## ENGINE

Model ..... Komatsu SAA4D107E-1
Common rail direct injection, water-cooled, emissionised, turbocharged, after-cooled diesel
Engine power
at rated engine speed ..... 2.000 rpm
ISO 14396 ..... 95,0 kW / 127 HP
ISO 9249 (net engine power) ..... 94,0 kW / 126 HP
Max. torque / engine speed ..... 586 Nm / 1.400 rpm
No. of cylinders ..... 4
Bore × stroke ..... 107 × 124 mm
Displacement ..... 4,46 ltr
Lubricating system ..... Gear pump, pressure feed lubrication filter
Filter ..... Main-flow filter
Electrical system ..... 24 V
Battery ..... 2 × 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 ..... 4-14 km/h
2. speed range ..... 14 km/h
3. speed range ..... 22 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 ..... 17 ltr
Fuel tank ..... 177 ltr
Engine oil ..... 15,5 ltr
Hydraulic system ..... 58 ltr
Axle (both front and rear axle) ..... 18 ltr
Transfer ..... 5,0 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

Hydraulic pump ..... Gear pump
Working pressure (max) ..... 206 bar
Circulating capacity of the hydraulic pump ..... 85 + 54 ltr/min
No. of boom/bucket cylinders ..... 2/1
Type ..... Double-action
Bore diameter × stroke
Boom cylinder ..... 125 × 674 mm
Bucket cylinder ..... 150 × 504 mm
Hydraulic control lever ..... Servo-controlled, single lever
Hydraulic cycle with rated load bucket filling
Raise time ..... 5,7 s
Lowering time (empty) ..... 3,2 s
Dumping time ..... 1,6 s

## STEERING SYSTEM

System ..... Articulated frame steering
Type ..... Completely hydraulic power steering
Steering angle to either side ..... 40°
Steering pump ..... Gear pump
Working pressure ..... 206 bar
Pumping capacity ..... 85 ltr/min
No. of steering cylinders ..... 2
Type ..... Double-action
Bore diameter × stroke ..... 70 × 453 mm
Smallest turn (outer edge of the tyre 20.5 R25) ..... 5.150 mm

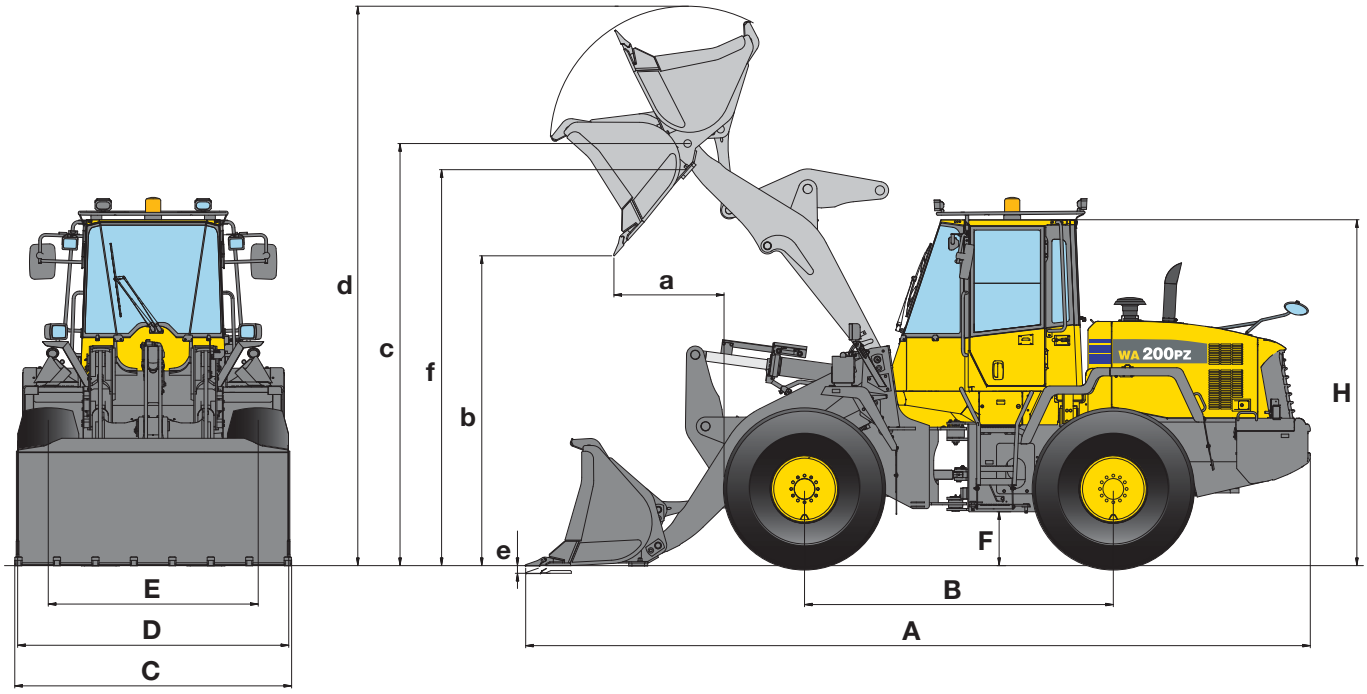
## CABIN

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.

## ENVIRONMENT

Engine emissions ..... Fully complies with EU Stage IIIA and EPA Tier III exhaust emission regulations
Noise levels
LwA external ..... 104 dB(A) (2000/14/EC Stage II)
LpA operator ear ..... 72 dB(A) (ISO 6396 dynamic test)
Vibration levels (EN 12096:1997)*
Hand/arm ..... ≤ 2,5 m/s² (uncertainty K = 0,45 m/s²)
Body ..... ≤ 0,5 m/s² (uncertainty K = 0,26 m/s²)
* 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 |
| | **Bucket capacity (heaped, ISO 7546)** | **m³** | **1,9** | **1,9** | **2,0** | **2,1** | **1,9** | **2,0** |
| | Sales code | | C42 | C43 | C22 | C23 | C02 | C03 |
| | Material density (max) | t/m³ | 1,85 | 1,75 | 1,75 | 1,65 | 1,9 | 1,75 |
| | Bucket weight | kg | 870 | 945 | 890 | 965 | 835 | 910 |
| | Static tipping load, straight | kg | 8.935 | 8.790 | 8.890 | 8.745 | 9.010 | 8.850 |
| | Static tipping load, 40° articulated | kg | 7.830 | 7.690 | 7.785 | 7.645 | 7.900 | 7.750 |
| | Break-out force hydraulic | kN | 118,6 | 111,8 | 114,8 | 108,5 | 117,3 | 110,5 |
| | Lifting capability hydr. at ground level | kN | 112,4 | 112,7 | 112,6 | 112,9 | 112,3 | 112,6 |
| | Operating weight | kg | 11.380 | 11.455 | 11.400 | 11.475 | 11.345 | 11.420 |
| | Turning radius at corner of tyres | mm | 5.150 | 5.150 | 5.150 | 5.150 | 5.150 | 5.150 |
| | Turning radius at bucket edge | mm | 5.735 | 5.700 | 5.745 | 5.710 | 5.740 | 5.705 |
| a | Reach at 45° | mm | 1.055 | 940 | 1.075 | 965 | 1.060 | 950 |
| b | Dump height at 45° | mm | 2.895 | 2.975 | 2.875 | 2.950 | 2.890 | 2.965 |
| c | Hinge pin height | mm | 3.885 | 3.885 | 3.885 | 3.885 | 3.885 | 3.885 |
| d | Height top edge of bucket | mm | 5.160 | 5.160 | 5.165 | 5.165 | 5.150 | 5.150 |
| e | Digging depth | mm | 85 | 110 | 85 | 110 | 85 | 110 |
| f | Max. loading height at 45° | mm | 3.630 | 3.630 | 3.630 | 3.630 | 3.630 | 3.630 |
| A | Overall length, bucket grounded | mm | 7.215 | 7.100 | 7.245 | 7.130 | 7.225 | 7.110 |
| B | Wheelbase | mm | 2.840 | 2.840 | 2.840 | 2.840 | 2.840 | 2.840 |
| C | Bucket width | mm | 2.545 | 2.540 | 2.545 | 2.540 | 2.545 | 2.540 |
| D | Width over tyres | mm | 2.470 | 2.470 | 2.470 | 2.470 | 2.470 | 2.470 |
| E | Track width | mm | 1.930 | 1.930 | 1.930 | 1.930 | 1.930 | 1.930 |
| F | Ground clearance | mm | 495 | 495 | 495 | 495 | 495 | 495 |
| H | Overall height | mm | 3.180 | 3.180 | 3.180 | 3.180 | 3.180 | 3.180 |

All measurements with tyres 20.5 R25
BOC: bolt-on cutting edge

## CHANGE IN DATA CAUSED BY:

| | | Tyres L2 | Tyres L5 |
|---|---|---|---|
| Operating weight | kg | -330 | +680 |
| Static tipping load, straight | kg | -220 | +460 |
| Static tipping load, 40° articulated | kg | -195 | +400 |
| Overall length, bucket grounded | mm | --- | --- |
| Reach at 45° | mm | +70 | -20 |
| Dump height at 45° | mm | -75 | +25 |
| Width over tyres | mm | -75 | +0 |
| Overall height | mm | -75 | +25 |

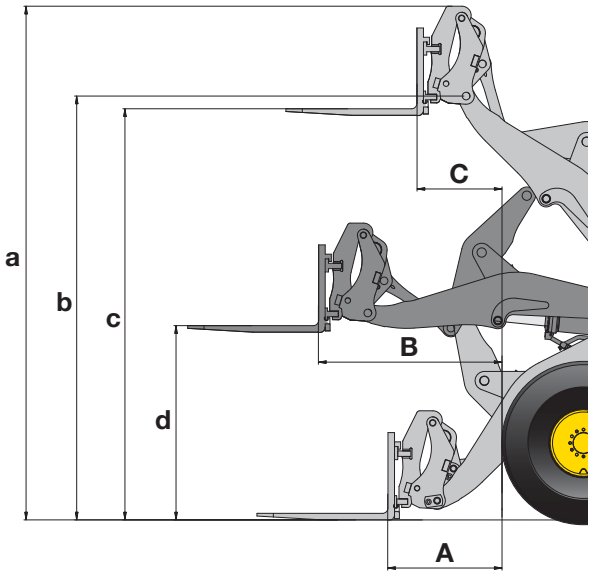
**HIGH-LIFT**

| **Earthmoving** | | **Stockpile** | | **Universal** | | **Stockpile** | | **Universal** | |
|---|---|---|---|---|---|---|---|---|---|
| w. teeth | w. BOC | w. teeth | w. BOC | w. teeth | w. BOC | w. BOC | w. BOC | w. BOC | w. BOC |
| QC | QC | QC | QC | QC | QC | direct | QC | direct | QC |
| **1,9** | **2,0** | **2,0** | **2,1** | **1,9** | **2,0** | **2,1** | **2,1** | **2,0** | **2,0** |
| C72 | C73 | C66 | C67 | C62 | C63 | C26 | C67 | C06 | C63 |
| 1,75 | 1,65 | 1,65 | 1,55 | 1,75 | 1,65 | 1,40 | 1,30 | 1,50 | 1,35 |
| 860 | 935 | 875 | 950 | 825 | 900 | 955 | 940 | 895 | 900 |
| 8.440 | 8.280 | 8.385 | 8.260 | 8.430 | 8.290 | 7.375 | 6.850 | 7.455 | 6.895 |
| 7.355 | 7.205 | 7.305 | 7.185 | 7.355 | 7.215 | 6.410 | 5.930 | 6.490 | 5.970 |
| 96 | 91,6 | 93,6 | 89,3 | 95,3 | 90,9 | 85,6 | 68,7 | 87,8 | 70 |
| 115,4 | 114,2 | 115,4 | 112,3 | 115,6 | 114,1 | 70,9 | 65,4 | 71,5 | 66 |
| 11.765 | 11.840 | 11.780 | 11.855 | 11.730 | 11.805 | 11.455 | 11.670 | 11.395 | 11630 |
| 5.150 | 5.150 | 5.150 | 5.150 | 5.150 | 5.150 | 5.150 | 5.150 | 5.150 | 5.150 |
| 5.800 | 5.765 | 5.810 | 5.775 | 5.810 | 5.770 | 5.910 | 5.985 | 5.900 | 5.985 |
| 1.215 | 1.100 | 1.235 | 1.120 | 1.205 | 1.095 | 1.030 | 1.190 | 1.015 | 1.160 |
| 2.750 | 2.830 | 2.730 | 2.805 | 2.730 | 2.805 | 3.370 | 3.220 | 3.380 | 3.220 |
| 3.885 | 3.885 | 3.885 | 3.885 | 3.885 | 3.885 | 4.300 | 4.300 | 4300 | 4.300 |
| 5.315 | 5.315 | 5.315 | 5.315 | 5.290 | 5.290 | 5.575 | 5.730 | 5.555 | 5.700 |
| 75 | 100 | 75 | 100 | 95 | 120 | 230 | 220 | 230 | 240 |
| 3.630 | 3.630 | 3.630 | 3.630 | 3.630 | 3.630 | 4.065 | 4.060 | 4.065 | 4.050 |
| 7.420 | 7.305 | 7.450 | 7.335 | 7.450 | 7.335 | 7.580 | 7.790 | 7.560 | 7.785 |
| 2.840 | 2.840 | 2.840 | 2.840 | 2.840 | 2.840 | 2.840 | 2.840 | 2.840 | 2.840 |
| 2.545 | 2.540 | 2.545 | 2.540 | 2.545 | 2.540 | 2.540 | 2.540 | 2.540 | 2.540 |
| 2.470 | 2.470 | 2.470 | 2.470 | 2.470 | 2.470 | 2.470 | 2.470 | 2.470 | 2.470 |
| 1.930 | 1.930 | 1.930 | 1.930 | 1.930 | 1.930 | 1.930 | 1.930 | 1.930 | 1.930 |
| 495 | 495 | 495 | 495 | 495 | 495 | 495 | 495 | 495 | 495 |
| 3.180 | 3.180 | 3.180 | 3.180 | 3.180 | 3.180 | 3.180 | 3.180 | 3.180 | 3.180 |

# Dimensions & Performance Figures

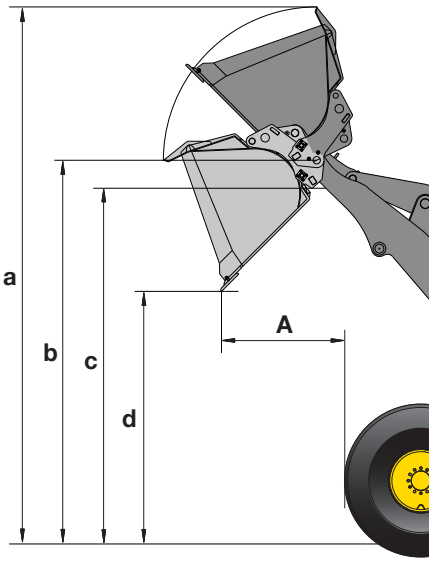
## FORK TINES

| | | | |
|---|---|---|---|
| | Sales code | | C57 |
| | Fork tine length | mm | 1.200 |
| A | Max. reach at ground level | mm | 985 |
| B | Max. reach | mm | 1.620 |
| C | Max. reach at max. stacking height | mm | 720 |
| a | Max. height fork-carrier | mm | 4.705 |
| b | Hinge pin height | mm | 3.885 |
| c | Max. stacking height | mm | 3.765 |
| d | Height of forks at maximum reach | mm | 1.780 |
| | Max. tipping load, straight | kg | 6.310 |
| | Max. tipping load, articulated | kg | 5.520 |
| | Max. payload as per EN 474-3, 80% | kg | 4.415 |
| | Max. payload as per EN 474-3, 60% | kg | 3.325 |
| | Weight in working order with fork tines | kg | 11.470 |




## LIGHT MATERIAL BUCKET

| | | | w. BOC |
|---|---|---|---|
| | Sales code | | Q36 |
| | Bucket mount (direct/quick-coupler) | | QC |
| | Bucket capacity (heaped, ISO 7546) | m³ | 3,2 |
| | Material density | t/m³ | 1,0 |
| | Rated load | kg | 3.200 |
| | Bucket width | mm | 2.550 |
| | Bucket weight | kg | 1.180 |
| A | Reach at 45° | mm | 1.150 |
| a | Height top edge of bucket | mm | 5.320 |
| b | Hinge pin height | mm | 3.965 |
| c | Max. loading height at 45° | mm | 3.680 |
| d | Dump height at 45° | mm | 2.680 |



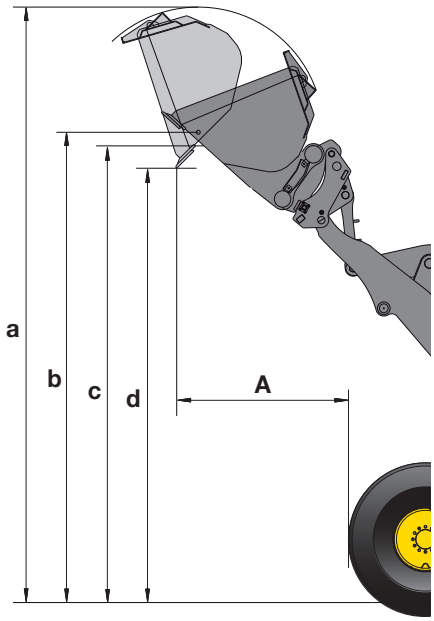

## TYPICAL MATERIAL DENSITY – LOOSE (IN kg/m³)

| | | |
|---|---|---|
| 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 |

## HIGH-DUMP BUCKET

| | | | w. BOC |
|---|---|---|---|
| | Sales code | | Q41 |
| | Bucket mount (direct/quick-coupler) | | QC |
| | Bucket capacity (heaped, ISO 7546) | m³ | 2,8 |
| | Material density | t/m³ | 1,0 |
| | Rated load | kg | 2.800 |
| | Bucket width | mm | 2.550 |
| | Bucket weight | kg | 1.870 |
| A | Reach at 45° | mm | 1.480 |
| a | Height top edge of bucket | mm | 6.040 |
| b | Hinge pin height | mm | 4.900 |
| c | Max. loading height at 45° | mm | 4.650 |
| d | Dump height at 45° | mm | 4.240 |

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) | m³ | 2,3 |
| | Material density | t/m³ | 1,0 |
| | Rated load | kg | 2.300 |
| | Bucket width | mm | 2.550 |
| | Bucket weight | kg | 1.340 |
| A | Reach at 45° | mm | 1.380 |
| a | Height top edge of bucket | mm | 5.950 |
| b | Hinge pin height | mm | 4.800 |
| c | Max. loading height at 45° | mm | 4.450 |
| d | Dump height at 45° | mm | 4.250 |

Type B, dump cylinders located outside bucket