

KOMATSU®

WA250-6

NET HORSEPOWER
103 kW **138 HP** @ 2000 rpm

OPERATING WEIGHT
11540 - 11750 kg
25,441 - 25,904 lb

BUCKET CAPACITY
1.9 - 2.7 m³ **2.5 - 3.5 yd³**

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Photo may include optional equipment.

WALK-AROUND

High Productivity & Low Fuel Consumption with Hydrostatic Transmission

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

Excellent Operator Environment

- HST traction control switch
- Electrically controlled directional lever
- Tilttable steering column
- Low-noise designed cab
- Pillar-less large ROPS/FOPS Level 2 cab-integrated
- Easy entry/exit, rear-hinged doors



KOMTRAX

KOMTRAX equipped machines can send location, SMR and operation maps to a secure website utilizing wireless technology. Machines also relay error codes, cautions, maintenance items, fuel levels, and much more.

Environmentally Friendly

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

Reliability

- Reliable Komatsu designed and manufactured components
- Sturdy main frame
- Adjustment-free, fully hydraulic, wet disc service and parking brakes
- Hydraulic hoses use flat face O-ring seals
- Cathion electrodeposition process is used to apply primer paint
- Powder coating process is used to apply main structure paint
- Sealed DT connectors for electrical connections

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Easy Maintenance

- Equipment Management Monitoring System (EMMS)
- Easy access, gull-wing type engine side doors
- Automatic Reversible Fan
- KOMTRAX®

HIGH PRODUCTIVITY AND LOW FUEL CONSUMPTION



High Performance 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: 103 kW 138 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

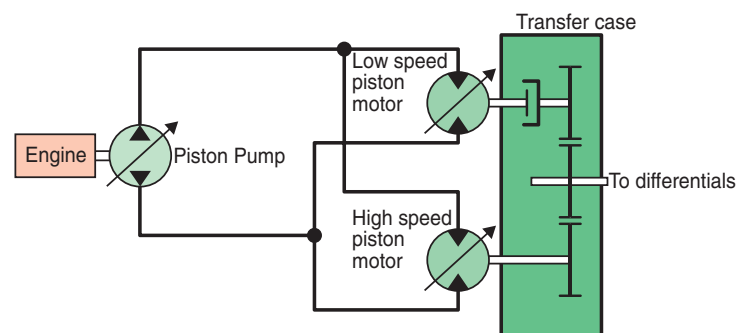
The eco indicator will help an operator to promote energy saving.



Hydrostatic Transmission (HST)

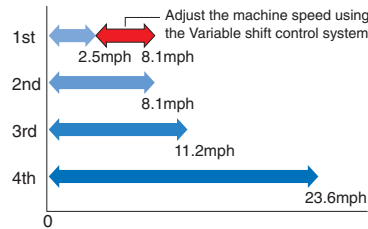
Electronically-Controlled HST Using a 1-Pump, 2-Motor System

- The 1-pump, 2-motor system allows high-efficiency and high tractive effort. Engine power is transmitted hydraulically to a transfer case, then mechanically 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 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.

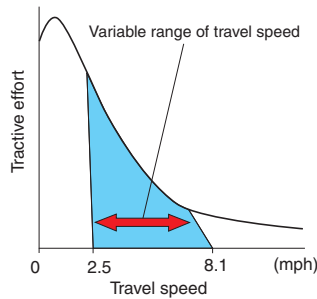


Electronically-Controlled HST with Variable Shift Control System

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.

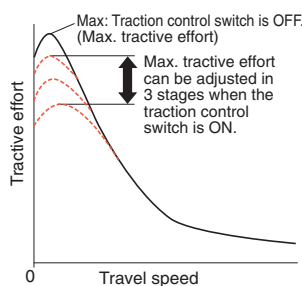


The variable shift switch allows the operator to adjust machine speed in applications such as confined V-loading. When in 1, the operator can adjust travel speed using the variable shift switch to match machine speed and hydraulics to the distance travelled. This feature is also useful when powering a broom or snowblower.



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 torque proportioning differentials, or optional limited slip differentials this system provides the following benefits.



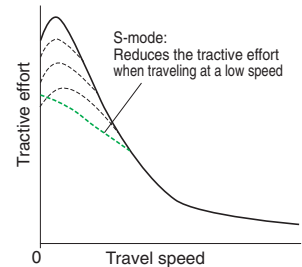
- Facilitates operation on soft ground where the tires of the machine are apt to slip.
- Eliminates excessive bucket penetration and reduces tire slippage during stockpile loading to improve the work efficiency.
- Reduces tire slippage to extend the life of tires.



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 provides optimum driving force for operations on slippery road surfaces, like snow-removal on snow-covered surfaces, resulting in reduced tire slippage and facilitation of the operation. Unexpected tire slippage on slippery road surfaces is suppressed by controlling the engine speed and HST motor when traveling at a low speed. (S-mode is effective only in forward travel.)



Max. Traction Switch

Max. traction switch is located on the work equipment control lever. When the traction control switch is at the 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 stockpile 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.

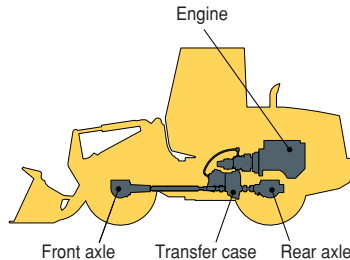
Dumping Clearance: 2850 mm 9'4"
Dumping Reach: 985 mm 3'3"
 (2.3 m³ 3.0 yd³ bucket with B.O.C.E.)

RELIABILITY

Komatsu Components

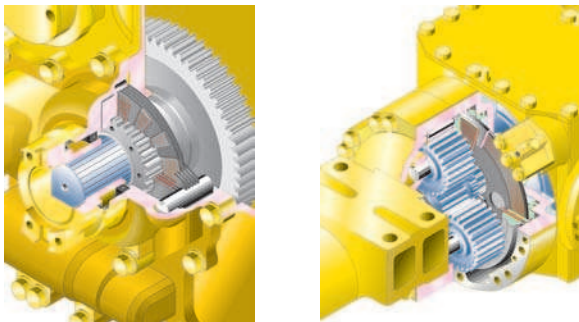
Komatsu manufactures the engine, transfer case, and hydraulic components on this wheel loader.

Komatsu loaders are manufactured with an integrated production system under a strict quality control system.



Wet Multi-disc Brakes and Fully Hydraulic Braking System

This means 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 new parking brake is also an adjustment-free, wet multi-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.



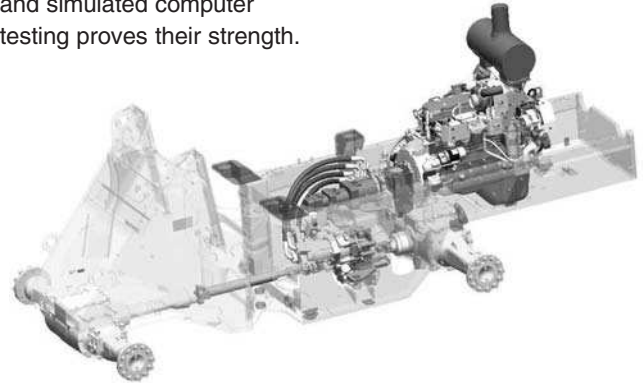
Overrun Reduction System

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.

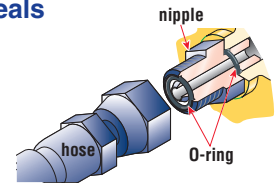
High-rigidity Frames and Loader Linkage

The front and rear frames and the loader linkage have more torsional rigidity to provide increased resistance to stresses. The frames and loader linkage are designed to accommodate actual working loads, and simulated computer testing proves their strength.



Flat Face-to-Face O-Ring Seals

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

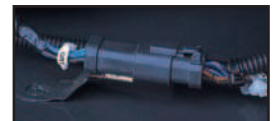


Cathion Electrodeposition Primer Paint/ Powder Coating Final Paint

Cathion 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.



EASY MAINTENANCE



Photo may include optional equipment.

Equipment Management Monitoring System (EMMS)

Monitor is mounted in front of the operator for easy viewing, 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 pressing a switch on the control panel.

Automatic Reversible Fan

The engine fan is driven hydraulically and can be operated in reverse automatically. When the switch is in the automatic position, the fan revolves in reverse intermittently for 2 minutes every 2 hours. (Default setting)



- B:** Manual Reverse Mode
- A:** Normal Rotation Mode
- C:** Auto Reverse Mode

OPERATOR ENVIRONMENT

Easy Operation

Electronically Controlled Directional Lever

The operator can change direction with the touch of a finger without removing their hand from the steering wheel. Solid state electronics makes this possible.



Tiltable Steering Column

The operator can tilt the steering column to provide a comfortable working position.



Multi-function Loader Control Lever with Forward & Reverse Switch

A new multi-function control lever integrated with forward and reverse switch 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, and reversible fan setting.



1: Speed range selector switch
2: Variable shift switch
3: Traction control switch

4: Max. traction switch
5: Fan reverse switch

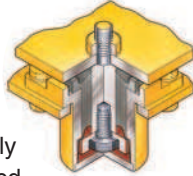


Comfortable Operation

Low-noise Design

Noise level at operator's ear: 70 dB(A)
Dynamic noise level (outside): 104 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

The large cab doors are rear-hinged to open fully, offering easy entry/exit. Exit from the cab is easily accomplished by having steps in view of the operator. Sloped hand rails help guide the foot on to the first step.



Photos may include optional equipment.



WA250-6 WHEEL LOADER

SPECIFICATIONS



ENGINE

ModelKomatsu SAA6D107E-1
 TypeWater-cooled, 4-cycle
 AspirationTurbocharged, aftercooled
 Number of cylinders 6
 Bore x stroke 107 mm x 124 mm **4.21" x 4.88"**
 Piston displacement 6.69 ltr **408 in³**
 Governor All-speed, electronic
 Horsepower
 SAE J1995Gross 104 kW **140 HP**
 ISO 9249/SAE J1349Net 103 kW **138 HP**
 Hydraulic fan at maximum speedNet 100 kW **134 HP**
 Rated rpm 2000 rpm
 Fan drive method for radiator coolingHydraulic
 Fuel systemDirect injection
 Lubrication system:
 MethodGear pump, force-lubrication
 Filter Full-flow type
 Air cleanerDry type with double elements and
 dust evacuator, plus dust indicator
 EPA Tier 3 and EU Stage 3A emissions certified.



TRANSMISSION

TypeHydrostatic, 1 pump, 2 motors with speed range select
 Travel speed: km/h **mph**
 Measured with 17.5-25 tires

	1st	2nd	3rd	4th
Both Forward and Reverse	3.6 - 11.7 2.2 - 7.3	11.7 7.3	16.2 10.1	34.2 21.2

Measured with 20.5-25 tires

	1st	2nd	3rd	4th
Both Forward and Reverse	4.0 - 13.0 2.5 - 8.1	13.0 8.1	18.0 11.2	38.0 23.6



AXLES AND FINAL DRIVES

Drive systemFour-wheel drive
 FrontFixed, semi-floating
 RearCenter-pin support, semi-floating,
 24° total oscillation
 Reduction gearSpiral bevel gear
 Differential gearTorque proportioning
 Final reduction gearPlanetary gear, single reduction



BRAKES

Service brakesHydraulically actuated,
 wet disc brakes actuate on four wheels
 Parking brakeWet, multi-disc brake on transfer output shaft
 Emergency brakeParking brake is commonly used



STEERING SYSTEM

TypeFull-hydraulic power steering
 Steering angle 38° each direction (40° end stop)
 Minimum turning radius at
 the center of outside tire 5175 mm **17'0"**



HYDRAULIC SYSTEM

Steering system:
 Hydraulic pumpGear type pump
 Capacity 110 ltr/min **29.1 U.S. gal/min** at rated rpm
 Relief valve setting 18.6 MPa 190 kgf/cm² **2,700 psi**
 Hydraulic cylinders:
 TypeDouble-acting, piston type
 Number of cylinders 2
 Bore x stroke 70 mm x 453 mm **2.8" x 17.8"**
 Loader control:
 Hydraulic pumpGear type pump
 Capacity 78 ltr/min **20.6 U.S. gal/min**
 Relief valve setting 20.6 MPa 210 kgf/cm² **3,000 psi**
 Hydraulic cylinders:
 TypeDouble-acting, piston type
 Number of cylinders—bore x stroke:
 Boom cylinder 2- 130 mm x 717 mm **5.1" x 28.2"**
 Bucket cylinder 1- 150 mm x 491 mm **5.9" x 19.3"**
 Control valve 2-spool type
 Control positions:
 BoomRaise, hold, lower, and float
 BucketTilt-back, hold, and dump
 Hydraulic cycle time (rated load in bucket)
 Raise 6.3 sec
 Dump 1.7 sec
 Lower (Empty) 3.6 sec

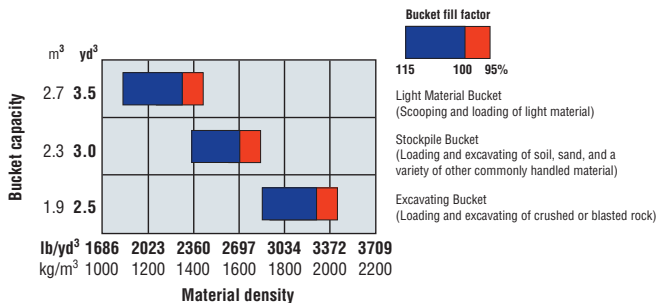


SERVICE REFILL CAPACITIES

Cooling system 22 ltr **5.8 U.S. gal**
 Fuel tank 186 ltr **49.1 U.S. gal**
 Engine 23 ltr **6.1 U.S. gal**
 Hydraulic system 67 ltr **17.7 U.S. gal**
 Axle (each front and rear) 18 ltr **4.8 U.S. gal**
 Transfer case 5 ltr **1.3 U.S. gal**

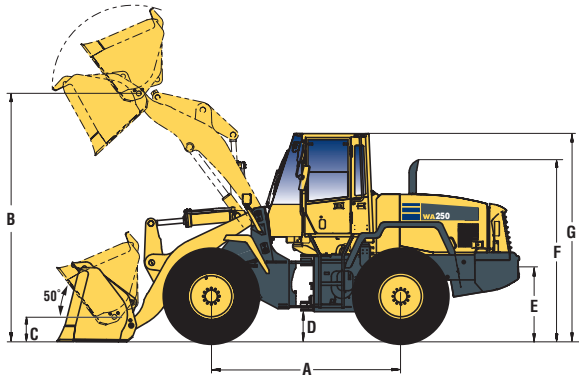


BUCKET SELECTION GUIDE





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	Standard Boom	3725 mm	12'3"	3795 mm	12'5"
		High Lift Boom	4320 mm	14'2"	4390 mm	14'5"
C	Hinge pin height, at carry position	Standard Boom	375 mm	1'3"	450 mm	1'6"
		High Lift Boom	540 mm	1'9"	615 mm	2'0"
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 the stack	2855 mm	9'4"	2925 mm	9'7"	
G	Overall height, ROPS cab	3130 mm	10'3"	3200 mm	10'6"	

Measured with 20.5-25-12PR (L2) tires, ROPS/FOPS cab

	Stockpile Bucket	Excavating Bucket	Light Material Bucket	High Lift Boom Excavating Bucket
	Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges	Bolt-On Cutting Edges
Bucket capacity: heaped	2.3 m ³	1.9 m ³	2.7 m ³	1.9 m ³
	3.0 yd³	2.5 yd³	3.5 yd³	2.5 yd³
struck	2.0 m ³	1.6 m ³	2.3 m ³	1.6 m ³
	2.6 yd³	2.1 yd³	3.0 yd³	2.1 yd³
Bucket width	2685 mm 8'10"	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	905 kg 1,995 lb
Dumping clearance, max. height and 45° dump angle*	2850 mm 9'4"	2925 mm 9'7"	2755 mm 9'0"	3520 mm 11'7"
Reach at max. height and 45° dump angle*	985 mm 3'3"	910 mm 3'0"	1080 mm 3'7"	945 mm 3'1"
Reach at 2130 mm 7' clearance and 45° dump angle*	1495 mm 4'11"	1455 mm 4'9"	1540 mm 5'1"	1965 mm 6'5"
Reach with arm horizontal and bucket level*	2235 mm 7'4"	2130 mm 7'0"	2360 mm 7'9"	2600 mm 8'6"
Operating height (fully raised)	5065 mm 16'7"	4945 mm 16'3"	5200 mm 17'1"	5540 mm 18'2"
Overall length	7055 mm 23'2"	6950 mm 22'10"	7185 mm 23'7"	7495 mm 24'7"
Loader clearance circle (bucket at carry, outside corner of bucket)	12060 mm 39'7"	12030 mm 39'6"	12220 mm 40'1"	12075 mm 39'7"
Digging depth: 0°	75 mm 3.0"	75 mm 3.0"	75 mm 3.0"	80 mm 3.1"
	10°	265 mm 10.4"	245 mm 9.7"	250 mm 9.8"
Static tipping load: straight	10530 kg 23,215 lb	10650 kg 23,480 lb	10390 kg 22,905 lb	8150 kg 17,965 lb
	40° full turn	9270 kg 20,435 lb	9370 kg 20,655 lb	9140 kg 20,150 lb
Breakout force	121 kN	136 kN	108 kN	117 kN
	12340 kgf	13850 kgf	11000 kgf	11960 kgf
	27,210 lb	30,535 lb	24,250 lb	26,367 lb
Operating weight	11595 kg	11540 kg	11685 kg	11750 kg
	25,560 lb	25,441 lb	25,761 lb	25,904 lb

* At the end of B.O.C.E.

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.



WEIGHT AND DIMENSION CHANGES

	Change in Operating Weight		Change in Tipping Load				Change in Vertical Dimensions		Change in Reach	
			Straight		Full Turn					
17.5-25-16PR (L2)	-280 kg	-617 lb	-215 kg	-474 lb	-190 kg	-419 lb	-70 mm	-2.8"	70 mm	2.8"
17.5-25-16PR (L3)	-225 kg	-496 lb	-170 kg	-375 lb	-155 kg	-342 lb	-70 mm	-2.8"	70 mm	2.8"
20.5-25-12PR (L3)	150 kg	331 lb	110 kg	243 lb	90 kg	198 lb	0 mm	0"	0 mm	0"
Install ROPS canopy (instead of cab)	-150 kg	-331 lb	-150 kg	-331 lb	-130 kg	-287 lb				



STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Air conditioner
- Alternator, 60 A
- Auto shift transmission with mode select system
- Back-up alarm
- Back-up lamp
- Batteries, 110 Ah/2 x 12 V
- Bucket positioner
- Counterweight, standard and additional (300 kg **661 lb**)
- Deluxe suspension seat
- Directional signal
- Electronically Controlled Suspension System (ECSS)
- Engine, Komatsu SAA6D107E-1 diesel
- Engine shut-off system, electric
- Floor mat
- Fuel pre-filter with water separator
- Hydraulic-driven fan with auto-reverse rotation
- KOMTRAX®
- Lift cylinders and bucket cylinder
- Loader linkage with standard lift arm
- Main monitor panel with Equipment Management Monitoring System (EMMS)
- Mono-lever loader control with transmission F/R switch
- Radiator mask, lattice type
- Rear defroster (electric)
- Rear view mirrors, inside (2), outside (3)
- Rear window washer and wiper
- Rims for 20.5-25 tires
- ROPS/FOPS Level 2 cab
- Seat belt
- Service brakes, wet disc type
- Starting motor, 4.5 kW/24 V
- Steering wheel, tiltable
- Sun visor
- Transmission speed ranges, 4 forward and 4 reverse



OPTIONAL EQUIPMENT

- 3-spool valve
- AM/FM stereo radio cassette
- Boom kick-out
- Cutting edge (bolt-on type)
- Engine pre-cleaner with extension
- High lift boom arrangement
- JRB bucket, general purpose, for use with coupler, with BOCE 1.9 m³ **2.5 yd³**
- JRB bucket, general purpose, for use with coupler, with BOCE 2.3 m³ **3.0 yd³**
- JRB construction forks, for use with coupler 1524 mm **60"**
- JRB utility forks, for use with coupler, 1372 mm **54"**
- JRB extendable boom, for use with coupler, 3-section
- JRB hydraulic quick coupler
- Limited slip differential (F&R)
- Rear full fenders
- Rims for 17.5-25 tires
- Secondary steering (SAE)
- Wide core radiator

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