VEBM948102

Shop Manual

WHEEL LOADER

WA430-6E0

SERIAL NUMBERS H60266 and up

ecot3

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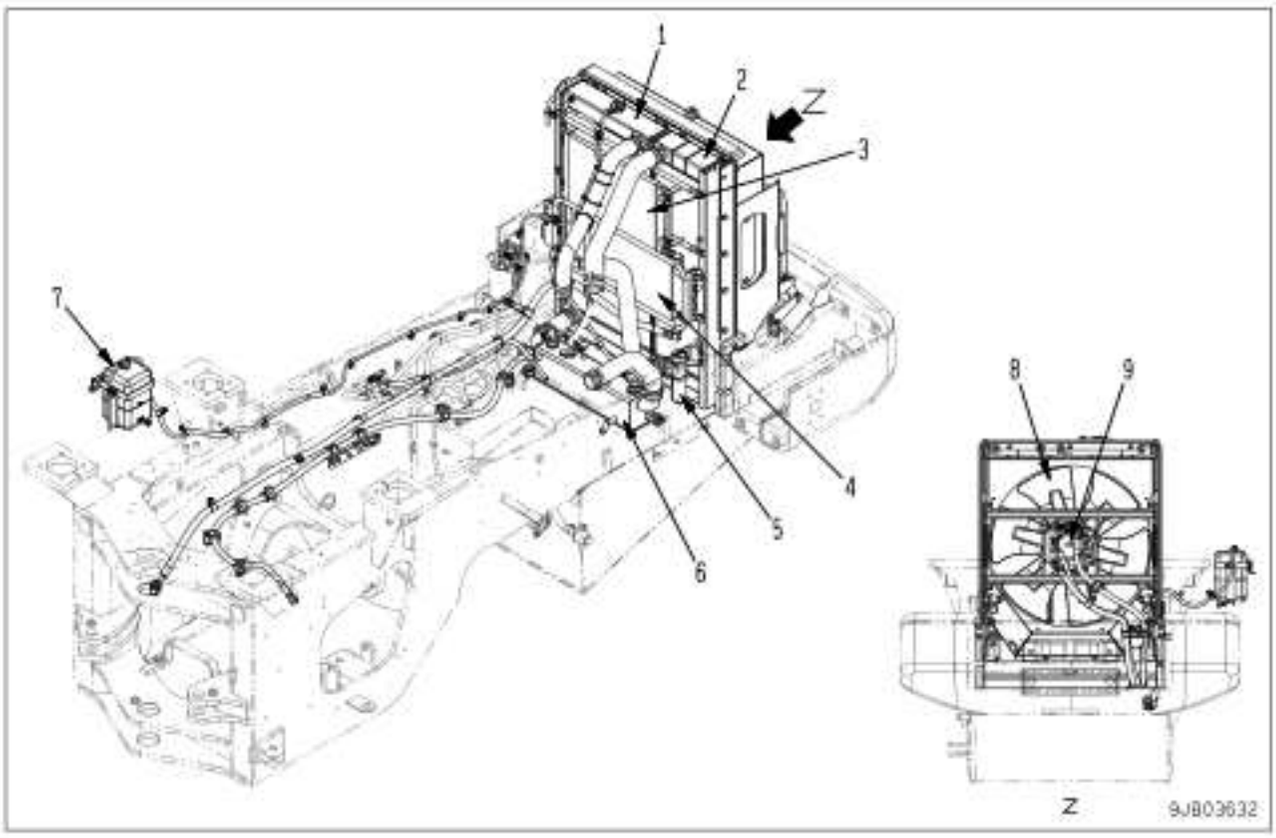
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Cooling system



1. Radiator
2. Aftercooler
3. Condenser
4. Oil cooler
5. Receiver
6. Power train oil cooler
7. Reservoir tank
8. Cooling fan
9. Cooling fan motor

Specifications

	Radiator	Oil cooler	Aftercooler	Power train oil cooler
Core type	AL WAVE-4	CF40-1	AL WAVE	PTO-OL
Fin pitch (mm)	3.5/2	4.5/2	4.0/2	*1 100 x 558 x 20-stage
Total heat dissipation surface (m^2)	67.31	4.22	24.06	2.1518
Pressure valve cracking pressure (kPa {kg/cm^2})	70 ± 15 {0.7 ± 0.15}	—	—	—
Vacuum valve cracking pressure (kPa {kg/cm^2})	0 – 5 {0 – 0.05}	—	—	—

*1: Size of element

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Classification and procedures of troubleshooting

Classification of troubleshooting

Mode	Contents
Display of code	Troubleshooting by failure code (Display of code)
E-mode	Troubleshooting of electrical system
H-mode	Troubleshooting of hydraulic and mechanical system
S-mode	Troubleshooting of engine

Procedure for troubleshooting

If a phenomenon looking like a trouble occurs in the machine, select a proper troubleshooting No. according to the following procedure, and then go to the corresponding troubleshooting section.

1. **Procedure for troubleshooting to be taken when action code is displayed on machine monitor:**
   If an action code is displayed on the machine monitor, display the failure code in the failure code display mode (for the electrical system and the mechanical system) of the machine monitor (EMMS).
   Carry out troubleshooting in [Display of failure code] according to the displayed failure code.
   - ★ Each failure code "flashes" when the trouble corresponding to it is detected. Even if a failure code "lights up" when the starting switch is turned ON, the trouble corresponding to that failure code may not have been repaired (Some troubles can be detected by simply turning the starting switch ON).
   - ★ If a failure code is recorded, be sure to perform the operation for reproducing it to see if the trouble corresponding to it has been repaired (For the method of reproducing the failure code, see the troubleshooting in [Display of code]).

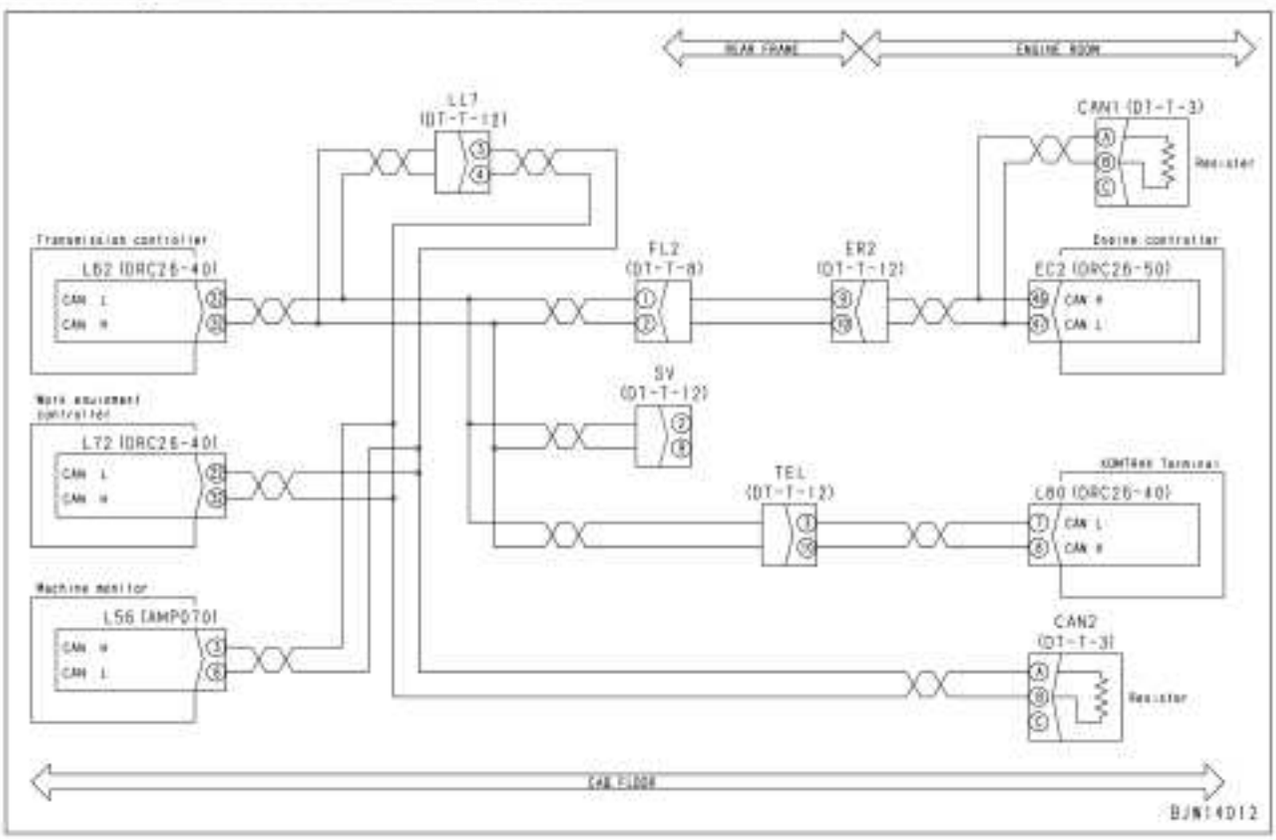
2. **Procedure for troubleshooting to be taken when failure code is recorded:**
   If an action code is not displayed on the machine monitor, check for a failure code in the failure code display mode (for the electrical system and the mechanical system) of the machine monitor (EMMS).
   If a failure code is recorded, carry out troubleshooting in [Display of code] according to that failure code.
   - ★ Each failure code "flashes" when the trouble corresponding to it is detected. Even if a failure code "lights up" when the starting switch is turned ON, the trouble corresponding to that failure code may not have been repaired (Some troubles can be detected by simply turning the starting switch ON).
   - ★ If a failure code is recorded, be sure to perform the operation for reproducing it to see if the trouble corresponding to it has been repaired (For the method of reproducing the failure code, see the troubleshooting in [Display of code]).

3. **Procedure of troubleshooting to be taken when action code is not displayed and failure code is not recorded:**
   If a failure code is not recorded in the machine monitor (EMMS), a trouble that the machine cannot find out by itself may have occurred in the electrical system or hydraulic and mechanical system.
   In this case, check the phenomenon looking like a trouble again and select the same phenomenon from the table of "Phenomena looking like troubles and troubleshooting Nos.", and then carry out troubleshooting related to that phenomenon in the "E-mode", "H-mode", or "S-mode".

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	Causes		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	3	Ground fault in wiring harness (Short circuit with ground circuit)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			Wiring harness between EC2 (female) (46), (47) – L62 (female) (22), (32) and chassis ground	Resistance	Min. 1 MΩ
			Wiring harness between EC2 (female) (46), (47) – L56 (female) (3), (8) and chassis ground	Resistance	Min. 1 MΩ
			Wiring harness between EC2 (female) (46), (47) – L72 (female) (22), (32) and chassis ground	Resistance	Min. 1 MΩ
			Wiring harness between EC2 (female) (46), (47) – L80 (female) (7), (8) and chassis ground	Resistance	Min. 1 MΩ
			Wiring harness between EC2 (female) (46), (47) – CAN1 (female) (A), (B) and chassis ground	Resistance	Min. 1 MΩ
			Wiring harness between EC2 (female) (46), (47) – CAN2 (female) (A), (B) and chassis ground	Resistance	Min. 1 MΩ
	4	Defective machine monitor, transmission controller, work equipment controller, engine controller or KOMTRAX terminal	★ If above troubleshootings 1 – 3 have not identified the cause of the trouble, failure on the machine monitor, transmission controller, work equipment controller, engine controller or KOMTRAX terminal should be suspected. (Since trouble is in system, troubleshooting cannot be carried out.)		

Circuit diagram related to CAN communication

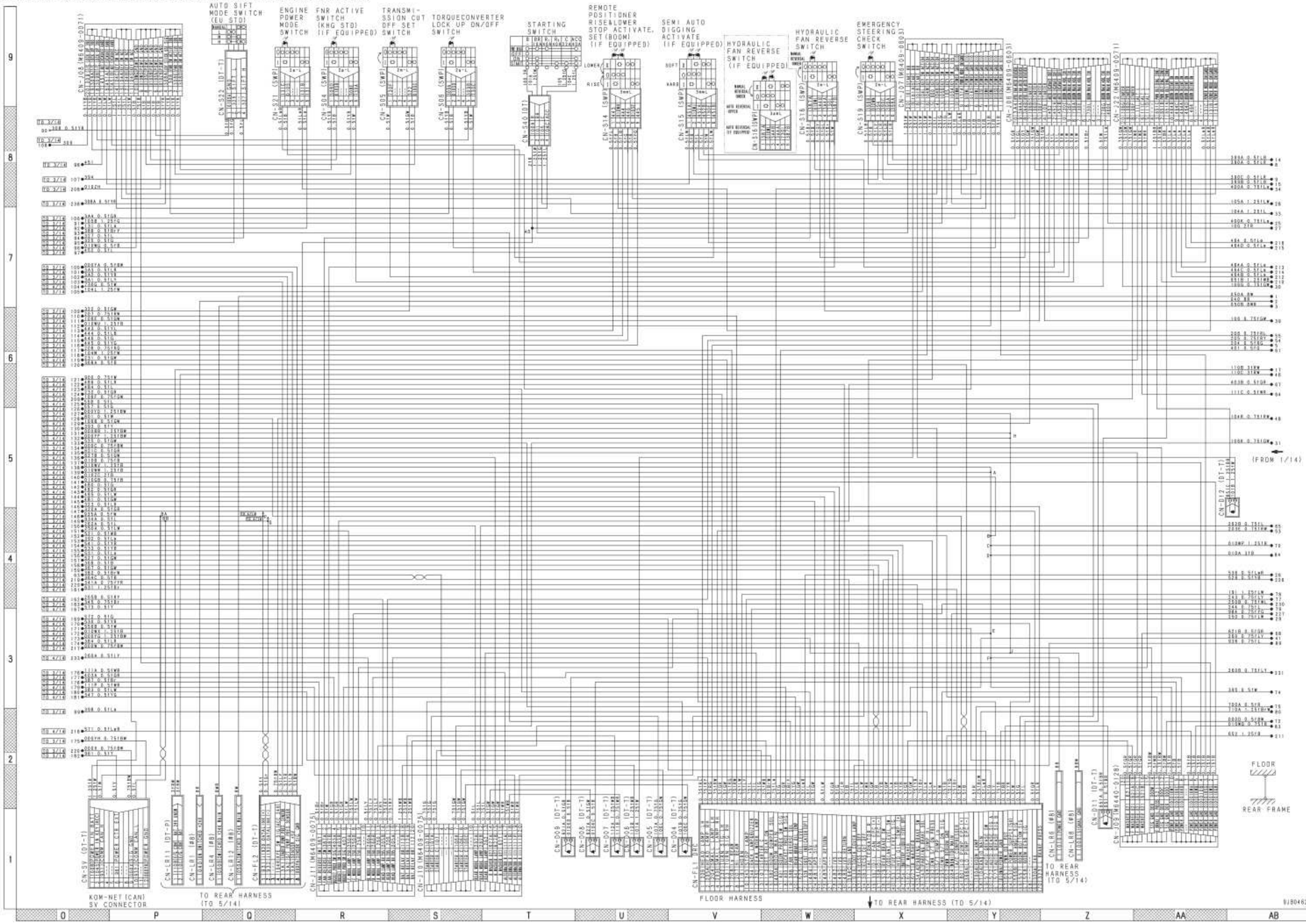


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Electrical circuit diagram (2/14)

Common to WA380-6, WA430-6, WA470-6 and WA480-6

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



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