WALK-AROUND

Productivity and Economy

- Fuel Efficient Machine Achieved by Total Power Management and Advanced Hydraulic System
  Fuel Consumption at Economy Mode 10% Reduced (compared with PC1800-6)
  - Hydraulic power loss reduced with advanced hydraulic system
  - On-demand fan speed and engine output control system
  - Equipped with electronically controlled variable speed fans

- Powerful and Economical Engine
  Komatsu SAA12V140E-3 Engine with an Output of 713 kW (956 HP)
  Controlled by Efficient Power Management System
  - Auto-deceleration and auto-idling system
  - Two work modes; Power and Economy

Ecology

- EPA Tier 2 Emission Certified Komatsu Engine

- New Technology Produces Remarkably Low Environmental Noise
  Dynamic Noise 6 dB lower than PC1800-6
  - Power module packaging and noise absorbing blades trap noise inside
  - 3-D hybrid fan minimizes air turbulence noise

Easy Repair and Maintenance

Low R&M Cost Sustained by Simplified and Reliable System with Long Service Life

- Simplified and Durable Structure
  - Single engine and PTO drive two Komatsu HPV375+375 pumps
  - Simplified travel unit with single motor (each side)
  - Reinforced track components
  - Long life oil and filters
  - Extended life of rubber components achieved by lowering hydraulic oil temperature

- Power Module Makes Installation and Removal of Components Easier, and Reduces Overhaul Hours and Cost

- Service Friendly Design
  - Maintenance deck surrounding the power module
  - Drain ports accessible from the ground level
  - Concentration of filters
  - Large fuel tank enables 24 hours continuous machine operation
  - Auto-greasing system including bucket pins with 200 liter 52.8 U.S.gal grease tank

- VHMS Monitors the Machine Condition and Minimizes Machine Down Time

See pages 4, 5.

Operator Comfort

- Newly Designed Mining Shovel Cab Provides Comfortable Operation
  - Excellent operational visibility with extended front windshield and large twin wiper
  - Extremely low noise and vibration
  - Dynamic in-cab noise reduced to the same level as passenger cars
  - Rugged OPG top guard integrated into the cab
  - Easy-to-see and easy-to-use 7-inch TFT-LCD large monitor
  - Comfortable air-suspension seat
  - Automatic air conditioner
  - Highly pressurized cab

- Bulkhead between Pump Room and Engine

- Emergency Stop Devices

- Interconnected Horn and Flashing Light

See pages 10, 11, 12 and 13.
In complete pursuit of total cost reduction and eco-friendliness

Evolutionary Komatsu technologies

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 economical excavators.

Powerful and Fuel Efficient Machine achieved by Total Power Management
PC2000-8 is equipped with the new Komatsu SAA12V140E engine that features clean, fuel efficient and powerful performance. Power losses in hydraulic system, cooling fan and PTO are reduced. Total Power Management using On-demand Power Control System succeeds in drastically reducing the fuel consumption per hour. The machine has enhanced functions that contribute to energy-saving operation including adjustable ‘E mode’ and ‘Eco-gauge’. PC2000-8 is a new generation clean and economical machine.

Fuel consumption at E mode 10% reduced
Compared with the PC1800-6 at DH mode and 100% working efficiency.

Fuel consumption varies depending on job conditions.

High Power Komatsu Engine 713 kW (956 HP)
Equipped with the high efficiency turbocharger with large air-to-air aftercooler, the engine delivers high output of 713 kW (956 HP). The ample engine power enables an increase in work efficiency. This engine is EPA Tier 2 emission certified.

Heavy Lift Mode
Turning the heavy lift mode switch on activates the all-out power delivery system to increase the lifting force of the boom. This mode is beneficial when handling rock and during heavy lifting applications.

Selectible Working Modes
Two established work modes are further improved. You can select Power or Economy modes using a one-touch operation on the monitor panel depending on workloads. Two E mode settings available, enabling the operator to select optimum mode that delivers the best combination of production and fuel efficiency considering working conditions.

Advanced Environmentally Friendly Features

Eco-gauge
The Eco-gauge is provided on the right side of the monitor screen for energy saving operation. The gauge informs the operator of cumulative achievement to a predetermined fuel consumption target. By keeping the gauge indication within the green range, the operator can perform fuel-efficient operation to meet the target value.

Idling caution
To prevent unnecessary fuel consumption, an idling caution is displayed on the monitor when the engine idles for 5 minutes or more.

Auto deceleration and auto idling system
The machine is equipped with the auto deceleration system (1400 rpm), reducing operating noise as well as fuel consumption. The auto idling system enables the engine idling speed to be set at a lower speed.

Power module packaging for ultra low-noise operation
Noise sources such as the engine, cooling fan, and hydraulic pumps are packaged in the machinery house. Large sound absorbing blades attached on the air intake and exhaust outlet block noise transmission. Combined with the three dimensions hybrid cooling fan, the machine realizes environmentally-friendly operation with amazingly low-noise.
**EASY REPAIR & MAINTENANCE**

**Designed and built for total cost reduction**

The evolution of reliability and durability

**Reduced Inspection/maintenance and Overhaul Man-hours**

**Achieves Total Cost Reduction**

Power module packaging for easy installation and removal of components

Engine, radiator, oil cooler, hydraulic pumps and PTO are packaged within the Power module. This design facilitates installation and removal of components, contributing to the reduction of maintenance transportation and overhaul hours.

**Repair & maintenance cost Drastically reduced**

Compared with current model

Simple construction and enlarged components reduce the number of parts

Use of a single-engine, enlarged hydraulic pumps and simplified hydraulic circuit enables reduced hours required for checking and maintenance. Moreover, significant reduction of number of parts contributes to reduction of overhaul man-hours, resulting in total cost reduction.

**High cooling efficiency machine design**

Increased oil cooler capacity lowers the heat balance temperature of hydraulic oil to realize a cooler operating machine. Heat-resistant rubber seals are used in hydraulic pumps and cylinders to significantly increase component durability. These improvements dramatically extend the service life of the hydraulic system.

**Strengthened Frame Structure**

Revolving frame, center frame and crawler frame are strengthened completely. The frames endure heavy-duty work and exhibit excellent durability.

**Durable Swing Circle with Triple-roller Bearing**

Large capacity triple-roller bearing is used for the swing circle. The swing circle endures heavy-duty excavating and loading work, and exhibits excellent durability.

**Sturdy Guard and Large Track Link**

Travel motors are shielded by sturdy guards. They prevent the motors from being damaged by the thrust of rocks. Enlarged track rollers, in combination with the largest size track links, provide excellent durability.

**Heavy-duty Rock Bucket (optional)**

Packaged wear-resistant reinforcement plates are available. The repair cost of the bucket can be considerably reduced with the new design.

* KVX materials: Komatsu developed, wear-resistant, reinforced materials. Brinell hardness: 500 or more (180kgf/mm² class). Features high wear-resistance and less heat-induced alteration during rock digging, maintaining long-term hardness.

**XS Tooth**

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

(Tooth replacement time: Half the conventional machine.)

**Wear-resistant Float Pin**

Boom top pin and arm top pin are floating type. Since the pin can freely rotate, it receives less friction load and exhibits excellent reliability and durability.

**Arm Rock Protector Guards the Arm Against Impact**

Arm rock protector is equipped as standard. The protector guards the arm greasing piping against impact.
Sustained high level performance
An achievement in the evolution of maintenance

VHMS (Vehicle Health Monitoring System)
VHMS controller monitors the health conditions of major components and enables remote analysis of the machine and its operation. This process is supported by the Komatsu distributors, factory and design team. This contributes to reduced repair costs and to maintaining maximum availability.

Advanced Layout for Easy Checking and Maintenance
Catwalk surrounding the power module and center walkway provides easy access to the inspection and maintenance points.

Centralized Filters
Centralized filters contribute to easy maintenance.

Remote Drain Piping Enables Drainage from the Ground
Remote drain piping provided to drain hydraulic oil, PTO oil, engine oil and coolant enable performing drainage work from the ground.

Ground Refueling System
Remote refueling port enables ground level refueling.

Large Fuel Tank
3400 ltr 898 U.S. gal large fuel tank enables continuous operation for 24 hours.

Service Center (optional)
Collective arrangement of drain and filter ports for fuel, oil, grease and coolant on the service center, which is hydraulically moved up and down, makes possible quick servicing from the ground.

Jump Start Receptacle (optional)
Jump start receptacle allows starting engine from external power source.

Large Capacity Grease Tank and Easy-to-supply Refill Piping (optional)
The machine is equipped with 200 ltr 52.8 U.S.gal large capacity grease tank enough to perform 24 hours operation. An optional remote refill part enables grease supply to the tank from the ground.

Automatic Greasing System
Greasing work equipment and bucket is fully automated. Since the system carries out automatic greasing at regular time intervals, greasing is hassle-free.

Dust Indicator with Five-step Indication
Informs of air cleaner clogging in five steps to warn of filter condition.

Battery Isolator and Starting Motor Isolator (optional)
When inspection and maintenance or storing the machine long term, the isolators serve to isolate both positive and negative terminals of the battery and starting motor.

Easy Cleaning of Radiator
The hydraulically driven fan can be reversed to facilitate cleaning of the cooling unit. In addition, this feature contributes to reducing warm-up time in low temperatures.

Fuel Pre-filter (with Water Separator)
Removes water and contaminants from fuel to enhance the fuel system reliability.

Reduced Maintenance Costs
Hydraulic oil filter replacement is extended from 500 to 1000 hours. Fuel filter replacement interval is extended from 500 to 1000 hours.
**Step Light with Timer and Maintenance Light**
Step light with timer provides light for 90 seconds to allow the operator to get off the machine.

**Stepladder for Emergency Escape**
In case of an emergency, the stepladder allows you to get out of the machine.

**Emergency Stop Device & Fuel Cut-off Lever**
Emergency stop device is provided at two points on the power module as standard equipment. Engine emergency stop switch is additionally installed to the console in the cab as standard. The remote emergency stop switch operated from the ground is available as an option.

**High Intensity Discharge (HID) Working Light (optional)**
HID working light with double the luminance of conventional halogen lamp is available for night work.

**Interconnected Horn and Flashing Light**
Allows the operator to give visual and audible notice to the dump truck operator.

**Bulkhead Wall (Fire Wall)**
Prevents oil from splashing into the engine room even if hydraulic hoses are broken.

**New Operator Cab Specially Designed for Mining**
New operator cab provides a comfortable working environment. Sturdy cab of solid construction, with top guard conforms to OPG level 2.

**Operator first concept in every corner of the machine**
An achievement in the evolution of operator performance

**Excellent Operational Visibility**
Downward visibility is drastically improved by extending the front windshield. This facilitates the operator view of machine footing. New interior arrangement eliminates blind spots in work equipment side and provides clear and wide range surrounding visibility in combination with wide glass windows.

**Emergency Stop Switch (with engine start lock function)**
Fuel cut-off lever

**Hammer for Emergency Escape and Fire Extinguisher**
To prepare for emergencies, a hammer for emergency escape is provided at the front of the cab and a fire extinguisher at the rear.

**Hydraulic-actuated Ladder**
The machine is equipped with a hydraulic-actuated ladder that can be set up and folded easily for safe getting on and off.

**OPG Top guard level 2 integrated into the cab**

**Dual Rearview Mirror**
Mirrors offer high visibility with fewer blind spots in left rear field of vision.

**Large Twin Wiper**
Large twin wiper covers windshield area and provides excellent front visibility even in the rain.

**Wide Catwalk with Handrail**
The machine is equipped with kickboard (100 mm 3.9” height) and large handrail all around.
Comfortable Operating Environment with Same Level of Low Noise as Passenger Cars

Integral structure of cab and new damper mounts, in combination with power module packaging, attain outstanding low noise and vibration in the cab equivalent to passenger cars.

Spacious and Comfortable New Cab Design

Large cab designed for exclusive use in mining shovels provides enough space to relax during operation. The cab with improved air tightness is pressurized to prevent dust from entering. Combined with a large capacity twin air conditioner that cools and heats the cab effectively, ample and comfortable operating environment is realized.

Cab volume 30% increased

Compared with PC1800-6

Comfortable Air Suspension Seat

The seat with air suspension minimizes and softens vibrations transmitted to the operator. Depending on the operator’s weight and physique, the cushion can be adjusted and the seat can slide fore/aft and vertically.

Easy-to-see and Easy-to-use 7-inch TFT-LCD Large Monitor

The machine is equipped with 7-inch TFT-LCD large monitor for secure, and smooth operation. Panel visibility is significantly improved by the use of the high-resolution TFT-LCD panel. The panel switch group is easy-to-use, enabling switch over of engine output and increase of lifting force during operation. Furthermore, use of function key enables the operator to perform multi-functions with ease. Character display can be selected among nine languages.

Equipment designed to minimize operator fatigue

An achievement in the evolution of comfort performance

Easy-to-see and Easy-to-use 7-inch TFT-LCD Large Monitor

The machine is equipped with 7-inch TFT-LCD large monitor for secure, and smooth operation. Panel visibility is significantly improved by the use of the high-resolution TFT-LCD panel. The panel switch group is easy-to-use, enabling switch over of engine output and increase of lifting force during operation. Furthermore, use of function key enables the operator to perform multi-functions with ease. Character display can be selected among nine languages.
**Specifications**

**Engine**
- **Model:** Komatsu SAA12V140E-3
- **Type:** 4-cylinder, water-cooled, direct injection
- **Aspiration:** Turbocharged, aftercooled
- **Number of cylinders:** 12
- **Bore:** 140 mm, 5.51"
- **Stroke:** 165 mm, 6.50"
- **Piston displacement:** 30.48 ft³, 1860 in³
- **Governor:** 4-speed, electronic 
- **Engine:** SAA12V140E-3
- **Rated rpm:** 1800 rpm

**Undercarriage**
- **Track adjuster:** Grease
- **No. of shoes:** 49 each side
- **No. of track rollers:** 3 each side
- **No. of track rollers:** 8 each side
- **R = 5980 ft**, 1860 in

**Coolant and lubricant capacity (refilling)**
- **Fuel tank:** 3400 ltr, 891.00 US gal
- **Engine:** 31.7 U.S. gal, 120 ltr
- **Radiator:** 180 ltr, 47.6 US gal
- **Swing drives:** 30 x 2 ltr, 30 ltr

**Operating weight (approximate)**
- **Backhoe weight:** 39,250 lb
- **Max. digging depth:** 2710 mm, 8' 7"
- **Max. digging depth:** 574 kN
- **Max. vertical wall:** 626 kN
- **Arm crowd force (SAE):** 574 kN
- **Arm crowd force (ISO):** 711 kN
- **Swing circuit:** 300 kgf/cm², 4,270 psi
- **Pilot circuit:** 30 kgf/cm², 430 psi
- **Boom:** 2 – 300 mm x 2647 mm
- **Arm:** 2 – 250 mm x 2138 mm
- **Bucket:** 7.1" x 23.1"

**SYSTEM**

**Drive system**
- **Travel gear:** Planetary gear
- **Maximum travel speed:** 2.7 km/h, 1.7 mph
- **Parking brakes:** Mechanical disk brakes
- **Engine:** 120 hp, 71.3 kW
- **Rated rpm:** 1800 rpm
- **Fan drive type:** All-speed, electronic

**Operating range**
- **Boom weight:** 8.7 m, 28.7'
- **Arm length:** 5.8 m, 19.7'
- **Max. digging height:** 19.7'
- **Max. digging depth:** 15.7 m
- **Max. vertical wall:** 15.7 m
- **Max. digging depth:** 1578 mm
- **Max. vertical wall:** 1578 mm
- **Max. digging depth:** 1578 mm
- **Max. vertical wall:** 1578 mm
- **Swing circuit:** 300 kgf/cm², 4,270 psi
- **Pilot circuit:** 30 kgf/cm², 430 psi
- **Boom:** 2 – 300 mm x 2647 mm
- **Arm:** 2 – 250 mm x 2138 mm
- **Bucket:** 7.1" x 23.1"

**BACKHOE DIMENSIONS**
- **Bucket:** 15.7 yd³ general purpose, 12.0 m³
- ** нагрузк:** 28' 7" boom, 12' 10" arm, 11.0 m² 14.4 yd³ headed bucket, operator, lubricant, coolant, full fuel tank and standard equipment.
- **Bucket digging force (SAE):** 697 kN
- **Bucket digging force (ISO):** 711 kN
- **Arm crowd force (SAE):** 574 kN
- **Arm crowd force (ISO):** 711 kN

**LOADING SHOVEL**
- **Backhoe weight:** 39,250 lb
- **Max. digging depth:** 2710 mm, 8' 7"
- **Max. vertical wall:** 626 kN
- **Arm crowd force (SAE):** 574 kN
- **Arm crowd force (ISO):** 711 kN
- **Swing circuit:** 300 kgf/cm², 4,270 psi
- **Pilot circuit:** 30 kgf/cm², 430 psi
- **Boom:** 2 – 300 mm x 2647 mm
- **Arm:** 2 – 250 mm x 2138 mm
- **Bucket:** 7.1" x 23.1"

**SWING SYSTEM**
- **Swing gear:** 2 x Planetary gear
- **Swing cede lubrication:** Grease
- **Swing holding brakes:** Mechanical disk brakes
- **Swing speed:** 4.8 rpm

**BACKHOE WORKING RANGE**

**BACKHOE BUCKET**

**BUCKET CAPACITY (HEAPED)**

<table>
<thead>
<tr>
<th>Capacity</th>
<th>SAE, PCEA m³</th>
<th>CECE m³</th>
<th>Without Side Sheds m³</th>
<th>With Side Sheds m³</th>
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<td>2980</td>
</tr>
<tr>
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<tr>
<td>13.7</td>
<td>12.7</td>
<td>12.7</td>
<td>2720</td>
<td>2720</td>
</tr>
</tbody>
</table>

**Max Material Density**
- **General purpose:** 27.40 t/m³
- **General purpose:** 27.40 t/m³
- **General purpose:** 27.40 t/m³
- **General purpose:** 27.40 t/m³

**TOUCH SYSTEM**
- **Recommended uses:** Rock, X3645
- **Recommended uses:** Rock, X3645
- **Recommended uses:** Rock, X3645
- **Recommended uses:** Rock, X3645

**Notes**
- *These charts are based on over-side stability with fully loaded bucket at maximum reach.
- *Wear-resistant bucket
HYDRAULIC SYSTEM:

- E-OLSS (Electronic Open Center Load Sensing System)
- 4 variable displacement piston pumps (2 tandem pumps) for work equipment, travel and swing, 2 variable displacement piston pumps (1 tandem pump) for fan drive
- Two axial piston motors for swing with single stage relief valve
- One axial piston motor per track for travel with counterbalance valve
- Four control valves (two integrated valves) for work equipment, swing and travel
- Control levers for work equipment and swing with PPC system
- Control levers and pedals for travel with PPC system
- Oil cooler
- High-pressure in-line oil filters
- Drain-filters for pumps & motors
- Shockless boom control
- Two-mode pressure setting for boom

DRIVE SYSTEM:

- Planetary travel gear with axial piston motor
- Travel parking brake

OTHER STANDARD EQUIPMENT:

- Fully-automatic greasing system with 200 liter 52.8 U.S. gal.
- Manual grease gun for track adjuster
- Hydraulic-actuated ladders
- Step ladder for emergency escape
- Fuel tank, 3400 liter 910 U.S. gal.
- Refueling port
- Automatic swing holding brake
- Emergency engine stop switch and fuel cut-off lever
- Maintenance light
- Stop light with timer
- Light in machine cab
- Travel alarm
- Wide catwalk with kickboard (100 mm 3.9” height) and large handrail
- Interconnected horn and flashing light
- Dual rearview mirrors
- VHMS

OPTIONAL EQUIPMENT

- Additional 6 fuses and terminals
- Arms (Backhoe):
  - 3900 mm 12’10” arm assembly
  - 4450 mm 14’7” arm assembly
- Booms (Backhoe):
  - 4870 mm 16’0” boom assembly
  - 5950 mm 19’9” boom assembly
- HID lamp system
- Rescue monitoring system
- Cab front guard
- FM tune-up service connection

Additional pre-cleaner for engine air filter (Enginaire)

PM tune-up service connection

- Track shoe, 10’10” mm 43” triple grouser
- Center frame under cover
- Grease refill system
- Service center (Grease shut-off valve available to order)
- Isolators, battery and starter
- Jump start receptacle
- Satellite communication system for VHMS (Orbcomm)
- Heavy-duty rock bucket
- 52°C spec.
- Additional filter system for poor-quality fuel
- Additional pre-cleaner for engine air filter (Enginaire)
- Full length track guiding guards

WORKING LIGHTS:

- 4 on boom
- 4 on cab base
- 3 on fuel tank top front
- 1 left front and 1 left under cab side catwalk
- Auto-decelerator and auto-idling system
- Step ladder for emergency escape
- AM/FM radio
- Fuel tank, 3400 liter 910 U.S. gal.
- Working lights, 4 on boom, 4 on cab base, 3 on fuel tank top front, 1 left front and 1 left under cab side catwalk
- Auto-decelerator and auto-idling system
- Seat, fully adjustable air suspension with retractable seat belt
- Trainer’s seat
- Sun shield
- Fire extinguisher
- Emergency engine stop switch
- Lock lever

STANDARD EQUIPMENT:

- ENGINE AND RELATED ITEMS:
  - Oil cooler
  - High-pressure in-line oil filters
  - Two-mode pressure setting for boom
  - Two cooling fans with fan guard (Hydraulic driven, for radiator and oil cooler)

- ELECTRICAL SYSTEM:
  - 2 starting motors, 2 x 11 kW
  - Two control valves (two integrated valves) for work equipment, swing and travel
  - Two integral valves
  - One axial piston motor per track for travel with counterbalance valve
  - Two cooling fans with fan guard (Hydraulic driven, for radiator and oil cooler)

- GUARDS AND COVERS:
  - Dustproof net for radiator and oil cooler
  - Tracker’s seat
  - Sun shield
  - Fire extinguisher
  - Emergency engine stop switch
  - Lock lever

- UNDERCARRIAGE:
  - Automatic swing holding brake
  - Track guiding guide (Separate type)
  - Dustproof net for radiator and oil cooler

- OPERATOR’S CAB:
  - Large damper mounted and pressurized mining shoveling cab with large tinted windshield, lockable door, large twin wipers and washers, floor mats, cigarette lighter, ashtray and cup holders
  - Built-in top guard conforming to OPG level 2 (ISO)
  - Automatic air conditioners (twin)
  - Seat, fully adjustable air suspension with retractable seat belt
  - Seat, fully adjustable air suspension with retractable seat belt

- Counter weight
- Center frame
- Undercarriage
- Hydraulic tank

- Work equipment assembly
- Backhoe
- Loading Shovel

- Boom cylinder
- Arm cylinder
- Bucket cylinder

- Boiler cylinder
- Arm cylinder
- Bucket cylinder

Specifications shown include the following equipment:

- Backhoe:
  - boom 8700 mm 28’7”
  - arm 3900 mm 12’10”
  - bucket 12.0 m³ 15.7 yd³
- shoes 810 mm 32” double grouser

- Loading Shovel:
  - boom 5950 mm 19’6”
  - arm 4450 mm 14’7”
  - bucket 11.0 m³ 14.4 yd³
- shoes 810 mm 32” double grouser