

# KOMATSU

## WA475-10



Wheel loader

**Engine power**  
217 kW / 291 HP @ 1600 rpm

**Operating weight**  
25335 - 30070 kg

**Bucket capacity**  
4.2 - 5.5 m<sup>3</sup>

## WA475-10



*Increased fuel efficiency*



*Reduced fuel consumption*



*Increased productivity*



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**217 kW / 291 HP @ 1600 rpm**

Operating weight

**25335 - 30070 kg**

Bucket capacity

**4.2 - 5.5 m<sup>3</sup>**

# Overwhelming performance

## The next generation loader

### Powerful and environmentally friendly

- EU Stage V engine
- Komatsu Hydraulic Mechanical Transmission (K-HMT)
- Massive reduction in fuel consumption & emissions
- 15% higher engine torque, at lower rpm

### First-class comfort

- Completely redesigned cab
- Tinted UV-protection glass
- High-performance air conditioning
- New monitoring system

### Maximised efficiency

- High efficiency buckets
- Komatsu traction control system (K-TCS)
- Massive lifting power and break-out force
- High precision steering
- Load Pilot with efficiency guidance

### State-of-the-art controls

- Independent control of driveline and work equipment
- Auto hill-holding function
- Travel speed control dial

### Easy maintenance

- Tilttable one-piece engine hood
- Wide core radiator with auto reverse fan
- Factory fitted automatic lubrication system

### Komtrax

- Komatsu Wireless Monitoring System
- 4G mobile communications
- Integrated communication antenna
- Increased operational data and fuel savings



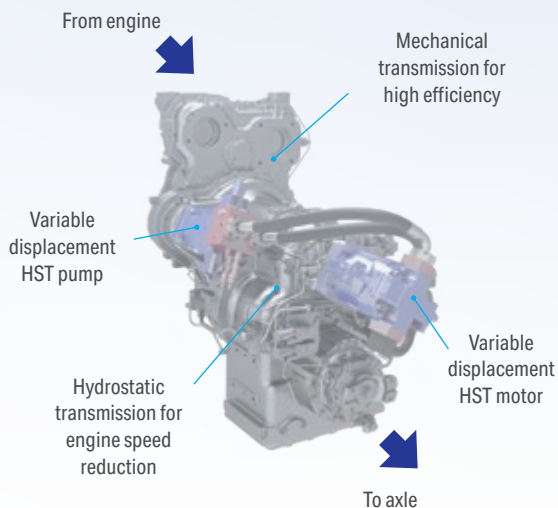
A maintenance program  
for Komatsu customers

# WA475-10



## Komatsu Hydraulic Mechanical Transmission (K-HMT)

K-HMT combines the benefits of hydrostatic and mechanical powertrains. This innovative technology, developed by Komatsu, provides extra power to the WA475-10, along with ultra-low fuel consumption and industry-leading productivity. An electronic controller works to maintain the engine speed low and constant. Minimum interaction is required, and operations are easier.



## Massive lifting force

The Z-bar linkage is optimised for significantly quicker loading cycles. More lifting power and higher break-out forces make bucket filling easier. In combination with Komatsu high-efficiency buckets, this provides significantly increased production rates, with more tonnes-per-hour.

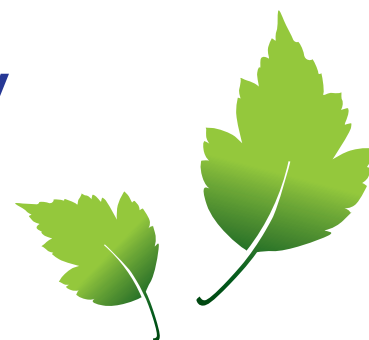
## Adjustable idle shutdown

The Komatsu auto idle shutdown automatically turns off the engine after it idles for a set period of time. This feature can easily be programmed from 5 to 60 minutes, to reduce unnecessary fuel consumption and exhaust emissions, and to lower operating costs. An Eco-gauge and the Eco guidance tips on the cab monitor further encourage efficient operations.

## Powerful and environmentally friendly

### Komatsu EU Stage V

The Komatsu EU Stage V engine is productive, dependable and efficient. With ultra-low emissions, it provides a lower environmental impact and a superior performance to help reduce operating costs and lets the operator work in complete peace of mind.

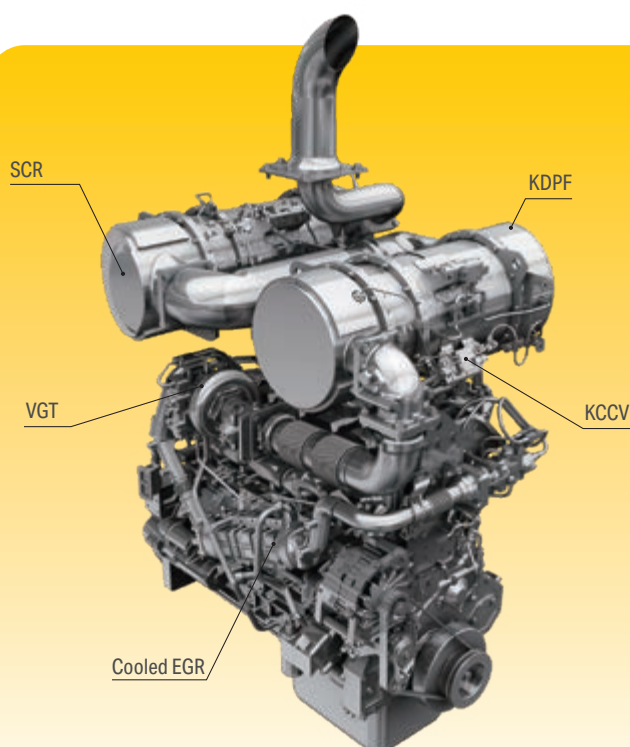
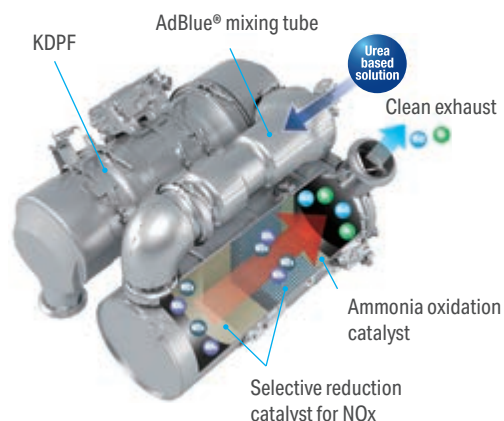


### Increased engine power

The engine is specifically designed to work together with K-HMT technology. It develops a higher performance and provides up to 15% more engine torque at lower engine speeds, compared to the previous model.

### Heavy-duty aftertreatment

The aftertreatment system combines a Komatsu Diesel Particulate Filter (KDPF) and Selective Catalytic Reduction (SCR). The SCR injects the correct amount of AdBlue® into the system at the proper rate to break down NOx into water (H<sub>2</sub>O) and non-toxic nitrogen gas (N<sub>2</sub>). NOx emissions are reduced by 80% vs. EU Stage IIIB engines.



#### 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.

#### 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.

#### 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.

#### Variable Geometry Turbo (VGT)

The VGT provides optimal airflow 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.

## Maximised efficiency

### Komatsu traction control system (K-TCS)

K-TCS controls the K-HMT and the engine to optimise traction automatically depending on work conditions. The provided rim pull can be set to 4 different levels to prevent wheels from spinning, regardless of ground conditions. Constant traction increases productivity and reduces tire wear and costs.

### Travel speed control dial

Machine speed can be kept constant thanks to the integrated travel speed control dial, with no need to apply the brake even when travelling downhill.

### High precision steering

The re-designed steering system is more powerful and accurate. This eases Load & Carry operations on rough terrain and enhances the smooth controllability of the machine.

### Automatic digging system

The automatic digging system actuates the bucket tilt and lifting operations by detecting the sensing pressure applied to the work equipment. The system adapts to different types of material with no human intervention required. Operator fatigue is greatly reduced and ideal load capacity ensured.

### Drive line with automatic braking function

The WA475-10 has an automatic engine brake that helps to slow down the machine smoothly when the operator takes a foot off the accelerator. It also reduces brake wear. In addition, the new auto hill-holding function makes it very easy to operate on a slope.

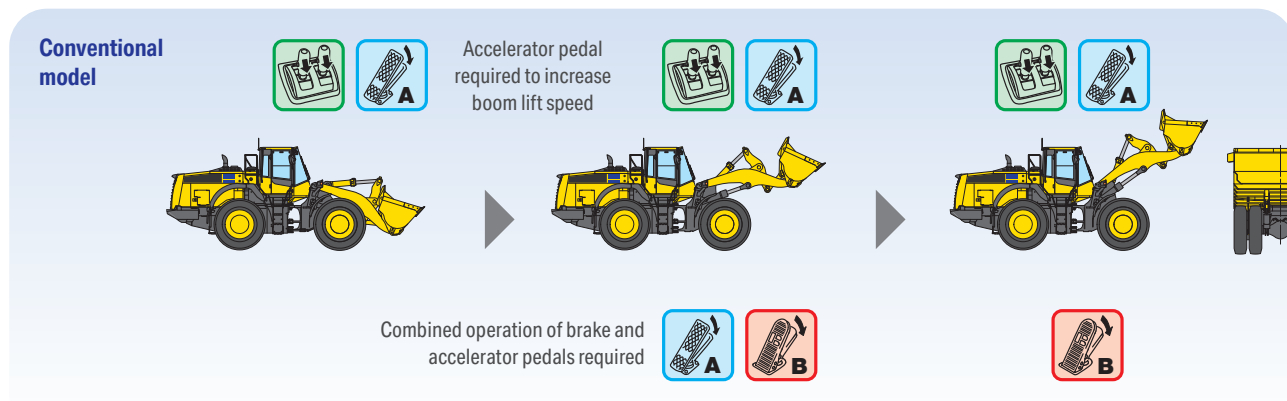
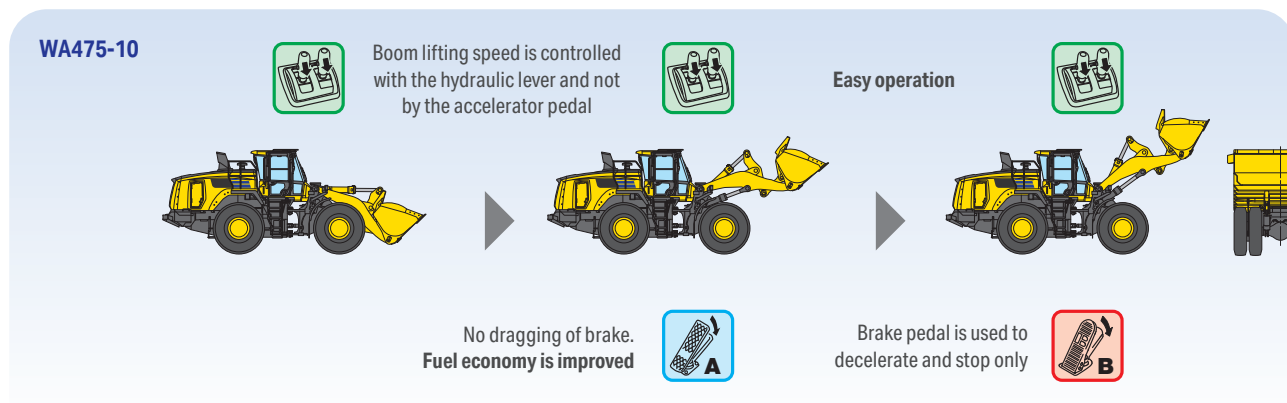


### Load Pilot with efficiency guidance

The new Load Pilot is a large easy-to-read display located in the centre of the main monitor. Its various modes can display the current payload, inform the operator about the weight of material already loaded and how much remains to be loaded to reach a pre-set target, or show daily load records. Load Pilot uses the machine's data for material movement and fuel consumption to provide precise values for fuel efficiency and overall machine performance, and helps the operator work more efficiently.

### Independent control of driveline and work equipment

This revolutionary system eases operations and enables shorter V-shape cycles. Boom speed is now controlled with the hydraulic lever and not by the accelerator pedal. The right balance between traction and boom lifting speed can easily be found and the WA475-10 can smoothly approach the loading area.



## First-class comfort

### Newly designed cab: unrivalled operator convenience

The all-new Komatsu SpaceCab™ on the Komatsu “Dash 10” wheel loaders features more comfort and visibility, making these models a dream to operate. Entering and exiting the WA475-10 is facilitated by angled steps, large handrails and rear hinged doors with a wide opening angle. A standard second door further eases egress and communications on the jobsite. High visibility and ergonomic

controls help to maximise the operator’s productivity. The lever console features a new command-selector dial and is adjustable on five axes to suit any operator. A slightly increased internal air pressure prevents dust and other particulates from entering the cab.

### Perfect all-round visibility

A bay style window, a large curved front screen and floor-to-ceiling glass surfaces contribute to all-round visibility. All glass surfaces are tinted and feature a UV radiation filter to minimise the heat caused by the sun.





## State-of-the-art controls



### New monitoring system and controls

All operational switches are illuminated and centralised on the front pillar and in optimum reach of the operator. The rear-view monitor is height adjustable to match the operator's requirements.

### New, fully air-suspended operator station

The wide spacious cab features a new, fully air-suspended operator seat that includes the side consoles mounted together with a high back, fully adjustable, standard heated seat for improved comfort. A seat ventilation is optionally available to maximise comfort.



Komatsu Short Lever Steering (K-SLS) (option)

### "By Wire" operating

The 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.



Newly designed controls. The command selector switch (1) allows convenient navigation through the monitor menus, as in a passenger car. The new travel speed control dial (2) keeps the machine's speed constant when travelling downhill.

### EPC multifunction lever (option)

The EPC multifunction 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 earthmoving jobs.

### Komatsu Short Lever Steering (K-SLS) (option)

The new finger-type joystick steering allows more accurate steering by the operator who can now sit relaxed in the new air-suspended and fully adjustable seat to control the machine with no big effort needed for frequent steering. Less fatigue and work in a perfectly adapted operating position will improve concentration and the quality and efficiency of the work.

### Advanced joystick steering system (AJSS) (option)

The advanced "feedback" steering system allows both steering and directional selection to be controlled by wrist and finger. With the feedback function, the machine steering angle is exactly the same angle as the lever tilt angle. The operability of the lever is greatly improved thanks to the new ergonomic design with extra large directional toggle switch.

## Aggregate handling linkage



### Aggregate handling linkage (option)

This innovative Z-bar linkage is especially designed for face excavating and loading applications with direct mounted buckets. Its view-through design offers enhanced visibility for truck loading or hopper feeding. The aggregate handling linkage is the perfect choice for loading large material volumes at fast cycle times. Its superior breakout force makes loading operations child's play, even for an untrained operator. More experienced drivers will also appreciate this feature, particularly when working with high-density material such as heavy soil or aggregate.

## Tool linkage

### Tool linkage (option)

The new tool linkage dramatically increases tilting torque (vs Z bar) in the most exposed position - boom raised, fully dumped. This allows precise, easy handling of heavy loads such as unloading logs from a truck. The new tool linkage kinematics ensure the bell crank cannot interfere when using large buckets. This allows immediate use of existing customer buckets without modification or replacement.





Image shows Advanced Joystick Steering System (AJSS) (option)

**Lower operating costs**

Komatsu ICT contributes to the reduction of operating costs by assisting to comfortably and efficiently manage operations. It raises the level of customer satisfaction and the competitive edge of our products.

**Large TFT colour monitor**

Info displayed "at a glance" on the central dashboard. A 7-inch, full color, high-resolution monitor provides key machine metrics including KDPF status and data for AdBlue® level and fuel consumption, and the setting of the machine's travel speed.

**Eco guidance**

Messages from the Eco guidance system are displayed in real-time during operations and on the exit screen when the ignition is turned off. The Eco guidance menu enables the operator to check operation logs and fuel consumption. These records are useful to reduce overall fuel usage and can be saved and sorted by the operator.



"At a glance" information on the central dashboard



A multifunction monitor displays and controls a wealth of operational and maintenance information



Fuel consumption history display

## Information & communication technology



### 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 wireless communication technology (satellite, GPRS or 4G depending on model) from the machine to a computer and to the local Komatsu distributor – who's readily available for expert analysis and feedback.

### Convenience

Komtrax enables convenient fleet management on the web, wherever you are. Data is analysed and packaged specifically for effortless and intuitive viewing in maps, lists, graphs and charts. You can foresee eventual maintenance issues and required spare parts, and troubleshoot a problem before Komatsu technicians arrive on site.



### The way to higher productivity

Komtrax uses the latest wireless monitoring technology. Compatible on PC, smartphone or tablet, it delivers insightful and cost saving information about your fleet and equipment, and offers 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 to efficiently run a business.

### Power

The detailed information that Komtrax puts at your fingertips 24 hours a day, 7 days a week gives the power to make better daily and long-term strategic decisions – at no extra cost. Problems can be anticipated, maintenance schedules customised, downtime minimised and machines kept where they belong: working on the jobsite.



## Easy maintenance



### Excellent serviceability

A powered tilting hood provides full access to the engine compartment. Side doors give quick and convenient access for daily checks and service. Full rear fenders are standard, a gauge on the AdBlue® fill cap minimises overfilling. Servicing costs are remarkably reduced, which provides a lower lifecycle cost.

### Equipment Management and Monitoring System (EMMS)

The 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.



### Wide core radiator with auto reverse fan

A wide core radiator prevents clogging even when working in a dusty environment. To minimise 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.

### Komatsu Care

Komatsu Care is a maintenance program that comes as standard with your new Komatsu machine. It covers factory-scheduled maintenance, performed with Komatsu Genuine parts by Komatsu-trained technicians. Depending on your machine's engine, it also offers extended coverage of the Komatsu Diesel Particulate Filter (KDPF) and of the Selective Catalytic Reduction (SCR). Please contact your local Komatsu distributor for terms and conditions.



### Factory fitted automatic lubrication system

The automatic lubrication system reduces the daily service work to the absolute minimum. Robust piping ensures consistent lubrication and operating reliability, and significantly increases the machine's service life. The system is electronically monitored and features a signal light in the cabin.

### Diesel particulate filter regeneration

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





Well located service doors allow convenient and safe access to daily service points

| Maintenance                    | Interval | Remain |
|--------------------------------|----------|--------|
| Air Cleaner Cleaning or Change | ---      | ---    |
| Coolant Change                 | 500 h    | 490 h  |
| Fuel Filter Change             | 500 h    | 490 h  |
| Engine Oil Change              | 500 h    | 490 h  |
| Engine Oil Filter Change       | 500 h    | 490 h  |

Basic maintenance screen



Aftertreatment device regeneration screen for the KDPF



## 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 & Recycling

Renowned for high quality standards and reliability, Komatsu meets the huge demand placed on machines by the waste management industry with a wide range of options and modifications available ex factory for our base machines. This provides the flexibility to adapt the Komatsu wheel loader range to the specific requirements of different waste handling applications and jobsite conditions. Whether you choose the full waste specification or individual components, you’re guaranteed increased machine performance, availability and efficiency.

### Salt & Chemical

A corrosive environment is one of the toughest challenges for any machine. Upgraded with a special coating on the metal parts and with various optional modifications to fit the application at hand, Komatsu “Salt & Chemical” configured wheel loaders hold up even under the most aggressive conditions. Reduced downtime, less maintenance and repair costs and a long lifetime: Komatsu machines perform as well and last as long as in a non-corrosive environment.



## Komatsu quality & safety

### 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.

### Optimal jobsite safety

Safety features on the Komatsu WA475-10 comply with the latest industry standards and work in synergy to minimise risks to people in and around the machine. The greatly improved visibility, along with a seat belt caution indicator and back-up alarm increase jobsite safety. Serrated steps, wide catwalks and large handrails allow safe and easy access to the cab and to maintenance check points.

### 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.

### 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.



Front cleaning step for safe and easy access to the front window



Full LED lighting for improved visibility

# Specifications

## Engine

|                            |  |  |
|----------------------------|--|--|
| Model                      | Komatsu SAA6D125E-7  |  |
| Type                       | Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel                                |  |
| Engine power               |  |  |
| at rated engine speed      | 1600 rpm   |  |
| ISO 14396                  | 217 kW / 291 HP  |  |
| Max. torque / engine speed | 1560 Nm / 1330 rpm   |  |
| No. of cylinders           | 6  |  |
| Bore × stroke              | 125 × 150 mm   |  |
| Displacement               | 11.04 l  |  |
| Fan drive type             | Hydraulic, reversible  |  |
| Alternator                 | 90 A / 24 V  |  |
| Starter motor              | 11 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                          |  |
| Fuel                       | Diesel fuel, conforming to EN590 Class 2/ Grade D. Paraffinic fuel capability (HVO, GTL, BTL), conforming to EN 15940:2016 |  |

## Transmission

|  |   |            |
|--|---|------------|
| Type   | Komatsu Hydraulic Mechanical Transmission (K-HMT) |            |
| Max. travel speeds (forwards/backwards) (tyres 26.5 R25) |   |            |
| 1. speed range   | 1 - 8 km/h  | 1 - 8 km/h |
| 2. speed range   | 14 km/h   | 14 km/h    |
| 3. speed range   | 24 km/h   | 28 km/h    |
| 4. speed range   | 38 km/h   | -          |

## Chassis and tyres

|              |   |  |
|--------------|---|--|
| System       | 4-wheel drive   |  |
| Front axle   | Komatsu HD axle, semi-floating (LSD-differential optional)                  |  |
| Rear axle    | Komatsu HD axle, semi-floating, 26° swing angle (LSD-differential optional) |  |
| Differential | Spiral bevel gear pair  |  |
| Final drive  | Planetary gear in an oil bath   |  |
| Tyres        | 26.5 R25  |  |

## 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                               | 360 kg/cm <sup>2</sup>                           |
| Maximum pump flow                              | 306 l/min  |
| No. of hydraulic/bucket cylinders              | 2/1  |
| Type   | Double-action                                    |
| Bore diameter × stroke                         |  |
| Boom cylinder                                  | 150 × 764 mm                                     |
| Bucket cylinder                                | 180 × 540 mm                                     |
| Hydraulic cycle with rated load bucket filling |  |
| Raise time                                     | 5.8 s  |
| Lowering time (empty)                          | 3.1 s  |
| Dumping time                                   | 1.6 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/cm <sup>2</sup>              |
| Pumping capacity                                | 145 l/min                           |
| No. of steering cylinders                       | 2                                   |
| Type  | Double-action                       |
| Bore diameter × stroke                          | 95 × 441 mm                         |
| Smallest turn (outer edge of the tyre 26.5 R25) | 6265 mm                             |

## Cabin

Two-door SpaceCab™ in conformity with ISO 3471 with ROPS (Roll Over Protective Structure) in conformity with SAE J1040c and FOPS (Falling Object Protective Structure) in conformity with ISO 3449. The air-conditioned pressurised cabin is mounted upon hydrobearings and is noise dampened.

## Service refill capacities

|                   |       |
|-------------------|-------|
| Fuel tank         | 380 l |
| Engine oil        | 38 l  |
| Hydraulic system  | 135 l |
| Cooling system    | 65 l  |
| Front axle        | 59 l  |
| Rear axle         | 59 l  |
| Transmission case | 40 l  |
| AdBlue® tank      | 36 l  |

## Environment

|  |   |
|--|---|
| Engine emissions   | Fully complies with EU Stage V exhaust emission regulations     |
| Noise levels   |   |
| LwA external   | 107 dB(A) (2000/14/EC Stage II)                                 |
| LpA operator ear   | 70 dB(A) (ISO 6396 dynamic test)                                |
| Vibration levels (EN 12096:1997)   |   |
| Hand/arm   | ≤ 2.5 m/s <sup>2</sup> (uncertainty K = 2.31 m/s <sup>2</sup> ) |
| Body   | ≤ 0.5 m/s <sup>2</sup> (uncertainty K = 0.58 m/s <sup>2</sup> ) |
| Contains fluorinated greenhouse gas HFC-134a (GWP 1430).<br>Quantity of gas 1.1 kg, CO <sub>2</sub> equivalent 1.57 t. |   |

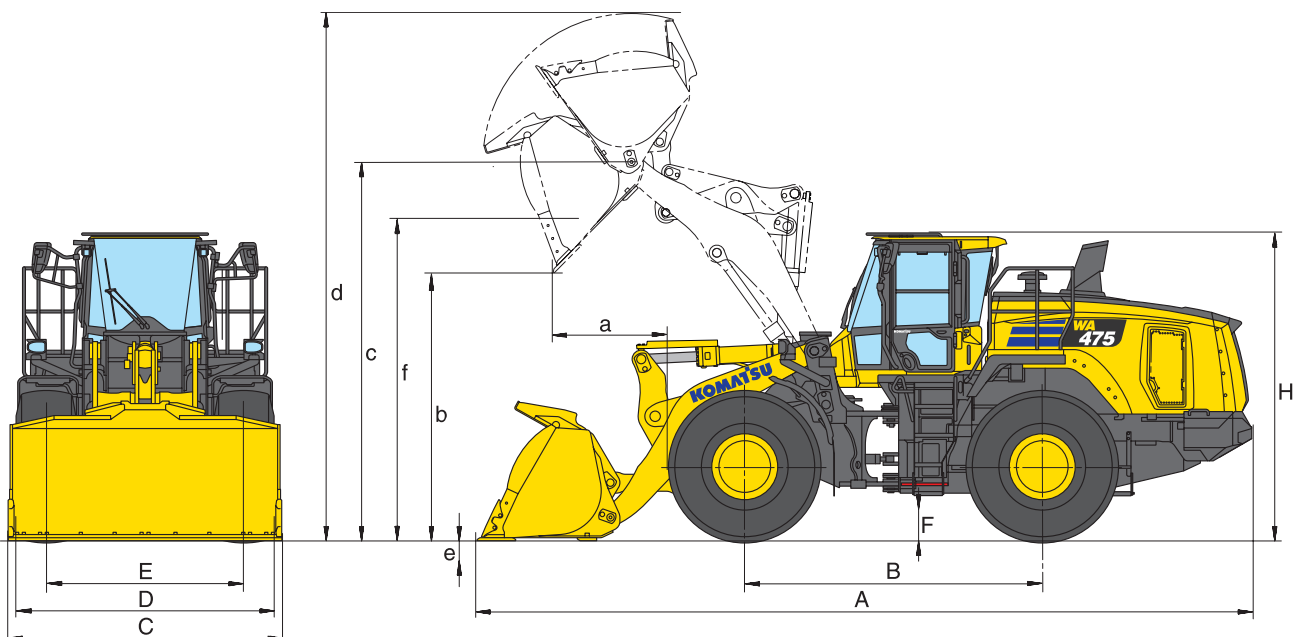


## Dimensions and performance figures

### Measurements and working specifications

| Bucket type                              |                  | Bucket with raised bottom |        | Bucket with raised bottom |        | Bucket with raised bottom |        |
|--|------------------|---------------------------|--------|---------------------------|--------|---------------------------|--------|
|  |                  | w. teeth                  | w. BOC | w. teeth                  | w. BOC | w. teeth                  | w. BOC |
| Bucket capacity (heaped, ISO 7546)       | m <sup>3</sup>   | 4.5                       | 4.7    | 4.5                       | 4.7    | 4.7                       | 4.9    |
| Sales code                               |                  | C76                       | C77    | C86                       | C87    | C82                       | C83    |
| Material density                         | t/m <sup>3</sup> | 1.8                       | 1.7    | 1.8                       | 1.7    | 1.7                       | 1.6    |
| Bucket weight                            | kg               | 2255                      | 2290   | 2240                      | 2285   | 2315                      | 2365   |
| Static tipping load, straight            | kg               | 20070                     | 19900  | 20180                     | 19985  | 20010                     | 19820  |
| Static tipping load, articulated         | kg               | 17355                     | 17195  | 17450                     | 17275  | 17295                     | 17120  |
| Break-out force hydraulic                | kN               | 198                       | 189    | 209                       | 198    | 198                       | 189    |
| Lifting capability hydr. at ground level | kN               | 240                       | 238    | 243                       | 239    | 240                       | 237    |
| Operating weight                         | kg               | 25670                     | 25705  | 25655                     | 25704  | 25730                     | 25780  |
| Turning radius at corner of tyres        | mm               | 6265                      | 6265   | 6265                      | 6265   | 6265                      | 6265   |
| Turning radius at bucket edge            | mm               | 7080                      | 7020   | 7125                      | 7070   | 7155                      | 7095   |
| a Reach at 45°                           | mm               | 1590                      | 1445   | 1530                      | 1390   | 1590                      | 1445   |
| b Dumping height at 45°                  | mm               | 2760                      | 2885   | 2815                      | 2940   | 2760                      | 2885   |
| c Hinge pin height                       | mm               | 4345                      | 4345   | 4345                      | 4345   | 4345                      | 4345   |
| d Height top edge of bucket              | mm               | 6090                      | 6090   | 6030                      | 6030   | 6090                      | 6090   |
| e Digging depth                          | mm               | 150                       | 180    | 150                       | 180    | 150                       | 180    |
| f Max. loading height at 45°             | mm               | 4030                      | 4030   | 4030                      | 4030   | 4030                      | 4030   |
| A Overall length, bucket grounded        | mm               | 9610                      | 9445   | 9535                      | 9365   | 9610                      | 9445   |
| B Wheel base                             | mm               | 3450                      | 3450   | 3450                      | 3450   | 3450                      | 3450   |
| C Bucket width                           | mm               | 2990                      | 2990   | 3160                      | 3170   | 3160                      | 3170   |
| D Width over tyres                       | mm               | 2990                      | 2990   | 2990                      | 2990   | 2990                      | 2990   |
| E Track width                            | mm               | 2240                      | 2240   | 2250                      | 2250   | 2245                      | 2245   |
| F Ground clearance                       | mm               | 500                       | 500    | 500                       | 500    | 500                       | 500    |
| H Overall height                         | mm               | 3480                      | 3480   | 3480                      | 3480   | 3480                      | 3480   |

All measurements with tyres 26.5 R25 (L3 with -25 mm offset) and additional counterweight (A15).  
 High-lift equipment includes heavy counterweight (A25).  
 Details of dumping heights and reach to cutting edge or bolt-on cutting edge (BOC) or teeth.



## Measurements and working specifications

| Bucket type                              |                  | Bucket with flat bottom |        | Bucket with flat bottom |        | High-lift equipment |
|--|------------------|-------------------------|--------|-------------------------|--------|---------------------|
|  |                  | w. teeth                | w. BOC | w. teeth                | w. BOC | (Change in data)    |
| Bucket capacity (heaped, ISO 7546)       | m <sup>3</sup>   | 4.2                     | 4.4    | 4.5                     | 4.7    | -                   |
| Sales code                               |                  | C52                     | C53    | C32                     | C33    | -                   |
| Material density                         | t/m <sup>3</sup> | 1.9                     | 1.8    | 1.8                     | 1.7    | -0.2                |
| Bucket weight                            | kg               | 2280                    | 2320   | 2355                    | 2395   | -                   |
| Static tipping load, straight            | kg               | 20100                   | 19920  | 19940                   | 19770  | -3215               |
| Static tipping load, articulated         | kg               | 17380                   | 17215  | 17230                   | 17070  | -2940               |
| Break-out force hydraulic                | kN               | 209                     | 198    | 198                     | 189    | -                   |
| Lifting capability hydr. at ground level | kN               | 243                     | 239    | 240                     | 237    | -44                 |
| Operating weight                         | kg               | 25695                   | 25735  | 25770                   | 25810  | +910                |
| Turning radius at corner of tyres        | mm               | 6265                    | 6265   | 6265                    | 6265   | -                   |
| Turning radius at bucket edge            | mm               | 7055                    | 7000   | 7080                    | 7020   | +287                |
| a Reach at 45°                           | mm               | 1530                    | 1390   | 1590                    | 1445   | +175                |
| b Dumping height at 45°                  | mm               | 2815                    | 2940   | 2760                    | 2885   | +510                |
| c Hinge pin height                       | mm               | 4345                    | 4345   | 4345                    | 4345   | +510                |
| d Height top edge of bucket              | mm               | 6030                    | 6030   | 6090                    | 6090   | +510                |
| e Digging depth                          | mm               | 150                     | 180    | 150                     | 180    | +140                |
| f Max. loading height at 45°             | mm               | 4030                    | 4030   | 4030                    | 4030   | +480                |
| A Overall length, bucket grounded        | mm               | 9535                    | 9365   | 9610                    | 9445   | +600                |
| B Wheel base                             | mm               | 3450                    | 3450   | 3450                    | 3450   | -                   |
| C Bucket width                           | mm               | 2990                    | 2990   | 2990                    | 2990   | -                   |
| D Width over tyres                       | mm               | 2990                    | 2990   | 2990                    | 2990   | -                   |
| E Track width                            | mm               | 2245                    | 2245   | 2240                    | 2245   | -                   |
| F Ground clearance                       | mm               | 500                     | 500    | 500                     | 500    | -                   |
| H Overall height                         | mm               | 3480                    | 3480   | 3480                    | 3480   | -                   |

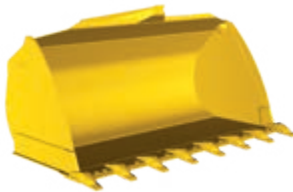
## Change in data caused by:

|                                      |    | Heavy counterweight (A25) | Without add. counterweight (A05) | Tyres 26.5 R25 L4 | Tyres 26.5 R25 XMINE L5 | Tyres 775/65 R29 L3 |
|--------------------------------------|----|---------------------------|----------------------------------|-------------------|-------------------------|---------------------|
| Operating weight                     | kg | +641                      | -545                             | +368              | +1040                   | +655                |
| Static tipping load, straight        | kg | +1455                     | -1280                            | +310              | +790                    | +465                |
| Static tipping load, 40° articulated | kg | +1215                     | -1070                            | +275              | +695                    | +410                |
| Overall length                       | mm | -                         | -175                             | ±0                | ±0                      | ±0                  |
| Reach at 45°                         | mm | -                         | -175                             | -10               | -35                     | +2                  |
| Dump height at 45°                   | mm | -                         | -                                | +16               | +45                     | +3                  |
| Width over tyres                     | mm | -                         | -                                | ±0                | +60                     | +116                |
| Overall height                       | mm | -                         | -                                | +16               | +45                     | +3                  |

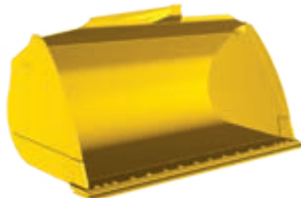
## High efficiency bucket range



Komatsu buckets enable easier bucket fill and significantly higher fill factors, contributing to more efficiency and less fuel consumption. They feature a longer bottom allowing for more content, a wider opening for an easier fill and a new rear shape that enables material to flow easily into the bucket. Their rounded sides give them a higher fill factor, and an integrated spill guard protects the bucket linkage. Flush screws (with BOC) reduce resistance when filling and keep material from clogging when dumping.

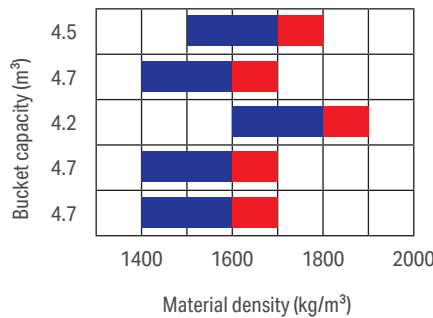
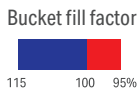


High efficiency buckets with flat bottom



High efficiency buckets with raised bottom

### Bucket selection guide



- Bucket with raised bottom with teeth (C76)
- Bucket with flat bottom with BOC (C33)
- Bucket with flat bottom with teeth (C52)
- Bucket with raised bottom with teeth (C82)
- Bucket with raised bottom with BOC (C87)

### Typical material density - loose (in kg/m³)

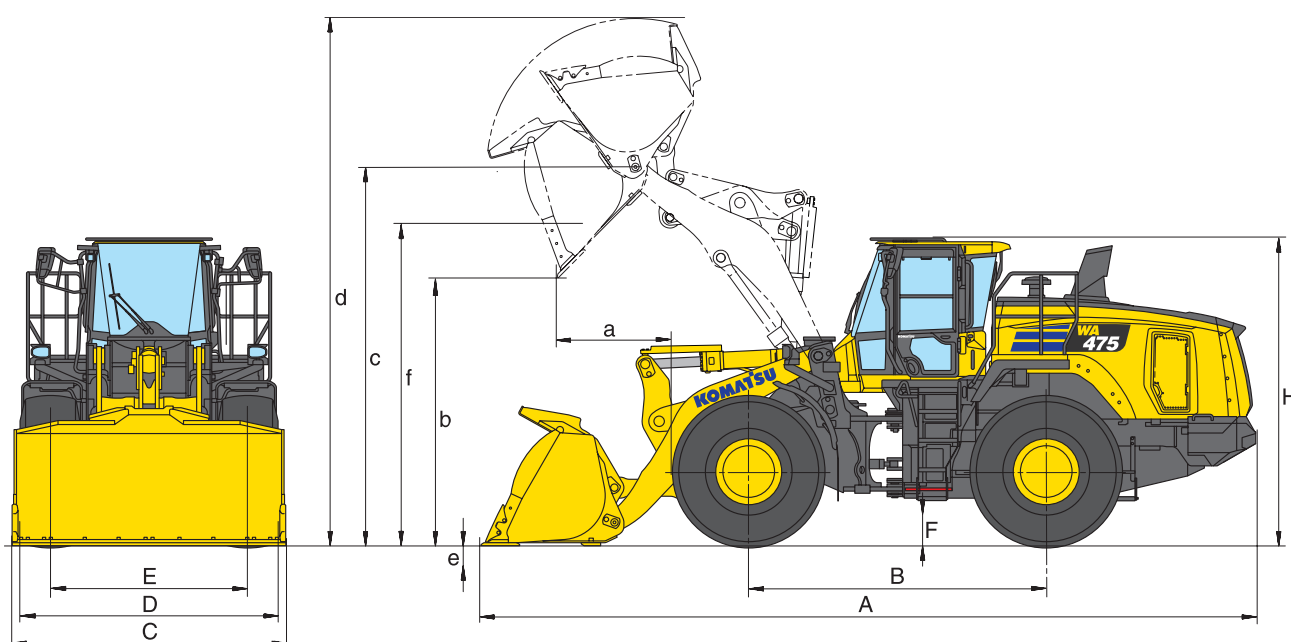
|                        |      |                      |      |
|------------------------|------|----------------------|------|
| Basalt                 | 1960 | Sand, damp           | 1690 |
| Bauxite, kaolin        | 1420 | Sand, wet            | 1840 |
| Earth, dry, ex store   | 1510 | Sand and clay, loose | 1600 |
| Earth, wet, excavated  | 1600 | Sand and gravel, dry | 1720 |
| Gypsum, broken         | 1810 | Sandstone            | 1510 |
| Gypsum, crushed        | 1600 | Slate                | 1250 |
| Granite, broken        | 1660 | Slag, broken         | 1750 |
| Limestone, broken      | 1540 | Stone, crushed       | 1600 |
| Limestone, crushed     | 1540 | Clay, natural        | 1660 |
| Gravel, unscreened     | 1930 | Clay, dry            | 1480 |
| Gravel, dry            | 1510 | Clay, wet            | 1660 |
| Gravel, dry, 6 - 50 mm | 1690 | Clay and gravel, dry | 1420 |
| Gravel, wet, 6 - 50 mm | 2020 | Clay and gravel, wet | 1540 |
| Sand, dry, loose       | 1420 |                      |      |

## Aggregate handling linkage

### Measurements and working specifications

| Bucket type                              |                  | Bucket with raised bottom |        |          |        |
|--|------------------|---------------------------|--------|----------|--------|
|  |                  | w. teeth                  | w. BOC | w. teeth | w. BOC |
| Bucket capacity (heaped, ISO 7546)       | m <sup>3</sup>   | 5.0                       | 5.3    | 5.2      | 5.5    |
| Sales code                               |                  | C17                       | C18    | C12      | C13    |
| Material density                         | t/m <sup>3</sup> | 1.7                       | 1.6    | 1.6      | 1.5    |
| Bucket weight                            | kg               | 2420                      | 2475   | 2490     | 2550   |
| Static tipping load, straight            | kg               | 21345                     | 21135  | 21319    | 20995  |
| Static tipping load, articulated         | kg               | 18395                     | 18205  | 18380    | 18070  |
| Break-out force hydraulic                | kN               | 192                       | 183    | 187      | 178    |
| Lifting capability hydr. at ground level | kN               | 238                       | 234    | 236      | 232    |
| Operating weight                         | kg               | 26555                     | 26610  | 26630    | 26685  |
| Turning radius at corner of tyres        | mm               | 6265                      | 6265   | 6265     | 6265   |
| Turning radius at bucket edge            | mm               | 7710                      | 7675   | 7725     | 7690   |
| a Reach at 45°                           | mm               | 1500                      | 1530   | 1535     | 1565   |
| b Dumping height at 45°                  | mm               | 2610                      | 2535   | 2575     | 2500   |
| c Hinge pin height                       | mm               | 4345                      | 4345   | 4345     | 4345   |
| d Height top edge of bucket              | mm               | 6405                      | 6160   | 6455     | 6210   |
| e Digging depth                          | mm               | 150                       | 180    | 150      | 180    |
| f Max. loading height at 45°             | mm               | 4030                      | 4030   | 4030     | 4030   |
| A Overall length, bucket grounded        | mm               | 9340                      | 9415   | 9390     | 9465   |
| B Wheel base                             | mm               | 3450                      | 3450   | 3450     | 3450   |
| C Bucket width                           | mm               | 3200                      | 3200   | 3200     | 3200   |
| D Width over tyres                       | mm               | 2990                      | 2990   | 2990     | 2990   |
| E Track width                            | mm               | 2240                      | 2240   | 2240     | 2240   |
| F Ground clearance                       | mm               | 500                       | 500    | 500      | 500    |
| H Overall height                         | mm               | 3480                      | 3480   | 3480     | 3480   |

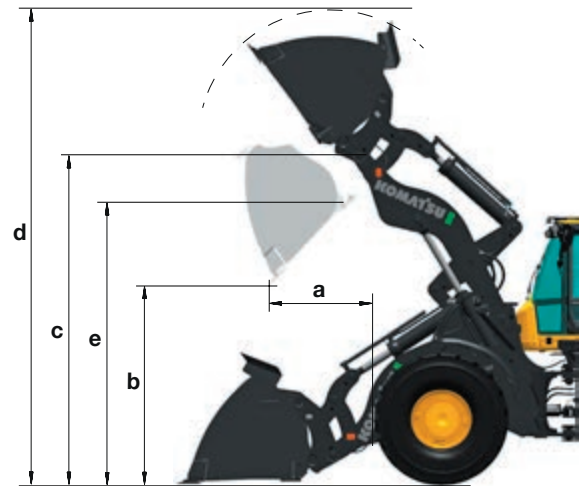
All measurements with tyres 26.5 R25 (L3 with -25 mm offset) and heavy counterweight (A25).  
Details of dumping heights and reach to cutting edge or bolt-on cutting edge (BOC) or teeth.



## Tool linkage

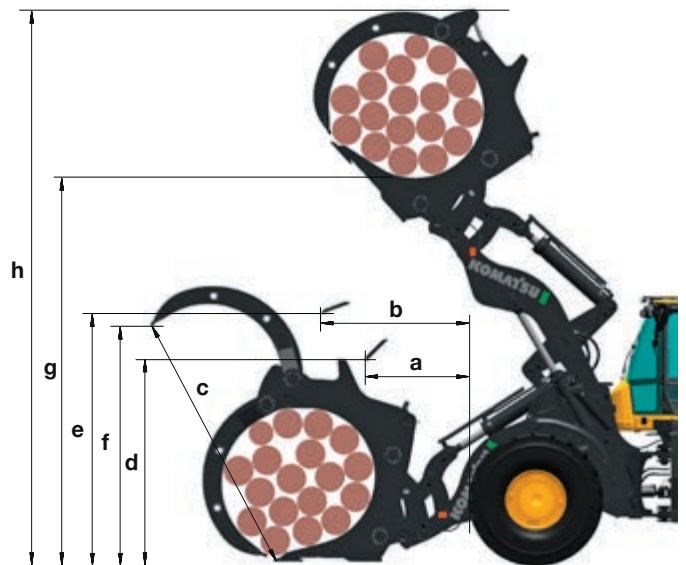
### Bucket with raised bottom

|                                      |                  |       |
|--------------------------------------|------------------|-------|
| Bucket capacity (heaped, ISO 7546)   | m <sup>3</sup>   | 4.7   |
| Sales code                           |                  | QC77  |
| Material density                     | t/m <sup>3</sup> | 1.6   |
| Bucket width                         | mm               | 3000  |
| Bucket weight                        | kg               | 2000  |
| Static tipping load, straight        | kg               | 19300 |
| Static tipping load, 40° articulated | kg               | 15825 |
| Break-out force hydraulic            | kN               | 177   |
| a Reach at 45°                       | mm               | 1440  |
| b Dumping height at 45°              | mm               | 2600  |
| c Hinge pin height                   | mm               | 4345  |
| d Height top edge of bucket          | mm               | 6475  |
| e Max. loading height at 45°         | mm               | 3765  |
| Digging depth                        | mm               | 125   |
| Operating weight                     | kg               | 26745 |



### Log grapple (transport & sorting)

|   |                |            |
|---|----------------|------------|
| Grapple cross-sectional area                    | m <sup>2</sup> | 3.1        |
| Sales code                                      |                | Q912       |
| Grapple width                                   | mm             | 1810       |
| Payload   | kg             | 8300       |
| Hinge pin height                                | mm             | 4345       |
| b Reach at max. lifting height at 20° discharge | mm             | 1985       |
| a Reach at max. lifting height at 45° discharge | mm             | 1395       |
| c Max. grapple opening                          | mm             | 3525       |
| d Discharge height at 45°                       | mm             | 2660       |
| e Discharge height at 20°                       | mm             | 3285       |
| f Max. grapple opening in loading position      | mm             | 3130       |
| g Manipulation height                           | mm             | 5105       |
| h Max. height                                   | mm             | 7350       |
| Operating weight                                | kg             | 28800      |
| Heavy counterweight                             |                | (A25)      |
| Tyres   |                | 26.5R25 L4 |



### Typical material density (in ton/m<sup>3</sup>) for light material and high-dump buckets

|                      |     |                             |     |
|----------------------|-----|-----------------------------|-----|
| Waste glass, fine    | 1.4 | Waste paper, loose          | 0.6 |
| Waste glass, coarse  | 1.0 | Waste paper, processed      | 1.0 |
| Compost, dry         | 0.8 | Hard coal, high density     | 1.2 |
| Compost, wet         | 1.0 | Hard coal, low density      | 0.9 |
| Wood chips, saw dust | 0.5 | Domestic waste, loose & dry | 0.8 |

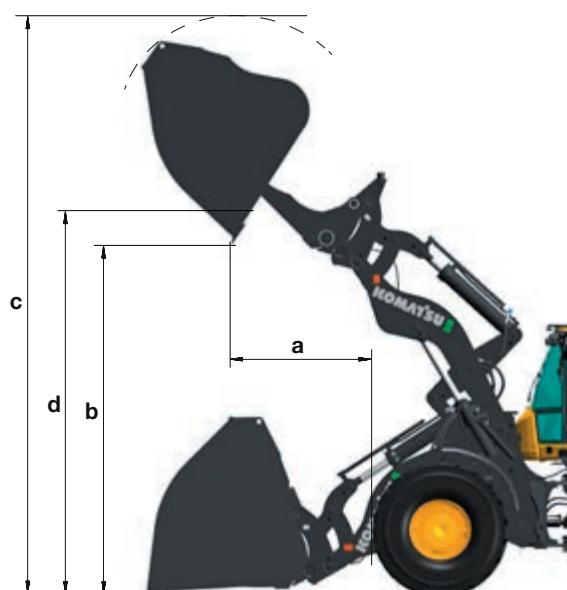
If not stated otherwise, all measurements with tool linkage boom, quick-coupler, tyres 26.5 R25 L3 and additional counterweight (A15)



## High-dump bucket (bulk materials)

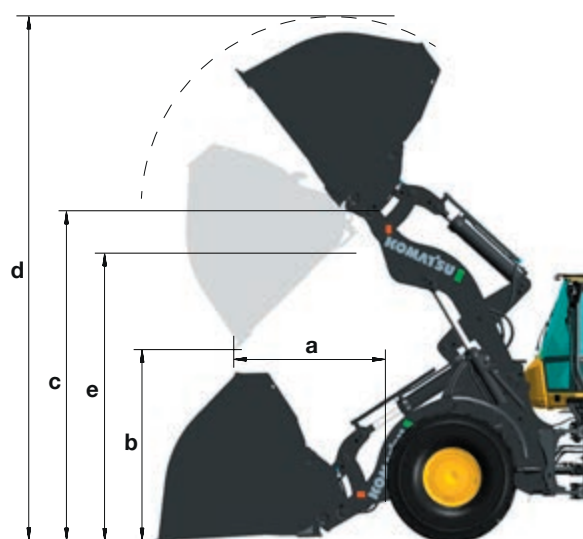
|   |                  |         |
|---|------------------|---------|
| Bucket capacity (heaped, ISO 7546)              | m <sup>3</sup>   | 12.0    |
| Sales code                                      |                  | Q913    |
| Material density                                | t/m <sup>3</sup> | 0.5     |
| Tube style spill guard                          |                  | without |
| Bucket width                                    | mm               | 4000    |
| Bucket weight                                   | kg               | 4200    |
| Hinge pin height                                | mm               | 4345    |
| a Reach at 45°                                  | mm               | 1890    |
| b Dumping height at 45°                         | mm               | 4575    |
| c Height top edge of bucket                     | mm               | 7660    |
| d Max. loading height at 45°                    | mm               | 4850    |
| Static tipping load, 40° articulated (L3 tyres) | kg               | 14575   |
| Static tipping load, 40° articulated (L5 tyres) | kg               | 15270   |
| Operating weight (L3 tyres)                     | kg               | 28965   |
| Operating weight (L5 tyres)                     | kg               | 30070   |

Dump cylinders located inside bucket



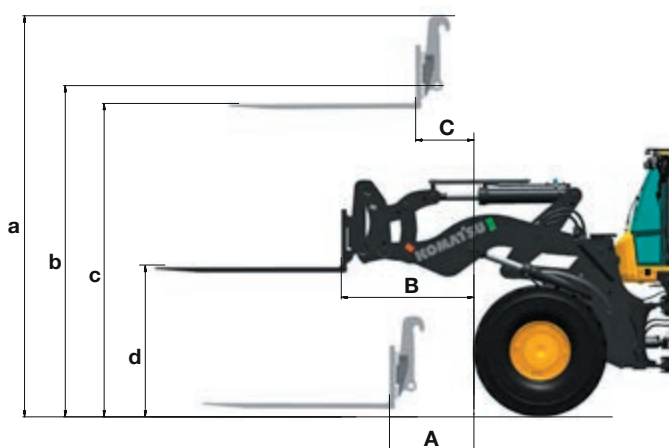
## Light material bucket

|   |                  |         |
|---|------------------|---------|
| Bucket capacity (heaped, ISO 7546)              | m <sup>3</sup>   | 13.0    |
| Sales code                                      |                  | Q914    |
| Material density                                | t/m <sup>3</sup> | 0.5     |
| Tube style spill guard                          |                  | without |
| Bucket width                                    | mm               | 4000    |
| Bucket weight                                   | kg               | 3900    |
| a Reach at 45°                                  | mm               | 1865    |
| b Dumping height at 45°                         | mm               | 2215    |
| c Hinge pin height                              | mm               | 4345    |
| d Height top edge of bucket                     | mm               | 6995    |
| e Max. loading height at 45°                    | mm               | 3780    |
| Static tipping load, 40° articulated (L3 tyres) | kg               | 17150   |
| Static tipping load, 40° articulated (L5 tyres) | kg               | 14300   |
| Operating weight (L3 tyres)                     | kg               | 28645   |
| Operating weight (L5 tyres)                     | kg               | 29750   |



## Fork tines

|                                      |    |        |
|--------------------------------------|----|--------|
| Fork tine length                     | mm | 1500   |
| A Max. reach at ground level         | mm | 1150   |
| B Max. reach                         | mm | 1795   |
| C Max. reach at max. stacking height | mm | 0775   |
| a Max. height fork-carrier           | mm | 5295   |
| b Hinge pin height                   | mm | 4345   |
| c Max. stacking height               | mm | 4120   |
| d Height of forks at maximum reach   | mm | 1930   |
| Max. tipping load, straight          | kg | 20250  |
| Max. tipping load, articulated       | kg | 17600  |
| Max. payload as per EN 474-3, 80%    | kg | 10000* |
| Max. payload as per EN 474-3, 60%    | kg | 10000* |
| Operating weight                     | kg | 25335  |



\* Payload limited by fork tine

# Standard and optional equipment

## Engine

|   |   |
|---|---|
| Komatsu SAA6D125E-7 turbocharged common rail direct injection diesel engine | ● |
| EU Stage V compliant  | ● |
| Komatsu Diesel Particulate Filter (KDPF)                                    | ● |
| Selective Catalytic Reduction (SCR)   | ● |
| Engine mode selection system  | ● |
| 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                                  | ● |
| Full rear fenders                              | ● |
| Limited-slip differential (LSD) front and rear | ○ |
| Tyres 26.5 R25 L3, L4, L5                      | ○ |
| Tyres 775/65 R29                               | ○ |

## Hydraulic system

|   |   |
|---|---|
| Independent control of driveline and work equipment                                 | ● |
| 2-spool main control valve  | ● |
| EPC fingertip control, two levers, including:                                       |   |
| - Bucket stop modulation  | ● |
| - Boom stop pre-setting   |   |
| - Automatic dig function  |   |
| Automatic return-to-dig   | ● |
| 3-spool main control valve  | ○ |
| EPC fingertip control, three levers   | ○ |
| EPC 1-lever (multifunction lever) with sliding proportional control for attachments | ○ |

## Transmission and brakes

|   |   |
|---|---|
| Komatsu Hydraulic Mechanical Transmission (K-HMT) | ● |
| Komatsu traction control system (K-TCS)           | ● |
| Combined brake and inching pedal                  | ● |

## Cabin

|  |   |
|--|---|
| Spacious double door driver's cab to DIN/ISO   | ● |
| ROPS/FOPS frame according to SAE/ISO   | ● |
| Heated, high back air suspension seat, console mounted height adjustable arm rests   | ● |
| Retractable seat belt  | ● |
| Automatic climate control system   | ● |
| Multifunction video compatible colour monitor with Equipment Management and Monitoring System (EMMS) and efficiency guidance     | ● |
| DAB+ digital radio w. auxiliary input (MP3 jack)   | ● |
| Heated rear window   | ● |
| Rear window wiper  | ● |
| Adjustable steering column   | ● |
| 2× 12 V power supply   | ● |
| Auto hill-holding function   | ● |
| Heated, high back air suspension seats with pneumatically adjustable lumbar support, console mounted height adjustable arm rests | ○ |
| 4-point seat belt  | ○ |
| Sun roller blind   | ○ |
| Komatsu Short Lever Steering (K-SLS)   | ○ |
| Advanced Joystick Steering System (AJSS)   | ○ |

## Lighting system

|  |   |
|--|---|
| 2 LED main headlights                  | ● |
| 2 LED working lights at front and rear | ● |
| Reversing light                        | ● |
| Additional lights at front and rear    | ○ |
| 4 LED working lights at front and rear | ○ |

## Service and maintenance

|   |   |
|---|---|
| Hydrostat-driven radiator fan with automatic reversing function | ● |
| Wide core side-by-side radiator                                 | ● |
| Komtrax – Komatsu Wireless Monitoring System (4G)               | ● |
| Komatsu Care – a maintenance program for Komatsu customers      | ● |
| Tool-set  | ● |
| Automatic central lubrication                                   | ● |
| Filling tool for central lubrication system                     | ○ |
| Turbo II air pre-cleaner, cyclone type                          | ○ |

## Safety equipment

|  |   |
|--|---|
| Emergency steering system                      | ● |
| Vandalism protection                           | ● |
| Back-up alarm                                  | ● |
| Battery main switch                            | ● |
| Handrails on left/right                        | ● |
| Rear-view mirror, heated and remote controlled | ● |
| Rear-view camera system                        | ● |
| Fire extinguisher                              | ○ |
| Beacon (LED)                                   | ○ |
| Roof rail                                      | ○ |
| Optical back-up alarm (strobe light)           | ○ |

## Attachments

|  |   |
|--|---|
| Hydraulic quick-coupler                            | ○ |
| High efficiency buckets with flat or raised bottom | ○ |
| High-dump buckets                                  | ○ |
| Fork carrier and tines                             | ○ |
| Waste handling buckets                             | ○ |
| Light material buckets                             | ○ |

## Other equipment

|   |   |
|---|---|
| Counterweight (A05)                                 | ● |
| Electronically controlled load stabilizer (ECSS II) | ● |
| High-lift equipment w. add. counterweight           | ○ |
| Aggregate handling linkage                          | ○ |
| Tool linkage  | ○ |
| Load Pilot with efficiency guidance                 | ○ |
| Special custom colour                               | ○ |
| Additional counterweight (A15)                      | ○ |
| Heavy counterweight (A25)                           | ○ |
| Salt & Chemical specification                       | ○ |
| Waste-handler specification                         | ○ |
| Cold area kit (engine and cab pre-heating)          | ○ |

Further equipment on request

- standard equipment
- optional equipment



A wide range of buckets and attachments is available. Your Komatsu distributor is ready to assist you with the selection of suitable options.

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.

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