CEBM001700

Shop Manual

KOMATSU®

PC200Z-6LE HYDRAULIC EXCAVATOR

MACHINE MODEL	SERIAL NUMBERS
PC200Z-6LE	A83001 and up

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JUL 1997

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WEIGHT TABLE

Unit: kg

Machine model	PC200Z-6LE
Serial number	A83001 and up
Engine assembly	770
• Engine	535
• Damper	6
• Hydraulic pump	150
Radiator • oil cooler assembly	124
Hydraulic tank • filter assembly (excl. oil)	136
Fuel tank assembly (excl. fuel)	122
Revolving frame	1,570
Operator's cab	300
Operator's seat	29
Counterweight	3,750
Swing machinery	225
Control valve	170
Swing motor	53
Travel motor	98 x 2
Center swivel joint	42
Track frame assembly	4,898
• Track frame	2,624
• Swing circle	280
• Idler	140 x 2
• Idler cushion	135 x 2
• Carrier roller	21 x 4
• Track roller	40 x 18
• Travel motor • final drive	340 x 2

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Unit: kg

Machine model	PC200Z-6LE
Serial number	A83001 and up
Track shoe assembly	
Standard triple grouser shoe (600 mm)	1,425 x 2
Standard triple grouser shoe (700 mm)	1,565 x 2
Wide triple grouser shoe (800 mm)	1,705 x 2
Wide triple grouser shoe (900 mm)	1,840 x 2
Boom assembly	1,650
Arm assembly	950
Bucket assembly	510 - 1,170
Boom cylinder assembly	205 x 2
Arm cylinder assembly	265
Bucket cylinder assembly	177
Link (large) assembly	68
Link (small) assembly	22 x 2
Boom pin	43 + 10 x 2 + 25 + 10 + 20
Arm pin	10 x 2
Bucket pin	20 x 2
Link pin	13 x 2

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FUEL, COOLANT AND LUBRICANTS

RESERVOIR	KIND OF FLUID	AMBIENT TEMPERATURE	CAPACITY (l)	
		-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; SAE 10 W; SAE 10W-30; SAE 15W-40	26.3	24.0
Damper case	Engine oil	SAE 30; SAE 10 W; SAE 10W-30; SAE 15W-40	0.75	—
Swing machinery case	Engine oil	SAE 30; SAE 10 W; SAE 10W-30; SAE 15W-40	5.5	5.5
Final drive case (each)	Engine oil	SAE 30; SAE 10 W; SAE 10W-30; SAE 15W-40	4.4	4.2
Idler (each)	Engine oil	SAE 30; SAE 10 W; SAE 10W-30; SAE 15W-40	0.07 - 0.08	0.07 - 0.08
Track roller (each)	Engine oil	SAE 30; SAE 10 W; SAE 10W-30; SAE 15W-40	0.19 - 0.21	0.19 - 0.21
Carrier roller (each)	Engine oil	SAE 30; SAE 10 W; SAE 10W-30; SAE 15W-40	0.23 - 0.25	0.23 - .025
Hydraulic system	Engine oil	SAE 10W; SAE 15W-40; SAE 10W-30	239	166
Fuel tank	Diesel fuel	ASTM D975 No. 2; ASTM D975 No. 1	340	—
All lubrication fittings	Grease	No.2 Multi-purpose lithium grease with 3% molybdenum disulfide	Fill as instructed	
Cooling system	Coolant	See **COOLANT** on page 01-10	22.2	—

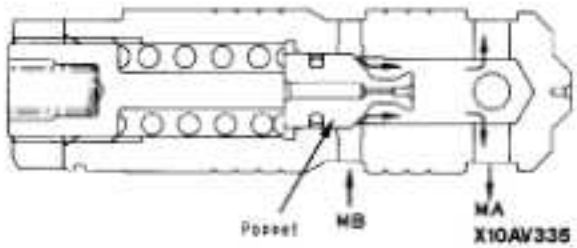
SPECIFIED CAPACITY: Total amount of oil including oil for components and oil in piping.
REFILL CAPACITY: Amount of oil needed to refill system during normal inspection and maintenance.

ASTM: American Society of Testing and Material
SAE: Society of Automotive Engineers
API: American Petroleum Institute

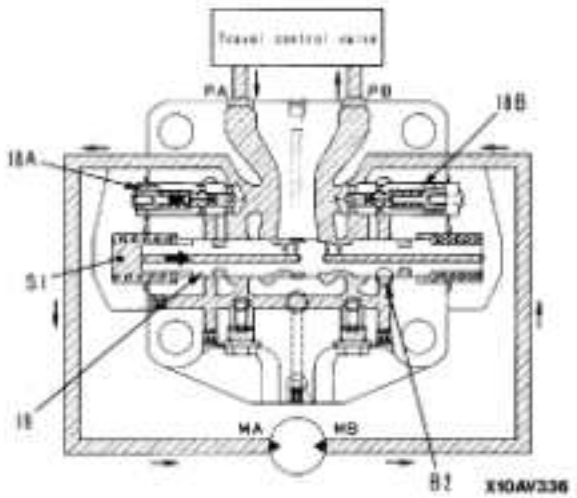
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ii. If the pressure goes above the set pressure of suction-safety valve (18A), the poppet opens. The oil then passes through large notch **A1** in counterbalance valve spool (19) and flows the chamber **MA** in the circuit on the opposite side.

c. When rotating to the left
   i. The operation is the reverse of when rotating to the right.



d. When starting travel (or during normal travel)
   i. When the travel lever is operated, the pressurized oil from the pump moves counterbalance valve spool (19) to the right. When this happens, the passage to the suction-safety valve becomes the circuit flowing through the small notch in the counterbalance valve spool. As a result, a big difference in pressure is created, and the pump pressure rises the provide a powerful drawbar pull.

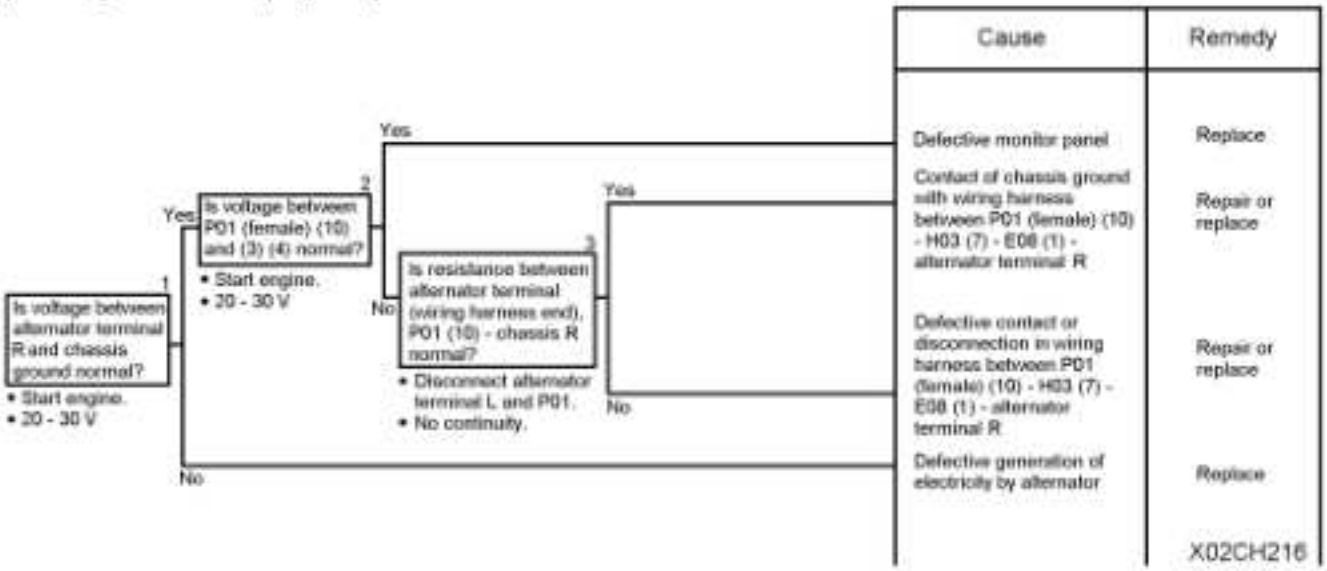


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M-13 Engine is running, but service meter does not move

★ Before carrying out troubleshooting, check that all the related connectors are properly inserted.
★ Always connect any disconnected connectors before going on to the next step.

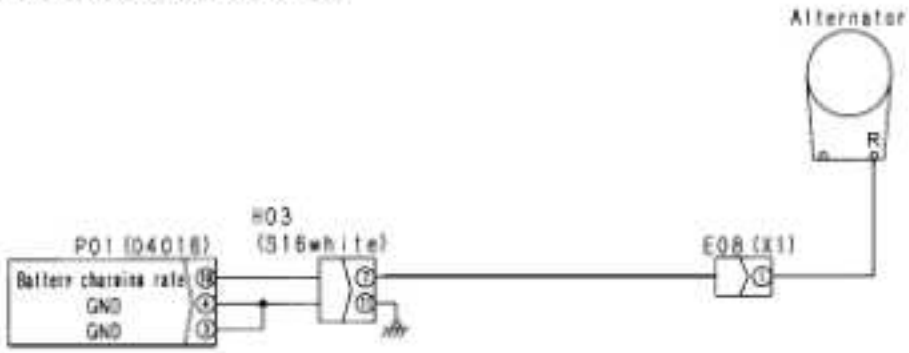
a) Charge caution lamp lights up



b) Charge caution lamp does not light up

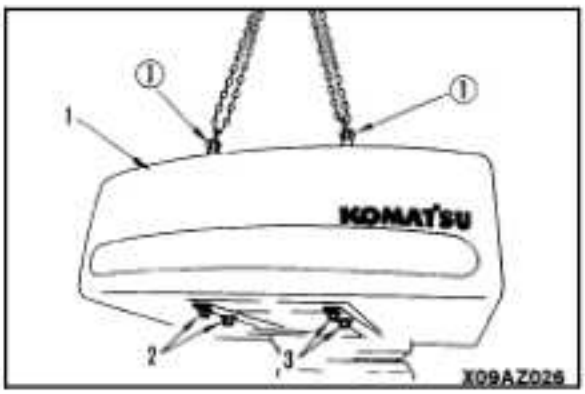


M-13 Related electrical circuit diagram



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COUNTERWEIGHT



Removal

1. Set eyebolts ① to counterweight assembly (1), and sling.
2. Remove mounting bolts (2) and (3). ·1

★ Be careful not to lose the shims when removing.

3. Lift off counterweight (1) horizontally with wire or chain block. ·2

★ Be careful not to hit the engine, radiator and cooler assembly.

kg Counterweight assembly: 3,430 kg

Installation

• Carry out installation in the reverse order to removal.

·1

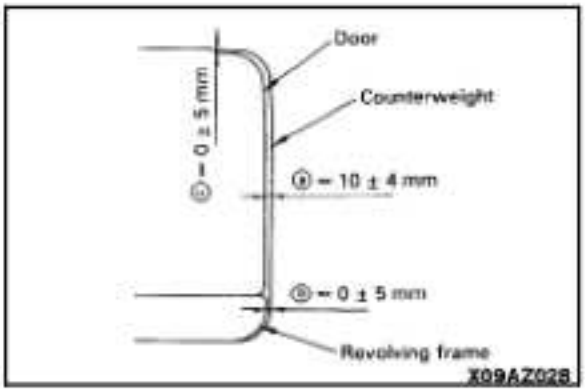
Thread of counterweight mounting bolt: Thread tightener (LT-2)

Counterweight mounting bolt: 1,323 ± 147 Nm (135 ± 15 kgm)

·2

★ Installing and adjusting counterweight

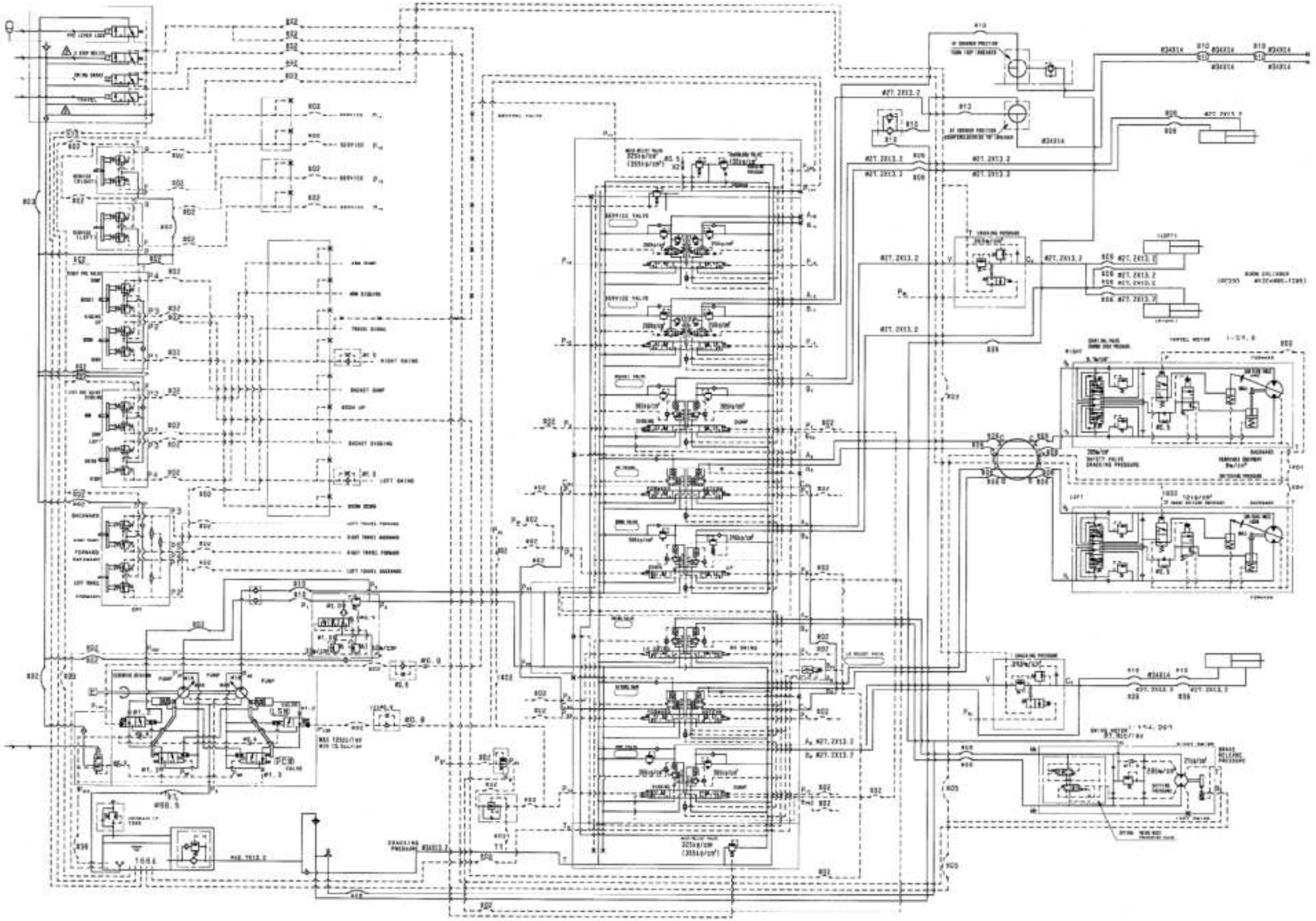
1. Sling counterweight with crane and set in position on frame.
2. Push counterweight and install shim and mounting bolts (2) and (3), and adjust to following dimensions.
   a. Clearance from revolving frame: 10 ± 5 mm (left and right)
   b. Clearance from bodywork door: 10 ± 5 mm (left and right)
   c. Stepped difference **b** from revolving frame in left-to-right direction: Max. 5 mm
   d. Stepped difference **a** from bodywork door in left-to-right direction: 10 ± 4 mm
   e. Stepped difference **c** from bodywork top cover in up-down direction: Max. 5 mm



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HYDRAULIC CIRCUIT DIAGRAM

FOLDOUT 2



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