

**PARTS & SERVICE
NEWS**

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SUBJECT: MODIFICATION PROCEDURE OF RETARDER CONTROLLER ON HD465-7, HD605-7

PURPOSE: To introduce modification procedure for the retarder controller on HD465-7 and HD605-7 dump trucks
(Retarder controller replacement procedure)

APPLICATION: HD465-7 Dump Trucks, Serial Nos. 7001 thru 7069, 7071 thru 7106,
7108 thru 7119
HD605-7 Dump Trucks, Serial Nos. 7001 thru 7051

FAILURE CODE: DB10MA

DESCRIPTION:

1. Introduction

Regarding the retarder controller on the HD465-7 and HD605-7 dump trucks, since there is a possibility of occurrence of the following problems, replace the retarder controller as per the modification procedure being outlined in this Service News.

- 1) While the hydraulic oil temperature for the retarder is still low, etc., the controller may detect a "failure of the electromagnetic proportional pressure reducing valve for the rear wheel" (Failure Code DX11MA or DX11K4) erroneously and the retarder will then stop its operation after issuing an alarm.
- 2) Regarding the dump control, if a disconnection occurs with the hoist changeover valve harness while the control lever is being set to the FLOAT position, like when the vehicle is in travel, the alarm will be issued and, at the same time, the dump body will start rising and the dump body will not stop rising until the control lever is shifted to the "HOLD" position.

2. List of parts

Part No.	Part Name	Purpose of part	Q'ty	Remarks
7818-65-4003 (7818-65-4000) (7818-65-4001) (7818-65-4002)	Controller (Controller) (Controller) (Controller)	Replacement	1 (1) (1) (1)	Modified parts

3. Details of the modification

3-1. Modification of the retarder controller

Changing the failure determination condition for the "Failure Code DX11MA and DX11K4" and changing the reaction of the controller

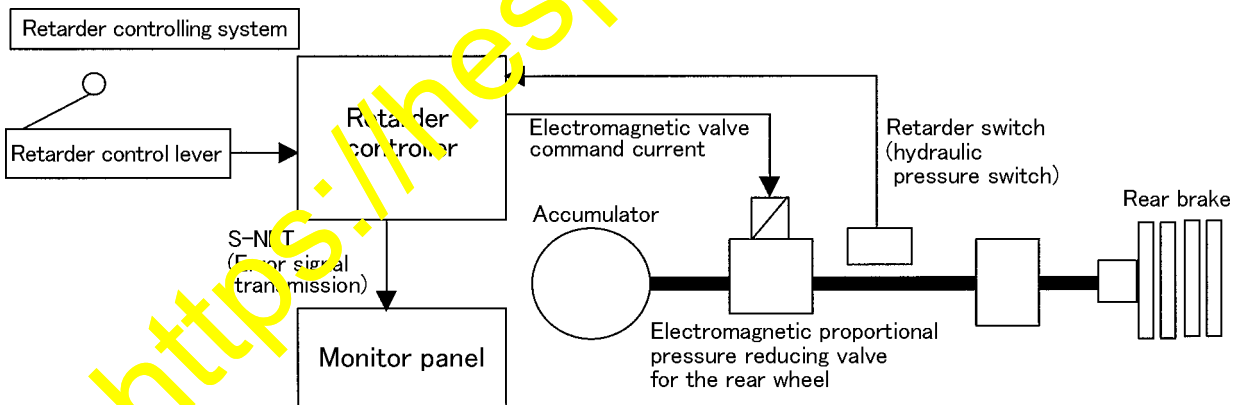
The time required to determine the failure state has been changed so that erroneous failure state may not be detected.

The reaction of the controller after a failure is detected has been changed so that the retarder may start proper operation when the failure state has been repaired. (However, the controller will continue issuance of the failure code even after the failure state has been repaired if the starting switch key is not turned OFF.)

Content of the change	New state	Current state
1. The time required to determine the failure state	3 sec.	1 sec.
2. Reaction of the controller	Will continue outputting. (Command current will be output continuously.)	Will cancel (cut out) outputting. (Command current will be cancelled.)

Failure code <DX11MA>
Failure mode: The hydraulic pressure will not rise even when the controller is issuing the command.

Failure code <DX11K4>
Failure mode: The hydraulic pressure be kept rising although the controller is not issuing the command.



3-2. Modification of the hoist controller

The disconnection detecting condition for the hoist changeover valve has been changed.

Content of the change	New state	Current state
Disconnection detecting condition	When disconnection is detected while the hoist lever is being set to the "HOLD" position and while the dump control lever is being set to the "DOWN", "FLOAT" or "UP" position, an alarm will be issued and, at the same time, the body movement will be stopped.	When disconnection is detected while the hoist lever is being set to the "HOLD" position and while the dump control lever is being set to the "UP" position, an alarm will be issued and, at the same time, the body movement will be stopped.

4. Modification procedure

- (1) Open the cover of the controller box being positioned in the rear section in the inside of the operator's cab and disconnect all the connectors being connected to the retarder controller.

(Refer to Fig. 1 and Fig. 2.)

Disconnecting connector numbers are: BRC1, BRC2, BRC3A, BRC3B, BRC4, BRC5A and BRC5B, at 7 places.

At this time, pay attention not to let the connector pins touch any other parts.

- (2) Remove the mounting bolts (4 pcs.) for the retarder controller and remove the controller. (Refer to Fig. 1.)

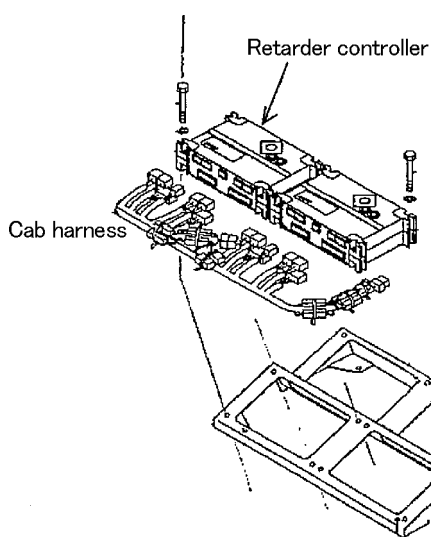


Fig. 1

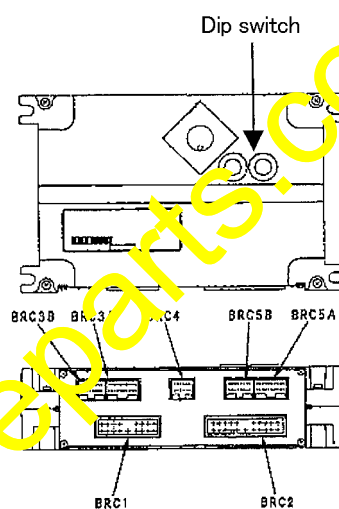



Fig. 2

- (3) In case of the HD605-7 only, change the setting of both the Dip switch 1 and Dip switch 2 to the "1" side.
In case of the HD465-7, check and confirm that the setting of both of the Dip switch 1 and Dip switch 2 are not being set to the "1" side.
- (4) Install the replacing new controller (7818-65-4003 in case of the HD465-7 and HD605-7) to the vehicle body by use of the mounting bolts.
 - ☆ Tightening torque for the controller mounting bolts:
2.8 - 3.5 kgmf (27.5 - 34.3 Nm)
- (5) Reconnect the disconnected connectors back to their original places.
At this time, check and confirm the number indicated on the connector tag being attached to the harness and the connecting positions.
(Refer to Fig. 2.)
- (6) Check and confirm that the speed shifting operations and monitor panel indications are correct.
- (7) After replacing the controller, conduct system calibration work referring to "3. System Calibration Work" in the Section "Adjustment of Body Positioner Sensor" in the Shop Manual.
- (8) Send back the removed current parts (controller) to the Quality Assurance Section in Mooka Plant.

3. Calibrating system

 Stop the machine on a level place and set chocks under the tires securely.

★ Hydraulic oil temperature: 80 – 90°C

- 1) With the body seated perfectly, start the engine.
- 2) Keep the dump control lever in the FLOAT position for at least 5 seconds.
 - ★ Check that the FLOAT caution lamp is turned off.
- 3) With the body raised to the cylinder stopper, run the engine at low idling and keep the dump control lever in the RAISE position for at least 5 seconds.
- 4) Run the engine at high idling and raise the body to the stroke end. Then, lower the engine speed to low idling and set the dump control lever in the FLOAT position to lower the body to the seating position.
 - ★ Repeat the operations of 3) and 4) above 5 – 10 times.
- 5) Run the engine at high idling and raise the body to the stroke end. Then, keep the engine speed at high idling and set the dump control lever in the LOWER position to lower the body to the seating position.
 - ★ Repeat this operation 5 – 10 times.

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