SEN06467-04

Shop Manual

HYDRAULIC
EXCAVATOR

PC88MR-10

SERIAL NUMBERS 7001 and up

KOMATSU®

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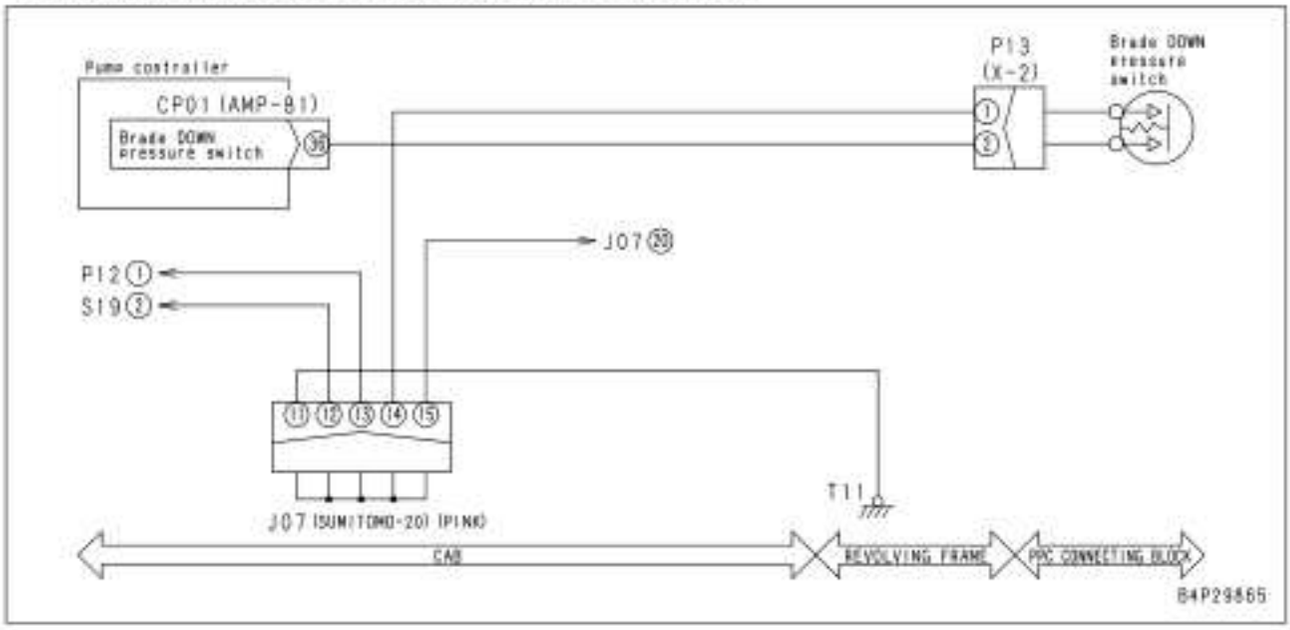
Failure code [CA516] Rail Pressure Sensor Sup Volt Low Error *(PC88MR-CA516-400-A-Z0-A)*

Action level	Failure code	Failure	Rail Pressure Sensor Supply Voltage Low Error (Engine controller system)
L03	CA516		
Detail of failure	• Low voltage appears in common rail pressure sensor power supply (5 V) circuit.		
Action of controller	• Limits engine output and runs engine. • Limits the common rail pressure.		
Problem on machine	• Engine output lowers.		
Related information	• Method of reproducing failure code: Turn starting switch to ON position.		

No.	Cause	Procedure, measuring location, criteria and remarks		
1	Defective harness connector	1. See descriptions of wiring harness and connectors in "c: Electrical equipment" in "Checks before troubleshooting" of "General information on troubleshooting", and check it. 2. Turn starting switch to ON position.		
		If this failure code disappears, harness connector is defective. ★ If this failure code appears, perform following checks.		
2	Defective common rail pressure sensor (internal defect)	1. Turn starting switch to OFF position. 2. Disconnect connector PFUEL. 3. Turn starting switch to ON position.		
		If this failure code disappears, sensor is defective. ★ Other failure codes (many codes) are also displayed. They are generated because of disconnection of connector. Ignore failure codes other than this code.		
3	Defective wiring harness	1. Turn starting switch to OFF position. 2. Disconnect connector J2. 3. Turn starting switch to ON position.		
		If this failure code does not appear, wiring harness may be defective. Perform following troubleshooting. ★ Other failure codes (many codes) are also displayed. They are generated because of disconnection of connector. Ignore failure codes other than this code.		
4	Ground fault in wiring harness (contact with ground circuit)	★ If no failure is found by check on cause 3, this check is not required. 1. Turn starting switch to OFF position. 2. Disconnect connectors J2 and PFUEL, and connect T-adapter to female side of either connector.		
		Resis-tance	Between ground and J2 (female) (31) or PFUEL (female) (1)	Min. 1 MΩ
5	Short circuit in wiring harness	★ If no failure is found by check on cause 3, this check is not required. 1. Turn starting switch to OFF position. 2. Disconnect connectors J2 and PFUEL, and connect T-adapter to female side of either connector.		
		Resis-tance	Between J2 (female) (21) and (31), or between PFUEL (female) (1) and (2)	Min. 1 MΩ
6	Defective engine controller	1. Turn starting switch to OFF position. 2. Disconnect connector J2, and connect T-adapter to male side. 3. Turn starting switch to ON position.		
		Voltage	Between J2 (male) (31) and (21)	4.7 to 5.25 V

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Circuit diagram related to blade LOWER oil pressure switch



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Unit: mm

No.	Item	Criteria					Remedy
		Width of boss		Width of hinge		Standard clearance	
		Standard dimension	Tolerance	Standard dimension	Tolerance		
25	Joint of arm and bucket cylinder	60	0 -0.5	61.5	+1 0	2.5 to 4.5	Adjust clearance to 1.0 mm or less by using shims
		L25: — R25: Insert shim 1.0 mm thick (2)					
26	Joint of arm and bucket	200	-0.5 -1.4	201	+4 0	1.5 to 6.4	Adjust clearance to 0.5 mm or less by using shims
		L26: — R26: Adjust by combining shims 0.5 mm thick (20)					
27	Joint of arm and link	186	0 –0.5	—	—	—	
		L27: — R27: Insert shim 1.0 mm thick (1)					
28	Joint of link and bucket	200	+1 -2	200	+2 0	-1.0 to 4.0	Adjust clearance to 1.0 mm or less by using shims
		L28: Insert shim 1.0 mm thick (2) R28: —					
29	Joint of links	—	—	—	—	—	
		L29: — R29: Adjust by combining shims 2.0 mm thick (1) and 1.0 mm thick (1)					
30	Joint of track frame and blade cylinder	75	0 -0.5	80	+1 0	5.0 to 6.5	
		L30: — R30: Insert shim 1.0 mm thick (5)					
31	Joint of blade and blade cylinder	75	0 -0.5	80	+1 0	5.0 to 6.5	Adjust clearance to 1.0 mm or less by using shims
		L31: — R31: Insert shim 1.0 mm thick (5)					
32	Joint of track frame and blade	61	0 -1	65	+1 0	4.0 to 6.0	
		L32: Insert shim 1.0 mm thick (4) R32: —					

*1: Use split-type iron shims.

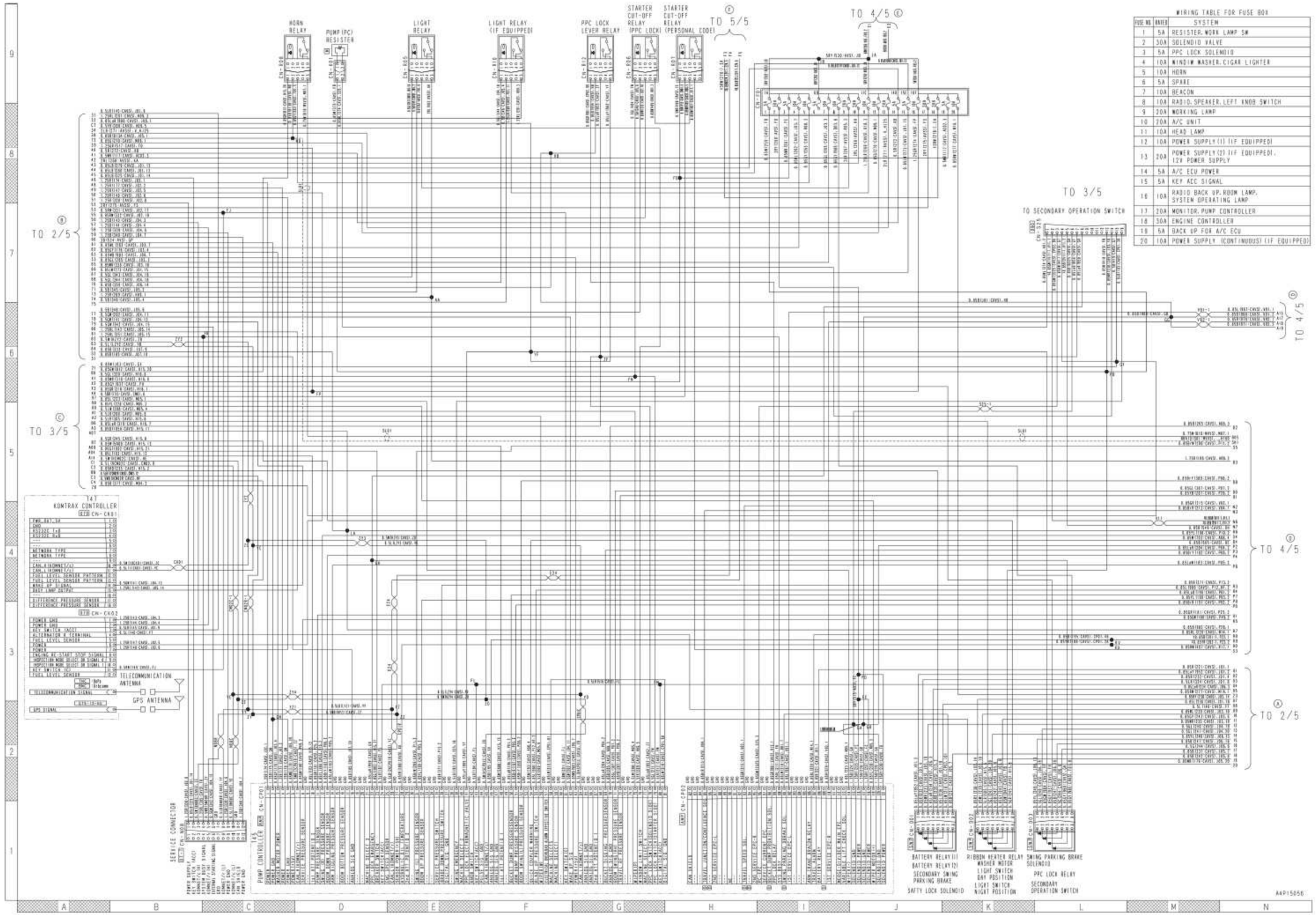
★ The number in ( ) after each shim thickness indicates a rough target quantity of shim to be prepared.

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Electrical circuit diagram (1/5)

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★ This figure covers the equipment and devices that are unavailable as optional items in some areas.



WIRING TABLE FOR FUSE BOX

FUSE NO.	RATED	SYSTEM
1	5A	RESISTER, WORK LAMP SW
2	30A	SOLENOID VALVE
3	5A	PPC LOCK SOLENOID
4	10A	WINDOW WASHER, CIGAR LIGHTER
5	10A	HORN
6	5A	SPARE
7	10A	BEACON
8	10A	RADIO, SPEAKER, LEFT KNOB SWITCH
9	20A	WORKING LAMP
10	20A	A/C UNIT
11	10A	HEAD LAMP
12	10A	POWER SUPPLY (1) (IF EQUIPPED)
13	20A	POWER SUPPLY (2) (IF EQUIPPED), 12V POWER SUPPLY
14	5A	A/C ECU POWER
15	5A	KEY ACC SIGNAL
16	10A	RADIO BACK UP, ROOM LAMP, SYSTEM OPERATING LAMP
17	20A	MONITOR, PUMP CONTROLLER
18	30A	ENGINE CONTROLLER
19	5A	BACK UP FOR A/C ECU
20	10A	POWER SUPPLY (CONTINUOUS) (IF EQUIPPED)

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