## **Specifications**

#### ENGINE

| LINGINE                     |  |
|-----------------------------|--|
| Model                       | Komatsu SAA6D107E-3  |
| Туре                        | Common rail direct injection,<br>water-cooled, emissionised,<br>turbocharged, after-cooled diesel                                  |
| Engine power                |  |
| at rated engine speed       | 2.000 rpm  |
| ISO 14396                   | 123 kW/165 HP  |
| ISO 9249 (net engine power) | 123 kW/165 HP  |
| No. of cylinders            | 6  |
| Bore × stroke               | 107 × 124 mm   |
| Displacement                | 6,69   |
| Air filter type             | Double element type with<br>monitor panel dust indicator<br>and auto dust evacuator  |
| Cooling                     | Suction type cooling fan<br>with radiator fly screen   |
| Fuel                        | Diesel fuel, conforming to EN590<br>Class 2/Grade D. Paraffinic fuel<br>capability (HVO, GTL, BTL),<br>conforming to EN 15940:2016 |

#### HYDRAULIC SYSTEM

| Туре                  | HydrauMind. Closed-centre system<br>with load sensing and pressure<br>compensation valves         |
|-----------------------|---|
| Additional circuits   | 2 additional circuits with<br>proportional control can be installed                               |
| Main pump             | 2 variable displacement piston<br>pumps supplying boom, arm,<br>bucket, swing and travel circuits |
| Maximum pump flow     | 490 l/min   |
| Relief valve settings |   |
| Implement             | 380 kg/cm <sup>2</sup>  |
| Travel                | 380 kg/cm <sup>2</sup>  |
| Swing                 | 300 kg/cm <sup>2</sup>  |
| Pilot circuit         | 33 kg/cm <sup>2</sup>   |

#### SERVICE REFILL CAPACITIES

| Fuel tank               | 290   |
|-------------------------|-------|
| Radiator                | 30    |
| Engine oil              | 23,1  |
| Swing drive             | 6,5 I |
| Hydraulic tank          | 126   |
| Final drive (each side) | 5,0 I |
| AdBlue® tank            | 13    |

#### SWING SYSTEM

| Туре         | Axial piston motor driving through<br>planetary double reduction gearbox |
|--------------|--|
| Swing lock   | Electrically actuated wet multidisc<br>brake integrated into swing motor |
| Swing speed  | 0 - 11 rpm   |
| Swing torque | 65 kNm   |
|              |  |

#### **DRIVES AND BRAKES**

| Steering control     | 2 levers with pedals giving full<br>independent control of each track |
|----------------------|---|
| Drive method         | Hydrostatic   |
| Travel operation     | Automatic 3-speed selection   |
| Gradeability         | 70%, 35°  |
| Max. travel speeds   |   |
| Lo / Mi / Hi         | 3,0 / 4,1 / 5,5 km/h  |
| Maximum drawbar pull | 20.600 kg   |
| Brake system         | Hydraulically operated discs<br>in each travel motor                  |

#### UNDERCARRIAGE

| Construction                | X-frame centre section with box<br>section track frames |
|-----------------------------|---|
| Track assembly              |   |
| Туре                        | Fully sealed  |
| Shoes (each side)           | 49  |
| Tension                     | Combined spring and hydraulic unit                      |
| Rollers                     |   |
| Track rollers (each side)   | 9   |
| Carrier rollers (each side) | 2   |

#### **ENVIRONMENT**

| Engine emissions  | Fully complies with EU Stage IV<br>exhaust emission regulations      |
|---|--|
| Noise levels  |  |
| LwA external  | 100 dB(A) (2000/14/EC Stage II)                                      |
| LpA operator ear  | 71 dB(A) (ISO 6396 dynamic test)                                     |
| Vibration levels (EN 12096:1997)  |  |
| Hand/arm  | $\leq$ 2,5 m/s <sup>2</sup> (uncertainty K = 0,51 m/s <sup>2</sup> ) |
| Body  | $\leq$ 0,5 m/s <sup>2</sup> (uncertainty K = 0,30 m/s <sup>2</sup> ) |
| Contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0,8 kg, $CO_2$ equivalent 1,14 t |  |

#### **OPERATING WEIGHT (APPR.)**

| Triple grouser shoes | Operating weight | Ground pressure         |
|----------------------|------------------|-------------------------|
| 600 mm               | 23.600 kg        | 0,50 kg/cm <sup>2</sup> |
| 700 mm               | 23.870 kg        | 0,43 kg/cm <sup>2</sup> |
| 800 mm               | 24.150 kg        | 0,38 kg/cm <sup>2</sup> |
| 600 mm road liner    | 23.460 kg        | 0,49 kg/cm <sup>2</sup> |

Operating weight, including specified work equipment, 2,9 m arm, 650 kg bucket, operator, lubricant, coolant, full fuel tank and the standard equipment.

### **PC228USLC**-11

## **Dimensions & Performance Figures**

#### MACHINE DIMENSIONS

| А  | Overall width of upper structure      | 2.980 mm         |
|----|---------------------------------------|------------------|
| В  | Overall height (top of cab)           | 3.065 mm         |
| Β' | Overall height (top of handrail)      | 3.255 mm         |
| С  | Overall length of basic machine       | 4.450 mm         |
| D  | Tail length                           | 1.785 mm         |
|    | Tail swing radius                     | 1.785 mm         |
| Е  | Clearance under counterweight         | 1.075 mm         |
| F  | Machine tail height                   | 2.915 mm         |
| G  | Ground clearance                      | 440 mm           |
| Н  | Tumbler centre distance               | 3.655 mm         |
| Ι  | Track length                          | 4.450 mm         |
| J  | Track gauge                           | 2.380 mm         |
| К  | Track shoe width                      | 600, 700, 800 mm |
| L  | Overall track width with 600 mm shoes | 2.980 mm         |
|    | Overall track width with 700 mm shoes | 3.080 mm         |
|    | Overall track width with 800 mm shoes | 3.180 mm         |
|    |                                       |                  |



#### TRANSPORT DIMENSIONS

|   | Arm length                      | 2,4 m    | 2,9 m    |
|---|---------------------------------|----------|----------|
| Μ | Transport length                | 8.980 mm | 8.920 mm |
| Ν | Overall height (to top of boom) | 3.165 mm | 3.040 mm |
| 0 | Length on ground (transport)    | 5.890 mm | 5.050 mm |

# **Dimensions & Performance Figures**

#### MAX. BUCKET CAPACITY AND WEIGHT

| Arm length                                 | 2,4 m            | 2,9 m                      |
|--|------------------|----------------------------|
| Material weight up to 1,2 t/m <sup>3</sup> | 1,49 m³ 1.100 kg | 1,37 m³ 1.000 kg           |
| Material weight up to 1,5 t/m <sup>3</sup> | 1,36 m³ 1.100 kg | 1,26 m <sup>3</sup> 950 kg |
| Material weight up to 1,8 t/m <sup>3</sup> | 1,18 m³ 900 kg   | 1,10 m³ 875 kg             |

#### BUCKET AND ARM FORCE

| Arm length                       | 2,4 m     | 2,9 m     |
|----------------------------------|-----------|-----------|
| Bucket digging force             | 16.500 kg | 14.100 kg |
| Bucket digging force at PowerMax | 17.500 kg | 15.200 kg |
| Arm crowd force                  | 12.200 kg | 10.300 kg |
| Arm crowd force at PowerMax      | 13.000 kg | 11.000 kg |



## **PC228USLC**-11

# Working Range



#### WORKING RANGE

| 380 mm 1 | 10.700 mm        |
|----------|------------------|
|          |                  |
| 470 mm   | 7.825 mm         |
| 095 mm   | 6.620 mm         |
| 315 mm   | 5.980 mm         |
| 840 mm   | 6.370 mm         |
| 395 mm   | 9.875 mm         |
| 205 mm   | 9.700 mm         |
| 700 mm   | 2.310 mm         |
|          |                  |
|          | 395 mm<br>205 mm |

## Lifting Capacity



- A Reach from swing center
- B Bucket hook height
- C Lifting capacities



A rating at maximum reach

Weights:

With 2,4 m arm: bucket linkage and bucket cylinder: 360 kg

With 2,9 m arm: bucket linkage and bucket cylinder: 335 kg

With 700 mm shoes

|            |         | A  | Θ      |        | 7,5 m  |       | 6,0 m  |       | 4,5 m   |            | 3,0 m   |         | 1,5     | 5 m     |
|------------|---------|----|--------|--------|--------|-------|--------|-------|---------|------------|---------|---------|---------|---------|
| Arm length | в       |    | Ľ      | □~     | Å      | □~    | Å      | G≈    | Å       | <b>⊡</b> ≈ | Ľ       | G       | Ľ       | C≫      |
|            | 6,0 m   | kg | *5.155 | 4.275  |        |       | *6.615 | 5.385 |         |            |         |         |         |         |
|            | 4,5 m   | kg | *5.215 | 3.615  | 5.675  | 3.725 | *7.305 | 5.185 | *8.385  | 7.895      |         |         |         |         |
|            | 3,0 m   | kg | 5.035  | 3.285  | 5.535  | 3.605 | 7.675  | 4.875 | *11.055 | 7.295      |         |         |         |         |
|            | 1,5 m   | kg | 4.875  | 3.155  | 5.385  | 3.465 | 7.395  | 4.625 | 11.455  | 6.695      |         |         |         |         |
|            | 0,0 m   | kg | 4.975  | 3.185  | 5.275  | 3.365 | 7.175  | 4.425 | 11.075  | 6.385      | *8.265  | *8.265  |         |         |
| 2,4 m      | – 1,5 m | kg | 5.405  | 3.435  | 5.255  | 3.345 | 7.085  | 4.345 | 10.985  | 6.305      | *10.565 | *10.565 | *8.975  | *8.975  |
|            | – 3,0 m | kg | 6.495  | 4.055  |        |       | 7.155  | 4.405 | 11.125  | 6.425      | *18.305 | 12.285  | *13.825 | *13.825 |
|            | – 4,5 m | kg | *9.715 | 5.885  |        |       |        |       | *10.945 | 6.735      | *15.005 | 12.525  |         |         |
|            |         |    |        |        |        |       |        |       |         |            |         |         |         |         |
|            | 6,0 m   | kg | *3.640 | *3.640 | *3.990 | 3.860 |        |       |         |            |         |         |         |         |

|       | 6,0 m   | kg | *3.640 | *3.640 | *3.990 | 3.860 |        |       |         |       |         |         |         |         |
|-------|---------|----|--------|--------|--------|-------|--------|-------|---------|-------|---------|---------|---------|---------|
|       | 4,5 m   | kg | *3.660 | 3.330  | 5.760  | 3.800 | *6.740 | 5.290 |         |       |         |         |         |         |
|       | 3,0 m   | kg | *3.810 | 3.060  | 5.600  | 3.660 | 7.810  | 4.990 | *10.090 | 7.510 | *14.590 | 14.010  |         |         |
|       | 1,5 m   | kg | *4.100 | 2.940  | 5.430  | 3.500 | 7.490  | 4.700 | 11.680  | 6.890 | *7.740  | *7.740  |         |         |
|       | 0,0 m   | kg | 4.590  | 2.960  | 5.300  | 3.380 | 7.230  | 4.480 | 11.200  | 6.490 | *6.080  | *6.080  |         |         |
| 2,9 m | – 1,5 m | kg | 4.930  | 3.150  | 5.230  | 3.320 | 7.090  | 4.360 | 11.010  | 6.330 | *10.190 | *10.190 | *6.060  | *6.060  |
|       | – 3,0 m | kg | 5.730  | 3.610  |        |       | 7.100  | 4.370 | 11.080  | 6.390 | *17.170 | 12.150  | *10.620 | *10.620 |
|       | – 4,5 m | kg | 7.840  | 4.810  |        |       |        |       | *11.300 | 6.600 | *16.750 | 12.550  |         |         |

\* Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE Standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load. Lifting capacity stated is based on lifting with bare arm. When lifting with additional equipment installed to the arm, please subtract the weight of all additional equipment from the values stated.

|  | F | C228USLC-11 |
|--|---|-------------|
|  |   | Notes       |
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## **Standard and Optional Equipment**

#### ENGINE

| Komatsu SAA6D107E-3 turbocharged common rail<br>direct injection diesel engine | • |
|--|---|
| EU Stage IV compliant  | • |
| Suction type cooling fan with radiator fly screen                              | • |
| Automatic engine warm-up system  | • |
| Engine overheat prevention system  | • |
| Fuel control dial  | • |
| Auto-deceleration function   | • |
| Adjustable idle shutdown   | • |
| Engine key stop  | • |
| Engine ignition can be password secured on request                             | • |
| Alternator 24 V/60 A   | • |
| Starter motor 24 V/5,5 kW  | • |
| Batteries 2 × 12 V/120 Ah  | • |
|  |   |

#### HYDRAULIC SYSTEM

7228081<u>6</u>-11

| Electronic closed-centre load sensing (E-CLSS)<br>hydraulic system (HydrauMind)   | • |
|---|---|
| Pump and engine mutual control (PEMC) system  | ٠ |
| 6-working mode selection system; Power mode,<br>Economy mode, Breaker mode, Attachment Power<br>and Attachment Economy mode, and Lifting/Fine<br>Operation mode | • |
| PowerMax function   | ٠ |
| PPC wrist control levers for arm, boom, bucket<br>and swing, with sliding proportional control for<br>attachments and 3 auxiliary buttons                       | • |
| Prepared for hydraulic quick-coupler  | ٠ |
| Additional hydraulic functions  | 0 |
|   |   |

#### **DRIVES AND BRAKES**

| Hydrostatic, 3-speed travel system with automatic     |   |
|---|---|
| shift and planetary gear type final drives, and       | • |
| hydraulic travel and parking brakes                   |   |
| PPC control levers and pedals for steering and travel | • |
|   |   |

#### UNDERCARRIAGE

| Track frame under-guards         | • |
|----------------------------------|---|
| 600 mm triple grouser shoes      | ٠ |
| 700, 800 mm triple grouser shoes | 0 |
| 600 mm road-liner (rubber) shoes | 0 |
| Full length track roller guards  | 0 |

Your Komatsu partner:

UENSS18801 03/2019

#### CABIN

| CABIN   |   |
|---|---|
| Reinforced safety SpaceCab <sup>™</sup> ; Highly pressurised<br>and tightly sealed hyper viscous mounted cab<br>with tinted safety glass windows, large roof hatch,<br>pull-up type front window with locking device,<br>removable lower window, front window wiper<br>with intermittent feature, cigarette lighter, ashtray,<br>luggage shelf, floor mat | • |
| Heated, high-back air-suspended seat with lumbar<br>support, console mounted height adjustable arm<br>rests, and retractable seat belt  | • |
| Automatic climate control system  | • |
| 12/24 Volt power supplies   | • |
| Beverage holder   | • |
| Radio   | • |
| Auxiliary input (MP3 jack)  | • |
| Lower wiper   | 0 |
| Rain visor (not with OPG)   | 0 |
|   |   |

#### SERVICE AND MAINTENANCE

| Automatic fuel line de-aeration  | ٠ |
|--|---|
| Double element type air cleaner with dust indicator and auto dust evacuator  | • |
| KOMTRAX – Komatsu wireless monitoring system (3G)  | • |
| Komatsu CARE™ – a maintenance program for<br>Komatsu customers   | • |
| Multifunction video compatible colour monitor with<br>Equipment Management and Monitoring System<br>(EMMS) and efficiency guidance | • |
| Toolkit  | ٠ |
| Service points   | 0 |
| Automatic greasing system  | 0 |
|  |   |

#### LIGHTING SYSTEM

 Working lights: 2 revolving frame, 1 boom (l.h.)

 Additional working lights: 5 cab roof, 1 boom (l.h.), 1 counterweight (rear), additional revolving frame (l.h.), beacon and harness for 2 lamps (not included) in boom foot area

#### SAFETY EQUIPMENT

| KomVision surround view system               | • |
|--|---|
| Electric horn                                | • |
| Overload warning device                      | • |
| Audible travel alarm                         | • |
| Boom safety valves                           | • |
| Large handrails, rear-view mirrors           | • |
| Battery main switch                          | • |
| ROPS compliant to ISO 12117-2:2008           | ٠ |
| Emergency engine stop switch                 | ٠ |
| Seat belt caution indicator                  | ٠ |
| Neutral position detection system            | • |
| Arm safety valve                             | • |
| OPG Level II front guard (FOPS), hinged type | 0 |
| OPG Level II top guard (FOPS)                | 0 |
|  |   |

#### WORK EQUIPMENT

| Mono boom                       | • |
|---------------------------------|---|
| Bucket linkage with lifting eye | 0 |
| 2,4 m; 2,9 m arms               | 0 |
| Komatsu buckets                 | 0 |
| Komatsu breakers                | 0 |

#### **OTHER EQUIPMENT**

| Standard counterweight                                    | ٠ |
|---|---|
| Remote greasing for swing circle and pins                 | ٠ |
| Electric refuelling pump with automatic shut-off function | • |

#### Further equipment on request

standard equipment
 optional equipment



#### Komatsu Europe

#### International N.V.

Mechelsesteenweg 586 B-1800 VILVOORDE (BELGIUM) Tel. +32-2-255 24 11 Fax +32-2-252 19 81 www.komatsu.eu

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