SEN05653-03

Shop Manual

BULLDOZER

D155AX-7

SERIAL NUMBERS 90001 and up

KOMATSU®

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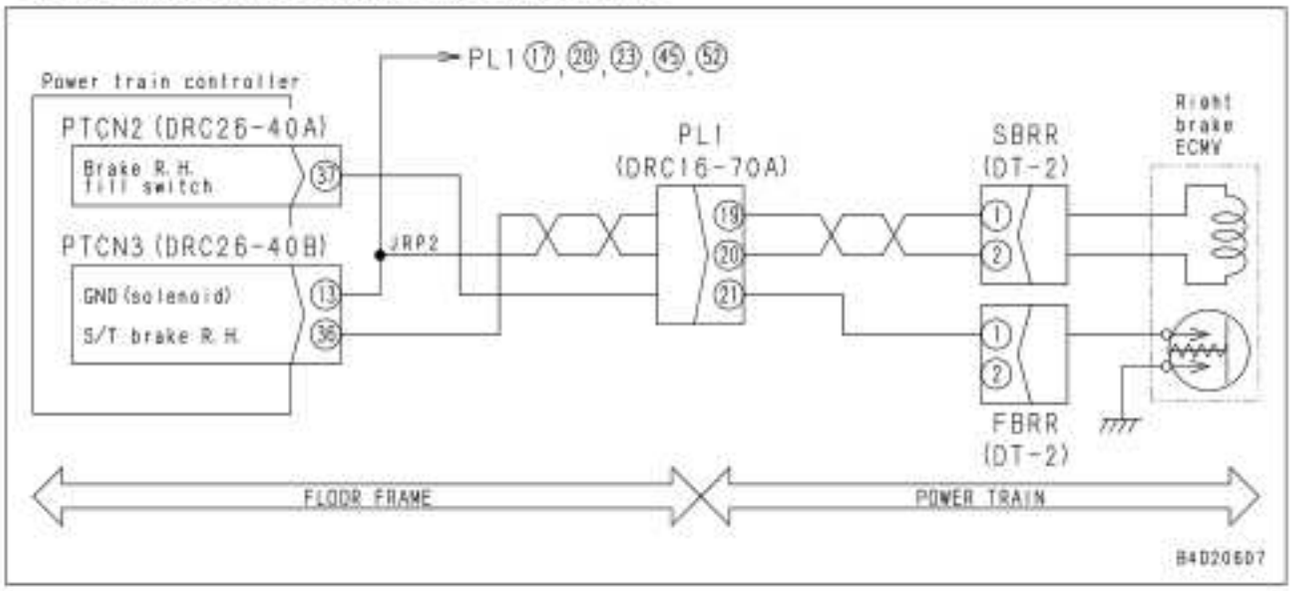
Failure code [DFA9KB] Blade tilt lever2:Hot Short (D155-DFA9KB-400-A-Z0-A)

Action level	Failure code	Failure	Blade tilt lever 2: Hot Short (Work equipment controller system)
L01	DFA9KB		
Detail of failure	• Signal voltage of blade tilt lever potentiometer system 2 is 4.5 V or above.		
Action of controller	• Continues blade control by using signal from blade tilt lever potentiometer system 1.		
Problem on machine	• None in particular		
Related information	• Signal voltage of blade tilt lever potentiometer 2 can be checked with monitoring function. (Code: 73501 Blade tilt lever potentiometer 2 voltage) • Method of reproducing failure code: Turn starting switch to ON position.		

No.	Cause	Procedure, measuring location, criteria and remarks		
1	Defective 5 V sensor power supply system	If failure code [DB95KK] is also displayed, perform troubleshooting for it first.		
2	Defective blade tilt lever potentiometer 2 (internal short circuit or ground fault)	1. Turn starting switch to OFF position. 2. Disconnect connector WLV1. 3. Turn starting switch to ON position.		
		If failure code [DFA9KB] is not displayed anymore, blade tilt lever potentiometer is defective. (If failure code is still displayed, wiring harness or work equipment controller is defective.) ★ Since connector WLV1 is disconnected, many failure codes appear. Ignore failure codes other than [DB95KK]		
3	Hot short circuit in wiring harness	1. Turn starting switch to OFF position. 2. Disconnect connector WLV1 and connect T-adapters to female side. 3. Turn starting switch to ON position.		
		Voltage	Between WLV1 (female) (6) and (5) or between (female) (6) and ground	Max. 1 V
4	Short circuit in wiring harness	1. Turn starting switch to OFF position. 2. Disconnect connectors WECN1 and WLV1, and connect T-adapters to female side of WECN1. ★ Check by using multimeter in continuity mode.		
		Continuity	Between WECN1 (female) (13) and each pin other than (13)	No continuity (no sound is heard)
5	Defective work equipment controller	If no failure is found by above checks, work equipment controller is defective. • Reference 1. Turn starting switch to OFF position. 2. Insert T-adapters into connector WECN1. 3. Turn starting switch to ON position. 4. Operate blade control lever (in TILT direction) to perform troubleshooting.		
		Voltage	Between WECN1 (13) and (21)	0.96 to 4.04 V

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Circuit diagram related to right brake ECMV solenoid



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H-5 Large time lag is in gear shifting or directional change (D155-A81-400-A-Z0-A)

Failure	Large time lag is in gear shifting or directional change.
Related information	• Check that power train oil level is normal. • If any failure code is displayed, perform troubleshooting for that failure code first. (15SAL1, 15SBL1, 15SEL1, 15SFL1, 15SGL1, or 15SHL1) • Check that universal joint is normal.

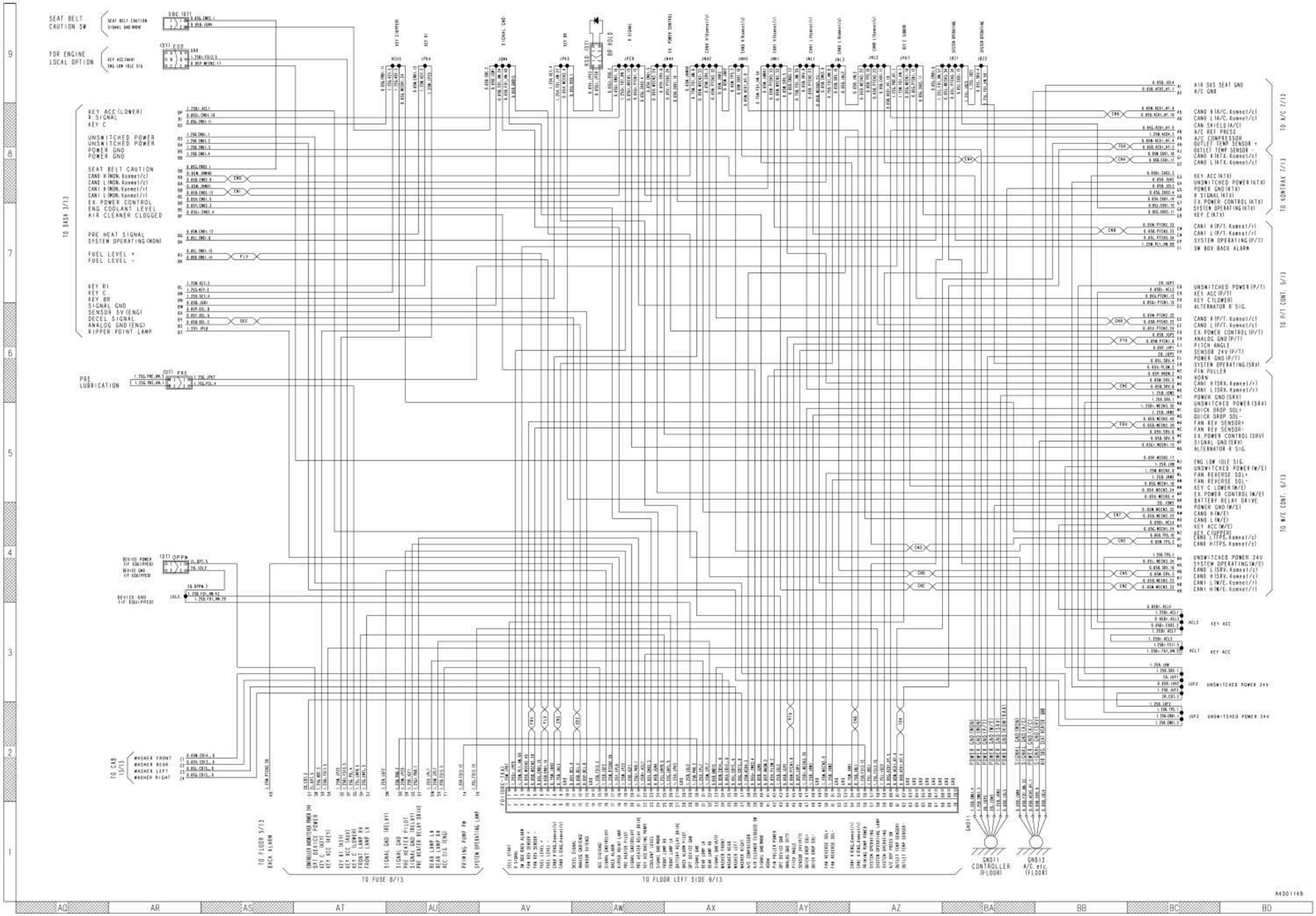
No.	Cause	Procedure, measuring location, criteria and remarks
1	Defective power train pump strainer	If unusual noise is heard from power train pump or transmission oil filter when transmission oil temperature is low, check strainer for clogging.
2	Air sucked in on suction side of power train pump	Check suction piping for cracks, looseness, etc.
3	Defective main relief valve of power train pump	★ Be ready with engine stopped, then perform troubleshooting with engine running at low idle and full speed.
		Main relief pressure / Engine speed / Low idle: Min. 2.62 MPa {Min. 26.7 kg/cm²}
		Main relief pressure / Engine speed / Full speed: Min. 2.84 MPa {Min. 29.0 kg/cm²}
		Check that free length of springs and number of shims are normal and that spool moves smoothly. • Free length of large spring: 122 mm • Number of shims: 6 shims • Free length of small spring: 108 mm
4	Malfunction of transmission clutch valve (ECMV)	★ Be ready with engine stopped, then perform troubleshooting with engine at low idle.
		Output pressure of F clutch ECMV / PCCS lever / F3, torque converter stall: Min. 2.25 MPa {Min. 23.0 kg/cm²}
		Output pressure of R clutch ECMV / PCCS lever / R3, torque converter stall: Min. 2.45 MPa {Min. 25.0 kg/cm²}
		Output pressure of 1st clutch ECMV / PCCS lever / F1, torque converter stall: Min. 2.62 MPa {Min. 26.7 kg/cm²}
		Output pressure of 2nd clutch ECMV / PCCS lever / F2, torque converter stall: Min. 2.40 MPa {Min. 24.5 kg/cm²}
		Output pressure of 3rd clutch ECMV / PCCS lever / F3, torque converter stall: Min. 2.62 MPa {Min. 26.7 kg/cm²}
		* Combination of two gear speed clutches determines gear speed. Check combination of two clutches to be used for selection of gear speed by referring to Table 1.
5	Clogged last chance filter	If no failure is found by check on cause 3 but lockup clutch pressure is low or "0", check last chance filter for clogging.
6	Malfunction (dragging) of parking brake	★ Place machine on flat ground and start engine to perform troubleshooting.
		If machine does not move when engine is at low idle and gear shift lever is set to F2, brake is dragging (perform troubleshooting for "H-8 Brake does not work". • If measured pressure in all gear speeds is low in check on cause 5 and gear shifting to any gear speed causes long time lag, sealing of parking brake piston may be defective.

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Electrical circuit diagram (4/13)

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



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