HORSEPOWER
Gross: 127 kW 171 HP @ 2000 rpm
Net: 125 kW 167 HP @ 2000 rpm

BUCKET CAPACITY
2.1–3.2 m³ 2.7–4.6 yd³

Photo may include optional equipment.
High Productivity & Low Fuel Consumption

- High performance Komatsu SAA6D107E-1 engine
- Low fuel consumption
- Electronically-controlled HST with variable shift control system
- Variable traction control system
- S-mode

See pages 4 and 5.

Excellent Operator Environment

- HST traction control switch
- Electrically controlled directional lever
- Tilttable steering column
- Low-noise designed cab
- Pillar-less large ROPS/FOPS cab-integrated
- Easy entry/exit, rear-hinged doors

See pages 8 and 9.

Harmony with Environment

- EPA Tier 3 and EU Stage 3A emissions certified
- Low exterior noise
- Low fuel consumption
Increased Reliability

- Reliable Komatsu designed and manufactured components
- Sturdy main frame
- Maintenance-free, fully hydraulic, wet multiple-disc service and parking brakes
- Hydraulic hoses use flat face O-ring seals

See page 6.

Cation electrodeposition process is used to apply primer paint
- Powder coating process is used to apply on main structure
- Sealed DT connectors for electrical connections

Easy Maintenance

- “EMMS” (Equipment Management Monitoring System)

See page 7.

- Easy access, gull-wing type engine side doors
- Automatic Reversible Fan (optional)
High Performance Komatsu SAA6D107E-1 Engine

Electronic Heavy Duty Common Rail fuel injection system provides optimum combustion of fuel. This system also provides quick throttle response to match the machine’s powerful tractive effort and quick hydraulic response.

Net: 125 kW 167 HP

Low Emission Engine

This engine is EPA Tier 3 and EU Stage 3A emissions certified, without sacrificing power or machine productivity.

Low Fuel Consumption

The high-torque engine and Hydrostatic Transmission (HST) with maximum efficiency in the low-speed range provide low fuel consumption.

Eco Indicator

The eco indicator will help an operator to promote energy saving.

Electronically-controlled HST Using a 1-pump, 2-motor System

- The 1-pump, 2-motor system allows for high-efficiency and high tractive effort. Engine power is transmitted hydraulically to a transfer case, then manually out to the differentials and out to the four driving wheels.
- HST provides quick travel response and aggressive drive into the pile. The variable displacement system automatically adjusts to the tractive effort demand to provide maximum power and efficiency.
- Full auto-shifting eliminates any gear shifting and kick-down operation to allow the operator to concentrate on digging and loading.
- When high drive torque is needed for digging, climbing or initiating movement, the pump feeds both motors. This combination makes the loader very aggressive and quick.
- Under deceleration, the HST system acts as a dynamic brake on the mechanical drive system. The dynamic brake can hold the loader in position on most workable slopes. This can be an advantage in stockpiling and ramp loading.
- As the machine moves and gains ground speed, the torque demand decreases and the low speed motor is effectively removed from the drive system by a clutch. At this point, the flow is going to the high-speed motor and the low-speed motor is not causing a drag on the system.
- An inching pedal gives the operator excellent simultaneous control of his travel and equipment hydraulic speeds. By depressing the inching pedal, drive pump flow to the motors will decrease, reducing ground speed and allowing the operator to use his accelerator to increase flow to his equipment hydraulics. Depressing the inching pedal further will activate the service brakes.
**Electronically-controlled HST with Variable Shift Control System**

The operator can choose between first, second, third or fourth maximum speeds by dialing the speed range selector switch. For v-cycles, the operator can set the speed control switch to 1 or 2, which provides aggressive digging, quick response and fast hydraulics. For load and carry, select 3 or 4 which still provides aggressive digging but with much faster travel speed.

The variable shift switch allows the operator to adjust his machine speed in applications such as confined v-loading. When in 1, the operator can adjust travel speed using the variable shift switch to match machine speed and hydraulics to the distance travelled.

**Variable Traction Control System**

The tractive effort of the machine, when traveling at a low speed, can be reduced by using the traction control switch. Combined with the function of torque proportioning differentials, this system exerts the following effects.

- Facilitates operation on soft ground where the tires of the machine are apt to slip.
- Eliminates excessive bucket penetration and reduces tire slippage during stockpile loading to improve the work efficiency.
- Reduces tire slippage to extend the life of tires.

Furthermore, the maximum tractive effort can be adjusted in three stages (one stage for conventional machines) when the traction control switch is ON. This allows the operator to select the optimum tractive effort for diversified road conditions.

**S-mode**

Setting the switch to S-mode allows the machine to get the optimum driving force for operations on slippery road surfaces, like snow-removal on snow surface, resulting in reduced tire slippage and facilitation of the operation.

Unexpected tire slippage on slippery road surface is suppressed by controlling the engine speed and HST motor when traveling at a low speed.

(S-mode is effective only in forward traveling.)

**Max. Traction Switch**

Max. traction switch is located on the work equipment control lever. When traction control switch is at ON position or S-mode is selected, pushing this switch cancels the setting of the traction control temporarily and increases the tractive effort to its 100 % value. Then pushing the max. traction switch again or operating the F/R lever returns the tractive effort to the set value automatically. This switch is useful for operations such as piling up work where large tractive effort is required temporarily.

**Accelerator Pedal Sensitive HST Control**

Finely-tuned HST control according to the accelerator pedal angle reduces shocks and allows smoother traveling and better energy-saving operation.

**Maximum Dumping Clearance and Reach**

The long lift arms provide high dumping clearances and maximum dumping reach. The operator can even level loads on the body of a dump truck easily and efficiently.

**Dumping Clearance:** 2850 mm 9'4"
**Dumping Reach:** 1035 mm 3'5"

(2.8 m³ 3.7 yd³ bucket with B.O.C.)
Komatsu Components
Komatsu manufactures the engine, transfer case and hydraulic components on this wheel loader. Komatsu loaders are manufactured with an integrated production system under a strict quality control system.

Wet Multiple-disc Brakes and Fully Hydraulic Braking System mean lower maintenance costs and higher reliability. Wet disc brakes are fully sealed. Contaminants are kept out, reducing wear and resulting maintenance. Brakes require no adjustments for wear, meaning even lower maintenance. The parking brake is also an adjustment-free, wet multiple-disc for high reliability and long life.

Added reliability is designed into the braking system by the use of two independent hydraulic circuits, providing hydraulic backup should one of the circuits fail.

Fully hydraulic brakes mean no air system to bleed, and no condensation of water in the system that can lead to contamination, corrosion, and freezing.

Overrun Prevention System
When the machine descends a slope of six degrees or less, maximum travel speed is automatically restricted to approximately 38 km/h 23 MPH, for protection against damage of power train components and brakes by sensing the travel speed and controlling the discharge amount of the HST pump and motor. When the machine descends a steep slope and the travel speed reaches 36 km/h 22 MPH, the caution lamp lights up to inform the operator to reduce the travel speed.

Note: When the machine descends a steep slope, the use of the service brake is necessary to limit travel speed.

High-rigidity Frames and Loader Linkage
The front and rear frames and the loader linkage have got more torsional rigidity to provide resistance increased to stresses. Frame and loader linkage are designed to accommodate actual working loads, and simulated computer testing proves its strength.

Flat Face-to-face O-ring Seals
Flat face-to-face O-ring seals are used to securely seal hydraulic hose connections.

Cation Electrodeposition Primer Paint/Powder Coating Final Paint
Cation electrodeposition paint is applied as a primer paint and powder coating is applied as topcoat to the exterior metal sheet parts. Some external parts are made of plastic providing long life and high impact resistance.

Sealed DT Connectors
Main harnesses and controller connectors are equipped with sealed DT connectors providing high reliability, water resistance and dust resistance.
EMMS  
(Equipment Management Monitoring System)
Monitor is mounted in front of the operator for easy view, allowing the operator to easily check gauges and warning lights.

A specially designed two-spoke steering wheel allows the operator to easily see the instrument panel.

Maintenance Control and Troubleshooting Functions

- **Action code display function**: If an abnormality occurs, the monitor displays action details on the character display at the center bottom of the monitor.
- **Monitor function**: Controller monitors engine oil pressure, coolant temperature, air cleaner clogging, etc. If the controller finds abnormalities, the error is displayed on the LCD.
- **Replacement time notice function**: Monitor informs replacement time of oil and filters on the LCD when replacement intervals are reached.
- **Trouble data memory function**: Monitor stores abnormalities for effective troubleshooting.

Gull-wing Type Engine Side Doors Open Wide
The operator can open and close each gull-wing type engine side door easily with the assistance of a gas spring to perform daily service checks from the ground.

Ease of Radiator Cleaning
If the machine is operating in adverse conditions, the operator can reverse the hydraulic cooling fan from inside the cab by turning on a switch on the control panel.

Automatic Reversible Fan (optional)
The engine fan is driven hydraulically. It can be operated in reverse automatically. When switch is automatic position. The fan revolves in reverse for 2 minutes every 2 hours intermittently. (Default setting)
Easy Operation

Electronically Controlled Directional Lever
The operator can change direction with a touch of his fingers without removing his hand from the steering wheel. Solid state electronics makes this possible.

Easy-to-operate Loader Control Mono-lever
A new mono-lever using PPC (Proportional Pressure Control) allows the operator to easily operate the work equipment, to reduce operator fatigue and to increase controllability. The adjustable wrist rest provides the operator with a variety of comfortable operating positions.

Right-side Control Panel
The operator can select the speed range, maximum travel speed in 1st, tractive effort.

1: Speed range selector switch  2: Variable shift switch  3: Traction control switch  4: Max. traction switch  5: Fan reverse switch

Tiltable Steering Column
The operator can tilt the steering column to provide a comfortable working position.
Comfortable Operation

Low-noise Design
Noise at operator’s ear noise level: 70 dB(A)
Dynamic noise level (outside): 107 dB(A)

The large cab is mounted with Komatsu’s unique ROPS/FOPS viscous mounts. The low-noise engine, hydraulically driven fan, and hydraulic pumps are mounted with rubber cushions, and the cab sealing is improved to provide a quiet, low-vibration, pressurized, and comfortable operating environment.

Pillar-less Large Cab
A wide pillar-less flat glass provides excellent front visibility. The wiper arm covers a large area to provide great visibility even on rainy days. The large cab area provides maximum space for the operator. The front mounted air conditioner was introduced to increase seat reclining and backward slide adjustment.

Rear-hinged Full Open Cab Doors
Entry and exit into the new komatsu cab starts with sloped staircase type steps and large diameter handrails for added comfort. The large cab doors are rear-hinged to open fully offering easy entry/exit and will not hamper visibility when operating the machine with the doors latched open.

Photo may include optional equipment.
**ENGINE**

Model: Komatsu SAA6D107E-1
Type: Water-cooled, 4-cycle
Aspiration: Turbocharged, aftercooled
Number of cylinders: 6
Bore x stroke: 107 mm x 124 mm
Piston displacement: 4.21" x 4.88"
6.69 ltr
Governor: All-speed, electronic

**TRANSMISSION**

Transmission: Hydrostatic, 1 pump, 2 motors with speed range select
Travel speed: 1st 2nd 3rd 4th
Measured with 20.5-25 tires

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both Forward</td>
<td>4.0</td>
<td>13.0</td>
<td>13.0</td>
<td>38.0</td>
</tr>
<tr>
<td>and Reverse</td>
<td>2.5</td>
<td>8.1</td>
<td>8.1</td>
<td>23.6</td>
</tr>
</tbody>
</table>

**AXLES AND FINAL DRIVES**

Drive system: Four-wheel drive
Front: Fixed, semi-floating
Rear: Center-pin support, semi-floating, 24" total oscillation
Reduction gear: Spiral bevel gear
Differential gear: Torque proportioning
Final reduction gear: Planetary gear, single reduction

**HYDRAULIC SYSTEM**

Type: Full-hydraulic power steering
Steering angle: 38.5° each direction (40° end stop)
Minimum turning radius at the center of outside tire: 5380 mm

**SERVICE REFILL CAPACITIES**

Cooling system: 2.5 ltr
Fuel tank: 245 ltr
Engine: 23 ltr
Hydraulic system: 89 ltr
Axle (each front and rear): 24 ltr
Torque converter and transmission: 6.5 ltr

**BUCKET SELECTION GUIDE**

Light Material Bucket with BOC (Scraping and loading of light material)
Stockpile Bucket with BOC (Loading and excavating of soil, sand and a variety of other commonly handled material)
Excavating Bucket with Teeth (Loading and excavating of crushed or blasted rock)

**BRAKES**

Service brakes: Hydraulically actuated, wet multiple-disc brakes actuate on four wheels
Parking brake: Wet, multiple-disc brake on transfer output shaft
Emergency brake: Parking brake is commonly used
All dimensions, weights, and performance values based on SAE J732c and J742b standards.

Static tipping load and operating weight shown include lubricant, coolant, full fuel tank, ROPS cab, and operator. Machine stability and operating weight affected by counterweight, tire size, and other attachments.

Apply the following weight changes to operating weight and static tipping load.

**Measured with 20.5-25-12PR (L3) tires, ROPS/FOPS cab**
### WEIGHT CHANGES

<table>
<thead>
<tr>
<th>Change in Operating Weight</th>
<th>Change in Tipping Load</th>
<th>Width Over Tire</th>
<th>Ground Clearance</th>
<th>Change in Vertical Dimensions</th>
<th>Change in Reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5-25-12PR (L2)</td>
<td>-210 kg</td>
<td>-463 lb</td>
<td>-165 kg</td>
<td>-364 lb</td>
<td>2590 mm</td>
</tr>
<tr>
<td>Install ROPS canopy (instead of cab)</td>
<td>-150 kg</td>
<td>-331 lb</td>
<td>-150 kg</td>
<td>-331 lb</td>
<td>2590 mm 8' 6&quot;</td>
</tr>
<tr>
<td>Additional counterweight</td>
<td>320 kg</td>
<td>1.146 lb</td>
<td>1015 kg</td>
<td>2,238 lb</td>
<td>2590 mm</td>
</tr>
</tbody>
</table>

### STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Air conditioner
- Alternator, 60 A
- Automatic boom kickout
- Auto shift transmission with mode select system
- Back-up alarm
- Back-up lamp
- Batteries, 112 Ah/2 x 12 V
- Bucket positioner
- Counterweight
- Directional signal
- Engine, Komatsu SAA6D107E-1 diesel
- Engine shut-off system, electric
- Fuel prefilter with water separator
- Hydraulic-driven fan with reverse rotation
- Lift cylinders and bucket cylinder
- Loader linkage with standard lift arm
- Main monitor panel with EMMS (Equipment Management Monitoring System)
- PPC fingertip control, mono lever
- Radiator mask, lattice type
- Rear defroster (electric)
- Rear view mirror
- Rear window washer and wiper
- ROPS/FOPS cab
- Seat, rigid type with reclining
- Seat belt
- Service brakes, wet disc type
- Starting motor, 5.5 kW/24 V
- Steering wheel, tiltable
- Sun visor
- Tires (20.5-25-12PR, L3 tubeless) and rims
- Transmission, 4 forward and 4 reverse

### OPTIONAL EQUIPMENT

- 3-spool valve
- Additional counterweight
- AM/FM radio
- AM/FM stereo radio cassette
- Bucket, excavating 2.3m³ 3.0 yd³
- Bucket, light material 3.2m³ 4.2 yd³
- Bucket, stockpile 2.8m³ 3.7 yd³
- Bucket teeth (bolt-on type)
- Bucket teeth (tip type)
- Cool & Heater box
- Cutting edge (bolt-on type)
- Deluxe suspension seat
- ECSS (Electronically Controlled Suspension System)
- Emergency steering (SAE)
- Engine pre-cleaner with extension
- Fire extinguisher
- Floor mat
- Front fenders
- High lift boom
- Limited slip differential (F&R)
- Log grapple
- Power train guard
- Rear full fender
- Rops canopy
- Tool kit
- Vandalism protection kit


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