KEBM657700

Shop Manual

BULLDOZER

D61EX-24
D61PX-24

Serial Numbers B60001 and up

KOMATSU®

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Unit: kg

Item	D61EX-24
Mechanical suspension seat (low back)	52
Air suspension seat (low back)	49
Rear mask assembly	80
Engine hood assembly (including door, pre-cleaner, and air cleaner)	349

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- Examples:
  1. The failure code cannot be cleared because an abnormal high voltage, abnormal low voltage, or communication error (open or short circuit) of failure code is displayed for a related component.
  2. The failure code cannot be cleared because correct values are not input from a sensor (a failure code for a related sensor is displayed).
  3. The failure code cannot be cleared because a failure code that disables auto regeneration or manual stationary regeneration of the aftertreatment devices is displayed.
  4. The failure code cannot be cleared because a failure code that stops the AdBlue/DEF pump or disables AdBlue/DEF injection is displayed.

How to identify the failure code to be repaired

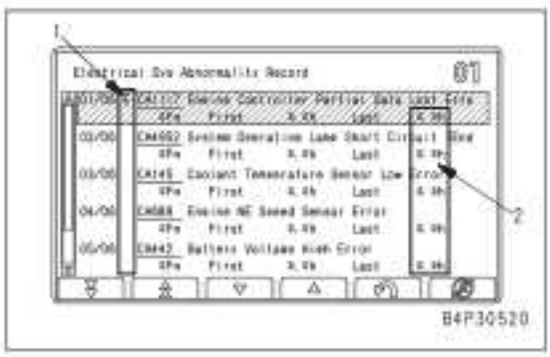
Among failure codes displayed on "Abnormality Record" screen of the machine monitor, identify failure codes that have following conditions as a code to be repaired

1. Failure codes displayed with "E" ("E" is displayed on the left of failure code. See the following figure.)
   - Check the "Abnormality Record" screen and identify all failure codes that "E" is currently displayed as a code to be repaired.
   - The failure codes are displayed in the upper row from the "E" on the "Abnormality Record" screen.
2. Failure codes displayed without "E" and their service meter reading (SMR) at last occurrence (at previous working time, etc.) become the most recent time.
   - The failure codes that have detected records most recently and are displayed without "E" may be in the state that their abnormalities are not cleared (*1). Due to that, check the description of "Troubleshooting by failure code" and identify them as a code to be repaired.
   - The failure codes are displayed on "Abnormality Record" screen in ascending order. (See the following figure.)

   *1: It corresponds to a failure code that is cleared by turning the starting switch to OFF position, or by stopping the engine though the repair is not completed. Due to this kind of failure code, the failure code to be repaired is not determined only by the existence of "E". (Failure C pattern in the following REMARK "Display of "E" on the "Abnormality Record" screen".)

1: Area where "E" is displayed

2: Area where the most recent SMR is displayed



REMARK

Display of "E" on the "abnormality record" screen

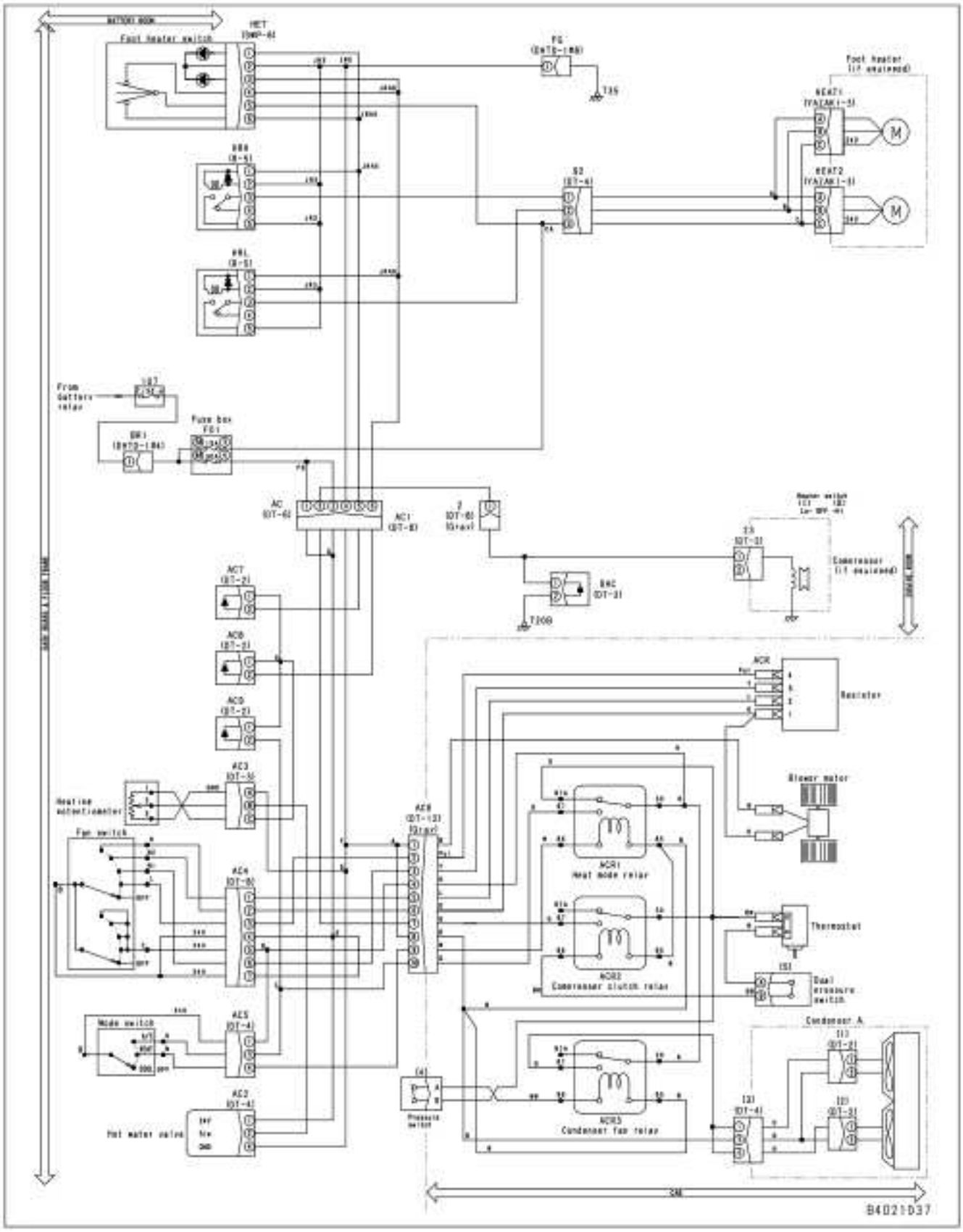
1. Transition of "E" displayed with failure code has a following pattern.

   The table is shown the display of "E" on "Abnormality Record" screen of the machine monitor when turning the starting switch to O N position after turning the starting switch to OFF position and shutting down the engine controller.

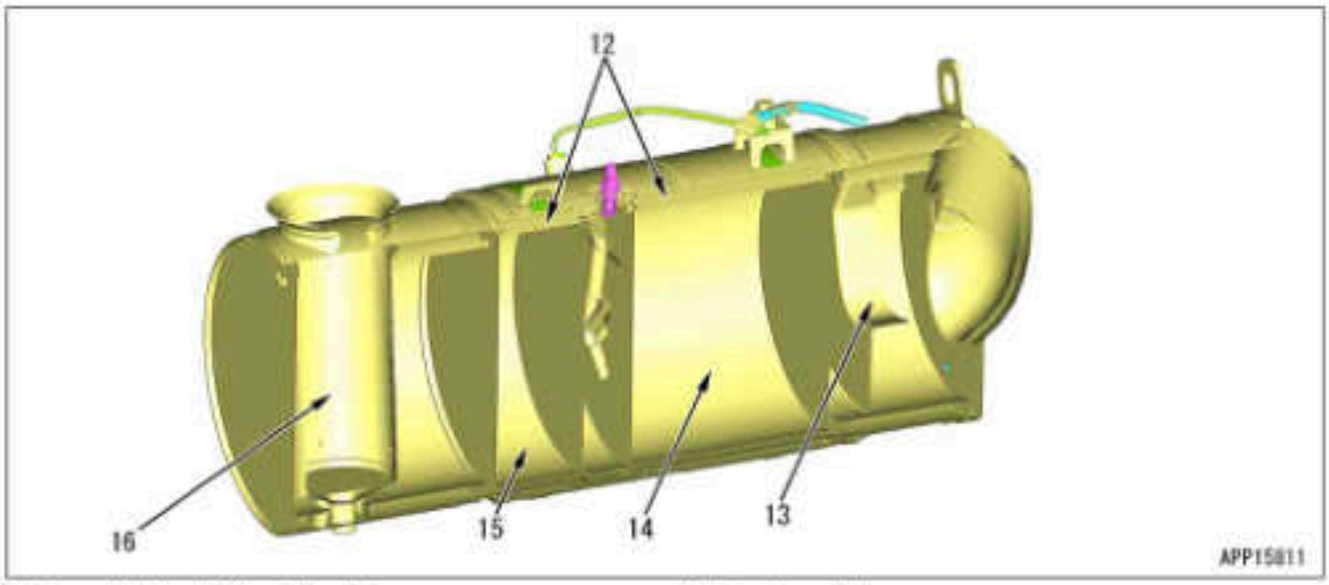
Transition pattern	Occurrence of failure code (with or without "E")			Determination of the repair completion
	Before repair (under failure)	After repair	Remarks	

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CIRCUIT DIAGRAM OF AIR CONDITIONER



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A: From AdBlue/DEF mixing tube
1: SCR body
2: SCR temperature sensor
3: SCR outlet NOx sensor
4: SCR outlet temperature sensor
5: Temperature sensor controller
6: Ammonia sensor
7: Hanger plate
8: water baffle
9: Water drain port
B: To exhaust pipe
10: Sensor table
11: Sensor table band
12: Catalyzer hold mat
13: Water dam
14: Downstream SCR catalyst and ammonia oxidation catalyst (integrated type)
15: Upstream SCR catalyst
16: Rectifier tube

- SCR assembly consists of rectifier tube (16) equalizing the distribution of flow speed by leading exhaust gas, upstream SCR catalyst (15), downstream SCR catalyst, ammonia oxidation catalyst (14), and water dam which prevents rain water from entering into downstream SCR catalyst and ammonia oxidation catalyst (14) while exhausting gas.
- Ammonia oxidation catalyst (a part of 14) oxidizes ammonia to water and nitrogen with ammonia oxidation catalyst (a part of 14) to prevent ammonia which is supplied to SCR assembly from being released out because SCR catalyst (a part of 14, 15)cannot completely consume it.
- Each 1 piece of SCR temperature sensor (2), SCR outlet temperature sensor (4), ammonia sensor (6), and SCR outlet NOx sensor (3) are installed. These sensors are usable for various troubleshooting, such as they are used to control the feedback of denitration efficiency or they monitor that SCR catalyst properly functions or not.
- Rectifying tube (16) equalizes the distribution of exhaust gas flow speed.
- SCR catalyst (15, a part of 14) uses the ceramic honeycomb.
- The catalyzer holding mat (12) is made of a specific fiber and protects the ceramic catalyst against vibrations by the engine and the machine body. It also protects the outer periphery of SCR assembly against a heat transfer of the ceramics during operation.
- Water dam (13) is located at the upstream side of the outlet and prevents rainwater from entering into downstream SCR catalyst unit and ammonia oxidation catalyst (14).
- Water baffle (8) is located at the downstream side of the outlet and prevents rainwater at outlet from splashing over the detection part of NOx sensor.

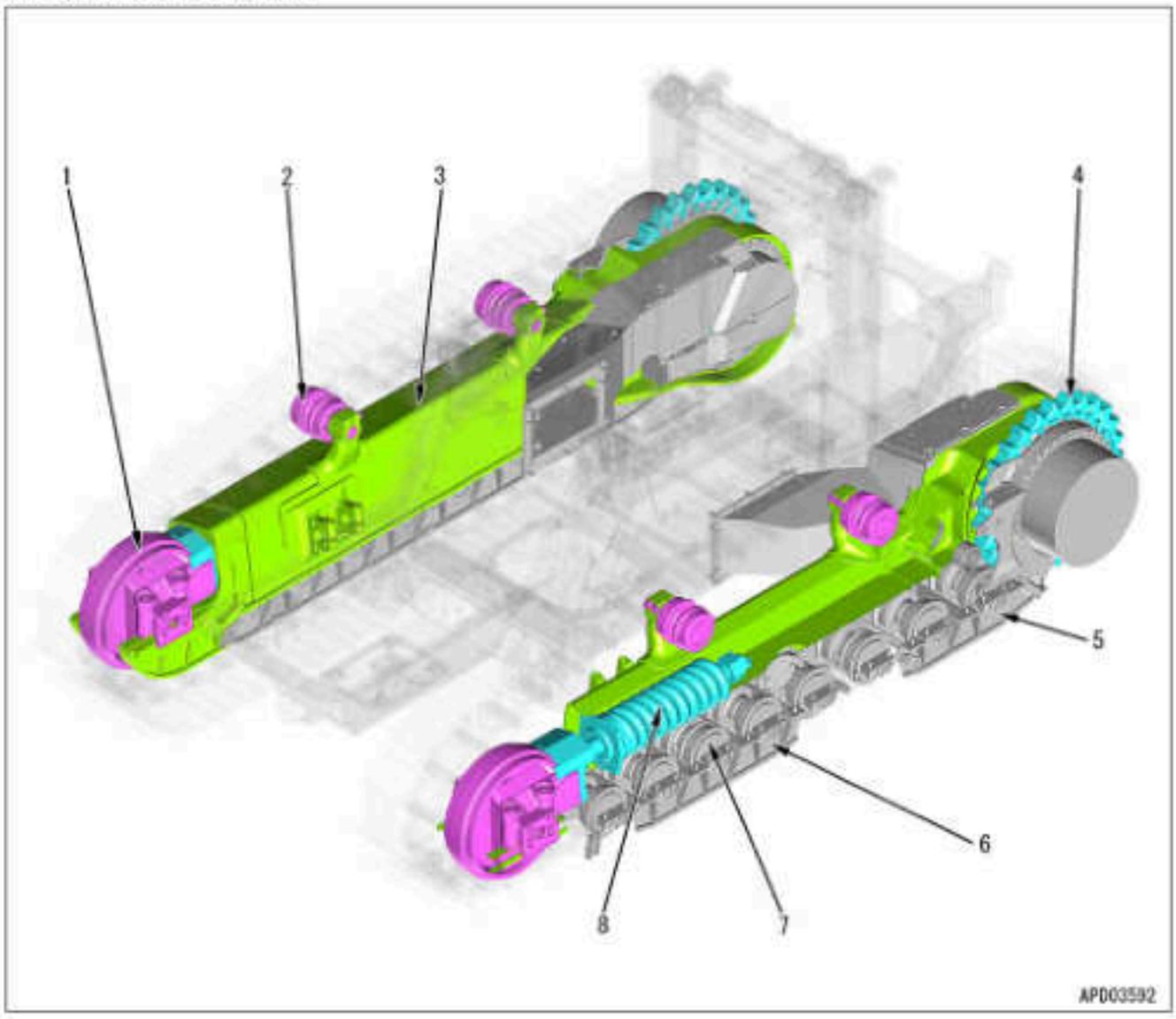
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TRACK FRAME AND IDLER CUSHION

STRUCTURE OF TRACK FRAME AND IDLER CUSHION

General view and sectional view

The figure shows D61EX-24.



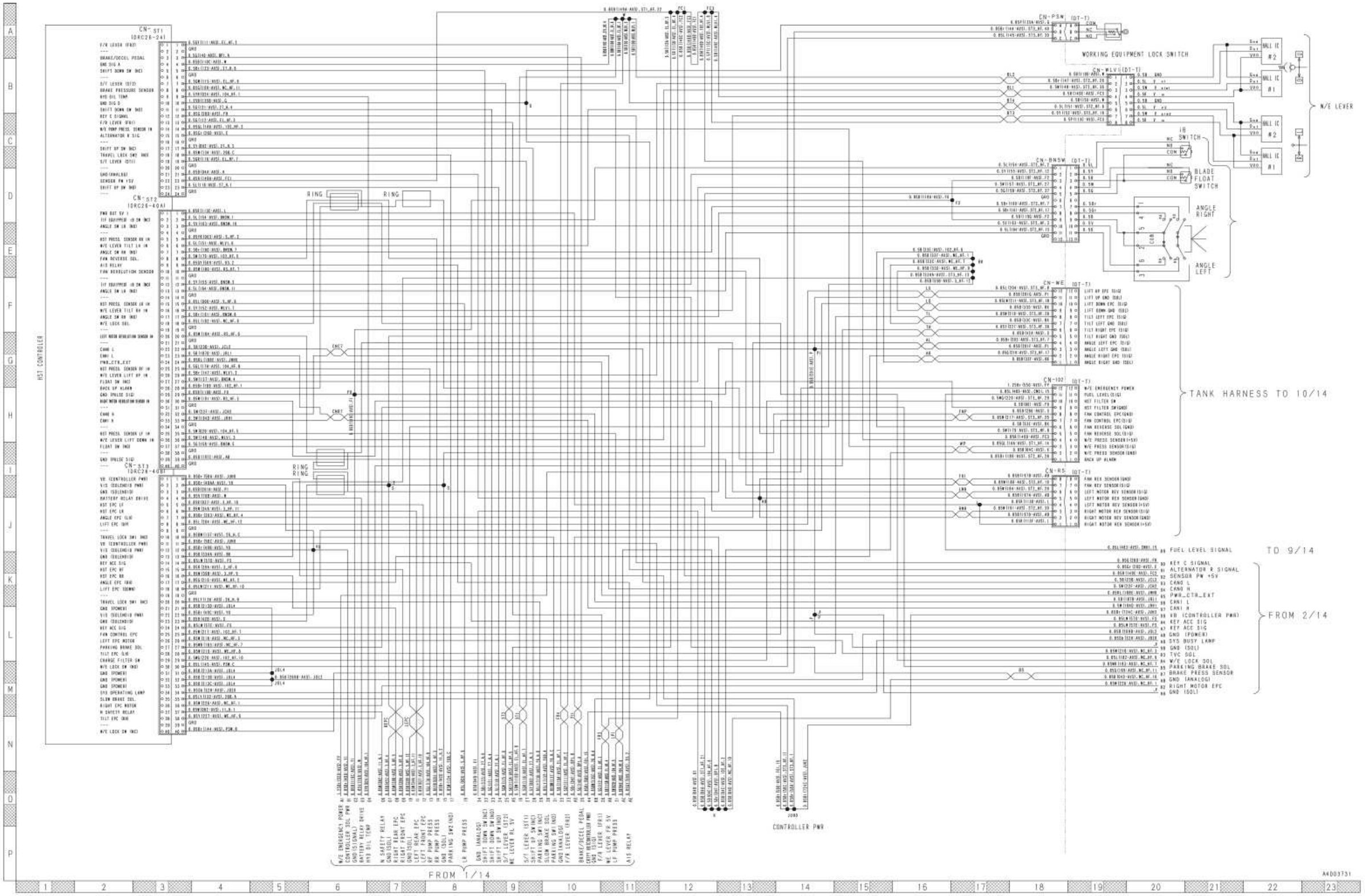
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ELECTRICAL CIRCUIT DIAGRAM (3/14)

D61EX-24, D61PX-24

REMARK

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



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