

SPECIFICATIONS



ENGINE

Model Komatsu SA6D102E-1
 Type 4 cycle, water-cooled, direct-injection
 Aspiration Turbocharged and aftercooled
 No. of cylinders 6
 Bore 4.02" 102 mm
 Stroke 4.72" 120 mm
 Piston displacement 359 in³ 5.88 ltr.
 Rated gross horsepower:
 166 HP 128 kW at **2100 RPM** (SAE J1349)
 Flywheel horsepower:
 158 HP 118 kW at **2100 RPM** (SAE J1349)
 Governor All-speed, mechanical



HYDRAULIC SYSTEM

Type HydraMind (Hydraulic Mechanical Intelligence New Design) system
 Closed-center system with load-sensing valves and pressure-compensated valves.
 No. of selectable working modes 5
 Main pump:
 Type . . . Variable-displacement piston pumps
 Pumps for Boom, arm, bucket, swing, and travel circuits
 Maximum flow **2 x 59.7 gpm** 2 x 226 ltr.
 Hydraulic motors:
 Travel 2 x Axial piston motor with parking brake
 Swing 1 x Axial piston motor with swing holding brake
 Relief valve setting:
 Implement circuits . . . **4,620 PSI** 325 kg/cm²
 Travel circuit **5,050 PSI** 355 kg/cm²
 Swing circuit **3,980 PSI** 280 kg/cm²
 Pilot circuit **540 PSI** 38 kg/cm²
 Service valve . . . up to **4,190 PSI** 295 kg/cm²
 Hydraulic cylinders:
 Number of cylinders – bore x stroke
 Boom . . . 2 – **5.5" x 50.5"** 140 mm x 1285 mm
 Arm . . . 1 – **5.5" x 64.4"** 140 mm x 1635 mm
 Bucket . 1 – **5.1" x 40.2"** 130 mm x 1020 mm
 Service valves maximum flow:
 First valve **119 gpm** 452 ltr.
 Second valve **59.7 gpm** 226 ltr.
 Third valve **59.7 gpm** 226 ltr.



DRIVES & BRAKES

Steering control Two levers with pedals
 Drive method Fully hydrostatic type
 Travel motor Axial piston motor, in-shoe design
 Reduction system . . Planetary double reduction
 Max. drawbar pull **39,020 lb** 17700 kg
 Gradability 70%
 Max. travel speed (High) **3.4 MPH** 5.5 km/h
 Max. travel speed (Mid) **2.6 MPH** 4.1 km/h
 Max. travel speed (Low) **1.9 MPH** 3.0 km/h
 Service brake Hydraulic lock type
 Parking brake Oil disc brake



SWING SYSTEM

Driven by Hydraulic motor
 Swing reduction . . . Planetary double reduction
 Swing circle lubrication Grease-bathed
 Swing lock Oil disc brake
 Swing speed 12.4 RPM



UNDERCARRIAGE

Center frame X-frame
 Track frame Box-section type
 Seal of track Sealed track
 Track adjuster Hydraulic type
 No. of shoes 51 each side
 No. of carrier rollers 2 each side
 No. of track rollers 10 each side



COOLANT & LUBRICANT CAPACITY (refilling)

Fuel tank **89.8 U.S. gal** 340 ltr.
 Radiator **6.2 U.S. gal** 23.3 ltr.
 Engine **6.3 U.S. gal** 24.0 ltr.
 Final drive, each side **1.1 U.S. gal** 4.2 ltr.
 Swing drive **1.5 U.S. gal** 5.5 ltr.
 Hydraulic tank **43.9 U.S. gal** 166 ltr.



OPERATING WEIGHT (approximate)

Operating weight, including **19'2"** 5850 mm one-piece boom, **10'0"** 3045 mm arm, SAE heaped **1.50 yd³** 1.15 m³ back-hoe bucket, operator, lubricant, coolant, full fuel tank, and the standard equipment.

Triple-Grouser Shoes	PC220LC-6	
	Operating Weight	Ground Pressure
23.6" 600 mm	52,724 lb 23915 kg	6.85 PSI 0.48 kg/cm ²
27.6" 700 mm	53,364 lb 24206 kg	5.89 PSI 0.42 kg/cm ²
31.5" 800 mm	56,844 lb 25784 kg	5.42 PSI 0.38 kg/cm ²
Maximum Weight	57,483 lb 26074 kg	5.48 PSI 0.39 kg/cm ²

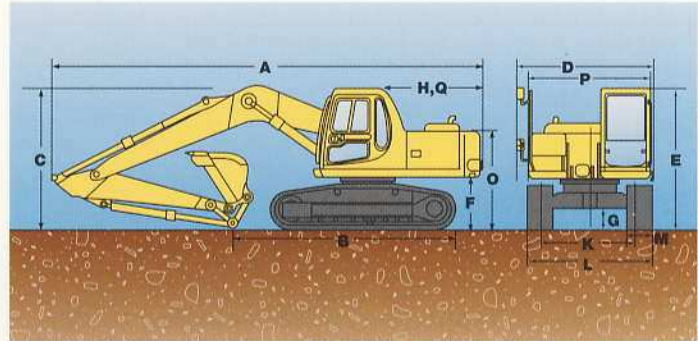
Maximum weight also includes: **19'2"** 5850 mm HD boom, **11'6"** 3500 mm arm, and **1.25 yd³** 0.96 m³ HD bucket.

Arm Length	Weight Adjustments	
6'7" 2000 mm	(44) lb	(20) kg
8'2" 2500 mm	(110) lb	(50) kg
11'6" 3500 mm	238 lb	108 kg
HD Boom		
19'2" 5850 mm	88 lb	40 kg

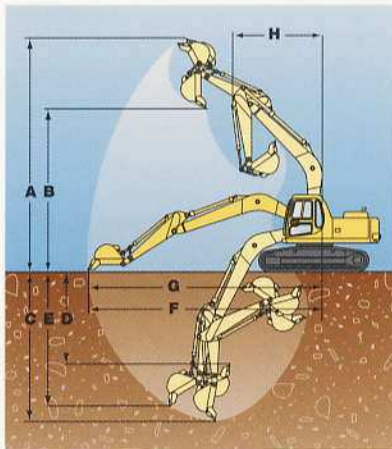


DIMENSIONS

	6'7" 2.0 m arm	8'2" 2.5 m arm	10'0" 3.0 m arm	11'6" 3.5 m arm
A Overall length	32'1" 9780 mm	32'3" 9840 mm	32'1" 9780 mm	32'2" 9800 mm
B Length on ground (transport)	21'8" 6610 mm	20'3" 6160 mm	17'8" 5390 mm	16'10" 5120 mm
C Overall height (to top of boom)	10'3" 3125 mm	10'9" 3280 mm	10'4" 3160 mm	10'9" 3275 mm
D Overall width	10'9" 3280 mm			
E Overall height (to top of cab)	9'6" 2905 mm			
F Ground clearance, counterweight	3'7" 1085 mm			
G Min. ground clearance	1'5" 440 mm			
H Tail swing radius	9'5" 2860 mm			
I Length of track on ground	12'7" 3830 mm			
J Track length	15'3" 4640 mm			
K Track gauge	8'6" 2580 mm			
L Width of crawler	10'9" 3280 mm			
M Shoe width	28" 700 mm			
N Grouser height	1" 26 mm			
O Machine cab height	6'8" 2020 mm			
P Upper structure width	8'11" 2710 mm			
Q Distance, swing center to rear end	9'4" 2850 mm			



WORKING RANGE & BUCKET/ARM COMBINATION



	6'7" 2.0 m arm	8'2" 2.5 m arm	10'0" 3.0 m arm	11'6" 3.5 m arm
A Max. digging height	29'9" 9070 mm	30'0" 9150 mm	30'9" 9380 mm	31'7" 9620 mm
B Max. dumping height	20'1" 6120 mm	20'5" 6215 mm	21'5" 6515 mm	22'1" 6720 mm
C Max. digging depth	18'9" 5720 mm	20'5" 6220 mm	22'3" 6770 mm	23'8" 7220 mm
D Max. vertical wall digging depth	16'3" 4965 mm	17'11" 5455 mm	19'8" 6005 mm	21'2" 6455 mm
E Max. digging depth of cut for 8' level	18'3" 5550 mm	20'3" 6170 mm	21'2" 6440 mm	23'8" 7210 mm
F Max. digging reach	30'6" 9285 mm	31'8" 9655 mm	33'5" 10180 mm	34'10" 10625 mm
G Max. digging reach at ground	29'10" 9090 mm	31'1" 9470 mm	32'10" 10000 mm	34'4" 10460 mm
H Min. swing radius	13'0" 3950 mm	12'11" 3925 mm	12'8" 3860 mm	12'9" 3890 mm
Bucket digging force [☆]	36,820 lb* 16700 kg*	31,970 lb 14500 kg	31,970 lb 14500 kg	31,970 lb 14500 kg
Arm crowd force [☆]	32,410 lb 14700 kg	29,980 lb 13600 kg	26,230 lb 11900 kg	22,710 lb 10300 kg

[☆]At power max

^{*}Optional bucket cylinder is required



BACKHOE BUCKET AND ARM COMBINATION

BUCKET TYPE	CAPACITY	WIDTH OUTSIDE LIP		WEIGHT	# TEETH	ARMS			
		24"	30"			6'7" 2.0 m	8'2" 2.5 m	10'0" 3.0 m	11'6" 3.5 m
ESCO STANDARD PLATE	0.75 yd ³ 0.57 m ³	24"	610 mm	1,459 lb 662 kg	4	○	○	○	○
	1.00 yd ³ 0.76 m ³	30"	762 mm	1,625 lb 737 kg	4	○	○	○	○
	1.25 yd ³ 0.96 m ³	36"	914 mm	1,795 lb 814 kg	5	○	○	○	○
	1.50 yd ³ 1.15 m ³	42"	1067 mm	1,959 lb 889 kg	5	○	○	○	X
	1.75 yd ³ 1.34 m ³	48"	1219 mm	2,080 lb 943 kg	5	○	□	▲	X
ESCO HEAVY DUTY PLATE	0.75 yd ³ 0.57 m ³	24"	610 mm	1,808 lb 820 kg	3	○	○	○	○
	1.00 yd ³ 0.76 m ³	30"	762 mm	2,055 lb 932 kg	4	○	○	○	○
	1.25 yd ³ 0.96 m ³	36"	914 mm	2,241 lb 1017 kg	4	○	○	○	○
	1.50 yd ³ 1.15 m ³	42"	1067 mm	2,489 lb 1129 kg	5	○	○	○	X
	1.75 yd ³ 1.34 m ³	48"	1219 mm	2,677 lb 1214 kg	5	○	□	▲	X
ESCO HEAVY DUTY CAST	0.62 yd ³ 0.47 m ³	24"	610 mm	1,808 lb 820 kg	3	○	○	○	○
	0.88 yd ³ 0.67 m ³	30"	762 mm	2,116 lb 960 kg	4	○	○	○	○
	1.00 yd ³ 0.76 m ³	33"	838 mm	2,182 lb 990 kg	4	○	○	○	○
	1.25 yd ³ 0.96 m ³	39"	991 mm	2,453 lb 1113 kg	4	○	○	○	○
	1.50 yd ³ 1.15 m ³	48"	1219 mm	2,747 lb 1247 kg	5	○	○	○	○
ESCO DITCH CLEANING	1.25 yd ³ 0.96 m ³	60"	1524 mm	1,674 lb 769 kg	○	+	+	+	+
	1.50 yd ³ 1.15 m ³	72"	1829 mm	1,747 lb 792 kg	○	+	+	+	+

○ - Used with weights up to 3,040 lb/yd³ □ - Used with weights up to 2,520 lb/yd³ ▲ - Used with weights up to 2,020 lb/yd³ X - Not useable + - Light duty applications only