SPECIFICATIONS

ENGINE

Model ..... Komatsu SAA6D140E-5
Type ..... Common rail direct injection, water-cooled, turbocharged, after-cooled, cooled EGR diesel
Engine power
at rated engine speed ..... 1.900 rpm
ISO 14396 ..... 266 kW / 357 HP
ISO 9249 (net engine power) ..... 263 kW / 353 HP
Max. torque / engine speed ..... 1.875 Nm / 1.250 rpm
No. of cylinders 6
Bore × stroke ..... 140 × 165 mm
Displacement ..... 15,24 ltr
Fan drive type ..... Hydraulic
Lubricating system ..... Gear pump, water-cooled oil cooler, piston cooling nozzles
Filter ..... Main-flow filter with water separator
Air-filter type ..... Dry-air filter with automatic dust emission and preliminary purification including a dust display

TRANSMISSION

Type ..... Automatic powershift transmission
Torque converter ..... One-stage, double-phase, 3-element
Speeds in km/h (with 29.5 R25 tyres)

GEAR	1st	2nd	3rd	4th
Forwards	7,7	12,5	22,3	35
with torque converter lock-up	–	14	24	40
Reverse	8,6	13	25	37,5
with torque converter lock-up	–	16	26	43

CHASSIS AND TYRES

System ..... 4-wheel drive
Front axle ..... Komatsu HD axle, full-floating, (LSD-differential optional)
Rear axle ..... Komatsu HD axle, full-floating, 24° swing angle (LSD-differential optional)
Differential ..... Straight bevel gear pair
Final drive ..... Planetary gear in an oil bath
Tyres 29.5 R25

ENVIRONMENT

Engine emissions ..... Fully complies with EU Stage IIIA and EPA Tier III exhaust emission regulations
Noise levels
LwA external ..... 109 dB(A) (2000/14/EC Stage 2)
LpA operator ear ..... 77 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)*
Hand/arm ..... ≤ 2,5 m/s² (uncertainty K = 0,04 m/s²)
Body ..... ≤ 0,5 m/s² (uncertainty K = 0,28 m/s²)
* for the purpose of risk assessment under directive 2002/44/EC, please refer to ISO/TR 25398:2006.

BRAKES

Operating brakes ..... Hydraulically actuated, wet multi-disc brakes on all wheels
Parking brake ..... Wet-disc
Emergency brake ..... Uses the parking brake

HYDRAULIC SYSTEM

Type ..... Komatsu CLSS (Closed Centre Load Sensing System)
Hydraulic pump ..... Variable piston pump
Working pressure ..... 350 bar
Maximum pump flow ..... 321 ltr/min
No. of hydraulic/bucket cylinders 2/1
Type ..... Double-action
Bore diameter × stroke
Boom cylinder ..... 160 × 898 mm
Bucket cylinder ..... 185 × 675 mm
Hydraulic cycle with rated load bucket filling
Raise time ..... 7,2 s
Lowering time (empty) ..... 4,2 s
Dumping time ..... 1,7 s

STEERING SYSTEM

System ..... Articulated frame steering
Type ..... Completely hydraulic power steering
Steering angle to either side ..... 40°
Steering pump ..... Variable piston pump
Working pressure ..... 250 bar
Pumping capacity ..... 120 ltr/min
No. of steering cylinders 2
Type ..... Double-action
Bore diameter × stroke ..... 100 × 485 mm
Smallest turn (outer edge of the tyre 29.5 R25) ..... 6.870 mm

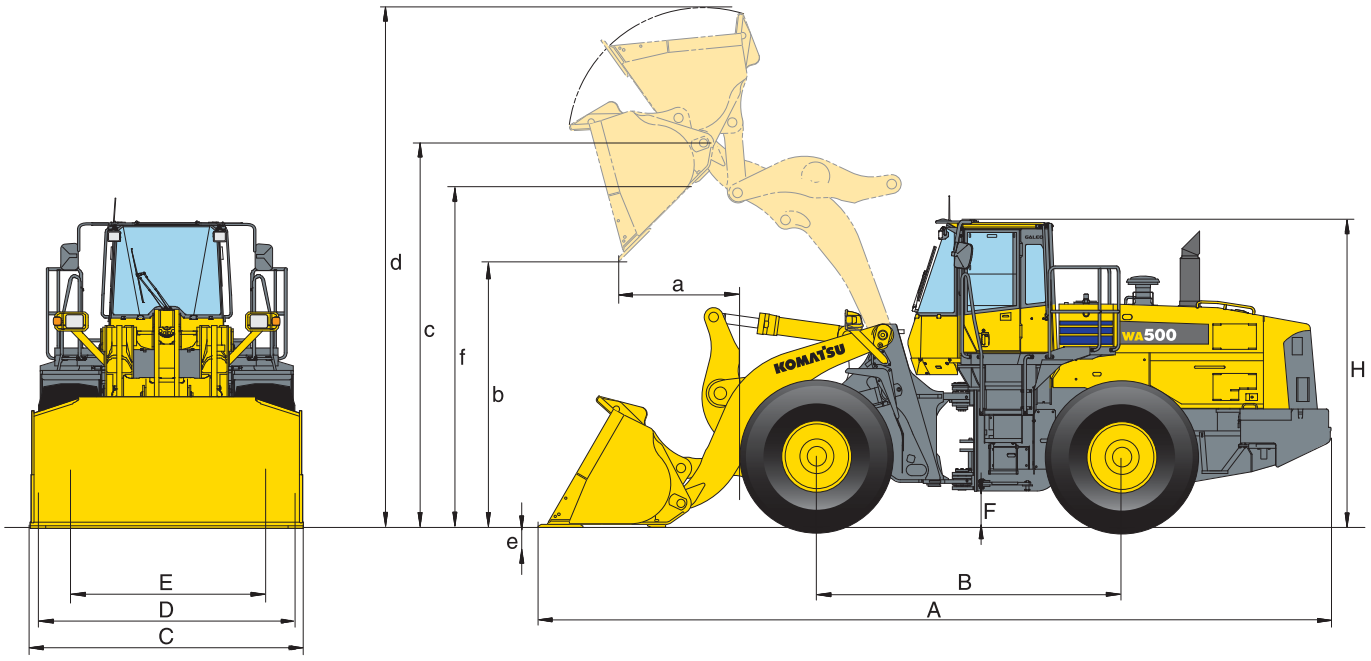
CABIN

Two-door SpaceCab™ in conformity with ISO 3471 with ROPS (roll over protective structure) in conformity with SAE J1040c and FOPS (falling object protective structure) in conformity with ISO 3449. The air-conditioned pressurised cabin is mounted upon hydrobearings and is noise dampened.

SERVICE REFILL CAPACITIES

Cooling system ..... 120 ltr
Fuel tank ..... 473 ltr
Engine oil ..... 45 ltr
Hydraulic system ..... 337 ltr
Front axle ..... 87 ltr
Rear axle ..... 81 ltr
Torque converter and transmission ..... 76 ltr

DIMENSIONS AND PERFORMANCE FIGURES

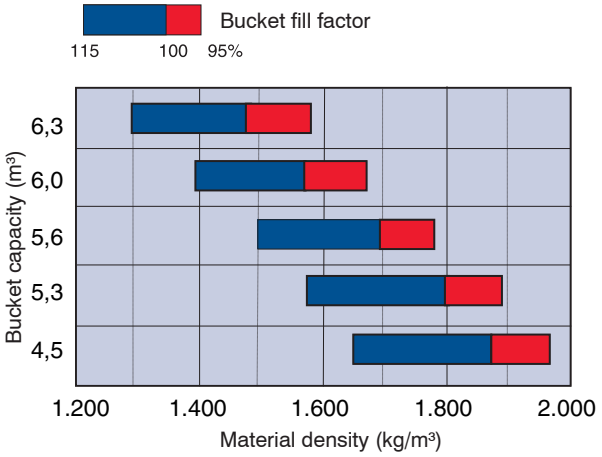


Measurements and working specifications

			Universal bucket			Rock bucket Straight edge		Rock bucket Spade nose	
			w/o teeth	with teeth	with BOC	with teeth	with BOC	with teeth	with BOC
	Bucket capacity (heaped, ISO 7546)	**m³**	**5,3**	**5,3**	**5,6**	**5,2**	**5,5**	**5,2**	**5,5**
	Sales code	3943-	C01	C02	C03	C29	C30	C32	C33
	Material density	t/m³	1,8	1,8	1,7	1,8	1,7	1,75	1,65
	Bucket weight	kg	2.660	2.875	2.915	3.015	3.060	3.240	3.280
	Static tipping load, straight	kg	24.000	23.700	23.480	23.645	23.400	23.080	22.930
	Static tipping load, 40° articulated	kg	20.930	20.640	20.440	20.565	20.350	20.040	19.900
	Break-out force hydraulic	kN	274	272	259	271	258	220	210
	Lifting capability hydr. at ground level	kN	302	300	298	298	297	293	292
	Operating weight (without add. counterw.)	kg	31.700	31.915	31.955	32.055	32.100	32.280	32.320
	Turning radius at corner of tyres	mm	6.870	6.870	6.870	6.870	6.870	6.870	6.870
	Turning radius at bucket edge	mm	7.570	7.660	7.600	7.660	7.600	7.660	7.700
a	Reach at 45°	mm	1.350	1.570	1.385	1.570	1.385	1.570	1.610
b	Dump height at 45°	mm	3.460	3.240	3.390	3.240	3.390	3.240	3.165
c	Hinge pin height	mm	4.770	4.770	4.770	4.770	4.770	4.770	4.770
d	Height top edge of bucket	mm	6.510	6.510	6.510	6.690	6.690	6.690	6.690
e	Digging depth	mm	120	120	150	120	150	120	150
f	Max. loading height at 45°	mm	4.420	4.420	4.420	4.420	4.420	4.420	4.420
A	Overall length, bucket grounded	mm	9.580	9.890	9.680	9.890	9.680	9.900	10.000
B	Wheelbase	mm	3.780	3.780	3.780	3.780	3.780	3.780	3.780
C	Bucket width	mm	3.430	3.430	3.440	3.430	3.440	3.430	3.440
D	Width over tyres	mm	3.150	3.150	3.150	3.150	3.150	3.150	3.150
E	Track width	mm	2.400	2.400	2.400	2.400	2.400	2.400	2.400
F	Ground clearance	mm	460	460	460	460	460	460	460
H	Overall height	mm	3.795	3.795	3.795	3.795	3.795	3.795	3.795

All measurements with tyres 29.5 R25. Details of dumping heights and reach to cutting edge or bolt-on cutting edge.

Change in data caused by:	Add. counterweight	Tyres 29.5 R25 XLD D1A-L4	Tyres 29.5 R25 XMINE-L5
Operating weight	+ 900 kg	+ 500 kg	+ 1.140 kg
Static tipping load, straight	+ 1.880 kg	+ 360 kg	+ 810 kg
Static tipping load, 40° articulated	+ 1.580 kg	+ 315 kg	+ 710 kg
Overall length (A)	–	–	–
Reach at 45°	–	- 25 mm	- 20 mm
Dumping height at 45°	–	+ 20 mm	+ 30 mm
Width over tyres	–	+ 20 mm	+ 55 mm
Overall height (H)	–	+ 20 mm	+ 30 mm



Stock pile bucket
Loading loosened material

Stock pile bucket
Loading loosened or broken material, or load & carry

Universal and stock pile bucket
Earthworks, broken material or load & carry

Rock bucket
Loading blasted and particularly abrasive material

Rock bucket
Loading blasted and particularly abrasive material in combination with high-lift boom

	Stock pile					High-lift equipment Universal bucket	
	w/o teeth	with teeth	with BOC	w/o teeth	with BOC	with teeth	with BOC
	5,6	**5,6**	**5,9**	**6,0**	**6,3**	**4,5**	**4,7**
	C10	C11	C12	C05	C07	C14	C15
	1,7	1,65	1,55	1,6	1,45	1,85	1,75
	2.765	2.975	3.020	2.870	3.125	2.570	2.620
	23.755	23.470	23.245	23.540	23.015	20.200	20.080
	20.700	20.420	20.215	20.500	20.000	17.510	17.400
	264	262	249	250	237	307	290
	300	297	295	297	293	254	253
	31.800	32.010	32.055	31.910	31.165	31.760	31.810
	6.870	6.870	6.870	6.870	6.870	6.870	6.870
	7.590	7.680	7.620	7.610	7.640	7.840	7.780
	1.385	1.605	1.420	1.440	1.470	1.570	1.380
	3.430	3.210	3.355	3.375	3.300	3.775	3.920
	4.770	4.770	4.770	4.770	4.770	5.180	5.180
	6.590	6.590	6.590	6.660	6.660	6.770	6.770
	120	120	150	120	150	195	225
	4.420	4.420	4.420	4.420	4.420	4.845	4.845
	9.630	9.940	9.730	9.705	9.805	10.205	10.190
	3.780	3.780	3.780	3.780	3.780	3.780	3.780
	3.430	3.430	3.440	3.430	3.440	3.430	3.440
	3.150	3.150	3.150	3.150	3.150	3.150	3.150
	2.400	2.400	2.400	2.400	2.400	2.400	2.400
	460	460	460	460	460	460	460
	3.795	3.795	3.795	3.795	3.795	3.795	3.795

Typical material density – loose (in kg/m³)

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