NET HORSEPOWER
71 kW 96 HP @ 2000 rpm

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

BUCKET CAPACITY
1.3 - 1.7 m³ 1.7 - 2.2 yd³

Photos may include optional equipment.
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)

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 is Tier 2 EPA, EU and Japan emissions certified.

- **Extremely low fuel consumption**
- **Full side opening** gull-wing engine doors
- **Radial Sealed** air cleaner
- **Swing-out hydraulic radiator fan**
- **Side-by-side type coolers** for easy access and cleaning
- **Overrun protection system**
- **Ground level servicing** and fluid checks
- **Staircase-type steps** with large rear-hinged doors
- **Flat face “O-Ring” Hydraulic Seals** for extended life
- **Sealed DT electrical connectors**

Komatsu’s highly productive, innovative technology, environmentally friendly machines built for the 21st century.
**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 Japan emissions 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.

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![Diagram of Piston Pump Engine and HST System]

- **Engine**
- **Piston Pump**
- **Transfer case**
- **Low speed piston motor**
- **High speed piston motor**
- **To differentials**
**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.

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**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.

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![Variable Shift Control Diagram](image1)

**Variable Shift Control**

![Traction Control Diagram](image2)

**Traction Control**

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![Variable range of travel speed](image3)

![Reduced Tractive effort](image4)
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.

**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.
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 a 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.
**Tiltable 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.
**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
Piston displacement: 3.92 ltr
Governor: Mechanical, all-speed control
Flywheel horsepower: ISO 9249 / SAE J1349
Rated rpm: 2000 rpm
EPA Tier 2 emissions certified

**TRANSMISSION**

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

<table>
<thead>
<tr>
<th>Travel Speeds*</th>
<th>Forward</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st**</td>
<td>5.0 - 13.6 km/h</td>
<td>3.1 - 8.5 mph</td>
</tr>
<tr>
<td>2nd</td>
<td>13.6 km/h</td>
<td>8.5 mph</td>
</tr>
<tr>
<td>3rd</td>
<td>21.0 km/h</td>
<td>13.0 mph</td>
</tr>
<tr>
<td>4th</td>
<td>39.0 km/h</td>
<td>24.2 mph</td>
</tr>
</tbody>
</table>

*Measured with 17.5-25 (L2) tires

**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)

Control valve:
2-spool open center type

**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 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

**BUCKET SELECTION GUIDE**

- Light Material Bucket
- Stockpile Bucket
- Excavating Bucket

**AXLES AND FINAL DRIVES**

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

**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 CONTROLS**

Hydraulic cylinders:
Loader and steering: Double-acting, piston

**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”
WA150-5

WHEEL LOADER

**Dimensions**

<table>
<thead>
<tr>
<th>Stockpile Bucket</th>
<th>Excavating Bucket</th>
<th>Light Material Bucket</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Bolt-On Cutting Edge</td>
<td>With Bolt-On Cutting Edge</td>
<td>With Bolt-On Cutting Edge</td>
</tr>
<tr>
<td>Bucket Capacity</td>
<td>Heaped</td>
<td>1.5 m³</td>
</tr>
<tr>
<td>Struck</td>
<td>1.25 m³</td>
<td>1.6 yd³</td>
</tr>
<tr>
<td>Bucket Weight</td>
<td>595 kg</td>
<td>1,312 lb</td>
</tr>
<tr>
<td>Static Tipping Load</td>
<td>Straight</td>
<td>6940 kg</td>
</tr>
<tr>
<td>40° full turn</td>
<td>6035 kg</td>
<td>13,304 lb</td>
</tr>
<tr>
<td>Dumping Clearance, maximum height and 45° dump angle (H)**</td>
<td>2730 mm</td>
<td>8’11”</td>
</tr>
<tr>
<td>Reach at 2130 mm 7° 45° dump angle**</td>
<td>1360 mm</td>
<td>4’6”</td>
</tr>
<tr>
<td>Reach at maximum height and 45° dump angle**</td>
<td>945 mm</td>
<td>3’1”</td>
</tr>
<tr>
<td>Reach with arm horizontal and bucket level**</td>
<td>2030 mm</td>
<td>6’8”</td>
</tr>
<tr>
<td>Operating Height Fully raised</td>
<td>4655 mm</td>
<td>15’3”</td>
</tr>
<tr>
<td>Overall Length Bucket on Ground</td>
<td>6320 mm</td>
<td>20’9”</td>
</tr>
<tr>
<td>Turning Radius*</td>
<td>5185 mm</td>
<td>17’0”</td>
</tr>
<tr>
<td>Digging Depth</td>
<td>0°</td>
<td>65 mm</td>
</tr>
<tr>
<td>10°</td>
<td>230 mm</td>
<td>9.0”</td>
</tr>
<tr>
<td>Breakout Force</td>
<td>7400 kg</td>
<td>16,314 lb</td>
</tr>
<tr>
<td>Operating Weight</td>
<td>7845 kg</td>
<td>17,295 lb</td>
</tr>
</tbody>
</table>

*Bucket at carry, outside corner of bucket. **At the end of BOCE.

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**

<table>
<thead>
<tr>
<th>Change in Operating Weight</th>
<th>Change in Tipping Load Straight</th>
<th>Change in Tipping Load Full Turn</th>
<th>Width Over Tire</th>
<th>Ground Clearance</th>
<th>Change in Vertical Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.5/25-12PR (L2)</td>
<td>-110 kg</td>
<td>-242 lb</td>
<td>-70 kg</td>
<td>-154 lb</td>
<td>-60 kg</td>
</tr>
<tr>
<td>Install ROPS canopy (instead of cab)</td>
<td>-110 kg</td>
<td>-243 lb</td>
<td>-110 kg</td>
<td>-243 lb</td>
<td>-95 kg</td>
</tr>
</tbody>
</table>
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)
- 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, 76 mm 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 m³ 1.7 yd³
- Bucket, stockpile, 1.5 m³ 2.0 yd³
- Bucket, light material, 1.7 m³ 2.2 yd³
- Cutting edge, bolt-on, reversible
- ECSS (Electronically Controlled Suspension System)
- Fenders, rear full
- Heater and defroster
- JRB multi-purpose bucket, for use with coupler with BOCE 0.99 m³ 1.31 yd³
- JRB bucket, general purpose, for use with coupler with BOCE 1.33 m³ 1.75 yd³
- JRB bucket, general purpose for use with coupler with BOCE 1.5 m³ 2.0 yd³
- JRB construction forks, for use with coupler 1219 mm 48”
- JRB extendable boom, for use with coupler, 3 section
- JRB hydraulic quick coupler
- 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 (L2)
  - 17.5/25-12PR (L3)
- Tires (radial ply)
  - 15.5-R25 XTLA (L2) Michelin
  - 15.5-R25 VUT L2 Bridgestone
  - 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