PART NO. TTCEB-E-00

HITACHI

Technical Manual

Troubleshooting

ZAXIS

140W-3

Wheeled Excavator

Service Manual consists of the following separate Part No;

Technical Manual (Operational Principle)	: Vol. No.TOCEB-E
Technical Manual (Troubleshooting)	: Vol. No.TTCEB-E
Workshop Manual	: Vol. No.WCEB-E

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SECTION 4

OPERATIONAL PERFORMANCE TEST



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LIST OF FAULT CODE

Fault Code	Details	Remedy
14000-2	Abnormal CAN Communication	Execute retry B in self-diagnosing. If this error code is displayed after re-try, check the following item. Check the CAN communication line (check the harness).
14001-2	ICF: Flash Memory: Read / Write Error	Execute retry B in self-diagnosing and execute the following item. Execute 1.5 Information C/U: Initialize (T5-4-15).
14002-2	ICF: External RAM: Read / Write Error	
14003-2	ICF: EEPROM: Sum Check Error	Execute retry B in self-diagnosing. If this error code is displayed after re-try, check the following item. 1. Execute 1.10 Control Data: Initialize (T5-4-20). 2. Execute 1.4 Enter Model and Serial No. (T5-4-14). Then, execute self-diagnosing and execute retry B.
14006-2	ICF: Satellite Communication Terminal: Communication Error	Execute retry B in self-diagnosing. If this error code is displayed after re-try, check the following item. Check the communication line. Check the power source line of satellite terminal. Check the fuse. Then, execute self-diagnosing and execute retry B.
14008-2	ICF: Abnormal Internal RAM	Execute retry B in self-diagnosing. If this error code is displayed after re-try, replace the controller.
14100-2	Satellite Communication Terminal: Abnormal EEPROM	
14101-2	Satellite Communication Terminal: Abnormal IB/OB Queue	
14102-2	Satellite Communication Terminal: Abnormal Local Loup Back	
14103-2	Satellite Communication Terminal: The satellite is not found.	
14104-2	Satellite Communication Terminal: Fail 1 of Remote Loup Back	
14105-2	Satellite Communication Terminal: Fail 2 of Remote Loup Back	
14106-2	Satellite Communication Terminal: Sending and receiving data are unmatched.	

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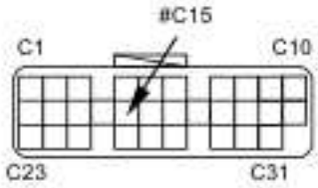
Presumptive Symptoms in Real Machine Operation	Assumptive Conditions at Backup	Fault Code (Tech 2)
• While the engine runs, there is nothing abnormal with machine operation. • After the engine is stalled, the re-start is impossible.	While the engine runs, operate according to standard of the crank sensor. When the engine stops, the start is impossible (in order to prevent the engine from damaging).	P0340 P0341
• The output power may decrease, white smoke may occur and vibration may occur. • The engine may be stalled. (If the cam senor is normal, the engine can re-start.)	Operate according to standard of the cam sensor.	P0335 P0336
• While the engine runs, there is nothing abnormal with machine operation. • After the engine is stalled, the re-start is impossible.	The timing chain and the belt does not turn smoothly but turn in reverse.	P1345
Nothing special	When starting: -10 °C (14 °F) (Start the engine although what state.) When operating: 25 °C (77 °F) (Operate normally.)	P0113 P0112
Normal temperature: When starting, dark smoke may occur and engine combustion sound may be become loud. While warming up with fresh air in low temperature: Rough idle, engine stall or while smoke may be occur.	When starting: -20 °C (-4 °F) (Start the engine although what state.) When operating: 80 °C (176 °F) (Operate normally.)	P0118 P0117
Dark smoke occurs.	Boost pressure cannot be corrected.	P0238 P0237
There is influence to exhaust gas.	As the sensor input is not certain, it cannot be controlled. Exhaust gas becomes bad. Operate the engine with EGR valve fully open.	P0487
Dark smoke occurs at high altitude.	Atmospheric pressure 80 kPa (0.8 kgf/cm^2, 12 psi) (2000 m above the sea)	P0108 P0107
Nothing special.	When starting: -20 °C (-4 °F) (Start the engine although what state.) When operating: 70 °C (158 °F) (Operate normally.)	P0183 P0182

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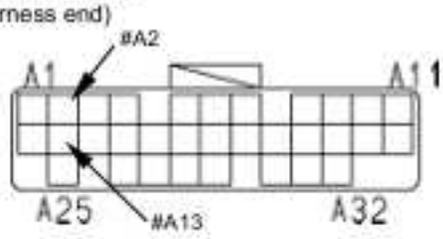
- MC

  Between CAN Circuit (Low Side) and Ground Circuit
  - Check for continuity between terminal #C15 (harness end) of connector MC-C and terminal #A2 (harness end) of connector MC-A.
  - Check for continuity between terminal #C15 (harness end) of connector MC-C and terminal #A13 (harness end) of connector MC-A.
  - Check for continuity between terminal #C15 (harness end) of connector MC-C and terminal #B8 (harness end) of connector MC-B.
  - Check for continuity between terminal #C15 (harness end) of connector MC-C and terminal #B18 (harness end) of connector MC-B.

Connector
Connector MC-C
(Harness end)

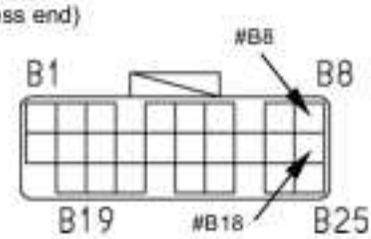


Connector MC-A
(Harness end)



T153-05-04-999

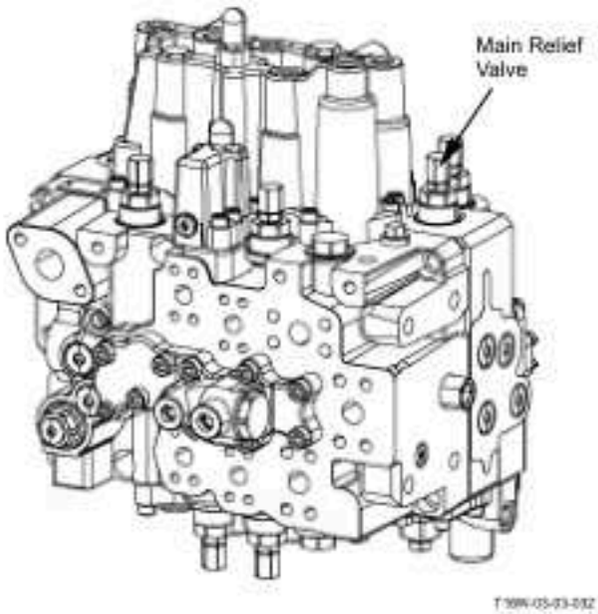
Connector MC-B
(Harness end)



T153-05-04-021

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NOTE: If the measure pressures for all functions are lower than the specified range, the probable cause is a decrease of the main relief valve setting pressure.
If the relief pressure of a particular function is lower, the probable cause is other than main relief valve.

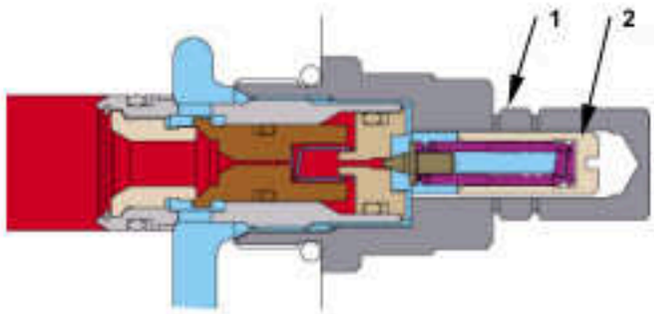


T3BN-03-03-002

Main Relief Pressure Setting Adjustment Procedure

Adjustment:

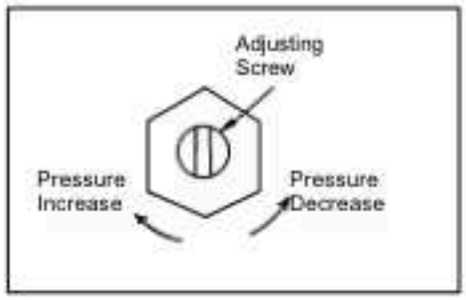
1. Loosen lock nut (1).
   : 17 mm
   : 19.5 N·m (2 kgf·m, 14.5 lbf·ft)
2. Turn adjusting screw (2) to adjust the main relief set pressure referring to the table below.
3. Retighten lock nut (1).
4. Recheck the set pressures.



T17B-03-03-010

NOTE: Standard Change in Pressure (Reference)

Plug Turns		1/4	1/2	3/4	1
Change in Relief Pressure	MPa	2.79	5.59	8.36	11.2
	(kgf/cm^2)	(28.5)	(57)	(85.2)	(114)
	(psi)	(405)	(811)	(1212)	(1620)



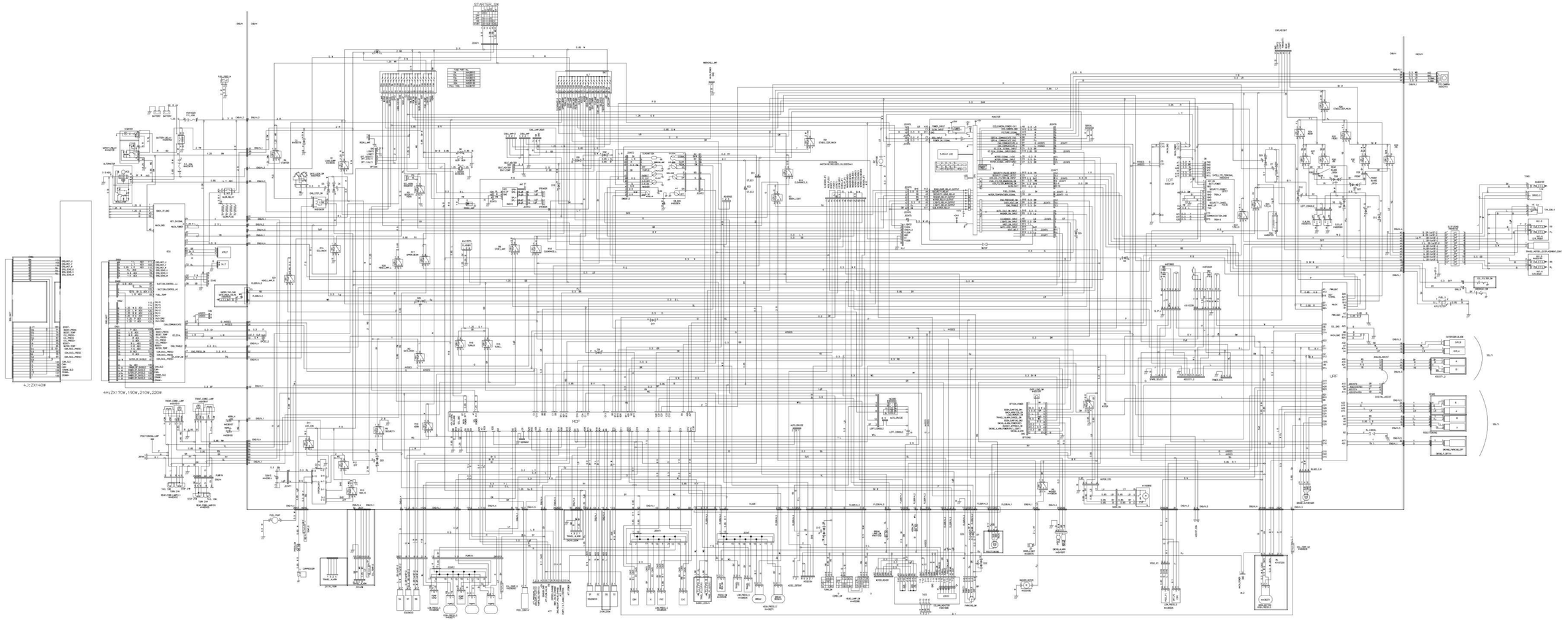
T105-05-03-002

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Attach to Vol. No.: TTCEB-E-00, TTCGB-E-00, TTCJB-E-00

ZAXIS140W-3/170W-3/190W-3/210W-3/220W-3 ELECTRICAL CIRCUIT DIAGRAM (STANDARD)

⚠CAUTION: Parts numbers on the drawing are provided only for reference purpose.
To order parts on the drawing,be sure to consult the Parts Catalog.



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