SEN00237-14

Shop Manual

ARTICULATED
DUMP TRUCK

HM300-2

SERIAL NUMBERS 2001 and up

ecot3

KOMATSU®

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Failure code [CA697] (Engine controller inside temperature sensor too high)

Action code	Failure code	Trouble	Engine controller inside temperature sensor too high (Engine controller system)
E03	**CA697**		
Contents of trouble	• Excessively high voltage has occurred in engine controller inside temperature sensor circuit.		
Action of controller	• Takes no particular action.		
Problem that appears on machine			
Related information			

Possible causes and standard value in normal state	Cause		Standard value in normal state/Remarks on troubleshooting
	1	Defective engine controller	Internal defect of controller can be suspected. (It cannot be diagnosed.)

Failure code [CA698] (Engine controller inside temperature sensor too low)

Action code	Failure code	Trouble	Engine controller inside temperature sensor too low (Engine controller system)
E03	**CA698**		
Contents of trouble	• Excessively low voltage has occurred in engine controller inside temperature sensor circuit.		
Action of controller	• Takes no particular action.		
Problem that appears on machine			
Related information			

Possible causes and standard value in normal state	Cause		Standard value in normal state/Remarks on troubleshooting
	1	Defective engine controller	Internal defect of controller can be suspected. (It cannot be diagnosed.)

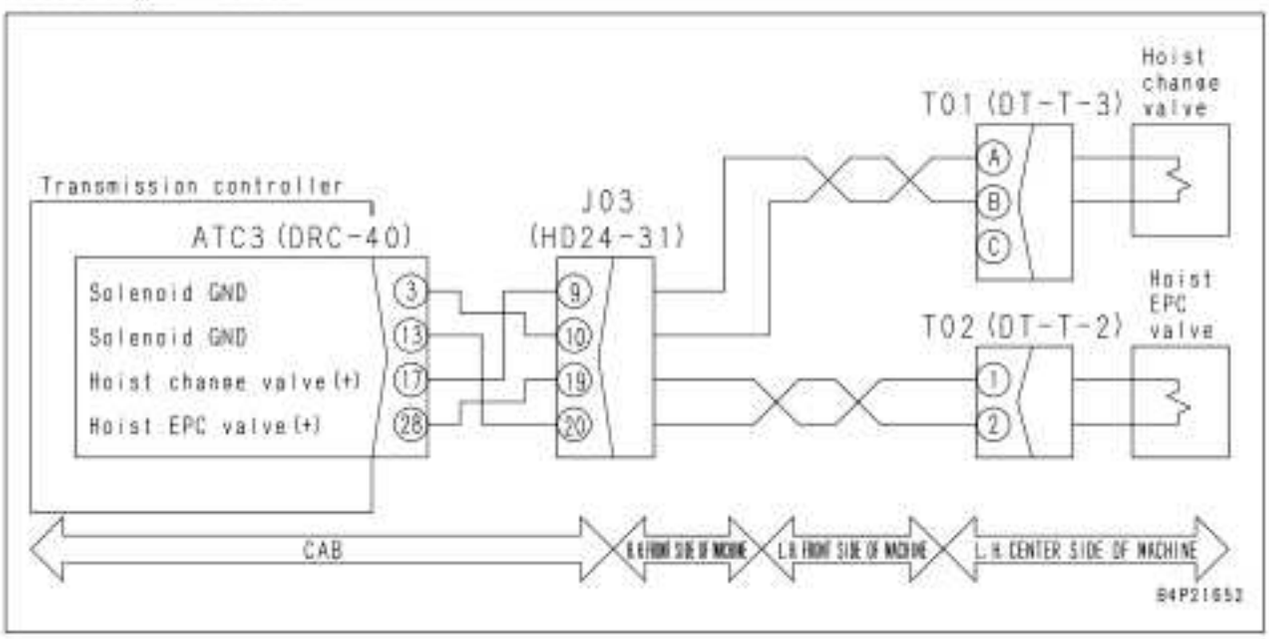
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Failure code [DX13KB] (Hoist EPC valve output circuit: Short circuit)

Action code	Failure code	Trouble	Hoist EPC valve output circuit: Short circuit (Transmission controller system)
E03	**DX13KB**		
Contents of trouble	• When output is ON to hoist EPC valve solenoid circuit, excessive current flows.		
Action of controller	• Turns output to hoist selector valve solenoid OFF. • Turns output to hoist EPC valve solenoid OFF.		
Problem that appears on machine	• Body does not operate.		
Related information	• Can be checked with monitoring function (code: **45601**).		

		Cause	Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	1	Defective hoist EPC valve solenoid	★ Prepare with starting switch OFF and troubleshooting with starting switch still OFF.		
			Between T02 (female) (1) – (2)	Resistance	15 – 20 Ω
			Between T02 (female) (1), (2) – ground	Resistance	Min. 1 MΩ
	2	Short circuit of harness (Contact with ground circuit or contact among harnesses)	★ Prepare with starting switch OFF and troubleshooting with starting switch still OFF.		
			Between ground and wiring harness between ATC3 (female) (28) – T02 (female) (1)	Resistance	Min. 1 MΩ
			Between wiring harness from ATC3 (female) (28) – T02 (female) (1) and wiring harness from ATC3 (female) (13) – T02 (female) (2)	Resistance	Min. 1 MΩ
	3	Defective transmission controller	★ Prepare with starting switch OFF and troubleshooting with starting switch still OFF.		
			Between ATC3 (female) (28) – (13)	Resistance	15 – 20 Ω

Circuit diagram related



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H-2 Machine does not travel smoothly (machine jerks)

Trouble	Machine does not travel smoothly (hunting).
Related information	• Check that the transmission oil level is correct. • If a failure code related to the machine is displayed, firstly troubleshooting the displayed code.

Possible causes and standard value in normal state	Cause		Standard value in normal state/Remarks on troubleshooting		
	1	Defective power train pump strainer	Since the power train pump strainer can be suspected to be clogged, check it directly.		
	2	Air sucked in at the suction side of the power train pump	Since the air is potentially sucked in from the suction piping of the power train pump; visually check it.		
	3	Defective power train pump main relief valve	★ Prepare with the engine stopped and troubleshooting with engine running at low idle and high idle.		
			Relief oil pressure	Low idle	2.55 ± 0.2 MPa {26.0 ± 2.0 kg/cm²}
				High idle	2.55 ± 0.2 MPa {26.0 ± 2.0 kg/cm²}
	4	Defective gear speed clutch	• If the oil pressure is low in the item 3, wear of the gear speed clutch piston seal ring or wear of the ring groove can be suspected. • If the oil pressures are within the ranges in the item 3, a slip of the clutch can be suspected.		

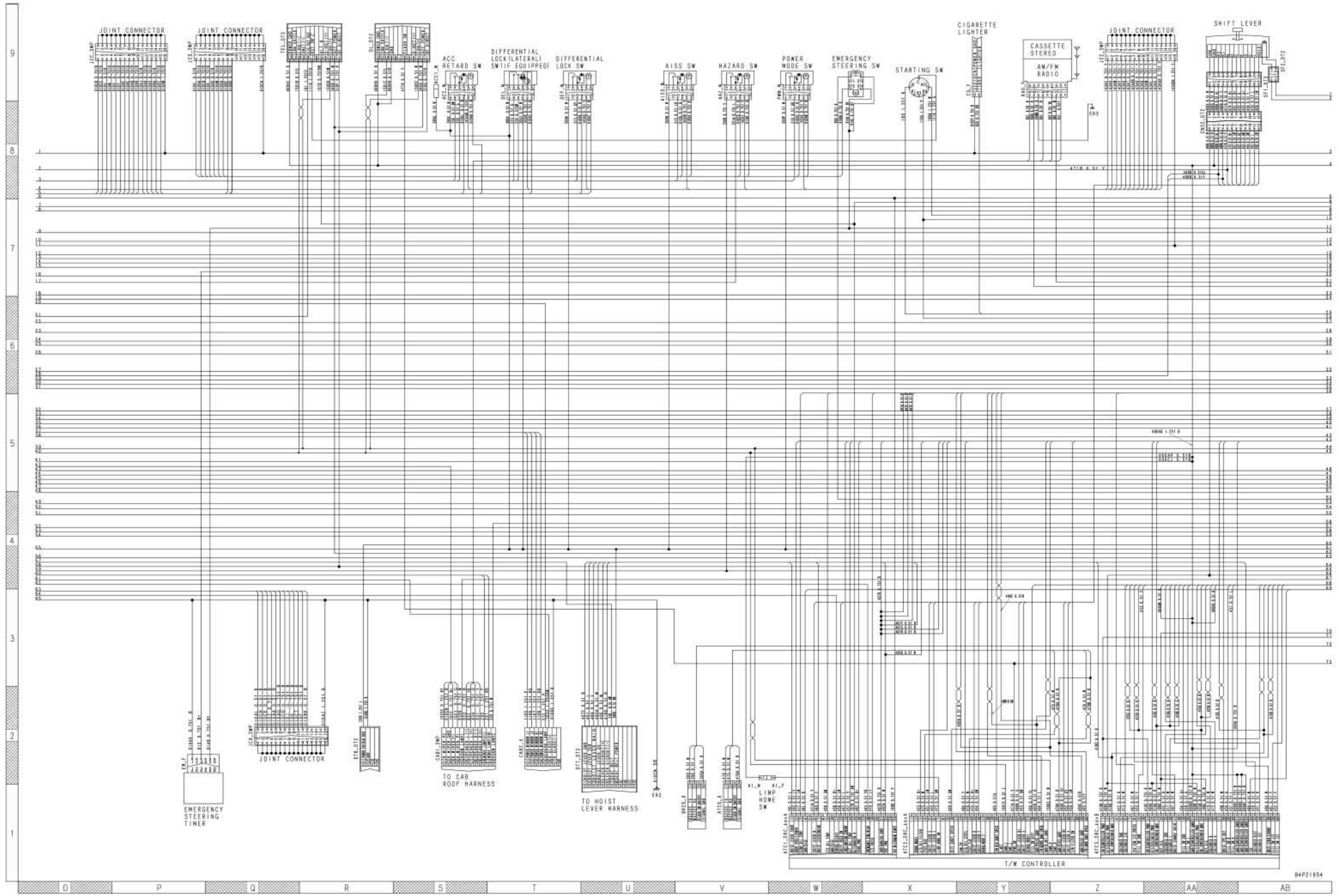
H-3 Lockup cannot be cancelled

Trouble	Torque converter lockup cannot be cancelled.
Related information	• Check that the transmission oil level is correct. • If a failure code related to the machine is displayed, firstly troubleshooting the displayed code.

Possible causes and standard value in normal state	Cause		Standard value in normal state/Remarks on troubleshooting	
	1	Defective lockup solenoid valve	★ Prepare with the engine stopped and troubleshooting with the engine running at high idle.	
			Lockup solenoid valve output pressure	Max. 0.1 MPa {10 kg/cm²}
	2	Defective lockup clutch	If the oil pressure is within the range in the item 1, a seizure of the lockup clutch can be suspected.	

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Electrical circuit diagram for inside cab (2/4) (Serial No.: 2242 and up)
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