SEBM024314

SHOP MANUAL

KOMATSU®

PC200,200LC-7
PC220,220LC-7

MACHINE MODEL	SERIAL NUMBER
PC200-7	**200001 and up**
PC200LC-7	**200001 and up**
PC220-7	**60001 and up**
PC220LC-7	**60001 and up**

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

- PC200, 200LC, PC220, 220LC-7 mount the SAA6D102E-2 engine.
  For details of the engine, see the 102 Series Engine Shop Manual.

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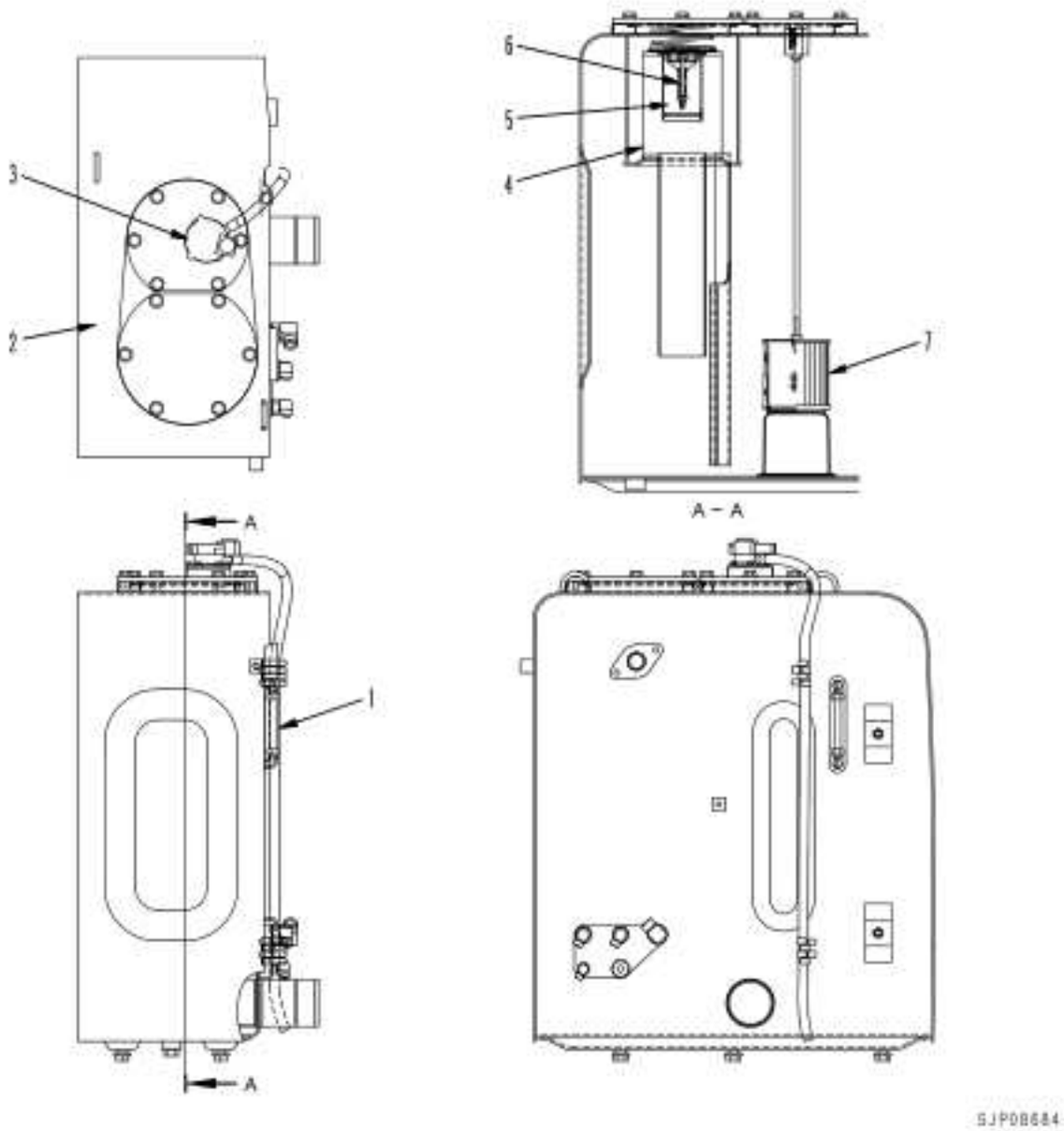
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HYDRAULIC TANK



1. Sight gauge
2. Hydraulic tank
3. Oil filler cap
4. Filter element
5. Strainer
6. Bypass valve
7. Suction strainer

SPECIFICATIONS

Tank capacity: 200 ℓ
Amount of oil inside tank: 143 ℓ
Pressure valve
Relief cracking pressure:
16.7 ± 6.9 kPa
(0.17 ± 0.07 kg/cm²)
Suction cracking pressure:
0 - 0.49 kPa
(0 - 0.005 kg/cm²)
Bypass Valve set pressure:
150 ± 30 kPa
(1.5 ± 0.3 kg/cm²)

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PC200, 200LC-7 Serial No. 250001 and up
PC220, 220LC-7 Serial No. 65001 and up

User Code	Service Code	Failure Code	Failure phenomenon	Disconnection in 2-stage relief solenoid (in governor • pump controller system)
—	**E215**	**DWK0KA**		
Failure content	• No current flows to the 2-stage relief solenoid circuit, when power is supplied to the circuit.			
Response from controller	• None in particular (The solenoid does not function as there is no current flowing to it) • When the failure cause disappears of itself, the machine operation returns to normalcy.			
Phenomenon occurring on machine	• The one-touch power max. switch does not work. (The main relief valve cannot be set to high-pressure set)			
Relative information	• Operation of the 2-stage relief solenoid (ON or OFF) can be checked in the monitoring function. (Code No. 023: Solenoid 1) ★ The solenoid detects disconnection, when power is ON. Hence be sure to check it with power ON after the repairs. (For how to turn power ON or OFF, refer to the troubleshooting under Service Code [E205].)			

Presumed cause and standard value in normalcy		Cause	Standard value in normalcy and references for troubleshooting			
	1	2-stage relief solenoid defective (Internal disconnection)	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
			V06 (male)	Resistance value		
			Between (1) and (2)	20 – 60 Ω		
	2	Disconnection of wiring harness (Disconnection or defective contact with connector)	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
			Wiring harness between C03 (female) (28) and V06 (female) (1)	Resistance value	Max. 1 Ω	
			Wiring harness between C03 (female) (3) (13) (23) and V06 (female) (2)	Resistance value	Max. 1 Ω	
	3	Short-circuiting of wiring harness (Contact with 24 V circuit)	★ Turn the engine starting switch OFF for the preparations, and hold it in the ON position during the troubleshooting.			
			Wiring harness from C03 (female) (28) to V06 (female) (1) and grounding	Voltage	Max. 1 V	
	4	Governor • pump controller defective	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
			C03 (female)	Resistance value		
			Between (28) and (3) (13) (23)	20 – 60 Ω		

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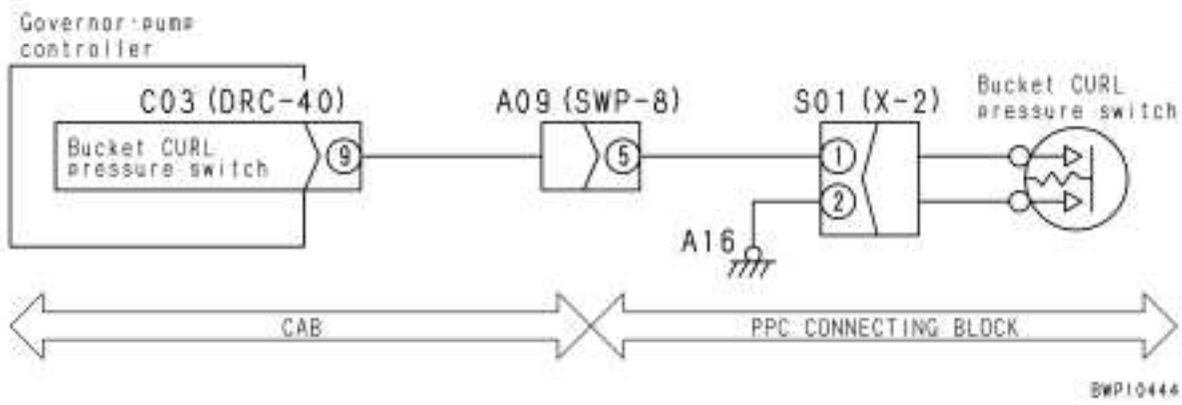
E-25 "Bucket DIGGING" is not correctly displayed in monitor function

Failure information	• "Bucket DIGGING" is not correctly displayed in the monitor function (special function) on the monitor panel.
Relative information	—

Presumed cause and standard value in normalcy

	Cause	Standard value in normalcy and references for troubleshooting			
1	Bucket DIGGING PPC hydraulic switch fault (Internal disconnection and short-circuiting)	★ Turn the engine starting switch OFF for the preparations, and keep the engine running during the troubleshooting.			
		S01 (male)	Bucket control lever	Resistance value	
		Between (1) and (2)	NEUTRAL	Min. 1 MΩ	
			DIGGING	Max. 1 Ω	
2	Disconnection of wiring harness (Disconnection or defective contact with connector)	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
		Wiring harness between C03 (female) (9) and S01 (female) (1)		Resistance value	Max. 1 Ω
		Wiring harness between S01 (female) (2) and grounding		Resistance value	Max. 1 Ω
3	Grounding fault of wiring harness (Contact with grounding (GND) circuit)	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
		Between wiring harness between C03 (female) (9) and S01 (female) (1) and grounding		Resistance value	Min. 1 MΩ
4	Short-circuiting of wiring harness (Contact with 24 V circuit)	★ Turn the engine starting switch OFF for the preparations, and hold it in the ON position during the troubleshooting.			
		Between wiring harness between C03 (female) (9) and S01 (female) (1) and grounding		Voltage	Max. 1 V
5	Governor • pump controller defective	★ Turn the engine starting switch OFF for the preparations, start engine and carry out troubleshooting.			
		C03	Bucket control lever	Voltage	
		Between (9) and grounding	NEUTRAL	20 – 30 V	
			DIGGING	Max. 1 V	

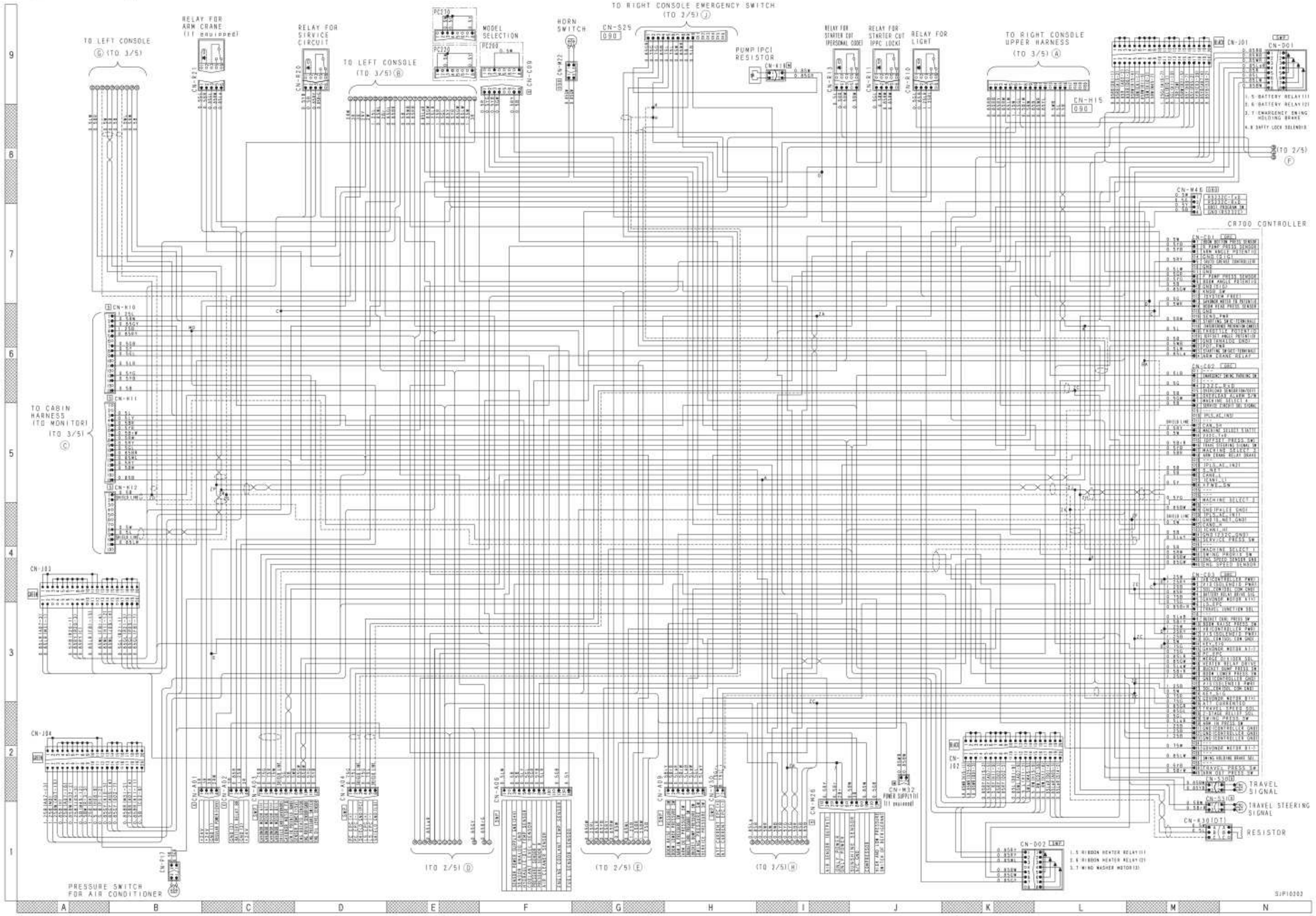
Electrical Circuit Diagram for Bucket DIGGING PPC hydraulic Switch



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ELECTRICAL CIRCUIT DIAGRAM (1/4)

PC200-7, PC200LC-7 (Serial No. 250001 and up)
PC220-7, PC220LC-7 (Serial No. 65001 and up)



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