High Productivity & Low Fuel Consumption

- High performance Komatsu 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
- Tiltable 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.

Harmony with Environment

- EPA Tier 2 emission certified.
- Low fuel consumption
Reliability

- Reliable Komatsu designed and manufactured components
- Sturdy main frame
- Engine pre-lubrication system (Optional)
- Maintenance-free, fully hydraulic, wet disc brakes

See page 6.

Easy Maintenance

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

See page 7.

- Hydraulic hoses use flat face O-ring seals
- Cation electrodeposition process is used to apply primer paint.
- Powder coating process is used to apply main structure paint.
- Sealed DT connectors for electrical connections
High Performance Komatsu 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 capacity**

13.0m³ 17cu.yd

---

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.

---

![Dual modes switch](image)

Digging/Loading

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

Loader pump

Switch pump

Active Working Switch

- Powerful

- Fast

Raising the lift boom

Loader pump

Switch pump

Active Working Switch

- Fast

Digging/Loading

The hydraulic flow from switch pump go to work equipment. Traction while digging/shoveling is not increased. The speed of the lift boom is increased in all operations.
Large Dumping Clearance
The WA900-3E0 was designed with ample dumping clearance for dump truck matching.

Excellent Stability
The WA900-3E0 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 45/65-45-58 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 tptee
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-lubrication 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.

Cation Electrodeposition Primer Paint/ Powder Coating Final Paint

Cation 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.
**EASY MAINTENANCE**

**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**

**Rear Access Stairs**

For the purpose of boarding and exiting machine, rear access stairs with handrail is provided. The step width, clearance, and the step angle have been designed for climbing both up and down. A step light provides light for night boarding.

**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.

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.
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.

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.

Comfortable Operation

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.

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 (5.5" x 6.5")
- **Piston displacement**: 30.48 ltr (1860 in³)
- **Governor**: All-speed, electronic
- **Fuel system**: Direct injection
- **EPA**: Tier 2 emission certified.

### HYDRAULIC SYSTEM

- **Steering system**:
  - **Piston pump**: 315 ltr/min 83.2 U.S. gal/min at rated rpm
  - **Relief valve setting**: 34.3 MPa (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**: 415 ltr/min 109.6 U.S. gal/min at rated rpm
  - **Relief valve setting**: 34.3 MPa (4,977 psi)
  - **Hydraulic cylinders**:
    - **Type**: Double-acting, piston type
  - **Number of cylinders—bore x stroke**:
    - Lift cylinder: 120 mm x 340 mm (4.7" x 13.4")
    - Bucket cylinder: 160 mm x 503 mm (6.3" x 19.8")
- **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: 11.2 sec
  - Dump: 2.0 sec
  - Lower (Empty): 4.8 sec

### TRANSMISSION

- **Type**: 3-element, single-stage, single-phase
- **Transmission**: Full-powershift, planetary type
- **Travel speed**: km/h mph

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td>7.0</td>
<td>4.3</td>
<td>12.3</td>
</tr>
<tr>
<td>Reverse</td>
<td>7.1</td>
<td>4.4</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 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")

### 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**: 337 ltr (89.0 U.S. gal)
- **Fuel tank**: 1555 ltr (410.8 U.S. gal)
- **Engine**: 130 ltr (34.3 U.S. gal)
- **Hydraulic system**: 725 ltr (191.5 U.S. gal)
- **Axle (each front and rear)**: 360 ltr (95.1 U.S. gal)
- **Torque converter and transmission**: 140 ltr (37.0 U.S. gal)

### BUCKET SELECTION GUIDE

- **Material density**: kg/m³ lb/yd³
  - **Excavating Bucket (spade nose) with teeth**:
    - Standard Boom: 13.0 17.0
    - High Lift Boom: 11.5 15.0
    - Rock Bucket (spade nose) with teeth:
      - Standard Boom: 16.0 20.0
      - High Lift Boom: 15.0 19.0
      - Rock Bucket (spade nose)
### WHEEL LOADER

#### WA900-3EO

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

<table>
<thead>
<tr>
<th>Standard boom</th>
<th>High lift boom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Excavating Bucket</strong></td>
<td><strong>Excavating Bucket</strong></td>
</tr>
<tr>
<td>Spade nose</td>
<td>Spade nose</td>
</tr>
<tr>
<td>Tip teeth</td>
<td>Tip teeth</td>
</tr>
<tr>
<td>Bucket capacity: heaped</td>
<td>Bucket capacity: heaped</td>
</tr>
<tr>
<td>13.0 m³</td>
<td>11.5 m³</td>
</tr>
<tr>
<td>17.0 yd³</td>
<td>15.0 yd³</td>
</tr>
<tr>
<td>struck</td>
<td>struck</td>
</tr>
<tr>
<td>11.0 m³</td>
<td>9.7 m³</td>
</tr>
<tr>
<td>14.4 yd³</td>
<td>12.7 yd³</td>
</tr>
<tr>
<td>Bucket width</td>
<td>Bucket width</td>
</tr>
<tr>
<td>4810 mm</td>
<td>4810 mm</td>
</tr>
<tr>
<td>15'9&quot;</td>
<td>15'9&quot;</td>
</tr>
<tr>
<td>Bucket weight</td>
<td>Bucket weight</td>
</tr>
<tr>
<td>12330 kg</td>
<td>11370 kg</td>
</tr>
<tr>
<td>27,180 lb</td>
<td>25,070 lb</td>
</tr>
<tr>
<td>Dumping clearance, max. height and 45° dump angle</td>
<td>Dumping clearance, max. height and 45° dump angle</td>
</tr>
<tr>
<td>4640 mm</td>
<td>5255 mm</td>
</tr>
<tr>
<td>15'3&quot;</td>
<td>17'3&quot;</td>
</tr>
<tr>
<td>Reach at max. height and 45° dump angle</td>
<td>Reach at max. height and 45° dump angle</td>
</tr>
<tr>
<td>2450 mm</td>
<td>2235 mm</td>
</tr>
<tr>
<td>8'</td>
<td>7'4&quot;</td>
</tr>
<tr>
<td>Reach at 2130 mm (7&quot;) clearance and 45° dump angle</td>
<td>Reach at 2130 mm (7&quot;) clearance and 45° dump angle</td>
</tr>
<tr>
<td>3650 mm</td>
<td>4020 mm</td>
</tr>
<tr>
<td>12'</td>
<td>13'2&quot;</td>
</tr>
<tr>
<td>Reach with arm horizontal and bucket level</td>
<td>Reach with arm horizontal and bucket level</td>
</tr>
<tr>
<td>4640 mm</td>
<td>4760 mm</td>
</tr>
<tr>
<td>15'5&quot;</td>
<td>16'7&quot;</td>
</tr>
<tr>
<td>Operating height (fully raised)</td>
<td>Operating height (fully raised)</td>
</tr>
<tr>
<td>9680 mm</td>
<td>9875 mm</td>
</tr>
<tr>
<td>31'10&quot;</td>
<td>32'5&quot;</td>
</tr>
<tr>
<td>Overall length</td>
<td>Overall length</td>
</tr>
<tr>
<td>14490 mm</td>
<td>14685 mm</td>
</tr>
<tr>
<td>47'6&quot;</td>
<td>48'2&quot;</td>
</tr>
<tr>
<td>Loader clearance circle (bucket at carry, outside corner of bucket)</td>
<td>Loader clearance circle (bucket at carry, outside corner of bucket)</td>
</tr>
<tr>
<td>22000 mm</td>
<td>22200 mm</td>
</tr>
<tr>
<td>72'2&quot;</td>
<td>72'10&quot;</td>
</tr>
<tr>
<td>Digging depth: 0°</td>
<td>Digging depth: 0°</td>
</tr>
<tr>
<td>165 mm</td>
<td>160 mm</td>
</tr>
<tr>
<td>6.5&quot;</td>
<td>6.3&quot;</td>
</tr>
<tr>
<td>10°</td>
<td>10°</td>
</tr>
<tr>
<td>645 mm</td>
<td>610 mm</td>
</tr>
<tr>
<td>21&quot;</td>
<td>20&quot;</td>
</tr>
<tr>
<td>Static tipping load: straight</td>
<td>Static tipping load: straight</td>
</tr>
<tr>
<td>65670 kg</td>
<td>62540 kg</td>
</tr>
<tr>
<td>144,780 lb</td>
<td>137,880 lb</td>
</tr>
<tr>
<td>40° full turn</td>
<td>40° full turn</td>
</tr>
<tr>
<td>57430 kg</td>
<td>55030 kg</td>
</tr>
<tr>
<td>126,610 lb</td>
<td>121,320 lb</td>
</tr>
<tr>
<td>Breakout force</td>
<td>Breakout force</td>
</tr>
<tr>
<td>686 kN</td>
<td>703 kN</td>
</tr>
<tr>
<td>67900 kgf</td>
<td>71700 kgf</td>
</tr>
<tr>
<td>149,690 lb</td>
<td>158,070 lb</td>
</tr>
<tr>
<td>Operating weight</td>
<td>Operating weight</td>
</tr>
<tr>
<td>107200 kg</td>
<td>107350 kg</td>
</tr>
<tr>
<td>236,340 lb</td>
<td>236,670 lb</td>
</tr>
</tbody>
</table>

### Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Standard boom</th>
<th>High lift boom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tread</td>
<td>3350 mm 11'</td>
<td>3350 mm 11'</td>
</tr>
<tr>
<td>Width over tires</td>
<td>4585 mm 15'1&quot;</td>
<td>4585 mm 15'1&quot;</td>
</tr>
<tr>
<td>A Wheelbase</td>
<td>5450 mm 17'11&quot;</td>
<td>5450 mm 17'11&quot;</td>
</tr>
<tr>
<td>B Hinge pin height, max. height</td>
<td>6960 mm 22'10&quot;</td>
<td>7445 mm 24'5&quot;</td>
</tr>
<tr>
<td>C Hinge pin height, carry position</td>
<td>800 mm 2'7&quot;</td>
<td>800 mm 2'7&quot;</td>
</tr>
<tr>
<td>D Ground clearance</td>
<td>550 mm 1'10&quot;</td>
<td>550 mm 1'10&quot;</td>
</tr>
<tr>
<td>E Hitch height</td>
<td>1390 mm 4'7&quot;</td>
<td>1390 mm 4'7&quot;</td>
</tr>
<tr>
<td>F Overall height, top of the stack</td>
<td>5130 mm 16'10&quot;</td>
<td>5130 mm 16'10&quot;</td>
</tr>
<tr>
<td>G Overall height, ROPS cab</td>
<td>5275 mm 17'4&quot;</td>
<td>5275 mm 17'4&quot;</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>Straight</td>
<td>Full turn</td>
</tr>
<tr>
<td>Remove ROPS canopy</td>
<td>-1385 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
- Floormat
- Front working lights (2)
- Hard water area arrangement (corrosion resister)
- 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 (45/65-45-58PR L-5 tubeless) and rims
- Water separator

### OPTIONAL EQUIPMENT

- AJSS (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/tip 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-R45 L-5 tubeless)
- Tool kit
- Under view mirror
- Vandalism protection
- VHMS (Vehicle Health Monitoring System)
- Yellow rotating lamp