WA600-3
Wheel Loader

NET HORSEPOWER
357 KW (478 HP)
@ 2000 rpm

OPERATING WEIGHT
46.165 - 49.400 kg

BUCKET CAPACITY
5.6 - 7.5 m³
Komatsu-integrated design offers the best value, reliability, and versatility. The hydraulics, power train, frame, and all other major components are engineered by Komatsu. You get a machine with components that are designed to work together for increased production, greater reliability, and more versatility.

What’s new?
- High performance engine SAA6D170E-3 with increased torque
- Improved brake performance
- Rimpull increased
- Extended oil filter change intervals
- Meets European stage II emission regulations
- Lower noise
- Increased hill climb speed
- Larger radiator capacity
- Improved ECSS suspension system

New Optional Electrically Controlled Suspension System. (ECSS) (Optional)
Takes the bounce out of travel on rough ground surfaces. Provides better comfort and confidence for the operator, as well as increased travel speed and steering stability, whilst improving material retention in the bucket.

Cylinder buffer rings
reduce shock loads to the cylinder packings and prolong cylinder life by 30%.

Higher dumping clearance
with the optional high-lift boom arrangement.

Optional bucket teeth
Komatsu’s KVX™ and Hensley™ ultra-wear resistant teeth, segments and wear plates stand up to the toughest work conditions, improving material penetration and making lower bucket weight possible, resulting in reduced fuel consumption, less tyre wear, and improved productivity.

Low mounted bucket hinge pins
Low mounted for better pile penetration and double sealed for long life.

Automatic transmission
Optional equipped with kick-down and transmission hold switch.
Cab damper mounting for low vibration levels
The WA600-3 uses a viscous damping mount system. The new cabin damper mounting aids the reduction of vibrations to the operator’s seat, resulting in less fatigue.

New optional joystick steering system
For precise control in V-type loading applications.

Easy access to engine for servicing.
Large doors lock with cab key. Wide opening to all engine service points and filters.

Ground level greasing
In centralised service banks, reduces and simplifies maintenance.

New emissionised stage II engine
Komatsu SAA6D170E-3 diesel engine provides better productivity, serviceability and reliability. Engine oil and filter change intervals have been extended from 250 hours to 500 hours.

Rear-mounted large-capacity fuel tank
Allows for ground level fuelling.
The cab improvements on the WA600-3 go well beyond providing a large cab with an optional comfortable air-ride seat. Improvements include the production-enhancing standard and optional features noted below:

**Two-door, walk-through cab.**
Komatsu is offering the safest cabin on the market, with an easy entry and exit from both sides of the cab.

**Cabin damper mounting for low vibration levels**
The silicone oil filled rubber mounts result in reducing the fatigue caused by mechanical vibrations and noise. This helps the operator to remain productive the whole day. It also increases the lifetime of all operator compartment components.

**Low-effort brake pedals**
Actuate fully hydraulic brakes. The service brake is a wet-disc type and the parking brake is a dry-disc type for a long lifetime.

**Easy steering**
Komatsu’s fully hydraulic steering provides a fast response with low effort, even at low engine RPMs.

**Joystick/steering wheel control (optional)**
This system provides a precise steering operation. That’s sometimes needed on narrow, long quarry roads. The joystick steering is also ideal in V-shape cycle loading, and the steering wheel is ideal in load-and-carry operations. The combination of these two systems provides a convenient, comfortable and versatile option that’s suitable for all operators and operating conditions.

**ECSS (Electronic Control Suspension System) drive control. (optional)**
This option is ideal in load-and-carry operations, by providing a smooth drive in on rough ground surfaces. Productivity is optimised by improving material retention in the bucket and increasing the operator comfort and control.

**Automatic transmission.**
Automatic shift control gives the operator maximum control with a minimum of effort. The transmission hold switch allows the operator to select either automatic or manual shifting. The unique combination of the transmission hold and kick-down switches, located on the hydraulic boom lever, offers the operator optimum control in all conditions.

**At-a-glance instrument monitor**
The main monitor panel is mounted in front of the operator and can be tilted for optimal viewing, allowing the operator to easily check gauges and warning lights. A specially designed two-spoke steering wheel gives the operator an unobstructed view of the instrument monitor.

**The EDIMOS II instrument gauge cluster display**
The maintenance monitor panel shows all machine functions and systems, which are only a glance away on the side panel.

**Seat**
Comfortable high-back seat, features: Air suspension (optional), six-way adjustable with arm rests, headrest and lumbar support. It fits every size of operator.
Comfortable cabin

The large-sized cabin with electric power windows provides a comfortable operator environment. Visibility is superb with the pillar-less large-sized front window. It allows a perfect view on of the work equipment.

Low noise design

The noise levels are substantially reduced: Acoustic isolation around the engine compartment, combined with the specially designed low speed radiator cooling fan, results in the following superbly low noise levels:

Guaranteed sound level at the operators ear; Lpa, below 79 dB(A) and the external noise level is Lwa below 113 dB(A).
Komatsu’s integrated design results in components that are matched to provide the most efficient use of power, whether you’re working the face of a material bank or travelling with a loaded bucket.

**Engine**

The Komatsu SAA6D170E-3 delivers the power and efficiency to get the job done quickly and cost-effectively while meeting the European Stage II emission regulations.

It’s a water-cooled, four-stroke cycle, six-cylinder inline, turbocharged, air-to-air after cooled, direct injection engine that produces high performance and excellent fuel economy. With a piston displacement of 23.15 litres, the Komatsu SAA6D170E-3 has a net flywheel horsepower of 357KW (478HP) at 2000rpm. (SAE J 1349)

**The gear pump-driven forced lubrication**

System has full flow filtration whilst all fuel and oil filters are spin-on for easy maintenance. Komatsu SAA6D170E-3 features include:

- Environmentally friendly, meets Stage II emission regulations.
- Engine oil and filter change intervals have been extended from 250 hours to 500 hours.
- High pressure injection (HPI) fuel system provides excellent low-speed torque and optimum fuel efficiency.
- Large-capacity muffler mounted under the bonnet reduces noise. The noise level is now one of the lowest in its class.
- Wet-type cylinder liners dissipate heat more efficiently and are replaceable for engine rebuild. Dry, two-stage cyclonic air cleaner with a centrifugal type pre-cleaner.

**Large gull-wing doors**

Allow easy access to the engine and radiator for routine maintenance and cleaning.

**Spin-on filters**

And easily accessible lubrication points reduce maintenance time and the change of maintenance items. Lifetime has been extended from 250 to 500 hours.
Four-Speed Automatic Transmission

Provides maximum speed of 30.3 km/h in forward and 32.7 km/h in reverse. The transmission is a full power shift, automatic planetary gear type.

Other features include:
• Gear indicator conveniently located on the monitor panel that allows the operator to easily check gearshifts during operations.
• Solid state electronic fingertip shifting provides easy directional changes from forward to reverse or from one gear to another.
• Automatic gear selection with a hold switch on the boom control lever provides control with low effort.
• Four forward and four reverse gears help match cycle conditions, providing increased efficiency and fuel economy.

Consider this valuable feature for added productivity

With the touch of a finger, the kick-down switch automatically downshifts from second to first gear when beginning the digging cycle. It automatically shifts up from first to second when the direction control lever is placed in reverse. This results in increased rim pull for better bucket penetration and reduced cycle times, delivering higher productivity.

Komatsu designed axles and final drives

Provide rugged reliability with low maintenance. Axle shafts are full-floating. The front axle is fixed, whilst the rear axle is a centre pin support design that provides a total oscillation of up to 26 degrees.

The reduction gear is a heavy-duty spiral bevel gear, for strength and reliable performance. The rugged, outboard planetary final drives carry the total gear reduction of the drive train to the wheel, which is mounted to the axle hub.

Optional front and rear limited slip differentials

are also available to provide improved traction on adverse ground conditions.

Wet multi-disc brakes (front and rear)

Fully sealed. Contaminants are kept out, reducing wear and maintenance. Brakes require no adjustments for wear, further reduces maintenance costs. There is no air system to bleed, which eliminates the condensation of water in the system that can lead to contamination and corrosion. The braking system’s reliability has been increased with the use of two independent hydraulic circuits, providing hydraulic backup in the event that one circuit fails.

The parking brake is a dry-disc, hydraulically-released, spring-applied brake, mounted on the front axle input shaft.

APS - Automatic Power Speed Hydraulic System

A dual-hydraulic speed system, especially created by Komatsu, which increases operational efficiency by matching the hydraulic demands to the work conditions.

Oil from the switch pump is completely returned to the tank when digging and breaking out; therefore hydraulic flow to the loader is reduced and pressure is increased. This reduces horsepower demand from the engine and makes operations more efficient. This technology delivers greater productivity at the lowest operating cost.
Service With a Smile

It would be better if most of us approached routine maintenance and service as something that made us smile. That's why Komatsu designed the WA600-3 wheel loader to make servicing as easy as possible. We know that by doing this, routine maintenance and servicing are less likely to be skipped, which can mean a reduction in costly downtime later. Here are some of the many service features found on the WA600-3:

• Large service doors provide easy access to all engine service points and filters, and can be locked with the ignition key.
• Ground level greasing: all grease points are easily reached from ground level and grease banks are provided in strategic areas to reduce maintenance time.
• Large platforms provide easy access to cab windows.
• Full hydraulic service and parking brakes eliminate air system maintenance.

• Sealed loader linkage pins – designed to keep grease contained longer and prevent the entrance of dust, thereby lengthening greasing intervals.
• Cylinder buffer rings reduce shock loads to the cylinder packing and prolong cylinder life by 30%.
• Batteries are located next to the counterweight for ground level access.
• Easy to reach toolbox for grease gun and tool storage.
• Optional automatic lubrication system and wiggins fast fuel system are available to reduce maintenance time.
**ENGINE**

Model: Komatsu SAA6D170E-3
Meets European stage II emissions regulations

Type: Water-cooled, 4-cycle, Turbocharged, air-to-air aftercooled

Number of cylinders: 6

Bore x stroke: 170 mm x 170 mm

Piston displacement: 23,15 ltr

Governor: Electrical, all-speed control

Horsepower rating @ 2,000 rpm: 357 kW, 478 HP

Fuel system: High pressure direct injection

Lubrication system:
- Method: Gear pump, force lubrication
- Filter: Full-flow
- Air cleaner: Dry-type with double elements and automatic dust evacuator, and dust indicator on monitor

**HYDRAULIC SYSTEM**

Capacity (discharge flow) @ engine rated rpm:
- Loader pump: 492 ltr/min
- Switch pump: 199 ltr/min
- Steering pump: 246 ltr/min

Relief valve setting:
- Loader: 210 kg/cm², 3,000 psi
- Steering: 210 kg/cm², 3,000 psi

Control valve: 2-spool open center

**AXLES AND FINAL DRIVES**

Drive system: Four-wheel drive
Front: Fixed, full-floating
Rear: Center-pin support, full-floating, 26° total oscillation
Reduction gear: Spiral bevel gear
Differential gear: Straight bevel gear
Final reduction gear: Planetary gear, single reduction, oil bath

**BRAKES**

Service brakes:
Hydraulically-actuated, wet multi-disc brakes actuate on four wheels.
Parking brake:
Dry-disc, hydraulically-released, spring applied on front axle input shaft.

**BUCKET CONTROLS**

Control positions:
- Boom: Raise, hold, lower, and float
- Bucket: Rollback, hold, and dump

**SERVICE REFILL CAPACITIES**

- Cooling system: 142 ltr
- Fuel tank: 670 ltr
- Engine: 47 ltr
- Hydraulic system: 345 ltr
- Axle (each front and rear): 124 ltr
- Torque converter and transmission: 110 ltr

**STEERING SYSTEM**

Type: Articulated, full hydraulic power steering independent of engine rpm

Steering angle: 40° each direction

Minimum turning radius at the center of outside tyre: 6.980 mm

**TRANSMISSION**

Torque converter: 3-element, single-stage, single-phase
Transmission: Automatic, full power shift, planetary gear
Travel speed (measured with 35/65-33, 24PR (L4) tires):

<table>
<thead>
<tr>
<th>km/h</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td>6.4</td>
<td>11.1</td>
<td>18.8</td>
<td>30.3</td>
</tr>
<tr>
<td>Reverse</td>
<td>7.1</td>
<td>12.2</td>
<td>20.5</td>
<td>32.7</td>
</tr>
</tbody>
</table>

**ENVIRONMENT**

Engine emissions: Fully complies with stage 2 exhaust emission regulations

Noise levels:
- LWA External noise: 113 dB(A) (2000/14/EC)
- Lpa interval noise: 79 dB(A) (ISO6396) Dynamic noise level
DIMENSIONS

<table>
<thead>
<tr>
<th></th>
<th>Standard Boom</th>
<th>High Lift Boom</th>
<th>Load and Carry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spade Nose</td>
<td>Spade nose</td>
<td>Spade Nose</td>
</tr>
<tr>
<td></td>
<td>with Teeth</td>
<td>with BOCE</td>
<td>with Teeth</td>
</tr>
<tr>
<td></td>
<td>L4 Tire</td>
<td></td>
<td>L5 Tire</td>
</tr>
<tr>
<td><strong>Bucket Capacity</strong></td>
<td>SAE rated</td>
<td>6.1 m³</td>
<td>5.6 m³ (with teeth)</td>
</tr>
<tr>
<td></td>
<td>Struck</td>
<td>5.1 m³</td>
<td>4.9 m³</td>
</tr>
<tr>
<td><strong>Bucket Width</strong></td>
<td>3.685 mm</td>
<td>3.685 mm</td>
<td>3.685 mm</td>
</tr>
<tr>
<td><strong>Bucket Weight</strong></td>
<td>4.305 kg</td>
<td>4.305 kg</td>
<td>4.400 kg</td>
</tr>
<tr>
<td><strong>Static Tipping Load</strong></td>
<td>Straight</td>
<td>33.290 kg</td>
<td>29.100 kg</td>
</tr>
<tr>
<td></td>
<td>40° full turn</td>
<td>29.400 kg</td>
<td>25.650 kg</td>
</tr>
<tr>
<td><strong>Dumping Clearance, Maximum Height and 45° Dump Angle</strong></td>
<td>3.350 mm</td>
<td>3.360 mm</td>
<td>4.265 mm (3.995 mm)</td>
</tr>
<tr>
<td><strong>Reach at 2.130 mm Cut Edge Clearance and 45° Dump Angle</strong></td>
<td>2.600 mm</td>
<td>2.595 mm</td>
<td>2.970 mm</td>
</tr>
<tr>
<td><strong>Reach at Maximum Height and 45° Dump Angle</strong></td>
<td>1.990 mm</td>
<td>1.985 mm</td>
<td>1.690 mm (1.885 mm)</td>
</tr>
<tr>
<td><strong>Reach with Boom Horizontal and Bucket Level</strong></td>
<td>3.500 mm</td>
<td>3.495 mm</td>
<td>3.845 mm</td>
</tr>
<tr>
<td><strong>Operating Height</strong></td>
<td>Fully raised</td>
<td>7.165 mm</td>
<td>7.720 mm</td>
</tr>
<tr>
<td></td>
<td>Bucket at ground</td>
<td>11.105 mm</td>
<td>11.369 mm</td>
</tr>
<tr>
<td><strong>Rated Load (Kg)</strong></td>
<td>10.980 kg</td>
<td>10.080 kg</td>
<td>10.080 kg</td>
</tr>
<tr>
<td><strong>Turning Radius</strong></td>
<td>8.260 mm</td>
<td>8.260 mm</td>
<td>8.850 mm</td>
</tr>
<tr>
<td><strong>Digging Depth</strong></td>
<td>0°</td>
<td>45 mm</td>
<td>125 mm</td>
</tr>
<tr>
<td></td>
<td>10°</td>
<td>360 mm</td>
<td>485 mm</td>
</tr>
<tr>
<td><strong>Breakout Force (bucket cylinder)</strong></td>
<td>37.628 kg</td>
<td>37.628 kg</td>
<td>37.500 kg</td>
</tr>
<tr>
<td><strong>Operating Weight</strong></td>
<td>46.165 kg</td>
<td>47.305 kg</td>
<td>48.720 kg</td>
</tr>
</tbody>
</table>

Unless otherwise indicated, specs are with teeth and 35/65-33, 24PR (L4) tires, steel cab, ROPS canopy, lubricant, full fuel, optional counterweight, and operator.

- Specifications and ratings conform to all applicable standards recommended by the Society of Automotive Engineers, SAE standard J732c and J742b.
- Static tipping load and operating weight shown include 35/65-33, 24PR (L4) tires, enclosed cab, ROPS canopy, lubricant, full fuel tank, standard counterweight, and operator.
- Machine’s stability and operating weight are affected by counterweight, tire size, and other weight changes to operating weights and static tipping load.
- Load and carry arrangement includes 35/65-33, 24PR tires.
- *Turning radius measured with bucket at carry position, outside corner of bucket.

Weight Changes (for standard machine)

<table>
<thead>
<tr>
<th>Change in Operating Weight</th>
<th>Change in Static Tipping Load for Standard Boom</th>
<th>Rated Load</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Straight</td>
<td>Full Turn (40°)</td>
</tr>
<tr>
<td>Aditional counterweight</td>
<td>+1.000 kg</td>
<td>+2.300 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>+0 kg</td>
</tr>
</tbody>
</table>

- All dimensions, weights and performance values based on SAE J73c and J742b standards.
This guide, representing bucket sizes not necessarily manufactured by Komatsu, will help you select the proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment. Bucket fill factors represent the approximate amount of material as a percent of rated bucket capacity. Fill factors are primarily affected by material, ground conditions, breakout force, bucket profile, and the cutting edge of the bucket used.
STANDARD EQUIPMENT

- Air conditioner with heater and defroster
- Alternator, 75 A
- Axles, full floating
- Batteries, 2 x 12 V/200 Ah
- Brakes
  - parking, dry disc
  - service, wet, multiple disc
- Bucket positioner (automatic)
- Cab with ROPS/FOPS canopy
  - 6.1 m³ spade nose rock (standard)
- Standard counterweight,
- Electronic display/monitoring system
- Fenders, front and partial rear
- Hitch
- Horn, electric
- Lights
  - back up
  - stop and tail
  - turn signal with hazard switch
    (2 front, 2 rear)
  - working (4 front, 2 rear)
- PPC hydraulic controls
- Rearview mirror
- Seat, air suspension
- Seat belt, 76 mm wide with retractors
- Steering, full hydraulic power
- Steering wheel, tilt
- Tires 35/65-33, 24PR (L4)
- 2 starting motors, 24 V 7.5 kW direct electric
- Vandalism protection kit
- Washer, front and rear
- Wiper, front and rear, front intermittent
- Komatsu Engine SAA6D170E, 357 kW

OPTIONAL EQUIPMENT

- Additional counterweight, 1,000 kg
- Autolube system
- Auxiliary steering kit
- Bolt-on cutting edge for straight-edge bucket
- Bucket
- 6.1 m³ straight-edge rock
- 5.6 m³ straight edge for high lift
- 7.5 m³ spade nose rock
  (load and carry)
- Transmission, full power shift, automatic (4F, 4R), planetary soft shift
- Bucket cylinder, large
- ECSS (Electronically Controlled Suspension System)
- High-pressure in-line filter
- Hydraulic adapter kit, includes 3-spool valve, lever, and piping
- Joystick steering control
- Logging arrangement
- High lift arrangement
- Load & carry arrangement
- Radio, AM/FM with cassette and antennas
- Tires (bias ply)
  - 35/65-33, 24PR (L5)
  - 35/65-33, 30PR (L5)
- Tires (radial ply)
  - 35/65 R33 XLDD1 (L4)
  - 35/65 R33 XLDD2 (L5)
- Wiggins fast fuel fill