



SERVICE BULLETIN No.1158

Circulate to listed addressees

COACH MODEL	: C2045
BULLETIN TYPE	: Product Improvement
MANUAL & SECTION	: Spare Parts Manual: Section 771609 - Ventilation
PARTS BOOK REVISION	: Yes
DATE	: May 23, 2005
SUBJECT	: Fresh air flap actuating cylinder
TERMS & CONDITIONS	: No claims will be accepted with reference to this Bulletin.

APPLICATION: In production, a new actuating cylinder has been introduced on following units:

Model	Engine	VIN
C2045	Cummins	45425 → 45440, 45442 → 45500, 46001 →
	Detroit Diesel	45888, 45930 → 45953, 45955 → 45979, 45981 → 45982, 45984 → 45999, 46501 → 46515, 46521 → 46522, 46524 →

DESCRIPTION:

In the interest of extended service life, the Cosmotecnica fresh air flap actuating cylinder, with a fixed eye at the end of the shaft (see Figure 1) has been replaced by a Parker component, featuring a spherical link (see Figure 2).

Refer to the parts section and the procedure in this Bulletin for more details.

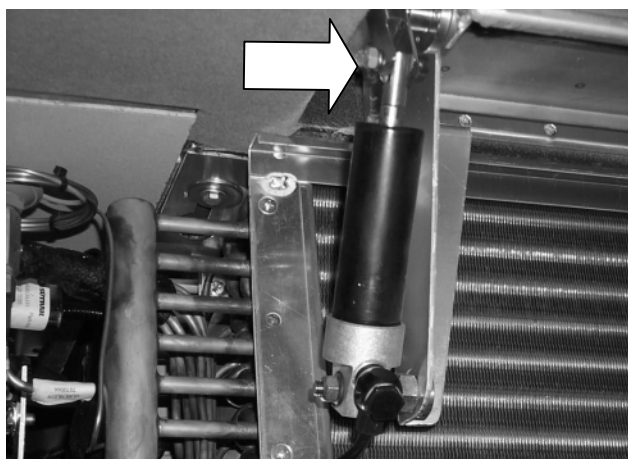


Figure 1: Fresh air flap actuating cilinder with fixed eye at the end of the shaft.

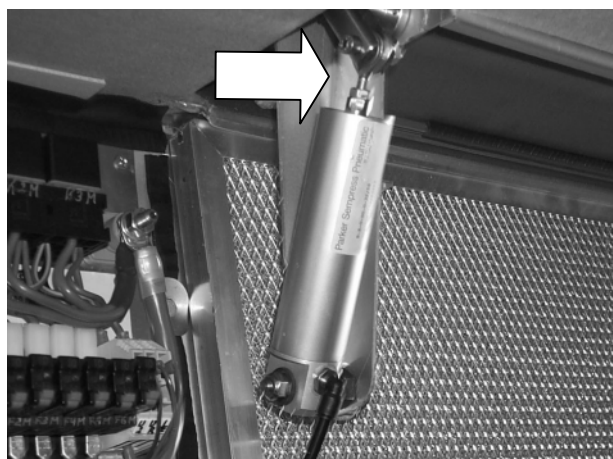


Figure 2: Fresh air flap actuating cilinder with spherical link at the end of the shaft.

Service personnel: please read, initial and circulate.

Service Manager	Parts Manager	Warranty Administrator	Workshop Foreman	Service Technician

PARTS AND PRODUCTS:

Old parts

Part No.	Description	Qty.*
VH 637213140	Air cylinder	1
VH 10599693	Eye end, shaft to yoke	1

*Quantities per fresh air flap

New parts

Part No.	Description	Qty.*
VH 10797259	Air cylinder	1
VH 10843197	Spherical link, shaft to yoke	1
VH 660209922	Jam nut, 6 mm	1

*Quantities per fresh air flap

- Old and new parts are interchangeable, but only the new will be offered for service replacement.
- New parts will be included in the next Spare Parts Manual update.
- Parts may be purchased from your nearest ABC Customer Care & Parts Source dealership.
- Parts and products disposition: discard according to applicable environmental regulations.

PROCEDURE:

1. General:

- This job should be executed by a technician experienced in air system service.

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 remove and reinstall the fresh air flap actuating cylinder:

Job time estimate: 0.5 hours

***NOTE:** Before replacing an actuating cylinder that is leaking air, check the cylinder installation first. It is absolutely necessary that the cylinder shaft operates in the same plane as the yoke which operates the fresh air flap. Any side loads on the shaft can cause damage to the cylinder, resulting in air leakage. Correct installation as necessary.*

Removal and reinstallation of the fresh air flap actuating cylinder are straightforward. A few recommendations must be adhered to in order to ensure trouble-free operation.

- 1) In the coach, unlock and remove the evaporator door to gain access to the affected cylinder. Disconnect the door's check straps and put the door out of the way.
- 2) Locate the faulty cylinder (see Figure 1).
- 3) At the bottom of the cylinder, undo and remove the hollow bolt securing the banjo fitting and air line to the cylinder body.
- 4) At the yoke, which connects the cylinder shaft end to the flap, undo and remove the Allen bolt and nut.
- 5) At the bottom of the cylinder, undo and remove the nut securing the cylinder body to the flap frame mounted pivot.
- 6) Withdraw the cylinder.
- 7) Manually check the operation of the fresh air flap. The flap should rotate freely without undue resistance. If there is any binding present, look for the cause and correct as necessary.
- 8) To install spherical link VH 10843197 proceed as follows:
 Put the old and the new cylinder next to one another, lining up the bottom cylinder holes. Use a bolt or rod of suitable length to keep them in line.
 Run jam nut VH 660209922 up the threaded end of spherical link VH 10843197.
 Install link and jam nut onto the shaft of the new cylinder so that the link hole lines up with the hole in the eye end of the old cylinder.
 The distance between bottom and top holes should be identical for both cylinders.
 Secure the spherical link with the jam nut.
- 9) Check that the cylinder pivot sits squarely in its mounting bracket (see Figure 3). Correct as necessary.

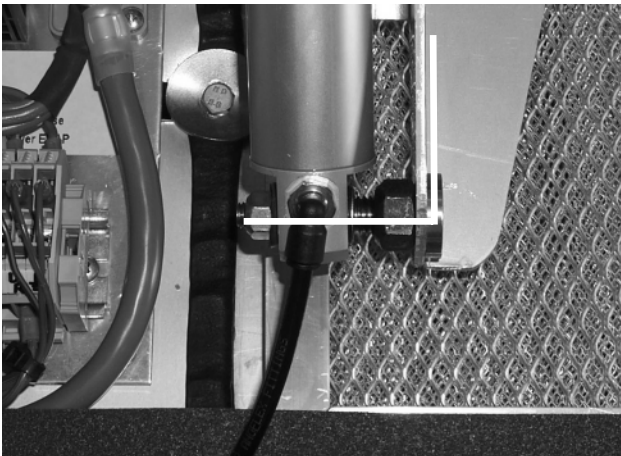
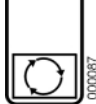


Figure 3: Actuating cylinder pivot installed squarely in the mounting bracket and cylinder in line with the fresh air flap yoke

- 10) With the shaft end bearing installed, slide the bottom end of the new cylinder over the pivot.
- 11) Slip the spherical link between the yoke and secure with the Allen bolt and nut.
- 12) With the self-locking nut, secure the cylinder onto the lower pivot.
- 13) Install the banjo, air line and hollow bolt into the threaded hole at the bottom of the cylinder. Use new washers if required.
- 14) Check the actuating cylinder operation as follows:

- Turn the master switch 'on'.
- Switch the HVAC system 'on'.
- Operate the fresh air flaps using the air flap control switch  on the dashboard.

15) Reinstall the evaporator access door.

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.