SEN01983-03

# Shop Manual

HYDRAULIC
EXCAVATOR

GALEO

PC300 -8
PC300LC-8
PC350 -8
PC350LC-8

SERIAL NUMBERS

PC300- 60001 and up
PC300LC- 60001 and up
PC350- 60001 and up
PC350LC- 60001 and up

ecot3

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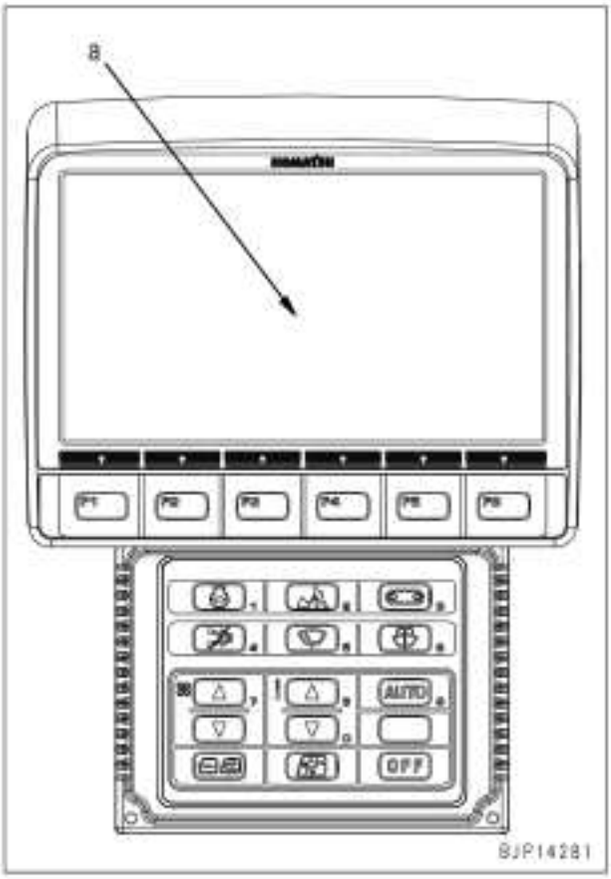
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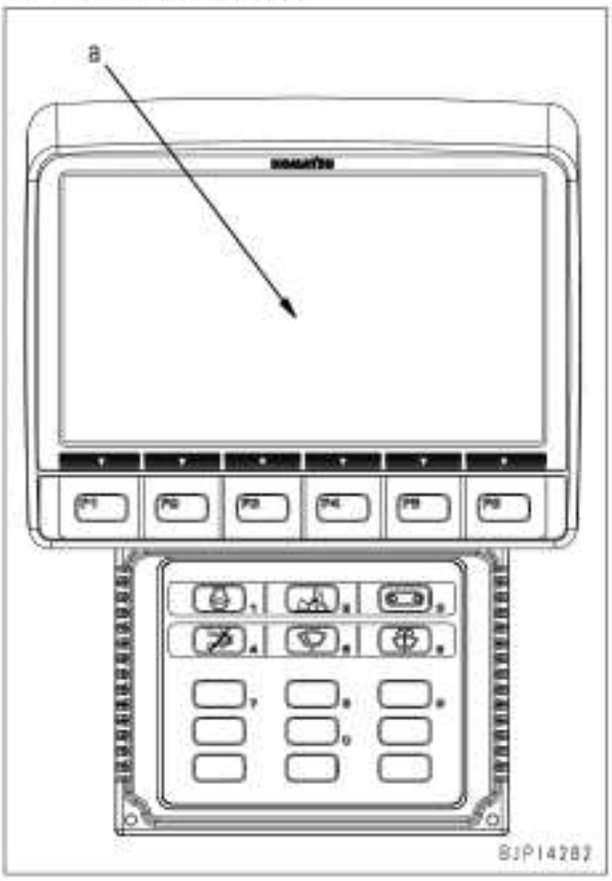


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**Heater specification**




**Heaterless specification**




**Upper section of machine monitor (Display section)**

(a): Multi-display

★ When the engine is started, the battery voltage may lower suddenly, depending on the ambient temperature and the condition of the battery. In this case, the machine monitor goes off for a moment. This phenomenon is not a failure, however.

**Upper section of machine monitor (Switch section)**

[F1]: F1 function switch
[F2]: F2 function switch
[F3]: F3 function switch
[F4]: F4 function switch
[F5]: F5 function switch
[F6]: F6 function switch

★ The function of each function switch is indicated by graphic mark in the multi-display (a) above that function switch.

★ If the graphic mark of a function switch is not displayed, that function switch is not working.

**Lower section of machine monitor (Switch section)**

[1]: Numeral 1 input switch/Auto-decelerator switch
[2]: Numeral 2 input switch/Working mode selector switch
[3]: Numeral 3 input switch/Travel speed shifting switch
[4]: Numeral 4 input switch/Alarm buzzer cancel switch
[5]: Numeral 5 input switch/Wiper switch
[6]: Numeral 6 input switch/Windshield washer switch
[7]: Numeral 7 input switch/Air conditioner or heater switch
[8]: Numeral 8 input switch/Air conditioner or heater switch
[9]: Numeral 9 input switch/Air conditioner or heater switch
[0]: Numeral 0 input switch/Air conditioner or heater switch

Switch having no numerals: Air conditioner or heater switch

★ Each switch has the function indicated by graphic mark and the function of inputting a numeral.

★ The machine monitor automatically judges which function of each switch is currently effective, according to the display condition of multi-display.

★ The difference between the air conditioner specification, heater specification, and heaterless specification is only the functions of the switches in this section.



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# Failure code [CA428] Water in Fuel Sensor High Error

| Action code | Failure code | Trouble | Water-in-fuel sensor high error (Engine controller system) |
|---|---|---|---|
| E15 | CA428 | | |
| Contents of trouble | • High voltage was detected in signal circuit of water-in-fuel sensor. | | |
| Action of controller | • None in particular. | | |
| Problem that appears on machine | • Water separator monitor does not display normally. | | |
| Related information | • Method of reproducing failure code: Turn starting switch ON. | | |

| | Cause | | Standard value in normal state/Remarks on troubleshooting | | |
|---|---|---|---|---|---|
| Possible causes and standard value in normal state | 1 | Defective water-in-fuel sensor | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | |
| | | | P47 (male) | Resistance | |
| | | | Between (1) – (2) | Max. 10 Ω | |
| | 2 | Disconnection in wiring harness (Disconnection in wiring or defective contact in connector) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | |
| | | | Wiring harness between CE01 (female) (14) – P47 (female) (1) | Resistance | Max. 10 Ω |
| | | | Wiring harness between CE01 (female) (47) – P47 (female) (2) | Resistance | Max. 10 Ω |
| | 3 | Short circuit in wiring harness (with another wiring harness) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | |
| | | | Between CE01 (female) (14) – each of CE01 (female) pins (With all wiring harness connectors disconnected) | Resistance | Min. 100 kΩ |
| | 4 | Defective wiring harness connector | Connecting parts between water-in-fuel sensor – engine wiring harness – engine controller may be defective. Check them directly.<br>• Looseness of connector, breakage of lock, or breakage of seal<br>• Corrosion, bend, breakage, push-in, or expansion of pin<br>• Moisture or dirt in connector or defective insulation | | |
| | 5 | Defective engine controller | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | |
| | | | CE01 (female) | Resistance | |
| | | | Between (14) – (47) | Max. 10 Ω | |



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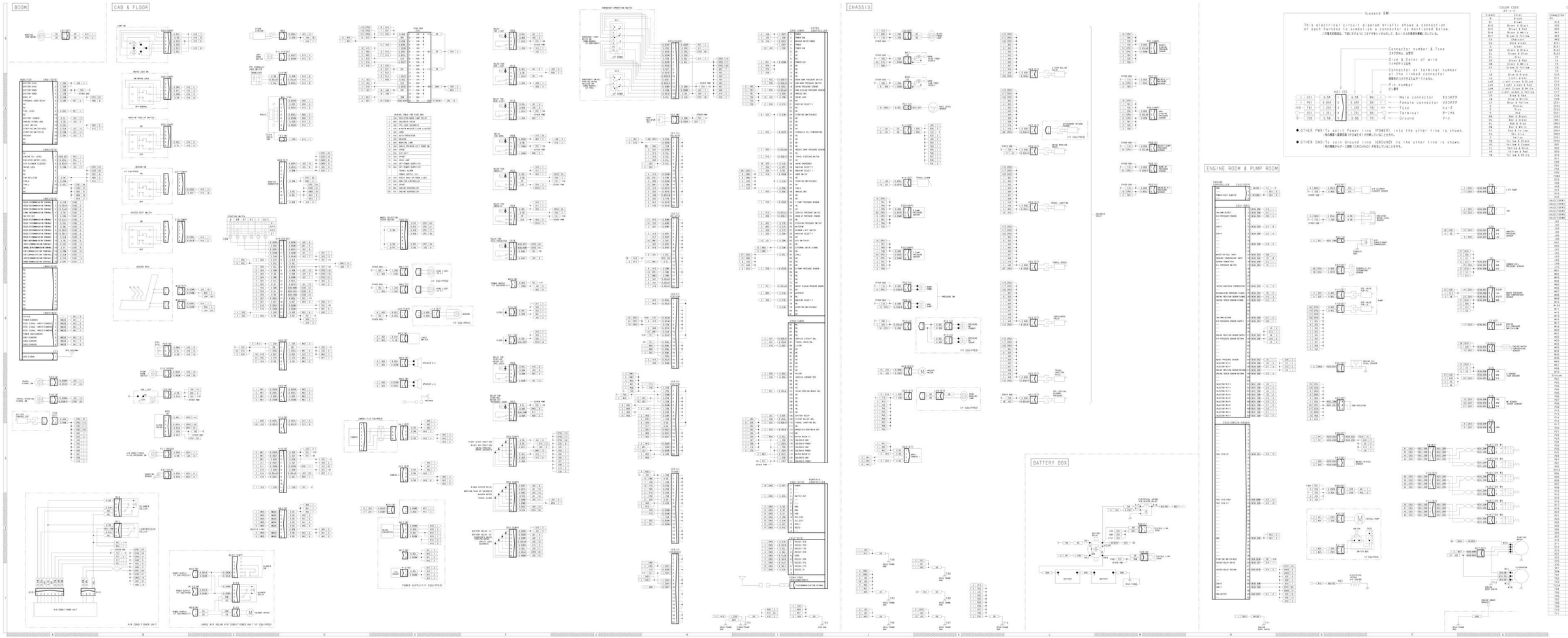
# Failure code [DHS3MA] Arm Curl PPC Sen. Abnormality

| Action code | Failure code | Trouble | Arm IN PPC pressure sensor abnormality (Pump controller system) |
|---|---|---|---|
| — | **DHS3MA** | | |
| Contents of trouble | • Signal voltage from arm IN PPC pressure sensor is below 0.3 V or above 4.72 V. | | |
| Action of controller | • Fixes arm IN PPC pressure at 0 MPa {0 kg/cm$^2$} and continues control.<br>• If cause of failure disappears, system resets itself. | | |
| Problem that appears on machine | • No automatic gear shifting | | |
| Related information | ★ If 5V circuit (3) and ground circuit (1) of pressure sensor are connected inversely, pressure sensor will be broken. Accordingly, take extreme care when checking.<br>• Input from arm IN PPC pressure sensor (pressure) can be checked with monitoring function. (Code 07200: Arm IN PPC pressure | | |

| | Cause | | Standard value in normal state/Remarks on troubleshooting | | | |
|---|---|---|---|---|---|---|
| Possible causes and standard value in normal state | 1 | Defective sensor power supply system | If failure code [**DA25KP**] is also displayed, carry out troubleshooting for it first. | | | |
| | 2 | Defective arm IN PPC pressure sensor (Internal defect) | ★ Prepare with starting switch OFF, then start engine and carry out troubleshooting. | | | |
| | | | P04 | Voltage | | |
| | | | Between (3) – (1) | 4.5 – 5.5 V | | |
| | | | Between (2) – (1) | 0.5 – 4.5 V | | |
| | 3 | Disconnection in wiring harness (Disconnection in wiring or defective contact in connector) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | | |
| | | | Wiring harness between CP01 (female) (9) – P04 (female) (3) | Resistance | Max. 1 Ω | |
| | | | Wiring harness between CP01 (female) (18) – P04 (female) (1) | Resistance | Max. 1 Ω | |
| | | | Wiring harness between CP01 (female) (17) – P04 (female) (2) | Resistance | Max. 1 Ω | |
| | 4 | Ground fault in wiring harness (Short circuit with GND circuit) | ★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON. | | | |
| | | | Wiring harness between CP01 (female) (17) – P04 (female) (2) and chassis ground | Resistance | Min. 1 MΩ | |
| | 5 | Hot short (Short circuit with 24V circuit) in wiring harness | ★ Prepare with starting switch OFF, then turn starting switch ON and carry out troubleshooting. | | | |
| | | | Wiring harness between CP01 (female) (9) – P04 (female) (3) and chassis ground | Voltage | Max. 1 V | |
| | | | Wiring harness between CP01 (female) (17) – P04 (female) (2) and chassis ground | Voltage | Max. 1 V | |
| | 6 | Defective pump controller | ★ Prepare with starting switch OFF, then start engine and carry out troubleshooting. | | | |
| | | | CP01 | Voltage | | |
| | | | Between (9) – (18) | 4.5 – 5.5 V | | |
| | | | Between (17) – (18) | 0.5 – 4.5 V | | |



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