SERVICE BULLETIN
SB1573A

ADDRESSEES	: ABC Customer Care and Parts Source Owners and operators of vehicles mentioned under “Application”
VEHICLE TYPE	: CX45 with Detroit Diesel DD13 EPA16 engine
CONFIGURATION GROUP	: 8.14 Climate control – Refrigerant system
BULLETIN TYPE	: Product improvement
DATE	: December 12th, 2018
SUBJECT	: **Introduction of longer refrigerant compressor discharge hose**
CONDITIONS	: This service bulletin does not entitle to any reimbursement.

APPLICATION:

As from following unit onwards, CX45 vehicles with Detroit Diesel DD13 EPA16 engine are factory fitted with a 30 mm (1.2 inch) longer discharge hose at the refrigerant compressor.

Model	VIN
CX45	81201

DESCRIPTION:

Tests have shown that the changeover to the longer length has a positive impact on the hose life. Van Hool recommends therefore the use of this longer hose as service replacement for hose 11019116 used on earlier CX45 vehicles with Detroit Diesel DD13 EPA16 engine. The procedure in this bulletin provides the necessary fitting instructions.

PARTS:

VH Reference	Description	Qty.
11619373	Refrigerant compressor discharge hose	1
11133042	O-ring	1

- Parts can be purchased through an "ABC customer Care & Parts Source Service Center”.
- Waste disposal: dispose of removed components and used products in accordance with the local environmental regulations.

PROCEDURE:

If you do not have the expertise to perform this 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 automotive HVAC technician.
- For more information on HVAC procedures refer to the maintenance manual of the vehicle.

Continued on next page.

2. Special tools, equipment or services:

All-in one A/C station

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.
- Open the engine compartment doors
- Put a “DO NOT OPERATE” tag on the steering wheel.
- **Read the entire procedure before beginning to work.**

WARNING!

Observe safe shop practices at all times.

When working in the engine compartment, turn the starter motor inhibitor switch to “starter motor disabled” for the steps, which do not require engine operation. Observe safe shop practices at all times.

4. General installation instructions:

A flexible metal hose assembly is a durable component, which minimizes vibration to be transmitted from the compressor to the piping. However, improper storage, handling, and installation can easily damage it. The flexibility in the hose is provided by thin wall tubing, much thinner than that used for straight tubing of the same nominal dimension. Storage or handling conditions, which may crush, dent, permanently deform, or damage the hose or the braid must be avoided.

Correct handling consists of:

- Do not twist or bend assemblies prior to the installation.
- Do not allow the braid to be broken, pulled out of position, or otherwise damaged.

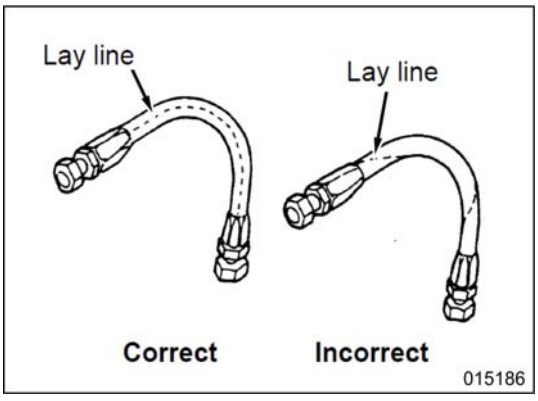


Figure 1

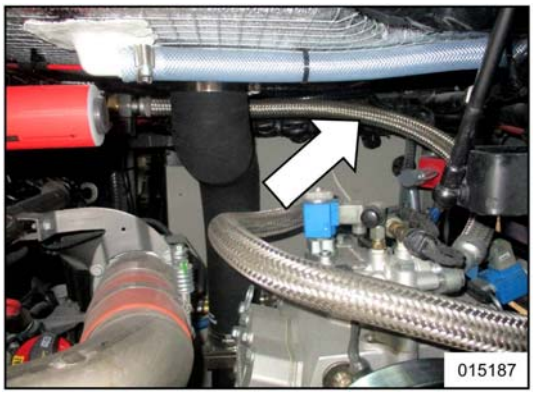
5. To remove refrigerant from compressor discharge hose

Step	Action
5.1	Connect the manifold gauge set to the compressor service valves.
5.2	Front seat the compressor suction service valve.
5.3	Start the engine and operate the compressor.

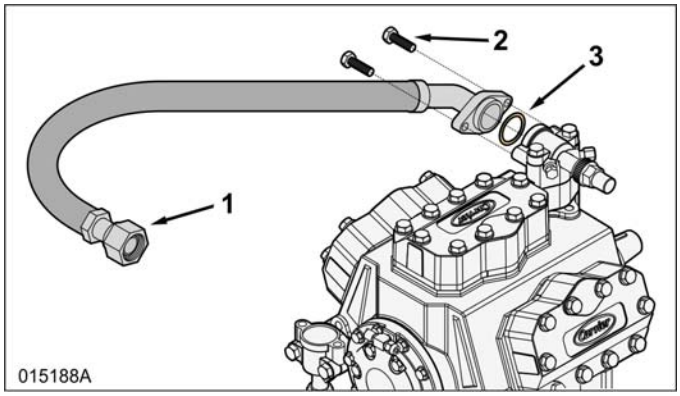
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5.4	Continue to operate the compressor, observing the pressure gauge, until the low pressure switch disengages *(31.9 psig*) the compressor clutch.
5.5	Shut-down the engine.
5.6	Front seat the compressor discharge service valve.
5.7	Connect the center hose of the manifold gauge set to a recovery station or an evacuating cylinder.
5.8	Turn the high pressure cock of the manifold gauge set counterclockwise. The refrigerant in the line between the compressor and the check valve is now evacuated to the recovery station or evacuating cylinder.
5.9	Turn the high pressure cock of the manifold gauge set clockwise to the fully closed position when the indicator on the high pressure gauge drops to 0. Refrigerant line at high pressure side can now be safely removed. **WARNING!** **The line between the check valve and liquid receiver tank is still pressurized. Before removing components from this section of the system, refrigerant must be reclaimed.**

6. To remove/install discharge refrigerant hose

Step	Action
6.1	Remove the old discharge hose.  **Figure 2**

Continued on next page.

6.2	Connect the new discharge hose as follows (refer to Figure 3): a. Secure the hose provided with O-ring 11133042 (3) to the service valve of the refrigerant compressor with screws (2). Tighten the screws only by hand at this stage. b. Secure coupling nut (1) of the hose to the vehicle piping. Ensure that the hose is not twisted during tightening of coupling nut (1) and that it does not interfere with other parts of the vehicle. c. Tighten coupling nut (1) with a suitable wrench while holding the pipe fitting on its position by a second wrench to a torque of 155-184 Nm (115-136 ft.lbf). Finally turn the coupling nut ¼ turn (90°) further. d. Tighten both screws (2) with a torque of 42 ± 6 Nm (30 ± 4 ft.lbf).  **Figure 3**

7. <u>To finalize repair:</u>

Step	Action
7.1	Evacuate the refrigerant compressor discharge hose.
7.2	Back seat the compressor suction and discharge service valves.
7.3	Check the refrigerant charge and add if necessary as indicated in the maintenance manual.
7.4	Run the system and check operation.
7.5	Check refrigerant lines for leaks. Correct as required.

End of procedure.

<u>DISCLAIMER</u>:

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.

<u>HELP DESK</u>

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

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INFORMATION HANDLING:

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

VAN HOOL CUSTOMER PORTAL:

Consult the customer portal regularly for the latest service documentation. In addition to 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.

REVISION RECORD	
Description	**Date**
Initial release	2018-11-28
Edition A: • Page 1: only CX45 Detroit Diesel DD13 EPA16 vehicles are affected	2018-12-12