SEN05538-05

Shop Manual

HYDRAULIC
EXCAVATOR

PC240LC-10

SERIAL NUMBERS 90001 and up

KOMATSU®

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Failure code [CA3251] KDOC Inlet Temp High Error (PC220_10-CA3251-400-A-00-A)

Action level	Failure code	Failure	KDOC inlet temperature high error (Engine controller system)
L03	CA3251		
Details of failure	• The KDOC inlet temperature is continuously high.		
Action of controller	• Closes EGR valve. • Limits engine output and allows engine to run. • A default value (250°C) is ubstituted for the KDOC inlet temperature.		
Problem on machine	• Engine output lowers.		
Related information	⚠ **Since the temperature of the KDPF and KDOC will become higher than 500°C, take care not to get burn injury.** • Signal voltage from the KDOC inlet temperature sensor can be checked by using monitoring function. (Code: 47301(V)) • Temperature sensed by the KDOC inlet temperature sensor can be checked by using monitoring function. (Code: 47300 (°C)) • Signal voltage from the KDOC outlet temperature sensor can be checked by using monitoring function. (Code: 47401(V)) • Temperature sensed by the KDOC outlet temperature sensor can be checked by using monitoring function. (Code: 47400 (°C)) • Signal voltage from the KDPF outlet temperature sensor can be checked by using monitoring function. (Code: 47201(V)) • Temperature sensed by the KDPF outlet temperature sensor can be checked by using monitoring function. (Code: 47200 (°C)) • The KDOC inlet temperature, KDOC outlet temperature, and KDPF outlet temperature at idle (not regenerating) will all be approx. 100 to 250°C and the difference between these temperatures will be approx. 10°C (KDOC inlet temperature > KDOC outlet temperature > KDPF outlet temperature). • If misfire occurs at the injector, 1) The combustion is impaired causing high exhaust temperature. 2) When there is a problem in any of the cylinders, fuel injection at other cylinders may be increased to compensate for the torque drop, causing high exhaust temperature. • Method of reproducing failure code: Starting switch: ON [Clearing failure codes] • Start the engine and run at low idle for approximately 10 minutes. • If an error code is displayed, run the engine at high idle for two more minutes.		

No.	Cause	Procedure, measuring location, criteria and remarks		
1	Defective wiring harness connector	1. See descriptions of wirings harness and connectors in "c: Electrical equipment" in "Checks before troubleshooting" of "General information on troubleshooting", and check them. 2. Starting switch: ON		
		If this failure code does not appear, the wiring harness connector is defective. ★ If this failure code appears, perform the following.		
2	Defective KDOC inlet temperature sensor	If failure code [CA3313], [CA3314], or [CA3315] appears, carry out troubleshooting for it first.		
3	Short circuit in wiring harness	1. Starting switch: OFF 2. Disconnect connectors CE03 and TEMP1 (KDOC intlet temperature sensor), and connect T-adapter to female side of connector CE03. ★ Check by using multimeter in continuity mode.		
		Continuity	Between CE03 (female) (45) and each other pin	No continuity (No sound is heard)

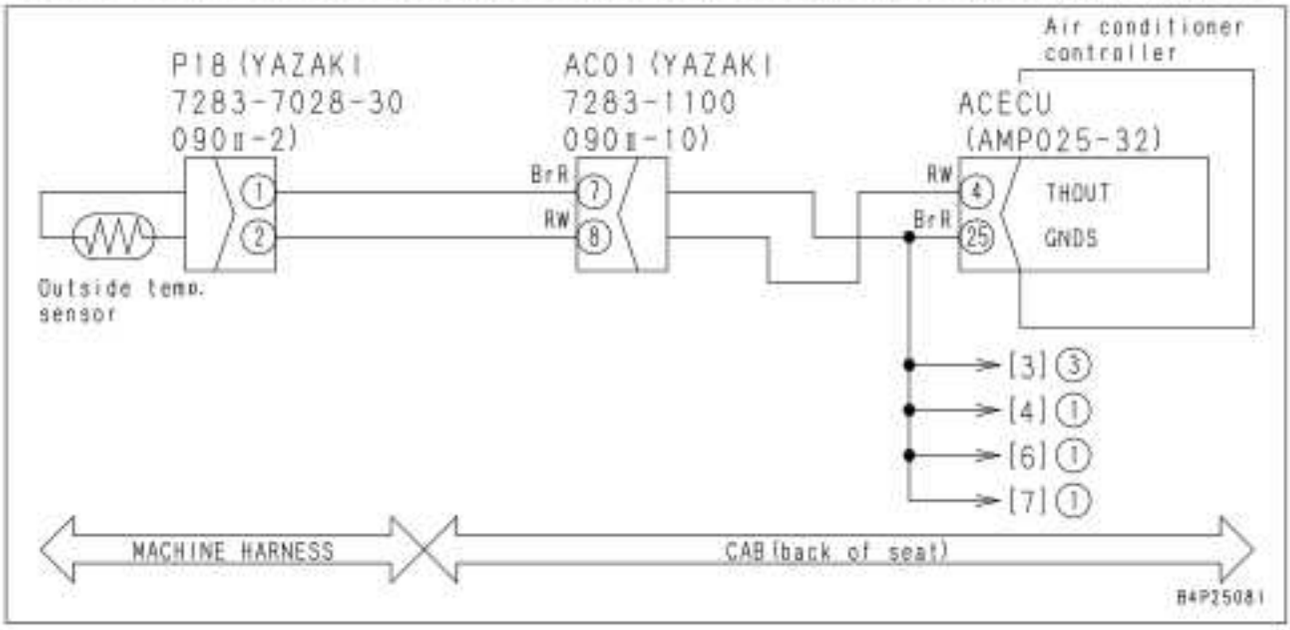
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Unit:mm

No.	Item		Criteria			Remedy
1	Link pitch		Standard dimension	Repair limit		Turn 180 deg. or replace
			190.3	193.3		
2	Outside diameter of bushing		Standard dimension	Repair limit		
			59.3	54.3		
3	Thickness of bushing		10.4	5.4		
4	Link height		Standard dimension	Repair limit		Repair or replace
			105	97		
5	Thickness of link (bushing press fit part)		28.5	20.5		
6	Shoe bolt pitch		160.4			Adjust or replace
7			124.4			
8			62			
9	Link	Inside width	84.8			
10		Overall width	45.4			
11		Tread width	39.6			
12	Protrusion of pin	Regular	2.5			
		Master	2.5			
13	Protrusion of bushing	Regular	4.85			
		Master	0.0			
14	Overall length of pin	Regular	212			
		Master	212			
15	Overall length of bushing	Regular	138.5			
		Master	128.7			
16	Thickness of spacer		—			
17	Press-fitting force	Bushing	88.2 to 245 kN {9 to 25 ton}			—
18		Regular pin	127.4 to 274.4 kN {13 to 28 ton}			
(*1) 19		Master pin	78.4 to 147 kN {8 to 15 ton}			
20	Shoe bolt	a. Regular link	Tightening torque (Nm {kgm})		Retightening angle (deg.)	Retighten
			Triple grouser shoe	490 ± 49 {50 ± 5}	120 ± 10	
			Road liner	549 ± 59 {56 ± 6}	—	
		b. Master link	Tightening torque (Nm {kgm})	Retightening angle (deg.)	Lower limit torque (Nm {kgm})	
			—	—	—	

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Circuit diagram related to air conditioner outside air temperature sensor

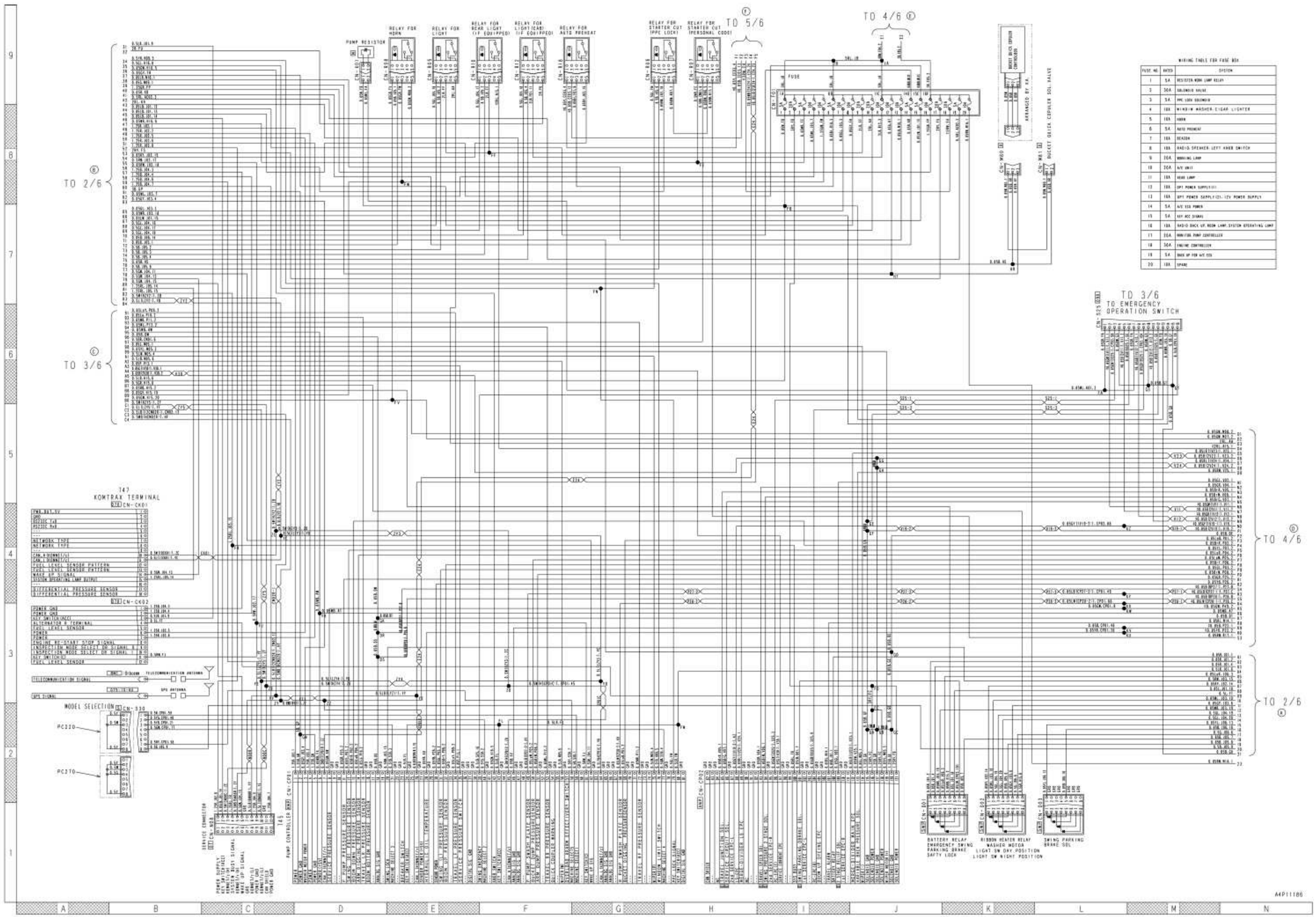


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Electrical circuit diagram (1/6)

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



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