

WA180-3 *active* The advantages at a glance.

Gull wing engine side covers including rear fender and rear radiator grill open fully at a touch. These afford clean, easy and light maintenance.

Integrated ROPS/FOPS driver's cab mounted on rubber bearings reduces noise and vibration. Noise level in the cab 75 dB(A) 95/27/EC.

Exterior parts are treated with rust resistant undercoat and strong top coat. High quality paint assures good appearance.

A kick down switch on the boom lever shifts from forward 2nd to 1st gear at a touch and provides larger rim pull.

The Z-kinematics assure high tearout force and fast dump, raise, down and tilt speed.

6 cylinder KOMATSU low emission engine. Already conforms to the future EU standard tomorrow.

The engine, torque converter and transmission as well as the hydraulic equipment and electrical parts under go strict quality control for enhanced reliability and durability.

Fully automatic four gear shift transmission affords superior maneuverability.

Torque proportioning differentials in both axles enable a smooth ride in muddy or sandy terrain.

Fully sealed wet disc type service and parking brakes provide full protection against dust. This ensures less - maintenance and service.

Options

- High quality, modern and electrically controlled air conditioning system assures always clean and the most comfort in the cab.
- ECSS reduces vibrations and protects driver and machine.
- Wide variety front attachments apply the machine to various applications.

KOMATSU HANOMAG: The best of both worlds.

The wheel loaders are the WA-3 series of the first integrated products which have been jointly produced by KOMATSU and HANOMAG in

Hanover. Besides the production of wheel loaders, the factory in Hanover is also specialised in the construction and design of axles and transmissions.

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WHEELED LOADER WA180-3 ACTIVE



KOMATSU

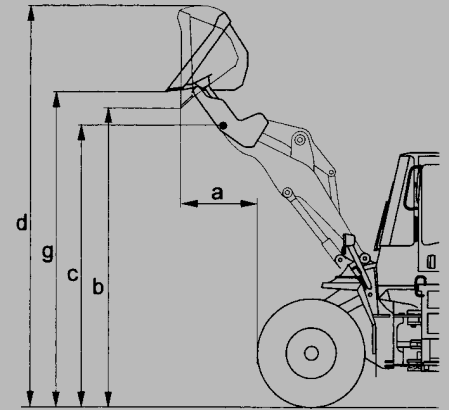
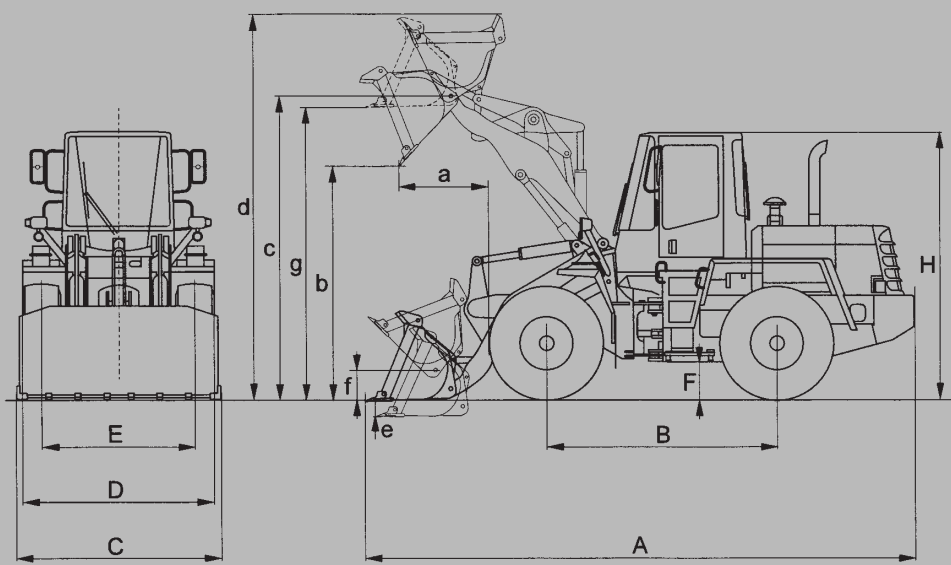
Engine output: **82 kW/112 HP/2.400 rpm**
Bucket sizes: **1.6–2.2 m³**
Operating weight: **9.3 ton**



WA180-3 *active*

- Low emission and powerful Komatsu S6D102E engine provides an environmentally-friendly and fuel efficient operation
- Large bucket capacity and dumping clearance enhance overall productivity and working efficiency
- Full automatic four-gearshift transmission provides optimum speed, resulting in greater maneuverability
- Kick-down switch on the loader control lever improves pile-penetration and scooping operations
- Torque proportioning differentials ensure a smoother, positive ride on rough terrain for longer tire life
- Reduced outside noise level of 106 dB(A) meets 95/27/EC
- Rubber-mounted floor frame reduces vibration and noise. Noise level in the cab is 75 dB(A) by 95/27/EC
- Durable and ergonomically designed steps and handrails guarantee safety and comfort
- Adjustment-free service and parking brakes account for higher performance and reduced downtime
- Gull-wing engine side covers facilitate easy engine access and easy checking/replacement of engine oil or filters
- Rust-resistant high-quality paint assures good appearance and longer service life

Dimensions and Operating Data.



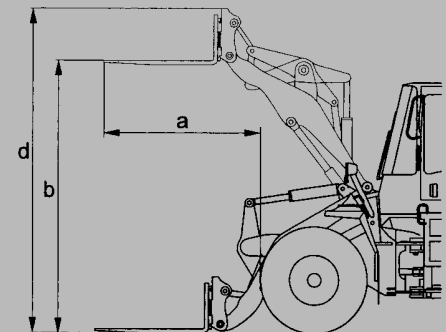
- B: Wheel base 2700 mm
- D: Width over tires 2310 mm
- E: Tread 1820 mm
- F: Ground clearance 425 mm
- H: Height of cab 3095 mm
- c: Hinge pin high 3540 mm
- Tire 17.5 R 25

	Standard	Loading	Light Material	High dump
Bucket Part Nr	417-70-H2700	417-70-H2800	417-70-H2660	417-70-H2910
Bucket SAE heaped	1.6 m ³	1.7 m ³	2.2 m ³	1.9 m ³
Density	1.8 ton/m ³	1.7 ton/m ³	1.3 ton/m ³	1.2 ton/m ³
Payload	2900 kg	2900 kg	2900 kg	2300 kg
C Bucket width	2500 mm	2500 mm	2700 mm	2700 mm
Bucket weight	790 kg (teeth)	840 kg (BOC)	790 kg	1100 kg
Static tipping load straight	7930 kg	7880 kg	7930 kg	6400 kg
Static tipping load articulated	6890 kg	6850 kg	6890 kg	5560 kg
Breakout force	9320 daN	8840 daN	8430 daN	5800 daN
Lift capacity (on ground)	5420 daN	5210 daN	5240 daN	4280 daN
Turning radius at corner of bucket teeth	5480 mm	-	-	-
Turning radius at corner of bucket	5390 mm	5430 mm	5540 mm	5730 mm
A Overall length	6590 mm (teeth) 6400 mm	- 6450 mm	- 6500 mm	- 6950 mm
a Dumping reach	1090 mm (teeth) 990 mm	- 1030 mm	- 1065 mm	- 1540 mm
b Dumping clearance	2580 mm (teeth) 2740 mm	- 2710 mm	- 2670 mm	- 4130 mm
d Total height	4720 mm	4720 mm	4860 mm	5350 mm
e Digging depth	90 mm	110 mm	90 mm	105 mm
g Clearance at bucket horizontal	3390 mm	3370 mm	3390 mm	4320 mm
Operating weight	9330 kg	9380 kg	9330 kg	9640 kg

Engine emissions ISO 8178

- HC = 0,61 g/kWh (1,3)
- CO = 0,98 g/kWh (5,0)
- Nox = 8,16 g/kWh (9,2)
- PM = 0,34 g/kWh (0,7)

Figures in () show the limit of new EC regulation of the year 2001.



Fork

- b Dumping clearance (Fork clearance) 3390 mm
- a Dumping reach (Fork reach) 1860 mm
- d Total height 4040 mm
- Static tipping load, 0° (ISO 8313) 5980 kg
- Static tipping load, 40° 5200 kg
- Max. payload EN 474, 80 % 4160 kg
- Lift capacity 6300 daN

Bucket type	Capacity in m ³	
Bucket	1.6	
Bucket	1.7	
Light-mat. bucket	2.2	
Material density	in (t/m ³)	0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0


In most cases, the actual volume ranges higher than the ISO/SAE classification. The table specifies the optimum bucket with reference to the material.


Material	Bucket filling %	Density t/m ³
Earth	100-115	1.5-1.6
Clay	110-120	1.5-1.7
Sand	100-110	1.4-1.8
Gravel	85-110	1.5-2.0
Rock	75-100	1.6-2.0


- not economical
- recommended
- fully utilised


The specifications at a glance.


The actual standard equipment varies according to the sales territory.
Please contact your KOMATSU HANOMAG distributor for any further information.


 Engine	
Make	KOMATSU
Model	S6D102 E1
Type	Diesel, Turbo
Power at engine speed	82 kW/110 hp (DIN 70020) 2,400 rpm
Max. torque	417 Nm (DIN 70020)
Number of cylinders	6
Bore/stroke	102/120 mm
Displacement	5,900 cm ³
Compression ratio	17.3 : 1
Combustion principal	Direct injection, turbocharged
Cooling system	Two-circuit liquid cooling, with thermostat control
Electrical system	24 volt
Battery	2 x 12 volt, 110 Ah
Three-phase alternator	35 A
Air filter type	HD dry air filter


 Transmission	
Type	Fully automatic Full Powershift transmission with "kick down" system


 Travel speeds	
Forward	1st gear 0 - 7.2 km/h
	2nd gear 0 - 12.0 km/h
	3rd gear 0 - 22.0 km/h
	4th gear 0 - 34.5 km/h
Reverse	1st gear 0 - 7.7 km/h
	2nd gear 0 - 12.6 km/h
	3rd gear 0 - 22.9 km/h
	4th gear 0 - 35.0 km/h

 Filling capacities	
Fuel	170 l
Engine oil	19.5 l
Cooling system	21.5 l
Torque converter/ transmission power shift	23.5 l
Front axle	14.0 l
Rear axle	14.0 l
Operating hydraulics system	41 l

 Hydraulic system	
Operating pressure	210 bar
Relief valve setting	210 bar
Delivery capacity	144 l/min
Loading times	
lifting (full load)	5.0 sec.
dumping	1.1 sec.
lowering	2.5 sec.
Automatic bucket lift kickout, automatic digging angle adjustment.	

 Chassis	
System	All-wheel drive, planetary reduction gear in the differential housing
Front axle	HD axle with torque proportioning differential
Rear axle	HD axle with torque proportioning differential, oscillating suspension
Oscillating Tyres	12° per side 17.5 R25 17.5-25 555/70 R25 445/80 R25

 Steering system	
Type	Hydrostatic
System	Articulated steering
Centre pivot	adjustment free
Steering angle	40° per side
Steering pump	
operating pressure	190 bar
delivery capacity	106 l/min
Min. turning radius	
outer edge, standard bucket	5430 mm
Emergency steering system	Via additional pump

 Brakes	
Operating brake	Hydraulically actuated, wet disc brakes on four wheels (all-wheel brake)
Parking brake	Wet disc brake in transmission

Standard equipment

Sound-insulated high-comfort driver's cab with integrated (ROPS/FOPS)

- openable windows
- 2 halogen front headlights
- 2 halogen working lights each at front and rear
- vandalism protection
- AM/FM cassette player
- fully automatic transmission with additional kick down device
- single-lever hydraulic actuation
- service brake wet disc type
- Torque proportioning differentials in front and rear axle
- emergency steering system
- automotive type instrument panel
- automatic digging angle adjustment (return to dig)
- bucket lift kickout
- 17.5 R25 tyres (radial)
- loader linkage sealed z-bar design – sealed bearing points
- integrated sound insulation
- registered according to StVZO
- fully reclining seat with head rest
- batteries 2 x 12 V 110 Ah
- alternator 35 A
- starting motor 24 V 4.5 kW.

The WA180-3 is equipped in accordance with safety regulations and its emission values correspond to the regulations of the international standard ISO 6393 and the EC directive 95/27/EC, noise levels:
L_{WA} = 106 dB(A), L_{pA} = 75 dB(A).

Options

Hydraulic quick-coupler attachment • load stabiliser (ECSS System)

- large bucket cylinder
- additional counter weight
- 3 spool valve
- back-up alarm
- central lubricating system
- special buckets
- special tyres (e.g. rock, recycling, sand, clay etc.)
- tyre protecting chains
- catalytic converter
- air-conditioning (cfc free)
- speed limit (20 km/h)
- TURBO II pre-filter
- multi-function lever for hydraulic system + transmission (MFL)
- Fire extinguisher.