CEBM026702

Shop Manual

KOMATSU®

PC210LC-10

HYDRAULIC EXCAVATOR

SERIAL NUMBERS **PC210LC-10 A10001 and up**

ENGINE **6D107E-2**

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Related information	★ Failure code [CA2637] may be displayed at the same time, however, perform troubleshooting for this failure code [CA1691]. • Method of reproducing failure code: When KDOC is changed, there is no need to check completion of repair. When KDOC is not changed, start engine and turn manual stationary regeneration switch ON. (See cause 6.)

No.	Cause	Procedure, measuring location, criteria and remarks
1	Defective KDOC outlet temperature sensor	• If there is a significant difference between KDOC outlet temperature and KDOC inlet temperature and KDPF outlet temperature when KDPF is completely cool or engine running at idle (not regenerating), replace KDOC outlet temperature sensor.
2	Unusual exhaust gas color	1. Rapidly accelerate engine from low idle to high idle two times, and then keep engine running at high idle for five seconds. • If excessive black smoke is exhausted when accelerating engine or running it at high idle, perform troubleshooting for "S-9 KDPF gets clogged in a short time". ★ It does not matter that black smoke particles are exhausted during engine acceleration but are not exhausted during running at high idle.
3	Defective KDOC (KDOC drying)	★ Dry KDOC. 1. Turn starting switch to ON position. 2. Monitor signal voltages from KDOC inlet temperature sensor and KDPF outlet temperature sensor, note temperature values from each sensor with KDPF under initial condition and during manual stationary regeneration, and check that KDOC outlet temperature sensor is normal. (See "Related information".) 3. Perform manual stationary regeneration. (See "Related information".) ★ Since this is for drying KDOC, dosing fuel is not injected during regeneration.
4	Defective KDOC (dirty or cracked or damaged KDOC surface)	⚠ **Perform after KDPF and KDOC are sufficiently cooled.** 1. Remove KDPF. 2. Remove KDOC. 3. Blow air from KDOC outlet side to clean ceramic surfaces inside KDOC. 4. Check ceramic inside KDOC for cracks. If cracks are found in KDOC, KDOC is defective (replace KDOC). ★ Perform the following regardless whether KDOC is replaced or not.
5	Reset after KDOC change	1. Install KDOC and KDPF. 2. Turn starting switch to ON position. 3. From service menu of machine monitor, display the "Diagnostic Tests" screen, open "03 KDPF Memory Reset", and then perform "03 KDOC Change" (reset after KDOC change). ★ When reset after KDOC change is performed, failure codes [CA1691] and [CA2637] will not be displayed. At that time, remedy of not injecting dosing fuel when the failure code is displayed is released. ★ Check that reset after KDOC change is completed successfully (by reset count). If not, perform troubleshooting again. ★ When KDOC is replaced, finish troubleshooting without performing manual stationary regeneration.

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<table>
<tr><th>No.</th><th>Cause</th><th colspan="3">Procedure, measuring location, criteria and remarks</th></tr>
<tr><td rowspan="4">4</td><td rowspan="4">Open circuit in wiring harness
(wire breakage or defective contact of connector)</td><td colspan="3">1. Turn starting switch to OFF position.
2. Disconnect connectors CP01 and P06, and connect T-adapters to each female side.</td></tr>
<tr><td rowspan="3">Resistance</td><td>★ If power supply voltage in check on cause 2 is normal, this check is not required.
Between CP01 (female) (18) and P06 (female) (1)</td><td>Max. 1 Ω</td></tr>
<tr><td>Between CP01 (female) (32) and P06 (female) (2)</td><td>Max. 1 Ω</td></tr>
<tr><td>★ If power supply voltage in check on cause 2 is normal, this check is not required.
Between CP01 (female) (6) and P06 (female) (3)</td><td>Max. 1 Ω</td></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Ground fault in wiring harness
(contact with GND circuit)</td><td colspan="3">1. Turn starting switch to OFF position.
2. Disconnect connectors CP01 and P06, and connect T-adapters to either female side.</td></tr>
<tr><td>Resistance</td><td>Between ground and CP01 (female) (32) or P06 (female) (2)</td><td>Min. 1 MΩ</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Hot short circuit in wiring harness
(contact with 24 V circuit)</td><td colspan="3">1. Turn starting switch to OFF position.
2. Disconnect connector P06.
3. Connect T-adapters to female side of connector P06.
4. Turn starting switch to ON position.</td></tr>
<tr><td>Voltage</td><td>Between P06 (female) (2) and ground</td><td>Max. 1 V</td></tr>
<tr><td>7</td><td>Defective pump controller</td><td colspan="3">If no failure is found by above checks, pump controller is defective. (Since this is an internal defect, troubleshooting cannot be performed.)</td></tr>
</table>

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Seizure prevention compound

Komatsu code	Part No.	Capacity	Container	Main features and applications
LC-G NEVER-SEEZ	—	—	Can	• Feature: Seizure and galling prevention compound with metallic super-fine-grain, etc. • Use for the mounting bolt in the high temperature area of the exhaust manifold and the turbocharger, etc.

Grease

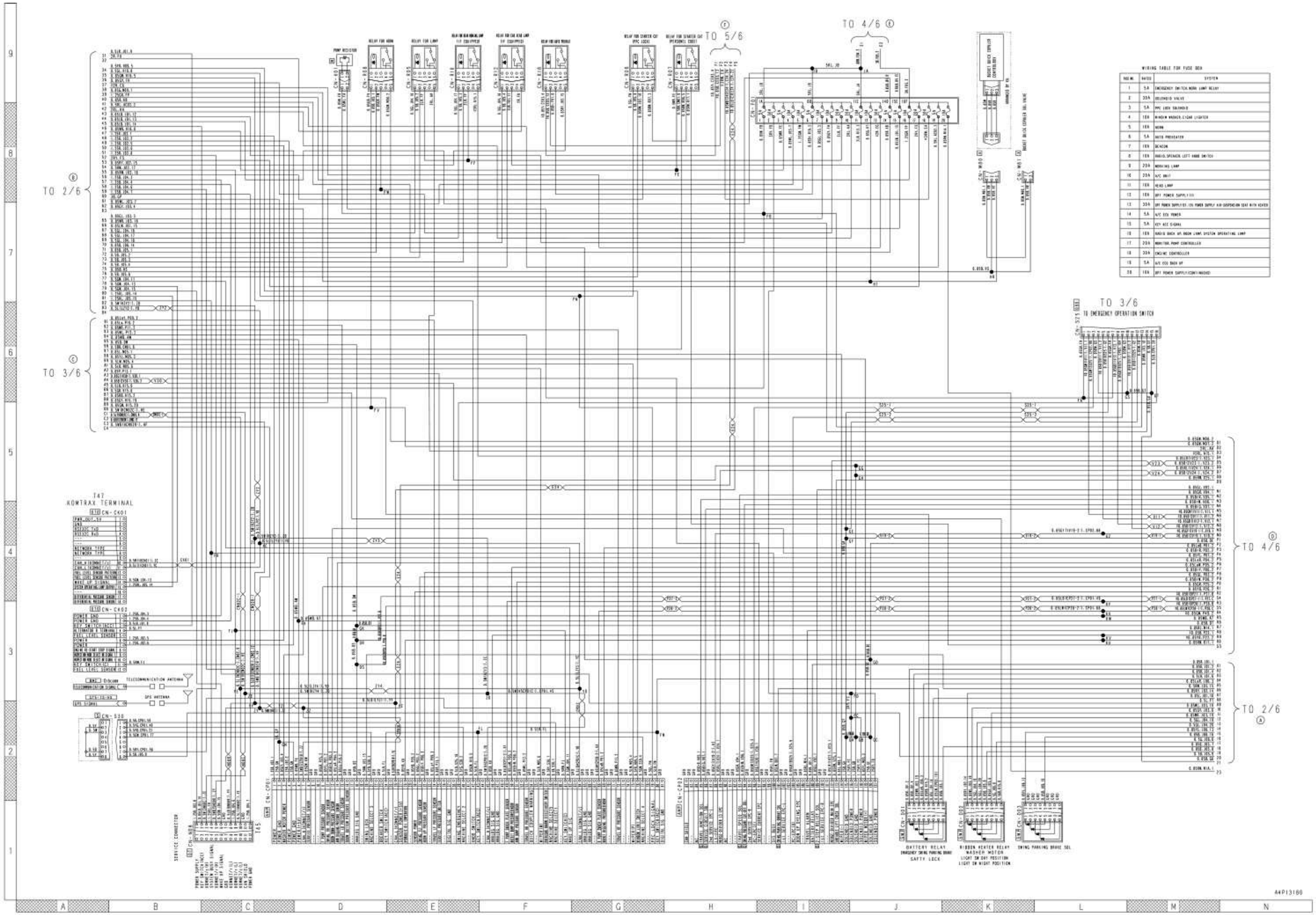
Komatsu code	Part No.	Capacity	Container	Main features and applications
G2-LI G0-LI (*) *: For cold regions	SYG2-400LI-A SYG2-16LI SYGA-16CNLI SYG0-400LI-A(*) SYG0-16CNLI(*)	Various	Various	• Lithium grease with extreme pressure lubrication performance, general purpose type
Molybdenum disulfide grease LM-G (G2-M)	SYG2-400M SYG2-400M-A SYGA-16CNM	400 g x 10 400 g x 20 16 kg	Bellows-type container Can	• Use for parts under heavy load. Caution: • Do not use this grease for rolling bearings like swing circle bearings, etc. and splines. • Use this grease for work equipment pins only when installing them, but do not use it afterward.
Hyper White Grease G2-T G0-T (*) *: For cold regions	SYG2-400T SYG2-16CNT SYG0-400T(*) SYG0-16CNT(*)	400 g 16 kg	Bellows-type container Can	• Higher seizure resistant, heat resistant and water resistant than molybdenum disulfide grease. • Not conspicuous on machine since color is white.
Bio grease G2-B G2-BT (*) *: For use at high temperature and under high load	SYG2-400B SYGA-16CNB SYG2-400BT(*) SYGA-16CNBT(*)	400 g 16 kg	Bellows-type container Can	• Since this grease is biodegradable in short period, it has less impact on microorganisms, animals, and plants.
G2-S ThreeBond 1855	—	200 g	Tube	• Silicone grease with wide usable temperature range, high resistance to thermal-oxidative degradation and performance to prevent deterioration of rubber and plastic parts • Use for oil seals of the transmission, etc.
G2-U-SENS grease	427-12-11871	2 kg	Can	• Urea (organic system) grease with heat resistance and long life. Enclosed type. • Use for rubber, bearing and oil seal in damper. Caution: Do not mix it with lithium grease.

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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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