

ADDRESSEES	: Owners and operators ABC Customer Care and Parts Source
VEHICLE MODEL	: C2045 units with batteries located in front of RH drive axle wheels and mounted in longitudinal direction
MANUAL CHAPTER	: 10.38 Body and accessories – Body structure
BULLETIN TYPE	: Product improvement
DATE	: October 03 rd , 2019
SUBJECT	: Introduction of reinforced battery tray understructure
TERMS & CONDITIONS	: This service bulletin does not entitle to any reimbursement.

APPLICATION:

This product improvement, subject of the bulletin, is applicable to C2045 units listed in the table below. Due to a design change during production, Van Hool has released two different reinforcement kits. Order the proper kit number for your vehicle!

Applicable kit number	VIN
11694464 (=kit A)	46292 → 46384 (Cummins) 47701 → 48067 (Detroit Diesel)
11694499 (=kit B)	46385 → 46454 (Cummins) 48068 → 48132 (Detroit Diesel)



Figure 1: Battery compartment in front of RH drive axle wheels (batteries mounted in longitudinal direction)

Continued on next page.

PARTS:

Parts of reinforcement kit A (VH11694464)		
Figure 2		
VH reference	Description	Quantity
11694393	Reinforced battery tray understructure	1
660229804	Screw M8x1.25; length 20 mm	8
11354417	Serrated conical spring washer M8	8
660200511	Cross-recessed head screw M6; length 15 mm	4
11578922	Strip	2
660229754	Screw M6x1; length 20 mm	8
660623507	Washer M6	8
11354416	Serrated conical spring washer M6	8
660209922	Nut M6	8

Parts of reinforcement kit B (VH11694499)		
Figure 3		
VH reference	Description	Quantity
11694498	Reinforced battery tray understructure	1
660229804	Screw M8x1.25; length 20 mm	4
11354417	Serrated conical spring washer M8	4
11578922	Strip	2
660229754	Screw M6x1; length 20 mm	8
660623507	Washer M6	8
11354416	Serrated conical spring washer M6	8
660209922	Nut M6	8

Continued on next page.

PREPARATION:

- Park the vehicle on a level-surfaced pit with the front wheels straight. Apply the parking brake, stop the engine, switch off all systems and turn off the battery master switch.
- Turn off the mechanical battery switch.
- Put a "DO NOT OPERATE" warning message on the instrument panel.
- **Read the entire procedure before beginning to work.**



WARNING!

Observe safe shop practices at all times.

PROCEDURE:

Step	Action
1	Open the battery compartment.
2	Remove the battery pack as explained under "STEP 2 IN DETAIL".
3	Install the reinforced battery tray understructure as explained under "STEP 3 IN DETAIL".
4	CAUTION! Always connect the positive terminal first ("+" or red plastic ring), before connecting the negative terminal. Connecting the wrong polarity will damage the electrical system. Reinstall the battery pack in reverse order of removal.

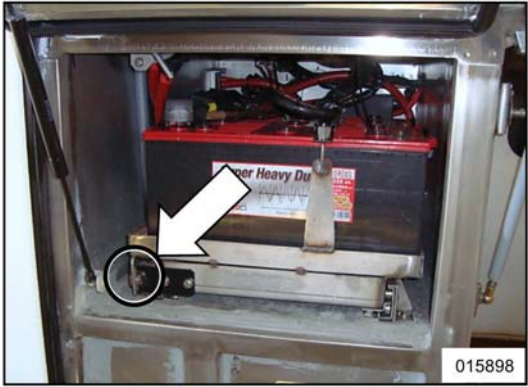
End of procedure

STEP 2 IN DETAIL: To remove battery pack



WARNING!

The weight of a single battery is 60 kg (130 lbs).

Step	Action
2.1	Unlock and slide out the battery tray drawer.  Figure 4: Battery tray drawer locking device

Continued on next page.

2.2



CAUTION!

Never remove the battery clamps while engine is running or with the battery switch closed. If you have to remove the battery clamps, always start with the negative terminal (marked with “-” or a blue or green plastic ring).

Remove nuts (1) and battery clamps (2). Take away the battery pack.

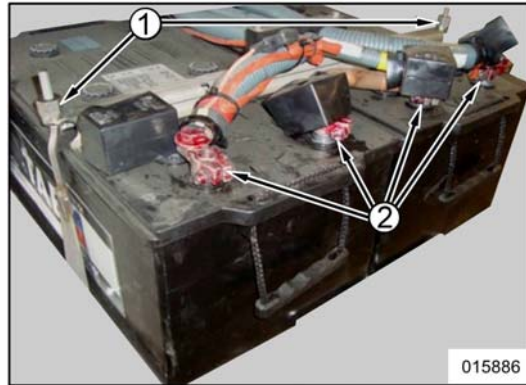
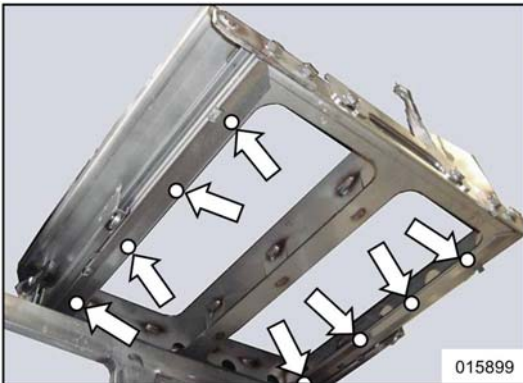
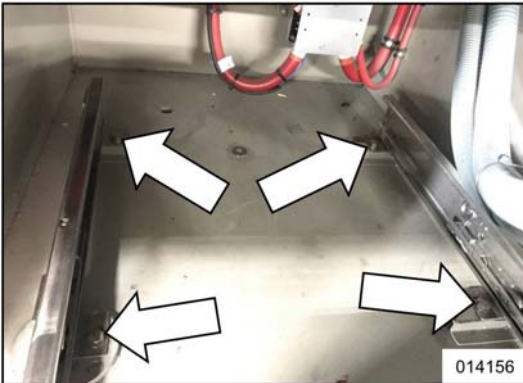
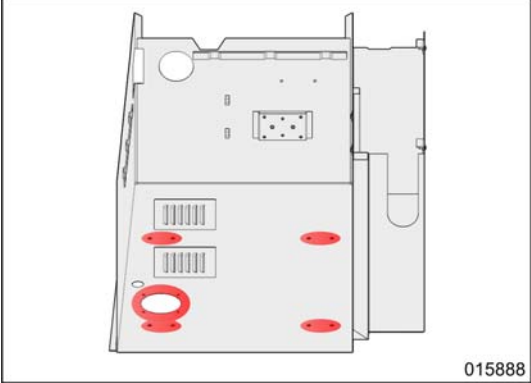
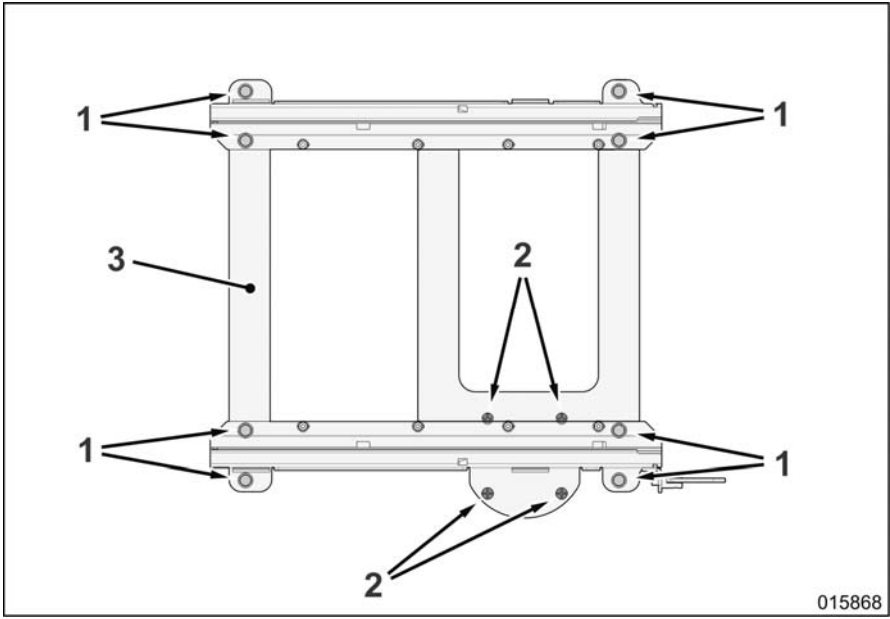


Figure 5

STEP 3 IN DETAIL: To install reinforced battery tray understructure

Step	Action
3.1	Remove the fasteners securing the drawer to the slides and put the drawer aside for re-use later. 
3.2	Remove the fasteners securing the two slides to the compartment floor and take away the two slides. Slides are not reused! 

Continued on next page.

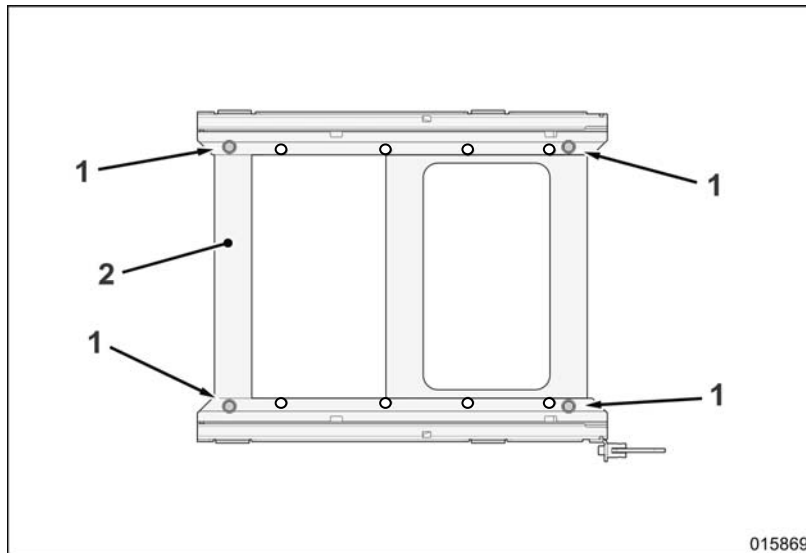
3.3	Clean the bottom of the battery compartment, check for cracks or other damage. Not to perform if drawer slides were mounted on brackets (as indicated in figure 7): treat the surfaces of the compartment floor which will contact the new reinforced battery tray understructure with battery acid resistant coating (refer to figure 8 for exact location).  Figure 8: Treat the contact surfaces with battery acid resistant coating
3.4	Only in case of reinforcement kit A, install the reinforced battery tray understructure as follows: - Position battery tray understructure 11694393 (3) from the kit in the battery compartment. - Align the battery tray understructure mounting holes with the tapped holes in the compartment floor. - Secure the battery tray understructure by using the M8 hexagon screws 660229804 together with the serrated conical spring washers 11354417 (1). Tightening torque M8 screws: 21 ± 3 Nm (15 ± 2 ft.lbf). - Additionally secure the battery tray understructure with four M6 cross-recessed head screws 660200511 (2) from the kit. Tightening torque M6 screws: 8.5 ± 1 Nm (6 ± 0.7 ft.lbf).  Figure 9

Continued on next page.

3.5

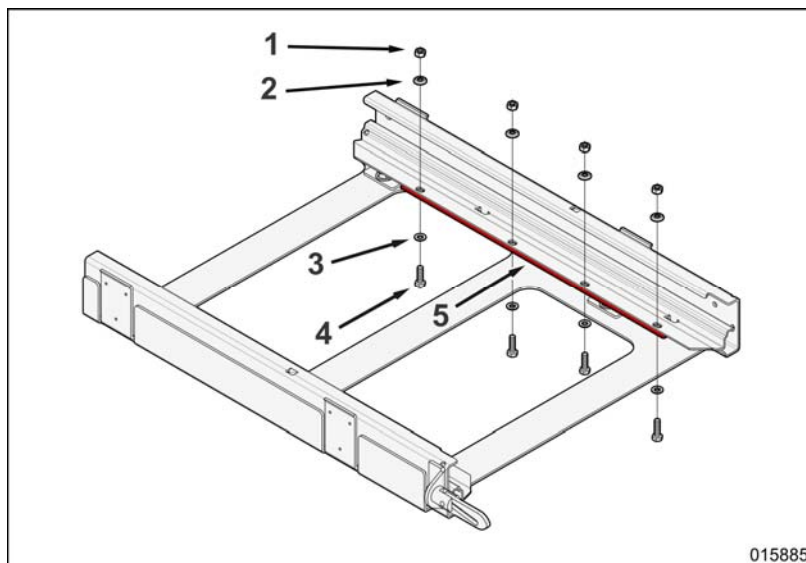
Only in case of reinforcement kit B, install the reinforced sliding battery tray as follows:

- Position battery tray understructure 11694498 (2) from the kit in the battery compartment.
- Align the battery tray understructure mounting holes with the tapped holes in the brackets of the compartment floor.
- Secure the battery tray understructure by using the M8 hexagon screws 660229804 together with the serrated conical spring washers 11354417 (1). Tightening torque M8 screws: 21 ± 3 Nm (15 ± 2 ft.lbf).

**Figure 10****3.6**

In case of reinforcement kit A and B, install the originally battery drawer as follows:

- Position the in step 3.1 removed battery tray drawer on the reinforced understructure.
- Position strip 11578922 (5) from the kit at the underside of the slide.
- Secure the drawer together with the strip by using four nuts 660209922 (1), conical spring washers 11354416 (2), washers 660623507 (3) and screws 660229754 (4) from the kit. Tightening torque: 8.5 ± 1 Nm (6 ± 0.7 ft.lbf).

**Figure 11**

Continued on next page.

HELP DESK:

If there are any questions regarding this subject, please call ABC Customer Care & Parts Source toll-free for guidance on 1-877-427-7278.

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.

INFORMATION HANDLING:

Important supplements and modifications of technical information not yet included in the manual are communicated by means of Service Bulletins.

VAN HOOL CUSTOMER PORTAL:

Consult the Van Hool customer portal for the latest service documentation. Beside the maintenance manual, you will also find the operating manual and the spare parts catalogue of your vehicle on the customer portal. The customer portal is accessible through www.vanhool.be, and only with a code (password) from Van Hool. If you do not have a password yet, request it by using the link on the Van Hool website.