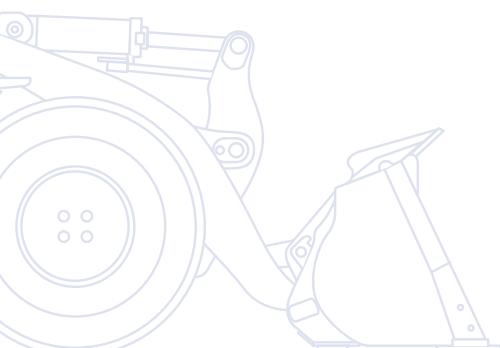


# KOMATSU

WA  
320



## Wheel Loader **WA320-7**



**ENGINE POWER**  
127 kW / 170 HP @ 2.100 rpm

**OPERATING WEIGHT**  
15.230 - 16.095 kg

**BUCKET CAPACITY**  
2,7 - 3,2 m<sup>3</sup>

# Walk-Around

The highly versatile Komatsu WA320-7 wheel loader features a perfect mix of power, comfort and reliability. It now comes with an EU Stage IIIB engine, with "Komatsu SmartLoader Logic" engine control, and an advanced hydrostatic drive line to offer exceptional tractive force and ultra-low fuel consumption. The WA320-7 sets new efficiency standards for wheel loaders.

## High productivity & low fuel consumption

- Low consumption EU Stage IIIB/EPA Tier 4 interim engine
- Highly efficient hydrostatic drive line
- Komatsu SmartLoader Logic
- Eco-gauge & adjustable idle shutdown
- Komatsu CLSS hydraulic system

## PZ-linkage

- Combines advantages of Z-bar linkage with parallel lift
- Fast pallet handling
- Excellent break-out force and easy bucket fill
- High tilt forces give perfect control of heavy attachments



Complimentary maintenance  
program for customers



Komatsu Wireless  
Monitoring System

## First-class operator comfort

- Large SpaceCab™ cab with increased leg space
- Outstanding 360° visibility
- PPC multi-function lever with electronic control for 3rd spool (EPC)
- Deluxe heated, air-suspended driver seat
- Electronically controlled air conditioning



## Easy maintenance

- Wide core radiator with auto reversible fan speeds up cleaning
- Factory fitted automatic lubrication system
- Large gull-wing doors for easy access to service points
- Equipment Management and Monitoring System (EMMS)
- Robust components with a long service life

## Responsive hydrostatic drive line (HST)

- Instant response for fast loading cycles
- Easy control in confined areas
- Advanced traction control system for best traction and minimized tyre wear (K-TCS)
- Top speed selection for increased safety

# High Productivity & Low Fuel Consumption

## New Komatsu engine technology

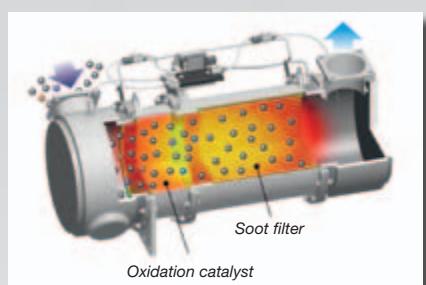
The powerful and fuel-efficient Komatsu SAA6D107E-2 engine in the WA320-7 delivers 127 kW/170 HP and is EU Stage IIIB/EPA Tier 4 interim certified. Its turbo uses a hydraulic actuator to provide optimum charging pressure at all times, and makes the engine very responsive under any load conditions.

## Komatsu SmartLoader Logic

The WA320-7 provides Komatsu SmartLoader Logic, a 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.

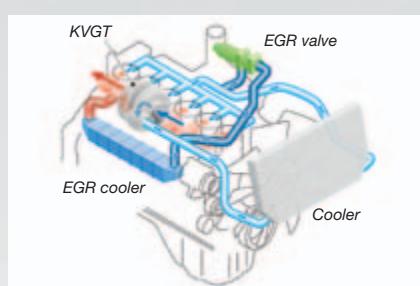
### Komatsu Diesel Particulate Filter (KDPF)

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.



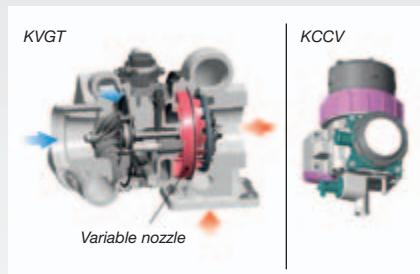
### Exhaust Gas Recirculation (EGR)

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.



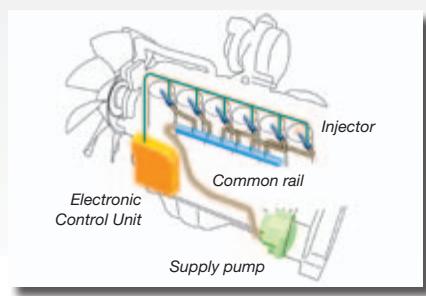
### Komatsu Variable Geometry Turbo (KVGT)

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 WA320-7's Eco-Gauge displays active recommendations on the cab's monitor to help you maximise those fuel savings. For added fuel economy; and to prevent wasted hydraulic flow when working or steering, the hydraulic system's new variable piston pump delivers the exact amount of oil required for all machine movements.

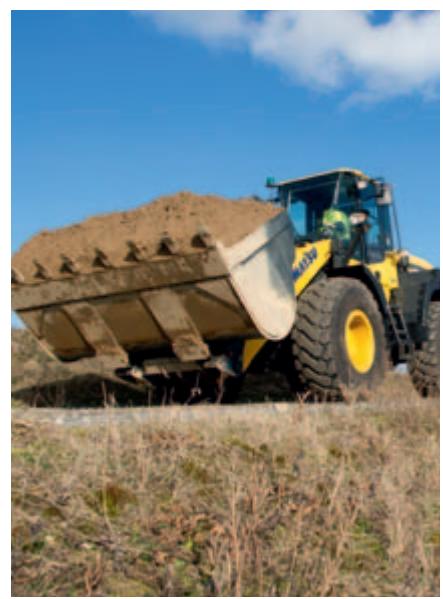


## Highly efficient hydrostatic drive line

The electronically controlled variable pump and 2-motor system allow highly efficient and powerful operation. At low speeds both motors are engaged to provide highest torque. Bucket filling and scooping are easy, as maximum rim pull is provided from zero travel speed. At high speeds, a clutch cuts off the low speed motor to eliminate drag and achieve excellent 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 5 km/h, the boom suspension is automatically deactivated for precise pallet loading into trucks.



# Multipurpose PZ-Linkage

## One machine for all applications

The PZ = "parallel Z-bar" has the added advantage of parallel lift for pallet moving and high tilt forces to handle large attachments. The PZ-linkage turns your WA320-7 into a true multipurpose machine ready to take on any job.

## Easy bucket fill

The superior break-out force of the WA320-7 turns loading into a child's play, even for an untrained operator. More experienced workers will also appreciate this feature, particularly when working with high density material such as heavy soil or aggregate.

## Parallel lift for fast pallet handling

With the parallel lift PZ-linkage, pallet moving becomes easy. The parallelism has been optimized for safe work over the entire lifting range. The excellent visibility of the front attachment allows an easy pick-up of pallets and precise work when loading onto trucks.



## Best in class dumping height

The long lifting frame allows the best in class dumping height of 2,84 m with a straight tipping load of 11,3 tonnes (with 2,9 m<sup>3</sup> universal bucket, measured to the cutting edge). With this working range, loading high feeders or trucks becomes easy and fast.



*Excellent visibility of the front attachment*





## Controlled work with heavy attachments

With the PZ-linkage design, tilting forces reach an optimal level, especially at maximum boom height. This is essential for controlling large attachments such as high dump buckets or other oversized buckets. The WA320-7 is the ideal choice when working with heavy attachments.



# Responsive Hydrostatic Drive Line (HST)

## Instant response for fast loading cycles

The Komatsu HST drive line features exceptional responsiveness that results in quick acceleration and fast forward/reverse changes. The drive line reacts to the operator's command without any time lag and instantly provides torque at the wheels. This allows for fast loading cycles and higher productivity.

## Advanced traction control system (K-TCS)

The Komatsu Traction Control System (K-TCS) controls the HST pump, motor and engine to optimize traction automatically depending on work conditions. The provided rim pull can be set to 6 different levels to prevent spinning wheels on any ground conditions, even when operating on snow (S-mode). Constant traction increases productivity and reduces tyre wear and cost.



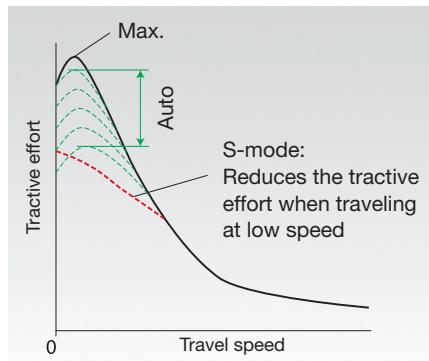
## Top speed selection for increased safety

The variable shift control allows setting the top speed for improved safety and precision. The top speed can be adjusted to the working conditions: max speed for fast travelling between jobsites, reduced speed to increase the safety when working on jobsites with high traffic or for working in confined spaces.

In position 1, the speed can be continuously adjusted between 1 and 13 km/h with the fine control. This allows constant low driving speeds that are perfectly adjusted to applications such as lawn mowing or milling jobs.

## Easy control in confined areas

The self braking effect of the HST drive line slows down the machine when the accelerator pedal is released. Uncontrolled rolling is prevented, and safety is greatly improved, especially when working in confined spaces or inside industrial buildings. In addition, brake wear is practically eliminated.





# First-Class Operator Comfort

## Newly designed SpaceCab™

The WA320-7 cab features ample storage room and a hot or cold box. 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.

## 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 69 db(A).

## 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.

## 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.

## PPC multi-function lever

The PPC multi-function lever with electronic control for 3rd spool (EPC) is standard. It includes a forward-neutral-reverse switch for quick and easy travel. Third spool attachments can be set to continuous or proportional control via the monitor panel, to let the operator control the boom, bucket and attachment with a single lever.



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 IIIB 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.

## Easy access to service points

For easy and safe opening the gull-wing doors are supported by gas springs. The large doors give a convenient access from ground level to all daily service points. With long service intervals and all filters collected in a centralised arrangement, machine downtime is reduced to a minimum.

## 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 and 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 pro active 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.

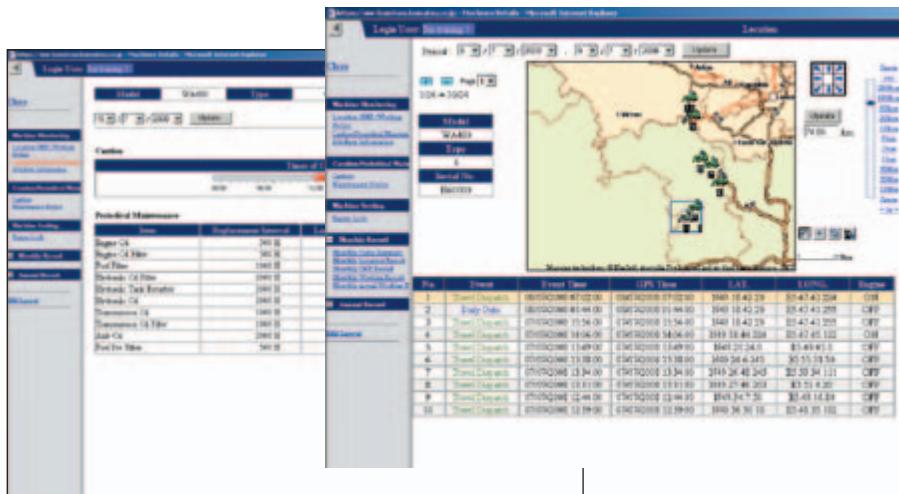
## Convenience

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.

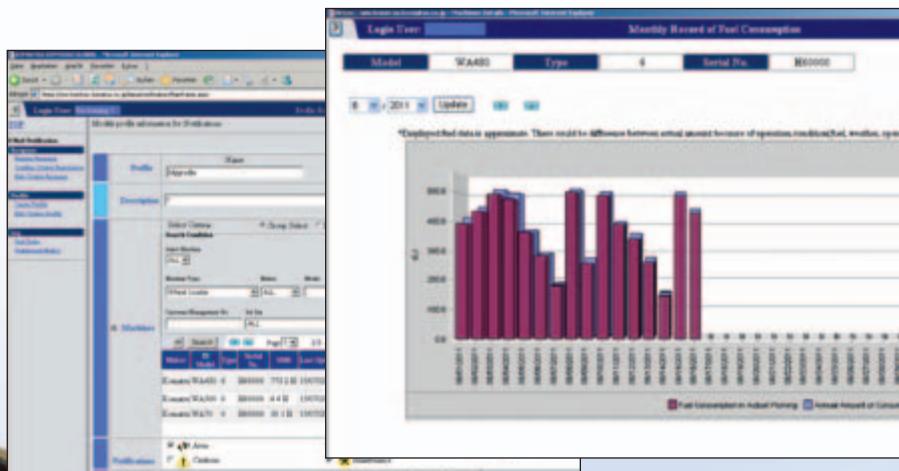


Power

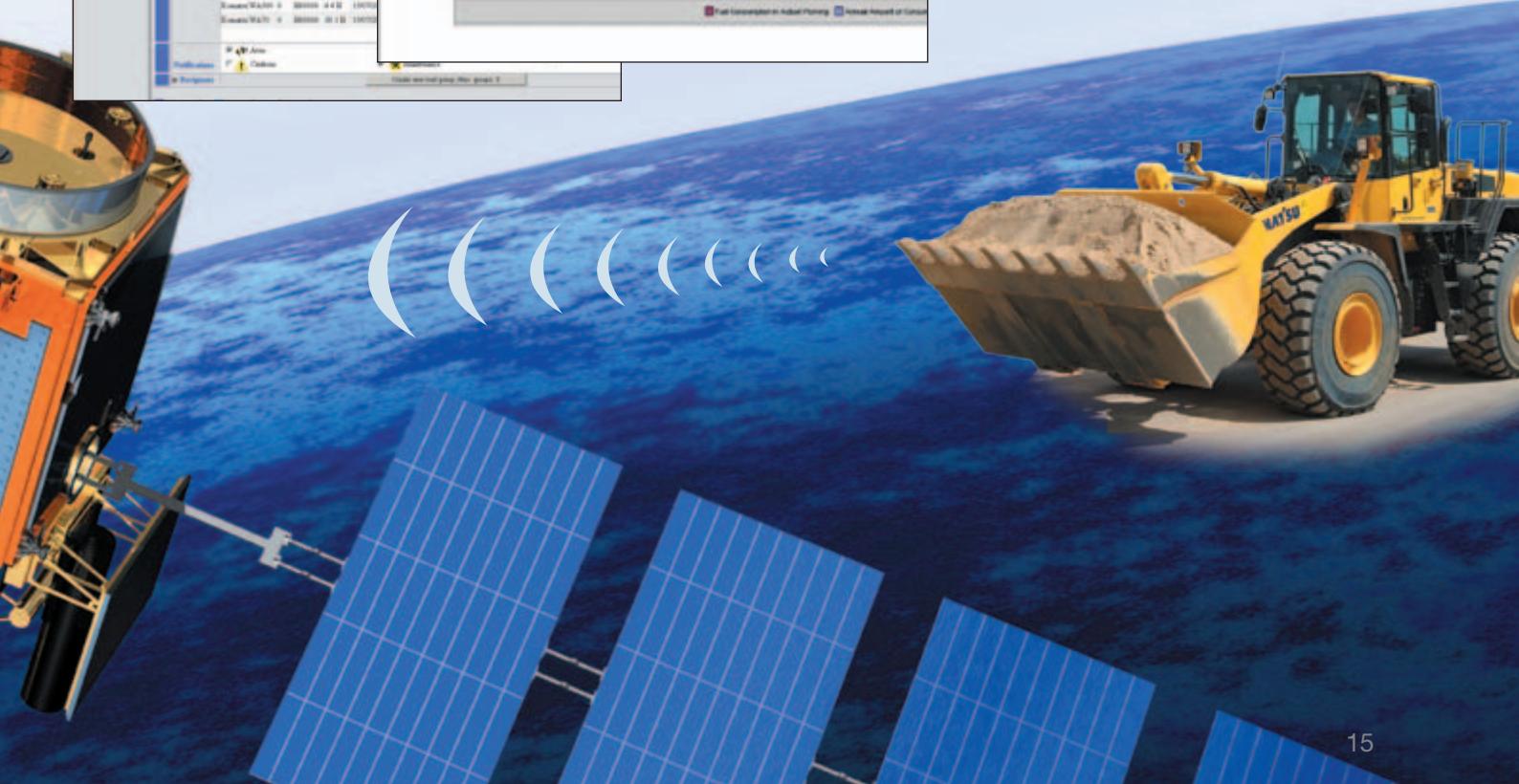
The detailed information that KOMTRAX™ puts at your fingertips 24 hours a day, 7 days a week gives you the power to make better daily and long-term strategic decisions. You can anticipate problems, customize maintenance schedules, minimize downtime and keep your machines where they belong – working on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

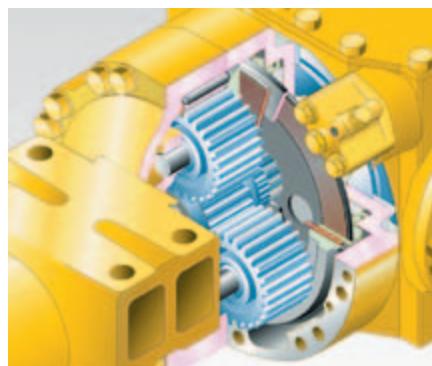
The engine, hydraulics, power train, front and rear axles are original Komatsu components. All these components are subject to the highest quality standards right down to the smallest screw. All components are fully co-ordinated with one another, thus offering the maximum efficiency and reliability.

## Heavy-duty axles

The heavy-duty axles allow exceptional service life even under the toughest working conditions. As standard, the WA320-7 is equipped with torque proportional differentials for work on good ground conditions such as on concrete yards or roads. The optional limited slip differentials are most suitable for soft and slippery ground like sand or wet soil.

## HST drive line with overrun protection

The hydrostatic drive line is equipped with an overrun protection that electronically limits the top speed when driving downhill and thus ensures the long service life of the power train and the drive line system.



## 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.



## 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.

## Agriculture

Simple handling, reliability and comprehensive safety features make Komatsu "agriculture" wheel loaders the ideal tools for contractors or large farms, for loading or for material handling. They are fitted with robust protection and safety equipment to provide perfect protection for both operator and machine.

# Buckets and Attachments

The WA320-7 is outstanding due to its versatility. Whether used industrially in structural or civil engineering, earthmoving, road construction, waste recycling, agriculture, forestry or the timber industry, in

landscaping companies or in community services, the right solution is always available for your requirements.

The optional 4-point quick-coupler adds increased versatility to the

machine and thus allows high-intensity operation.

Examples from the comprehensive range of original attachments are:



## Universal bucket

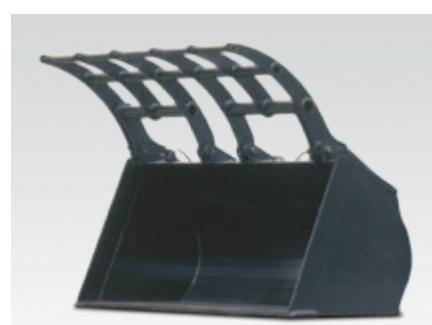
This type of bucket is impressive because of its excellent penetration and loosening properties and its good material holding properties. This universal bucket can be equipped with flush mount adapters and interchangeable teeth.

## Earthmoving bucket

The earthmoving bucket with a one-piece bucket bottom is suited both for earthworks and loading cohesive material. The slanted sides give powerful penetration. It is equipped either with flush mount adapters and interchangeable teeth or also with a rear removable edge.

## Stock pile bucket with raised bottom

The stock pile bucket with raised bottom is the right solution for handling loose and relatively light materials on paved grounds. The combination of rounded shovel back and the straight sidewalls contributes to good filling properties and less material spillage.



## Hydraulic quick-coupler

The WA320-7 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 woodchips. 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 .....                   | 127 kW / 170 HP   |
| ISO 9249 (net engine power) ..... | 123 kW / 165 HP   |
| No. of cylinders .....            | 6   |
| Bore x stroke.....                | 107 x 124 mm  |
| Displacement.....                 | 6,69 ltr  |
| Lubricating system .....          | Gear pump, pressure feed lubrication  |
| Filter.....                       | Main-flow filter  |
| Electrical system .....           | 24 V  |
| Battery.....                      | 2 x 110 Ah  |
| Alternator.....                   | 60 A  |
| Air-filter type .....             | Dry-air filter with automatic dust emission and preliminary purification including a dust display |

## TRANSMISSION

|  |  |
|--|--|
| Drive system.....  | Electronically controlled hydrostatic transmission, switchable in all directions under full power. |
|  | Fixed ratio gearbox. Variable speed limiter  |
| Hydrostatic pump.....                                    | 1 variable piston pump   |
| Hydrostatic motor.....                                   | 2 variable piston motors   |
| Speed ranges (forwards/backwards) .....                  | 4/4  |
| Max. travel speeds (forwards/backwards) (Tyres 20.5 R25) |  |
| 1. speed range.....                                      | 1-13 km/h  |
| 2. speed range.....                                      | 13 km/h  |
| 3. speed range.....                                      | 19 km/h  |
| 4. speed range.....                                      | 38 km/h  |

## CHASSIS AND TYRES

|                     |  |
|---------------------|--|
| System .....        | 4-wheel drive  |
| Front axle.....     | HD axle, semi-floating, fixed type, TPD-differential, (LSD-differential optional)                          |
| Rear axle .....     | HD axle, semi-floating, centre-pin support, 24° swing angle, TPD-differential, (LSD-differential optional) |
| Reduction gear..... | Spiral bevel gear  |
| Differential .....  | Straight bevel gear pair   |
| Final drive .....   | Planetary gear in an oil bath  |
| Tyres .....         | 20.5 R25 (standard)  |

## SERVICE REFILL CAPACITIES

|                       |          |
|-----------------------|----------|
| Cooling system.....   | 28 ltr   |
| Fuel tank.....        | 245 ltr  |
| Engine oil.....       | 23 ltr   |
| Hydraulic system..... | 90 ltr   |
| Axle front .....      | 27 ltr   |
| Axle rear .....       | 25,5 ltr |
| Transfer.....         | 5,8 ltr  |

## BRAKES

|                       |  |
|-----------------------|--|
| Operating brakes..... | Completely hydraulic dual-circuit system, running in oil bath, multi-disc brakes on all wheels, service-free |
| Parking brake .....   | Operated mechanically, running in oil bath, multi-disc brake, service-free                                   |
| Emergency brake ..... | Uses the parking brake   |

## HYDRAULIC SYSTEM

|   |  |
|---|--|
| Type .....                                      | Komatsu CLSS (Closed Centre Load Sensing System) |
| Hydraulic pump .....                            | Piston pump                                      |
| Working pressure (max).....                     | 310 kgf/cm <sup>2</sup>                          |
| Circulating capacity of the hydraulic pump..... | 180 ltr/min                                      |
| No. of boom/bucket cylinders.....               | 2/1  |
| Type .....                                      | Double-action                                    |
| Bore diameter x stroke                          |  |
| Boom cylinder.....                              | 120 x 729 mm                                     |
| Bucket cylinder .....                           | 150 x 558 mm                                     |
| Hydraulic control lever.....                    | Servo-controlled, single lever                   |
| Hydraulic cycle with rated load bucket filling  |  |
| Raise time .....                                | 6,1 s  |
| Lowering time (empty) .....                     | 3,5 s  |
| Dumping time .....                              | 1,9 s  |

## STEERING SYSTEM

|   |                                     |
|---|-------------------------------------|
| System .....  | Articulated frame steering          |
| Type .....  | Completely hydraulic power steering |
| Steering angle to either side.....                    | 40°                                 |
| Hydraulic pump .....                                  | Piston pump                         |
| Working pressure.....                                 | 210 kgf/cm <sup>2</sup>             |
| Pumping capacity.....                                 | 180 ltr/min                         |
| No. of steering cylinders.....                        | 2                                   |
| Type .....  | Double-action                       |
| Bore diameter x stroke.....                           | 70 x 453 mm                         |
| Smallest turn (outer edge of the tyre 20.5 R25) ..... | 5.210 mm                            |

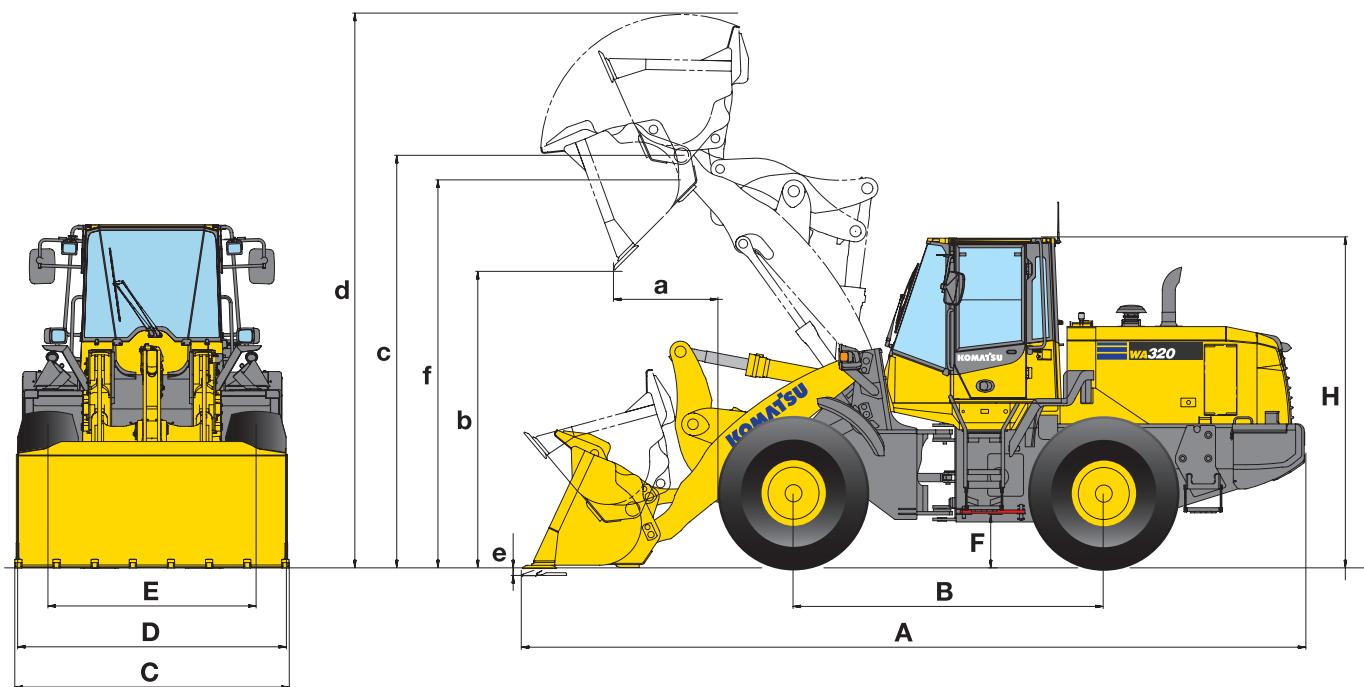
## CABIN

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 damped.

## ENVIRONMENT

|   |   |
|---|---|
| Engine emissions .....  | Fully complies with EU Stage IIIB and EPA Tier 4 interim exhaust emission regulations |
| Noise levels  |   |
| LwA external .....  | 105 dB(A) (2000/14/EC Stage II)   |
| LpA operator ear.....   | 69 dB(A) (ISO 6396 dynamic test)  |
| Vibration levels (EN 12096:1997)*   |   |
| Hand/arm.....   | ≤ 2,5 m/s <sup>2</sup> (uncertainty K = 0,43 m/s <sup>2</sup> )                       |
| Body .....  | ≤ 0,5 m/s <sup>2</sup> (uncertainty K = 1,46 m/s <sup>2</sup> )                       |
| * 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

|   |           | Earthmoving |            | Stockpile  |            | Universal  |            |
|---|-----------|-------------|------------|------------|------------|------------|------------|
|   |           | w. teeth    | w. BOC     | w. teeth   | w. BOC     | w. teeth   | w. BOC     |
| Bucket mount (direct/quick-coupler)       |           | direct      | direct     | direct     | direct     | direct     | direct     |
| <b>Bucket capacity (heaped, ISO 7546)</b> | <b>m³</b> | <b>2,7</b>  | <b>2,9</b> | <b>3,0</b> | <b>3,2</b> | <b>2,7</b> | <b>2,9</b> |
| Sales code                                |           | C42         | C43        | C32        | C33        | C02        | C03        |
| Material density (max.)                   | t/m³      | 1,70        | 1,60       | 1,55       | 1,45       | 1,70       | 1,60       |
| Bucket weight                             | kg        | 1.325       | 1.415      | 1.265      | 1.355      | 1.210      | 1.300      |
| Static tipping load, straight             | kg        | 11.465      | 11.300     | 11.470     | 11.235     | 11.560     | 11.360     |
| Static tipping load, 40° articulated      | kg        | 9.850       | 9.695      | 9.860      | 9.645      | 9.950      | 9.765      |
| Break-out force hydraulic                 | kN        | 174         | 163        | 166        | 156        | 174        | 163        |
| Lifting capability hydr. at ground level  | kN        | 162         | 162        | 164        | 165        | 163        | 164        |
| Operating weight                          | kg        | 15.585      | 15.675     | 15.525     | 15.615     | 15.470     | 15.560     |
| Turning radius at corner of tyres         | mm        | 5.210       | 5.210      | 5.210      | 5.210      | 5.210      | 5.210      |
| Turning radius at bucket edge             | mm        | 6.205       | 6.175      | 6.220      | 6.190      | 6.205      | 6.175      |
| a Reach at 45°                            | mm        | 1.145       | 1.015      | 1.185      | 1.055      | 1.145      | 1.015      |
| b Dump height at 45°                      | mm        | 2.750       | 2.840      | 2.715      | 2.800      | 2.750      | 2.840      |
| c Hinge pin height                        | mm        | 4.010       | 4.010      | 4.010      | 4.010      | 4.010      | 4.010      |
| d Height top edge of bucket               | mm        | 5.335       | 5.335      | 5.500      | 5.500      | 5.400      | 5.400      |
| e Digging depth                           | mm        | 150         | 180        | 150        | 180        | 150        | 180        |
| f Max. loading height at 45°              | mm        | 3.655       | 3.655      | 3.655      | 3.655      | 3.655      | 3.655      |
| A Overall length, bucket grounded         | mm        | 7.825       | 7.700      | 7.880      | 7.755      | 7.825      | 7.700      |
| B Wheelbase                               | mm        | 3.030       | 3.030      | 3.030      | 3.030      | 3.030      | 3.030      |
| C Bucket width                            | mm        | 2.740       | 2.750      | 2.740      | 2.750      | 2.740      | 2.750      |
| D Width over tyres                        | mm        | 2.580       | 2.580      | 2.580      | 2.580      | 2.580      | 2.580      |
| E Track width                             | mm        | 2.050       | 2.050      | 2.050      | 2.050      | 2.050      | 2.050      |
| F Ground clearance                        | mm        | 425         | 425        | 425        | 425        | 425        | 425        |
| H Overall height                          | mm        | 3.200       | 3.200      | 3.200      | 3.200      | 3.200      | 3.200      |

All measurements with tyres 20.5 R25 L3.  
 Standard with add. side counterweights A15, high-lift with add. side counterweights A25  
 BOC: bolt-on cutting edge

**CHANGE IN DATA CAUSED BY:**

|                                      |    | Tyres<br>20.5 R25 L2 | Tyres<br>20.5 R25 L4 | Tyres<br>20.5 R25 L5 | Tyres<br>23.5 R25 L3 | w/o additional side<br>counterweights (A15) |
|--------------------------------------|----|----------------------|----------------------|----------------------|----------------------|---|
| Operating weight                     | kg | -200                 | +365                 | +660                 | +340                 | -240  |
| Static tipping load, straight        | kg | -130                 | +215                 | +430                 | +200                 | -440  |
| Static tipping load, 40° articulated | kg | -115                 | +190                 | +380                 | +175                 | -363  |
| Reach at 45°                         | mm | 0                    | -5                   | -25                  | -60                  | 0   |
| Dump height at 45°                   | mm | -40                  | +5                   | +25                  | +60                  | 0   |
| Width over tyres                     | mm | 0                    | +10                  | +0                   | +75                  | 0   |
| Overall height                       | mm | -40                  | +5                   | +25                  | +60                  | 0   |

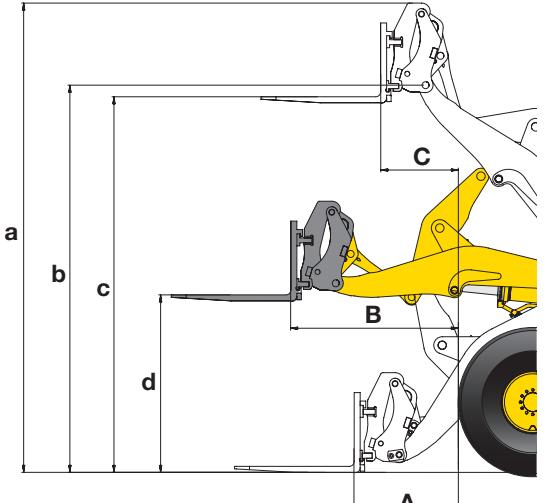
**HIGH-LIFT**

| Earthmoving |            | Stockpile  |            | Universal  |            | Earthmoving |            | Stockpile  |            | Universal  |            |
|-------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|
| w. teeth    | w. BOC     | w. teeth   | w. BOC     | w. teeth   | w. BOC     | w. teeth    | w. BOC     | w. teeth   | w. BOC     | w. teeth   | w. BOC     |
| QC          | QC         | QC         | QC         | QC         | QC         | direct      | direct     | direct     | direct     | direct     | direct     |
| <b>2,7</b>  | <b>2,9</b> | <b>3,0</b> | <b>3,2</b> | <b>2,6</b> | <b>2,7</b> | <b>2,7</b>  | <b>2,9</b> | <b>3,0</b> | <b>3,2</b> | <b>2,7</b> | <b>2,9</b> |
| C72         | C73        | C66        | C67        | C62        | C63        | C42         | C43        | C32        | C33        | C02        | C03        |
| 1,60        | 1,50       | 1,45       | 1,35       | 1,75       | 1,65       | 1,40        | 1,30       | 1,25       | 1,15       | 1,40       | 1,30       |
| 1.230       | 1.320      | 1.130      | 1.220      | 1.025      | 1.115      | 1.325       | 1.415      | 1.265      | 1.355      | 1.210      | 1.300      |
| 10.850      | 10.655     | 10.920     | 10.735     | 11.135     | 10.945     | 9.375       | 9.195      | 9.380      | 9.225      | 9.470      | 9.290      |
| 9.275       | 9.090      | 9.350      | 9.175      | 9.550      | 9.370      | 7.860       | 7.695      | 7.880      | 7.730      | 7.965      | 7.795      |
| 150         | 142        | 145        | 138        | 159        | 150        | 180         | 169        | 172        | 161        | 180        | 169        |
| 168         | 167        | 162        | 160        | 167        | 168        | 105         | 104        | 107        | 105        | 107        | 106        |
| 15.945      | 16.035     | 15.845     | 15.935     | 15.740     | 15.830     | 16.005      | 16.095     | 15.945     | 16.035     | 15.885     | 15.980     |
| 5.210       | 5.210      | 5.210      | 5.210      | 5.210      | 5.210      | 5.210       | 5.210      | 5.210      | 5.210      | 5.210      | 5.210      |
| 6.240       | 6.205      | 6.250      | 6.220      | 6.215      | 6.185      | 6.450       | 6.405      | 6.470      | 6.425      | 6.450      | 6.405      |
| 1.315       | 1.185      | 1.345      | 1.215      | 1.260      | 1.135      | 1.230       | 1.105      | 1.270      | 1.145      | 1.230      | 1.105      |
| 2.660       | 2.745      | 2.630      | 2.715      | 2.715      | 2.800      | 3.275       | 3.380      | 3.235      | 3.340      | 3.275      | 3.380      |
| 4.010       | 4.010      | 4.010      | 4.010      | 4.010      | 4.010      | 4.550       | 4.550      | 4.550      | 4.550      | 4.550      | 4.550      |
| 5.500       | 5.500      | 5.660      | 5.660      | 5.495      | 5.495      | 5.875       | 5.875      | 6.040      | 6.040      | 5.940      | 5.940      |
| 95          | 125        | 95         | 125        | 95         | 125        | 260         | 290        | 260        | 290        | 260        | 290        |
| 3.690       | 3.690      | 3.690      | 3.690      | 3.690      | 3.690      | 4.190       | 4.190      | 4.190      | 4.190      | 4.190      | 4.190      |
| 7.875       | 7.840      | 8.010      | 7.885      | 7.895      | 7.770      | 8.435       | 8.295      | 8.490      | 8.350      | 8.435      | 8.295      |
| 3.030       | 3.030      | 3.030      | 3.030      | 3.030      | 3.030      | 3.030       | 3.030      | 3.030      | 3.030      | 3.030      | 3.030      |
| 2.740       | 2.750      | 2.740      | 2.750      | 2.740      | 2.750      | 2.740       | 2.750      | 2.740      | 2.750      | 2.740      | 2.750      |
| 2.580       | 2.580      | 2.580      | 2.580      | 2.580      | 2.580      | 2.580       | 2.580      | 2.580      | 2.580      | 2.580      | 2.580      |
| 2.050       | 2.050      | 2.050      | 2.050      | 2.050      | 2.050      | 2.050       | 2.050      | 2.050      | 2.050      | 2.050      | 2.050      |
| 425         | 425        | 425        | 425        | 425        | 425        | 425         | 425        | 425        | 425        | 425        | 425        |
| 3.200       | 3.200      | 3.200      | 3.200      | 3.200      | 3.200      | 3.200       | 3.200      | 3.200      | 3.200      | 3.200      | 3.200      |

# Dimensions & Performance Figures

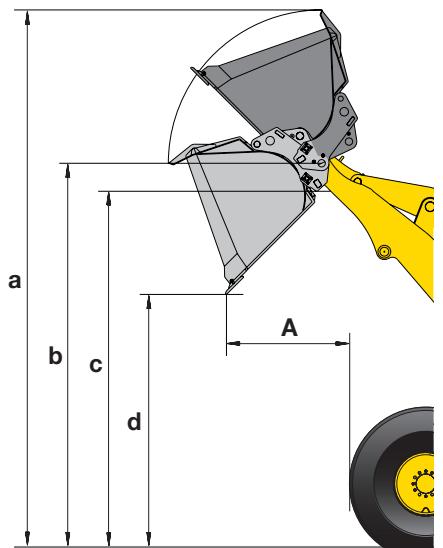
## FORK TINES

|   |    | C57    |
|---|----|--------|
| Sales code                              |    |        |
| Fork tine length                        | mm | 1.200  |
| A Max. reach at ground level            | mm | 1.015  |
| B Max. reach                            | mm | 1.665  |
| C Max. reach at max. stacking height    | mm | 770    |
| a Max. height fork-carrier              | mm | 4.765  |
| b Hinge pin height                      | mm | 4.010  |
| c Max. stacking height                  | mm | 3.825  |
| d Height of forks at maximum reach      | mm | 1.815  |
| Max. tipping load, straight             | kg | 8.870  |
| Max. tipping load, articulated          | kg | 7.655  |
| Max. payload as per EN 474-3, 80%       | kg | 6.000  |
| Max. payload as per EN 474-3, 60%       | kg | 4.600  |
| Weight in working order with fork tines | kg | 15.055 |



## LIGHT MATERIAL BUCKET

|                                     |      | w. BOC      |
|-------------------------------------|------|-------------|
| Sales code                          |      | Q36 Q67     |
| Bucket mount (direct/quick-coupler) |      | QC QC       |
| Bucket capacity (heaped, ISO 7546)  | m³   | 4,8 4,8     |
| Material density                    | t/m³ | 1,00 1,00   |
| Rated load                          | kg   | 4.800 4.800 |
| Bucket width                        | mm   | 2.740 2.924 |
| Bucket weight                       | kg   | 1.240 1.400 |
| A Reach at 45°                      | mm   | 1.480 1.420 |
| a Height top edge of bucket         | mm   | 5.805 5.710 |
| b Hinge pin height                  | mm   | 4.040 4.040 |
| c Max. loading height at 45°        | mm   | 3.704 3.745 |
| d Dump height at 45°                | mm   | 2.370 2.490 |



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

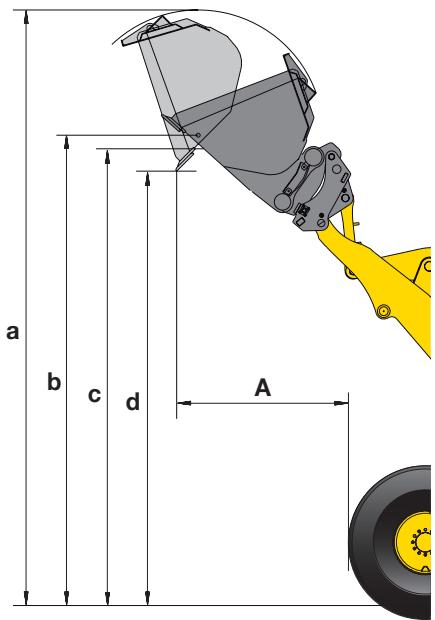
|                            |       |                            |       |                           |       |
|----------------------------|-------|----------------------------|-------|---------------------------|-------|
| Basalt .....               | 1.960 | Gravel, unscreened .....   | 1.930 | Sandstone .....           | 1.510 |
| Bauxite, Kaolin .....      | 1.420 | Gravel, dry .....          | 1.510 | Slate .....               | 1.250 |
| Earth, dry, ex store ..... | 1.510 | Gravel, dry, 6-50 mm ..... | 1.690 | Slag, broken .....        | 1.750 |
| Earth, wet, excavated..... | 1.600 | Gravel, wet, 6-50 mm.....  | 2.020 | Stone, crushed .....      | 1.600 |
| Gypsum, broken.....        | 1.810 | Sand, dry, loose .....     | 1.420 | Clay, natural .....       | 1.660 |
| Gypsum, crushed.....       | 1.600 | Sand, damp.....            | 1.690 | Clay, dry .....           | 1.480 |
| Granite, broken.....       | 1.660 | Sand, wet .....            | 1.840 | Clay, wet.....            | 1.660 |
| Limestone, broken.....     | 1.540 | Sand and clay, loose.....  | 1.600 | Clay and gravel, dry..... | 1.420 |
| Limestone, crushed.....    | 1.540 | Sand and gravel, dry ..... | 1.720 | Clay and gravel, wet..... | 1.540 |

All measurements with tyres 20.5 R25

## HIGH-DUMP BUCKET

|                                     | w. BOC           |       |
|-------------------------------------|------------------|-------|
| Sales code                          | Q41              | Q66   |
| Bucket mount (direct/quick-coupler) | QC               | QC    |
| Bucket capacity (heaped, ISO 7546)  | m <sup>3</sup>   | 3,5   |
| Material density                    | t/m <sup>3</sup> | 1,00  |
| Rated load                          | kg               | 3.500 |
| Bucket width                        | mm               | 2.740 |
| Bucket weight                       | kg               | 2.000 |
| A Reach at 45°                      | mm               | 1.775 |
| a Height top edge of bucket         | mm               | 6.380 |
| b Hinge pin height                  | mm               | 4.960 |
| c Max. loading height at 45°        | mm               | 4.825 |
| d Dump height at 45°                | mm               | 4.570 |
|                                     |                  | 4.540 |

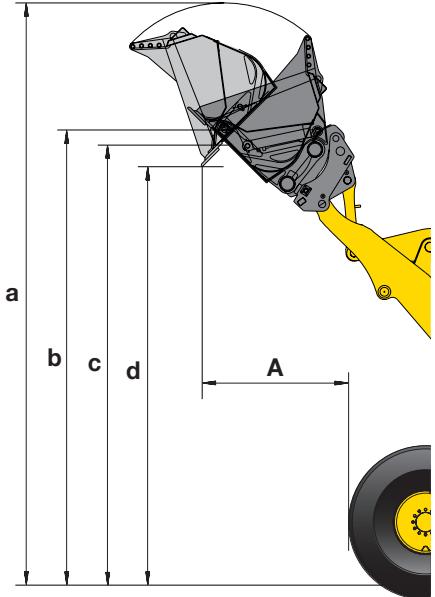
Type B, dump cylinders located outside bucket



## HIGH-DUMP BUCKET (WASTE HANDLING)

|                                     | w. BOC           |       |
|-------------------------------------|------------------|-------|
| Sales code                          | Q86              |       |
| Bucket mount (direct/quick-coupler) | QC               |       |
| Bucket capacity (heaped, ISO 7546)  | m <sup>3</sup>   | 3,4   |
| Material density                    | t/m <sup>3</sup> | 1,00  |
| Rated load                          | kg               | 3.400 |
| Bucket width                        | mm               | 2.750 |
| Bucket weight                       | kg               | 2.000 |
| A Reach at 45°                      | mm               | 1.750 |
| a Height top edge of bucket         | mm               | 6.390 |
| b Hinge pin height                  | mm               | 5.010 |
| c Max. loading height at 45°        | mm               | 4.840 |
| d Dump height at 45°                | mm               | 4.570 |

Type B, dump cylinders located outside bucket



# Wheel Loader

## WA320-7

### Standard and Optional Equipment

#### 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 × 110 Ah/2 × 12 V   | ● |

#### TRANSMISSION AND BRAKES

|   |   |
|---|---|
| Electronically controlled HST with 2-motor system     | ● |
| Speed control with fine adjustment in 1st speed range | ● |
| Traction control system (K-TCS)                       | ● |
| Fully hydraulic brake system                          | ● |
| Combined brake/inching pedal                          | ● |
| 20 km/h limited hydrostatic driveline                 | ○ |
| 25 km/h limited hydrostatic driveline                 | ○ |

#### CHASSIS AND TYRES

|  |   |
|--|---|
| Heavy-duty axles                               | ● |
| TPD-differential front and rear                | ● |
| Power train guard                              | ● |
| Limited-slip differential (LSD) front and rear | ○ |
| Tyres 20.5 R25 L2, L3, L5                      | ○ |
| Tyres 23.5 R25 L3*                             | ○ |
| Agricultural tyres                             | ○ |

\* not acc. to German road regulation StVZO

#### ATTACHMENTS

|  |   |
|--|---|
| Hydraulic quick-coupler (incl. additional side counterweights, large size) | ○ |
| Universal buckets  | ○ |
| Earthmoving buckets  | ○ |
| Stock pile buckets   | ○ |
| Fork carrier and tines   | ○ |
| High-dump buckets  | ○ |
| Log grapple  | ○ |
| Light material buckets   | ○ |
| Waste handling buckets   | ○ |

#### CABIN

|   |   |
|---|---|
| Spacious double door driver's cab to DIN/ISO ROPS/FOPS frame according to SAE   | ● |
| Heated, high back air suspension seat with lumbar support, 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  | ● |
| 2× 12 V power supply  | ● |
| 3-point seat belt   | ○ |
| Sun roller blind  | ○ |

#### 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             | ○ |

#### OTHER EQUIPMENT

|   |   |
|---|---|
| PZ-kinematics: Z-bar boom with parallel movement              | ● |
| Counterweight   | ● |
| Electrically controlled load stabilizer (ECSS)                | ● |
| High-lift equipment incl additional side counterweights (A25) | ○ |
| Additional side counterweights (A15)                          | ○ |
| Special custom colour   | ○ |
| Anti-corrosion specification                                  | ○ |
| Cold area kit (engine and cab pre-heating)                    | ○ |

The WA320-7 is equipped in accordance with the safety regulations of the machinery guidelines 89/392 EWG ff and EN474.

- standard equipment
- optional equipment

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