

Wheel Loader Specifications

L 25.5



Service weight 13.7 t – 14,5 t
Engine output 130 kW
Loading buckets 2.3 – 6.0 m³

- Universal geometry with parallel guide
- Electro-hydraulic servo control
- 10% bigger bucket capacity
- ZF Ergopower transmission
- Higher torque, higher tractive forces
- Ultramodern ergonomic cab
- Easy servicing from the ground





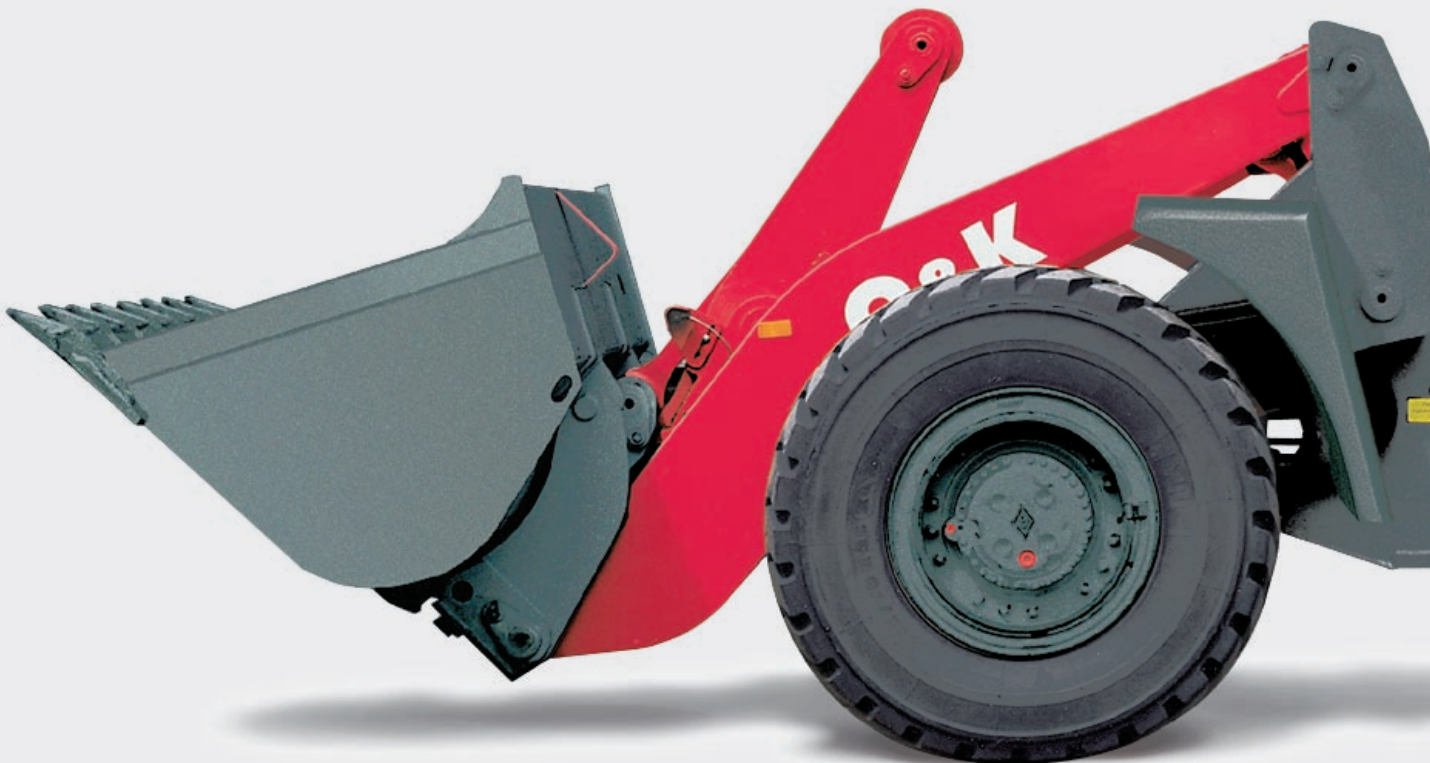
L 25.5: more power, improved universal geometry, ele

CE seal according to EC Machinery Directive

TÜV certificate for compliance with DIN ISO EN 9001

Easy controllability and ample flexibility through electro-hydraulic servo control

Universal geometry for earthmoving and parallel operation



Wet multi-disc hub-mounted brakes for easy access without removing the wheels

Hydro-hydraulic servo control, new deluxe cab

Hydraulically cushioned cab with multi-functional control lever and electronic management system

Electronic immobilizer standard

Excellent all-round visibility, stylish tail-end for even more rear safety

Fuel-efficient 6-cylinder Cummins engine delivers 130 kW (177 HP)

Easy service-ability from the ground



Best possible power transfer with larger, widely spaced bearings

Multi-disc self-locking differential and ZF Ergopower transmission for powerful tractive forces even across difficult terrain

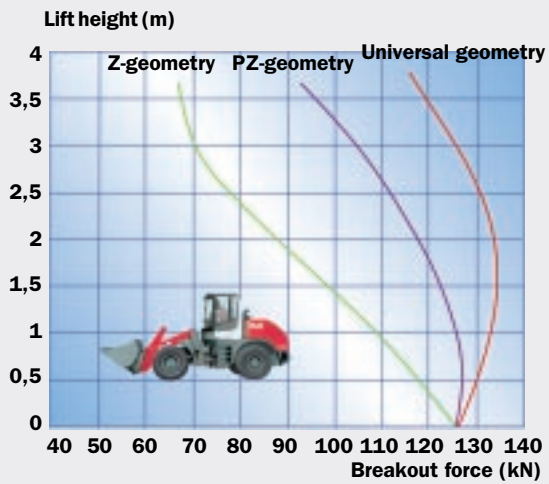
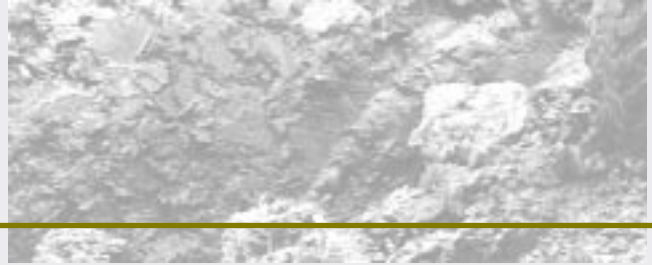
Proven Lear geometry again improved

Merging the benefits of Z- and parallel geometry



With its further improved universal geometry O&K has set new standards in wheel loader flexibility. The systems used until now each had their specific advantages: Z-geometry generated high digging forces at ground level while industrial geometry permitted parallel fork control across the entire lift range as well as strong lifting capacities when clamping pipes or logs

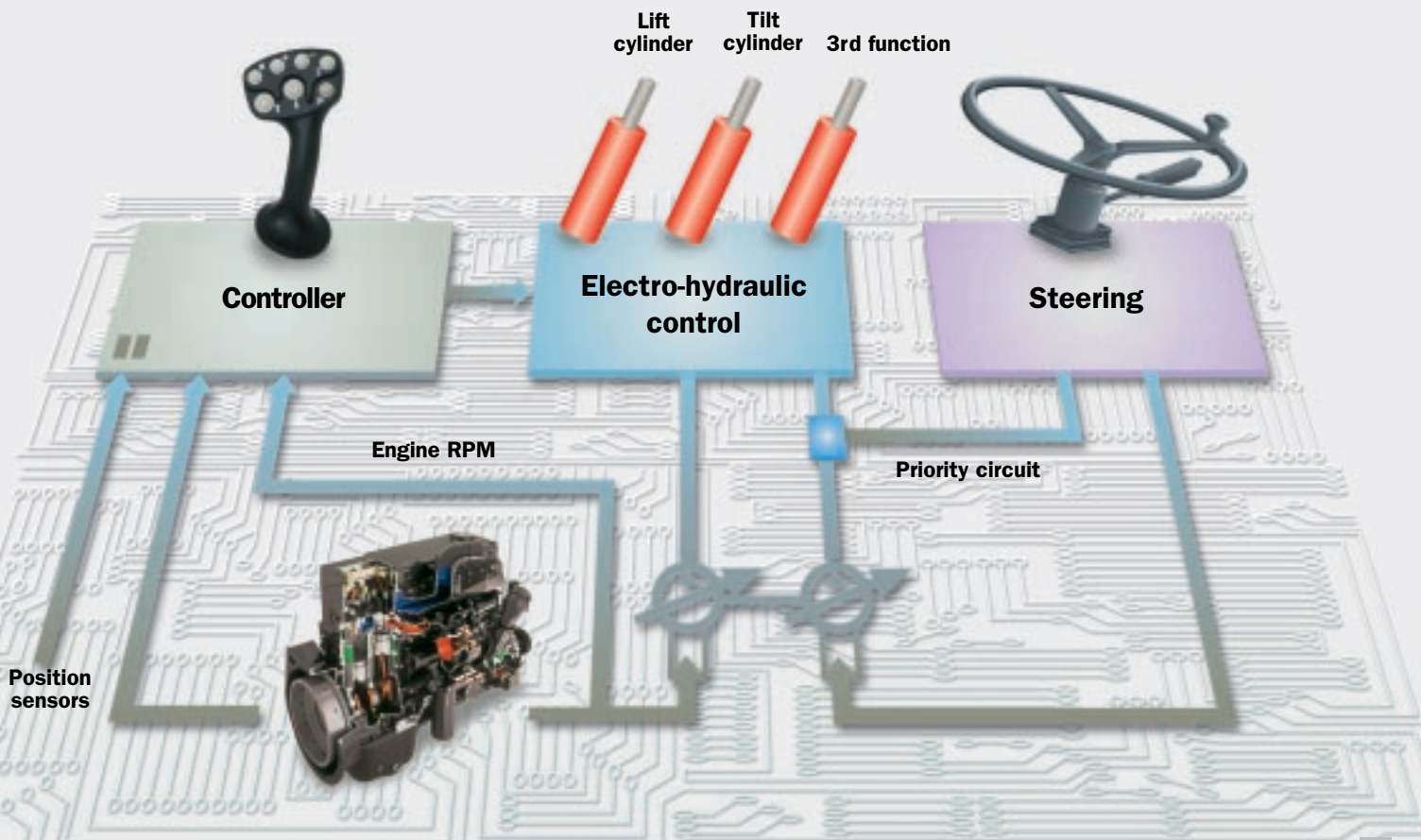
O&K's universal geometry merges the benefits of both systems into one. Ample breakout force stays virtually con-



Significant breakout boost using universal geometry compared with other systems (schematic)

stant across the entire lift range and any slackening of lift force (as is typical on Z-geometry) is ruled out. What's more, this system guarantees absolutely precise until now unachievable parallel control at all working positions (optional function). Two sensors constantly record the positions of the lift frame and tilt control lever. The actual values are then electronically compared with the stored target data and the working attachment is automatically guided into the ideal position. This makes life a lot easier for the operator who need not make continuous adjustments.

The structure is of simple and hence rugged design. Operator visibility is excellent. A taller dump height and ideal reach have improved truck loading functions considerably. The mast profile is redesigned to prevent damage to the truck's sidewalls.



Smart electro-hydraulic control

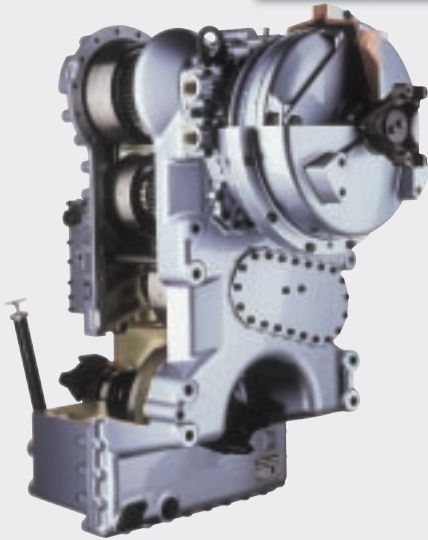
Innovative developments and longstanding experience in microchip technology have enabled O&K to completely re-design the wheel loader electronic control system. Until now, the various functions had been performed by a large number of mechanical-hydraulic components, on the L 25.2 these basic and supplementary functions are masterminded electro-hydraulically by smart software. When the lift frame rises to exceed a certain height, the electronics automatically shuts off the lifting function. Re-setting the desired lift height is just as uncomplicated. Instead of the hardware adjustments required previously, now the operator simply presses the "teach-in" key and the new maximum height is immediately stored. This makes the work a lot easier for the operator and improves the equipment's flexi-

bility. No mechanical/hydraulic components and hence no servicing or repair of such components.

The electro-hydraulic system also takes care of additional functions such as ground-level return-to-load after dumping or bucket shake-out intensity.

Electronic control handles many of the chores previously left to the operator. Controllability is significantly improved and the multifunctional lever works as smoothly and effortlessly as a joystick.

New ZF Ergopower transmission



The new Ergopower transmission is a standard-setter in terms of travel performance, shiftability and noise reduction. Slim-contoured gearing, generous helical overlapping and distortion-proof short shafts combine to cut noise emissions by over one half. As each of the six couplings

has its own pressure regulator, shifting is smooth, with no interruption in tractive force. In fact, the operator barely notices the automatic gear shifting, and spine and spillage are spared.

All the important operating data is continuously logged and any variances from preset values are displayed. The machine's own diagnosis system constantly monitors all the main control components and if any part should fail, the control system shifts back into a safer mode. This lessens the risk of damage and improves durability.

The improved mechanical efficiency and automatic shifting help to accelerate handling speed while cutting fuel consumption.

Rugged Cummins construction machinery engine

The clean, water-cooled Cummins engine with turbocharger and intercooler has a lot extra power. Teamed up with the new transmission, the engine generates higher torque and improved tractive forces while the low speeds extend

service life. The outstanding torque curve and the low idling speed combine to deliver ample lugging forces and fuel efficiency.

Single-handedly

Lift, lower, roll-back, dump, gearshifting, backing ... all single-handedly. The computerized controls allow certain functions to be automated such as return-to-loading position and additional chores in the form of a "black-white" mode using the multi-functional lever. The "teach-in" key tells the machine what to do in a fraction of a second. All in all, standard-setting comfort.



Bigger bucket



The bucket is 10% bigger but as both engine and pump output are up, the heavier loads are easily handled. The result: more material handled day in, day out.

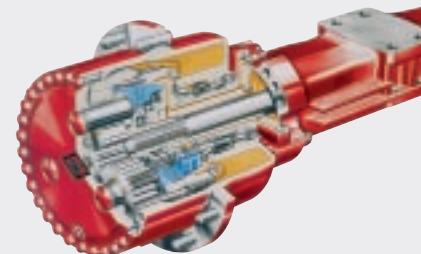
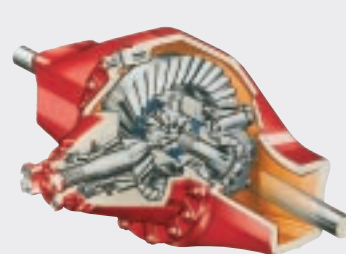


A generous dump angle easily in excess of 90° makes emptying easier while allowing the machine to extricate itself from tricky situations. When working with highly adhesive loads, the shake-out intensity can be electronically adjusted. End-of-stop is also adjustable, cushioned or aggressive.

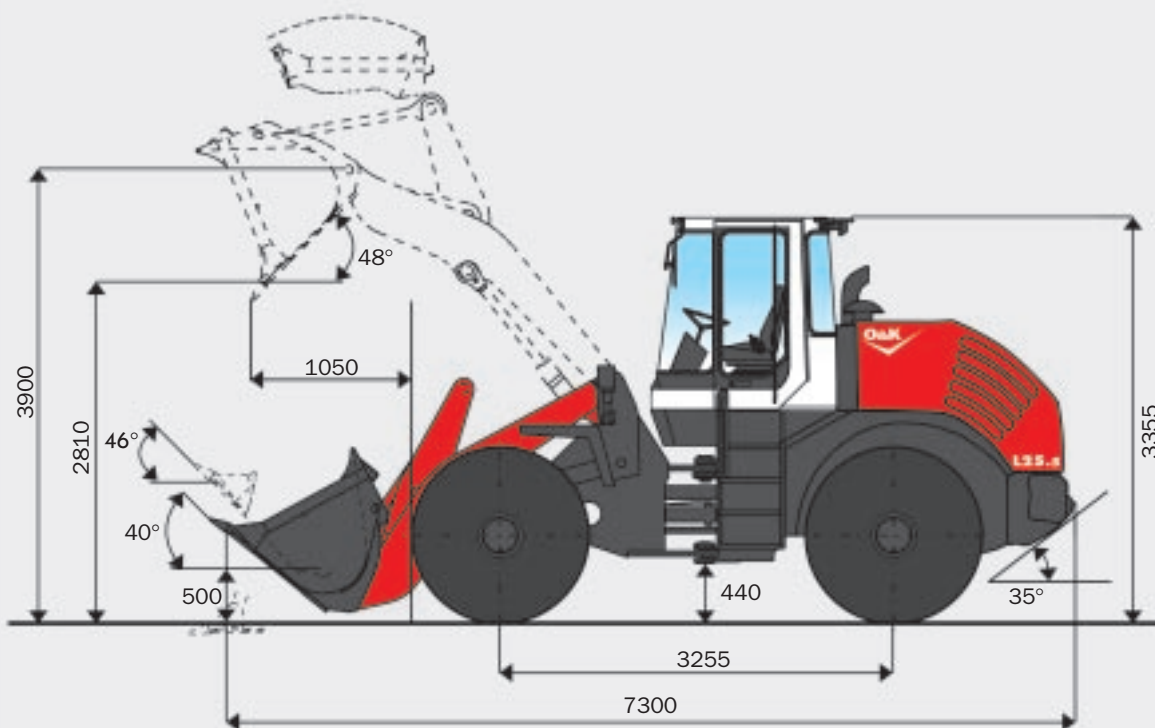
Multi-disc brakes and self-locking differentials

Hydraulic dual-circuit brakes and wet multi-disc brakes in the wheel hubs ensure safe braking response. The brakes themselves are easily accessible without removing the wheels.

The automatic self-locking differential provides ideal power transfer, excellent traction and crowding forces even on difficult terrain.



Weights and dimensions



		with tyres 20.5 R 25 EM
Width over tyres	mm	2465
Track	mm	1940
Artic angle	°	+/- 42
Overall length	mm	7465
Turning radius (to outside edge of bucket) (bucket in carry)	mm	6045
Turning radius (to outside edge of tyres)	mm	5495

Operating data		Standard buckets with teeth
Capacity (SAE/CECE) heaped	m ³	2.5
Perm. spec. loose weight	t/m ³	1.8
Bucket width	mm	2650
Bucket weight	kg	1195
Breakout force (ISO)	kN	108
*Tipping load, straight (static)	kg	11200
*Tipping load, art. 42° (DIN 24094))	kg	9700
*Service weight	kg	13750

*Including all lubricants, a full tank, 20.5 R 25 L-3 tyres, ROPS/FOPS cab and operator. Service weight and static tipping load depend on tyres and/or any special equipment. All figures approximate.



Engine

Cummins diesel	6BTA 5.9-C174
Water cooled • Direct injection, turbocharged, intercooler	
Engine output SAE J1995 brutto	130 kW / 2200 RPM
Max. torque at 1500 RPM	767 Nm
Cylinders / displacement	6 / 5900 cm ³
Bore / stroke	102 mm / 120 mm
Voltage	24 V
2 batteries	each 12 V / 92 Ah
Alternator	980 W
Starter	4 kW

Exhaust emissions to COM 95/350 Step 1



Hydraulics

Load sensing attachment hydraulics • 2 variable-displacement pumps with steering priority • Delivery independent of load pressure

Max. output, attachment pumps	210 l/min
Operating pressure	280 bar



Torque converter

Single-stage, integrated with transmission

Conversion ratio	2.3 : 1
Heat-exchanger cooling	



Transmission

Full powershift, 4 forward and 3 reverse gears shifting on-the-go • Automatic shifting • Multi-functional lever for gear shifting and loader functions



Travel speed

Travel speeds in km/h with 20.5 R 25 tyres

Gear	Forward	Reverse
1 st	6.5	5.9
2 nd	12	10.7
3 rd	22	23.9
4 th	35	



Axles

All-wheel-drive

Front axle	Rigid, with multi-disc self-locking differential
Rear axle	Rigid, optional with multi-disc self-locking differential

Articulating angle	+/- 12°
Wheel-hub mounted planetary gears	



Tyres

Standard	20.5 R 25 XHA
Other options	555//70 R25 XLD70 20.5 R25 RL-2+ 20.5 R25 XLDD2A 20.5 R25 X-Mine D2



Brakes

Hydraulic dual-circuit pump accumulator, with hub-mounted wet multi-disc brakes • Additional pedal for automatically disconnecting power from the transmission during work
Parking brake: disc-type acting on the transmission



Steering

Angle-angle, any-height steering wheel (optional) • Mid-mounted artic steering with load-sensing variable displacement pump • Two double-acting hydraulic cylinders • Maintenance-free artic joint • Emergency steering

Max. pressure	190 bar
Artic angle 42°	



Loading attachment

Universal Lear geometry for both earthmoving and industrial applications • Frame from solid steel with torsion-stiff cross-members • Sealed mounting points • Multi-functional lever

Function	Lift	Lower	Dump	Total
Sec.	5.5	3.0	2.2	10.7



Capacities

Fuel	200 l
Engine oil and filter change	18 l
Transmission and torque converter	18 l
Front axle/wheel hubs	15/13 l
Rear axle/wheel hubs	13/13 l
Hydraulics total	160 l



Cab

Noise-insulated cab • Hydraulic cushioning • Folding door locks into place • Lockable sliding windows • ROPS to DIN/ISO 3471/SAE J 1040 c • FOPS to DIN/ISO 3471/SAE J 231

Standard equipment

CE seal as per EC Directive 89/322 EEC
 Noise insulated removable ROPS/FOPS cab •
 Engine-oil heater and defroster nozzles • Ventilation options: recirculating or outside air • Air filter • Electric windscreen wipers, washers, front and rear • Heated rear window • Steplessly adjustable, vibration dampened swing seat • Adjustable steering column • Multi-functional lever and automatic gear shifting • Towing device • Float position • Standard tool kit • 2 spot lights front, 1 rear

Inside/outside noise levels to the new EEC Directive 86/662

Electronic monitoring and warning lamps for the following functions:

Torque converter oil temperature, transmission oil pressure, engine oil temperature, engine oil pressure, v-belts, blower, battery charge

Other displays and warning lamps:

Gear shift position display, fuel meter, operating hours meter, speedometer, beacon, direction indicators, main lights, warning light for hydraulic tank, air filter contamination indicator

Optional equipment

Standard for Germany:

Fitted for road traffic

TÜV approved

Optional:

Loading bucket (with or w/o teeth)

Light-materials bucket

High-dump bucket

Hydraulic quick-hitch

Variable bucket stop cushioning

Parallel guide for fork lift operation

Cutting edge

Fork lift

Log grapple

Additional spot light

Oil-bath dry filter

4th gear lock (max. 25 km/h)

Electronic speed limit

Acoustic reversing warning signal

Amber beacon

Additional tools

Bucket horizontal guide

3rd circuit for hydraulic attachments

Air conditioning

OLS

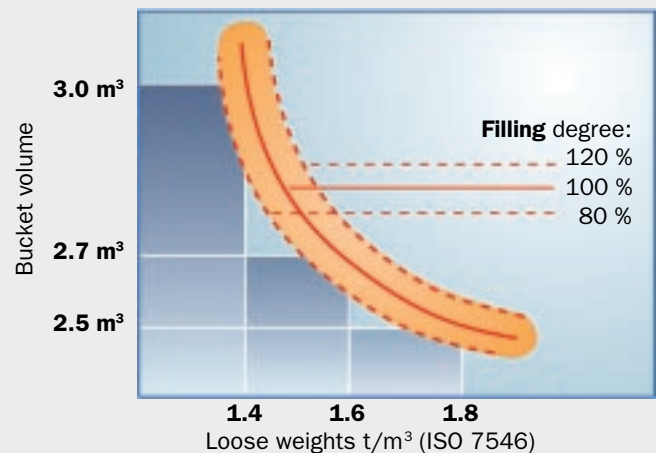
Eco-friendly hydraulic liquid (Panolin)

Types of bucket – Loose weights – Filling degree

Standard bucket at quick-hitch	2.3 m ³ at g = 1.8 t/m ³
Standard bucket	2.5 m ³ at g = 1.8 t/m ³
Bulk material bucket	2.7 m ³ at g = 1.6 t/m ³
Light materials bucket, at quick-hitch	6.0 m ³ at g = 0,5 t/m ³
High-dump bucket (4.10 m at quick-hitch)	4.0 m ³ at g = 0.5 t/m ³ *
Log grapple at quick-hitch	1.4 m ³
Fork lift	1200 mm/1500 mm

* no TÜV

Material	Density	Bucket fill
Soil	1.5 – 1.6 t/m ³	100 – 110 %
Clay	1.5 – 1.7 t/m ³	100 – 110 %
Sand	1.4 – 1.8 t/m ³	100 – 110 %
Gravel	1.5 – 2.0 t/m ³	100 – 105 %
Rock	1.6 – 2.0 t/m ³	75 – 100 %



Actual volumes normally exceed ISO/SAE.



O&K Orenstein & Koppel AG
 Staakener Str. 53-63
 D-13581 Berlin
 E-Mail: info@orenstein-koppel.com
<http://www.orenstein-koppel.com>