SERVICE BULLETIN
SB2276

ADDRESSEES	:	Owners and operators of coaches listed under “Application” ABC Customer Care and Parts Source
VEHICLE MODEL	:	CX45 MY 2023
MANUAL SECTION	:	8.14 Climate control – refrigerant system
BULLETIN TYPE	:	**Field change campaign**
DATE	:	April 24th, 2023
SUBJECT	:	**Incorrect position of high-pressure switch and test connection on refrigerant compressor discharge service valve**
TERMS & CONDITIONS	:	Refer to the warranty section further in this Bulletin.

APPLICATION:

Model	VIN
CX45 MY2023	81819→81820, 81976 , 84001→84050

DESCRIPTION:

- Van Hool has determined that the position of the high-pressure switch and the test connection on the refrigerant compressor discharge service valve has been incorrectly placed during the assembly process. The result is that the high-pressure protection system of the refrigerant circuit is not working when the discharge valve is in its normal running position (refer to figure 3 for service valve positions).
- To address this issue, Van Hool is conducting a field change program, the terms and conditions of which are explained further on under “Warranty”.
- Owners and operators of the affected units should first check the position of the high-pressure switch and, if necessary, modify the placement.

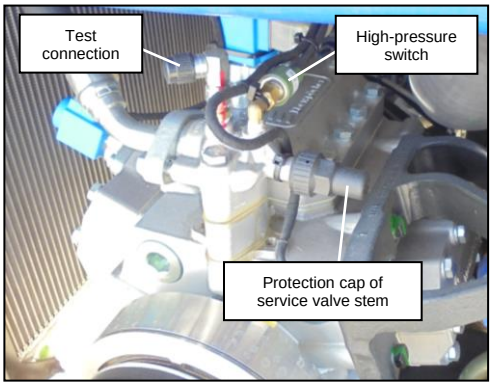

Figure 1: Incorrect position of high-pressure switch and test connection on refrigerant compressor discharge service valve

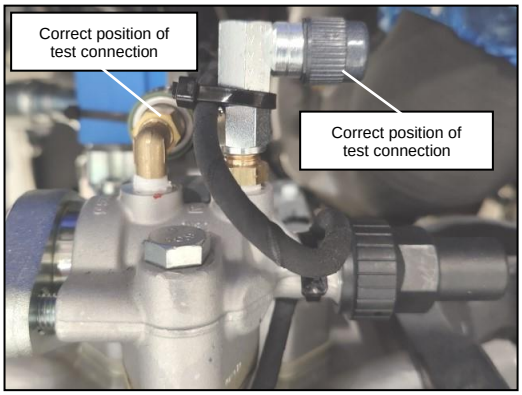

Figure 2: Correct position of high-pressure switch and test connection on refrigerant compressor discharge service valve

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SERVICE VALVE POSITIONS:

A service valve has three positions.

Number in figure 3	Position	Result
1	Valve stem rotated anti-clockwise as far as possible. This is the normal running position.	The valve is open, but the service port is isolated from the refrigerant circuit.
2	Valve stem in the mid-position. This is the test position.	The valve is open, and the service port to the refrigerant circuit is open.
3	Valve stem rotated clockwise as far as possible.	The valve is closed.

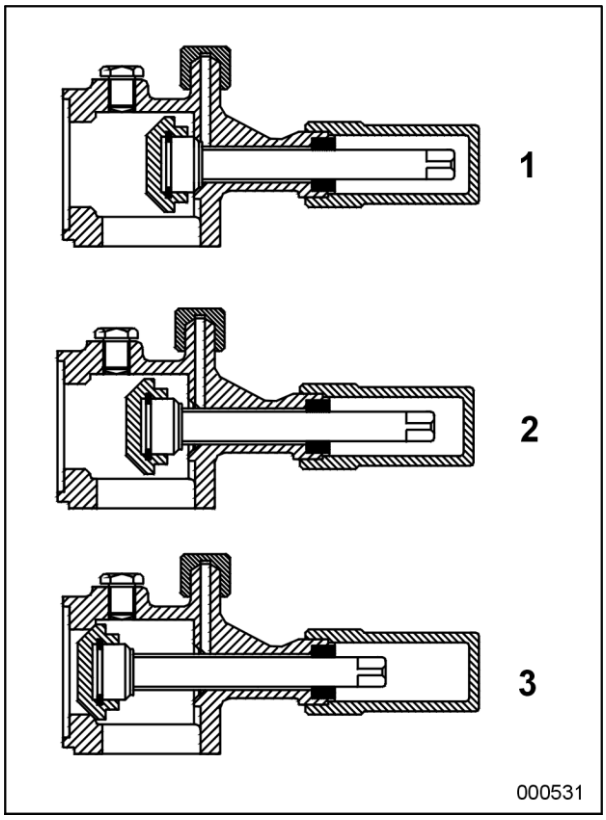

Figure 3: Service valve positions

JOB QUALIFICATION:

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.

NOTE: If you do not have the expertise to perform this procedure, do not hesitate to go to your nearest ABC Service & parts Source dealership.

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SPECIAL TOOLS, EQUIPMENT OR SERVICES:

All-in one A/C station

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!

When working in the engine compartment, check the starter motor inhibitor system before starting the steps, which do not require engine operation. Observe safe shop practices at all times.

PROCEDURE:

Step	Action
1	Check the location of the high-pressure switch on the refrigerant compressor discharge valve. Is the high-pressure switch mounted into the port closest to the protective cap of the valve stem? • If yes, go further with step 2. • If not, go immediately to step 5.
2	Evacuate the refrigerant compressor as explained in “STEP 2 IN DETAIL”.
3	Change the location of the high-pressure switch as explained in “STEP 3 IN DETAIL”
4	Finalize the repair as explained in “STEP 4 IN DETAIL”.
5	Notify ABC Companies by mail. Write the text “SB2276 executed for VIN…..” in the mail and send the mail to warranty@abc-companies.com.
6	**For ABC Companies only:** register through the registration button located behind Service bulletin SB2276 on the Van Hool customer portal. Write the text "SB2276 executed" in the field "Remark". Labor allowance will only be awarded after Van Hool has received the registration.

End of procedure

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STEP 2 IN DETAIL: To evacuate refrigerant compressor

Step	Action
2.1	Connect the manifold gauge set to the refrigerant compressor service valves.
2.2	Front seat the compressor suction service valve.
2.3	Start the engine and operate the compressor.
2.4	Continue to operate the compressor, observing the pressure gauge, until the low pressure switch disengages *(31.9 psig*) the compressor clutch.
2.5	Shut-down the engine.
2.6	Front seat the compressor discharge service valve.
2.7	Connect the center hose of the manifold gauge set to a recovery station or an evacuating cylinder.
2.8	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.
2.9	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. High pressure switch and test connection can now be safely removed.

STEP 3 IN DETAIL: To change the location of the high-pressure switch

Step	Action
3.1	Screw the fitting adapter holding the test connection assembly out of the refrigerant compressor.
3.2	Screw the elbow fitting holding the high-pressure switch assembly out of the refrigerant compressor.
3.3	Apply sealant tape VH11640236 or similar to the threads of the elbow fitting holding the high-pressure switch assembly. Screw the elbow fitting into the tapped hole located furthest away from the protection cap of the valve stem.
3.4	Apply sealant tape VH11640236 or similar to the threads of the fitting adapter holding the test connection assembly. Screw the fitting adapter into the tapped hole located the closest to the protection cap of the valve stem.

STEP 4 IN DETAIL: To finalize repair

Step	Action
4.1	Evacuate the A/C compressor discharge hose.
4.2	Back seat the compressor suction and discharge service valves.
4.3	Check the refrigerant charge and add if necessary as indicated in the maintenance manual.
4.4	Run the system and check operation.
4.5	Check connections for refrigerant leaks. Correct as required.

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WARRANTY:

1. Terms and conditions

Van Hool accepts claims for this modification as follows:

- **Parts: -**
- **Labor allowance:** 1 hour per vehicle
- **Campaign expiration date:** Service Bulletin issue date + 1 year

2. Claim references:

- **Job code**: O62276N
- **Claim submission:** Contact ABC Customer Care Warranty Department for guidance.
- **Monitoring and performance:** The claim records pertaining to this Bulletin will be used to determine that the remedy has been executed in accordance with the manufacturer's instructions and to evaluate the status of this Field Change Program.

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.