SEN05475-09

Shop Manual

WHEEL LOADER

WA1200-6

SERIAL NUMBERS 60001 and up

KOMATSU®

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Failure code [DB92KK] Solenoid Voltage Failure (Work controller)

Action level	Failure code	Failure	Controller solenoid powersupply voltage drop (Boom bucket & AJSS controller system)
E03	DB92KK		
Detail of failure	Controller solenoid powersupply voltage has dropped		
Action of controller	• Turns the centralized warning lamp and alarm buzzer ON.		
Problem on machine			
Related information	★ Condition is restored when connector is disconnected and T-adapter is inserted for troubleshooting, or when T-adapter is removed, connecter restored, and no failure code is displayed on the monitor		

No.	Cause	Procedure, measuring location, criteria and remarks		
1	Open circuit in wiring harness (wire breakage or defective contact of connector)	1. Prepare with starting switch at OFF position. 2. Disconnect connectors L07, AR4, AL3 and connect T-adapter. 3. Turn the starting switch to OFF position, then perform troubleshooting.		
		Wiring harness between L07 (female) (1) and AR4	Resistance	Max. 1 Ω
		Wiring harness between L07 (female) (2) and AL3		Max. 1 Ω
2	Ground fault in wiring harness (contact with ground circuit)	1. Prepare with starting switch at OFF position. 2. Disconnect connectors L07, AR4, AL3 and connect T-adapter. 3. Turn the starting switch to OFF position, then perform troubleshooting.		
		Between ground and wiring harness from L07 (female) (2) to AL3	Resistance	Min. 1 MΩ
		Between ground and wiring harness from L07 (female) (1) to AR4		Min. 1 MΩ
3	Short circuit in wiring harness (contact between harnesses)	1. Prepare with starting switch at OFF position. 2. Disconnect connectors L07, AR4, AL3 and connect T-adapter. 3. Turn the starting switch to OFF position, then perform troubleshooting.		
		Wiring harness between L07 (female) (1) and AR4, and between L07 (female) and AL3	Resistance	Min. 1 MΩ
4	Hot short circuit in wiring harness (connection with 24 V circuit)	1. Prepare with starting switch at OFF position. 2. Disconnect connectors L07, AR4, AL3 and connect T-adapter. 3. Turn starting switch to ON position and perform troubleshooting.		
		Between ground and wiring harness from L07 (female) (2) to AL3	Voltage	Max. 1 V
		Between ground and wiring harness from L07 (female) (1) to AR4		Max. 1 V
5	Defective boom bucket & AJSS controller	1. Prepare with starting switch at OFF position. 2. Disconnect connector L07 and connect T-adapter. 3. Turn starting switch to ON position and perform troubleshooting.		
		L07 (female)	Voltage	
		Between (1), (2) and ground	Max. 1 V	

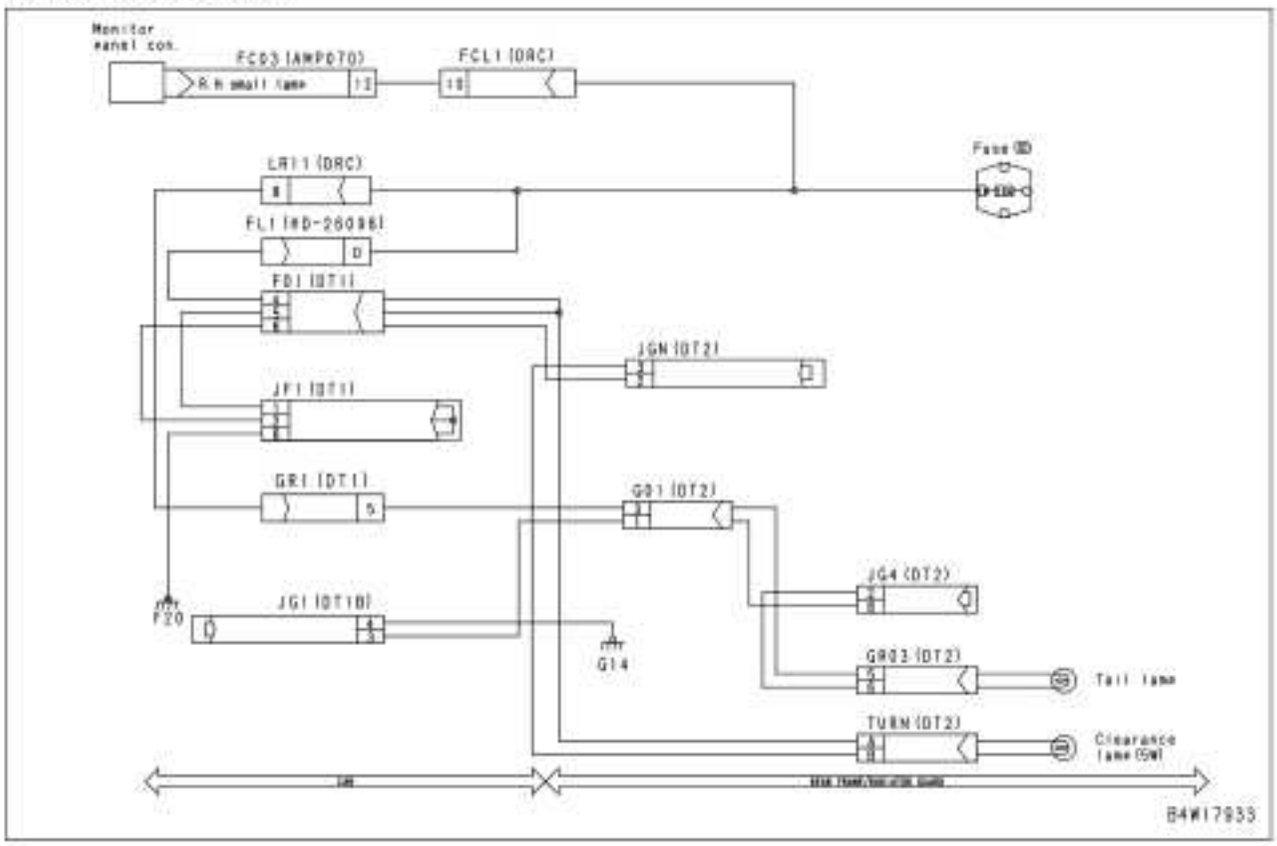
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E-8 Headlamp does not light up

Failure	Headlamp does not light up.
Related information	• Before troubleshooting, check bulb for breakage. • Check fuse III (10) for breakage. If it is broken, check wiring harness between FC03 (female) (12) - fuse III (10) for ground fault.

No.	Cause	Procedure, measuring location, criteria and remarks		
1	Open circuit in wiring harness (wire breakage or defective contact of connector)	1. Prepare with starting switch OFF. 2. Disconnect connectors FC3, GR03, and TURN, and connect T-adapters. 3. Turn the starting switch OFF, then carry out troubleshooting.		
		Resistance	Between FC03 (female) (12) and GR03 (2) (female) (5)	Max. 1 Ω
			Between FC03 (female) (12) and TURN (female) (A)	Max. 1 Ω

Related circuit diagram



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17) Prepare shim packs finally used and install them to the necessary portions (collar A side and collar B side) to perform the final assembling.
<Reference 1>
- If, for instance, the final travel of collar A (11) with respect to collar boss A (11A), that is "dimension a" or "correction of dimension a", is +0.15 mm (collar A (11) is inside collar boss A (11A)), adjusting the clearance between collar A (11) and bushing (13) to 0.5 mm theoretically requires to move collar A (11) (= pin flange position) 0.35 mm (0.15 mm - 0.5 mm) outside. To that end, the mounting pin installed position (= pin flange position) must be moved 0.35 mm outside (installation of shims for the pin flange).
- The minimum pin flange shim thickness beyond 0.35 mm is a single 0.5 mm thick shim.

★ Theoretically, the clearance between collar A (11) and bushing (13) becomes 0.65 mm (0.15 mm + 0.5 mm).
- Therefore, all you need to do is to insert a single 0.5 mm shim for the pin flange. (In this case, the mounting pin is finally slid 0.5 mm toward collar A (11) side and fixed there from the position where the travel was measured.)
(See Attached Tables 4 and 5.)

<Reference 2>
- For example, if the final travel, "dimension c", of the pin tip with respect to collar B (12) is +1.3 mm (the mounting pin tip is inside collar B (12)), the mounting pin tip is finally slid +0.5 mm by the pin flange shim on collar A (11) toward collar A (11) side. Therefore, the clearance between collar B (12) and mounting pin tip becomes +1.8 mm (1.3 mm + 0.5 mm).
- Then collar B (12) must be moved further to outside to provide 0.5 mm clearance between collar B (12) and bushing (13).
- The final theoretical travel of the mounting pin tip with respective to collar B (12) is 2.3 mm (1.8 mm + 0.5 mm). The minimum thickness of the pin tip face shim beyond 2.3 mm is provided by four 0.5 mm shims and a 0.3 mm shim.

★ Theoretically, the clearance between collar B (12) and bushing (13) becomes 0.5 mm.
- Therefore, four 0.5 mm shims and a 0.3 mm shim for the pin tip face serves the purpose.
(See Attached Tables 5-1 to 5-5.)

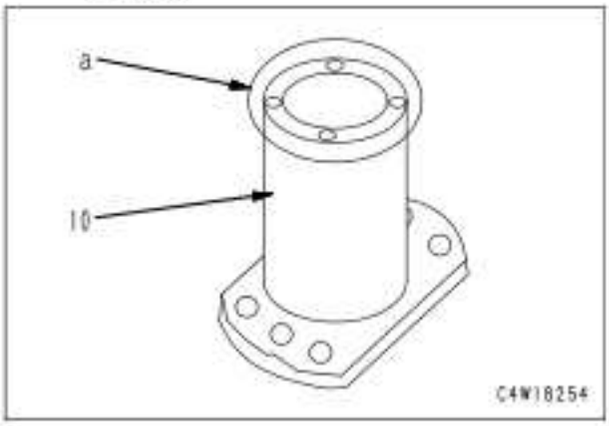
Installation

1. General work equipment installation procedure (connection of work equipment)
   1) Press fit of bushings to necessary locations
   2) Installation of bell crank to lift arm (right and left sides)
   3) Installation of bucket link to bell crank (right and left sides)
   4) Installation of lift arm to front frame
   5) Installation of piston rod of lift arm cylinder to lift arm (right and left sides)
   6) Installation of piston rod of bucket cylinde to bell crank (right and left sides)
   7) Installation of bucket to lift arm (right and left sides)
   8) Installation of bucket link to bucket (right and left sides)

   ★ Check the parts assembled for scratches and dents, then remove soil, dirt and stains on the coating.

   ★ Eliminate rusts, if any.

   ★ When you have replaced mounting pin (10), chamfer "a" portion in the shaft tip to make it smooth.



2. Installation (press fit) of bushing to bushing boss

   ★ Prepare liquid nitrogen before starting assembling.

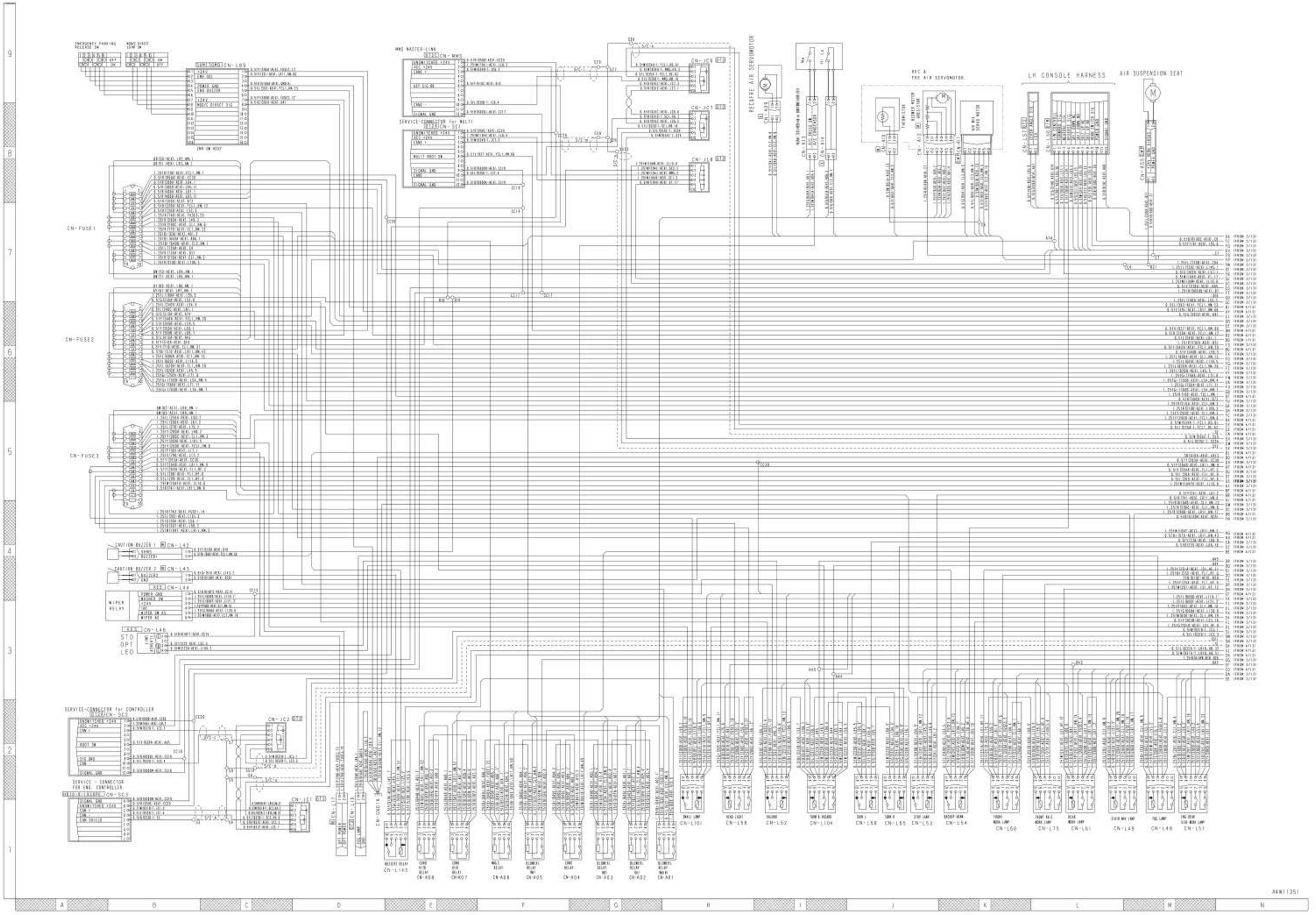
   1) Install special tool **T15** (fixing plate used when press fitting the bushing) to bushing boss (13A).
   Reference: The portion to which the bushing is press fitted is referred to as "bushing boss".

   ★ Install special tool **T15** using the screw hole of the bushing boss on the opposite side of the bushing boss to which the bushing is inserted.

   ★ Use care when installing the bushing to the location where special tool **T15** cannot be installed (locations for bushings such as the bushing for lift arm cylinder and bushing for bucket cylinder).

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Electrical circuit diagram (1/13)
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