

# KOMATSU®

## WA250PZ-6

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

**OPERATING WEIGHT**  
12160 - 12600 kg  
**26,808 - 27,778 lb**

**BUCKET CAPACITY**  
1.9 - 2.3 m<sup>3</sup> **2.5 - 3.0 yd<sup>3</sup>**

**WA**  
**250**  
**PZ**

**WHEEL LOADER**  
WITH PARALLEL Z-BAR LINKAGE



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
- Electronically 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 sends machine location, Service Meter Reading (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

### *New Komatsu Parallel PZ Linkage*

- Parallel movement in both fork and bucket applications
- Excellent visibility of front attachments
- Large tilt force at all heights
- Large dump angle at maximum boom height
- 2 mode bucket leveler

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1.9 - 2.3 m<sup>3</sup>  
2.5 - 3.0 yd<sup>3</sup>



### *Reliability*

- Adjustment-free, fully hydraulic, wet disc service and parking brakes
- Hydraulic hoses use flat face O-ring seals
- Sturdy main frame
- 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

Photos may include optional equipment.

### *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

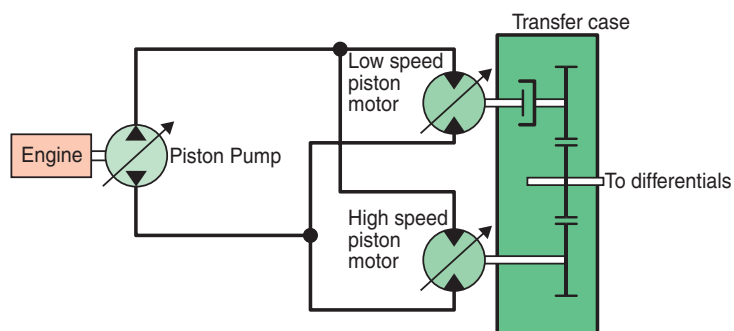
The eco indicator will help an operator achieve energy savings.



## Hydrostatic Transmission (HST)

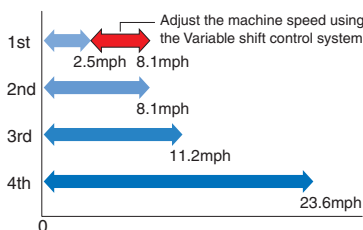
### Electronically-Controlled HST Using a 1-Pump, 2-Motor System

- 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 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 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 the accelerator to increase flow to the equipment hydraulics. Depressing the inching pedal further will activate the service brakes.

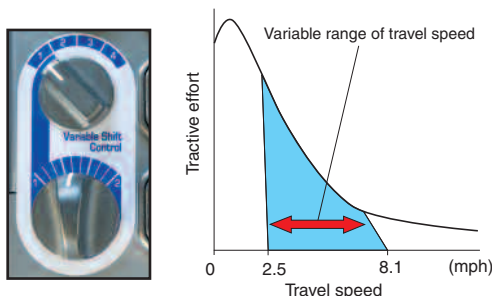


## Electronically-Controlled HST with Variable Shift Control System

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.



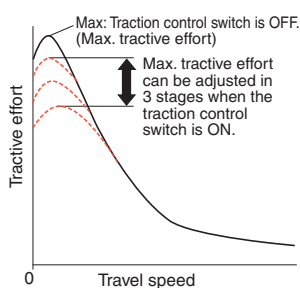
The variable shift switch allows the operator to adjust machine speed in applications such as confined V-loading. When in 1, the operator can adjust travel speed using the variable shift switch to match machine speed and hydraulics to the distance traveled. This feature is also useful when powering a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

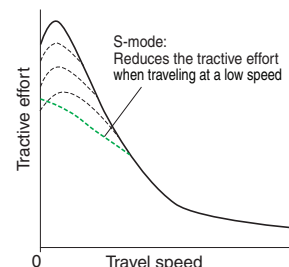
- Facilitates operation on soft ground where the tires of the machine are apt to slip.
- Eliminates excessive bucket penetration and reduces tire slippage during stockpile loading to improve the work efficiency.
- Reduces tire slippage to extend the life of tires.



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 excellent driving force for operations on slippery road surfaces, like snow-removal on snow-covered surfaces, resulting in low 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.)

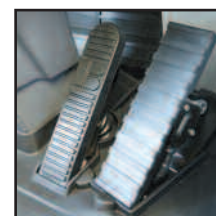


## Max. Traction Switch

The 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 allows smoother traveling and better energy-saving operation.



## Dumping Clearance and Reach

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

**Dumping Clearance:** 2861 mm 9'5"

**Dumping Reach:** 1088 mm 3'7"

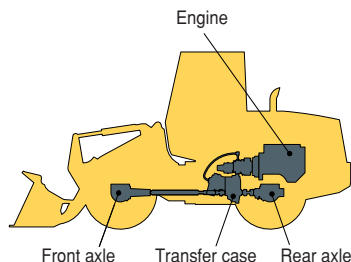
(Dimensions at max. height and 45° dump angle; 2.3 m<sup>3</sup> 3.0 yd<sup>3</sup> bucket with B.O.C.E.)

## RELIABILITY

### Komatsu Components

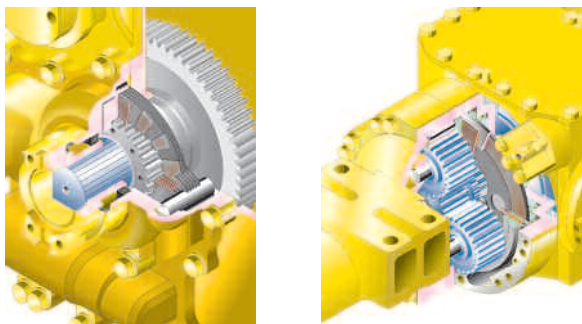
Komatsu manufactures the axles, engine, transfer case, and hydraulic components on this wheel loader.

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 low maintenance costs and high reliability. Wet disc brakes are fully sealed. Contaminants are kept out, providing low wear and maintenance. Brakes require no adjustments for wear. 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. 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.



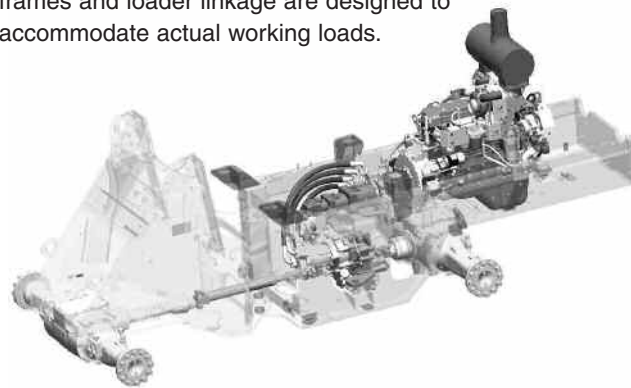
### Overrun Reduction System

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.

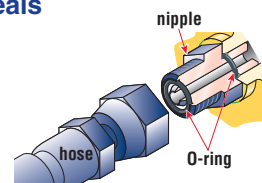
### High-rigidity Frames and Loader Linkage

The front and rear frames and the loader linkage have torsional rigidity to provide resistance to stresses. The frames and loader linkage are designed to accommodate actual working loads.



### 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 process is used to apply primer paint and powder coating process is used to apply the 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 connections 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)

The 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:** The 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:** The monitor informs replacement time of oil and filters on the LCD when replacement intervals are reached.
- **Trouble data memory function:** The monitor stores abnormality data 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.



## Easy 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 and Comfortable Operation

### Excellent Visibility With Forks

The new PZ loader linkage design enables the operator to see the fork tine tips to aid in loading pallets and other materials onto the forks.

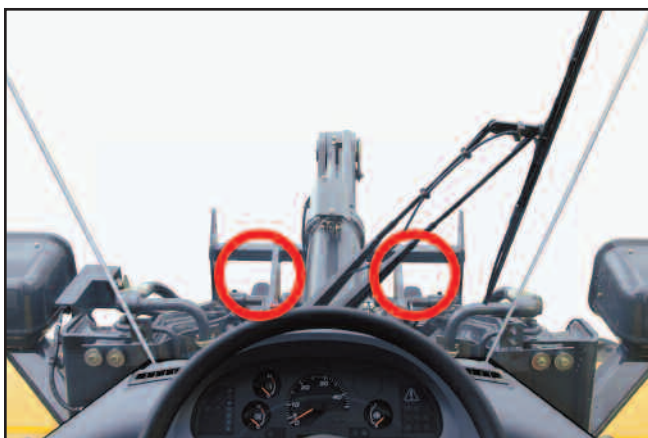


Photo may include optional equipment.

### 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, providing low operator fatigue and good controllability. The adjustable wrist rest provides the operator with a variety of comfortable operating positions.



### Right-side Control Panel

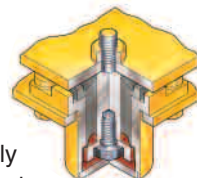
The operator can select the speed range, maximum travel speed in 1st, tractive effort, and reversible fan setting.



- |                                |   |
|--------------------------------|---|
| 1: Speed range selector switch | 5: Fan reverse switch                     |
| 2: Variable shift switch       | 6: Quick coupler lock switch              |
| 3: Traction control switch     | 7: Two mode bucket leveler switch         |
| 4: Max. traction switch        | 8: Directional selector activation switch |

### 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.

### 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 onto the first step.



### Tiltable Steering Column

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

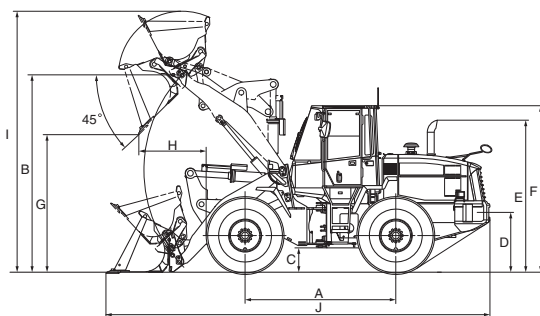




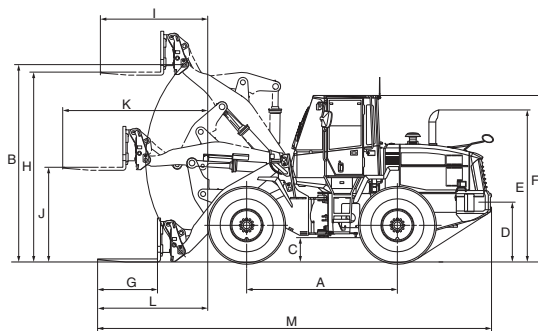
# WA250PZ-6 WHEEL LOADER WITH PARALLEL Z-BAR LINKAGE



## DIMENSIONS



	Units: mm	ft in	17.5-25 tires	20.5-25 tires
Tread	1930	6'4"	1930	6'4"
Width over tires	2375	7'10"	2470	8'1"
A Wheelbase	2900	9'6"	2900	9'6"
B Hinge pin height, at max. height	3895	12'9"	3965	13'0"
Hinge pin height, at carry position	371	1'3"	441	1'5"



	Units: mm	ft in	17.5-25 tires	20.5-25 tires
C Ground clearance	395	1'4"	465	1'6"
D Hitch height	880	2'11"	950	3'1"
E Overall height, top of the stack	2855	9'4"	2925	9'7"
F Overall height, ROPS cab	3130	10'3"	3200	10'6"

## Bucket

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

	General Purpose Bucket w/ BOCE	
Bucket capacity: heaped	2.3 m <sup>3</sup>	1.9 m <sup>3</sup>
	3.0 yd <sup>3</sup>	2.5 yd <sup>3</sup>
struck	2.0 m <sup>3</sup>	1.6 m <sup>3</sup>
	2.6 yd <sup>3</sup>	2.1 yd <sup>3</sup>
Bucket width	2692 mm 8'10"	2685 mm 8'10"
Bucket weight	1092 kg 2,408 lb	1015 kg 2,236 lb
G Dumping clearance, max. height and 45° dump angle*	2861 mm 9'5"	2935 mm 9'8"
H Reach at max. height and 45° dump angle*	1088 mm 3'7"	1015 mm 3'4"
Reach at 2130 mm 7' clearance and 45° dump angle*	1672 mm 5'6"	1637 mm 5'4"
Reach with arm horizontal and bucket level*	2552 mm 8'4"	2448 mm 8'0"
I Operating height (fully raised)	5358 mm 17'7"	5255 mm 17'3"
J Overall length: Bucket on ground	7337 mm 24'1"	7233 mm 23'9"
	Bucket at carry	7281 mm 23'11"
Loader clearance circle* (bucket at carry, outside corner of bucket)	12236 mm 40'2"	12180 mm 40'0"
Digging depth: 0°	110 mm 4.3"	110 mm 4.3"
	10°	338 mm 13.3"
Static tipping load: straight	8925 kg 19,676 lb	9420 kg 20,767 lb
	40° full turn	7765 kg 17,119 lb
Breakout force	108 kN 11000 kgf	118 kN 12015 kgf
	24,250 lb	26,490 lb
Operating weight	12600 kg 27,778 lb	12520 kg 27,601 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.

## Fork

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

G	Fork tine length	1524 mm	60"
	Fork weight	683 kg	1506 lb
H	Ground to top of tine at maximum lift	3820 mm	12'6"
I	Reach at maximum height	2324 mm	7'7"
J	Ground to top of tine – boom and tine level	1817 mm	6'0"
K	Reach – boom and tine level	3233 mm	10'7"
L	Reach – tine level on ground	2573 mm	8'5"
M	Overall Length – tine level on ground	8034 mm	26'4"
	Static tipping load – boom and fork level, 610 mm 24" load center	Straight	6630 kg
		Full turn (40°)	5770 kg
	Operating height, fully raised	5255 mm	17'3"
	Operating load	2885 kg	6,360 lb
	Operating weight	12160 kg	26,808 lb

Operating load per SAE J1197 (Feb. 1991), 50% of static tipping load.

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



## WEIGHT AND DIMENSION CHANGES

### Bucket

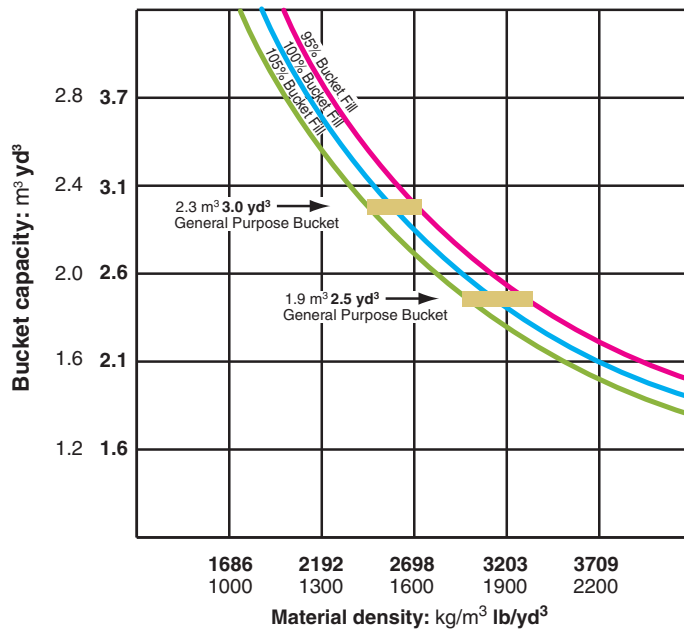
	Change in Operating Weight	Change in Tipping Load				Change in Vertical Dimensions		Change in Reach	
		Straight	Full Turn	Straight	Full Turn	Straight	Full Turn	Straight	Full Turn
17.5-25-16PR (L2)	-300 kg <b>-661 lb</b>	-200 kg <b>-441 lb</b>	-170 kg <b>-375 lb</b>	-200 kg <b>-441 lb</b>	-170 kg <b>-375 lb</b>	-70 mm <b>-2.8"</b>	-70 mm <b>-2.8"</b>	70 mm <b>2.8"</b>	70 mm <b>2.8"</b>
17.5-25-16PR (L3)	-260 kg <b>-573 lb</b>	-170 kg <b>-375 lb</b>	-150 kg <b>-331 lb</b>	-170 kg <b>-375 lb</b>	-150 kg <b>-331 lb</b>	-70 mm <b>-2.8"</b>	-70 mm <b>-2.8"</b>	70 mm <b>2.8"</b>	70 mm <b>2.8"</b>
20.5-25-12PR (L3)	165 kg <b>364 lb</b>	110 kg <b>243 lb</b>	95 kg <b>209 lb</b>	110 kg <b>243 lb</b>	95 kg <b>209 lb</b>	0 mm <b>0"</b>	0 mm <b>0"</b>	0 mm <b>0"</b>	0 mm <b>0"</b>
Install ROPS canopy (instead of cab)	-165 kg <b>-364 lb</b>	-145 kg <b>-320 lb</b>	-125 kg <b>-276 lb</b>	-145 kg <b>-320 lb</b>	-125 kg <b>-276 lb</b>				

### Fork

	Change in Operating Weight	Change in Tipping Load				Change in Vertical Dimensions		Change in Reach	
		Straight	Full Turn	Straight	Full Turn	Straight	Full Turn	Straight	Full Turn
17.5-25-16PR(L2)	-300 kg <b>-661 lb</b>	-140 kg <b>-309 lb</b>	-125 kg <b>-276 lb</b>	-140 kg <b>-309 lb</b>	-125 kg <b>-276 lb</b>	-70 mm <b>-2.8"</b>	-70 mm <b>-2.8"</b>	70 mm <b>2.8"</b>	70 mm <b>2.8"</b>
17.5-25-16PR(L3)	-260 kg <b>-573 lb</b>	-125 kg <b>-276 lb</b>	-110 kg <b>-243 lb</b>	-125 kg <b>-276 lb</b>	-110 kg <b>-243 lb</b>	-70 mm <b>-2.8"</b>	-70 mm <b>-2.8"</b>	70 mm <b>2.8"</b>	70 mm <b>2.8"</b>
20.5-25-12PR(L3)	165 kg <b>364 lb</b>	80 kg <b>176 lb</b>	70 kg <b>154 lb</b>	80 kg <b>176 lb</b>	70 kg <b>154 lb</b>	0 mm <b>0"</b>	0 mm <b>0"</b>	0 mm <b>0"</b>	0 mm <b>0"</b>
Install ROPS canopy (instead of cab)	-165 kg <b>-364 lb</b>	-105 kg <b>-231 lb</b>	-90 kg <b>-198 lb</b>	-105 kg <b>-231 lb</b>	-90 kg <b>-198 lb</b>				



## 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.

### Approximate Material Densities

Material (loose)	kg/m³	lb/yd³
Caliche	1250	2,100
Cinders	590	1,000
Clay and gravel, dry	1420	2,400
Clay and gravel, wet	1540	2,600
Clay, dry	1480	2,500
Clay, natural bed	1660	2,800
Clay, wet	1660	2,800
Coal, anthracite, broken	1100	1,850
Coal, bituminous, broken	830	1,400
Earth, dry, packed	1510	2,550
Earth, loam	1250	2,100
Earth, wet, excavated	1600	2,700
Granite, broken or large crushed	1660	2,800
Gravel, dry	1510	2,550
Gravel, dry 13 to 50 mm 1/2" to 2"	1690	2,850
Gravel, pit run (graveled sand)	1930	3,250
Gravel, wet 13 to 50 mm 1/2" to 2"	2020	3,400
Gypsum, crushed	1600	2,700
Limestone, broken or crushed	1540	2,600
Magnetite, iron ore	2790	4,700
Phosphate rock	1280	2,160
Pyrite, iron ore	2580	4,350
Sand and gravel, dry	1720	2,900
Sand and gravel, wet	2020	3,400
Sand, dry	1420	2,400
Sand, wet	1840	3,100
Sandstone, broken	1510	2,550
Shale	1250	2,100
Slag, broken	1750	2,950
Stone, crushed	1600	2,700
Topsoil	950	1,600

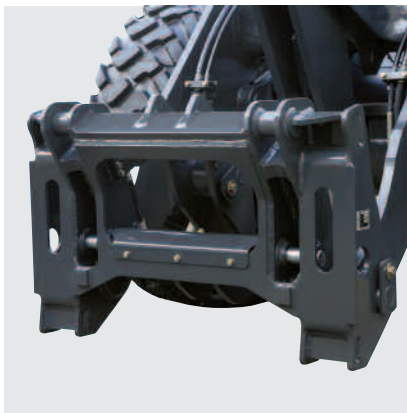


## STANDARD EQUIPMENT

- 3-spool valve for boom and bucket controls
- Air conditioner
- Alternator, 60 A
- Back-up alarm
- Back-up lamp
- Batteries, 110 Ah/2 x 12 V
- Boom kick-out
- Bucket positioner
- Counterweight, standard and additional (300 kg **661 lb**)
- Deluxe air suspension seat
- Directional signal
- Engine, Komatsu SAA6D107E-1 diesel

- Floor mat
- Front fenders
- Fuel pre-filter with water separator
- Hydraulic-driven fan with auto-reverse rotation
- KOMTRAX™
- Lift cylinders and bucket cylinder
- Loader linkage with PZ lift arm
- Main monitor panel with Equipment Management Monitoring System (EMMS)
- Mono-lever loader control with transmission F/R switch + 1 lever
- Quick coupler

- 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, 76 mm **3"** retractable
- 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



Quick coupler



## OPTIONAL EQUIPMENT

- AM/FM stereo radio cassette
- Electronically Controlled Suspension System (ECSS)
- Engine pre-cleaner with extension
- JRB bucket, general purpose, for use with coupler, with BOCE 1.9 m<sup>3</sup> **2.5 yd<sup>3</sup>**

- JRB bucket, general purpose, for use with coupler, with BOCE 2.3 m<sup>3</sup> **3.0 yd<sup>3</sup>**
- JRB construction forks for use with coupler, 1524 mm **60"**
- JRB utility pallet forks for use with coupler, 1372 mm **54"**

- JRB extendable boom, 3-section, for use with coupler
- Limited slip differential (F&R)
- Rear full fenders
- Rims for 17.5-25 tires
- Secondary steering (SAE)
- Wide core radiator

AESS765-01

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