

# Crawler Excavator Specifications

# RH 25.5



**Service weight** 57.9 – 63.6 t  
**Engine output** 298 kW  
**Buckets** 2.29 – 4.21 m<sup>3</sup> (SAE)

- PMS three-pump hydraulics
- Electronic control and monitoring system
- Insulated deluxe cab
- Low noise and exhaust emission
- Fuel efficient
- Bucket version with TriPower



The RH 25 with adjustable undercarriage demonstrates its capability in heavy-duty earthmoving and trenching operations

Backhoe version, alternatively bucket design with TriPower geometry

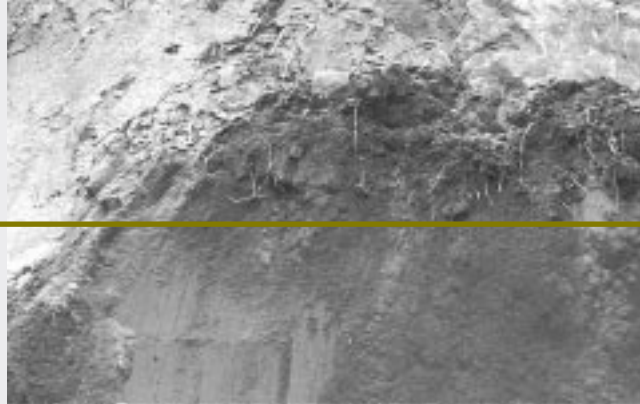


Electronic immobilizer standard

No-loss superstructure swing-off and braking plus energy recovery

Generous stick and bucket working ranges

Three stick lengths, various buckets and attachments



**CE seal to EC Machinery Directive.  
TÜV certificate for compliance with  
DIN ISO EN 9001.**

**Lifting gear operation permitted with  
anti-bursting and overload warning  
devices fitted.**

Comfortable, spacious  
cockpit

Powerful Cummins diesel engine,  
water-cooled and clean

PMS III electronic engine and  
pump management system

Fuel savings through freely  
selectable engine speeds

Encapsulated ball-bearing swing  
ring with lifetime lubrication



O&K TCG track cleaning  
and guide system (option)

HD undercarriage for rock/quarry  
operation or adjustable undercarriage  
(YLC) for heavy-duty earthworks with  
a backhoe

Final drives protected  
within the crawler profile

## Optimum electronic pump control with PMS III

PMS III manages engine and pump performance to unbeatable levels of efficiency and convenience. Comprehensive monitoring of all key components reduces downtime and enhances durability. Actual data is continuously compared with target figures (e.g., temperature) and any deviations are automatically corrected by the system. Hence, no engine overload.

## Electronic immobilizer standard

A standard feature on all O&K excavators is an electronic immobilizer. The engine will only start once a programmable code has been entered. The immobilizing function is overridden with the operating panel keys. During daytime, the immobilizer can be switched off and, after work, it is reactivated to prevent theft, of increasing frequency on construction sites.

## Fuel savings through smart technology

O&K has undertaken many interrelated and co-ordinated efforts to cut fuel bills substantially: variable flow, the prioritised ECO output level and rev-lowering under zero-load conditions. Plus the closed swing circuit preventing unnecessary hydraulic heat build-up during superstructure swing-off and braking. Hence, less need to cool and less fuel consumption.

## Precision flow control

Working functions are initiated with extreme precision and virtually no wastage since oil flow matches actual needs for even closer control. The outcome: lower oil temperatures, extended lifetime for all components and appreciable fuel savings.



## Patented TriPower for much improved productivity

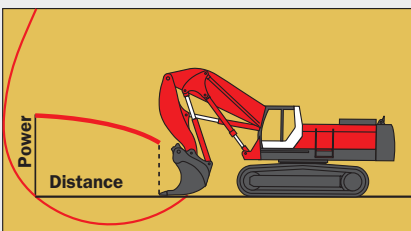
Faster loading cycles and more productive loading output are the prime benefits of TriPower.

Crowding and digging forces are considerably higher, but with no extra fuel consumption. Also, TriPower reduces machine stress, bucket wear, and makes life easier for the operator.

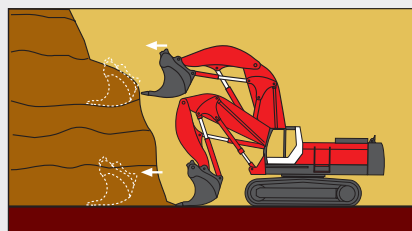


TriPower benefits:

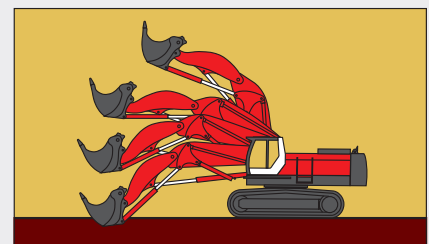
- Crowding force up by around 50 %, rising across the entire crowd path.
- Boom moment up by up to 40 % when lifting the bucket from the pile.
- Constant bucket angle at any boom position. Automatic rollback limit for optimum bucket fill.
- At any digging height, the bucket is held automatically parallel when crowding. Time and fuel savings.
- The boom cylinders are retracted pressure free.



Only O&K's TriPower continuously boosts crowding force across the entire path so that power is always available where most needed.

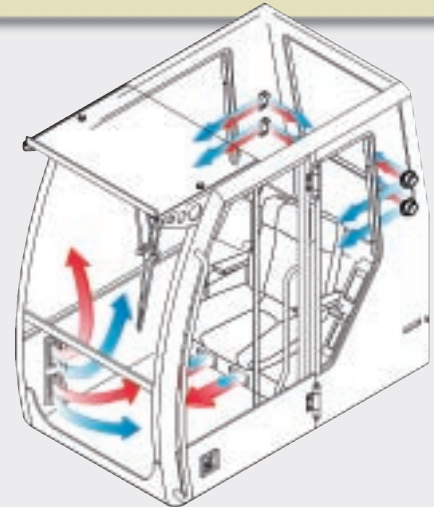


At any digging height, the bucket is always held parallel when crowding. Hence, easier and faster work cycles.



At any boom position, bucket angle is constant; automatic rollback limit prevents material spillage over the bucket rear wall.

## Comfortable, spacious cockpit



**The air conditioning system (optional) uses an ingenious airflow system to ensure agreeable temperatures at all times.**

The ultramodern cab on the RH 25.5 has ample space for the operator plus stowage area behind the seat. The rounded tinted windows of the futuristic softline design prevent glare. The structure of the frame parts and large roof window improve upward visibility substantially. The front pane slides easily under the roof (a standard feature) where it locks safely into place. The lower part can be tilted and removed for optimum cab ventilation.

The doors have sliding windows as standard. The front roof projection in tinted Lexan glass keeps out the rain with the front window open while a standard sunshade prevents rays entering from the front and top.



**Fits snugly behind the operator's seat: the O&K cool box (optional).**

The bright and stimulating colors and stylish design combine to create an agreeable working ambience. All the controls are designed and positioned according to the latest ergonomic findings. The servo-controlled levers with short throw and integrated buttons for additional functions, are conveniently positioned in the individually adjustable side consoles. Additional assets: the comfortable adjustable swing seat, the low noise level, and an extra-throughout ventilator providing slight overpressure within the cab.

## Rugged Cummins construction machinery engine

The clean, water-cooled Cummins engine with turbo charger and intercooler has power to spare. Low engine speeds promote durability. The outstanding torque curve and the low idling speed give this engine its exceptional lugging ability and fuel efficiency.



### Low oil temperature



A separate cooling circuit provides for low oil temperatures. The blower speed is thermally controlled to ensure reduced heat build up and extended pump and hydraulic service life.

### Rugged frame



The rugged, torsion-stiff frame in box construction is robot welded, a modern technology for absolute precision and guaranteed durability.

### Automatic central lubrication system shortens service intervals



Good access to the engine and all the components shortens servicing time and enhances productivity. All the service items are accessible quickly and safely. As a consequence, routine maintenance is completed in no time at all.

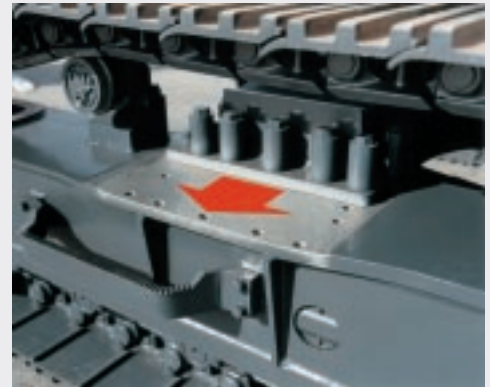
Long-time lubricated components such as the fully encapsulated ball-bearing mounting, help to extend maintenance intervals. The neatly laid out central display shows all the necessary checks and maintenance jobs.

In addition, the O&K diagnosis system registers any engine and/or hydraulic defects and reports them before damage occurs.

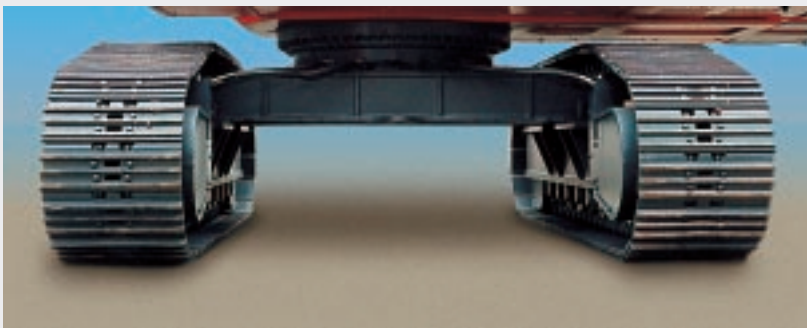


## 20% higher lift capacity with adjustable undercarriage

The rugged VLC undercarriage can be mechanically widened from its transport width of 3000 mm (600 mm tracks) by 500 mm. This gives 20 % added lateral lift capacity. Enormous tractive forces and high travel speeds ensure exceptional productivity even on the most difficult terrain. Excellent traction and optimum overall balance boost stability and lugging ability on the RH 25.5.

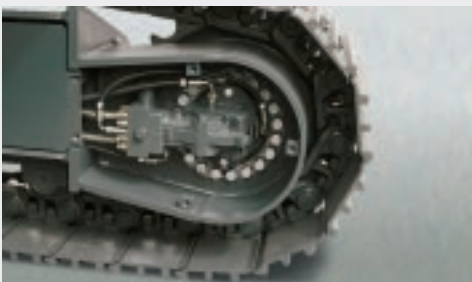


## Low-maintenance undercarriage



The oversized crawlers with track tensioning and the sealed chain link bearings need very little maintenance, just as the entire undercarriage. The track and supporting rollers need none at all (lifetime lubrication).

## Safely encapsulated final drives



Compact final gears, drive motors and lines are completely encapsulated within the crawler profile for safe protection against stones and rubble.

## Automatic track cleaning

The patented track cleaning and guide system (optional) is an effective protection against dirt. While the machine is travelling, the tracks are continuously and automatically cleaned. The wedge shape of the shoe dislodges dirt sideways out of the tracks, preventing build-up at the idlers and sprockets. Track wear is significantly reduced, the track tensioning system has less work to do and the tracks are prevented from slipping off.







## Engine

Cummins diesel N 14-C  
 Water-cooled • Turbo charged • Integrated charge-air cooler •  
 Electric rev adjustment • Electric engine stop at key switch

Engine output ISO 9249	298 kW / 1800 RPM
Governed engine output	284 kW
Cylinders / displacement	6 / 14000 cm <sup>3</sup>
Bore / stroke	140 mm / 152 mm
Voltage	24 V
2 batteries	each 12 V / 135 Ah
Alternator	75 A
Starter	7.7 kW

Exhaust emissions to statutory regulations.



## Cab

Tinted safety glass • Front top pane retracts, lower section can be tilted and removed • Sliding window in the door • Roof window • Rain-protection roof • Three-speed blower • Defroster nozzles for leg area and front window • Central display for all control and monitoring functions • Deluxe operator's seat • Control functions to ISO recommendation • Individually adjustable side consoles • Ergonomic servo-control levers



## Hydraulics

PMS three-pump hydraulics with two working pumps and separate slewing pump • Individual control for each pump • Variable flow • Double flow • Parallel bucket circuitry allows 4 functions simultaneously • Hydraulic oil cooler with controlled blower drive • High-pressure lines with flanged fittings • Micro filtration for return flow, servo and slewing circuits

Maximum delivery, main pumps	2 x 350 l/min
Maximum delivery, swing pump	200 l/min
Maximum pressure without booster	320 bar
Maximum pressure with booster	360 bar
Maximum pressure, swing gear	390 bar



## Control and monitoring system

Engine and pump monitoring with electronic load-limit control (PMS III) • Controlled heat-up phase • Temperature monitoring for engine and hydraulic system with output lowering to protect engine and pumps • Automatic engine speed lowering

3 selectable output levels:

	Heavy	Eco	Lift
RPM	1800	1800	1800
Pump output	100%	90%	65%



## Slewing gear

Slewing pump and motor in sealed circuit for no-loss start-up and braking of superstructure • Slew gear with integrated wear-proof multi-disc brake • Encapsulated ball-bearing mounting with long-time lubrication

Effective braking moment	192 kNm
Maximum slew rpm	5.3



## Drive

Separate hydraulic drive for each crawler • Stone guard for variable-displacement motor, transmission and brake valve all within the crawler profile • Track guard • Low-maintenance crawlers with track tensioning • Sealed track pin mounting, life-time-lubricated main and upper rollers • O&K TCG track cleaning and guide system

Max. effective tractive force	HD	445 (425*) kN
	VLC	445 kN
Max. travel speed	HD	4.5 (2.6*) km/h
	VLC	4,5 km/h
Track pads per crawler	HD	53 (47*)
	VLC	53

\* bucket version



## Capacities

Fuel tank	900 l
Cooling system	45 l
Engine oil, incl. filter	40 l
Slewing gear	2 x 4 l
Hydraulic tank	420 l
Hydraulic system	850 l

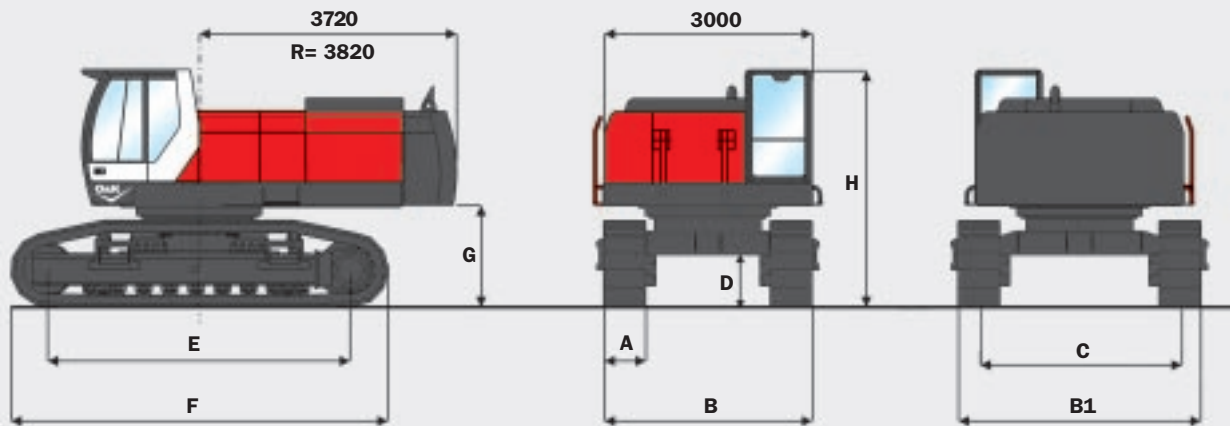
## Working attachment

Automatic central lubrication • Reduced maintenance due to hardened and corrosion-protected pins, low-wear bushings, sealed bearings • Hydraulic cylinders with articulated bearings at both ends • Spotlight mounted on frame and counterweight • Progressive end-of-stroke damping

## Options

Air conditioning • Eco-friendly hydraulic oil • Heater • Electrical refuelling • Power boost function • Anti-burst device and overload warning device • Mid-mounted track guide • Grab with hydraulic switchover valve on the bucket cylinder • Stone guard • Deluxe cab • Fittings for radio/cassette recorder

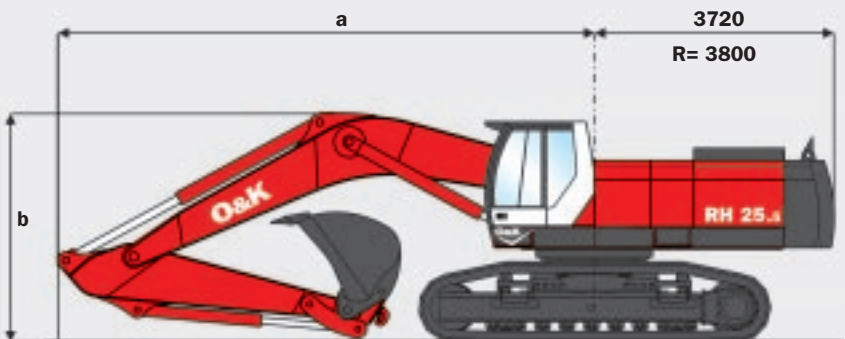
## Weights and dimensions



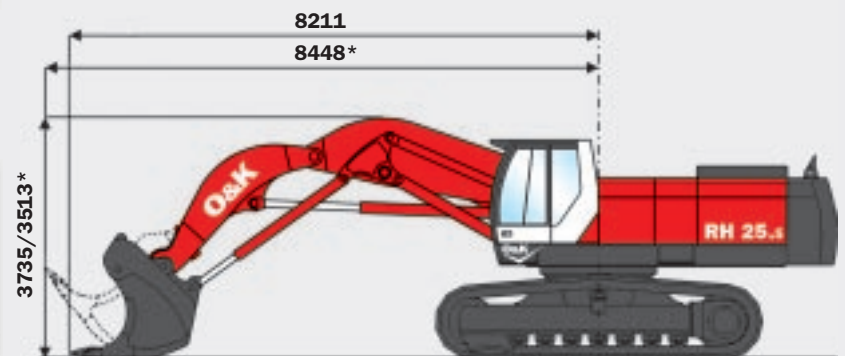
	A	B	B1	C	D	E	F	G	H
RH 25.5 HD 600	600	3850	–	3250	575	3945	1470	5100	3440
RH 25.5 HD 750	750	4000	–	3250	575	3945	1470	5100	3440
RH 25.5 LC 600	600	3850	–	3250	582	4630	1460	5790	3430
RH 25.5 LC 700	750	4000	–	3250	582	4630	1460	5780	3430
RH 25.5 VLC 600	600	3330	3830	2730	855	4610	1610	5750	3580
RH 25.5 VLC 700	750	3480	3980	2730	855	4610	1610	5750	3580

\* Only transport position

Transport dimensions, backhoe				
	6.7 m		7.7 m	
	a	b	a	b
2.6 m	12.100	3.750	13.100	4.050
3.4 m	12.100	3.650	13.100	4.000
4.4 m	12.200	3.950	13.200	4.250



Transport dimensions, bucket		
	6.7 m	7.7 m
		tilted
a	12.000	12.300
b	3.900	3.700

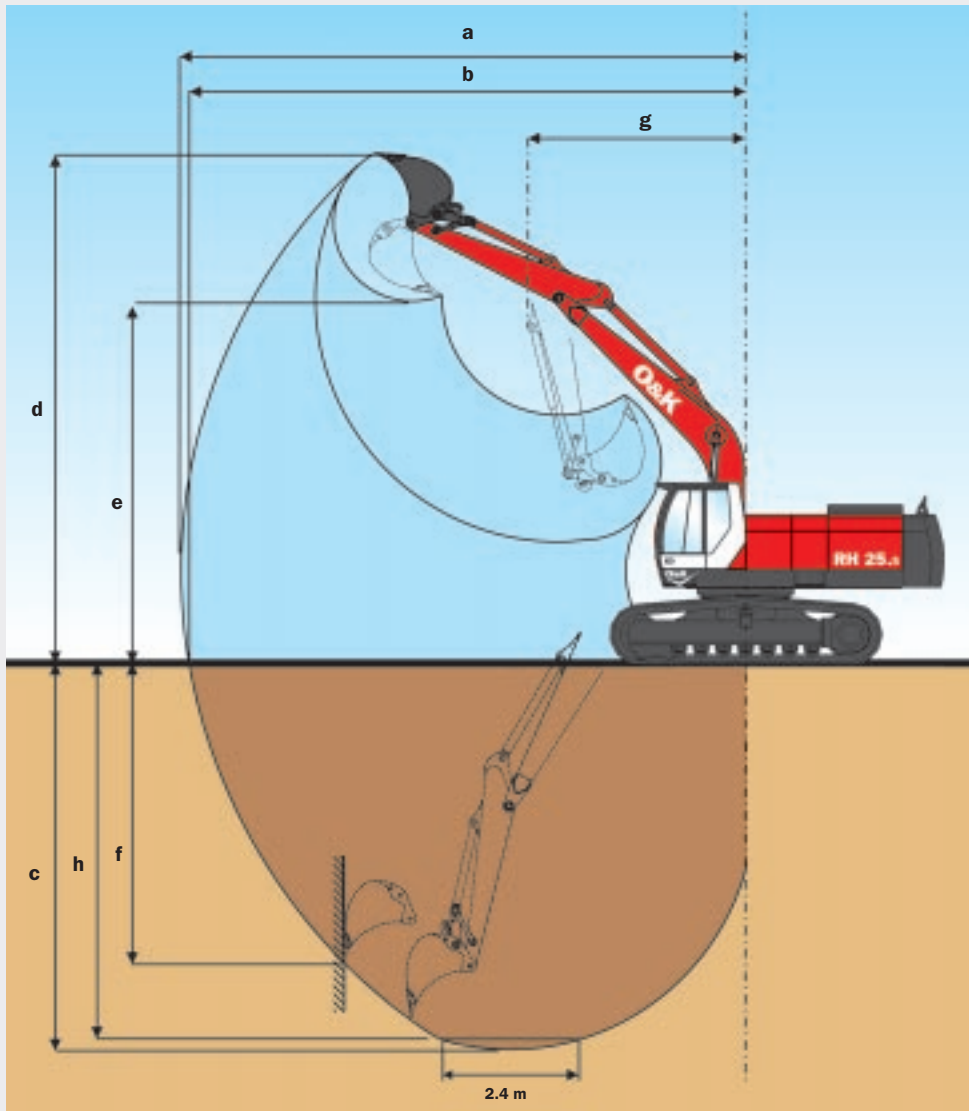


\* Bucket tilted

	Weight	Track size	Main rollers	Upper rollers	Ground pressure
RH 25.5 HD 600	59650 kg	D 8H	7	1	1.14 kg/cm <sup>2</sup>
RH 25.5 HD 750	60700 kg	D 8H	7	1	0.93 kg/cm <sup>2</sup>
RH 25.5 LC 600	58500 kg	D 8H	8	2	0.97 kg/cm <sup>2</sup>
RH 25.5 LC 750	59500 kg	D 8H	8	2	0.79 kg/cm <sup>2</sup>
RH 25.5 VLC 600	60900 kg	D 8H	8	3	1.01 kg/cm <sup>2</sup>
RH 25.5 VLC 750	62000 kg	D 8H	8	3	0.82 kg/cm <sup>2</sup>

7.7 m Monoboom, 3.4 m Stick und trenching bucket (2140 kg)

## Digging diagrams, backhoe with monoboom



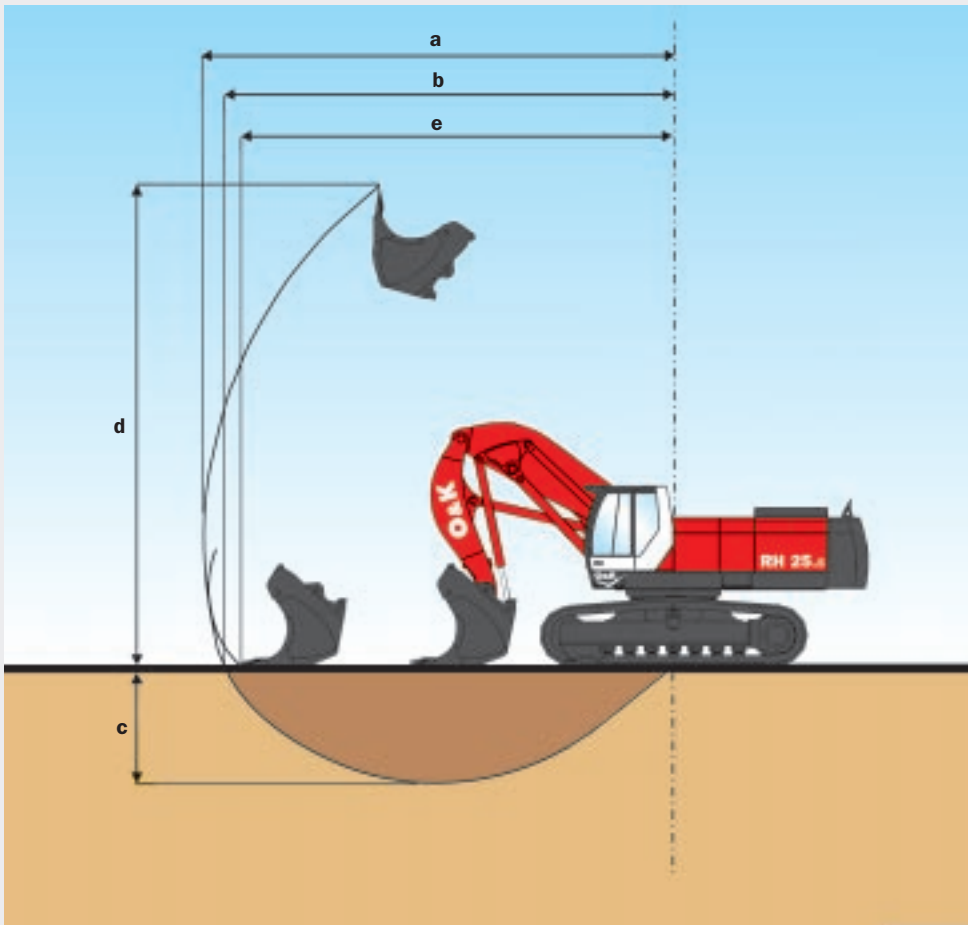
Range*	Stick length	Mono 6.7 m			Mono 7.7 m			
		2.6 m	3.4 m	4.4 m	2.6 m	3.4 m	4.4 m	
<b>a</b>	Maximum reach	m	11.3	12.0	12.9	12.3	13.0	14.0
<b>b</b>	Maximum reach at ground level	m	11.0	11.7	12.6	12.0	12.8	13.7
<b>c</b>	Maximum digging depth	m	6.5	7.3	8.3	7.4	8.2	9.2
<b>d</b>	Maximum penetration height	m	11.2	11.5	11.9	11.9	12.2	12.7
<b>e</b>	Maximum dump height	m	7.8	8.1	8.5	8.5	8.8	9.2
<b>f</b>	Maximum vertical digging depth	m	3.0	3.8	4.8	3.7	4.5	5.5
<b>g</b>	Minimum slew radius	m	3.8	3.8	3.8	3.8	3.8	3.8
<b>h</b>	Maximum digging depth with 2.4 m (8') wide base	m	6.3	7.1	8.1	7.2	8.0	9.1

\* VLC undercarriage

Stick		Digging forces		
		2.6 m	3.4 m	4.4 m
Breakout force*	kN	280	280	280
Ripping force*	kN	278	235	197

\* with booster

## Digging diagrams, loading bucket



### Range\*

<b>a</b>	Maximum digging height	m	8.9
<b>b</b>	Maximum digging reach	m	8.7
<b>c</b>	Maximum digging depth	m	2.0
<b>d</b>	Maximum penetration height	m	7.2
<b>e</b>	Crowd force, ground level	kN	3.3

\* bucket 4.0 m<sup>3</sup>

### Digging forces

Breakout force*	kN	320
Ripping force*	kN	320

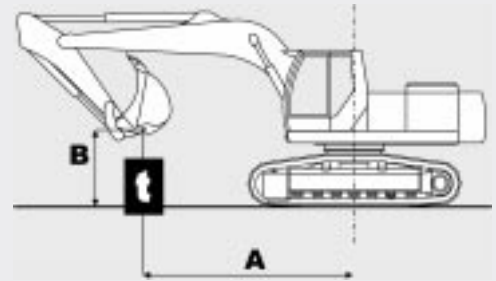
\* with booster

## Lift capacities

## Monoboom 6.7/7.7 m • Backhoe 2.0 m<sup>3</sup> SAE

According to ISO 10567, the loads stated amount to 75 % of the static tipping load or 87 % of the hydraulic lift capacity. The figures apply with the booster activated.

- a Total slewing radius 360°
- b Longitudinal direction +/- 15°
- \* Limited by the hydraulic system



RH 25.5 / 600 VLC												Monoboom 7.7	
A	3.0 m		4.5 m		6.0 m		7.5 m		9.5 m		max.		
Sticks	B	a	b	a	b	a	b	a	b	a	b	a	b
	4.5 m					17.7*	17.7*	14.0*	14.0*	11.2	12.0*		
	3.0 m					18.8	20.1*	13.8	15.3*	10.8	12.7*		
	1.5 m					18.1	21.3*	13.3	16.2*	10.4	13.3*		
2.6 m	Gr. level					17.8	21.3*	13.0	16.6*	10.2	13.5*	9.1	9.7*
	1.5 m			24.9*	24.9*	17.8	20.5*	12.9	16.3*	10.1	13.2*		
	3.0 m	26.2*	26.2*	23.6*	23.6*	17.9	19.0*	13.0	15.2*				
	4.5 m			22.8*	22.8*	16.0*	16.0*	12.9*	12.9*	11.1*	11.1*		
	3.0 m					18.7*	18.7*	14.0	14.4*	10.8	12.0*		
	1.5 m					18.2	20.5*	13.4	15.6*	10.4	12.7*		
3.4 m	Gr. level			16.6*	16.6*	17.7	21.1*	13.0	16.2*	10.1	13.2*	7.3*	7.3*
	1.5 m	15.1*	15.1*	22.6*	22.6*	17.5	20.9*	12.8	16.3*	10.0	13.2*		
	3.0 m	21.7*	21.7*	25.7*	25.7*	17.6	19.8*	12.8	15.6*	10.0	12.6*		
	4.5 m					13.7*	13.7*	11.4*	11.4*	10.0*	10.0*		
	3.0 m			24.2*	24.2*	16.6*	16.6*	13.0*	13.0*	10.9	11.0*		
	1.5 m			17.5*	17.5*	18.5	19.0*	13.5	14.5*	10.4	11.9*		
4.4 m	Gr. level			17.6*	17.6*	17.7	20.3*	12.9	15.5*	10.1	12.6*	5.5*	5.5*
	1.5 m	13.3*	13.3*	20.9*	20.9*	17.3	20.7*	12.6	16.0*	9.8	12.9*		
	3.0 m	18.0*	18.0*	25.9*	25.9*	17.2	20.3*	12.5	15.8*	9.7	12.8*		

RH 25.5 / 600 VLC												Monoboom 6.7	
A	3.0 m		4.5 m		6.0 m		7.5 m		9.5 m		max.		
Sticks	B	a	b	a	b	a	b	a	b	a	b	a	b
	4.5 m			24.6*	24.6*	18.0*	18.0*	14.9*	14.9*	11.6	13.2*		
	3.0 m			29.5*	29.5*	20.0	20.5*	14.6	16.2*	11.2	13.8*		
	1.5 m			23.9*	23.9*	19.2	22.2*	14.1	17.2*	11.0	14.2*		
2.6 m	Gr. level			29.3	29.5*	18.8	22.5*	13.8	17.5*	10.8	14.2*	9.7*	9.7*
	1.5 m	24.7*	24.7*	28.4*	28.4*	18.7	21.6*	13.7	16.9*				
	3.0 m	32.2*	32.2*	24.9*	24.9*	18.8	19.4*	13.8	15.0*				
	4.5 m			21.2*	21.2*	16.2*	16.2*	13.7*	13.7*	11.6	12.2*		
	3.0 m			27.0*	27.0*	19.0*	19.0*	14.7	15.2*	11.3	13.0*		
	1.5 m			29.7	29.7*	19.4	21.2*	14.1	16.5*	10.9	13.7*		
3.4 m	Gr. level	14.5*	14.5*	29.2	29.4*	18.8	22.2*	13.7	17.2*	10.7	14.0*	7.4*	7.4*
	1.5 m	21.2*	21.2*	29.0	29.9*	18.5	22.0*	13.5	17.1*	10.5	13.8*		
	3.0 m	28.7*	28.7*	27.2*	27.2*	18.5	20.5*	13.5	16.0*				
	4.5 m							12.0*	12.0*	11.0*	11.0*		
	3.0 m			22.9*	22.9*	16.8*	16.8*	13.7*	13.7*	11.4	11.9*		
	1.5 m	12.3*	12.3*	27.9*	27.9*	19.5*	19.5*	14.3	15.3*	11.0	12.8*		
4.4 m	Gr. level	14.4*	14.4*	29.3	30.3*	18.9	21.3*	13.7	16.4*	10.6	13.5*	5.5*	5.5*
	1.5 m	18.6*	18.6*	28.7	30.5*	18.4	21.9*	13.4	16.9*	10.4	13.7*		
	3.0 m	23.9*	23.9*	28.6	29.0*	18.2	21.3*	13.2	16.5*	10.3	13.2*		

According to the European Standard EN 474/5, hydraulic excavators used in load hook operation must be fitted with anti-burst valves at the lift cylinders and an overloading warning device.

## Attachments

## Dimensions and weights



		Monoboomb		Sticks		
<b>System length</b>	m	6.70	7.70	2.60	3.40	4.40
<b>Weight</b>	kg	4030	4440	1755	1995	2315
<b>Linkage</b>	kg	-	-	500	500	500
<b>Cylinder</b>	kg	780		505		

## Backhoe



		Backhoe					
<b>Capacity (CECE)</b>	m <sup>3</sup>	1.70	2.00	2.30	2.70	3.10	3.50
<b>Capacity (SAE)</b>	m <sup>3</sup>	1.90	2.30	2.60	3.10	3.50	4.00
<b>Width</b>	mm	1420	1620	1625	1825	2025	2025
<b>Teeth</b>	Stück	4	5	5	5	6	6
<b>Weight</b>	kg	1780	1980	2140	2310	2540	2612

Further buckets on request

## Loading bucket



		Standard rock bucket	Bucket stick		Lower section
<b>Bucket capacity SAE/CECE</b>	m <sup>3</sup>	2.5	4.0		
<b>Width</b>	mm	2200	2200	2900	4000
<b>Weight</b>	kg	3500 w/o arm. plate	4550	2017	3450
<b>Weight boom cyl.</b>	kg	-	-	-	2 x 340
<b>Weight tilt cyl.</b>	kg	-	-	464	-
<b>Weight stick cyl.</b>	kg	2 x 363	-	-	-

Further buckets on request



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