CX160C
Tier 4
Crawler Excavator

SERVICE MANUAL

Part number 47370128A
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April 2012

CASE CONSTRUCTION

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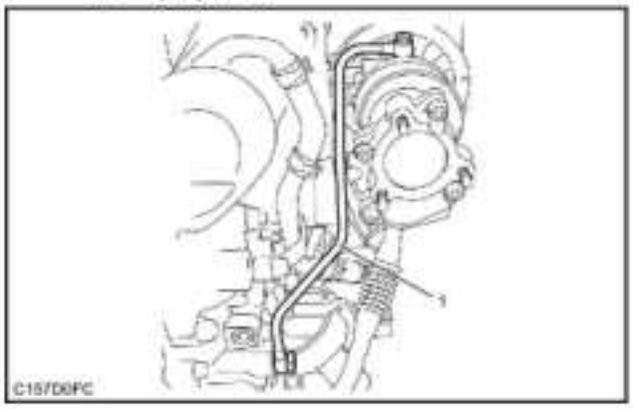
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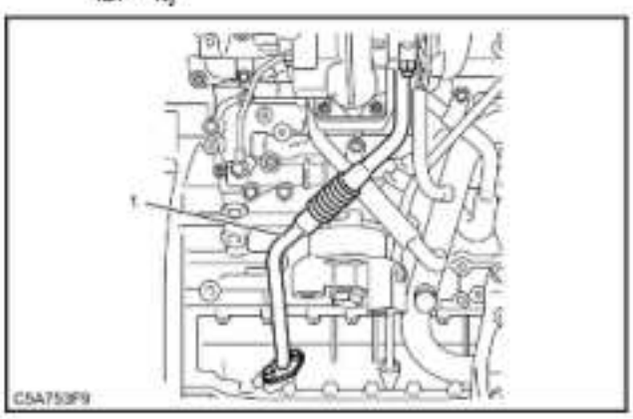
5) Connect the oil feed pipe to the turbocharger assembly.
Tightening torque: 23 N· m {2.3 kgf· m / 17 lb· ft} Eyebolt



1	Oil feed pipe

6) Install the oil return pipe to the crankcase.
Tightening torque: 25 N· m {2.5 kgf· m / 18 lb· ft}

7) Connect the oil return pipe to the turbocharger assembly.
Tightening torque: 10 N· m {1.0 kgf· m / 7.38 lbf· ft}



1	Oil return pipe

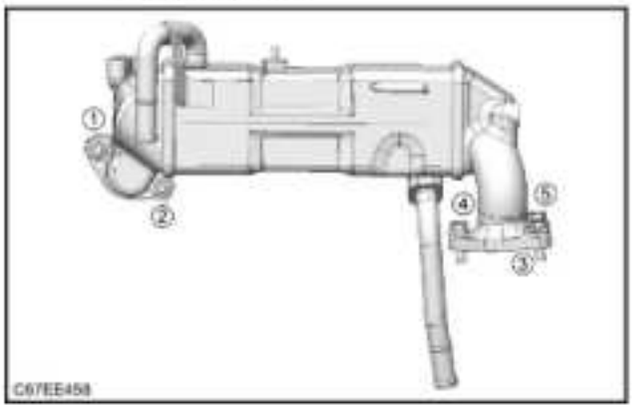
8) Connect the vacuum hose to the turbocharger assembly.

26. EGR cooler Installation

1) Temporarily tighten the EGR cooler to the exhaust manifold and cylinder head assembly.

ANNOTATION:

- *Install the gasket and EGR cooler, and temporarily tighten them in the order specified in the diagram.*



ANNOTATION:

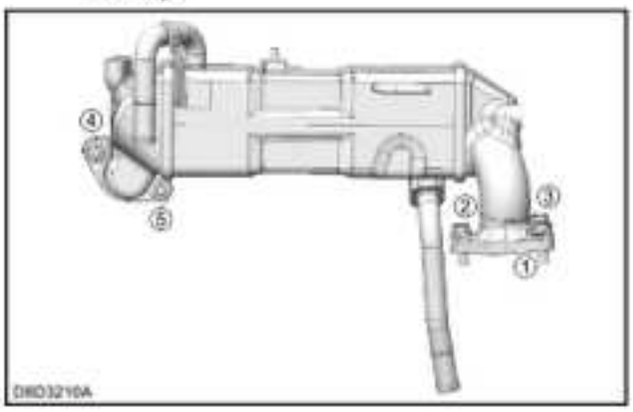
- *Do not hold the water pipe section when installing the EGR cooler.*

2) Securely tighten the EGR cooler to the exhaust manifold and cylinder head assembly.

ANNOTATION:

- *Securely tighten them to the specified torque in the order of the numbers shown in the diagram.*

Tightening torque: 27 N· m {2.8 kgf· m / 20 lb· ft}



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Step	Action	Standard value	Yes	No
10	1. Turn the key switch ON. 2. Measure the voltage between the ground and terminal 1 of the CN. D54 harness side. Is it about 5 V?	About 5 V	Go to Step 11	WL430 harness defect (disconnection). Repair or replace
11	1. Measure the voltage between the ground and terminal 2 of the CN. D54 harness side. Is it 0.25 V or higher?	0.25 V or higher	Computer B defect. Replace	YG445 harness defect (disconnection). Repair or replace

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3) High-speed motor state for automatic 2nd-speed position

Figure 13 shows the high-speed motor state for the automatic 2nd-speed position.When the regulation pilot pressure is allowed to operate on the Ps port, the pilot pressurized oil operates on the pilot hydraulic chamber on the motor capacity control valve front surface via oil path A and this pushes the motor capacity control valve to the right. Also, the load pressure Pin on the motor operates on the motor load pressure chamber via oil path B and pushes the motor capacity control valve to the left. When Pin is lower than the motor capacity control pressure P determined by the ratio of the pilot pressure pressurized area and the motor load pressure pressurized area, the motor capacity control valve is held in the state in Figure 13 and the motor operates in high-speed (low-capacity) mode.

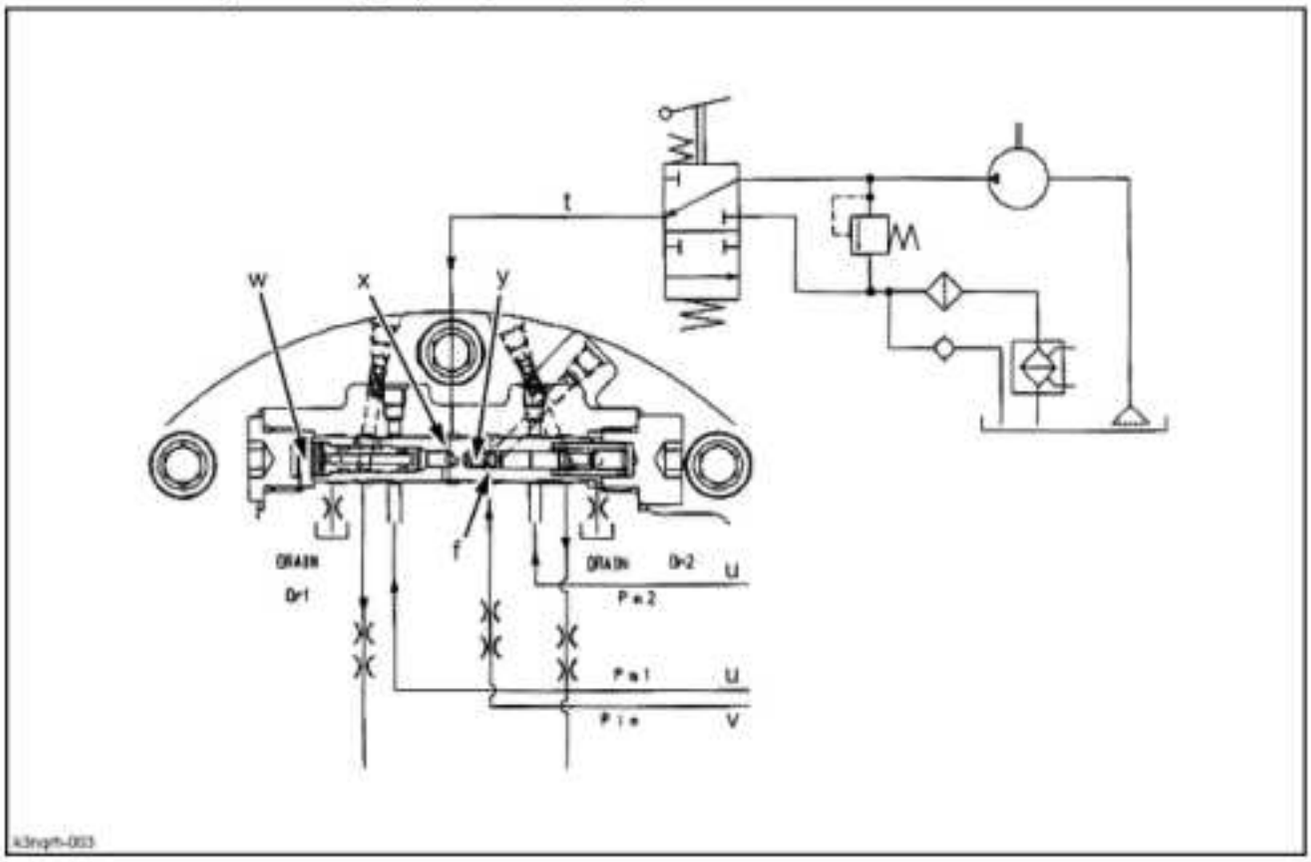
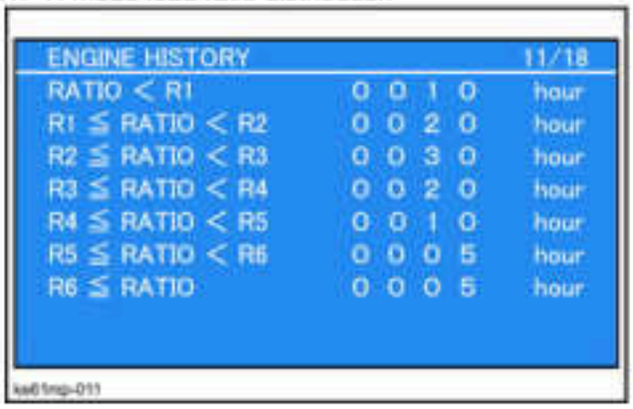


Figure 13 Motor high-speed (low-capacity) position for automatic 2nd-speed mode

t	Pilot pressure	v	Motor load pressure	x	Oil path A
u	Pressure in motor	w	Pilot oil pressure chamber	y	Motor load pressure chamber

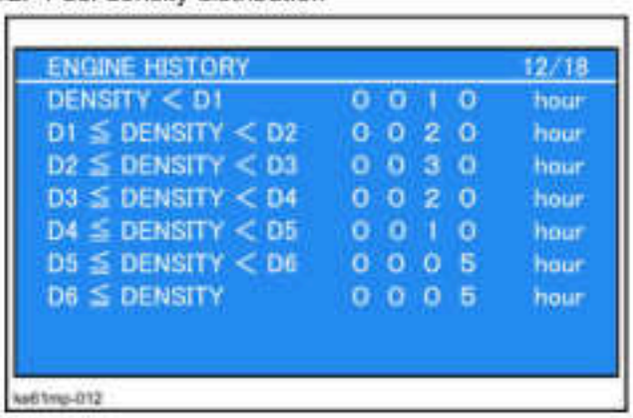
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11. H mode load ratio distribution



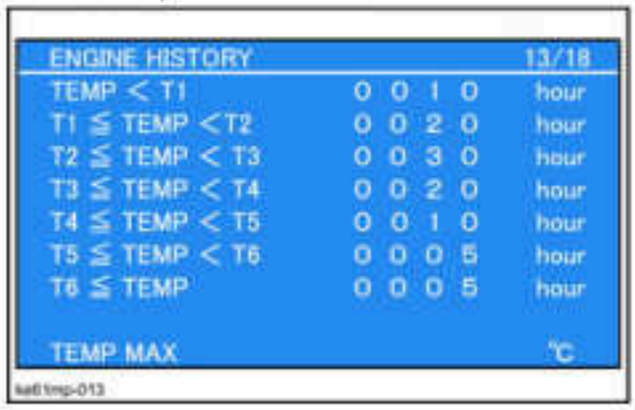
RATIO < R1	hour	R < 30
R1 ≦ RATIO < R2	hour	30 ≦ R < 40
R2 ≦ RATIO < R3	hour	40 ≦ R < 50
R3 ≦ RATIO < R4	hour	50 ≦ R < 60
R4 ≦ RATIO < R5	hour	60 ≦ R < 70
R5 ≦ RATIO < R6	hour	70≦ R < 80
R6 ≦ RATIO	hour	80 ≦ R

12. Fuel density distribution



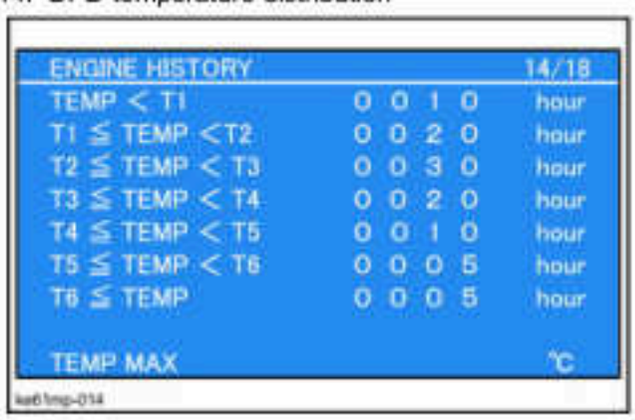
DENSITY < D1	hour	D < D1
D1 ≦ DENSITY < D2	hour	D1 ≦ D < D2
D2 ≦ DENSITY < D3	hour	D2 ≦ D < D3
D3 ≦ DENSITY < D4	hour	D3 ≦ D < D4
D4 ≦ DENSITY < D5	hour	D4 ≦ D < D5
D5 ≦ DENSITY < D6	hour	D5 ≦ D < D6
D6 ≦ DENSITY	hour	D6 ≦ D

13. DOC temperature distribution



TEMP. < T1	hour	T < 200
T1 ≦ TEMP. < T2	hour	200 ≦ T < 300
T2 ≦ TEMP. < T3	hour	300 ≦ T < 400
T3 ≦ TEMP. < T4	hour	400 ≦ T < 500
T4 ≦ TEMP. < T5	hour	500 ≦ T < 600
T5 ≦ TEMP. < T6	hour	600 ≦ T < 700
T6 ≦ TEMP.	hour	700 ≦ T
-	-	-
TEMP. MAX	°C (°F)	Maximum temperature

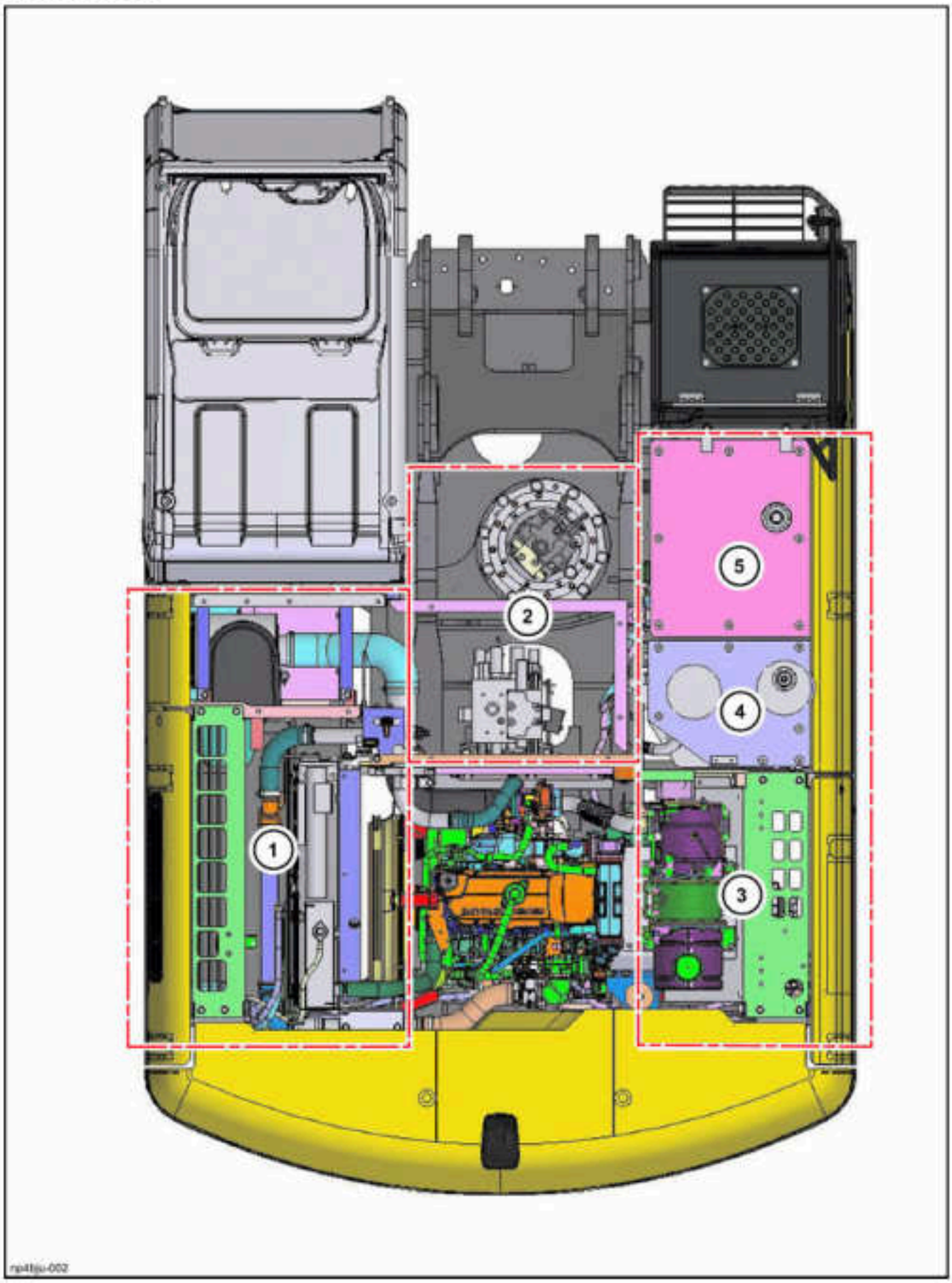
14. DPD temperature distribution



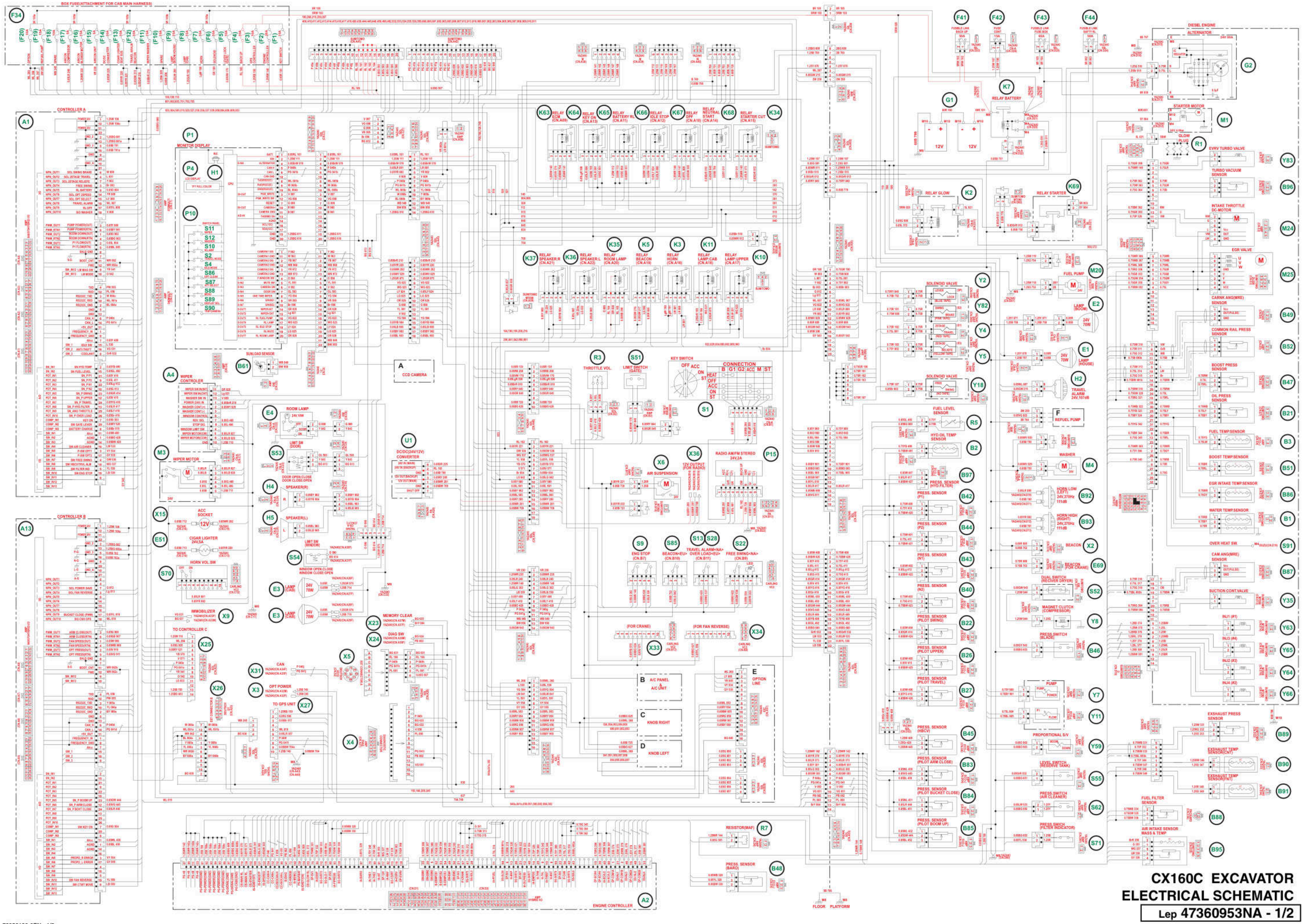
TEMP. < T1	hour	T < 200
T1 ≦ TEMP. < T2	hour	200 ≦ T < 300
T2 ≦ TEMP. < T3	hour	300 ≦ T < 400
T3 ≦ TEMP. < T4	hour	400 ≦ T < 500
T4 ≦ TEMP. < T5	hour	500 ≦ T < 600
T5 ≦ TEMP. < T6	hour	600 ≦ T < 700
T6 ≦ TEMP.	hour	700 ≦ T
-	-	-
TEMP. MAX	°C (°F)	Maximum temperature

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Overall view



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