

**PARTS & SERVICE  
NEWS**

REF NO.	<b>AT03143</b>
DATE	<b>Aug. 7, 2003</b>
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**SUBJECT:** INTRODUCTION OF IMPROVED BODY POTENTIOMETER LINKAGE FOR HD465/605-7

**PURPOSE:** To introduce improved body potentiometer linkage for use on HD465-7 and HD605-7 dump trucks

**APPLICATION:** HD465-7 Dump Trucks, Serial Nos. 7001 thru 7056  
HD605-7 Dump Trucks, Serial Nos. 7001 thru 7020

**FAILURE CODE:** DK54PB

**DESCRIPTION:**

## 1. Introduction

On the HD465-7 and HD605-7 dump trucks, in case the dispersions in the parts dimensions are large or in case the rod length adjustment is insufficient, when the body is raised to its stroke end, the linkage of the potentiometer may exceed the upper dead center resulting in breakage failure of the linkage.

This Service News will therefore introduce the improved body potentiometer linkage to prevent occurrence of the aforementioned failure.

## 2. List of parts

No.	Part No.	Part Name	Q'ty	Remarks
1	569-43-82313 (569-43-82312)	Lever (Lever)	1 (1)	
2	04245-41033 (04245-41033)	Rod (Rod)	1 (1)	
3	01010-81030 (01010-81035)	Bolt (Bolt)	1 (1)	
4	421-06-12780	Spacer	1	

### 3. Details of the modification

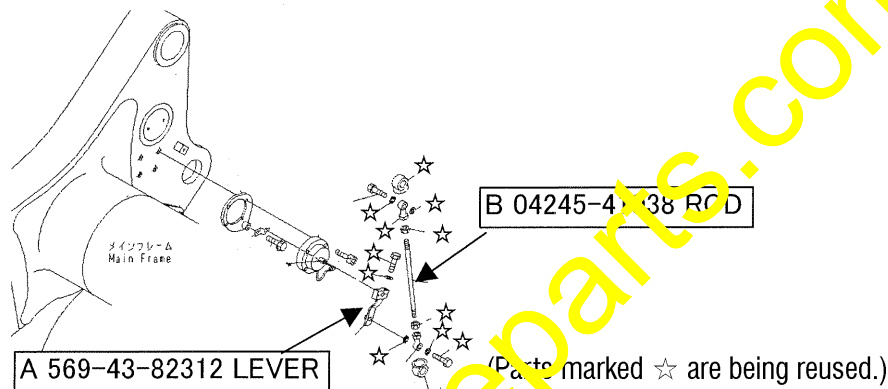
- The lever and the rod being installed to the body potentiometer have been modified so that the linkage may not exceed the upper dead point even when the aforementioned dispersions of the parts dimensions exist.

#### 3-1 Preparations before starting the modification work

- (1) Park the vehicle on a flat place and, with the body in seated state, set the parking brake, turn the main switch "OFF" and, after that, apply the chocks to each tire.

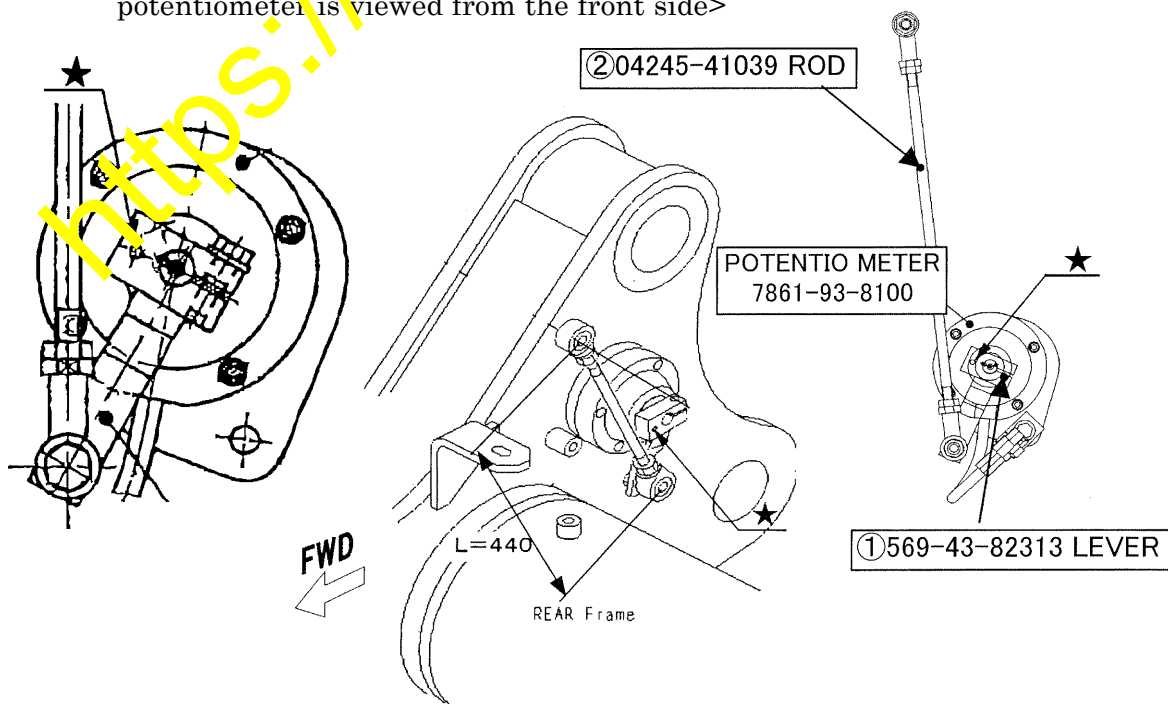
#### 3-2 Modification procedure

- (1) Remove the lever A (569-43-82312) and rod B(04245-41038) from the vehicle.  
(Those bolt, washer, rod end, etc. which have been removed as above are being re-used.)



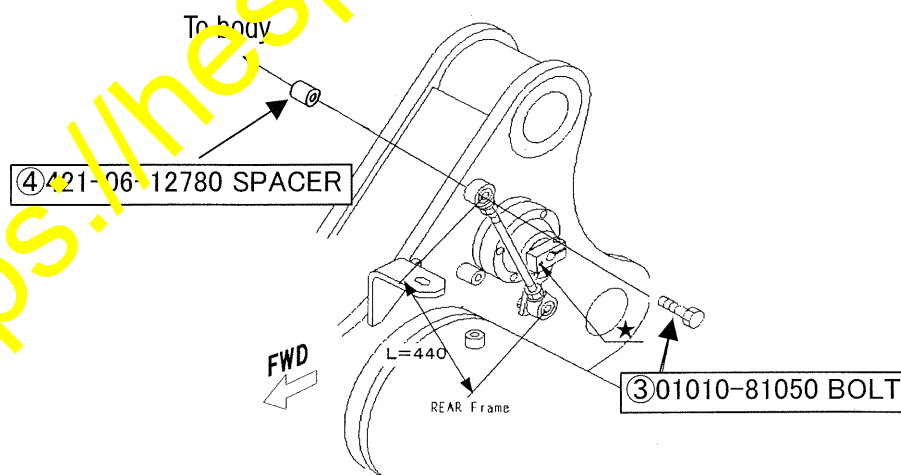
- (2) Install the lever ① (569-43-82313) and a rod ② (04245-41039) to the body potentiometer. (Do not fasten the body side at this time.)
- (3) Matching the hole in the lever ① and the hole (☆ marked section) in the potentiometer (7861-93-8100), insert the positioning pin to fasten the lever ①.  
(A  $\phi 5$  positioning hole is being opened in the lever ① and in the potentiometer, respectively.)

<★ The hole directed to the lower left when the potentiometer is viewed from the front side>



### 3-3 Adjustment

- Check and confirm the value of the "body position" on the real time monitor being installed in the inside of the operator's cab.  
(Refer to the Section "Special Function of Machine Monitor" in the Chapter "Inspection and Adjustment" in the Shop Manual.)
- (1) Turn the main switch "ON". (It is not necessary to start the engine itself.)
- (2) Depress the "■" key and the "<" key of the electronic panel indication selector switch at the same time to enter into the service mode of the machine monitor and, after that, input the ID. (ID Number: 6491)
- (3) Make the selection on the real time monitor. (Change the items by use of the ">" key and the "<" key and enter the selection by use of the "◇" key.)
- (4) Select the "BRAKE" (retarder controller).
- (5) Let it indicate the Item No. 34400 "BODY POSITION".
  - Standard value when the body is being seated: 0.38 – 0.44 V
- (6) If the value of the "BODY POSITION" is out of the above standard value, pull out the positioning pin and adjust the angle of the lever ① to set the value of the "BODY POSITION" within the standard value.
  - The value will increase when the lever is turned clockwise and the value will decrease when the lever is turned counter-clockwise.
- (7) When the value of the "BODY POSITION" is confirmed to be within the standard value, at that position, fasten the rod to the body using the bolt ③ (01010-81050). At that time install the spacer ④ (421-06-12780) between the boss on the body and the rod end.  
Rod end standard length: 440 mm
  - In case the rod length is 436 mm or less, remove the rod once and change the angle of the lever ① and make the adjustment once again in the low end side of the standard value of the "BODY POSITION".



- (8) Start the engine and raise the body to the stroke end to confirm the value of the "BODY POSITION" at that time.
  - Standard value when the body is raised to the stroke end: 3.8 – 4.7 V

4. System calibration work

- After the linkage adjustment has been finished, carry out the calibration of the system in order to let the body seating control come to its function.
- (1) Start the engine in the state where the body is being seated completely.
  - (2) Turn the dump control lever to the "HOLD" position once and, after that, set it back to the "FLOAT" position and keep it there for more than 5 seconds.
    - Check to make sure that the body float caution lamp is not turned on.
  - (3) Raise the body to the stroke end and, keeping the engine at the Lo-Idling revolution, maintain the dump control lever at the "UP" position for more than 5 seconds.
    - Turn "ON" the AISS LOW switch and the engine should be kept at the Lo-Idling (750 – 800 rpm) state.
  - (4) Maintaining the engine at the Lo-Idling state, set the dump control lever to the "FLOAT" position to let the body seated.
  - (5) Repeat the operations as per the above Sections (3) and (4) for 5 to 10 times until the body seating shock will disappear.
  - (6) Setting the engine to the Hi-Idling state, raise the body to the stroke end and, after that, keeping the engine at the Hi-Idling state, set the dump control lever to the "DOWN" position to let the body seated.  
Repeat the above operations for 5 to 10 times until the body seating shock will disappear.

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