

# KOMATSU®

## WA150-5

NET HORSEPOWER  
71 kW **96 HP** @ 2000 rpm

OPERATING WEIGHT  
7830 - 7915 kg  
**17,262 - 17,450 lb**

BUCKET CAPACITY  
1.3 - 1.7 m<sup>3</sup> **1.7 - 2.2 yd<sup>3</sup>**

**WA**  
**150**

**WHEEL LOADER**



Photos may include optional equipment.

**GALEO**

# WALK-AROUND

***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.

***Expanded main monitor*** and troubleshooting display

***Reduced operator noise*** to 70 dB(A)

***4-piece sealing*** with buffer ring in hydraulic cylinders

***Larger cab*** with new layout design

***New tilt*** steering column

***Multi-function mono lever*** with integrated forward and reverse switch

***Large breakout force***

***Extended service intervals***

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

***Traction control system***

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



Powerful yet efficient Komatsu  
SAA4D102E-2 *emissionized engine*

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*Full side opening*  
gull-wing engine doors

*Extremely low*  
fuel consumption

*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

Photos may include optional equipment.

*Staircase-type steps*  
with large rear-hinged doors

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



Komatsu's highly productive, innovative  
technology, environmentally friendly  
machines built for the 21st century.

*Sealed DT electrical connectors*

## PRODUCTIVITY FEATURES

### Powerful Engine

A powerful SAA4D102E-2 turbocharged air-to-air aftercooled diesel engine provides an output (net) of 71 kW **96 HP** for the WA150-5. This engine is Tier 2 EPA, EU and Japanese emission regulations certified without sacrificing power or machine productivity.

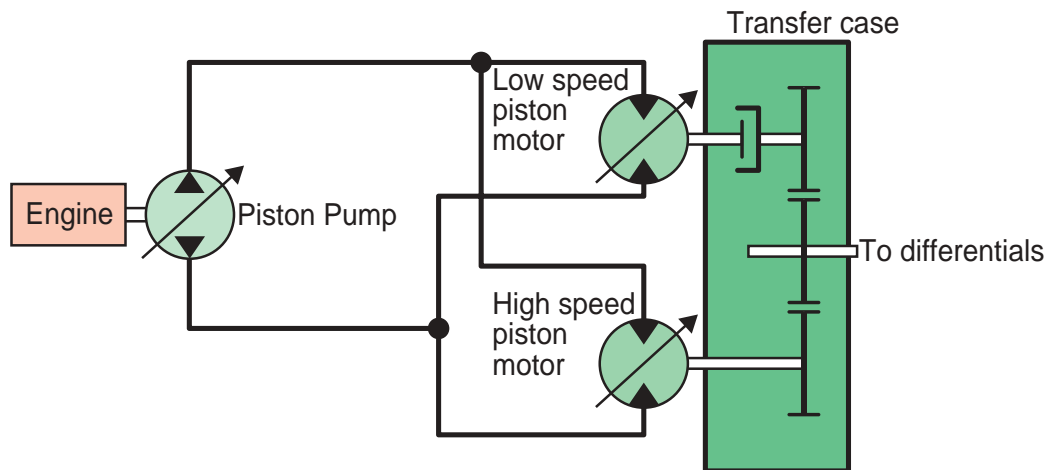
### Low Fuel Consumption

The fuel consumption is reduced up to 10%\* 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 from four maximum speed settings by dialing the speed range selector switch.

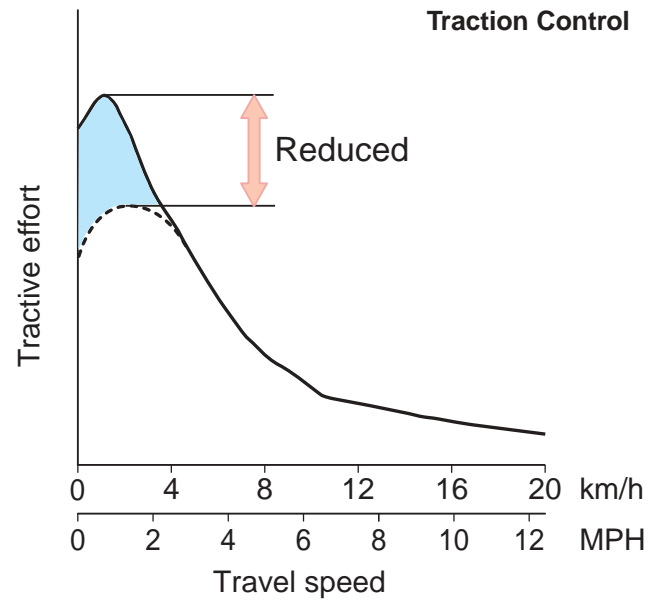
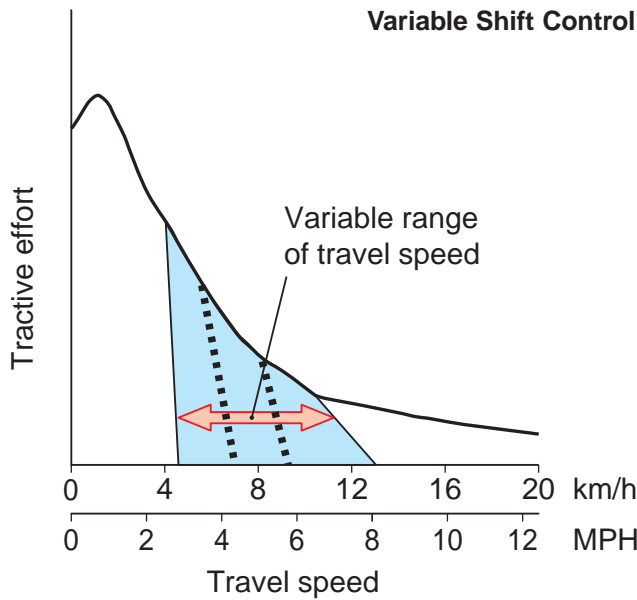
For V-cycles, the operator can set the speed control switch to 1 or 2, which provides aggressive digging, quick response and fast hydraulics. For load and carry, select 3 or 4 which still provides aggressive digging but with much faster travel speed.



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

**Traction Control System**

The traction control system reduces tire slippage in limited traction situations (such as sandy or wet surface operations). Placing the traction control switch in the “ON” position automatically reduces tire slippage by limiting the maximum amount of tractive effort to 50%. Traction control will be an advantage in certain applications such as transfer stations where the loader may be working on slippery concrete. The traction control operates in 2nd, 3rd and 4th gear.



## 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 change 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 43 km/h **27 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 40 km/h **25 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 also wet multi-disc (it is fully sealed and adjustment free), acting on the output shafts of the transfer case. The parking brake is mechanically controlled by a lever in the cab.

**Parking Brake**



**Service Brakes**



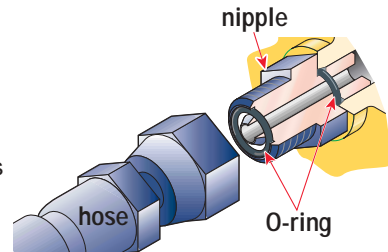
**High-Rigidity Frames**

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.



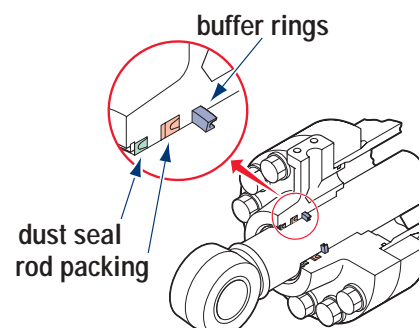
**Flat Face-to-Face O-Ring Seals**

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



**Cylinder Buffer Rings**

Buffer rings are installed to the head-side of the hydraulic cylinders to lower the load on the rod seals, prolonging cylinder life by 30% and maximizing overall reliability.



**Cathion Electrodeposition Primer Paint/Powder Coating Final Paint**

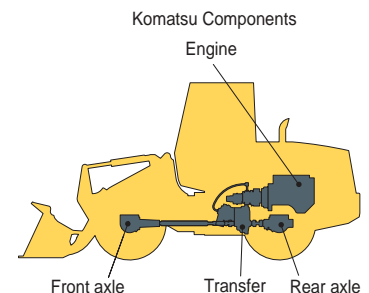
Cathion electrodeposition paint is applied as a primer paint and powder coating is applied as a topcoat to the exterior metal sheet parts. This process results in a durable rust-free machine, even in the most severe environments. Some external parts are made of plastic to provide long life and high impact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

**Sealed DT Connectors**

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

**Komatsu Powertrain 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)

Dynamic noise (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, and comfortable operating environment. Pressurization in the cab keeps dirt out further enhancing the operator's comfort.

### 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.



### Electronically Controlled Directional Lever

The solid state electronic transmission shift control provides easy directional changes. The steering column mounted control lever can be operated without removing the operator's hand from the steering wheel, allowing improved comfort and control. The operator can use either the transmission directional control lever on the steering column or the transmission forward and reverse switch on the Multi-function Loader Control Lever.





### 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.



# WA150-5 WHEEL LOADER

## SPECIFICATIONS



### ENGINE

Model ..... Komatsu SAA4D102E-2  
 Type ..... Water-cooled, 4-cycle  
 Aspiration ..... Turbocharged, and air-to-air aftercooled  
 Number of cylinders ..... 4  
 Bore x stroke ..... 102 mm x 120 mm **4.02" x 4.72"**  
 Piston displacement ..... 3.92 ltr **239 in<sup>3</sup>**  
 Governor ..... Mechanical, all-speed control  
 Flywheel horsepower  
 ISO 9249 / SAE J1349 .....Gross 74 kW **99 HP**  
 Net 71 kW **96 HP**  
 Rated rpm ..... 2000 rpm  
 EPA Tier 2 emissions certified  
 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 Speeds*	Forward		Reverse	
	km/h	mph	km/h	mph
1st**	5.0 - 13.6	3.1 - 8.5	5.0 - 13.6	3.1 - 8.5
2nd	13.6	8.5	13.6	8.5
3rd	21.0	13.0	21.0	13.0
4th	39.0	24.2	39.0	24.2

\*Measured with 17.5-25 (L2) tires

\*\*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  
 16° 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 ..... 4470 mm **14'8"**



### 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 force and travel makes it easy to operate in the work environment.  
 Transmission F/R switch is integrated on the lever.

#### 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 .....123 ltr/min **32.5 U.S. gal/min**  
 Pilot pump .....38 ltr/min **10 U.S. gal/min**  
 (Gear-type pumps)

#### Relief valve setting

Loader .....210 kg/cm<sup>2</sup> **20.6 MPa 3,000 psi**  
 Steering ..... 190 kg/cm<sup>2</sup> **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	110 mm	4.3"	628 mm	24.7"
Bucket	1	110 mm	4.3"	452 mm	17.8"
Steering	2	55 mm	2.2"	375 mm	14.8"

#### Hydraulic cycle time (rated load in bucket)

Raise ..... 5.8 sec  
 Dump ..... 1.1 sec  
 Lower (empty) ..... 3.6 sec  
 Total cycle time ..... 10.5 sec

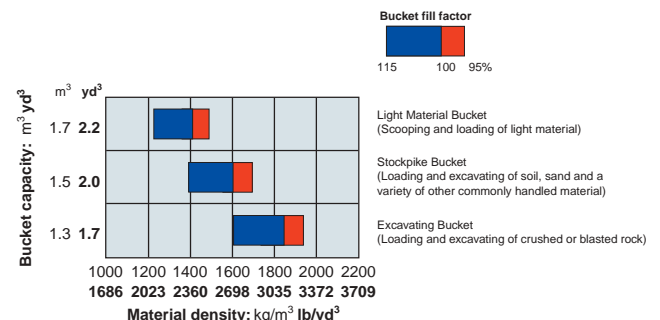


### SERVICE REFILL CAPACITIES

Cooling system ..... 17.0 ltr **4.5 U.S. gal**  
 Fuel tank ..... 133.0 ltr **35.1 U.S. gal**  
 Engine ..... 12.5 ltr **3.3 U.S. gal**  
 Hydraulic system ..... 47.0 ltr **12.4 U.S. gal**  
 Front axle ..... 14.0 ltr **3.7 U.S. gal**  
 Rear axle ..... 14.5 ltr **3.8 U.S. gal**  
 Transmission ..... 4.4 ltr **1.2 U.S. gal**

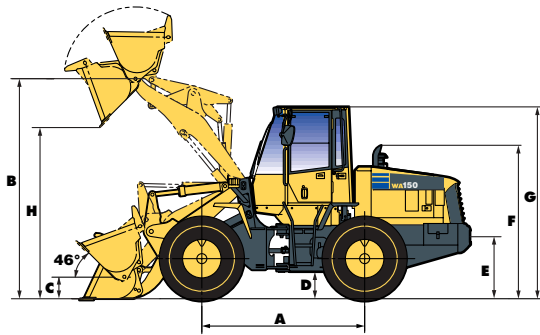


### BUCKET SELECTION GUIDE



 DIMENSIONS

mm ft.in



	15.5-25-12PR(L2)	17.5-25-12PR(L2)
Tread	1780 5'10"	1780 5'10"
Width over tires	2180 7'2"	2220 7'3"
A Wheelbase	2600 8'6"	2600 8'6"
B Hinge pin height at max. height	3475 11'5"	3510 11'6"
C Hinge pin height at carry position	360 1'2"	355 1'2"
D Ground clearance	390 1'3"	425 1'5"
E Hitch height	790 2'7"	825 2'8"
F Overall height, top of stack	2410 7'11"	2445 8'0"
G Overall height, ROPS cab	3025 9'11"	3060 10'0"
H See Dumping Clearance Below		

Measured with 17.5-25-12PR (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	1.5 m <sup>3</sup>	2.0 yd <sup>3</sup>	1.3 m <sup>3</sup>	1.7 yd <sup>3</sup>	1.7 m <sup>3</sup>	2.2 yd <sup>3</sup>
	Struck	1.25 m <sup>3</sup>	1.6 yd <sup>3</sup>	1.1 m <sup>3</sup>	1.4 yd <sup>3</sup>	1.5 m <sup>3</sup>	2.0 yd <sup>3</sup>
Bucket Width		2390 mm	7'10"	2390 mm	7'10"	2390 mm	7'10"
Bucket Weight		595 kg	1,312 lb	580 kg	1,279 lb	665 kg	1,466 lb
Static Tipping Load	Straight	6940 kg	15,300 lb	6980 kg	15,389 lb	6850 kg	15,102 lb
	40° full turn	6035 kg	13,304 lb	6065 kg	13,371 lb	5955 kg	13,128 lb
Dumping Clearance, maximum height and 45° dump angle**		2730 mm	8'11"	2770 mm	9'1"	2655 mm	8'9"
Reach at 2130 mm 7' 45° dump angle**		1360 mm	4'6"	1340 mm	4'5"	1395 mm	4'7"
Reach at maximum height and 45° dump angle**		945 mm	3'1"	905 mm	3'0"	1020 mm	3'4"
Reach with arm horizontal and bucket level**		2030 mm	6'8"	1970 mm	6'5"	2135 mm	7'0"
Operating Height Fully raised		4655 mm	15'3"	4685 mm	15'1"	4735 mm	15'6"
Overall Length	Bucket on Ground	6320 mm	20'9"	6260 mm	20'6"	6425 mm	21'1"
Turning Radius*		5185 mm	17'0"	5180 mm	17'0"	5225 mm	17'2"
Digging Depth	0°	65 mm	2.5"	65 mm	2.5"	65 mm	2.5"
	10°	230 mm	9.0"	220 mm	8.6"	245 mm	9.6"
Breakout Force		7400 kg	16,314 lb	8010 kg	17,659 lb	6530 kg	14,396 lb
Operating Weight		7845 kg	17,295 lb	7830 kg	17,262 lb	7915 kg	17,450 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	
			Straight		Full Turn							
15.5/25-12PR (L2)	-110 kg	-242 lb	-70 kg	-154 lb	-60 kg	-132 lb	2180 mm	7'2"	390 mm	1'3"	-10 mm	-1.0"
Install ROPS canopy (instead of cab)	-110 kg	-243 lb	-110 kg	-243 lb	-95 kg	-209 lb	N/A	N/A	N/A	N/A	N/A	N/A



## STANDARD EQUIPMENT

- Alternator, 60A, 24 volt
- Automatic boom kickout
- Axles, semi floating
- Back-up alarm
- Back-up light, rear
- Batteries, 92 Ah/2 x 12 V, 950 CCA
- Bucket positioner, automatic
- Cab (ROPS/FOPS) with adjustable wrist rest, cigarette lighter/ash tray, dome light, electrically heated rear window, floor mat, front (intermittent) and rear wiper/washer, rear view mirrors (2 outside, 2 inside), right hand and left hand door access with steps, sun visor
- Counterweight, standard and additional
- 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, radiator coolant level, steering oil pressure, transmission speed range, turn signals)
  - Engine, Komatsu SAA4D102E-2
  - Engine shut-off system, electric
  - Fan, hydraulic driven, swing out
  - Fenders, full front, partial rear
  - Fuel water separator
  - 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 with transmission F/R switch
- Parking brake, wet disc
- Radiator mask, hinged
- Seat belt, retractable, 3" wide
- Seat, cloth, suspension, reclining with armrests and headrest, and a document holder
- Service brakes, hydraulic, wet multi-disc, inboard
- Starting aid, intake manifold preheater
- Starting motor, 5.5 kW/24 V
- Steering wheel, tiltable
- Tires 17.5/25-12PR (L2), tubeless and rims
- Transmission (Hydrostatic with speed range select), automatic
- Transmission control, electric, steering column/loader control lever selectable
- 2-spool valve for boom and bucket controls with PPC
- Vandalism protection kit



## OPTIONAL EQUIPMENT

- Air conditioner with heater/defroster/pressurizer
- Auxiliary steering
- Bucket, excavating, 1.3 m<sup>3</sup> 1.7 yd<sup>3</sup>
- Bucket, stockpile, 1.5 m<sup>3</sup> 2.0 yd<sup>3</sup>
- Bucket, light material, 1.7 m<sup>3</sup> 2.2 yd<sup>3</sup>
- Cutting edge, bolt-on, reversible
- ECSS (Electronically Controlled Suspension System)
- Fenders, rear full
- Heater and defroster
- Limited-slip differential, front and rear
- Mud guards
- Radio, AM/FM stereo with cassette
- Rims only, less tires
  - Fits 17.5/25, or 15.5/25 tires
- ROPS canopy
- 3-spool valve, lever, piping
- Tires (bias ply)
  - 15.5/25-12PR (L2)
  - 15.5/25-12PR (L3)
  - 17.5/25-12PR (L3)
- Tires (radial ply)
  - 15.5-R25 XTLA (L2) Michelin
  - 15.5-R25 XHA (L3) Michelin
  - 17.5-R25 VUT (L2) Bridgestone
  - 17.5-R25 XTLA 1-star (L2) Michelin
  - 17.5-R25 XHA 1-star (L3) Michelin
- Vinyl seat

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# KOMATSU®

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