

Shop Manual

PC150-6K PC150LC-6K

HYDRAULIC EXCAVATOR

SERIAL NUMBERS **PC150-6K - K30001** and up
PC150LC-6K - K30001

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Engine and Chassis	EEPM005700
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SHOP MANUAL:	
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QTY.	PUBLICATION FORM NO.	PARTS BOOK		PUBLICATION DESCRIPTION	MODEL NUMBER	SERIAL NUMBER
		↓	P-Paper M-Microfiche			

01 GENERAL

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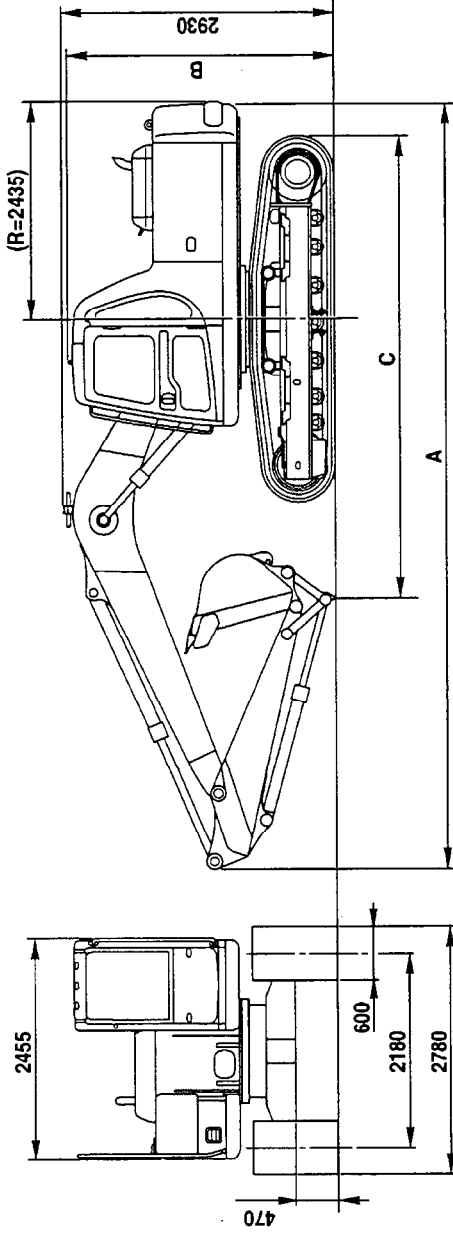
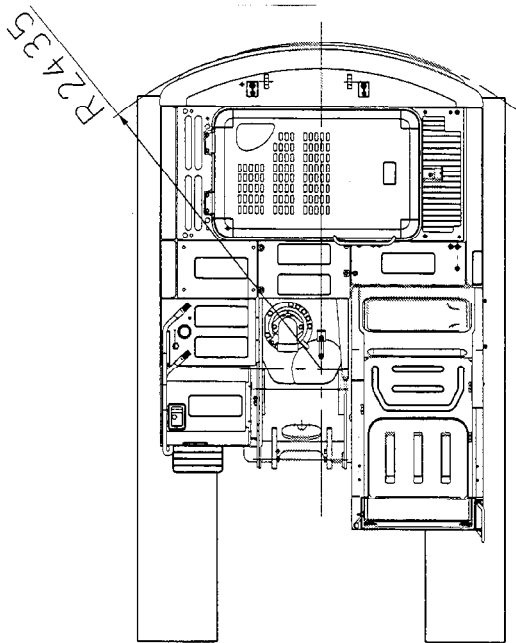
SPECIFICATIONS

Machine model			PC150LC-6k	PC150-6k
Serial Number			and up	and up
Bucket capacity (SAE) (m ³)			0.67	0.58
Operating weight (kg)			17200 (with 2.25 m ARM)	16300 (with 2.25 m ARM)
Performance	Working range	Max. digging depth (mm)	5610	5645
		Max. digging depth of cut for 8 level (mm)	5375	5415
		Max. digging reach (mm)	8675	8675
		Max. reach at ground level (mm)	8510	8515
		Max. digging height (mm)	8840	8800
		Max. dumping height (mm)	6230	6190
	Max. digging force (using power max. function) (kN(kg))		115 (11700)	115 (11700)
	Swing speed (rpm)		12	12
	Swing max. slope angle (deg.)		20	20
	Travel speed (km/h)		Lo: 2.7 Mi: 4 Hi: 5,5	Lo: 2.7 Mi: 4 Hi: 5.5
	Gradeability (deg.)		35	35
	Ground pressure [standard triple grouser shoe width] (MPa(kg/cm ²))		0.039 (0.40) [600 mm]	0.051 (0.52) [500 mm]
	Dimensions	Overall length (for transport) (mm)		8560
Overall width (mm)		2780	2490	
Overall width of track (mm)		2780	2490	
Overall height (for transport) (mm)		2960	2945	
Overall height to top of cab (mm)		2930	2890	
Ground clearance of counterweight (mm)		1030	990	
Min. ground clearance (mm)		440	440	
Tail swing radius (mm)		2435	2435	
Min. swing radius of work equipment (mm)		3060	3060	
Height of work equipment at min. swing radius (mm)		7140	7100	
Length of track on ground (mm)		3260	2880	
Track gauge (mm)		2180	1990	
Height of machine cab (mm)		2010	1970	

Machine model		PC150LC-6k	PC150-6k	
Serial Number		and up	and up	
Engine	Model		KOMATSU SA4D102E	
	Type		4-cycle, water-cooled, in-line, vertical, direct injection, with turbocharger	
	No. of cylinders - bore x stroke (mm)		4 - 102X120	
	Piston displacement (cc)		3920	
	Performance	Flywheel horsepower (kW(PS)/rpm)		78 (106)
		Max torque (Nm(kgm)/rmp)		422 (43)/1400
		Max. speed at no load (rpm)		2450
		Min. speed at no load (rpm)		950
		Min. fuel consumption (g/kW.h(g/PS.h))		210 (155)
	Starting motor		24V 4.5 KW	
Alternator		24V 55A		
Battery		12V 95 AhX2		
Radiator core type		CWX-4		
Undercarriage	Carrier roller		2 on each side 1 on each side	
	Track roller		7 on each side 6 on each side	
	Track shoe		Assembly-type triple grouser Assembly-type triple grouser	
Hydraulic system	Hydraulic pump	Type X No.	Variable displacement piston type X gear type X 1	
		Delivery (ℓ/min.)	Piston type: 276 X 1, gear type: 34	
		Set pressure (MPa(kg/cm ²))	Piston type 34.81(355) 31.87(325) gear type: 32.36 (33)	
	Control valve	Type X No.	6-spool + 1-spool type X 1	
		Control method	Hydraulic	
	Hydraulic motor	Travel motor	Piston type (with brake valve,)X2	
		Swing motor	Piston type (with safety valve,): X1	
	Hydraulic cylinder		Double-acting piston	
Hydraulic tank		Box-shaped, sealed		
Hydraulic filter		Tank return side		
Hydraulic cooler		Air cooled		

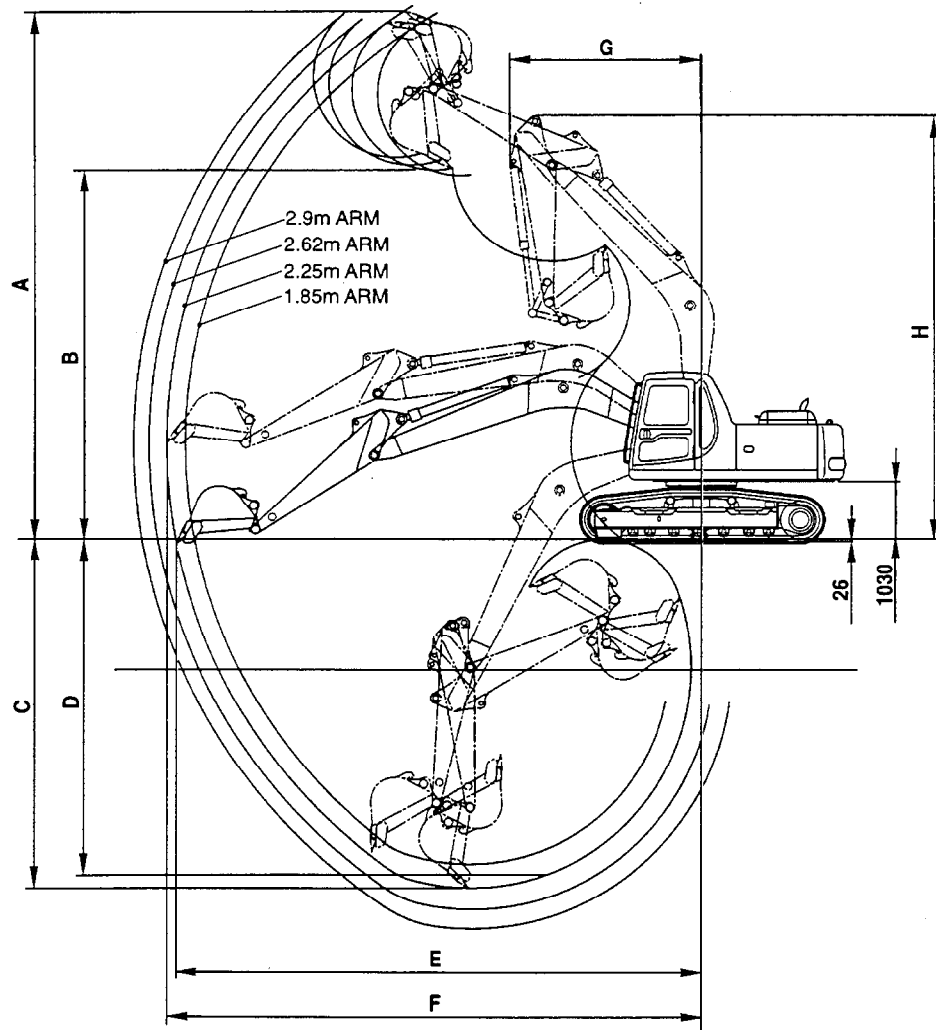
PC150LC-6k

	1.85m ARM	2.25m ARM	2.62m ARM	2.90m ARM
A	8620 mm	8560 mm	8560 mm	8570 mm
B	3125 mm	2960 mm	2965 mm	3055 mm
C	6040 mm	5135 mm	4750 mm	4555 mm

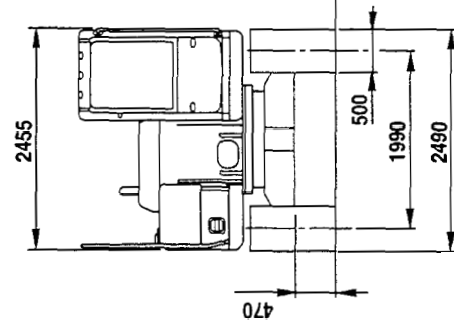
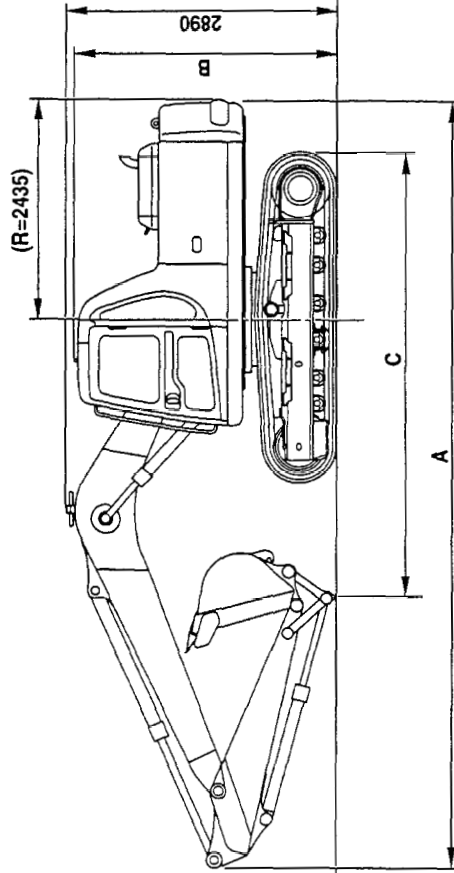
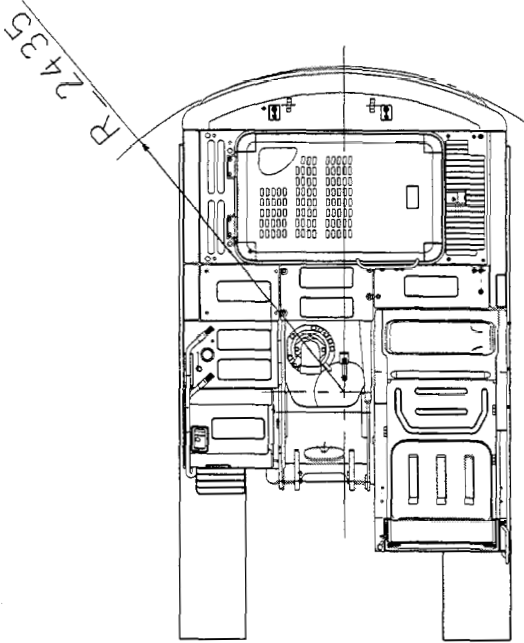


PC150LC-6k

		1.85m ARM	2.25m ARM	2.62m ARM	2.90m ARM
A	Max digging height	8775 mm	8840 mm	8900 mm	9055 mm
B	Max dumping height	6130 mm	6230 mm	6320 mm	6470 mm
C	Max digging depth	5200 mm	5610 mm	5960 mm	6250 mm
D	Max digging depth of cut for 8' level	4950 mm	5375 mm	5740 mm	6050 mm
E	Max digging reach	8355 mm	8675 mm	8960 mm	9230 mm
F	Max digging reach at ground	8180 mm	8510 mm	8800 mm	9075 mm
G	Min swing radius	3360 mm	3060 mm	3000 mm	3010 mm
H	Work equipment height of min swin radius	7210 mm	7140 mm	7120 mm	7140 mm



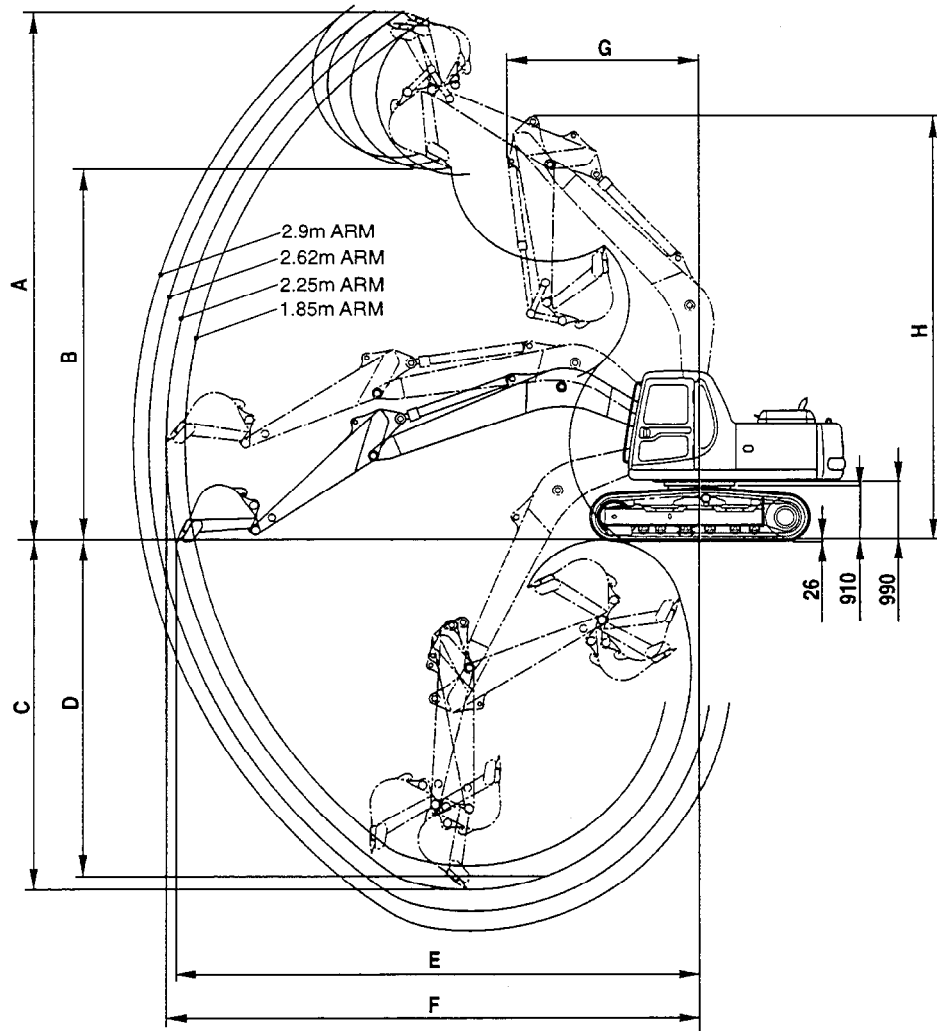
	1.85m ARM	2.25m ARM	2.62m ARM	2.90m ARM
A	8625 mm	8565 mm	8565 mm	8570 mm
B	3115 mm	2945 mm	2960 mm	3060 mm
C	5865 mm	4970 mm	4585 mm	4395 mm



PC150-6k

PC150-6k

		1.85m ARM	2.25m ARM	2.62m ARM	2.90m ARM
A	Max digging height	8735 mm	8800 mm	8865 mm	9015 mm
B	Max dumping height	6090 mm	6190 mm	6280 mm	6430 mm
C	Max digging depth	5240 mm	5645 mm	6000 mm	6290 mm
D	Max digging depth of cut for 8° level	4990 mm	5415 mm	5780 mm	6090 mm
E	Max digging reach	8355 mm	8675 mm	8960 mm	9230 mm
F	Max digging reach at ground	8190 mm	8515 mm	8805 mm	9080 mm
G	Min swing radius	3360 mm	3060 mm	3000 mm	3010 mm
H	Work equipment height of min swin radius	7170 mm	7100 mm	7080 mm	7100 mm



WEIGHT TABLE

GENERAL

Machine model	Units:kg	PC150LC-6k
Serial Number		
Engine assembly	600	
Engine	445	
Damper	15	
Hydraulic pump	100	
Radiator, oil cooler assembly	115	
Hydraulic tank, filter assembly (excl. hydraulic oil)	125	
Fuel tank (excl. fuel)	100	
Revolving frame	1410	
Operator's cab	290	
Operator's seat	30	
Counterweight	2950	
Swing machinery (excl. oil)	115	
Control valve (7 spools)	70	
Swing motor	30	
Travel motor	95 X 2	
Center swivel joint	45	
Under carriage assembly (excl. track shoes assembly)	4450	
Track frame	2400	
Swing circle	235	
Idler assembly	140 x 2	
Idler cushion	135 x 2	
Carrier roller	20 x 4	
Track roller	40 x 14	
Final drive (excl. travel motor)	195 x 2	

Machine model	Units:kg	PC150LC-6k
Serial Number		
Track shoe assembly (shoes +link+pin)		
600mm triple grouser shoe	2620	
700mm triple grouser shoe	2870	
800mm triple grouser shoe	3120	
Boom assembly	1030	
Arm assembly		
1850 mm arm	400	
2250 mm arm	450	
2620 mm arm	520	
2900 mm arm	600	
Bucket assembly (SAE 0.67 m ³)	580	
Boom cylinder assembly + Boom cylinder bottom pin	135 x 2 + 7 x 2	
Arm cylinder assembly	200	
Bucket cylinder assembly	130	
Link assembly	160	
Boom pin (boom foot pin, boom cylinder top pin, arm cylinder bottom pin, boom top pin)	30 +21 + 9 + 19	
Arm pin (arm cylinder top pin, bucket cylinder bottom pin, arm top pin, arm - link joint pin)	10 + 7 + 16 + 15	
Link pin (bucket cylinder top pin, link - bucket joint pin)	15 + 16	

WEIGHT TABLE

GENERAL

Units:kg

Machine model	PC150-6k
Serial Number	
Engine assembly	600
Engine	445
Damper	15
Hydraulic pump	100
Radiator, oil cooler assembly	115
Hydraulic tank, filter assembly (excl. hydraulic oil)	125
Fuel tank (excl. fuel)	100
Revolving frame	1410
Operator's cab	290
Operator's seat	30
Counterweight	2950
Swing machinery (excl. oil)	115
Control valve (7 spools)	70
Swing motor	30
Travel motor	95 x 2
Center swivel joint	45
Under carriage assembly (excl. track shoes assembly)	4150
Track frame	2100
Swing circle	235
Idler assembly	140 x 2
Idler cushion	135 x 2
Carrier roller	20 x 2
Track roller	40 x 12
Final drive (excl. travel motor)	195 x 2

Units:kg

Machine model	PC150-6k
Serial Number	
Track shoe assembly (shoes +link+pin)	
500mm triple grouser shoe	2160
600mm triple grouser shoe	2390
700mm triple grouser shoe	2620
Boom assembly	1030
Arm assembly	
1850 mm arm	400
2250 mm arm	450
2620 mm arm	520
2900 mm arm	600
Bucket assembly (SAE 0.67 m ³)	580
Boom cylinder assembly + Boom cylinder bottom pin	135 x 2 + 7 x 2
Arm cylinder assembly	200
Bucket cylinder assembly	130
Link assembly	160
Boom pin (boom foot pin, boom cylinder top pin, arm cylinder bottom pin, boom top pin)	30 + 21 + 9 + 19
Arm pin (arm cylinder top pin, bucket cylinder bottom pin, arm top pin, arm - link joint pin)	10 + 7 + 16 + 15
Link pin (bucket cylinder top pin, link - bucket joint pin)	15 + 16

FUEL, COOLANT AND LUBRICANTS

RESERVOIR	KIND OF FLUID	AMBIENT TEMPERATURE								CAPACITY (✓)	
		-22 -30	-4 -20	14 -10	32 0	50 10	68 20	86 30	104°F 40°C	Specified	Refill
Engine oil pan	Engine oil								SAE 30	16	16
									SAE 10W		
									SAE 10W-30		
									SAE 15W-40		
Swing machinery case										4	4
Final drive case (each side)										4	4
Idler (1 each)									SAE 30	0.16	0.16
Track roller (1 each)									0.10	0.10	
Carrier roller (1 each)									0.16	0.16	
Hydraulic system	Hydraulic oil								SAE 10W	190	135
									SAE 10W-30		
								SAE 15W-40			
								H046-HM (★)			
Fuel tank	Diesel fuel								ASTM DG75 No. 2	250	-
									ASTM D975A No. 1		
Cooling system	Coolant	Add antifreeze								20	-

NOTE:

- (1) When fuel sulphur content is less than 0.5%, change oil in the oil pan every periodic maintenance hours described in this manual.

Change oil according to the following table if fuel sulphur content is above 0.5%.

Fuel sulphur content	Change interval of oil in engine oil pan
0.5 to 1.0%	1/2 of regular interval
Above 1.0%	1/4 of regular interval

- 2) When starting the engine in an atmospheric temperature of lower than 0°C, be sure to use engine oil of SAE10W, SAE10W-30 and SAE15W-40, even though an atmospheric temperature goes up to 10°C more or less in the day time.
- 3) Use API classification CD as engine oil and if API classification CC, reduce the engine oil change interval to half.
- 4) There is no problem if single grade oil is mixed with multigrade oil (SAE10W-30), 15W matches the temperature in the table on the left.
- 5) We recommend Komatsu genuine oil which has been specifically formulated and approved for use in engine and hydraulic work equipment applications.
- ★ For the HO46-HM, use the oil recommended by Komatsu.

ASTM: American Society of Testing and Material

SAE: Society of Automotive Engineers

API: American Petroleum Institute

Specified capacity: Total amount of oil including oil for components and oil in piping.

Refill capacity: Amount of oil needed to refill system during normal inspection and maintenance.