High Productivity & Low Fuel Consumption

- High performance SAA12V140E-3 engine
- Low fuel consumption
- Dual-mode active working power select system
- Large dumping clearance

See pages 4 and 5.

Excellent Operator Environment

- Automatic transmission with ECMV
- Tilted steering column
- "AJSS" (Advanced Joystick Steering System) (Optional)
- Roomy, quiet cab with power windows
- Low vibration & noise
- Pillar-less large cab with ROPS/FOPS canopy
- Comfortable operator's seat

See pages 8 and 9.

GALEO

Building on the technology and expertise Komatsu has accumulated since its establishment in 1921, GALEO presents customers worldwide with a strong, distinctive image of technological innovation and exceptional value. The GALEO brand will be employed for Komatsu's full lineup of advanced construction and mining equipment. Designed with high productivity, operator comfort and environmental considerations in mind, the machines in this line reflect Komatsu's commitment to contributing to the creation of a better world.

Genuine Answer for Land and Environment Optimization

Harmony with Environment

- EPA Tier 2 emission certified
- Low fuel consumption
Reliability
- Reliable Komatsu designed and manufactured components
- Sturdy main frame
- Engine pre-lube system (Optional)
- Maintenance-free, fully hydraulic, wet disc brakes

See page 6.

- Hydraulic hoses use flat face O-ring seals
- Cathion electrodeposition process is used to apply primer paint
- Powder coating process is used to apply main structure paint
- Sealed DT connectors for electrical connections

Easy Maintenance
- Simple checks
- “VHMS” (Vehicle Health Monitoring System) (Optional)

See page 7.

- Rear access stairs
- Auto greasing system (Optional)
**WA900-3EO  WHEEL LOADER**

**HIGH PRODUCTIVITY AND LOW FUEL CONSUMPTION**

**High Performance SAA12V140E-3 Engine**
Electronic Heavy Duty Common Rail fuel injection system provides optimum combustion of fuel.
This system also provides fast throttle response to match the machine’s powerful tractive effort and fast hydraulic response.

**Net: 638 kW 856 HP**

**Low Emission Engine**
This engine is EPA Tier 2 emission certified without sacrificing power or machine productivity.

**Low Fuel Consumption**
Low fuel consumption is achieved because of the low-noise, high-torque engine and the large-capacity torque converter with maximum efficiency in the low-speed range.

**Durable Bucket**
Komatsu buckets are manufactured using high-tensile strength steel with replaceable welded wear plates for extended bucket life. Additional strength has been added to the bucket bottom corners, side edges and spill guard ends for increased durability.

**Bucket capacities**
13.0m³ 17cu.yd

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**Dual-Mode Active Working System**

The machine can be equipped with two mode active working system. This system provides the most efficient hydraulic flow for your operation.

The active working switch has two modes: powerful loading or normal loading.

- **Powerful loading mode:**
  Hydraulic flow towards the work equipment can be increased and reduced as and when required.

- **Normal loading mode:**
  All hydraulic flow is transferred directly to the work equipment.

---

While the lift boom is raised, all the hydraulic flow from the switch pump goes to the work equipment.

The speed of the lift boom is increased in all operations.
Large Dumping Clearance
The WA900-3 was designed with ample dumping clearance for dump truck matching.

Excellent Stability
The WA900-3 has the widest tread in its class 3,350mm (11') and a long 5,450mm (17'11'') wheelbase, for maximum machine stability.

Static tipping load
(with 45/65-45-56 PR (L-5) tires / bucket 13.0 m³ 17.0 yd³)

Straight: 65670 kg 144,780 lb
40° full turn: 57430 kg 126,610 lb

High Breakout Force
Komatsu wheel loaders have high-tensile steel Z-bar loader linkages for maximum rigidity and maximum breakout force. Sealed loader linkage pins extend greasing intervals.

Breakout force: 67900 kg 149,690 lb
13.0 m³ 17.0 yd³ Excavating bucket (spade nose) with tip teeth
Komatsu Components

Komatsu manufactures the engine, torque converter, transmission, hydraulic units, electric parts, on this wheel loader. Komatsu loaders are manufactured with an integrated production system under a strict quality control system.

Engine pre-lube System (optional)

Durability of the engine is achieved by raising the engine oil pressure before starting the engine. When the operator turns the key, the pre-lubrication pump sends oil from the engine oil pan to the engine oil filter and raises the pressure of that oil to the set pressure. Then, the starting motor rotates to start the engine.

Maintenance-Free Braking System

Service brakes employ two hydraulically-actuated independent circuits which are adjustment-free, fully-sealed, wet disc units, preventing intrusion of dirt and dust. Since the brake system does not use air, it provides many features such as absence of condensation, dependable braking even in cold conditions, no need for drainage, and rust free piping. What’s more, charging time after engine starting is drastically shortened and pedal depressing effort is reduced.

High-rigidity Frames and Loader Linkage

The front and rear frames and the loader linkage have more torsional rigidity to secure resistance against increased stress. Frame and loader linkage are designed to accommodate actual working loads, and simulated computer testing proves its strength.

Flat Face-to-Face O-Ring Seals

Flat face-to-face O-ring seals are used to securely seal hydraulic hose connections and to prevent oil leakage. In addition, buffer rings are installed to the head side of the all-hydraulic cylinders to lower the load on the rod seals and maximize reliability.

Cathion Electrodeposition Primer Paint/Powder Coating Final Paint

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

Sealed DT Connectors

Main harnesses and controller connectors are equipped with sealed DT connectors providing high reliability, water resistance and dust resistance.
Simple Checks, Easy Maintenance

The main monitor and the maintenance monitor (EDIMOS II) are neatly arranged on the instrument panel for a quick, clear reading of machine functions at all times. The main monitor also has a diagnostic function.

Main monitor

Maintenance monitor

Large Side Door

Right side door is easy to open and provides accessibility for maintenance.

Fuel Tank Cap with Mud Cover and Large Tool Box

Auto-Greasing System (optional)

The periodic lubrication points, except for drive shaft, are greased automatically according to a preset amount and interval. Quick-change grease canisters make replacement easy and clean.

VHMS (Vehicle Health Monitoring System) (optional)

VHMS is a management system for large equipment for use in mining, which enables detailed monitoring of fleet via satellite communications. Komatsu and distributors can analyze “vehicle health” and other operating conditions and provide the information to job site using the internet from a remote location on a near-real time basis.
Easy Operation

Automatic Transmission with Electronically Controlled Modulation Valve (ECMV)
Automatic transmission with ECMV automatically selects the proper gear speed based on travel speed, engine speed, and other travel conditions. The ECMV system engages the clutch smoothly to prevent lags and shocks when shifting. This system provides efficient machine operation and a comfortable ride.

- **Kick-down switch:**
  This valuable feature for increases productivity. With the touch of a finger, the kick-down switch automatically downshifts from second to first when beginning the digging cycle. It automatically upshifts from first to second when the direction control lever is placed in reverse. This results in increased rim pull for better bucket penetration and reduced cycle times for higher productivity.

- **Hold switch:** Auto shift is selected and if the operator turns on this switch when the lever is at the 3rd gear speed position, the transmission is fixed to that gear speed.

Electronically Controlled Transmission Lever
Easy shifting and directional changes with Komatsu two-lever electronic shifting. Change direction or shift gears without removing the shifting hand from the steering wheel. Solid state electronics and conveniently located direction and gear shift controls make this possible. Automatic shifts in ranges two through four keep production high and manual shifting at a minimum.

Steering Wheel Type

Tiltable Steering Column & One-Glance Monitors
The steering column can be easily tilt-adjusted to the most comfortable position with one lever.

Variable Transmission Cut-off System
The operator can set the transmission cut-off pressure desired for the left brake pedal using the switch located on the right-side control panel. The operator can improve the working performance by setting the cut-off pressure properly depending on working condition.

- High cut-off pressure for digging operations.
- Low cut-off pressure for truck-loading operations.
Comfortable Operation

Remote Boom Positioner
The highest and lowest position of the bucket can be set from the cab to match any truck body. Once the positioner is set, the bucket is smoothly stopped at desired position with no shock.

Roomy, Quiet Cab With Power Windows
The cab is large, with a comfortably spacious interior and power windows. Also, a wide viewing angle is guaranteed because the cab is pillar-less. By adopting a high-capacity air conditioner, Komatsu ensures operator comfort, no matter the exterior conditions. Other features designed with operators in mind include a lunchbox storage space.

AJSS (Advanced Joystick Steering System) (Optional)
AJSS is a feedback steering system which has been incorporated to allow steering and forward and reverse selection to be controlled by wrist and finger control. With the feedback function, the machine steering angle is exactly the same angle as the lever tilt angle.

Low Vibration & Noise
The cab rests on Komatsu viscous damping mounts (rubber and silicon oil) to reduce vibration and noise. All hydraulic equipment is mounted on high-resistance rubber to further reduce vibration and noise.

Pillar-less Large Cab with ROPS / FOPS Canopy
A wide pillar-less flat glass provides excellent front visibility. The wiper arm covers a large area to provide great visibility even on rainy days.

Comfortable Operator's Seat
The operator's seat has a reclining/air suspension design with headrest to support the operator comfortably during long operation. Also, it is easy to adjust seat height with air suspension.
ENGINE

Model: Komatsu SAA12V140E-3
Type: Water-cooled, 4-cycle
Aspiration: Turbocharged, air-to-air aftercooled
Number of cylinders: 12
Bore x stroke: 140 mm x 165 mm 5.51" x 6.50"
Piston displacement: 30.48 ltr 1860 in³
Governor: all-speed, electronic
Flywheel horsepower:
SAE J1995: Gross 672 KW 900 HP
ISO 9249/SAE J1349: Net 638 KW 850 HP
Rated rpm: 2100 rpm
Fan drive method for radiator cooling: Mechanical
Fuel system: Direct injection
Lubrication system:
Method: Gear pump, force-lubrication
Filter: Full-flow and bypass combined
Air cleaner: Dry type with automatic dust ejector and pre-cleaner, cyclopac with evacuator

TRANSMISSION

Torque converter:
Type: 3-element, single-stage, single-phase
Transmission:
Type: Full-powershift, planetary type
Travel speed: km/h mph
Measured with 45/65-45/58 tires

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td>7.0</td>
<td>12.3</td>
</tr>
<tr>
<td>Reverse</td>
<td>7.1</td>
<td>12.4</td>
</tr>
</tbody>
</table>

AXLES AND FINAL DRIVES

Drive system: Four-wheel drive
Front: Fixed, full-floating
Rear: Center-pin support, full-floating, 22" total oscillation
Reduction gear: Spiral bevel gear
Differential gear: Straight bevel gear
Final reduction gear: Planetary gear, single reduction, oil bath

BRAKES

Service brakes: Hydraulically actuated, wet disc brakes actuate on all four wheels
Parking brake: Dry disc brake
Emergency brake: Parking brake is commonly used

STEERING SYSTEM

Type: Articulated type, full-hydraulic power steering
Steering angle: ±40° each direction
Minimum turning radius at the center of outside tire: 9200 mm 30'2"

HYDRAULIC SYSTEM

Steering system:
Hydraulic pump: Piston pump
Capacity: 315 ltr/min 83.2 U.S. gal/min at rated rpm
Relief valve setting: 34.3 MPa 500 kgf/cm² 4,977 psi
Hydraulic cylinders:
Type: Double-acting, piston type
Number of cylinders: 2
Bore x stroke: 160 mm x 503 mm 6.3" x 19.8"

Loader control:
Hydraulic pump: Piston pump
Capacity: 415 ltr/min 110.6 U.S. gal/min at rated rpm
Relief valve setting: 34.3 MPa 500 kgf/cm² 4,977 psi
Hydraulic cylinders:
Type: Double-acting, piston type
Number of cylinders: 2

Boom Cylinder:
- 2: 250 mm x 1368 mm 10.2" x 53.9"
- Bucket Cylinder: 0-300 mm x 906 mm 11.8" x 35.7"

Control valve:
- Spool type

Control positions:
- Boom
- Raise, hold, lower, and float
- Bucket
- Tilt-back, hold, and dump

Hydraulic cycle time (rated load in bucket):
- Raise: 1.2 sec
- Dump: 2.0 sec
- Lower (Empty): 4.8 sec

ROPS / FOPS & CAB

Structure complies with ISO 3471 ROPS (Roll-Over Protective Structure) standards, as well as ISO 3449 FOPS (Falling Object Protective Structure) standards. The cab is mounted on rubber pads and is well insulated.

SERVICE REFILL CAPACITIES

Cooling system: 0.37 ltr 89.0 U.S. gal
Fuel tank: 1.55 ltr 410.8 U.S. gal
Engine: 0.13 ltr 34.3 U.S. gal
Hydraulic system: 0.72 ltr 191.5 U.S. gal
Axle (each front and rear): 0.36 ltr 95.1 U.S. gal
Torque converter and transmission: 0.14 ltr 37.0 U.S. gal

BUCKET SELECTION GUIDE

<table>
<thead>
<tr>
<th>Bucket Size</th>
<th>Capacity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>1.5 m³</td>
<td>Excavating Bucket (spade nose) with teeth</td>
</tr>
<tr>
<td>High lift</td>
<td>1.15 m³</td>
<td>Excavating Bucket (spade nose) with teeth</td>
</tr>
</tbody>
</table>

Material density: kg/m³ lb/ft³

- 115 kg/m³ 2100 lbs/ft³
- 105 kg/m³ 2000 lbs/ft³

13.0 17.0

115 105 95
**DIMENSIONS**

Measured with 45/65-45-58PR (L-5) tires

---

<table>
<thead>
<tr>
<th></th>
<th>Standard Boom</th>
<th>High Lift Boom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tread</strong></td>
<td>3359 mm 11'</td>
<td></td>
</tr>
<tr>
<td><strong>Width over tires</strong></td>
<td>4585 mm 15'11&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Wheelbase</strong></td>
<td>5450 mm 17'11&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>B Hinge pin height, max. height</strong></td>
<td>6940 mm 22'10&quot;</td>
<td>7445 mm 24'5&quot;</td>
</tr>
<tr>
<td><strong>C Hinge pin height, carry position</strong></td>
<td>810 mm 27&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>D Ground clearance</strong></td>
<td>550 mm 11'0&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>E Hitch height</strong></td>
<td>1390 mm 4'7&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>F Overall height, top of the stack</strong></td>
<td>5130 mm 16'10&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>G Overall height, ROPS cab</strong></td>
<td>6275 mm 17'4&quot;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Standard Boom</th>
<th>High Lift Boom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spade nose Tiptoe</strong></td>
<td>13.0 m³</td>
<td>11.5 m³</td>
</tr>
<tr>
<td></td>
<td>17.0 yd³</td>
<td>15.0 yd³</td>
</tr>
<tr>
<td><strong>Struck</strong></td>
<td>11.0 m³</td>
<td>9.7 m³</td>
</tr>
<tr>
<td></td>
<td>14.4 yd³</td>
<td>12.7 yd³</td>
</tr>
<tr>
<td><strong>Bucket width</strong></td>
<td>4810 mm</td>
<td>4810 mm</td>
</tr>
<tr>
<td></td>
<td>15'9&quot;</td>
<td>15'9&quot;</td>
</tr>
<tr>
<td><strong>Bucket weight</strong></td>
<td>12333 kg</td>
<td>11370 kg</td>
</tr>
<tr>
<td></td>
<td>27,180 lb</td>
<td>25,070 lb</td>
</tr>
<tr>
<td><strong>Dumper clearance, max. height</strong></td>
<td>4640 mm 15'3&quot;</td>
<td>5255 mm 17'3&quot;</td>
</tr>
<tr>
<td><strong>and 45° dump angle</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reach at max. height and 45° dump angle</strong></td>
<td>2450 mm 8'</td>
<td>2235 mm 7'4&quot;</td>
</tr>
<tr>
<td><strong>Reach at 2130 mm (7') clearance</strong></td>
<td>3650 mm 12'</td>
<td>4020 mm 13'2&quot;</td>
</tr>
<tr>
<td><strong>and 45° dump angle</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reach with arm horizontal and bucket level</strong></td>
<td>4640 mm 15'3&quot;</td>
<td>4760 mm 19'7&quot;</td>
</tr>
<tr>
<td><strong>Operating height (fully raised)</strong></td>
<td>9680 mm 32'5&quot;</td>
<td>9675 mm 32'5&quot;</td>
</tr>
<tr>
<td><strong>Overall length</strong></td>
<td>14490 mm 48'6&quot;</td>
<td>14605 mm 48'2&quot;</td>
</tr>
<tr>
<td><strong>Loader clearance circle (bucket at carry, outside corner of bucket)</strong></td>
<td>22900 mm 72'2&quot;</td>
<td>22200 mm 72'10&quot;</td>
</tr>
<tr>
<td><strong>Digging depth: 0°</strong></td>
<td>165 mm 6'5&quot;</td>
<td>160 mm 6'3&quot;</td>
</tr>
<tr>
<td></td>
<td>846 mm 2'8&quot;</td>
<td>610 mm 2'0&quot;</td>
</tr>
<tr>
<td><strong>Static tipping load: straight</strong></td>
<td>65670 kg 144,700 lb</td>
<td>52540 kg 116,850 lb</td>
</tr>
<tr>
<td></td>
<td>57490 kg 126,610 lb</td>
<td>55000 kg 121,320 lb</td>
</tr>
<tr>
<td><strong>40° full turn</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Breakout force</strong></td>
<td>666 KN 149,630 lb</td>
<td>793 KN 177,000 lb</td>
</tr>
<tr>
<td></td>
<td>57930 kg 126,540 lb</td>
<td>55030 kg 121,200 lb</td>
</tr>
<tr>
<td><strong>Operating weight</strong></td>
<td>107200 kg 235,340 lb</td>
<td>107360 kg 236,670 lb</td>
</tr>
</tbody>
</table>

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 canopy, air conditioner, bucket and operator. Machine stability and operating weight are affected by counterweight, or ballast, tire size, and other attachments.

Use either counterweight or ballast, not both. Apply the following weight changes to operating weight and static tipping load.
## WEIGHT CHANGES

<table>
<thead>
<tr>
<th></th>
<th>Operating weight</th>
<th>Tipping load</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Straight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full turn</td>
</tr>
<tr>
<td>Remove ROPS canopy</td>
<td>-1365 kg</td>
<td>-1220 kg</td>
</tr>
<tr>
<td></td>
<td>-3,055 lb</td>
<td>-2,690 lb</td>
</tr>
<tr>
<td>Remove steel cab</td>
<td>-430 kg</td>
<td>-335 kg</td>
</tr>
<tr>
<td></td>
<td>-950 lb</td>
<td>-740 lb</td>
</tr>
</tbody>
</table>

## STANDARD EQUIPMENT

- 2-spool valve for boom and bucket controls
- Alternator, 90 A/24 V
- Air conditioner
- Automatic transmission F3 / R3
- Back-up alarm
- Back-up lamp
- Batteries, 160 Ah/12 V x 4
- Boom kick-out
- Bucket positioner
- Counterweight
- Directional signal
- Emergency brake
- Engine, Komatsu SAA12V140E-3 diesel
- Flowmata
- Front working lights (2)
- Hard water area arrangement (corrosion resistor)
- Head lights (2)
- Lift cylinders and bucket cylinder
- Radiator mask, lattice type
- Rear access stairs
- Rear defroster (electric)
- Rearview mirrors
- Rear window washer and wiper
- Rear working lights (2)
- Room mirror
- ROPS/FOPS canopy
- Seat belt
- Seat; suspension type with reclining
- Service brakes, wet disc type
- Side working lights (2)
- Standard boom
- Starting motor, 7.5 kW/24 V x 2
- Steel cab included front wiper, windshield washer and power window
- Steering wheel, tiltable
- Sun visor
- Tires (45/65-15PR L5 tubeless) and rims
- Water separator

## OPTIONAL EQUIPMENT

- AJS (advanced Joystick Steering System)
- AM/FM radio
- AM/FM stereo radio cassette
- Ashtray and cigarette lighter
- Automatic greasing
- Bucket corner teeth
- Bucket teeth (weld-on/clip type)
- Counterweight for high lift boom
- Emergency steering (SAE)
- Engine pre-lube system
- Fast fill fuel system
- Fenders
- Fire extinguisher
- Heater and defroster
- High lift boom
- Mesh chain
- Ordinary spare parts
- Power train guard
- Rear under view mirror
- Sweeper wing
- Tires (45/65-15PR L5 tubeless)
- Tool kit
- Under view mirror
- Vandalism protection
- VHMS (Vehicle Health Monitoring System)
- Yellow rotating lamp

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