



SERVICE BULLETIN No.1152

Circulate to listed addresses

COACH MODEL	: C2045
BULLETIN TYPE	: Safety Recall Program – NHTSA Campaign number 04V-423
MANUAL & SECTION	: N//A
DATE	: December 3, 2004
SUBJECT	: Air tank retention
TERMS & CONDITIONS	: Refer to the Warranty Information in this Bulletin.

APPLICATION:

The field campaign subject of this Bulletin is applicable to following units:

Model	Engine	VIN
C2045	Cummins	45001 → 45361
	Detroit Diesel	45501 → 45816

DESCRIPTION:

1. On the above-mentioned coaches, it is necessary to check the air tank retention and to install additional support brackets to ensure that the air tanks listed hereafter remain properly secured to the chassis.

Tank	Location	Refer to
#1 Auxiliary	Above drive axle	1, Figure 7 (page 5 of 10)
#2 Drive axle service brake	Above drive axle	2, Figure 7 (page 5 of 10)
#3 Tag axle brake	Above tag axle	3, Figure 7 (page 5 of 10)

2. This Service Bulletin offers a bolt-on solution to address the issue. Refer to the parts list and the procedure, which provide the information required to complete the repair.

Service personnel: please read, initial and circulate.

Service Manager	Parts Manager	Warranty Administrator	Workshop Foreman	Service Technician

Figure 1a: Air tank bolt-on assembly – drive axle area

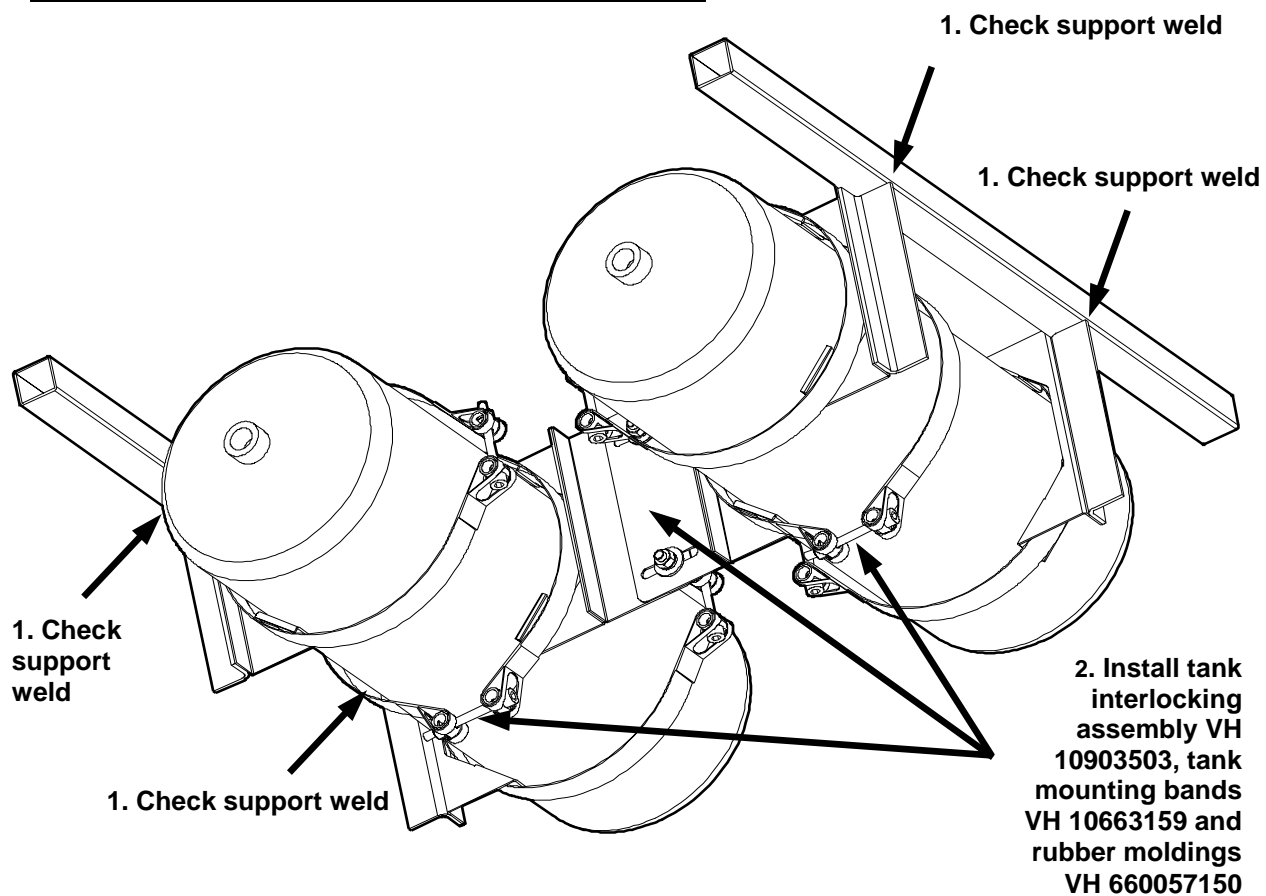
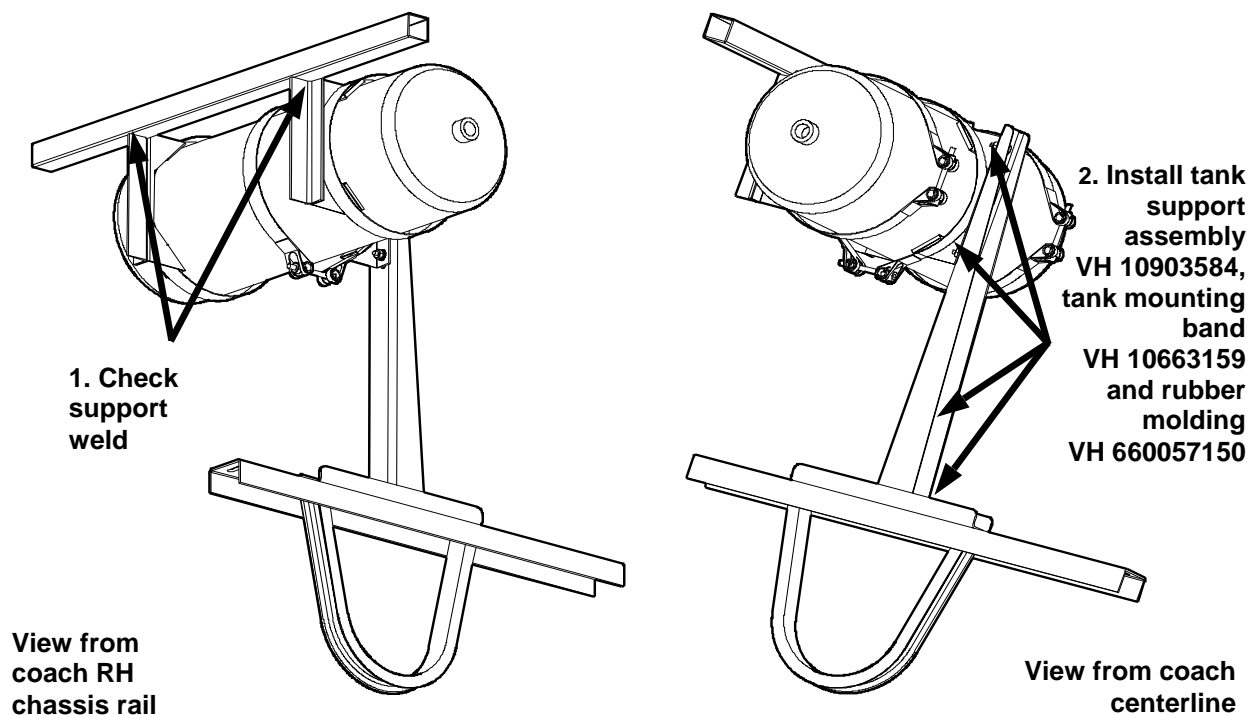


Figure 1b: Air tank bolt-on assembly – tag axle area



PARTS AND PRODUCTS:

Bolt-on repair assemblies – order as kit VH 10907587 (see Figures 1, 2 and 3):

Part No.	Description	Application	Qty.
VH 10903503	Interlocking assy, auxiliary and service brake tanks	Drive axle	1
VH 10663159	Band, tank mtg	Drive & tag axle	3
VH 660057150	Molding, rubber	Drive & tag axle	3 x 2.2 ft
VH 10903584	Tank support assy, service brake	Tag axle	1
VH 660229912	Bolt, M10 x 30, to secure propeller shaft safety guard	Tag axle	2
VH 600209924	Nut, M10, self-locking, for VH 660229912	Tag axle	2

- Parts will be supplied free of charge (see Warranty Section).
- Parts and products disposition: discard according to applicable environmental regulations.



Figure 2: Tank interlocking assembly VH 10903503 for auxiliary and drive axle service brake tanks

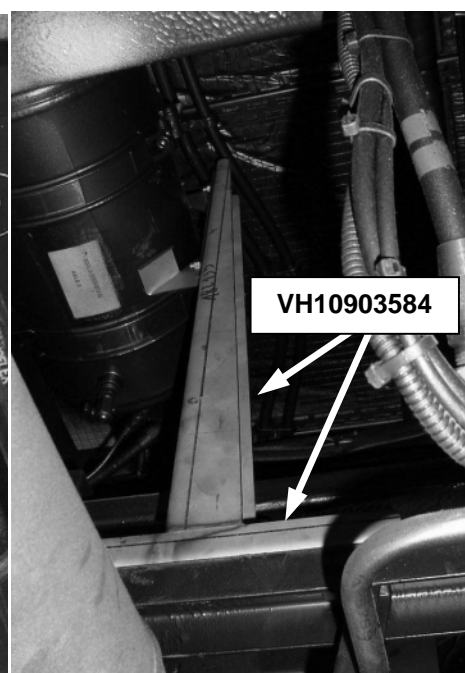


Figure 3: Tank support assembly VH 10903584 for tag axle brake tank

PROCEDURE:

- If you do not have the expertise to perform the procedures below, or if one or more of the factory-installed air tank support brackets are broken, contact your nearest ABC Customer Care & Parts Source dealership for assistance.

1. General:

- This job should be executed by a technician experienced in chassis repair.
- For more information refer to the C2045 Maintenance Manual.

2. Special tools, equipment or services:

- No special tools, equipment or services are required.

3. Preparations:

- Park the coach on a level-surfaced service pit 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.
- Chock the road wheels.
- Read the entire procedure before beginning to work.

CAUTION: Observe safe shop practices at all times.

4. To remove the safety guards and to disconnect the propeller shaft:

Time estimate for jobs 4, 5 and 6: refer to the Warranty Information in this Bulletin

- 1) Working underneath the coach, undo and remove the nuts and bolts securing the fore most and rear most propeller shaft safety guards to the chassis (see Figure 4). Remove the safety guards.

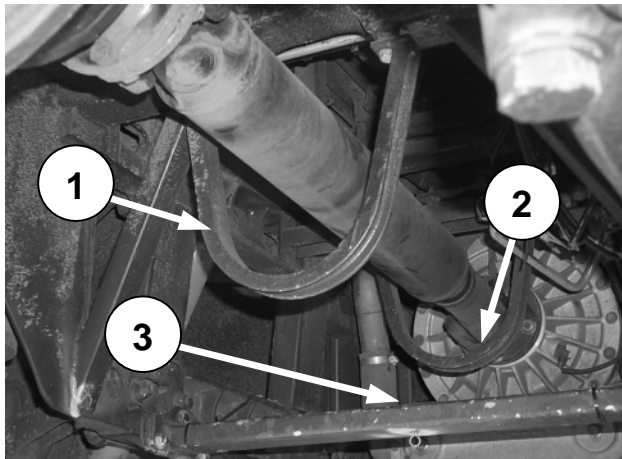


Figure 4:

1. Fore most propeller shaft safety guard.
2. Rear most propeller shaft safety guard.
3. Chassis lower cross member

- 2) Undo and remove the nuts and bolts securing the upper cross member, which is located above the propeller shaft slip yoke (see Figure 5). Remove the cross member.

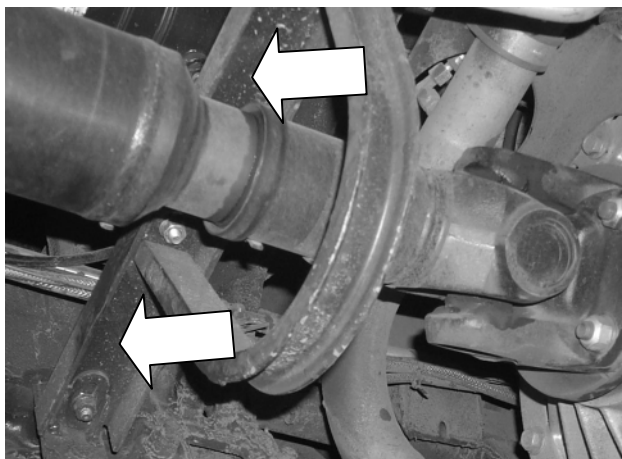


Figure 5: Chassis upper cross member

CAUTION: The propeller shaft has a considerable weight. To avoid personal injury and/or damage to the vehicle or component, work with an assistant to handle it.

- 3) Undo and remove the nuts and bolts securing the propeller shaft to the transmission flange (see Figure 6).
Lower the propeller shaft onto the chassis cross member indicated in 3, Figure 4.
Push the propeller shaft to one side.
Take care not to separate the slip yoke from the splined stub shaft.

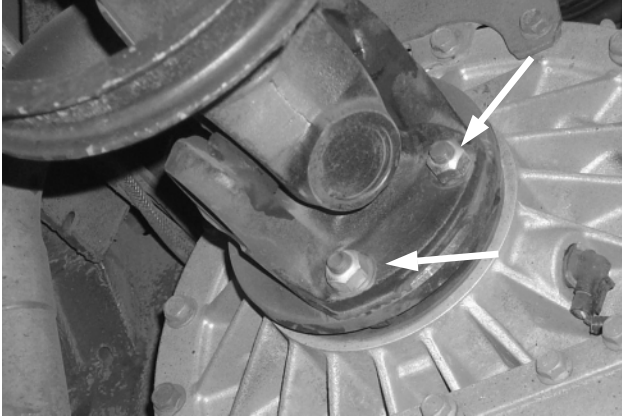


Figure 6: Propeller shaft mounting bolts (2 of 4 shown)

- 4) Locate the affected air tanks (see 1, 2 and 3, Figure 7, Figure 8 and Figure 9).

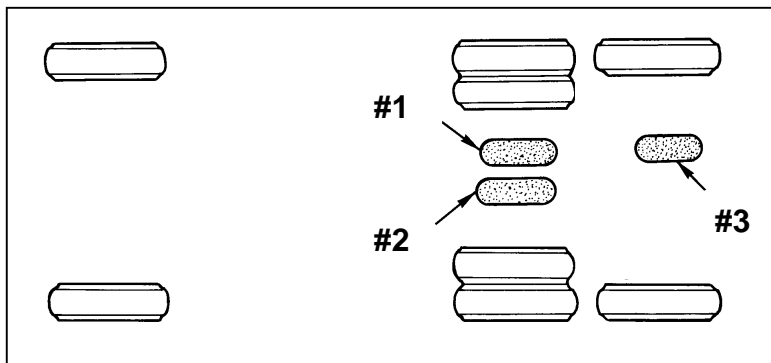


Figure 7: Air tank location

1. Auxiliaries
2. Drive axle service brakes
3. Tag axle brakes



Figure 8: Air tanks #1 and #2



Figure 9: Air tank #3

5. To check the air tank retention:

- 1) Using a flashlight, inspect the area where the air tank support brackets have been welded to the chassis rails (see Figures 1a and 10).

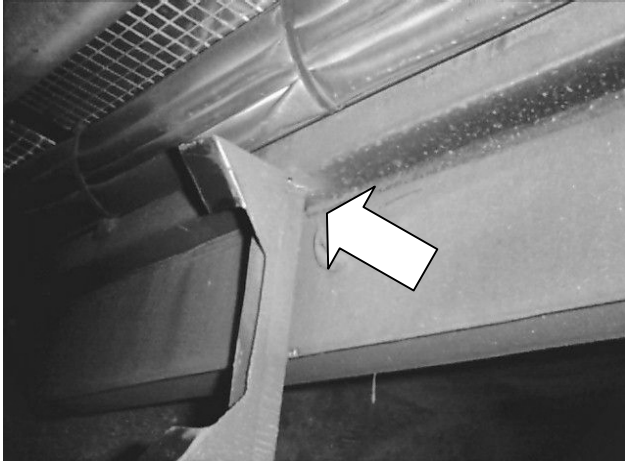


Figure 10: Air tank support bracket weld area

- 2) Slipping a prybar between the air tanks and the chassis, exert moderate lateral pressure on air tanks #1, #2 and #3.

If the tanks remain firmly attached, and no damage can be established, proceed with:

Section "6. Air tanks 1# and #2 - To install additional interlocking assembly VH 10903503" and Section "7. Air tank #3 - To install support assembly VH 10903584".

NOTE: If there is any damage to the brackets and/or to the chassis rails in the support bracket area (cuts, tears, cracks), contact your nearest ABC Customer Care & Parts Source dealership for assistance.

6. Air tanks 1# and #2 - To install additional interlocking assembly VH 10903503

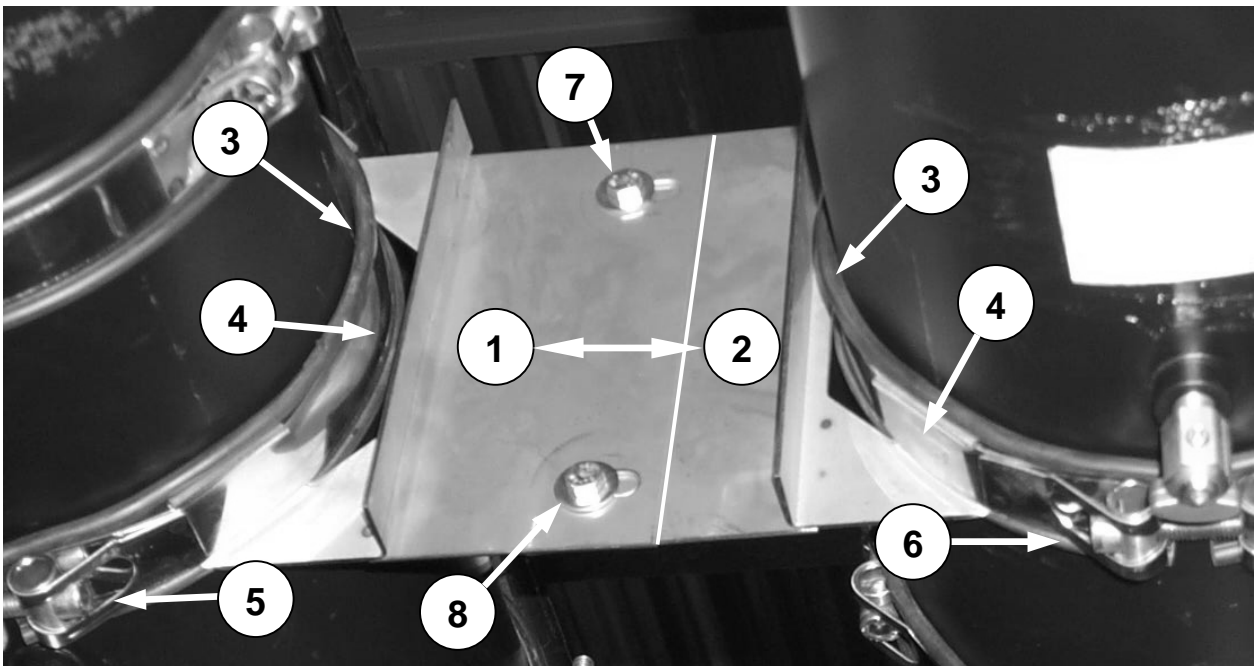


Figure 11: Air tank interlocking assembly installation

- 1) Assemble the interlocking assembly halves and the accompanying fasteners for a loose fit.
- 2) Install the interlocking assembly between both air tanks (1 and 2, Figure 11).
- 3) Using two tank mounting bands and rubber moldings (3 and 4 Figure 11), secure each one of the interlocking assembly halves to tank #1 and tank #2 respectively. Secure the bands hand tight with the Allen bolts (5 and 6, Figure 11). Figure 12 shows one half of the assembly.
- 4) Tighten interlocking assembly bolts (7 and 8, Figure 11) to a torque of 15 ft.lbf (20 Nm).

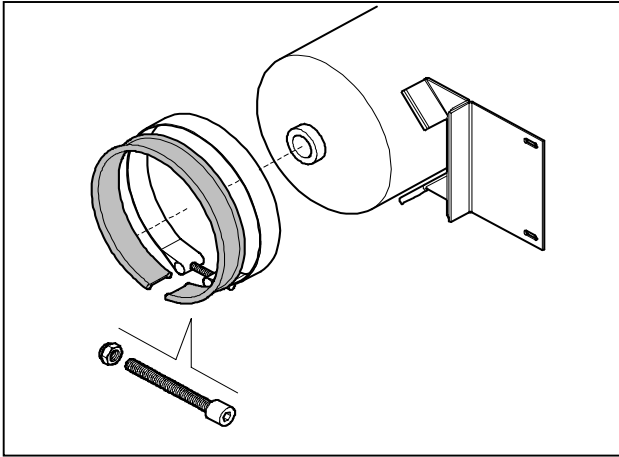


Figure 12: Tank interlocking assembly (one half shown)

7. Air tank #3 - To install support assembly VH 10903584 (see Figure 13):



Figure 13: Dry-build showing the installation of the tag axle tank support assembly, the upper cross member, the propeller shaft and the propeller shaft safety guard

- 1) Assemble the tag axle tank support assembly and the upper cross member without the propeller shaft for a loose fit.
- 2) Using a tank mounting band and a rubber molding, attach the support assembly to the tank, half way between the mounting bands already installed. Do not tighten the Allen bolt yet.

- 3) Move the tank mounting band fore/aft until the bolt holes of the cross member line up with those in the chassis mounting brackets.
Install the crossmember to chassis bolts.
- 4) Secure the tank mounting band hand tight with the Allen bolt.
Tighten the tank mounting bracket to the tank support assembly bolts.
Tightening torque of the bolts: 15 ft.lbf (20 Nm).
- 5) Secure the upper cross member to the chassis.
Tightening torque of the bolts: 30 ft.lbf (42 Nm).

8. To reinstall the propeller shaft and safety guards.

- 1) Reinstall the propeller shaft. Tightening torque for the transmission to propeller shaft mounting bolts: 150 ft.lbf (200 Nm).
- 2) Reinstall the propeller shaft safety guards.
Connect the rear most safety guard to the upper cross member and the tag axle air tank support assembly using longer bolts VH 660229912.
Tightening torque of the bolts: 30 ft.lbf (42 Nm).

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.

WARRANTY INFORMATION:

1. Claim references:

- Causal part: VH 10907587 (bolt-on)
- Job code: G 10144H

2. Terms and conditions:

NOTE: Owners are required to certify on the **OWNER'S CERTIFICATION LETTER** attached to this Bulletin that the recall remedy has been executed in accordance with the manufacturer's instructions.

Van Hool will accept warranty claims for this repair as follows:

Parts:

- Supply: parts will be supplied free of charge through the ABC Customer Care & Parts Source dealer network.
- Disposition: discard parts according to applicable environmental regulations.

Labor allocation: 1.5 (one and a half) hours labor will be awarded per coach repaired.

Campaign expiration date: Service Bulletin issue date + 1 year

Claim submission: Contact ABC Customer Care & Parts Source for guidance.

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