structure**
The revolving frame mount and center frame mount on the swing circle are a no-welding structure so that force is transmitted directly to the thick plate of the frame without passing through any welding.

**High Efficiency Fuel Filter**
Fuel system reliability is even better with high efficiency fuel filter.

**Sealed Connectors**
Sealed connectors seal tight and have higher reliability.

**Heat-resistant Wiring**
Heat-resistant wiring is utilized for the engine electric circuit and other major component circuit.

**Water Separator**
Removes water from the fuel and improves the reliability of fuel systems.

**Strengthened Revolving Frame Underguard**
Guards the machine body against being hit by rocks from below and prevents hydraulic components and the engine from being damaged.
Strengthened Quarry Bucket Provides Outstanding Wear-resistance

The bucket for specific use in quarry is impact and wear resistant, providing high performance and long life. Koma-hard materials* provide excellent wear resistance. Combined with adoption of long-life KMAX teeth, durability of bucket is drastically enhanced.

* Koma-hard materials (KVX materials): Komatsu developed, wear-resistant, reinforced materials. Brinell hardness: 500 or more (180kgf/mm² class). Features high wear-resistance and little quality change from the heat generated during rock loading, maintaining long term hardness.

KMAX Tooth

- Unique bucket tooth shape for superior digging performance
- Long-term high sharpness
- Great penetration performance
- Hammerless, safe, and easy tooth replacement

(Tooth replacement time: Half of the conventional machine.)

---

**STEP 1**
Observing proper safety procedures, place tooth onto adapter (As shown).

**STEP 2**
Insert fastener, making sure it is in the unlocked position (As shown).

**STEP 3**
Using the correct size socket, rotate the pin locking shaft 90˚ clockwise (As shown) to finish the installation.

**STEP 4**
To remove fastener, use the correct size socket to rotate the pin locking shaft 90˚ counter-clockwise (As shown). Remove fastener and tooth. Repeat steps 1-3 for a new installation.

---

Photo may include optional equipment.
Low Noise Design Cab

The newly-designed cab is highly rigid and has excellent sound absorption ability. Thorough improvement of noise source reduction and use of low noise engine, hydraulic equipment, and air conditioner allows the operator to work in quiet condition.

Operator ear’s noise  \( 2 \text{ dB(A)} \) reduced

Compared with the current model

Rigid and Safe Operator’s Cab

OPG top guard (ISO 10262) level 2

The OPG top guard securely protects the operator’s cab and conforms to the ISO standard.

Additional head lamp

Night operation is safe.

Single sheet fixed glass

The glass installed in the machine has excellent visibility since it is laminated to prevent shortening and has less vibration.

See-through skylight equipped with a sun shade

The upward visibility is excellent.
Wide Newly-designed Cab
Newly-designed wide spacious cab includes seat with reclining backrest. The seat height and longitudinal inclination are easily adjusted using a pull-up lever. You can set the appropriate operational position of the armrest and the console. The reclining seat further enables you to place it into the fully flat state with the headrest attached.

Pressurized Cab
Optional air conditioner, air filter and a higher internal air pressure (+6.0 mm Aq +0.2”Aq) prevent external dust from entering the cab.

Low Vibration with Cab Damper Mounting
PC850-8R1 uses viscous damper mounts for the cab that incorporates longer stroke and the addition of a spring. The cab damper mounting combined with high rigidity deck aids vibration reduction at the operator’s seat.

Multi-position Controls
The multi-position, Pressure Proportional Control (PPC) levers allow the operator to work in comfort while maintaining precise control. A double-slide mechanism allows the seat and control levers to move together or independently, allowing the operator to position the controls for maximum productivity and comfort.

Automatic Air Conditioner (Optional)
Enables you to easily and precisely set cab atmosphere with the instruments on the large LCD. The bi-level control function keeps the operator’s head and feet cool and warm respectively. This improved air flow function keeps the inside of the cab comfortable throughout the year. Defroster function keeps front glass clear.

Defroster (Optional) Cab frame mounted wiper Bottle holder and magazine rack

Seat sliding amount: 340 mm 13.4”

Step Light with Timer
provides light for about one minute to allow the operator to get off the machine safely.

Pump/engine Room Partition
prevents oil from spraying on the engine if a hydraulic hose should burst.

Thermal and Fan Guards
are placed around high-temperature parts of the engine and fan drive.

Slip-resistant Plates
Spiked plates on working areas provide slip-resistant performance.

Horn Interconnected with Warning Light (Optional)
gives visual and audible notice of the excavator’s operation when activated.

Lower Wiper (Optional)
Lower windshield wiper improves visibility in rain.

Rear View Monitoring System (Optional)
The operator can view the rear of the machine with a color monitor screen.
Large LCD Color Monitor

Large Multi-lingual LCD Monitor
A large user-friendly color monitor enables safe, accurate and smooth work. Improved screen visibility is achieved by the use of LCD that can easily be read at various angles and lighting conditions. The switches are simple and easy to operate. Function keys facilitate multi-function operations. Displays data in 12 languages to support operators around the world.

Indicators

- ① Auto-decelerator
- ② Working mode
- ③ Travel speed
- ④ Engine water temperature gauge
- ⑤ Hydraulic oil temperature gauge
- ⑥ Fuel gauge
- ⑦ Eco-gauge
- ⑧ Function switches menu

Basic operation switches

- ① Auto-decelerator (long-term engine stop)
- ② Air conditioner
- ③ Fan operation
- ④ Maintenance function
- ⑤ Trouble data memory

Mode Selection
The multi-function color monitor has Power mode and Economy mode (Four levels).

<table>
<thead>
<tr>
<th>Working Mode</th>
<th>Application</th>
<th>Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>P (P0, P1)</td>
<td>Power Mode</td>
<td>• Maximum production/power</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fast cycle time</td>
</tr>
<tr>
<td>E (E0, E1, E2, E3)</td>
<td>Economy Mode</td>
<td>• Good cycle time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Good fuel economy</td>
</tr>
</tbody>
</table>

Additionally, it is possible to select “Heavy lift mode” or “Swing priority mode” for each Power mode and Economy mode.

<table>
<thead>
<tr>
<th>Selection</th>
<th>Display on the monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy lift mode</td>
<td>![Image]</td>
</tr>
<tr>
<td>Swing priority mode</td>
<td>![Image]</td>
</tr>
</tbody>
</table>

Equipment Management Monitoring System
Monitor Function
Controller monitors engine oil level, coolant temperature, battery charge and air clogging, etc. If controller finds any abnormality, it is displayed on the LCD.

Maintenance Function
Monitor informs replacement time for oil and filters when the replacement interval is reached.

Trouble Data Memory Function
Monitor stores abnormalities for effective troubleshooting.
**Easy Checking and Maintenance of Engine**

Engine check points are concentrated on one side of the engine to facilitate daily checks. Thermal guards are placed around high-temperature parts such as turbocharger.

**Wide Catwalk**

Easier, safer operator cab access and maintenance checks.

**One-touch Drain Cock**

Easier, cleaner engine oil changes.

**Easy Cleaning of Cooling Unit**

Reverse-rotation function of the hydraulic driven fan simplifies cleaning out the cooling unit. In addition, this function contributes to reducing warming-up run time in low temperature and discharging hot air from the engine room to keep appropriate heat balance.

**Convenient Utility Space**

Utility space provides great convenience to store tools, spare parts, etc.

**Divided Type Engine Cover**

The divided engine cover allows easy access to inspection points around the engine.

**Washable Cab Floormat**

Cab floormat is easy to keep clean. The gently inclined surface has a flanged floormat and drainage holes to facilitate runoff.

**Electric Pump, Grease Gun with Indicator (Optional)**

Greasing is made easy with the electric pump and grease gun with indicator.

**Long-life Oil, Filter**

Uses high-performance filtering materials and long-life oil. Extends the oil and filter replacement interval.

**Dust Indicator with 5-step Indication**

Informs of air cleaner clogging in 5 steps to warn of filter condition.
PC850-8R1 HYDRAULIC EXCAVATOR

SPECIFICATIONS

ENGINE

- Model: Komatsu SAA6D140E-5
- Type: 4-cycle, water-cooled, direct injection
- Aspiration: Turbocharged, aftercooled
- Number of cylinders: 6
- Bore: 140 mm (5.51"
- Stroke: 165 mm (6.5"
- Piston displacement: 15.24 ltr (900 in³)
- Governor: All-speed, electronic
- Horsepower: SAE J1995: Gross 370 kW (496 HP)
  - ISO 9249 / SAE J1349*: Net 363 kW (487 HP)
- Rated rpm: 1800 rpm
- Fan drive type: Variable capacity piston type

HYDRAULIC SYSTEM

- Type: Open-center load-sensing system
- Number of selectable working modes: 2
- Main pump:
  - Type: Variable-capacity piston pumps
  - Pumps for:
    - Boom, arm, bucket, swing, and travel circuits
    - Maximum flow: 2 x 494 ltr/min (2 x 130.5 U.S. gal/min)
- Fan drive pump:
  - Type: Variable capacity piston type
- Hydraulic motors:
  - Travel: 2 x axial piston motor with parking brake
  - Swing: 2 x axial piston motor with swing holding brake
- Relief valve setting:
  - Implement circuits: 31.4 MPa (320 kgf/cm², 4,550 psi)
  - Travel circuit: 34.3 MPa (350 kgf/cm², 4,980 psi)
  - Swing circuit: 28.4 MPa (290 kgf/cm², 4,120 psi)
  - Heavy lift circuit: 34.3 MPa (350 kgf/cm², 4,980 psi)
  - Pilot circuit: 2.9 MPa (30 kgf/cm², 430 psi)
- Hydraulic cylinders:
  - (Number of cylinders—bore x stroke x rod diameter)
    - Boom: 2 – 200 mm x 1950 mm x 140 mm
    - 7.9" x 76.8" x 5.5"
    - Arm: 2 – 185 mm x 1610 mm x 120 mm
    - 7.3" x 63.4" x 4.7"
    - Bucket: 1 – 185 mm x 1820 mm x 130 mm
    - 7.3" x 71.7" x 5.1"
    - SE: 1 – 225 mm x 1420 mm x 160 mm
    - 8.9" x 55.9" x 6.3"

SWING SYSTEM

- Driven method: Hydraulic motors
- Swing reduction: Planetary gear
- Swing circle lubrication: Grease-bathed
- Swing lock: Oil disc brake
- Swing speed: 6.8 rpm

DRIVES AND BRAKES

- Steering control: Two levers with pedals
- Drive method: Fully hydrostatic
- Travel motor: Axial piston motor, in-shoe design
- Reduction system: Planetary gear triple reduction
- Maximum drawbar pull: 559 kN (57000 kgf, 125,660 lb)
  - Gradeability: 70%
- Maximum travel speed:
  - Low: 2.8 km/h (1.7 mph)
  - High: 4.2 km/h (2.6 mph)
- Service brake:
  - Type: Hydraulic lock
- Parking brake:
  - Type: Oil disc brake

UNDERCARRIAGE

- Center frame: H-leg frame
- Track frame: Box-section
- Seal of track: Sealed
- Track adjuster: Hydraulic
- No. of shoes: 47 each side
- No. of carrier rollers: 3 each side
- No. of track rollers: 8 each side

COOLANT AND LUBRICANT CAPACITY (REFILLING)

- Fuel tank: 980 ltr (258.9 U.S. gal)
- Radiator: 100 ltr (26.4 U.S. gal)
- Engine: 53 ltr (14.0 U.S. gal)
- Final drive, each side: 20 ltr (5.3 U.S. gal)
- Swing drive: 24.5 x 2 ltr (6.5 x 2 U.S. gal)
- Hydraulic tank: 470 ltr (124.2 U.S. gal)

OPERATING WEIGHT (APPROXIMATE)

PC850-8R1:
- Operating weight, including 8040 mm (265") boom, 3600 mm (11'10") arm, SAE heaped 3.4 m³ (4.45 yd³) backhoe bucket, operator, lubricant, coolant, full fuel tank, and the standard equipment

PC850-8R1 SE spec.:
- Operating weight, including 7100 mm (234") boom, 2945 mm (9'8") arm, SAE heaped 4.3 m³ (5.62 yd³) backhoe bucket, operator, lubricant, coolant, full fuel tank, and the standard equipment

<table>
<thead>
<tr>
<th>Shoes</th>
<th>PC850-8R1</th>
<th>PC850-8R1 SE Spec.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Operating Weight</td>
<td>Ground Pressure</td>
</tr>
<tr>
<td>610 mm 24&quot;</td>
<td>79000 kg</td>
<td>128 kPa 1.31 kgf/cm² 18.6 psi</td>
</tr>
<tr>
<td>710 mm 28&quot;</td>
<td>79800 kg</td>
<td>112 kPa 1.14 kgf/cm² 16.2 psi</td>
</tr>
</tbody>
</table>
These charts are based on over-side stability with fully loaded bucket at maximum reach.

**HYDRAULIC EXCAVATOR**

**BACKHOE DIMENSIONS**

**WORKING RANGE**

**BACKHOE BUCKET, ARM, AND BOOM COMBINATION**
<table>
<thead>
<tr>
<th>Equipment</th>
<th>Reach from swing center</th>
<th>Bucket hook height</th>
<th>Lifting capacity</th>
<th>Rating over front</th>
<th>Rating over side</th>
<th>Maximum load at maximum reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC850-8R1</td>
<td>8.04 m 26'5&quot;</td>
<td>3.6 m 11'10&quot;</td>
<td>3.4 m³ 4.45 yd³</td>
<td>610 mm 24&quot;</td>
<td>11.85 ton 26,120 lb</td>
<td></td>
</tr>
</tbody>
</table>

### HEAVY LIFT “OFF”

<table>
<thead>
<tr>
<th>Unit: kg lb</th>
<th>PC850-8R1</th>
<th>PC850-8R1 SE spec.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boom:</strong></td>
<td>8.04 m 26'5&quot;</td>
<td>7.1 m 23'4&quot;</td>
</tr>
<tr>
<td><strong>Arm:</strong></td>
<td>3.6 m 11'10&quot;</td>
<td>2.9 m 9'8&quot;</td>
</tr>
<tr>
<td><strong>Bucket:</strong></td>
<td>3.4 m³ 4.45 yd³</td>
<td>4.3 m³ 5.62 yd³</td>
</tr>
<tr>
<td><strong>Shoe:</strong></td>
<td>610 mm 24&quot;</td>
<td>610 mm 24&quot;</td>
</tr>
<tr>
<td><strong>Counterweight:</strong></td>
<td>11.85 ton 26,120 lb</td>
<td>11.85 ton 26,120 lb</td>
</tr>
</tbody>
</table>

### HEAVY LIFT “ON”

<table>
<thead>
<tr>
<th>Unit: kg lb</th>
<th>PC850-8R1</th>
<th>PC850-8R1 SE spec.</th>
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</thead>
<tbody>
<tr>
<td><strong>Boom:</strong></td>
<td>8.04 m 26'5&quot;</td>
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<tr>
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<tr>
<td><strong>Counterweight:</strong></td>
<td>11.85 ton 26,120 lb</td>
<td>11.85 ton 26,120 lb</td>
</tr>
</tbody>
</table>

* Load is limited by hydraulic capacity rather than tipping. Ratings are based on ISO standard No.10567. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.
Backhoe
Specs shown include the following equipment:
STD spec.: Boom 8040 mm 26’5”, Arm 3600 mm 11’10”, Bucket 3.4 m³ 4.45 yd³; Shoes 610 mm 24” double grouser
SE spec.: Boom 7100 mm 23’4”, Arm 2945 mm 9’8”, Arm 3600 mm 11’10”, Bucket 4.3 m³ 5.62 yd³; Shoes 610 mm 24” double grouser

3 Kits Transportation

Work equipment assembly (Backhoe)

<table>
<thead>
<tr>
<th>Component</th>
<th>STD spec.</th>
<th>SE spec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>18.9 t</td>
<td>18.5 t</td>
</tr>
<tr>
<td>Width</td>
<td>3225 mm</td>
<td>3200 mm</td>
</tr>
</tbody>
</table>

Boom

| STD spec. | 8.1 t 3870 x 2695 x 1500 |
| SE spec. | 7.3 t 7430 x 2480 x 1500 |

Arm

| STD spec. | 4.5 t 4765 x 1450 x 710 |
| SE spec. | 4.9 t 4075 x 1690 x 715 |

Bucket

| STD spec. | 3.8 t 2470 x 1880 x 2670 |
| SE spec. | 3.8 t 2280 x 1950 x 2250 |

Boom & Arm cylinder

Total 2.5 t

Base machine
(Both PC850-8R1 and PC850-8R1 SE spec. are designed with the same weight and dimensions.)

Width : 3390 mm 11’1”
Weight : 47.7 t 52.6 U.S.ton

Others

<table>
<thead>
<tr>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.4 t 13.4 U.S.ton</td>
</tr>
</tbody>
</table>

4 Kits Transportation

Work equipment assembly (Backhoe)

<table>
<thead>
<tr>
<th>Component</th>
<th>STD spec.</th>
<th>SE spec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>19.1 t</td>
<td>18.9 t</td>
</tr>
</tbody>
</table>

Boom

| STD spec. | 8.1 t 3870 x 2695 x 1500 |
| SE spec. | 7.3 t 7430 x 2480 x 1500 |

Arm

| STD spec. | 4.5 t 4765 x 1450 x 710 |
| SE spec. | 4.9 t 4075 x 1690 x 715 |

Bucket

| STD spec. | 3.8 t 2470 x 1880 x 2670 |
| SE spec. | 3.8 t 2280 x 1950 x 2250 |

Boom & Arm cylinder

Total 2.5 t

Upper structure

Width : 3225 mm 10’7”
Weight : 26.3 t 29.0 U.S.ton

Undercarriage

<table>
<thead>
<tr>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.4 t 13.4 U.S.ton</td>
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</table>

Others

<table>
<thead>
<tr>
<th>Weight</th>
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<tr>
<td>11.9 t 13.1 U.S.ton</td>
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</table>
ENGINE AND RELATED ITEMS:

- Air cleaner, double element, dry
- Engine, Komatsu SAA6D140E-5
- Variable speed cooling fan, with fan guard

ELECTRICAL SYSTEM:

- Alternator, 60 amp, 24 V
- Auto deaccelerator and auto idling system
- Batteries, 170 Ah, 2 x 12 V
- Starting motors, 11kW
- Step light with timer
- Working lights-2 boom, 2 cab top front, 1 right front

UNDERCARRIAGE:

- 610 mm 24” double grouser
- 8 track/3 carrier rollers (Each side)
- Hydraulic track adjusters (Each side)
- Rock protectors
- Variable track gauge

GUARDS AND COVERS:

- Dust-proof net for radiator and oil cooler
- Full length track roller guard
- OPG top guard (ISO 10262 level 2 (FOG))
- Pump/engine room partition cover
- Strengthened revolving frame underguard
- Travel motor guards

OPERATOR ENVIRONMENT:

- Cab with fixed front window
- Damper mount, all-weather, sound-suppressed cab with tinted safety glass windows, lockable door, intermittent window wiper and washer, floormat, cigarette lighter and ashtray
- Multi-function color monitor, electronically-controlled throttle dials, electric service meter, gauges (Coolant temperature, hydraulic oil temperature and fuel level), caution lights (Electric charge, engine oil pressure, and air cleaner clogging), indicator lights (Engine preheating and swing lock light) level check lights (Coolant, engine oil, and hydraulic oil level), self-diagnostic system with trouble data memory
- Rear view mirror (RH and LH)
- Seat, fully adjustable with suspension

HYDRAULIC CONTROLS:

- Control levers and pedals for steering and travel with PPC system
- Control levers, wrist control levers for arm, boom, bucket, and swing with PPC system
- Fully hydraulic, with Electronic Open-center Load Sensing System (EOLSS) and engine speed sensing (Pump and engine mutual control system)
- Heavy lift mode system
- In-line filter
- Oil cooler
- One axial piston motor per track for travel with counter balance valve
- Power max function
- Shockless boom control
- Swing priority mode system
- Two axial piston motors for swing with single-stage relief valve
- Two control valves, 5+4 spools (Boom, arm, bucket, swing, and travel)
- Two-mode setting for boom
- Two variable capacity piston pumps

DRIVE AND BRAKE SYSTEM:

- Brakes, hydraulic lock travel brakes, oil disc parking
- Hydrostatic two travel speed system with planetary triple reduction final drive

OTHER STANDARD EQUIPMENT:

- Automatic swing holding brake
- Catwalk
- Counterweight, 11850 kg 26,120 lb
- Horn, electric
- Large handrails
- Marks and plates, English
- One-touch engine oil drainage
- Paint, Komatsu standard
- PM tune-up service connector
- Rear reflector
- Slip-resistant plates
- Travel alarm
- Water separator

OPTIONAL EQUIPMENT

- 12 V electric supply
- Air suspension seat
- Alternator, 90 amp, 24 V
- Arms (Backhoe):
  - PC850-8R1: — 3600 mm 11’10” HD arm assembly
  - 2945 mm 9’8” SE arm assembly
  - 3600 mm 11’10” SE arm assembly
- Automatic air conditioner
- Booms (Backhoe):
  - PC850-8R1: — 8040 mm 26’5” boom assembly
  - PC850-8R1: —7100 mm 23’4” boom assembly
- Cab front guard (ISO 10262 level 2)
- Coolant heater
- Double flange track roller
- Electric pump, grease gun with indicator
- Fire extinguisher
- General tool kit
- Interconnected horn and warning light
- Large-capacity batteries
- Lower wiper
- Provision for fast fuel fill
- Radio AM/FM
- Rain visor
- Rear view monitoring system
- Seat belt 78 mm 3”
- Shoes:
  - 710 mm 28” double grouser
- Spare parts for first service
- Track frame undercover (Center)
- Vandalism protection locks