

KOMATSU®

WA250-5

FLYWHEEL HORSEPOWER
101 kW 135 HP @ 2000 rpm

OPERATING WEIGHT
10565 – 10710 kg
23,292 – 23,611 lb

BUCKET CAPACITY
1.9 – 2.7 m³ 2.5 – 3.5 yd³

WA
250

GAULTER



Photo may include optional equipment.

WHEEL LOADER

WALK-AROUND

GALEO

Building on the technology and expertise Komatsu has accumulated since its establishment in 1921, GALEO presents customers worldwide with a strong, distinctive image of technological innovation and exceptional value. The GALEO brand will be employed for Komatsu's full lineup of advanced construction and mining equipment. Designed with high productivity, safety and environmental considerations in mind, the machines in this line reflect Komatsu's commitment to contributing to the creation of a better world.

Genuine Answers for Land and Environment Optimization

Komatsu-integrated design offers the best value, reliability, and versatility. Hydraulics, powertrain, frame, and all other major components are engineered by Komatsu. You get a machine whose components are designed to work together for higher production, greater reliability, and more versatility.

Maintenance-free fully hydraulic wet-disc service and parking brakes

Electronically controlled Hydrostatic Transmission (HST) with variable shift control system

Traction control system

Reduced operator noise
to 70 dB(A)

Expanded main monitor
and troubleshooting display

Larger cab
with new layout design

New tilt steering column

Easy-to-operate loader control mono-lever
using PPC (Proportional Pressure Control)



Large breakout force

Extended service intervals

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Powerful yet efficient Komatsu
SAA6D102E-2-A *emissionized engine*



Full side opening
gull-wing engine doors



Radial Sealed
air cleaner

Swing-out hydraulic
radiator fan

Side-by-side type coolers
for easy access and cleaning

Overrun protection system

Ground level servicing
and fluid checks

Extremely low
fuel consumption

Flat face "O-Ring" Hydraulic Seals
for extended life

Staircase-type steps
with large rear-hinged doors

Sealed DT electrical connectors

Photos may include optional equipment.

PRODUCTIVITY FEATURES

High Productivity and Low Fuel Consumption

Powerful Engine

A powerful SAA6D102E-2-A turbocharged air-to-air after-cooled diesel engine provides an output of **101 kW** 135 HP for the WA250-5. This engine meets Tier 2 EPA, EU and Japanese emission regulations without sacrificing power or machine productivity.

Low Fuel Consumption

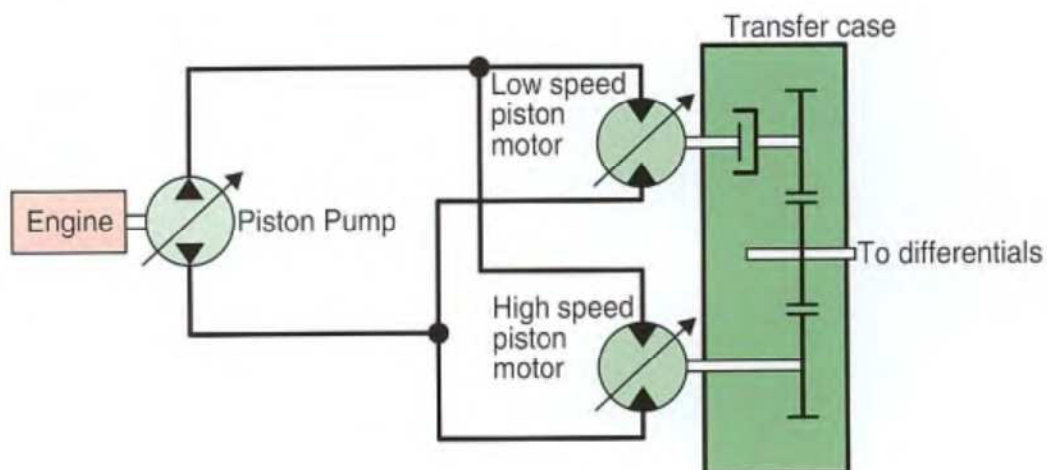
The fuel consumption is reduced up to 15%* due to the high-torque engine and Hydrostatic Transmission (HST) with maximum efficiency in the low-speed range.

*V-shape loading (25 sec. cycle time)

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 will give him aggressive digging, quick response and fast hydraulics. For load and carry, he can select 3 or 4 which will still give aggressive digging but with much faster travel speed.

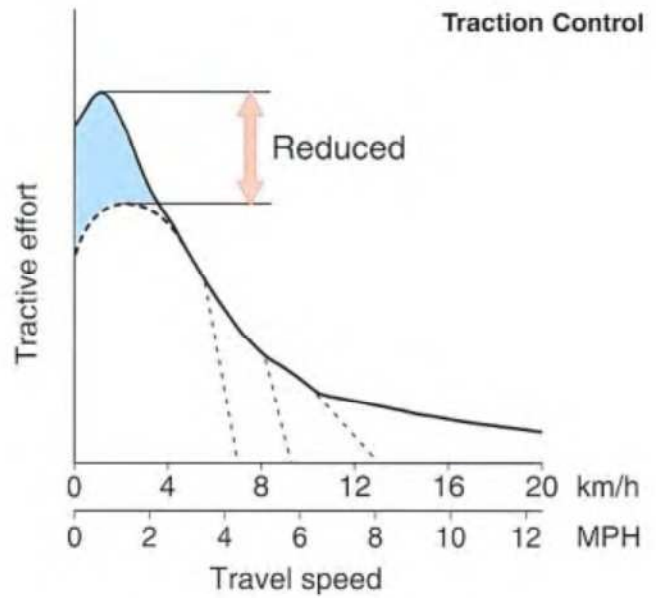
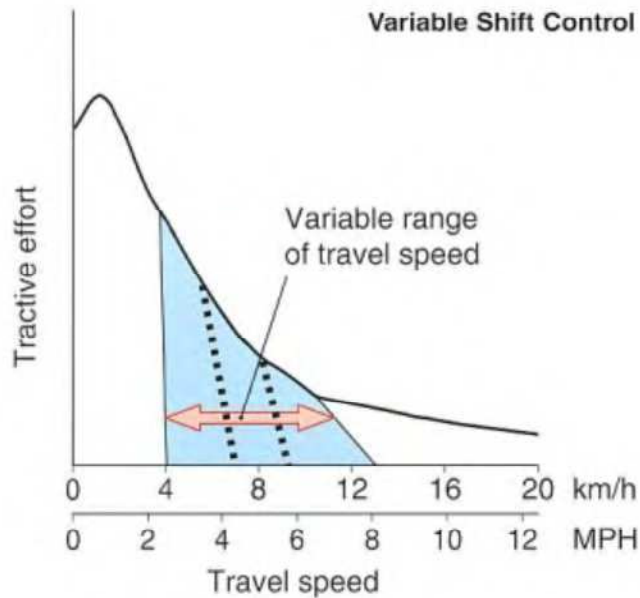


The variable shift switch allows the operator to adjust his machine speed in confined v-loading applications. When in 1, the operator can adjust his travel speed using the variable shift switch to match his machine speed and hydraulics to the distance he must travel.

Traction Control System

In limited traction situations where the operator would like to avoid tire slippage (such as sandy or wet surface operations), he can automatically reduce slippage by activating the traction control feature. Putting the traction control switch in the "ON" position limits the maximum amount of tractive effort.

Traction control will be an advantage in certain applications such as transfer stations where the loader may be working on slippery concrete.



INCREASED RELIABILITY AND SERVICEABILITY

Main Monitor - EMMS (Equipment Management Monitoring System)

Komatsu's new main monitor keeps the operator informed of all machine functions at a glance. The monitor is located behind the steering wheel and displays various different machine functions including fluid/filter change intervals and troubleshooting memory display functions. The main gauges are analog type for easy viewing and other functions utilize light symbols or LCD readouts.



Swing-Out Radiator

The new Komatsu cooling system is isolated from the engine to provide more efficient cooling and low noise. The swing-out hydraulic fan allows the operator to quickly clean out the cooling system.



The radiator, air-to-air cooler and oil cooler are mounted side-by-side for more efficient cooling and easy cleaning. A fully-opening, gas spring assisted rear grill gives the operator excellent access to the swing-out fan and coolers.

Full Side-Opening Gull-Wing Engine Doors

Ground level engine service and daily service checks are made easy with the gas spring assisted full side opening gull-wing doors.



Extended Service Interval

Extended engine oil service interval:

250 H → 500 H

Extended drive shaft greasing interval:

1,000 H → 4,000 H



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 safety 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.

Fully Hydraulic Wet Multi-disc Service Brakes

The dual wet disc brakes at each wheel are fully sealed and adjustment free to reduce contamination, wear and maintenance. The result is lower maintenance costs and higher reliability.

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

If the brake oil pressure drops, the warning lamp flashes and the warning buzzer sounds intermittently.

The parking brake is mechanically controlled by a lever in the cab.

Parking Brake



Service Brakes



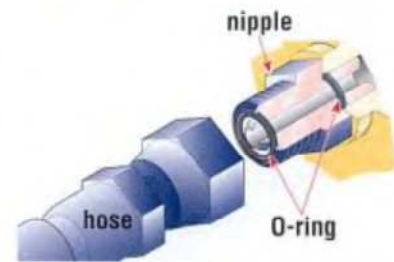
High-rigidity Frames

The front and rear frames along with the loader linkage have high rigidity to withstand repeated twisting and bending loads to the loader body and linkage. Both the upper and lower center pivot bearings use tapered roller bearings for increased durability. The structure is similar to those of large sized loaders and the reinforced loader linkage ensures high strength.



Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal all hydraulic hose connections and to prevent oil leakage.



Cathion Electrodeposition Primer Paint/Powder Coating Final Paint

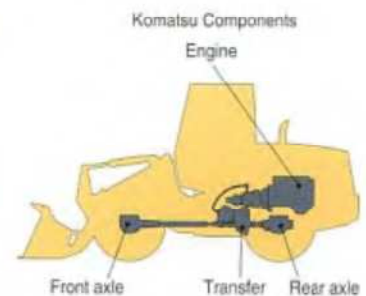
Cathion electrodeposition paint is applied as a primer paint and powder coating is applied as a topcoat to the exterior metal sheet parts. This process results in a durable rust-free machine, even in the most severe environments. Some external parts are made of plastic to provide long life and high impact resistance.

Sealed DT Connectors

Main harnesses and controller connectors are equipped with sealed DT connectors providing high reliability and dust and corrosion resistance.

Komatsu Components

Komatsu manufactures the engine, transfer case, differentials and electric parts on this wheel loader. Komatsu loaders are manufactured with an integrated production system under a strict quality control system.



OPERATOR COMFORT

New Cab Layout

Komatsu's new cab layout provides the operator with a roomy, quiet and efficient work environment. The low noise level inside the cab leads the industry at 70 dB(A) and loader controls are ergonomically designed to reduce operator fatigue and increase productivity.

Two Door Walk-Through Cab

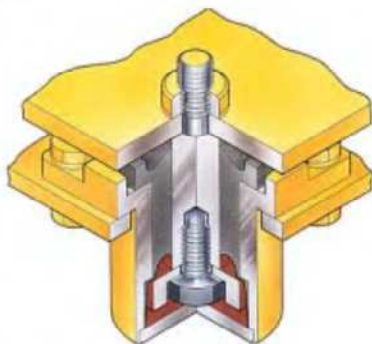
Entry and exit into the new Komatsu cab starts with sloped staircase type steps and large diameter handrails for added safety and comfort. The large cab doors are rear-hinged to open 130 degrees offering easy entry/exit and will not hamper visibility when operating the machine with the doors latched open. A wide pillar-less flat glass provides for excellent visibility. The wiper arm covers a large area to provide great visibility even on rainy days.



Low-noise Design

Operator noise: 70 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, and comfortable operating environment.



Pressurization in the cab keeps dirt out further enhancing the operator's comfort.

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.



Electrically 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.



Tilttable Steering Column

The operator can tilt the steering column to allow maximum comfort and control. The two-spoke steering wheel allows maximum visibility of the monitor panel and forward work environment.



Comforts of Home

The large cab allows room for a large lunch box holder, a variety of cup holders and a hot/cold box storage area. Optional air conditioning and the optional AM/FM stereo cassette system create a comfortable and controlled work environment.



SPECIFICATIONS



ENGINE

Model	Komatsu SAA6D102E-2-A
Type	Water-cooled, 4-cycle
Aspiration	Turbocharged, and air-to-air aftercooled
Number of cylinders	6
Bore x stroke	102 mm x 120 mm 4.02" x 4.72"
Piston displacement	5.88 ltr 359 in ³
Governor	Mechanical, all-speed control
Flywheel horsepower	101 kW 135 HP (SAE J1349) 101 kW 137 PS (DIN 6270)
Rated rpm	2000 rpm
Meets EPA emissions regulations	
Fuel system	Direct injection
Lubrication system	
Method	Gear pump, force-lubrication
Filter	Full-flow
Air cleaner	Dry-type with double radial-sealed elements and dust evacuator, plus dust indicator



TRANSMISSION

Transmission Hydrostatic, 1 pump, 2 motors with speed range select

Travel speed (Both Forward and Reverse)

	17.5-25 tires		20.5-25 tires	
	km/h	mph	km/h	mph
1st*	3.6 - 11.7	2.2 - 7.3	4.0 - 13.0	2.5 - 8.1
2nd	11.7	7.3	13.0	8.1
3rd	16.2	10.1	18.0	11.2
4th	34.2	21.2	38.0	23.6

*1st speed can be set variably



AXLES AND FINAL DRIVES

Drive system	Four-wheel drive
Front	Fixed, semi-floating
Rear	Center-pin support, semi-floating 30° total oscillation
Reduction gear	Spiral bevel gear
Differential gear	Torque proportioning
Final reduction gear	Planetary gear, single reduction



BRAKES

Service brakes: Hydraulically-actuated, wet disc brakes actuate on four wheels.

Parking brake: Wet, multi-disc brake on transfer output shaft.

Emergency brake: Parking brake is commonly used.



STEERING SYSTEM

Type	Full-hydraulic power steering independent of engine rpm
Steering angle	40° each direction
Minimum turning radius at the center of outside tire	4950 mm 16'3"



BUCKET CONTROLS

The use of a PPC hydraulic control valve offers lighter operating effort for the work equipment control levers. The reduction in the lever effort and travel makes it easy to operate in the work environment.

Control positions

Boom	Raise, hold, lower, and float
Bucket	Tilt-back, hold, and dump



HYDRAULIC SYSTEM

Capacity (discharge flow) @ engine-rated rpm

Maximum flow for loader circuit	
Loader + steering pump	.78 + 110 ltr/min 20.6 + 29.1 U.S. gal/min
Pilot pump	.37 ltr/min 9.8 U.S. gal/min
(Gear-type pumps)	

Relief valve setting

Loader	.210 kg/cm ² 20.6 MPa 3,000 psi
Steering	.190 kg/cm ² 18.6 MPa 2,700 psi

Control valve

2-spool open center type

Hydraulic cylinders

Loader and steering Double-acting, piston

Hydraulic Cylinders	Number of Cylinders	Bore		Stroke	
		mm	in	mm	in
Boom	2	130	5.1	717	28.2
Bucket	1	150	5.9	491	19.3
Steering	2	70	2.8	453	17.8

Hydraulic cycle time (rated load in bucket)

Raise	6.3 sec
Dump	1.7 sec
Lower (empty)	3.6 sec
Total cycle time	11.6 sec

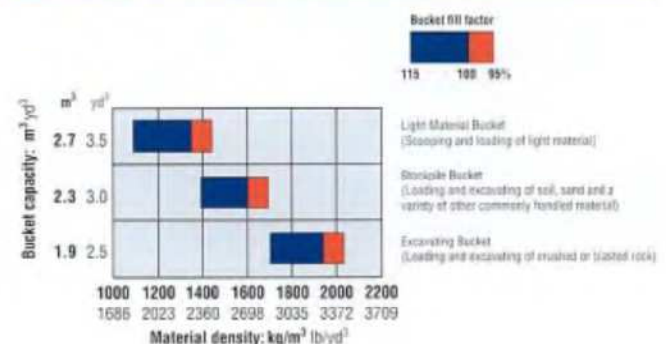


SERVICE REFILL CAPACITIES

Cooling system	17.5 ltr	4.6 U.S. gal
Fuel tank	184.0 ltr	48.6 U.S. gal
Engine	19.5 ltr	5.2 U.S. gal
Hydraulic system	67.0 ltr	17.7 U.S. gal
Axle (each, front and rear)	18.0 ltr	4.8 U.S. gal
Transmission	5.5 ltr	1.5 U.S. gal

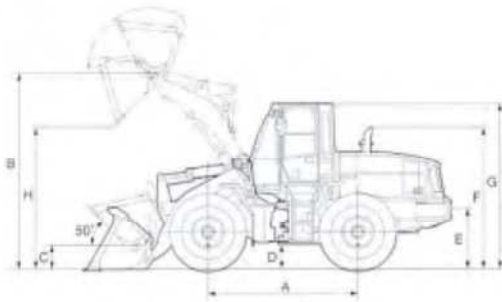


BUCKET SELECTION GUIDE





DIMENSIONS



	17.5-25 tires		20.5-25 tires	
Tread	1930 mm	6'4"	1930 mm	6'4"
Width over tires	2375 mm	7'10"	2470 mm	8'1"
A Wheelbase	2900 mm	9'6"	2900 mm	9'6"
B Hinge pin height at max. height	3725 mm	12'3"	3795 mm	12'5"
C Hinge pin height at carry position	375 mm	1'3"	450 mm	1'6"
D Ground clearance	395 mm	1'4"	465 mm	1'6"
E Hitch height	880 mm	2'11"	950 mm	3'1"
F Overall height, top of stack	2665 mm	8'9"	2735 mm	9'0"
G Overall height, ROPS cab	3130 mm	10'3"	3200 mm	10'6"
H See Dumping Clearance Below				

Measured with 17.5-25-16PR (L2) tires

Bucket		Stockpile Bucket With Bolt-On Cutting Edge		Excavating Bucket With Bolt-On Cutting Edge		Light Material Bucket With Bolt-On Cutting Edge	
Bucket Capacity	Heaped	2.3 m ³	3.0 yd ³	1.9 m ³	2.5 yd ³	2.7 m ³	3.5 yd ³
	Struck	2.0 m ³	2.6 yd ³	1.6 m ³	2.1 yd ³	2.3 m ³	3.0 yd ³
Bucket Width		2685 mm	8'10"	2685 mm	8'10"	2685 mm	8'10"
Bucket Weight		960 kg	2,116 lb	905 kg	1,995 lb	1050 kg	2,315 lb
Static Tipping Load	Straight	8985 kg	19,809 lb	9105 kg	20,073 lb	8825 kg	19,456 lb
	40° full turn	7900 kg	17,416 lb	8010 kg	17,659 lb	7910 kg	17,439 lb
Dumping Clearance, maximum height and 45° dump angle**		2780 mm	9'1"	2855 mm	9'4"	2685 mm	8'10"
Reach at 2130 mm ⁷ 45° dump angle**		1535 mm	5'0"	1495 mm	4'11"	1580 mm	5'2"
Reach at maximum height and 45° dump angle**		1055 mm	3'6"	980 mm	3'3"	1150 mm	3'9"
Reach with arm horizontal and bucket level**		2305 mm	7'7"	2200 mm	7'3"	2430 mm	8'0"
Operating Height Fully raised		4995 mm	16'5"	4875 mm	16'0"	5130 mm	16'10"
Overall Length	Bucket on Ground	7055 mm	23'2"	6950 mm	22'10"	7185 mm	23'7"
Turning Radius*		5820 mm	19'0"	5780 mm	19'0"	5875 mm	19'3"
Digging Depth	0°	145 mm	5.7"	145 mm	5.7"	145 mm	5.7"
	10°	335 mm	1'1"	315 mm	1'0"	355 mm	1'2"
Breakout Force		12340 kg	27,205 lb	13850 kg	30,534 lb	11000 kg	24,251 lb
Operating Weight		10620 kg	23,413 lb	10565 kg	23,292 lb	10710 kg	23,611 lb

* Bucket at carry, outside corner of bucket. ** At the end of B.O.C.

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.

Weight Changes

	Change in Operating Weight		Change in Tipping Load				Width Over Tire		Ground Clearance		Change in Vertical Dimensions		Change in Reach	
			Straight		Full Turn									
17.5-25-16PR (L3)	55 kg	121 lb	45 kg	99 lb	35 kg	77 lb	2375 mm	7'10"	395 mm	1'4"	0 mm	0"	0 mm	0"
20.5-25-12PR (L2)	280 kg	617 lb	215 kg	474 lb	190 kg	419 lb	2470 mm	8'1"	465 mm	1'6"	70 mm	2.8"	-70 mm	-2.8"
20.5-25-12PR (L3)	430 kg	948 lb	325 kg	717 lb	280 kg	617 lb	2470 mm	8'1"	465 mm	1'6"	70 mm	2.8"	-70 mm	-2.8"
Install ROPS canopy (instead of cab)	-250 kg	-551 lb	-250 kg	-551 lb	-220 kg	-485 lb								
Additional counterweight	300 kg	661 lb	580 kg	1,279 lb	510 kg	1,124 lb								
Air conditioner	70 kg	154 lb	50 kg	110 lb	40 kg	88 lb								



STANDARD EQUIPMENT

- Alternator, 35A, 24 volt
- Axles, semi floating with torque proportioning
- Back-up alarm
- Back-up light, rear
- Batteries, **110 Ah**/2 x 12 V,
- Bucket positioner, automatic
- Cab (ROPS/FOPS) with cigarette lighter/ash tray, dome light, floor mat, front (intermittent) and rear wiper/washer, rear view mirrors (2 outside, 1 inside), right hand and left hand door access with steps, sun visor
- Counterweight
- Differentials, torque proportioning
- EMMS (Equipment Management Monitoring System)
 - Gauges (Speedometer, engine water temperature, fuel level, HST oil temperature)
 - LCD displays (filter/oil replacement time, HST selection, odometer, service meter, trouble shooting)
- Lights (Axle oil temperature, battery charge, brake oil pressure, central warning, directional indicator, engine oil pressure, engine pre-heater, HST oil filter clogging, high beam, maintenance, parking brake reminder, parking brake warning, steering oil pressure, transmission speed range, turn signals)
- Engine, Komatsu SAA6D102E-2-A
- Engine shut-off system, electric
- Engine water separator
- Fan, hydraulic driven, swing out
- Fenders, rear
- Hard water area arrangement (corrosion resister)
- Horn, electric
- Lift cylinders and bucket cylinder
- Lifting eyes
- Lights
 - Stop and tail
 - Turn signal (2 front, 2 rear)
 - Working (2 front, 2 rear, 2 outside cab)
- Loader linkage with standard lift boom
- Maintenance monitor panel
- Mono-lever loader control
- Parking brake, wet disc
- Radiator mask, hinged
- Seat belt, 3" wide
- Seat, rigid type, reclining with a document holder
- Service brakes, hydraulic, wet multi-disc, inboard
- Speedometer (km/h)
- Starting aid, intake manifold preheater
- Starting motor, **4.5 kW**/24 V
- Steering wheel, tilttable
- Tires 17.5-25-16PR (L2), tubeless and rims
- Transmission (Hydrostatic with speed range select), automatic
- Transmission control, electric, steering column
- 2-spool valve for boom and bucket controls with PPC



OPTIONAL EQUIPMENT

- Air conditioner with heater/defroster/pressurizer
- Alternator, 60A, 24V
- Auxiliary steering
- Boom kick-out
- Bucket, excavating, **1.9 m³** 2.5 yd³
- Bucket, stockpile, **2.3 m³** 3.0 yd³
- Bucket, light material, **2.7 m³** 3.5 yd³
- Bucket teeth, bolt-on
- Cold area arrangement
- Counterweight, additional
- Cutting edge, bolt-on, reversible
- ECSS (Electronically Controlled Suspension System)
- Fenders, front
- Fenders, rear full
- Fire extinguisher
- Heater and defroster
- High-lift boom arrangement
- Hydraulic adapter kit (3rd spool), includes valve, lever, and piping
- Limited-slip differential, front and rear
- Radio, AM/FM
- Radio, AM/FM stereo with cassette
- Rims only, less tires
 - Fits 17.5-25 and 20.5-25 tire
- ROPS canopy
- Seat, cloth, suspension, reclining with armrests, headrest, and a document holder
- Seat, vinyl, suspension, reclining with armrests, headrest, and a document holder
- Seat belt, retractable, 3" wide
- Spare parts
- 3-spool valve, lever, piping
- Tires (bias ply)
 - 17.5-25-16PR (L3)
 - 20.5-25-12PR (L2)
 - 20.5-25-12PR (L3)
- Tool kit
- Vandalism protection kit

KOMATSU®