NET HORSEPOWER
125 kW **167 HP** @ 2000 rpm

OPERATING WEIGHT
14730- 15380 kg
32,480- 33,900 lb

BUCKET CAPACITY
2.5 - 2.7 m^3 **3.25 - 3.50 yd^3**

KOMATSU®

WA320PZ-6

WA 320 PZ

Wheel Loader
with Parallel Z-bar Linkage

Photo may include optional equipment.

WALK-AROUND

Excellent Operator Environment

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

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

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

Courtesy of Machine.Market

WA320PZ-6

NET HORSEPOWER
125 kW **167 HP** @ 2000 rpm

OPERATING WEIGHT
14730- 15380 kg
32,480- 33,900 lb

BUCKET CAPACITY
2.5 m³-2.7 m³
3.25 yd³-3.50 yd³

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

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: 125 kW **167 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.

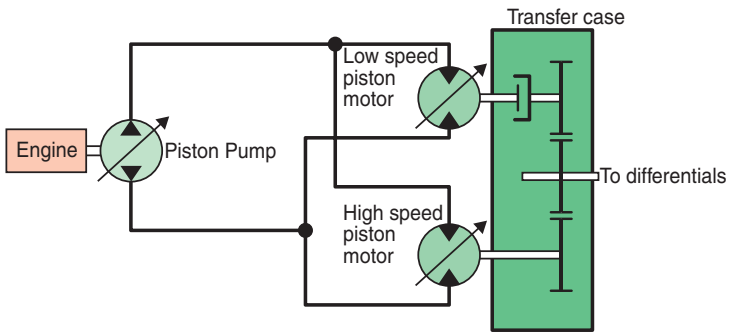
Eco Indicator

The eco indicator will help an operator achieve energy savings.

Hydrostatic Transmission (HST)

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

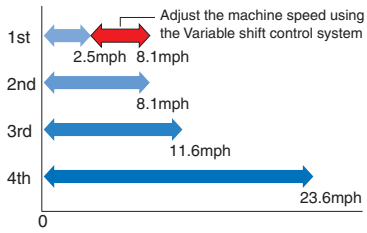
- The 1-pump, 2-motor system allows high-efficiency and high tractive effort. Engine power is transmitted hydraulically to a transfer case, then mechanically out to the differentials and the four driving wheels.
- HST provides quick travel response and aggressive drive into the pile. The variable displacement 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.



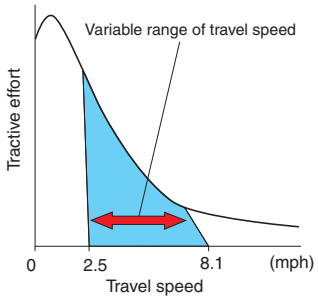
Courtesy of Machine.Market

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.

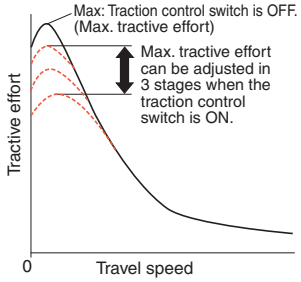


The variable shift switch allows the operator to adjust machine speed in applications such as confined V-loading. When in 1, the operator can adjust travel speed using the variable shift switch to match machine speed and hydraulics to the distance traveled. This feature is also useful when powering a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



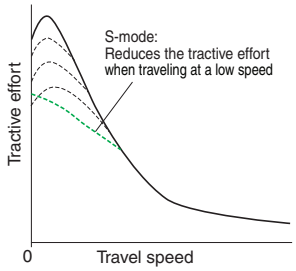
- Facilitates operation on soft ground where the tires of the machine are apt to slip.
- Eliminates excessive bucket penetration and reduces tire slippage during stockpile loading to improve the work efficiency.

- 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

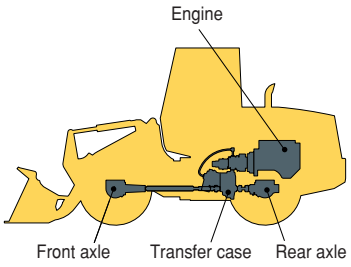
The long lift arms provide high dumping clearance and long dumping reach. The operator can even level loads on the body of a dump truck easily and efficiently.

Dumping Clearance: 2785 mm **9'2"**
Dumping Reach: 1240 mm **4'1"**
(Dimensions at max. height and 45° dump angle;
2.7 m^3 **3.5 yd^3** bucket with B.O.C.E.)

RELIABILITY

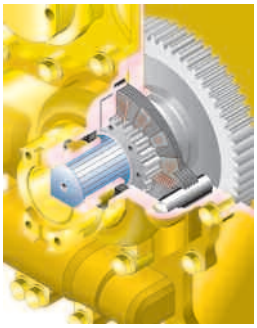
Komatsu Components

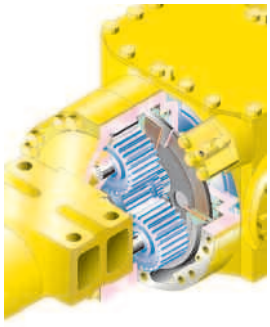
Komatsu manufactures the axles, engine, transfer case, and hydraulic components on this wheel loader. Komatsu loaders are manufactured with an integrated production system under a strict quality control system.



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.





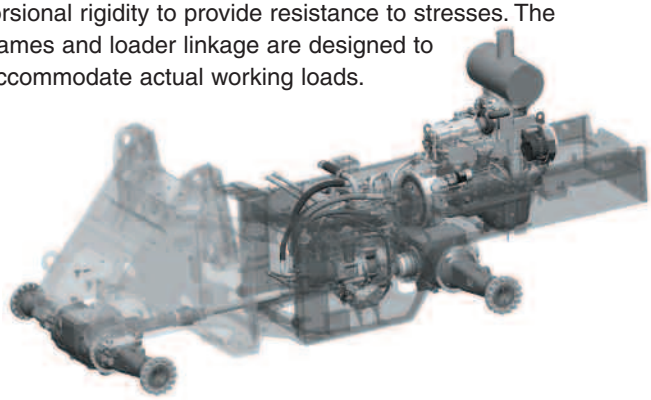
Overrun Reduction System

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.

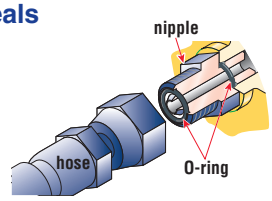
High-rigidity Frames and Loader Linkage

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.

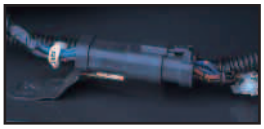


Cathion Electrodeposition Primer Paint/ Powder Coating Final Paint

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.

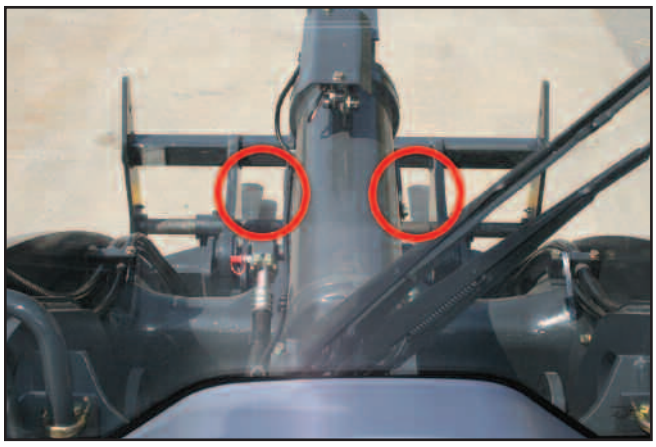


Photo may include optional equipment.

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.

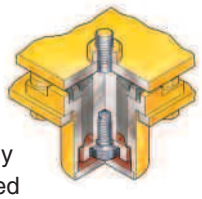
Right-side Control Panel

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

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

Low-noise Design

Noise level at operator's ear: 70 dB(A)
Dynamic noise level (outside): 107 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.

SPECIFICATIONS

ENGINE

Model . . . . . .Komatsu SAA6D107E-1
Type . . . . . .Water-cooled, 4-cycle
Aspiration . . . . . .Turbocharged, aftercooled
Number of cylinders 6
Bore x stroke . . . . . 107 mm x 124 mm **4.21" x 4.88"**
Piston displacement . . . . . 6.69 ltr **408 in^3**
Governor . . . . . All-speed, electronic
Horsepower
  SAE J1995 . . . . . .Gross 127.3 kW **171 HP**
  ISO 9249/SAE J1349 . . . . . .Net 125 kW **167 HP**
  Hydraulic fan at maximum speed . . . . . .Net 117 kW **156 HP**
  Rated rpm . . . . . 2000 rpm
Fan drive method for radiator cooling . . . . . .Hydraulic
Fuel system . . . . . .Direct injection
Lubrication system:
  Method . . . . . .Gear pump, force-lubrication
  Filter . . . . . Full-flow type
Air cleaner . . . . . .Dry type with double elements and dust evacuator, plus dust indicator

EPA Tier 3 and EU Stage 3A emissions certified.

TRANSMISSION

Type . . . . . .Hydrostatic, 1 pump, 2 motors with speed range select

Travel speed: km/h **mph**
  Measured with 20.5-25 tires

	1st	2nd	3rd	4th
Both Forward	4.0 - 13.0	13.0	18.7	38.0
and Reverse	**2.5 - 8.1**	**8.1**	**11.6**	**23.6**

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
Steering angle . . . . . 38.5° each direction (40° end stop)
Minimum turning radius at
  the center of outside tire . . . . . 5380 mm **17'8"**

HYDRAULIC SYSTEM

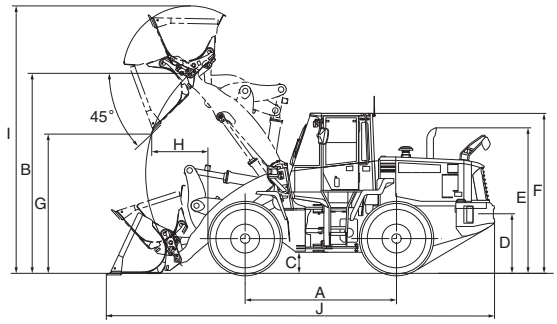
Steering system:
  Hydraulic pump . . . . . .Gear type pump
  Capacity . . . . . 172 ltr/min **45.4 U.S. gal/min** at rated rpm
  Relief valve setting . . . . . 20.6 MPa 210 kgf/cm^2 **2,990 psi**
  Hydraulic cylinders:
    Type . . . . . .Double-acting, piston type
    Number of cylinders 2
      Bore x stroke . . . . . 70 mm x 453 mm **2.8" x 17.8"**

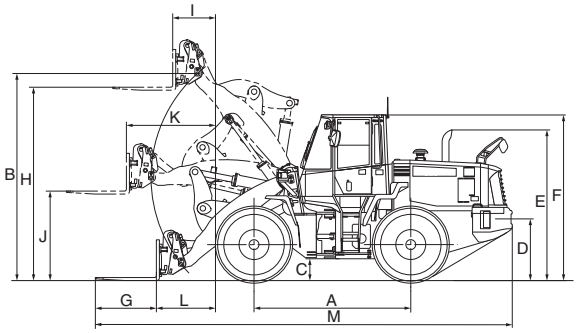
Loader control:
  Hydraulic pump . . . . . .Gear type pump
  Capacity . . . . . 61 ltr/min **16.1 U.S. gal/min**
  Relief valve setting . . . . . 20.6 MPa 210 kgf/cm^2 **3,000 psi**
  Hydraulic cylinders:
    Type . . . . . .Double-acting, piston type
    Number of cylinders—bore x stroke:
      Boom cylinder . . . . . 2- 140 mm x 729 mm **5.5" x 28.7"**
      Bucket cylinder . . . . . 1- 180 mm x 558 mm **7.1" x 22.0"**
  Control valve . . . . . 3-spool type
  Control positions:
    Boom . . . . . .Raise, hold, lower, and float
    Bucket . . . . . .Tilt-back, hold, and dump
  Hydraulic cycle time (rated load in bucket)
    Raise . . . . . 5.6 sec
    Dump . . . . . 1.9 sec
    Lower (Empty) . . . . . 3.3 sec

SERVICE REFILL CAPACITIES

Cooling system	25 ltr	**6.6 U.S. gal**
Fuel tank	245 ltr	**64.7 U.S. gal**
Engine	23 ltr	**6.1 U.S. gal**
Hydraulic system	89 ltr	**23.5 U.S. gal**
Axle (each front and rear)	24 ltr	**6.3 U.S. gal**
Transfer case	6.5 ltr	**1.7 U.S. gal**

DIMENSIONS





Standard tire . . . . . 20.5-25-12PR(L2)
Tread . . . . . 2050 mm **6'9"**
Width over tires . . . . . 2590 mm **8'6"**
A Wheelbase . . . . . 3030 mm **9'11"**
B Hinge pin height, maximum height . . . . . 4005 mm **13'2"**
Hinge pin height, at carry position . . . . . 440 mm **1'5"**
C Ground clearance . . . . . 425 mm **1'5"**
D Hitch height . . . . . 1095 mm **3'7"**
E Overall height, top of stack . . . . . 2915 mm **9'7"**
F Overall height, ROPS cab . . . . . 3200 mm **10'6"**

Bucket

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

	Bucket w/ BOCE	Light Material	General Purpose
	Bucket capacity: heaped	2.7 m³ **3.5 yd³**	2.5 m³ **3.25 yd³**
	struck	2.2 m³ **2.9 yd³**	2.1 m³ **2.75 yd³**
	Bucket width	2740 mm **9'0"**	2740 mm **9'0"**
	Bucket weight	1260 kg **2,780 lb**	1230 kg **2,712 lb**
G	Dumping clearance, max. height and 45° dump angle*	2785 mm **9'2"**	2820 mm **9'3"**
H	Reach at max. height and 45° dump angle*	1240 mm **4'1"**	1200 mm **3'11"**
	Reach at 2130 mm **7'** clearance and 45° dump angle*	1770 mm **5'10"**	1755 mm **5'9"**
	Reach with boom and bucket level*	2735 mm **9'0"**	2680 mm **8'10"**
I	Operating height (fully raised)	5395 mm **17'8"**	5355 mm **17'7"**
J	Overall length: Bucket on ground	7800 mm **25'7"**	7750 mm **25'5"**
	Bucket at carry	7750 mm **25'5"**	7715 mm **25'4"**
	Digging depth: 0°	65 mm **2.5"**	65 mm **2.5"**
	10°	440 mm **1'5"**	385 mm **1'3"**
	Static tipping load: straight	10880 kg **23,990 lb**	10990 kg **24,228 lb**
	40° full turn	9580 kg **21,110 lb**	9670 kg **21,320 lb**
	Breakout force	136 kN 13900 kgf **30,620 lb**	142 kN 14430 kgf **31,810 lb**
	Operating weight	15380 kg **33,900 lb**	15350 kg **33,830 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 tire size and attachments.

Fork

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

G	Fork tine length	1524 mm	**5'0"**
	Fork weight	685 kg	**1510 lb**
H	Ground to top of tine at maximum lift	3860 mm	**12'8"**
I	Reach at maximum lift	840 mm	**2'9"**
J	Ground to top of tine – boom and tine level	1855 mm	**6'1"**
K	Reach – boom and tine level	1735 mm	**5'8"**
L	Reach – tine level on ground	1065 mm	**3'6"**
	Operating height (fully raised)	5120 mm	**16'9"**
M	Overall length – tine level on ground	8320 mm	**27'3"**
	Static tipping load – boom level Fork level, 610 mm **24"** load center – Straight	7815 kg	**17,255 lb**
	Full turn (40°)	6720 kg	**14,820 lb**
	Operating load	4805 kg	**10,590 lb**
	Operating weight	14730 kg	**32,480 lb**

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

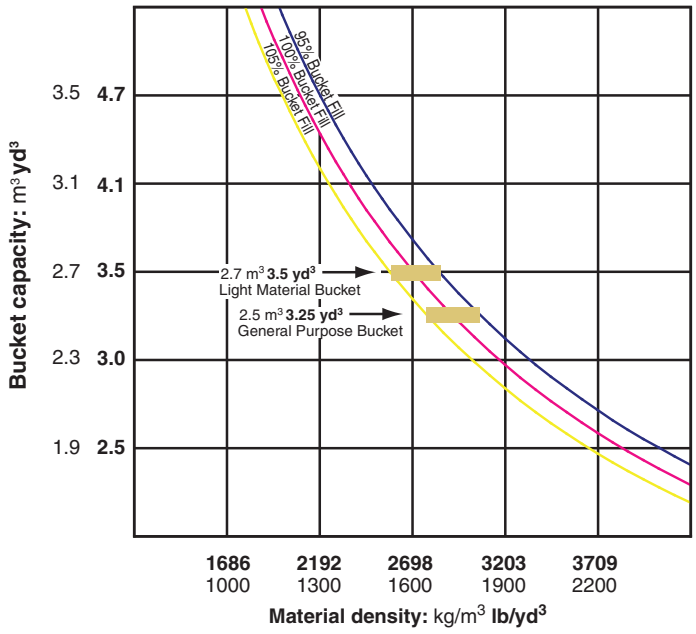
Static tipping load and operating weight shown include lubricant, coolant, full fuel tank, ROPS cab and operator. Machine stability and operating weight affected by tire size and attachments.

WEIGHT CHANGES

Bucket

	Change in Operating Weight		Change in Tipping Load			
			Straight		Full Turn	
20.5/25-12PR (L3)	165 kg	**364 lb**	105 kg	**231 lb**	95 kg	**209 lb**

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
- Deluxe air suspension seat
- Directional signal
- Engine, Komatsu SAA6D107E-1 diesel
- Floor mat
- Front fenders
- Fuel pre-filter with water separator
- Horn
- 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
- Bucket teeth (bolt-on type)
- Electronically Controlled Suspension System (ECSS)
- Engine pre-cleaner with extension
- JRB bucket, general purpose, for use with coupler, with BOCE 2.5 m^3 **3.25 yd^3**
- JRB bucket, light material, for use with coupler, with BOCE 2.7 m^3 **3.5 yd^3**
- JRB construction forks for use with coupler, 1524 mm **60"**
- JRB utility pallet forks for use with coupler, 1370 mm **54"**
- Limited slip differential (F&R)
- Rear full fenders
- Secondary steering (SAE)
- Wide core radiator

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