



# SERVICE BULLETIN No.1183

Circulate to listed addressees

<b>COACH MODEL</b>	: C2045
<b>BULLETIN TYPE</b>	: Product Improvement
<b>SECTION</b>	: Section 9 – Electrical system
<b>DATE</b>	: May 4, 2006
<b>SUBJECT</b>	: <b>Headlamp assembly - seals</b>
<b>TERMS &amp; CONDITIONS</b>	: No claims will be accepted with reference to this Bulletin.

## **APPLICATION:**

The product improvement subject of this Bulletin can be applied to following units:

Model	Engine	VIN
C2045	Cummins	45001 → 45441
	Detroit Diesel	45501 → 45954
C2045 Enhanced	Cummins	45442 → 46008
	Detroit Diesel	45930 → 45934, 45955 → 45999, 46501 → 46642
	Caterpillar	47001 → 47091

## **DESCRIPTION:**

1. In an effort to extend headlamp service life, original equipment manufactures Hella have made recommendations regarding installation improvements for their products. The changes include the modification of the headlamp bowls and the installation of headlamp seals.
2. VIN cut-in for the revised headlamp bowls is #46008, #46606, and #47010.  
VIN cut-in for the seals is #46009, #46643 and #47092.  
The procedure in this Bulletin shows how production units are modified.
3. If you own one or more of the Commuter Coaches mentioned under "Application" Van Hool recommend retrofitting these units when headlamps are being replaced for service purposes.

**NOTE:** Replacement headlamps must always be aimed properly to provide maximum legally accepted luminosity. Refer to the Maintenance Manual, Chapter 9 for aiming instructions.

*Service personnel: please read, initial and circulate.*

Service Manager	Parts Manager	Warranty Administrator	Workshop Foreman	Service Technician

## **PARTS AND PRODUCTS:**

### **New parts**

<b>Part No.</b>	<b>Description</b>	<b>Qty.*</b>
VH 10991517	Seal, headlamp	4

\*Quantity per coach

- New parts will be made available through regular channels.
- Parts and products disposition: discard according to applicable environmental regulations.

## **PROCEDURE:**

***NOTE:** If you do not have the expertise to perform present procedure, do not hesitate to go to your nearest ABC Customer Care & Parts Source dealership.*

### **1. General:**

- This job should be executed by an experienced service technician.  
For more information refer to the Maintenance Manual and to the Electrical Wiring Diagram Booklet that comes with the coach.

### **2. Special tools, equipment or services:**

- No special tools, equipment or services are required.

### **3. Preparations:**

- Park the coach on a level surface with the front wheels straight.  
Apply the parking brake and shut down the engine.
- Switch off all systems and turn off the battery master switch.
- Put a "DO NOT OPERATE" tag on the instrument panel.
- Read the entire procedure before beginning to work.

**CAUTION: Observe safe shop practices at all times.**

### **4. To cut back the headlamp bowls and to install headlamp seals VH 10991517 (RH side of coach shown):**

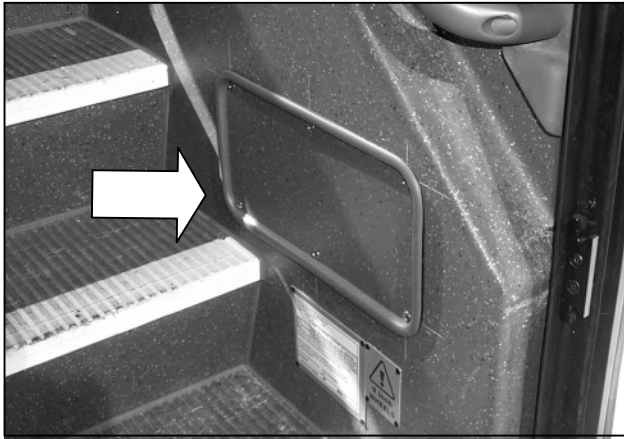
Job time estimate: approximately 1.0 hour per coach.



To gain access to the headlamp bowls the bezel and headlamp and turn signal lamp assembly (see Figure 1) need to be removed.  
Proceed as follows:

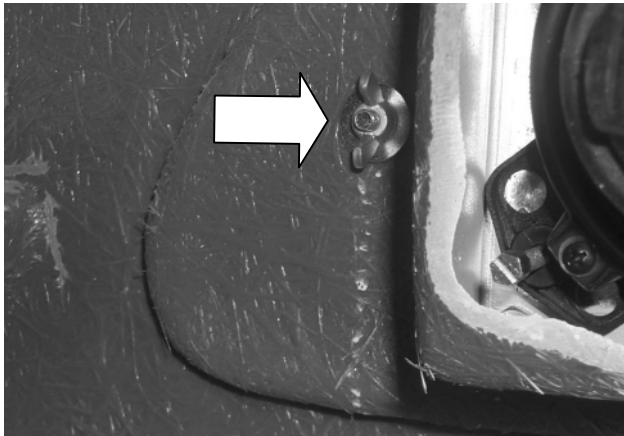
**Figure 1: C2045 bezel, headlamps and turn signal lamp**

- 1) Inside the stepwell, undo and remove the cross head bolts securing the head lamp assembly access panel (see Figure 2). Remove the panel.



**Figure 2: Headlamp assembly access panel**

- 2) Label and disconnect the headlamp and turn signal lamp wiring.
- 3) Undo and remove the LH and RH wing nuts and washers securing the bezel to the coach body (see Figure 3).

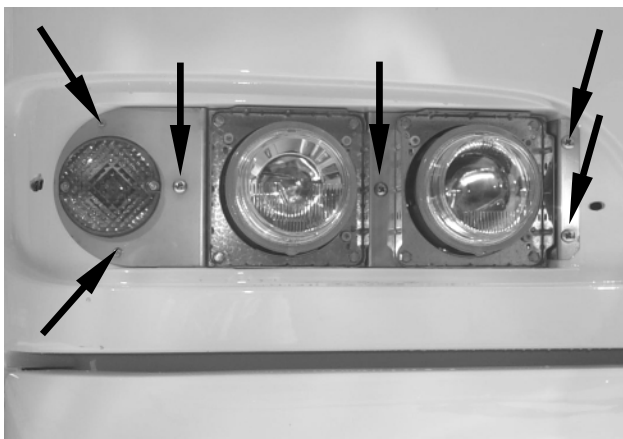


**Figure 3: Bezel retaining wing nuts**

- 4) Starting at the side closest to the coach centerline tilt and carefully withdraw the bezel.

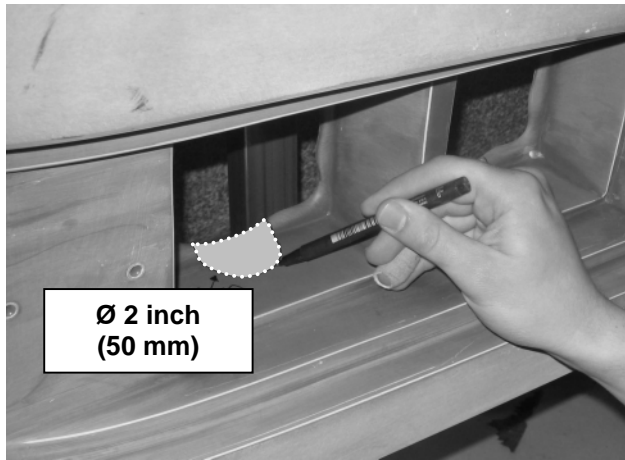
***NOTE:*** Do not consider this part of the Bulletin if the modifications have already been done on your vehicle(s). Proceed with steps 13 through 20).

- 5) Undo and remove the four cross head bolts and the two self-tapping screws securing the headlamp and turn signal lamp assembly to the coach body (see Figure 4).

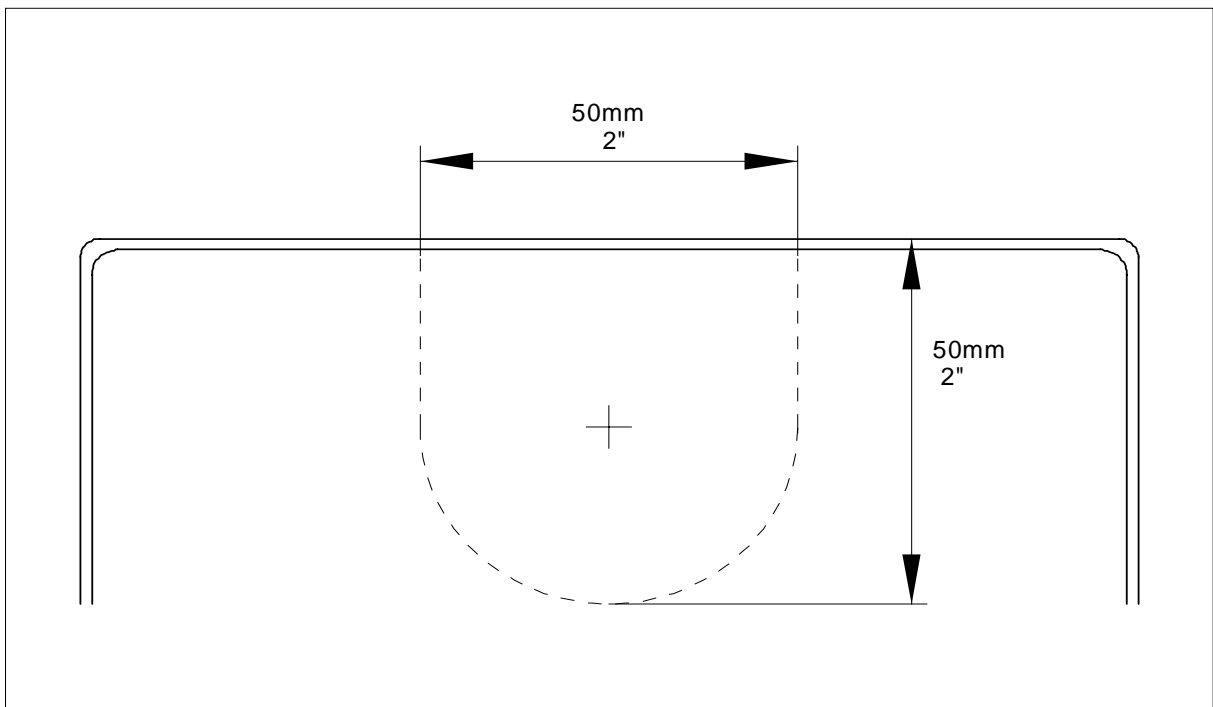


**Figure 4: Headlamp and turn signal lamp assembly fasteners**

- 6) Carefully remove the lamp assembly from the coach.
- 7) Referring to Figures 5 and 6, mark the area to be removed from the bottom rear part of the outside bowl.

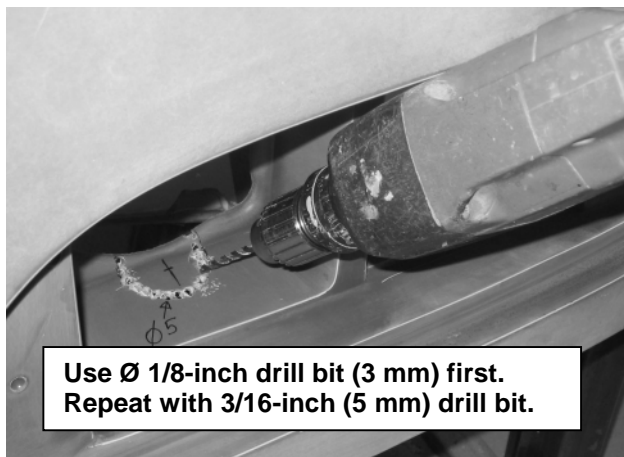


**Figures 5 and 6: Part to be removed from the bottom of the outside bowl (dimensions are approximate)**



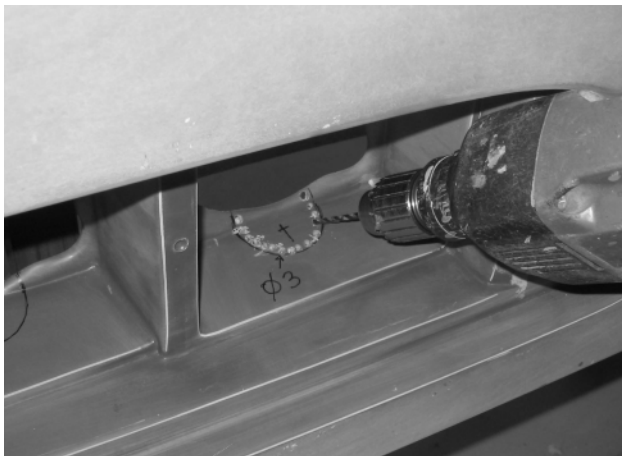
***NOTE:*** This modification can also be done using a 2 inch diameter hole saw as shown in Figure 7.

- 8) Using a 1/8-inch drill bit, drill holes within the confines of the marked area (see Figure 8). Repeat this step using a 3/16-inch drill bit.



**Figure 8: Drilling the outside headlamp bowl**

- 9) Repeat steps 7 and 8 for the inside bowl (see Figure 9).



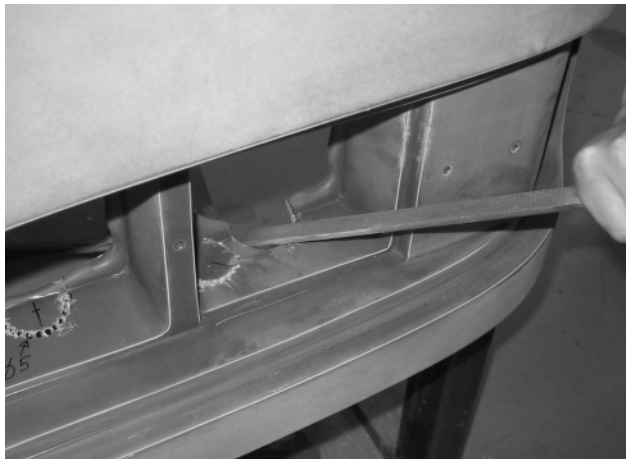
**Figure 9: Drilling the inside headlamp bowl**

- 9) With a sharp chisel, knock the drilled part out of the outside bowl (see Figure 10). Repeat this step for the inside bowl.



**Figure 10: Removing the drilled part**

10) Dress the edges of the apertures with a file (see Figure 11).



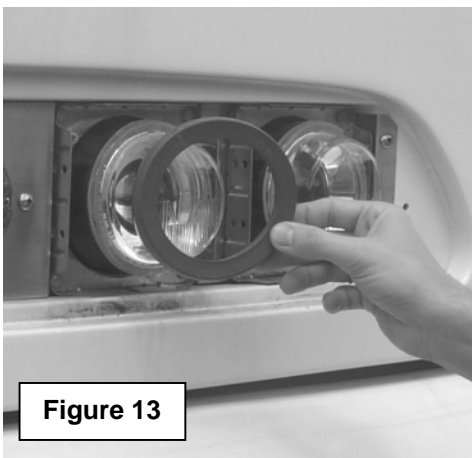
**Figure 11: Dressing the edges**

12) Reinstall the headlamp and turn signal lamp assembly (see Figure 12).

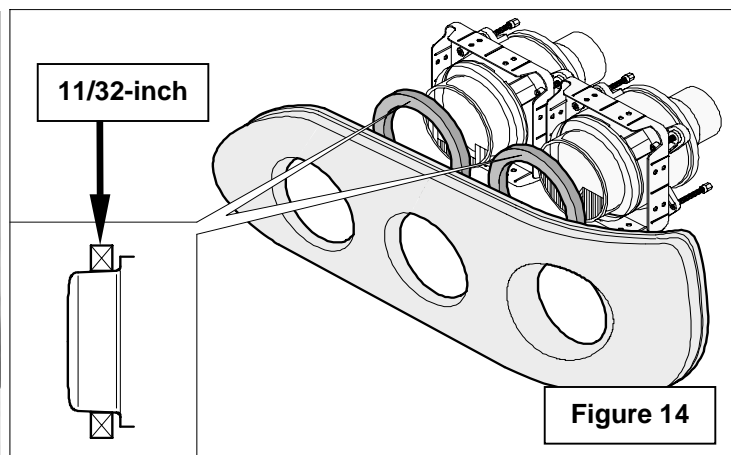


**Figure 12: Headlamp assembly reinstallation**

13) Slip a seal VH 10991517 over the outside headlamp (see Figure 13).  
The seal measures  $11/32 \times 37/64$ -inch (12 x 15 mm).  
Make sure the narrow part of the seal sits on the lens (see Figure 14).



**Figure 13**



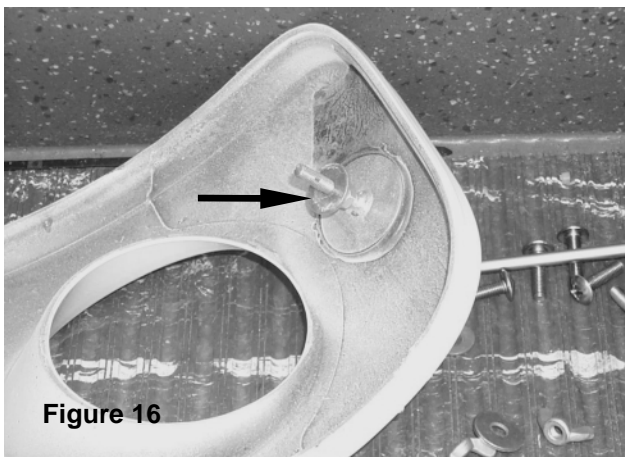
**Figure 14**

14) Repeat step 13 for the inside headlamp (see Figure 15).



**Figure 15: Headlamp assembly with second seal fitted**

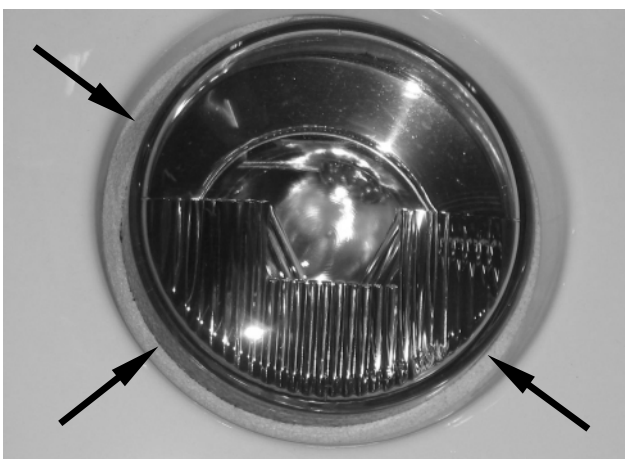
- 15) Before reinstalling the bezel, check that the flat washers are fitted to the mounting studs (see Figure 16).  
 Reinstall the bezel starting at the outside hole (see Figure 17).  
 Secure hand tight with washers and wing nuts.  
 Figure 18 shows the final seal installation.



**Figure 16**



**Figure 17**



**Figure 18: Headlamp seal – final installation**

- 16) Reconnect the headlamp and turn signal wiring.  
 17) In the stepwell, reinstall the headlamp access panel.

18) On the LH side of the coach, open the access door to the windshield washer tank and the driver's compartment HVAC unit.

19) Repeat steps 2 through 16 of this procedure.

20) Close the access door to the windshield washer tank and the driver's compartment HVAC unit.

*Procedure complete.*

### **DISCLAIMER:**

The procedures contained herein are not exclusive. Van Hool cannot possibly know, evaluate, or advise the transportation industry of all conceivable ways in which a procedure may be undertaken or of the possible consequences of each such procedure. Other procedures may be as good, or better, depending upon the particular circumstances involved.

Each carrier who uses the procedures herein must first satisfy itself thoroughly that neither the safety of its employees or agents, nor the safety or usefulness of any products, will be jeopardized by any procedure selected.

### **SERVICE INFORMATION:**

Service Bulletins are issued to supplement or supersede information in the Van Hool manuals. Note Service Bulletin number, date and subject on the register at the end of the relevant chapter(s). File Service Bulletin separately for future reference.