CEBM019012

Shop Manual

HD785-7

DUMP TRUCK

SERIAL NUMBERS **A10001 & UP**

KOMATSU®

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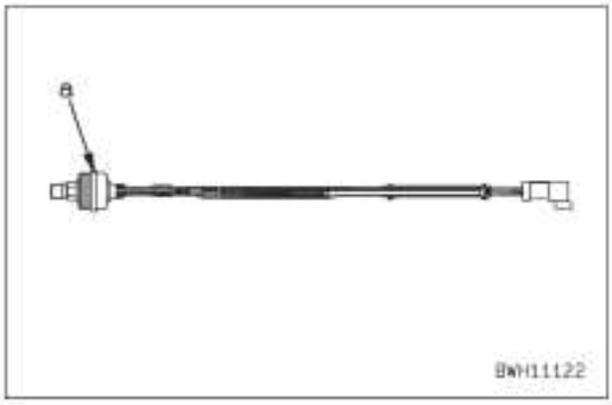
Blow-by pressure sensor (For VHMS)

Specifications

1. Voltage of power supply: DC5V
2. Output voltage : 0.5V(engine stopped) or more
3. Size: Mount (portion a) : R 1/4
   : Outside diameter of seat receiving pressure: 37 mm
   : Length of cable: 1,110 mm

Function

The blow-by sensor converts the pressure inside the engine crankcase into a voltage and inputs this into the VHMS controller as the blow-by pressure.



Engine oil temperature sensor (For VHMS)

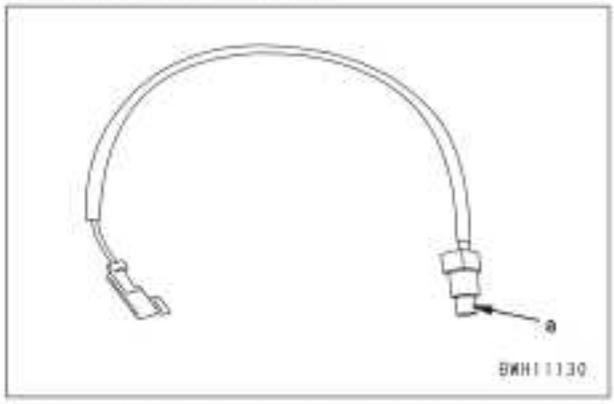
Specifications

1. Type of sensor : Thermistor
2. Range of measurement : 40 – 130 °C
   : 80 – 130 °C (guaranteed precision ± 2 °C)
3. Max. power consumption: 0.5 mW
4. Pressure resistance : 4.9 MPa {50 kg/cm^2}
5. Temperature range : –30 to 140 °C
6. Performance table

Temperature (°C)	Resistance (kΩ)	Temperature (°C)	Resistance (kΩ)	Temperature (°C)	Resistance (kΩ)
30	35.27	80	6.571	110	2.887
40	24.28	85	5.682	115	2.544
50	17.05	90	4.931	120	2.248
60	12.20	95	4.293	125	1.992
70	8.884	100	3.750	130	1.769

Function

The engine oil temperature sensor is installed to the engine oil filter. It inputs the change in temperature to the VHMS controller as a change in the resistance of the thermistor.



a: Heat sensing portion of sensor, outside diameter of mount R 1/4

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Failure code [DLF9KA] Wheel speed sensor: Disconnection (Rear left)

Action code	Failure code	Trouble	Wheel speed sensor: Disconnection (Rear left) (Retarder controller system)
E01	**DLF9KA**		
Contents of trouble	• Wheel speed signal (pulse) is not input to retarder controller.		
Action of controller	• Does not control ASR.		
Problem that appears on machine	• ASR is not controlled normally. • (ABS is not controlled normally.)		
Related information	• ABS controller inspects same trouble by failure code [**DLF9MA**]. ★ If ABS is installed and [**DLF9MA**] is not displayed, sensor and wiring harness out of cab are judged normal. ★ If ABS is installed and [**DLF9MA**] is displayed, perform following operations. 1) Turn starting switch OFF. 2) Disconnect ABS7 connector. 3) Turn starting switch ON. Check that failure code [**DLF9KA**] is displayed again (factors of ABS controller are eliminated) and then carry out following troubleshooting. • Input state from wheel speed sensor (left rear) can be checked with monitoring function (Code: **39708 (rpm)**).		

	Cause		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	1	Defective wheel speed sensor	★ Turn starting switch OFF and disconnect WSRL, then carry out troubleshooting without turning starting switch ON.		
			WSRL (Male: Sensor side)	Resistance	
			Between (1) – (2)	1,750 Ω ± 10 %	
	2	Disconnection in wiring harness (Disconnection in wiring or defective contact in connector)	★ Turn starting switch OFF and disconnect WSRL, then carry out troubleshooting without turning starting switch ON.		
			Between WSRL (female) (1) – BRC2 (female) (20)	Resistance	Max. 1 Ω
			Between WSRL (female) (2) – BRC2 (female) (39)	Resistance	Max. 1 Ω
	3	Grounding fault in wiring harness (Contact with ground circuit)	★ Turn starting switch OFF and disconnect WSRL, then carry out troubleshooting without turning starting switch ON.		
			Between WSRL (female) (1) – ground	Resistance	Min. 1 MΩ
	4	Defective retarder controller	If causes 1 – 3 are not detected, retarder controller may be defective. (Since trouble is in system, troubleshooting cannot be carried out.)		

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Failure code [DX18KB] ASR proportional pressure reducing solenoid valve (left) output circuit: Ground fault

Action code	Failure code	Trouble	ASR proportional pressure reducing solenoid valve (left) output circuit: Ground fault (Retarder controller system)
E01	**DX18KB**		
Contents of trouble	• When signal is output to ASR proportional pressure reducing solenoid valve (left) solenoid circuit, abnormal current flows.		
Action of controller	• Stops controlling ASR.		
Problem that appears on machine	• ASR is not controlled normally.		
Related information	• Signal is not output to ASR proportional pressure reducing solenoid valve (left) solenoid circuit until starting switch is turned OFF once.		

	Cause		Standard value in normal state/Remarks on troubleshooting			
Possible causes and standard value in normal state	1	Defective ASR proportional pressure reducing solenoid valve (left) solenoid (Internal short circuit)	★ Turn starting switch OFF and disconnect ASR3, then carry out troubleshooting without turning starting switch ON.			
			ASR3 (male)	Resistance		
			Between (1) – (2)	20 Ω		
	2	Grounding fault in wiring harness (Contact with ground circuit)	★ Turn starting switch OFF and disconnect BRC3 and ASR3, then carry out troubleshooting without turning starting switch ON.			
			Between BRC3 (female) (36) – ground	Resis-tance	Min. 1 MΩ	
	3	Short circuit in wiring harness (with another wiring harness)	★ Turn starting switch OFF and disconnect BRC3 and ASR3, then carry out troubleshooting without turning starting switch ON.			
			Wiring harness between BRC3 (female) (36) – BRC3 (female) (pin other than (36))	Resis-tance	Min. 1 MΩ	
	4	Hot short (Contact with 24 V circuit) in wiring harness	★ Turn starting switch OFF and insert T-adapter in BRC3, then turn starting switch ON and carry out troubleshooting.			
			Between BRC3 (female) (36) – ground	Voltage	Max. 1 V	
	5	Defective retarder controller	If causes 1 – 4 are not detected, retarder controller may be defective. (Since trouble is in system, troubleshooting cannot be carried out.)			

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