SEN01341-03

Shop Manual

MOBILE CRUSHER

GALEO

BR380JG-1E0

SERIAL NUMBERS 2001 and up

ecot3

KOMATSU®

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1) Automatic engine warm-up function

- After the engine is started, if the engine coolant temperature is low, the engine speed is raised automatically to warm up the engine.

Operating condition (All of following conditions)		→	Operated
Coolant temperature: Below 30°C Engine speed: Max. 1,200 rpm			Engine speed: 1,200 rpm

Resetting condition (Any one of following conditions)		→	Reset
Auto	Coolant temperature: Min. 30°C Automatic engine warm-up operation time: Min. 10 minutes		Engine speed: Any level
Manual	Fuel control dial: Kept at 70% of full level or above for 3 sec. or longer		

2) Overheat prevention function

- This function reduces the pump load and engine speed when coolant or hydraulic oil temperature is too high to protect the engine and hydraulic components from overheating.
- This function starts when coolant temperature or hydraulic oil temperature reaches 100°C.

Operating condition	→	Operation/Remedy	→	Resetting condition
Coolant temperature: Min. 100°C or Hydraulic oil temperature: Min. 100°C		Working mode: each mode Engine speed: Kept as is. Reduce pump delivery.		Coolant temperature, hydraulic oil temperature: Below 100°C Under above condition, controller is set to condition before operation of function. (Automatic reset)

Operating condition	→	Operation/Remedy	→	Resetting condition
Coolant temperature: Min. 102°C or Hydraulic oil temperature: Min. 102°		Working mode: each mode Engine speed: Kept as is. Monitor alarm lamp: Lights up Reduce pump delivery.		Coolant temperature, hydraulic oil temperature: Below 102°C Under above condition, controller is set to condition before operation of function. (Automatic reset)

Operating condition	→	Operation/Remedy	→	Resetting condition
Coolant temperature: Min. 105°C or Hydraulic oil temperature: Min. 105°C		Working mode: each mode Engine speed: Low idle Monitor alarm lamp: Lights up Alarm buzzer: Sounds		Coolant temperature, hydraulic oil temperature: Below 105°C Fuel control dial: Return to low idle position once. Under above condition, controller is set to condition before operation of function. (Manual reset)

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Failure code [7RJSMA] Abnormality in magnetic separator pressure sensor

User code	Failure code	Trouble	Abnormality in magnetic separator pressure sensor (Work equipment and pump controller (work equipment control) system)
—	**7RJSMA**		
Contents of trouble	• Signal voltage from the magnetic separator pressure sensor is below 0.3 V or above 4.42 V.		
Action of controller	• Mistakes the magnetic separator pressure for 0 MPa. • If cause of failure disappears, system resets itself.		
Problem that appears on machine	• Whole work equipment does not stop completely even if abnormal load is applied to the magnetic separator. (Primary conveyor, crusher, feeder, muck discharge conveyor, magnetic separator, vibratory screen and secondary conveyor) • Horn sounds (three intermittent sounding) upon detecting a failure.		
Related information	• If 5V circuit (3) and ground circuit (1) of pressure sensor are connected inversely, pressure sensor will be broken. Accordingly, take extreme care when checking. • Signal input from the magnetic separator pressure sensor can be checked with the monitoring function (Code: **24401**, Mag. Pressure). • The failure history is recorded.		

	Cause		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	1	Defective 5 V power source system	If failure code [**DA25KP**] is displayed simultaneously, carry out troubleshooting for it first		
	2	Defective magnetic separator pressure sensor (Internal failure)	★ Prepare with engine starting switch OFF, then turn engine starting switch and carry out troubleshooting.		
			S03 (male)	Voltage	
			Between (1) and (3)	4.5 – 5.5 V	
			Between (1) and (2)	0.3 – 4.5 V	
			If the voltage is normal, replace with another pressure sensor (pressure sensor of conveyor etc.) and check if failure codes are displayed. (If the E mark of the failure code disappears, the magnetic separator pressure sensor is defective.)		
	3	Disconnection in wiring harness (Disconnection or defective contact in connector)	★ Prepare with engine starting switch OFF, then carry out troubleshooting without turning engine starting switch ON.		
			Wiring harness between C01 (female) (7) – A03 – S03 (female) (2)	Resistance	Max. 1 Ω
			Wiring harness between C01 (female) (4), (10) – A03 – S03 (female) (1)	Resistance	Max. 1 Ω
			Wiring harness between C01 (female) (22) – A02 – S03 (female) (3)	Resistance	Max. 1 Ω
	4	Grounding fault in wiring harness (Contact with ground circuit)	★ Prepare with engine starting switch OFF, then carry out troubleshooting without turning engine starting switch ON.		
			Wiring harness between C01 (female) (7) – A03 – S03 (female) (2) and chassis ground	Resistance	Min. 1 MΩ
	5	Hot short in wiring harness (Contact with 24V circuit)	★ Prepare with engine starting switch OFF, then turn engine starting switch ON and carry out troubleshooting.		
			Wiring harness between C01 (female) (7) – A03 – S03 (female) (2) and chassis ground	Voltage	Max. 1 V
			Wiring harness between C01 (female) (22) – A02 – S03 (female) (3) and chassis ground	Voltage	Max. 5 V
	6	Defective work equipment and pump controller	★ If causes 1 – 5 are not detected, work equipment and pump controller may be defective. (Since trouble is in system, troubleshooting cannot be carried out.)		

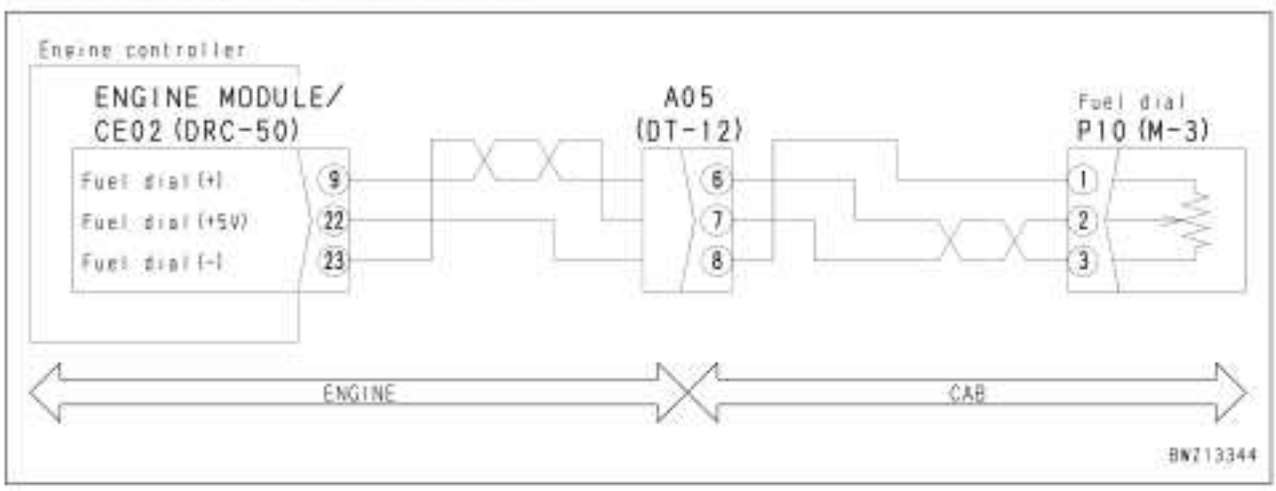
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Failure code [CA2185] Throttle pedal sensor power source too high

User code	Failure code	Trouble	Throttle pedal sensor power source too high (Engine controller system)
E14	CA2185		
Contents of trouble	• High voltage (5.25 V or higher) was detected in throttle sensor power supply circuit.		
Action of controller	• If trouble occurs while starting switch is in ON position, controller fixes voltage value to level just before detection of trouble and continues operation. • If starting switch is turned ON while voltage is abnormally high, controller continues operation with voltage at 100% value.		
Problem that appears on machine	• Engine speed cannot be controlled with fuel control dial.		
Related information	• Method of reproducing failure code: Turn starting switch ON.		

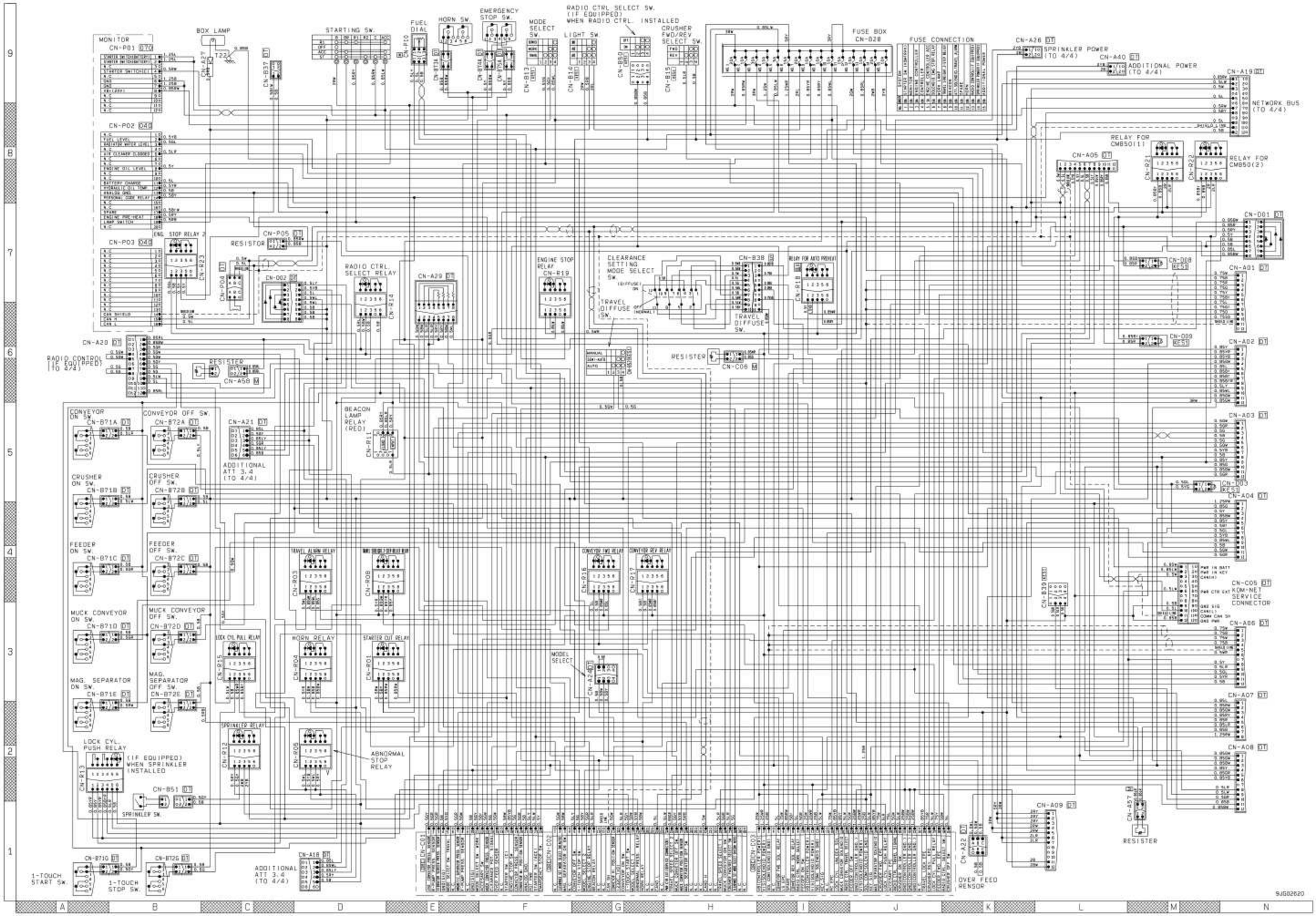
	Cause		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state			★ Prepare with engine starting switch OFF, then carry out troubleshooting without turning engine starting switch ON.		
	1	Short circuit in wiring harness (with another wiring harness)	Wiring harness between CE02 (female) (22) – each of CE02 (female) pins (With P10 disconnected)	Resistance	Min. 100 kΩ
			Wiring harness between CE02 (female) (22) – CE03 (female) (3) (With P10 disconnected)	Resistance	Min. 100 kΩ
	2	Defective wiring harness connector	Connecting parts between fuel control dial – machine wiring harness – engine controller may be defective. Check them directly. • Looseness of connector, breakage of lock, or breakage of seal • Corrosion, bend, breakage, push-in, or expansion of pin • Moisture or dirt in connector or defective insulation		
	3	Defective engine controller	If causes 1 – 2 are not detected, engine controller may be defective. (Since trouble is in system, troubleshooting cannot be carried out.)		

Circuit diagram related to fuel control dial



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Electrical circuit diagram (1/4)



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