SEN06603-04

Shop Manual

HYDRAULIC
EXCAVATOR

PC650LC-11

SERIAL NUMBERS 80001 and up

KOMATSU®

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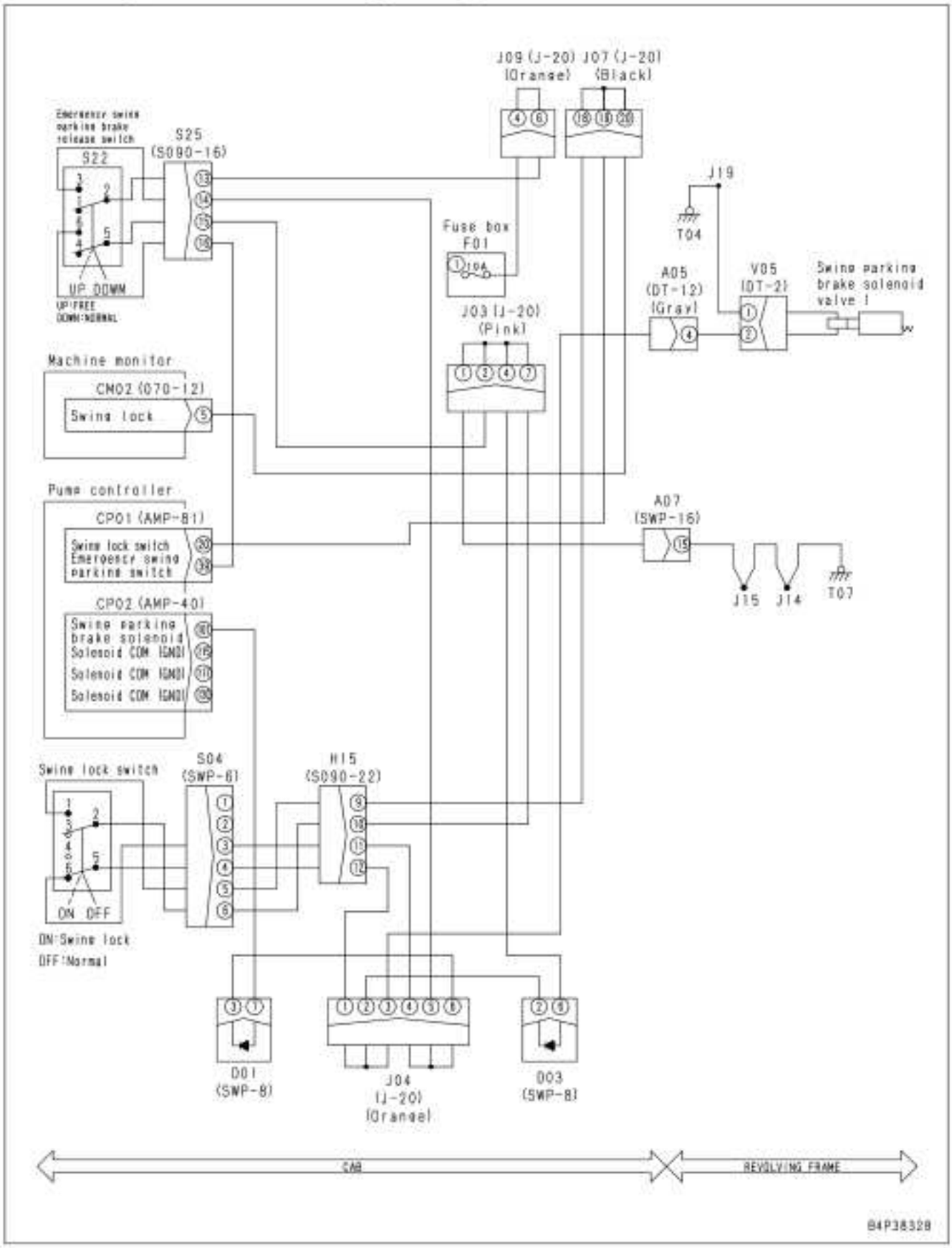
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Related information	⚠ **KDPF and KDOC are heated to 500 °C or higher. Be careful not to get burn injury.** • If failure code [CA3316] or [CA3317] or [CA3318] is displayed, KDOC outlet temperature sensor may be defective. Perform troubleshooting for [CA3316] or [CA3317] or [CA3318] first. • If failure code [CA1925] or [CA1963] is displayed, fuel doser solenoid valve 1 may be defective. Perform troubleshooting for [CA1925] or [CA1963] first. • Temperature detected by KDOC inlet temperature sensor can be checked with monitoring. (Code: 47300) • Temperature detected by KDOC outlet temperature sensor can be checked with monitoring. (Code: 47400) • Temperature detected by KDPF outlet temperature sensor can be checked with monitoring. (Code: 47200) • As to procedure for accessing KDPF temperature sensor, see DISASSEMBLY AND ASSEMBLY, "REMOVE AND INSTALL KDPF ASSEMBLY" and "DISASSEMBLE AND ASSEMBLE OF KDPF ASSEMBLY". • After turning starting switch to OFF position, engine controller performs AdBlue/DEF purge (for 6 minutes in maximum) and then stops engine. To restart engine, wait until system operating lamp goes out after turning starting switch to OFF position, and then turn the starting switch to ON position. • Engine power deration is canceled by turning starting switch to OFF position after this failure code is cleared. (This deration is not canceled by simply failure code being cleared.) **NOTICE** **If this failure code is displayed, KCSF may be damaged. Check followings after repairing this failure code. If black smoke comes out from exhaust pipe outlet, replace KCSF.** • Start the engine, suddenly accelerate the engine from low idle to high idle two times, and then keep the engine running at high idle for 5 seconds. • Check that black smoke does not come out from exhaust pipe outlet during this sudden acceleration and high idle. **NOTICE** • **This failure code requires "Loaded Diagnostics Operation To Confirm Failure Correction". After investigating the cause of the problem and completing the repair, perform "Loaded Diagnostics Operation To Confirm Failure Correction" to make sure the failure code is cleared. (Even if this failure code is not displayed with starting switch in ON position, completion of repair cannot be determined unless exhaust temperature becomes high.)** • **This failure code can be cleared by performing "Engine Controller Active Fault Clear". For details, see TESTING AND ADJUSTING, "ELECTRICAL SYSTEM", "SET AND OPERATE MACHINE MONITOR", "SERVICE MODE" and "METHOD FOR OPERATING TESTING MENU (ENGINE CONTROLLER ACTIVE FAULT CLEAR)" of "DIAGNOSTIC TESTS MENU".**

No.	Cause	Procedure, measuring location, criteria and remarks
1	Defective intake system	Check air intake hoses, clamps, and tubes for damage and loosening. Repair as necessary.
2	Defective injector	As a result of the check in the cylinder cut-out mode, a cylinder running at the unchanged speed is found. (For details, see TESTING AND ADJUSTING, "HANDLE CYLINDER CUT-OUT MODE OPERATION".)

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Circuit diagram related to swing parking brake



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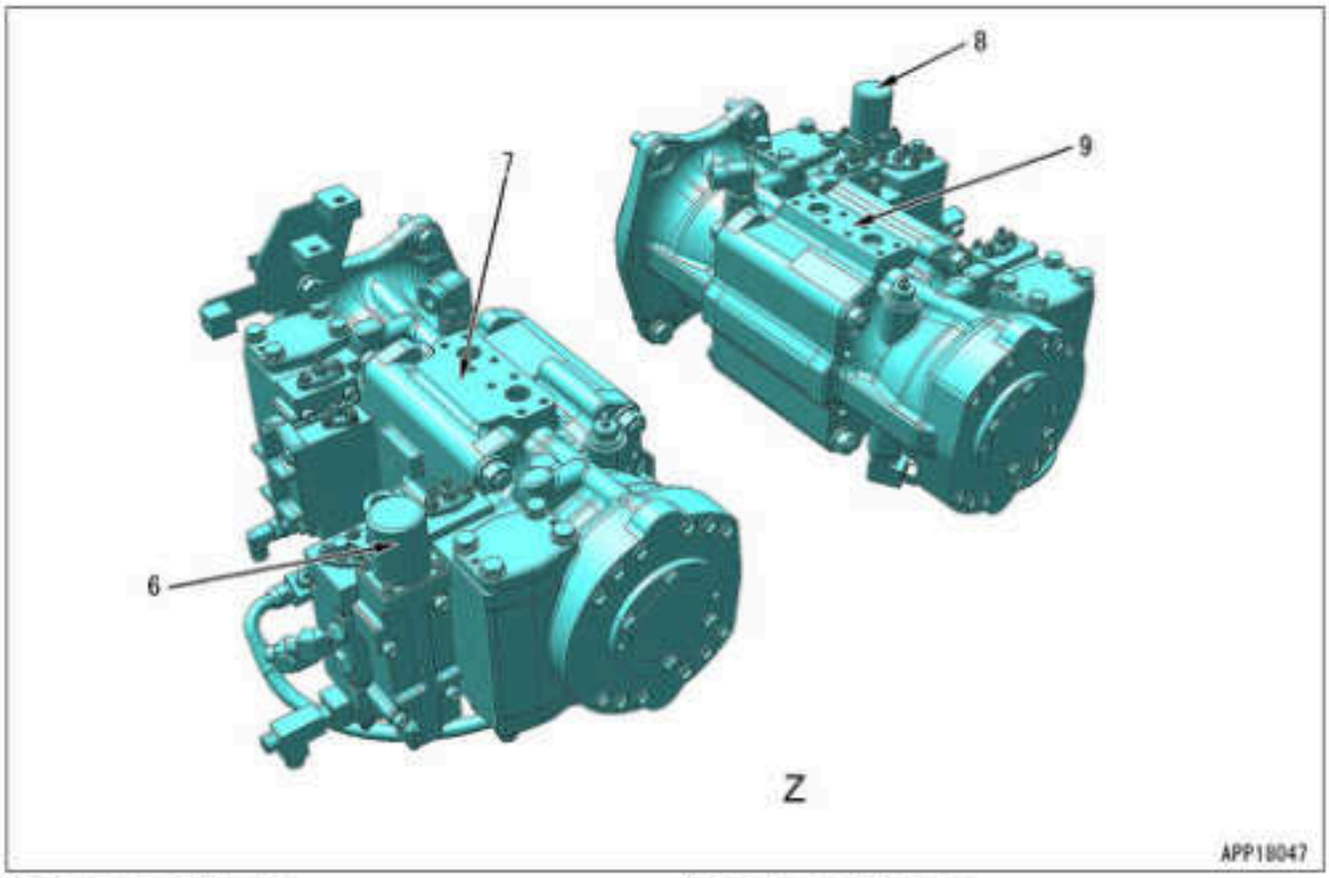
Liquid gasket

Komatsu code	Part No.	Capacity	Container	Main features and applications
LG-5	790-129-9080	1 kg	Polyethylene container	• Use to seal various threaded parts, pipe joints, and flanges. • Use to seal taper plugs, elbows, and nipples for hydraulic piping.
LG-6	790-129-9160	200 g	Tube	• Features: Silicon-based heat and cold-resistant • Use to seal flange surface and threaded parts • Use to seal oil pan, final drive case, etc.
LG-7	790-129-9170	1 kg	Tube	• Features: Silicon-based quick-curing sealant • Use to seal flywheel housing, intake manifold, oil pan, thermostat housing, etc.
LG-8 THREEBOND 1207B	419-15-18131	100 g	Tube	• Features: Silicon-based heat, vibration, and shock-resistant • Use to seal transfer case, etc.
LG-9 THREEBOND 1206D	790-129-9310	200 g	Tube	• Use for rough surfaces such as the circle gear top seal which is not clamped by bolts, gaps in the weld which must be caulked, etc. • Can be coated with paint.
LG-10 THREEBOND 1206E	790-129-9320	200 g	Tube	• Use as lubricant or sealant when inserting radiator hoses • Can be coated with paint.
LG-11 THREEBOND 1121	790-129-9330	200 g	Tube	• Feature: Can be used together with solid gaskets. • Use for covers of the transmission case and steering case etc.
THREEBOND 1211	790-129-9090	100 g	Tube	• Liquid gasket used to repair engine

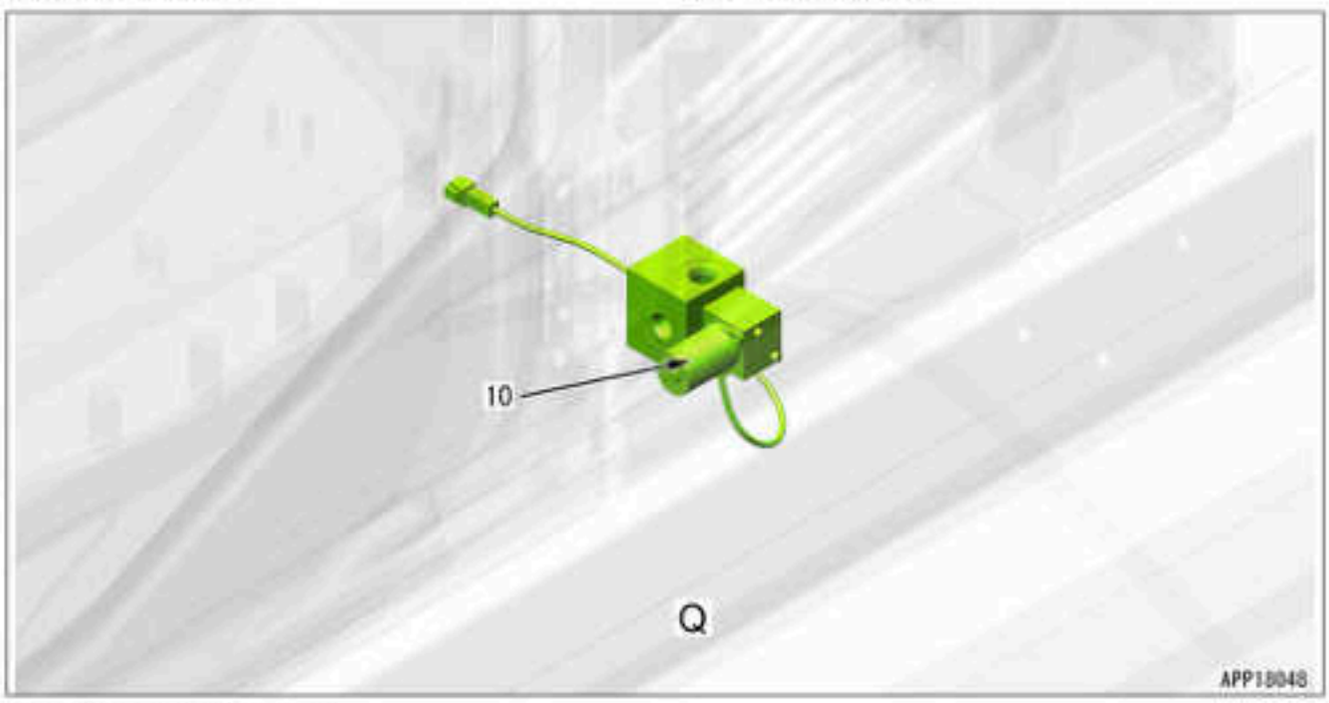
Molybdenum disulfide lubricant

Komatsu code	Part No.	Capacity	Container	Main features and applications
LM-P	—	200 g	Tube	• Use to prevent galling and seizure of press-fitted parts, shrinkage-fitted parts, and threaded parts. • Use to lubricate linkages, bearings, etc.
LM-S	—	190 g	Pail	• Spray type • Thin molybdenum disulfide films are made on metal surfaces to prevent the metals from galling. • Use for the drive shaft splines, needle bearings, various link pins, bolts, etc.

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6: Rear pump TVC valve
7: Main pump (No. 1)
8: Front pump TVC valve
9: Main pump (No. 2)

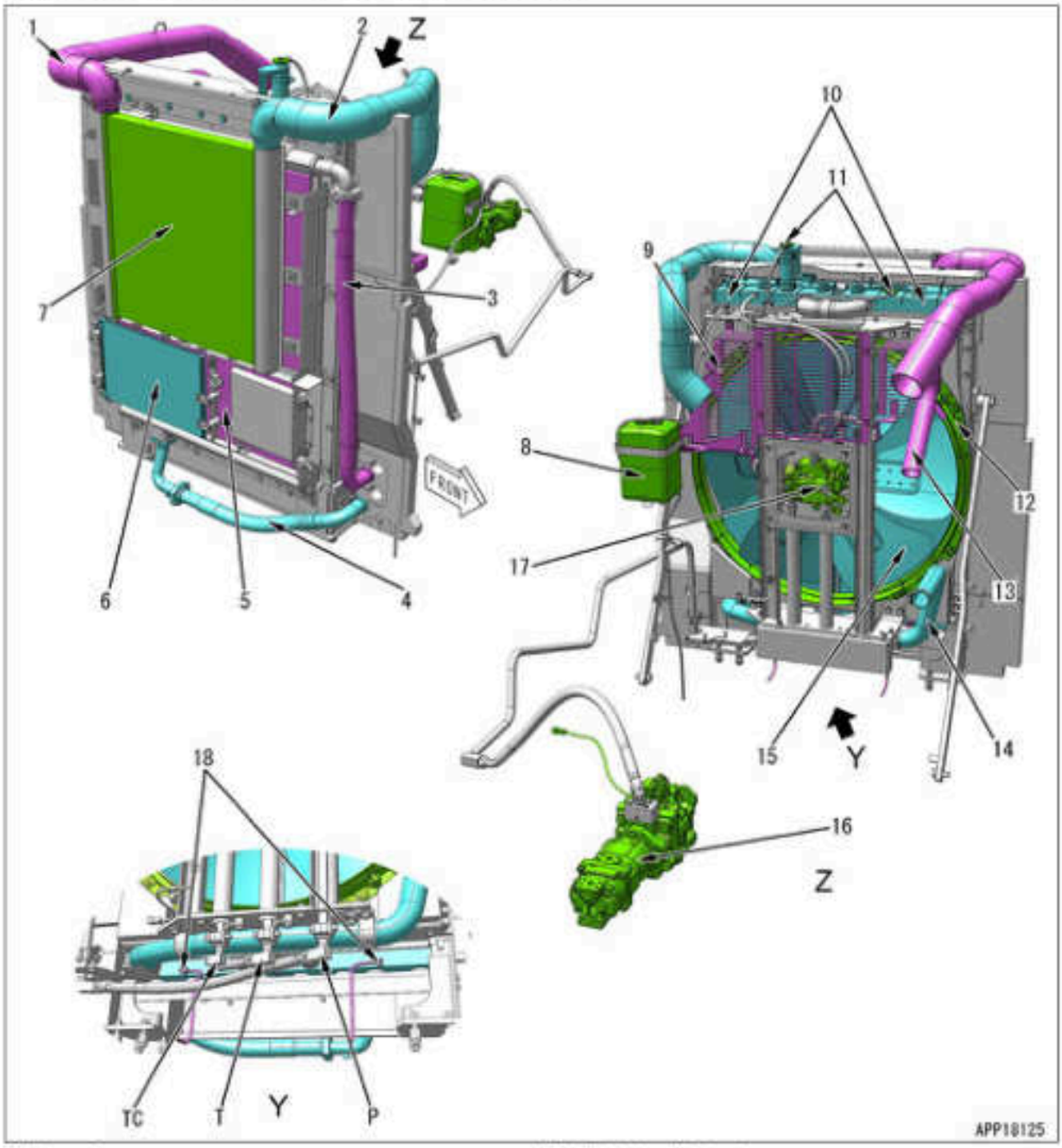


10: PPC lock solenoid valve

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COOLING SYSTEM

LAYOUT DRAWING OF COOLING SYSTEM



P: From fan pump
T: To oil cooler
1: Aftercooler inlet hose
2: Aftercooler outlet hose
3: Oil cooler inlet hose
4: Oil cooler outlet hose
5: Oil cooler
TC: To hydraulic tank
6: Air conditioner condenser
7: Aftercooler
8: Reservoir tank
9: Fan guard
10: Radiator

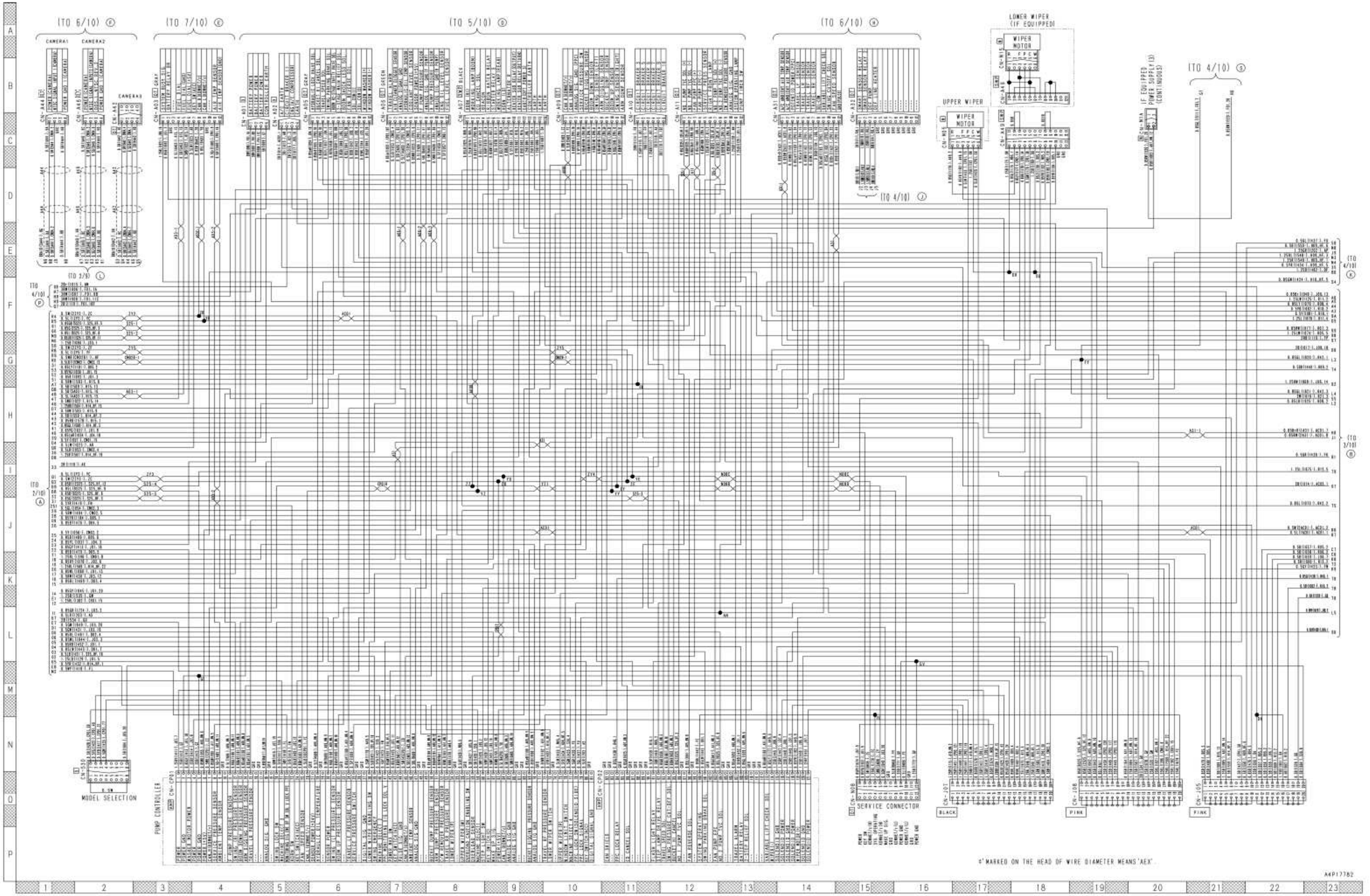
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ELECTRICAL CIRCUIT DIAGRAM (1/10)

PC650LC-11

REMARK

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



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