

KOMATSU

WA
600



WA600-3

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

WALK-AROUND

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

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.

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.



Optional bucket teeth

Komatsu's KVVX™ 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.

NET HORSEPOWER
357kW 478 HP @ 2.000 rpm

OPERATING WEIGHT
46.165 kg - 49.400 kg

BUCKET CAPACITY
5,6 - 7,5 m³

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.

WORKING ENVIRONMENT

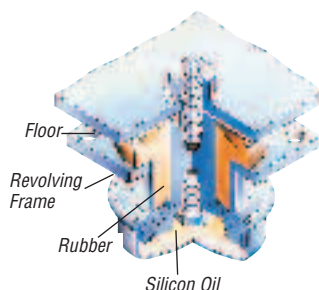
The cab improvements on the WA600-3 go well beyond providing a large cab with an optional comfortable air-ride seat. Improvements include the production-enhancing standard and optional features noted below:

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 from 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).



The five-mode air-conditioner ensures a stress free and productive working day.



Large entrance to cabin



Radio cassette (optional)



KOMATSU DESIGNED POWER TRAIN

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

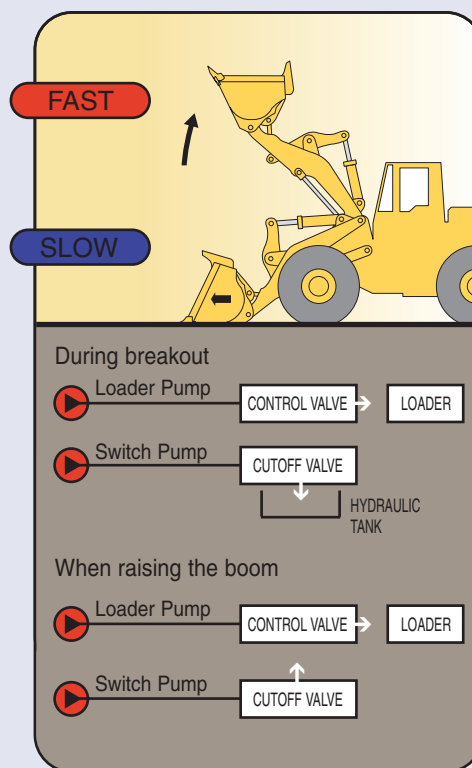
are also available to provide improved traction on adverse ground conditions.

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



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.



EASY MAINTENANCE

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.



SPECIFICATIONS



ENGINE

Model Komatsu SAA6D170E-3
Meets European stage II emissions regulations
Type Water-cooled, 4-cycle
Aspiration 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
Net power 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



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):

km/h	1st	2nd	3rd	4th
Forward	6,4	11,1	18,8	30,3
Reverse	7,1	12,2	20,5	32,7



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.



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



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



BUCKET CONTROLS

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



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

Hydraulic Cylinders	Number of Cylinders	Bore	Stroke
Boom	2	225 mm	1.130 mm
Bucket	1	280 mm	710 mm
Steering	2	130 mm	529 mm

Hydraulic cycle time (rated load in bucket)
Raise...8,2 sec Dump...2,4 sec Lower (empty)...4,3 sec



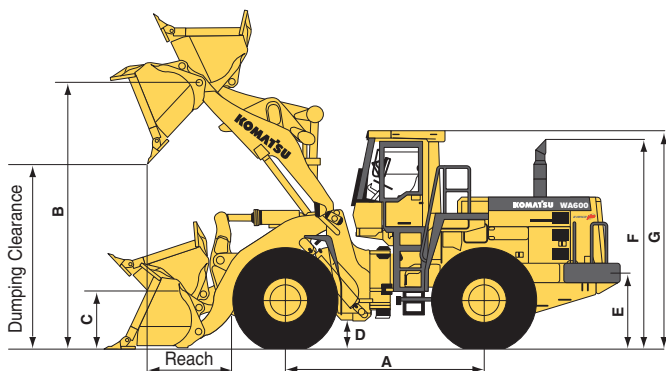
SERVICE REFILL CAPACITIES

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

WA600-3 WHEEL LOADER



DIMENSIONS



Tires	35/65-33, 24PR (L4)	35/65-33, 24PR (L5)
Tread	2.650 mm	2.650 mm
Width over tires	3.570 mm	3.570 mm
A Wheelbase	4.100 mm	4.100 mm
B Hinge pin height, maximum height		
Standard boom,	5.155 mm	5.165 mm
Highlift boom	5.770 mm	5.780 mm
Load and carry	4.850 mm	4.860 mm
C Hinge pin height, carry position	670 mm	680 mm
D Ground clearance	495 mm	505 mm
E Hitch height (standard boom)	1.295 mm	1.305 mm
E Hitch height (high lift/L&C)	1.385 mm	1.395 mm
F Overall height, exhaust stack	4.125 mm	4.135 mm
G Overall height, ROPS cab	4.250 mm	4.260 mm

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.

		Standard Boom Spade Nose with Teeth		High Lift Boom	Load and Carry
		L4 Tire	L5 Tire	Spade nose with BOCE	Spade Nose with Teeth
Bucket Capacity	SAE rated	6,1 m ³	6,1 m ³	5,6 m ³ (with teeth)	7,5 m ³
	Struck	5,1 m ³	5,1 m ³	4,9 m ³	6,8 m ³
Bucket Width		3.685 mm	3.685 mm	3.685 mm	3.685 mm
Bucket Weight		4.305 kg	4.305 kg	4.400 kg	5.075 kg
Static Tipping Load	Straight	33.290 kg	34.080 kg	29.100 kg	38.900 kg
	40° full turn	29.400 kg	30.095 kg	25.650 kg	34.300 kg
Dumping Clearance, Maximum Height and 45° Dump Angle		3.350 mm	3.360 mm	4.265 mm (3.995 mm)	3.195 mm
Reach at 2.130 mm Cut Edge Clearance and 45° Dump Angle		2.600 mm	2.595 mm	2.970 mm	2.480 mm
Reach at Maximum Height and 45° Dump Angle		1.990 mm	1.985 mm	1.690 mm (1.885 mm)	1.910 mm
Reach with Boom Horizontal and Bucket Level		3.500 mm	3.495 mm	3.845 mm	3.470 mm
Operating Height	Fully raised	7.165 mm	7.170 mm	7.720 mm	7.065 mm
Overall Length	Bucket at ground	11.105 mm	11.095 mm	11.369 mm	11.404 mm
Rated Load (Kg)		10.980 kg	10.980 kg	10.080 kg	13.500 kg
Turning Radius*		8.260 mm	8.260 mm	8.850 mm	8.225 mm
Digging Depth	0°	45 mm	85 mm	125 mm	105 mm
	10°	360 mm	350 mm	485 mm	505 mm
Breakout Force (bucket cylinder)		37.628 kg	37.628 kg	37.500 kg	35.400 kg
Operating Weight		46.165 kg	47.305 kg	46.600 kg	49.400 kg

- 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.

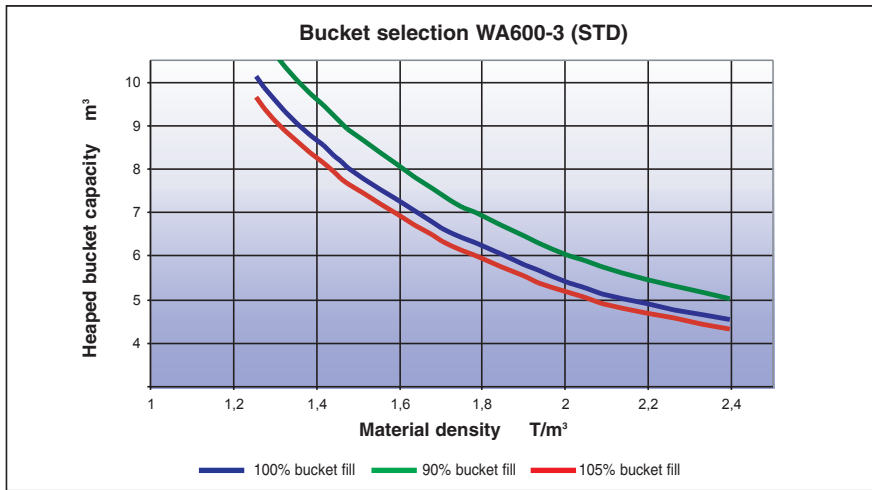
Weight Changes (for standard machine)

	Change in Operating Weight	Change in Static Tipping Load for Standard Boom		Rated Load
		Straight	Full Turn (40°)	
Additional counterweight	+1.000 kg	+2.300 kg	+2.030 kg	+0 kg

• All dimensions, weights and performance values based on SAE J73c and J742b standards.



BUCKET SELECTION GUIDE



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.



WHEEL LOADER



STANDARD EQUIPMENT

- | | | | |
|---|--|---|---|
| <ul style="list-style-type: none"> • Air conditioner with heater and defroster • Alternator, 75 A • Axles, full floating • Batteries, 2 x 12 V/200 Ah • Brakes <ul style="list-style-type: none"> - parking, dry disc - service, wet, multiple disc • Bucket positioner (automatic) • Cab with ROPS/FOPS canopy <ul style="list-style-type: none"> - 6,1 m² spade nose rock (standard) | <ul style="list-style-type: none"> • Standard counterweight, • Electronic display/monitoring system • Fenders, front and partial rear • Hitch • Horn, electric • Lights <ul style="list-style-type: none"> - back up - stop and tail - turn signal with hazard switch (2 front, 2 rear) - working (4 front, 2 rear) | <ul style="list-style-type: none"> • 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) | <ul style="list-style-type: none"> • 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

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> • Additional counterweight, 1.000 kg • Autolube system • Auxiliary steering kit • Bolt-on cutting edge for straight-edge bucket • Bucket | <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • Radio, AM/FM with cassette and antennas • Tires (bias ply) <ul style="list-style-type: none"> - 35/65-33, 24PR (L5) - 3 5/65-33, 30PR (L5) • Tires (radial ply) <ul style="list-style-type: none"> - 35/65 R33 XLDD1 (L4) - 35/65 R33 XLDD2 (L5) • Wiggins fast fuel fill |
|--|---|---|--|



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