Wheel Loader

**WA380-7**

**ENGINE POWER**
143 kW / 192 HP @ 2,100 rpm

**OPERATING WEIGHT**
18,510 - 19,715 kg

**BUCKET CAPACITY**
3,1 - 6,5 m³
The Komatsu WA380-7 wheel loader is a perfect blend of performance, comfort and fuel economy. On-board, “Komatsu SmartLoader Logic” is a new and fully automatic engine control that yields precisely enough torque for each work phase, considerably reducing fuel usage with no loss of productivity. You enjoy impressive travel speeds thanks to the new intelligent power train and the enhanced lock-up function of Komatsu’s large capacity torque converter. The WA380-7 is perfect for a great number of applications and gives extraordinary rimpull and an outstanding performance, even on steep grades or ramps. Whisper quiet, the new SpaceCab™ combines safety and ergonomics with an unprecedented level of Komatsu comfort. Reliability, ease of service, economy and safety – the WA380-7 sets new standards for the industry.

**High productivity & low fuel consumption**
- Low consumption EU Stage IIIIB/EPA Tier 4 interim engine
- Large-capacity torque converter with standard lock-up
- Komatsu SmartLoader Logic
- More fuel-saving technology

**Excellent stability and manoeuvrability**
- Superior dumping height and reach
- Wide tread and long wheelbase
- Boom suspension system for minimum spillage
- Komatsu CLSS hydraulic system
First-class operator comfort
- Newly designed SpaceCab™
- Fully air suspended operator station
- Low noise design
- Improved operator convenience
- Rear view camera system

Simple & convenient handling
- New monitoring system
- Electronic Pilot Control (EPC) standard
- EPC-Multifunction lever (option)
- Intelligent gas pedal

Easy maintenance
- Wide core radiator with auto reverse fan
- Factory fitted automatic lubrication system
- Large gull-wing doors for easy access to service points
- Robust components with a long service life
High Productivity & Low Fuel Consumption

**New Komatsu engine technology**
The powerful and fuel-efficient Komatsu SAA6D107E-2 engine in the WA380-7 delivers 143 kW/192 HP and is EU Stage IIIB/EPA Tier 4 interim certified. Its turbo uses a hydraulic actuator to provide optimum charging pressure at all times, and makes the engine very responsive under any load conditions. The engine reaches its max. performance of 152 kW/204 HP at already 1,600 rpm.

**Komatsu SmartLoader Logic**
The WA380-7 provides Komatsu SmartLoader Logic, a new fully automatic engine control system. Without interfering with normal operations, this technology acquires data from various sensors in the vehicle and delivers optimal engine torque for each work phase. It limits torque during less demanding operations and reduces fuel usage without decreasing production.

**Komatsu Diesel Particulate Filter (KDPF)**
Komatsu’s high efficiency DPF captures more than 90% of particulate matter. It includes a special oxidation catalyst with fuel injection system that can incinerate trapped particulates by either active or passive regeneration with no need to interrupt machine operations.

**Exhaust Gas Recirculation (EGR)**
Cooled EGR is a technology well-proven in current Komatsu engines. The increased capacity of the EGR cooler now ensures very low NOx emissions and a better engine performance.

**Komatsu Variable Geometry Turbo (KVGT)**
The KVGT provides optimal air flow to the engine combustion chamber under all speed and load conditions. Exhaust gas is cleaner, fuel economy is improved while machine power and performance are maintained.

**Komatsu Closed Crankcase Ventilation (KCCV)**
Crankcase emissions (blow-by gas) are passed through a CCV filter. The oil mist trapped in the filter is returned back to the crankcase while the filtered gas is returned to the air intake.

**High-Pressure Common Rail (HPCR)**
To achieve complete fuel burn and lower exhaust emissions, the heavy duty High-Pressure Common Rail fuel injection system is computer controlled to deliver a precise quantity of pressurised fuel into the redesigned engine combustion chamber by multiple injections.

**More fuel-saving technology**
The selectable engine mode and adjustable idle shutdown are tools to considerably lower fuel usage. The WA380-7’s Eco-Gauge displays active recommendations on the cab’s monitor to help you maximise those fuel savings. For more fuel economy, the electronically controlled hydraulics pumps for the work and steering system prevent wasted hydraulic flow and deliver the exact amount of oil required for all movements of the machine.
Large-capacity torque converter with standard lock-up

With its large-capacity torque converter, the completely redesigned Komatsu drive train offers optimum efficiency and an unparalleled rimpull-to-weight ratio. By delivering high rimpull at low speeds, it makes child’s play of heavy jobs like penetration of dense material such as aggregate. This means higher productivity in V-Shape loading, even in confined spaces.

Faster Load & Carry

The sequential torque converter lock-up system delivers unbeatable productivity and fuel efficiency in Load & Carry and short distance transport applications. The operator can engage the system from 2nd to 4th gear. It noticeably increases travel speed, particularly when going uphill, thanks to the larger tractive force. It also significantly reduces fuel consumption by eliminating converter losses.
Excellent Stability and Manoeuvrability

Wide tread and long wheelbase
A 2.160 mm wide tread and a long wheelbase of 3.300 mm give the WA380-7 outstanding stability – enough to handle rough terrain and fast load & carry cycles with minimum spillage and maximum comfort. With 40° steering articulation to both sides, the WA380-7 is extremely manoeuvrable in tight spaces for faster loading cycles.

Superior dumping height and reach
The long lifting frame allows an enormous dumping height of 2.905 mm and a reach of 1.100 mm that is just as impressive (with a 3.1 m³ bucket, measured to the cutting edge). With this working range, loading high feeders or trucks becomes easy and fast.

Precision control
Komatsu’s CLSS hydraulics enables extremely precise control of the work equipment, and ensures that the bucket, boom and hydraulically driven attachments can all move smoothly at the same time. The WA380-7 also features variable-displacement pumps on both the hydraulic and steering systems. These pumps deliver the exact amount of oil required, dramatically improving fuel efficiency.

Boom suspension system
The boom suspension system reduces the shocks in the boom when driving with loads. Material can be transported at higher speeds with minimum spillage. When travelling below 7 km/h, the boom suspension is automatically deactivated for precise pallet loading into trucks.
Simple & Convenient Handling

New monitoring system
The WA380-7 has a brand new machine monitoring system that manages all essential functions. Specific settings can be saved in the attachment management program to speed up work in applications requiring a frequent change of buckets or other attachments.

“By Wire” operating
The new Electronic Pilot Control (EPC) lever console is integrated with the seat and can be easily adjusted to suit any operator. The short levers are fingertip controlled for precise and fatigue-free operating, with a no-vibration modulating function for slowing and stopping a lowering bucket. The upper and lower boom cut-out position can be pre-set with a switch and EPC has a semiautomatic excavating function for the simple filling of buckets.

Auto-kickdown
The WA380-7 can automatically shift down from F2 to F1 to make operations easier and more productive.

Intelligent gas pedal
To reduce fuel usage, Komatsu’s innovative new thrust-sensing gas pedal automatically helps you match the timing of gear shifts to the load. In heavy-duty work, requiring high rimpull and maximum acceleration, we tend to press heavily on the gas pedal. The WA380-7 anticipates this and shifts up gears as late as possible. In light-duty work, where fuel consumption is a major factor, the operator will intuitively press the gas pedal lightly. Again, the machine anticipates this – and shifts up gears as early as possible to achieve highest fuel efficiency.

EPC-Multifunction lever (option)
The EPC-multi-function lever with an integrated forward/reverse switch allows the simplest and most comfortable operation of the equipment. With one hand the driver can simultaneously control the attachment and switch between forward and reverse. The multifunction lever is the perfect choice for earth moving jobs.
Newly designed SpaceCab™
The WA380-7 cab features ample storage room with a large boot box, a storage box on the left hand side and a hot or cold box on the right. For ideal Komatsu comfort, climate control can be set to the desired temperature, and the angle of the armrest is fully adjustable. The new user friendly TFT colour monitor has a highly intuitive interface. Easily customized, with simple switches or multifunction keys and a choice of 25 languages, it gives you fingertip access to a wide range of functions and operating information to enable safe, accurate and smooth work.

Fully air suspended operator station
The wide spacious cab features a new, fully air suspended operator control station that incorporates the side consoles mounted together with a high back, fully adjustable seat, heated (optional) for improved comfort.

Improved operator convenience
With increased in-cab storage space, an auxiliary input (MP3 jack) and 12 V and 24 V power supply, the cab offers maximum convenience. The automatic air conditioner allows the operator to easily and precisely set the cab’s atmosphere.

Low noise design
The large cab is built on Komatsu’s unique ROPS/FOPS viscous mounts. The low-noise engine, the hydraulically driven fan, and the hydraulic pumps are mounted with rubber cushions, and the sealing and noise insulation material provide a quiet, low-vibration, and dustproof environment. Ear noise levels inside the cab are reduced to just 68 db(A).

Rear view camera
A standard fitment camera gives an exceptionally clear view of the rear work zone on the wide-screen colour monitor panel. The low profile camera is adjustable and integrated into the engine hood’s shape.

Auxiliary input (MP3 jack)  New monitoring system
Easy Maintenance

Komatsu CARE is a complimentary maintenance program for Komatsu customers that comes as standard with every new Komatsu EU Stage IIIIB construction machine. For the first 3 years or 2,000 hours it covers factory-scheduled maintenance, performed by Komatsu-trained technicians with Komatsu Genuine parts. It also offers up to a maximum of 2 complimentary Komatsu Diesel Particulate Filter (KDPF) exchange units and a KDPF warranty for the first 5 years or 9,000 hours.

Wide core radiator with auto reverse fan
A wide core radiator prevents clogging even when working in a dusty environment. To minimize manual cleaning, a reversible fan blows dust out, automatically or on demand. The “automatic reverse” function allows to set the cleaning length and the time between cleaning to adjust perfectly to the working conditions.

Diesel particulate filter regeneration
No interruption or extension of daily work is required to regenerate the diesel particle filter system. Due to its superior Komatsu technology, KDPF regeneration takes place automatically, at any time.

Equipment Management Monitoring System (EMMS)
The new large high resolution monitor panel displays various machine information and allows for multiple settings. The “Operation Records” menu shows records of the average fuel consumption, idling hours, and other features. Abnormality codes are clearly displayed and stored to alert you and simplify troubleshooting. The monitor also provides for advanced monitoring of the system parameters through the Service Mode to aid in troubleshooting and reduce downtime.
Komatsu Wireless Monitoring System

The easy way to higher productivity

KOMTRAX™ is the latest in wireless monitoring technology. It delivers insightful and cost saving information about your fleet and equipment and offers you a wealth of information to facilitate peak machine performance. By creating a tightly integrated web of support it allows proactive and preventive maintenance and helps you to efficiently run a business.

Knowledge

You get quick answers to basic and critical questions about your machines - what they’re doing, when they did it, where they’re located, how they can be used more efficiently, and when they need to be serviced. Performance data is relayed by satellite from your machine to your computer and to your local Komatsu distributor - who’s readily available for expert analysis and feedback.

Convenience

KOMTRAX™ helps to conveniently manage your fleet on the web, wherever you are. Data is analysed and packaged specifically for easy and intuitive viewing in maps, lists, graphs and charts. You can anticipate the type of service and parts your machines could require, or troubleshoot problems before Komatsu technicians arrive on site.
Power

The detailed information that KOMTRAX™ puts at your fingertips 24 hours a day, 7 days a week gives you the power to make better daily and long-term strategic decisions. You can anticipate problems, customize maintenance schedules, minimize downtime and keep your machines where they belong – working on the job site.

Through the web application, a variety of search parameters are available to quickly find information about specific machines based on key factors such as utilization rates, age, various notification messages, and more.

A simple chart shows the machine’s fuel consumption and helps you to calculate total costs for a job site and conveniently schedule fuel deliveries.
Robust and Reliable

Designed and built by Komatsu
The engine, hydraulics, power train, front and rear axles are original Komatsu components. All these components are subject to the highest quality standards right down to the smallest screw. All components are fully co-ordinated with one another, thus offering the maximum efficiency and reliability.

Heavy-duty axles
The heavy-duty axles allow exceptional service life even under the toughest working conditions. The optional limited slip differentials are most suitable for soft and slippery ground like sand or wet soil.

Wet multi-disc service brake
The multi-disc service brake is encapsulated and runs in an oil bath. The brake stays clean and operates at low temperature for increased service intervals and a long lifetime.

Robust torsion-resistant main frame
The frame design with hinge points far apart guarantees the high stability for the overall construction and reduces bearing stress in the torsional ranges.
Tailored Solutions

Working gear division
Komatsu wheel loaders combined with a wide range of genuine Komatsu attachments provide the perfect solution for any industry sector. For special applications our “Working Gear” division offers purpose-built machines and attachments. The tailor made solutions allow high performance and outstanding reliability even under toughest conditions.

Waste handling
We adapt our wheel loaders to the different conditions that exist on waste handling job sites. Along with heavy duty attachments, we offer solutions to protect your machine against damage.
Modular bucket configuration

To meet the requirements of modern construction business and to consider individual customers’ requests, the modular bucket configurator offers to compose your own favourite bucket design for specific applications. This tailor-made configuration lets you achieve maximum efficiency, productivity and reliability.

Hydraulic quick-coupler

The WA380-7 can change attachments in a matter of seconds with the HD hydraulic quick-coupler, available as optional equipment.

Mulch grab bucket

Perfectly suited for picking up bulky and compressible materials like gardening or plastic waste, etc. Without the side plates, this bucket can be used also as a grapple.

High dump bucket

For maximum dumping heights with light materials like coal or wood-chips. The dump cylinders are located either inside or outside the bucket.
Specifications

ENGINE

Model ...................................................... Komatsu SAA6D107E-2
Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel

Engine power
at rated engine speed ......................................................... 2,100 rpm
ISO 14396 .............................................................................. 143 kW / 192 HP
ISO 9249 (net engine power) .................................................. 142 kW / 191 HP
Max. torque / engine speed ................................................. 941 Nm / 1,450 rpm
No. of cylinders ............................................................... 6
Bore × stroke ......................................................................... 107 × 124 mm
Displacement ........................................................................ 6,69 ltr
Fan drive type ................................................................. Hydraulic
Alternator ............................................................................. 60 A/24 V
Starter motor .................................................................... 5,5 kW/24 V
Filter .............................................................................. Main-flow filter with water separator
Air-filter type ................................................................. Dry-air filter with automatic dust emission and preliminary purification including a dust display

TRANSMISSION

Type ................................................................. Automatic powershift transmission
Torque converter .................................................. One-stage, two-phase, 3-element, with lock-up clutch

Speeds in km/h (with 23.5 R25 tyres)

<table>
<thead>
<tr>
<th>Gear</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Forward</td>
<td>6,6</td>
<td>11,7</td>
<td>20,9</td>
<td>36,1</td>
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<tr>
<td>Reverse</td>
<td>7,1</td>
<td>12,4</td>
<td>22,3</td>
<td>38,6</td>
</tr>
</tbody>
</table>

CHASSIS AND TYRES

System ................................................................. 4-wheel drive
Front axle .................................................. Komatsu HD axle, semi-floating
Rear axle ................................................. Komatsu HD axle, semi-floating
Differential ........................................ Spiral bevel gear pair
Final drive ................................................ Planetary gear in an oil bath
Tyres ........................................................... 23.5 R25

Smallest turn (outer edge of the tyre 23.5 R25) ................. 6,320 mm

SERVICE REFILL CAPACITIES

Cooling system ..................................................... 54 ltr
Fuel tank .......................................................... 300 ltr
Engine oil .......................................................... 23 ltr
Hydraulic system ............................................... 142 ltr
Front axle .......................................................... 40 ltr
Rear axle .......................................................... 40 ltr
Torque converter and transmission ................................. 54 ltr

BRAKES

Operating brakes ............................................ Hydraulically actuated, wet multi-disc brakes on all wheels
Parking brake ........................................................... Wet multi-disc emergency brake ........................................... Uses the parking brake

HYDRAULIC SYSTEM

Type .............................................................. Komatsu CLSS (Closed Centre Load Sensing System)
Hydraulic pump ................................................ Variable piston pump
Working pressure .................................................. 320 kg/cm²
Maximum pump flow ............................................. 205 ltr/min
No. of hydraulic/bucket cylinders ................................ 2/1
Type ........................................................................ Double-action
Bore diameter × stroke
Boom cylinder .................................................. 130 × 713 mm
Bucket cylinder .................................................. 150 × 535 mm
Hydraulic cycle with rated load bucket filling
Raise time .......................................................... 5,9 s
Lowering time (empty) ........................................... 3,3 s
Dumping time ..................................................... 1,8 s

STEERING SYSTEM

System ............................................................. Articulated frame steering
Type ................................................................. Completely hydraulic power steering
Steering angle to either side ............................................ 40°
Steering pump ................................................... Variable piston pump
Working pressure .................................................. 250 kg/cm²
Pumping capacity .................................................. 137 ltr/min
No. of steering cylinders ............................................. 2
Type ................................................................. Double-action
Bore diameter × stroke ........................................ 75 × 442 mm
Smallest turn (outer edge of the tyre 23.5 R25) ................. 6,320 mm

CABIN

Two-door SpaceCab™ in conformity with ISO 3471 with ROPS (roll over protective structure) in conformity with SAE J1040c and FOPS (failing object protective structure) in conformity with ISO 3449. The air-conditioned pressurised cabin is mounted upon hydrobearings and is noise dampened.

ENVIRONMENT

Engine emissions ........................................ Fully complies with EU Stage IIIB and EPA Tier 4 interim exhaust emission regulations
Noise levels
LwA external .................................................. 106 dB(A) (2000/14/EC Stage II)
LpA operator ear ............................................... 68 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)
Hand/arm ...................................................... ≤ 2,5 m/s² (uncertainty K = 0,98 m/s²)
Body .............................................................. ≤ 0,5 m/s² (uncertainty K = 0,34 m/s²)
* for the purpose of risk assessment under directive 2002/44/EC, please refer to ISO/TR 25398:2006.
## Dimensions & Performance Figures

### MEASUREMENTS AND WORKING SPECIFICATIONS

<table>
<thead>
<tr>
<th>High-dump bucket</th>
<th>Light material bucket</th>
<th>Waste handling bucket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales code</strong></td>
<td>BP 2285</td>
<td></td>
</tr>
<tr>
<td><strong>Bucket mount (direct/quick-coupler)</strong></td>
<td>direct</td>
<td></td>
</tr>
<tr>
<td><strong>Bucket capacity (heaped, ISO 7546)</strong></td>
<td>m³ 6,0</td>
<td></td>
</tr>
<tr>
<td><strong>Material density</strong></td>
<td>t/m³ 0,85</td>
<td></td>
</tr>
<tr>
<td><strong>Bucket weight</strong></td>
<td>kg 2,420</td>
<td></td>
</tr>
<tr>
<td><strong>Bucket width</strong></td>
<td>mm 3,000</td>
<td></td>
</tr>
<tr>
<td><strong>Operating weight</strong></td>
<td>kg 19,715</td>
<td></td>
</tr>
<tr>
<td><strong>Rated load</strong></td>
<td>kg 5,100</td>
<td></td>
</tr>
<tr>
<td><strong>Static tipping load, straight</strong></td>
<td>mm 12,735</td>
<td></td>
</tr>
<tr>
<td><strong>Static tipping load, 40° articulated</strong></td>
<td>mm 11,160</td>
<td></td>
</tr>
<tr>
<td><strong>Turning radius at bucket edge</strong></td>
<td>mm 7,435</td>
<td></td>
</tr>
<tr>
<td><strong>Reach at 45°</strong></td>
<td>mm 2,645</td>
<td></td>
</tr>
<tr>
<td><strong>Height top edge of bucket</strong></td>
<td>mm 6,525</td>
<td></td>
</tr>
<tr>
<td><strong>Max. loading height at 45°</strong></td>
<td>mm 4,755</td>
<td></td>
</tr>
<tr>
<td><strong>Dumping height at 45°</strong></td>
<td>mm 4,405</td>
<td></td>
</tr>
</tbody>
</table>
* with add. counterweight

### MEASUREMENTS AND WORKING SPECIFICATIONS

<table>
<thead>
<tr>
<th>Fork tines</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales code</strong></td>
<td>C24</td>
<td></td>
</tr>
<tr>
<td><strong>Fork tine length</strong></td>
<td>mm 1,500</td>
<td></td>
</tr>
<tr>
<td><strong>Max. reach at ground level</strong></td>
<td>mm 1,020</td>
<td></td>
</tr>
<tr>
<td><strong>Max. reach</strong></td>
<td>mm 1,680</td>
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</tr>
<tr>
<td><strong>Max. reach at max. stacking height</strong></td>
<td>mm 820</td>
<td></td>
</tr>
<tr>
<td><strong>Max. height fork-carrier</strong></td>
<td>mm 4,930</td>
<td></td>
</tr>
<tr>
<td><strong>Hinge pin height</strong></td>
<td>mm 4,095</td>
<td></td>
</tr>
<tr>
<td><strong>Max. stacking height</strong></td>
<td>mm 3,925</td>
<td></td>
</tr>
<tr>
<td><strong>Height of forks at maximum reach</strong></td>
<td>mm 1,885</td>
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</tr>
<tr>
<td><strong>Max. tipping load, straight</strong></td>
<td>kg 10,250</td>
<td></td>
</tr>
<tr>
<td><strong>Max. tipping load, articulated</strong></td>
<td>kg 9,195</td>
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</tr>
<tr>
<td><strong>Max. payload as per EN 474-3, 80%</strong></td>
<td>kg 7,000</td>
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<tr>
<td><strong>Max. payload as per EN 474-3, 60%</strong></td>
<td>kg 5,375</td>
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<tr>
<td><strong>Weight in working order with fork tines</strong></td>
<td>kg 18,115</td>
<td></td>
</tr>
</tbody>
</table>
* with add. counterweight
## Dimensions & Performance Figures

### MEASUREMENTS AND WORKING SPECIFICATIONS

<table>
<thead>
<tr>
<th>Bucket type</th>
<th>Bucket capacity (heaped, ISO 7546)</th>
<th>Sales code</th>
<th>Material density t/m³</th>
<th>Bucket weight kg</th>
<th>Static tipping load, straight kg</th>
<th>Static tipping load, 40° articulated kg</th>
<th>Break-out force hydraulic kN</th>
<th>Lifting capability hydr. at ground level kN</th>
<th>Operating weight (without add. counterw.) kg</th>
<th>Turning radius at corner of tyres mm</th>
<th>Turning radius at bucket edge mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>w. teeth</td>
<td>3.2</td>
<td>S03</td>
<td>1.80</td>
<td>1.615</td>
<td>14.565</td>
<td>12.890</td>
<td>163</td>
<td>154</td>
<td>18.510</td>
<td>6.320</td>
<td>7.305</td>
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<tr>
<td>w. BOC</td>
<td>3.35</td>
<td>S03</td>
<td>1.70</td>
<td>1.725</td>
<td>14.290</td>
<td>12.635</td>
<td>151</td>
<td>150</td>
<td>18.625</td>
<td>6.320</td>
<td>7.265</td>
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<tr>
<td>w/o teeth</td>
<td>3.6</td>
<td>S04</td>
<td>1.60</td>
<td>1.690</td>
<td>14.645</td>
<td>12.960</td>
<td>162</td>
<td>152</td>
<td>18.585</td>
<td>6.320</td>
<td>7.265</td>
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<tr>
<td>w. BOC</td>
<td>3.75</td>
<td>S04</td>
<td>1.50</td>
<td>1.800</td>
<td>14.370</td>
<td>12.695</td>
<td>162</td>
<td>149</td>
<td>18.695</td>
<td>6.320</td>
<td>7.265</td>
</tr>
</tbody>
</table>

*All measurements with tyres 23.5 R25.*

Details of dumping heights and reach to cutting edge or bolt-on cutting edge (BOC) or teeth.
### Bucket with flat bottom

<table>
<thead>
<tr>
<th>w/o teeth</th>
<th>w/o teeth</th>
<th>w. teeth</th>
<th>w. BOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,1</td>
<td>3,25</td>
<td>3,5</td>
<td>3,65</td>
</tr>
<tr>
<td>S11</td>
<td>S11</td>
<td>S12</td>
<td>S12</td>
</tr>
<tr>
<td>1,80</td>
<td>1,75</td>
<td>1,60</td>
<td>1,55</td>
</tr>
<tr>
<td>1.650</td>
<td>1.760</td>
<td>1.720</td>
<td>1.835</td>
</tr>
<tr>
<td>12.690</td>
<td>12.465</td>
<td>12.790</td>
<td>12.520</td>
</tr>
<tr>
<td>164</td>
<td>153</td>
<td>164</td>
<td>152</td>
</tr>
<tr>
<td>152</td>
<td>149</td>
<td>151</td>
<td>148</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in data caused by</th>
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</thead>
<tbody>
<tr>
<td>Quick-coupler</td>
</tr>
<tr>
<td>w/o teeth</td>
</tr>
<tr>
<td>w. teeth</td>
</tr>
<tr>
<td>w. BOC</td>
</tr>
<tr>
<td>w. teeth</td>
</tr>
<tr>
<td>w. BOC</td>
</tr>
<tr>
<td>w. teeth</td>
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<td>w. teeth</td>
</tr>
<tr>
<td>w. teeth</td>
</tr>
<tr>
<td>w. BOC</td>
</tr>
<tr>
<td>w. teeth</td>
</tr>
<tr>
<td>w. BOC</td>
</tr>
<tr>
<td>w. teeth</td>
</tr>
<tr>
<td>w. teeth</td>
</tr>
</tbody>
</table>

1) Bucket mount (direct/quick-coupler): - 3.275 mm/- 3.000 mm
2) Bucket mount (direct/quick-coupler): - 2.770 mm/- 2.500 mm

### TYPICAL MATERIAL DENSITY – LOOSE (IN kg/m³)

<table>
<thead>
<tr>
<th>Material</th>
<th>Density (kg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basalt</td>
<td>1.960</td>
</tr>
<tr>
<td>Bauxite, Kaolin</td>
<td>1.420</td>
</tr>
<tr>
<td>Earth, dry, ex store</td>
<td>1.510</td>
</tr>
<tr>
<td>Earth, wet, excavated</td>
<td>1.600</td>
</tr>
<tr>
<td>Gypsum, broken</td>
<td>1.810</td>
</tr>
<tr>
<td>Gypsum, crushed</td>
<td>1.600</td>
</tr>
<tr>
<td>Granite, broken</td>
<td>1.540</td>
</tr>
<tr>
<td>Limestone, broken</td>
<td>1.540</td>
</tr>
<tr>
<td>Limestone, crushed</td>
<td>1.540</td>
</tr>
<tr>
<td>Gravel, unscreened</td>
<td>1.300</td>
</tr>
<tr>
<td>Gravel, dry</td>
<td>1.510</td>
</tr>
<tr>
<td>Gravel, dry, 6-50 mm</td>
<td>1.690</td>
</tr>
<tr>
<td>Gravel, wet, 6-50 mm</td>
<td>2.020</td>
</tr>
<tr>
<td>Sand, dry, loose</td>
<td>1.420</td>
</tr>
<tr>
<td>Sand, damp</td>
<td>1.690</td>
</tr>
<tr>
<td>Sand, wet</td>
<td>1.840</td>
</tr>
<tr>
<td>Sand and clay, loose</td>
<td>1.600</td>
</tr>
<tr>
<td>Sand and gravel, dry</td>
<td>1.720</td>
</tr>
<tr>
<td>Sandstone</td>
<td>1.510</td>
</tr>
<tr>
<td>Slate</td>
<td>1.250</td>
</tr>
<tr>
<td>Slag, broken</td>
<td>1.750</td>
</tr>
<tr>
<td>Stone, crushed</td>
<td>1.600</td>
</tr>
<tr>
<td>Clay, natural</td>
<td>1.680</td>
</tr>
<tr>
<td>Clay, dry</td>
<td>1.480</td>
</tr>
<tr>
<td>Clay, wet</td>
<td>1.660</td>
</tr>
<tr>
<td>Clay and gravel, dry</td>
<td>1.420</td>
</tr>
<tr>
<td>Clay and gravel, wet</td>
<td>1.540</td>
</tr>
</tbody>
</table>

### Bucket fill factor

- Bucket fill factor range: 0.95 to 1.0
- Bucket fill factor values: 0.95, 1.00, 1.05, 1.10

### Bucket capacity (m³)

<table>
<thead>
<tr>
<th>Material density (kg/m³)</th>
<th>Bucket capacity (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.200</td>
<td>3.10</td>
</tr>
<tr>
<td>1.350</td>
<td>3.35</td>
</tr>
<tr>
<td>1.500</td>
<td>3.55</td>
</tr>
<tr>
<td>1.650</td>
<td>3.75</td>
</tr>
</tbody>
</table>

### Material density (kg/m³)

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- Bauxite, Kaolin: 1.420
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- Earth, wet, excavated: 1.600
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- Gypsum, crushed: 1.600
- Granite, broken: 1.540
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- Gravel, dry: 1.510
- Gravel, dry, 6-50 mm: 1.690
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- Sand, dry, loose: 1.420
- Sand, damp: 1.690
- Sand, wet: 1.840
- Sand and clay, loose: 1.600
- Sand and gravel, dry: 1.720
- Sandstone: 1.510
- Slate: 1.250
- Slag, broken: 1.750
- Stone, crushed: 1.600
- Clay, natural: 1.680
- Clay, dry: 1.480
- Clay, wet: 1.660
- Clay and gravel, dry: 1.420
- Clay and gravel, wet: 1.540
## Engine
- Komatsu SAA6D107E-2 turbocharged common rail direct injection diesel engine
- EU Stage IIIB/EPA Tier 4 interim compliant
- Komatsu SmartLoader Logic
- Adjustable idle shutdown
- Fuel filter with water separator
- Batteries 2 × 180 Ah/2 × 12 V

## Chassis and Tyres
- Heavy-duty axles
- Front fenders
- Limited-slip differential (LSD) front and rear
- Tyres 23.5 R25 L2, L3, L5
- Tyres 650/65 R25 L3
- Full rear fenders

## Hydraulic System
- 2-spool main control valve
- EPC fingertip control, two levers, including:
  - Bucket stop modulation
  - Boom stop pre-setting
  - Semiautomatic dig function
- Automatic return-to-dig
- 3-spool main control valve
- EPC fingertip control, three levers
- EPC 1-lever (Multi-function lever) with sliding proportional control for attachments
- Biodegradable oil for hydraulic system

## Cabin
- Spacious double door driver’s cab to DIN/ISO
- ROPS/FOPS frame according to SAE
- High back air suspension seat, console mounted height adjustable arm rests
- Retractable seat belt
- Automatic climate control system
- Multi-function video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance
- CD radio w. auxiliary input (MP3 jack)
- Hot and cool box
- Heated rear window
- Rear window wiper
- Adjustable steering column
- Heated, high back air suspension seat with lumbar support, console mounted height adjustable arm rests

## Transmission and Brakes
- Electronically controlled ECMV automatic transmission with mode selector and variable transmission cut-off
- Working mode selection system
- Large-capacity torque converter
- Auto-kickdown

## Safety Equipment
- Emergency steering system
- Vandalism protection
- Back-up alarm
- Battery main switch
- Handrails on left/right
- Rear view camera system
- Front screen protective grid
- Shatterproof safety glass front window
- Fire extinguisher
- Beacon light
- Electronic anti-theft lock
- Electronic anti-theft lock with master key for fleet owners
- Roof rail
- Additional convex rear view mirror
- Optical back-up alarm (strobe light)

## Lighting System
- 2 halogen main headlights
- 2 spotlights at front and rear
- Reversing light
- Additional lights front and rear
- Xenon working lights
- Step light

## Attachments
- High-lift equipment
- Hydraulic quick-coupler
- Modular bucket configuration
- High-dump buckets
- Log grapples
- Fork carrier and tines
- Waste handling buckets
- Light material buckets

## Other Equipment
- Counterweight
- Electronically controlled load stabilizer (ECCS II)
- Special custom colour
- Add. counterweight 325 kg
- Anti-corrosion specification
- Waste-handler specification
- Cold area kit (engine and cab pre-heating)

## Chassis and Tyres
- Heavy-duty axles
- Front fenders
- Limited-slip differential (LSD) front and rear
- Tyres 23.5 R25 L2, L3, L5
- Tyres 650/65 R25 L3
- Full rear fenders

## Service and Maintenance
- Hydrostat-driven radiator fan with automatic reversing function
- Wide core radiator
- KOMTRAX™ - Komatsu wireless monitoring system
- Komatsu CARE
- Tool-set
- Automatic central lubrication
- Filling tool for central lubrication system
- Turbo II air pre-cleaner, cyclone type

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Printed in Europe – This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.