SEN05006-09

Shop Manual

BULLDOZER

D375A-6

SERIAL NUMBERS 60001 and up

ecot3

KOMATSU®

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Information in troubleshooting table

★ Troubleshooting Table and Circuit Diagram Related collectively carry the following information. Carry out troubleshooting work after fully grasping their contents.

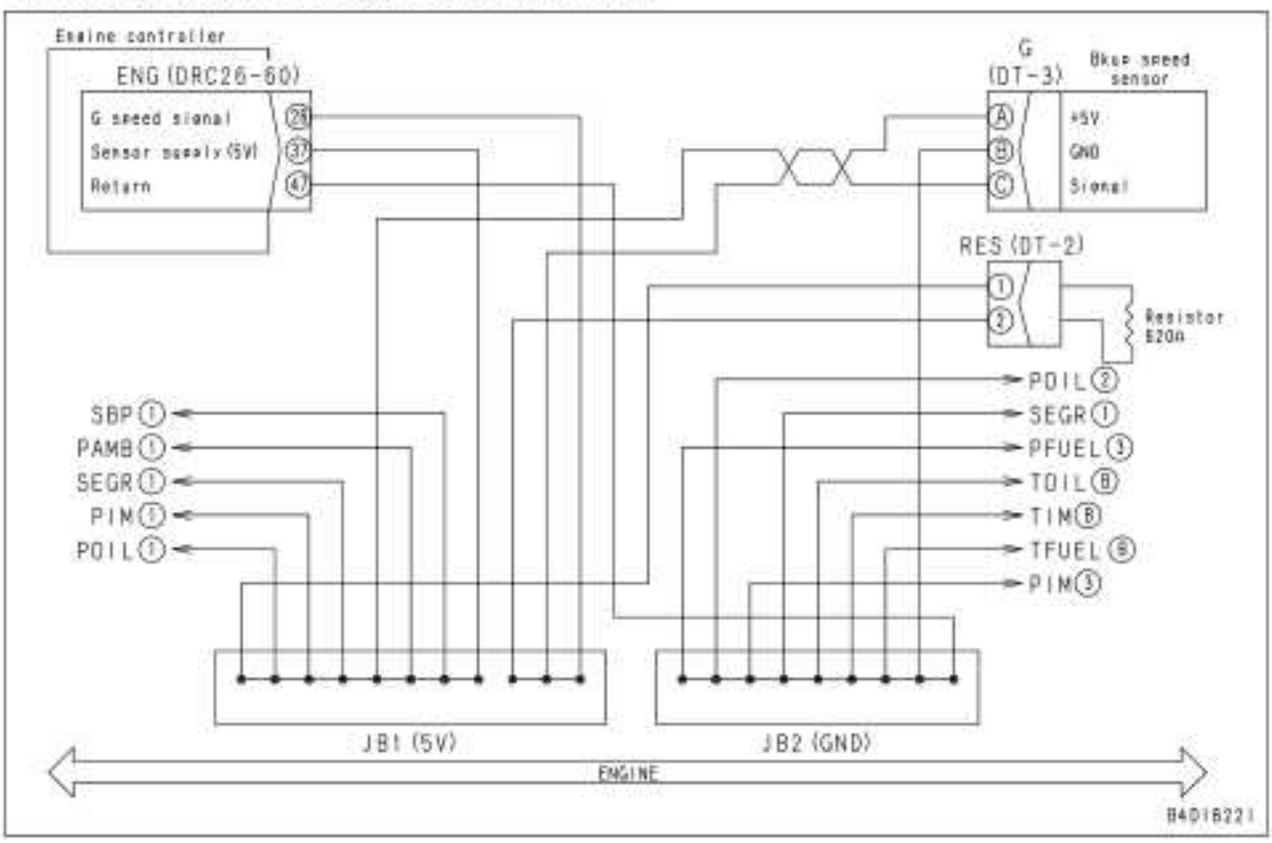
User code Display on machine monitor	Failure code Display on machine monitor	Trouble	Description of problem that appears on machine monitor as: abnormality record
Failure description	Description of the failure detected by the machine monitor or controller		
Action of controller	Action taken by machine monitor or controller to protect system or devices when machine monitor or controller detects failure		
Indication of problem on machine	Problem that appears on machine as result of action taken by machine monitor or controller (shown above)		
Related information	Information related to detected failure or troubleshooting		

Cause		Procedure, measuring location, standard (value) and remarks
	Probable causes	<Information described> • Procedure • Measuring location ★ "Between A - B" means "Measure voltage or resistance and so on between A and B". • Standard value in normal condition to evalute assumed cause if it is good condition or not. • Remarks required to evaluate the cause is correct <How to use the troubleshooting sheet> • Perform troubleshoot in following procedure in numerical order. • If the testing result shows abnormality, the cause described on the left column conforms. • If it shows normal, and unless otherwise specified particularly, proceed to the next step (cause). • Check that the failure is fixed after a failure was found and repaired. <Phenomenon of defective wiring harness> • Disconnection in wiring The connector connection is defective or the wiring harness is disconnected. • Ground fault A harness not connected to ground (earth) circuit contacts the ground (earth) or machine. • Hot short circuit A harness not connected to the power (24 V) circuit contacts the power (24 V) circuit. • Short circuit An independent wire in the harness abnormally contacts another wire. (Poor insulation at connector and others) <Notes on troubleshooting> (1) How to indicate connector number and handle T-branch For troubleshooting, insert or connect T-branch adapter as follows unless especially specified. • When "male" or "female" is not indicated with a connector number, disconnect the connector, and insert T-branch adapter in both male and female. • When "male" or "female" is indicated with a connector number, disconnect the connector, and connect T-branch adapter only to either male or femae end. (2) Description sequence of pin number and handling of tester lead Connect positive (+) lead and negative (-) lead of tester as explained below for troubleshooting, unless otherwise specified. •Connect positive (+) lead to pin No. or wiring harness entered on front side. • Connect the minus (-) lead to a pin or harness indicated in the rear.
1	- Defective	
2	Disconnection in wiring harness (Disconnection or defective contact in connector)	
3	Ground fault of wiring harness (Contact with ground circuit)	
4	Hot short (Short circuit with 24 V circuit)	
5	Short circuit in wiring harness	
6	Defective controller	

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Cause		Procedure, measuring location, criteria and remarks		
8	Short circuit in wiring harness	1. Turn starting switch to OFF position. 2. Disconnect connectors ENG, G and RES, and connect T-adapter to female side of ENG or G.		
		Between ENG (female) (26) and (37), or between G (female) (A) and (C)	Resistance	Min. 1 MΩ
		Between ENG (female) (26) and (47), or between G (female) (B) and (C)	Resistance	Min. 1 MΩ
9	Ground fault in wiring harness (contact with ground circuit)	1. Turn starting switch to OFF position. 2. Disconnect connectors ENG and G and connect T-adapters to either female side.		
		Between ENG (female) (26) or G (female) (C) and ground	Resistance	Min. 1 MΩ
10	Hot short circuit in wiring harness (Contact with 24 V circuit)	1. Turn starting switch to OFF position. 2. Disconnect connectors G and RES, and connect T-adapter to female side. 3. Turn starting switch to ON position.		
		Between G (female) (C) and ground	Voltage	Max. 1 V
11	Defective engine Ne speed sensor	If engine failure is not found by above checks, engine Bkup speed sensor may be defective. (Since this is an internal failure, troubleshooting cannot be performed.)		
12	Defective engine controller	If failure is not found by above checks, engine controller may be defective. (Since failure is in it, troubleshooting cannot be performed.)		

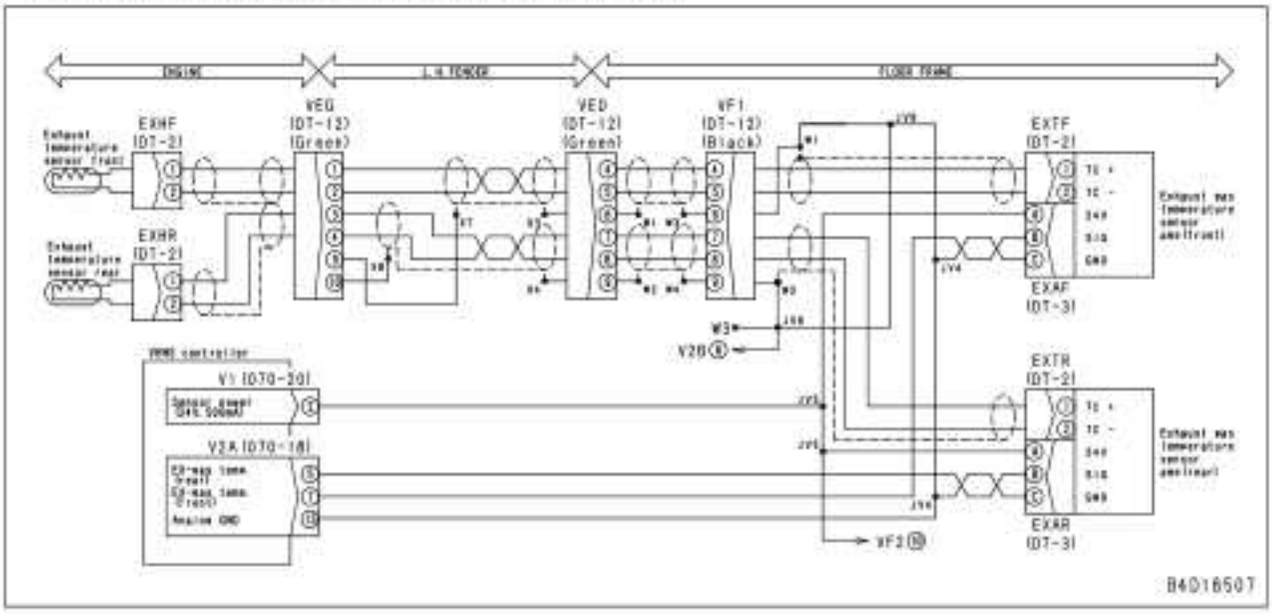
Circuit diagram related to engine Bkup speed sensor



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Cause		Procedure, measuring location, criteria and remarks			
5	Defective rear (cylinder Nos. 4 - 6) exhaust temperature sensor amplifier	★ Check that failure code [**DGT5KA**]is not displayed. 1. Turn starting switch to OFF position. 2. Replace connector EXAF with EXAR. 3. Turn starting switch to ON position.			
		If failure code [**DGT6KA**] changes to [**DGT5KA**], original rear (cylinder Nos. 4 - 6) exhaust temperature sensor amplifier is defective.			
6	Defective VHMS controller	If cause is not found by above checks, VHMS controller may be defective. (Since this is an internal failure, troubleshooting cannot be performed.) • Reference: the followings are standard values in normal condition. 1. Turn starting switch to OFF position. 2. Insert T-adapter into connectors V1 and V2A. 3. Turn starting switch to ON position.			
		Between V2A(5) and (13) ★ Exhaust temperature characteristics	100 °C – 200 °C	Voltage	1.4 – 1.8 V
			200 °C – 300 °C	Voltage	1.8 – 2.2 V
			300 °C – 400 °C	Voltage	2.2 – 2.6 V
			400 °C – 500 °C	Voltage	2.6 – 3.0 V
			500 °C – 600 °C	Voltage	3.0 – 3.4 V
			600 °C – 700 °C	Voltage	3.4 – 3.9 V
			700 °C – 800 °C	Voltage	3.9 – 4.3 V

Circuit diagram related to exhaust temperature sensor

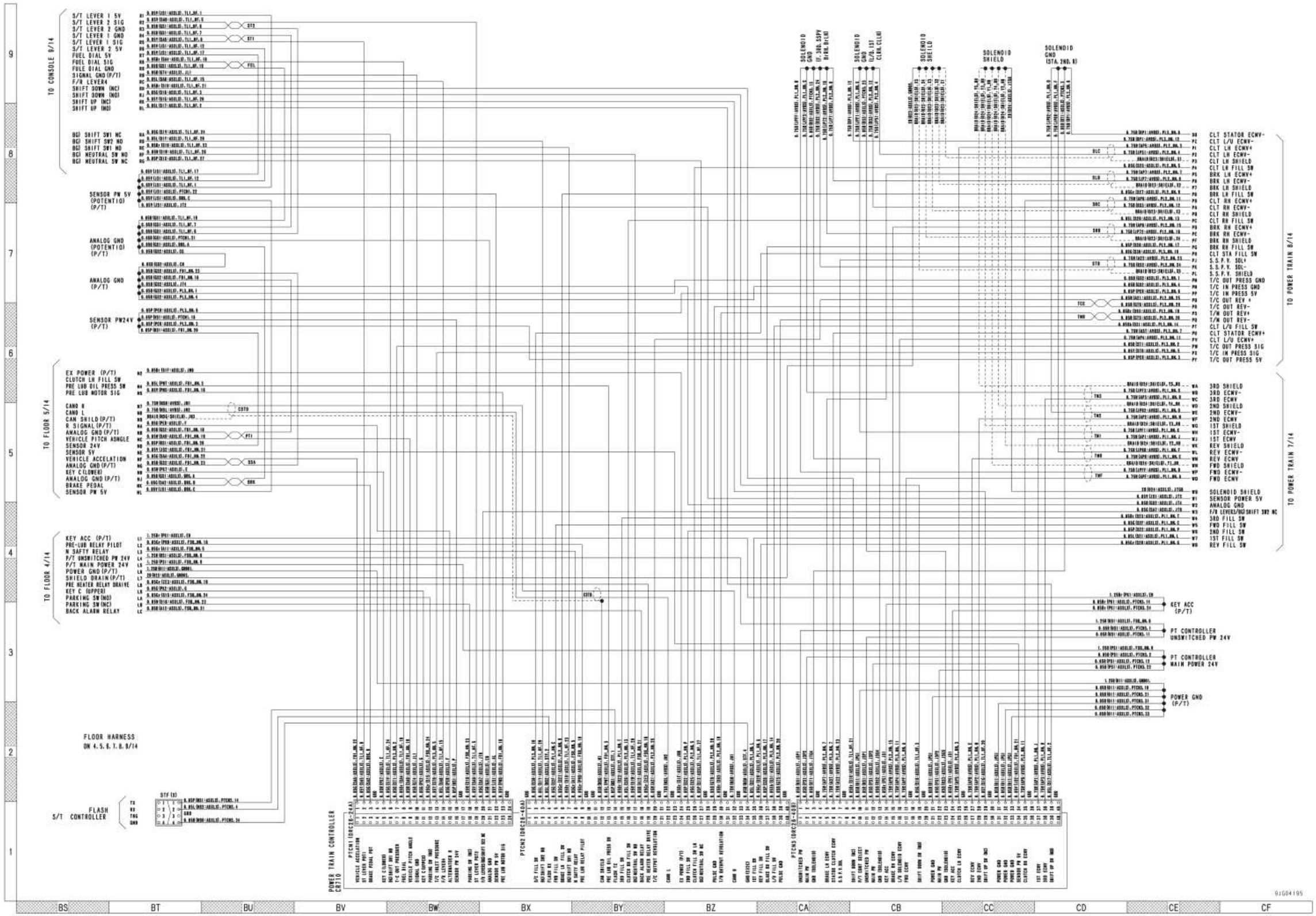


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Electrical circuit diagram (6/14)

D375A-6

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



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