



# SERVICE BULLETIN

SB1373

<b>ADDRESSEES</b>	: ABC Customer Care and Parts Source Owners and operators of coaches listed under 'Application'
<b>VEHICLE MODEL</b>	: TD925US, TDX25US
<b>MANUAL SECTION</b>	: Chapter 3.6: Air suspension
<b>BULLETIN TYPE</b>	: Product Improvement
<b>DATE</b>	: September 21th, 2016
<b>SUBJECT</b>	: <b>To raise suspension height and to improve vehicle stability</b>
<b>TERMS &amp; CONDITIONS</b>	: -

## **APPLICATION:**

<b>Model</b>	<b>VIN</b>
TD925US	42780, 42846→42888 42890→42891
TDX25US	42801→42820 42892→42918

## **DESCRIPTION:**

Van Hool NV has carried through a product change on vehicles equipped with an electronically controlled air suspension (ELC), raising the suspension height when the air suspension is in "raised" position and improving the vehicle stability when taking curves. The new arrangement consists of:

- new parameters for the electronically controlled air suspension (ELC);
- a restriction, consisting of a thinner flexible compressed-air line, between the valve blocks of the electronically controlled air suspension (ELC) and the air bellows of the air suspension.

This Service Bulletin gives step-by-step instructions to convert the valve blocks and to load the parameters. Conversion kit 11525534 contains all the parts necessary to this end.

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## **CONVERSION KIT VH11525534**

<b>VH Reference</b>	<b>Description</b>	<b>Qty.</b>
11301120	Straight-fitting housing	8
11301067	Plug-in fitting	16
11318584-0100	Flexible compressed-air line black; 6 mm dia.; length 100 mm (4 inch)	8

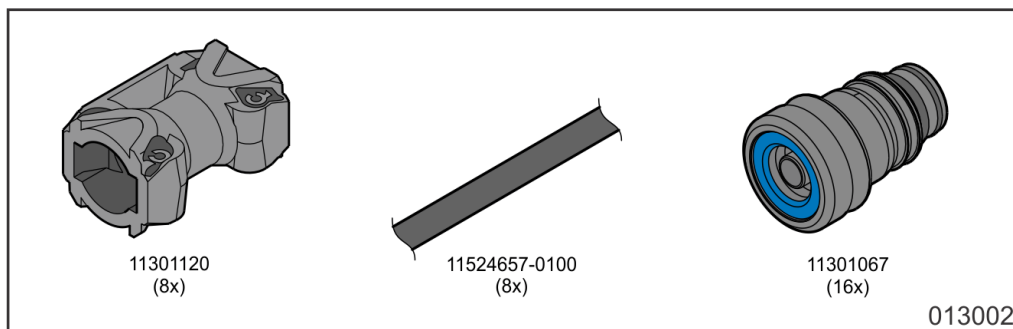


Figure 1: Van Hool kit 11525534

### **PREPARATIONS:**

- Park the vehicle on a level-surfaced inspection pit with the front wheels straight. Apply the parking brake, stop the engine, switch off all systems and turn off the battery master switch on the dashboard.  
When using portable post lifts (always use 6 post lifts) instead of an inspection pit, always lower the suspension first.
- Turn off the mechanical battery switch.
- Put a “DO NOT OPERATE” tag on the instrument panel before beginning any inspection or performing any repair.
- Place chocks in front of and behind the drive axle wheels.
- Switch off the electronically controlled air suspension (ELC) before carry out works at components located underneath the vehicle or before working in the wheel housing. Follow the instructions under “Safety switch to prevent vehicle ignition from being switched on” in chapter 1.1 of the maintenance manual
- Read the entire procedure before beginning to work.



### **WARNING!**

Observe safe shop practices at all times.



### **WARNING!**

If the ELC system is not switched off, dangerous situations can appear due to “unexpected” movements of the body and you risk damaging the vehicle.

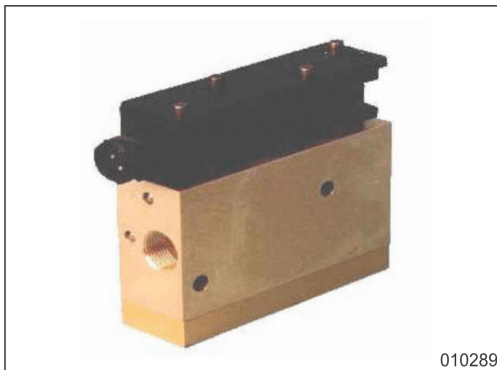
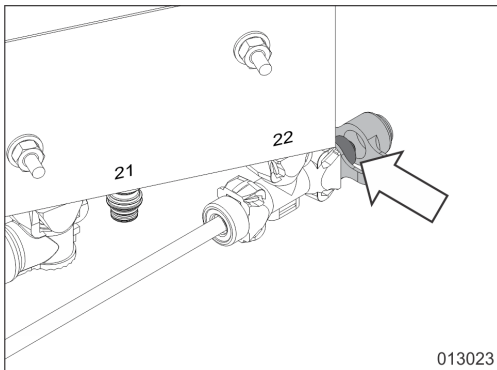
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## **PROCEDURE:**

<b>Step</b>	<b>Action</b>
<b>1</b>	Ensure chocks are placed in front of and behind the drive axle wheels.
<b>2</b>	Discharge all the air from the air suspension system. Refer to "STEP 2 IN DETAIL: To discharge air from air suspension system" further in this Service Bulletin.
<b>3</b>	Convert the front-axle valve block. Refer to "STEP 3 IN DETAIL: To convert front-axle valve block" further in this Service Bulletin.
<b>4</b>	Convert the drive-axle valve block. Refer to "STEP 4 IN DETAIL: To convert drive-axle valve block" further in this Service Bulletin.
<b>5</b>	Convert the trailing-axle valve block. Refer to "STEP 5 IN DETAIL: To convert trailing-axle valve block" further in this service bulletin.
<b>6</b>	Load the new parameters in the control unit of the electronically controlled air suspension (ELC). Refer to "STEP 6 IN DETAIL: To load parameters" further in this service bulletin.
<b>7</b>	Close the drain valve of the accessories tank.
<b>8</b>	Adjust the air-spring height. Refer to chapter 3.6 of your maintenance manual for instructions.

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## **STEP 2 IN DETAIL: To discharge air from air suspension system**

<b>Step</b>	<b>Action</b>
<b>2.1</b>	Open the drain valve of the accessories air tank.
<b>2.2</b>	Locate the front-axle valve block (see figure). The valve block is located under the vehicle at the left-hand side at very front. <div data-bbox="555 371 1054 739" data-label="Image"></div> <div data-bbox="986 712 1054 734" data-label="Text">010289</div> <div data-bbox="1069 694 1177 725" data-label="Caption"><b>Figure 2</b></div>
<b>2.3</b>	Discharge all the air from the left air bellows of the front axle suspension, with the help of the test fitting at port “22” of the valve block (see figure). <div data-bbox="555 846 1054 1214" data-label="Image"></div> <div data-bbox="986 1187 1054 1209" data-label="Text">013023</div> <div data-bbox="1082 1169 1187 1200" data-label="Caption"><b>Figure 3</b></div>
<b>2.4</b>	Repeat step 2.3 for the right air bellows of the front axle suspension, with the help of the test fitting at port “21”.

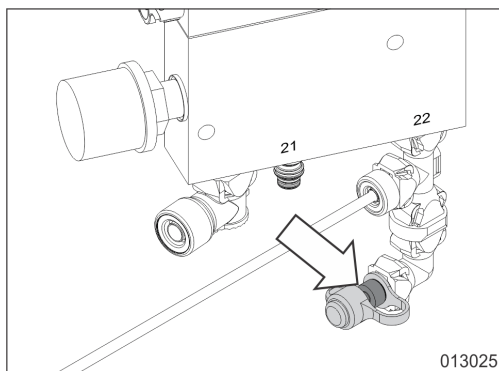
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<p><b>2.5</b></p>	<p>Locate the drive-axle valve block (see figure). The valve block is located:</p> <ul style="list-style-type: none"> <li>• under a floor trap in the luggage compartment (TD925US) or...</li> <li>• under the vehicle, near the drive axle suspension (TDX25US).</li> </ul> <div data-bbox="557 277 1059 642" data-label="Image"> </div> <p style="text-align: right;">010292</p> <p style="text-align: right;"><b>Figure 4</b></p>
<p><b>2.6</b></p>	<p>Discharge all the air from the right air bellows of the drive axle suspension, with the help of the test fitting at port “23” of the valve block (see figure).</p> <div data-bbox="557 739 1059 1106" data-label="Image"> </div> <p style="text-align: right;">013024</p> <p style="text-align: right;"><b>Figure 5</b></p>
<p><b>2.7</b></p>	<p>Repeat step 2.6 for the left air bellows of the drive axle suspension, with the help of the test fitting at port “22”.</p>
<p><b>2.8</b></p>	<p>Locate the trailing-axle valve block (see figure). The valve block is located:</p> <ul style="list-style-type: none"> <li>• under a floor trap in the luggage compartment (TD925US) or</li> <li>• under the vehicle, near the trailing axle suspension (TDX25US).</li> </ul> <div data-bbox="557 1323 1059 1688" data-label="Image"> </div> <p style="text-align: right;">010289</p> <p style="text-align: right;"><b>Figure 6</b></p>

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**2.9**

Discharge all the air from the left air bellows of the trailing axle suspension, with the help of the test fitting at port “22” of the valve block (see figure).



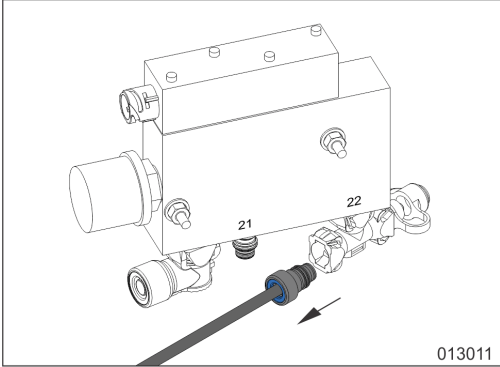
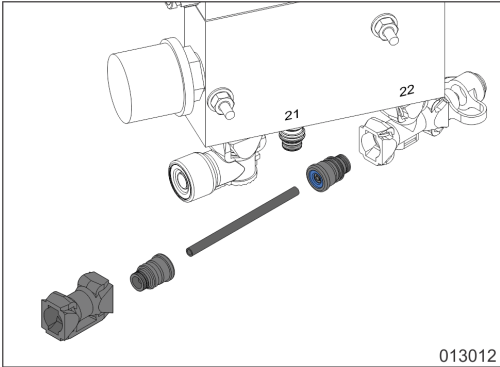
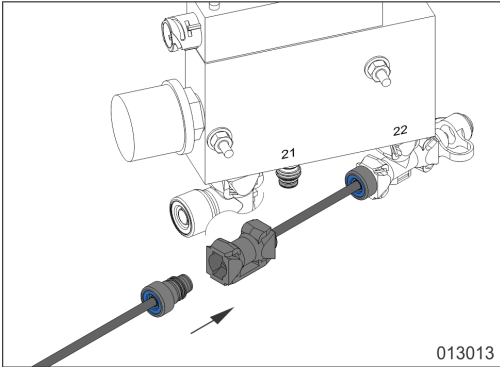
**Figure 7**

**2.10**

Repeat step 2.9 for the right air bellows of the trailing axle suspension, with the help of the test fitting at port “21”.

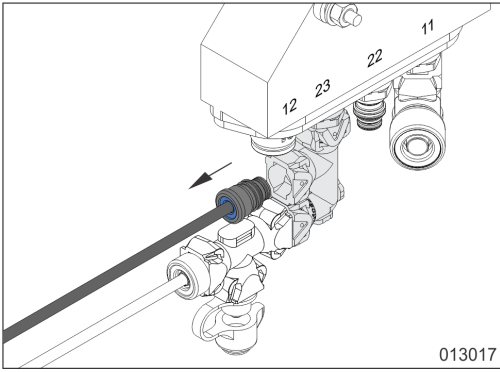
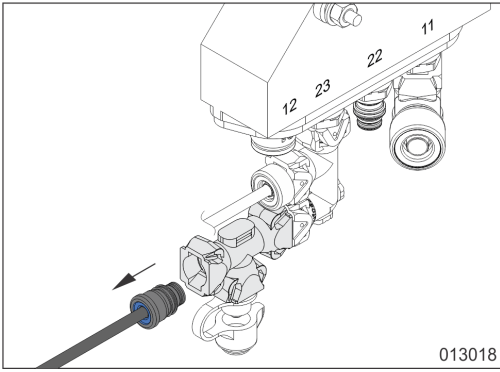
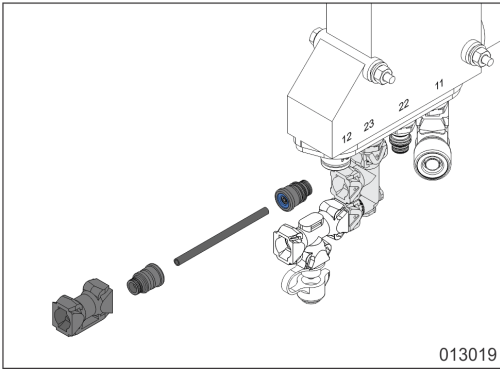
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### **STEP 3 IN DETAIL: To convert front-axle valve block**

Step	Action
3.1	<p>Disconnect the plug-in fitting from the T-fitting housing at port "22" of the valve block (see figure).</p>  <p style="text-align: right;"><b>Figure 8</b></p>
3.2	<p>Repeat step 3.1 for the plug-in fitting of the T-fitting housing at port "21" of the valve block.</p>
3.3	<p>Fit plug-in fittings 11301067(2x), flexible compressed-air line 11524657-0100 and straight-fitting housing 11301120 from the kit to the T-fitting housing at port "22" of the valve block (see figure).</p>  <p style="text-align: right;"><b>Figure 9</b></p>
3.4	<p>Repeat step 3.3 for the T-fitting housing at port "21" of the valve block.</p>
3.5	<p>Fit the plug-in fitting, that you have disconnected in step 3.1, to the straight-fitting housing at port "22" of the valve block.</p>  <p style="text-align: right;"><b>Figure 10</b></p>
3.6	<p>Fit the plug-in fitting, that you have disconnected in step 3.2, to the straight-fitting housing at port "21" of the valve block.</p>

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## **STEP 4 IN DETAIL: To convert drive-axle valve block**

Step	Action
4.1	<p>Disconnect the plug-in fitting from the F-fitting housing at port “23” of the valve block (see figure).</p>  <p style="text-align: right;"><b>Figure 11</b></p>
4.2	<p>Disconnect the plug-in fitting from the T-fitting housing at port “23” of the valve block (see figure).</p>  <p style="text-align: right;"><b>Figure 12</b></p>
4.3	<p>Repeat step 4.1 for the plug-in fitting of the F-fitting housing at port “22” of the valve block.</p>
4.4	<p>Repeat step 4.2 for the plug-in fitting of the T-fitting housing at port “22” of the valve block.</p>
4.5	<p>Fit plug-in fittings 11301067(2x), flexible compressed-air line 11524657-0100 and straight-fitting housing 11301120 from the kit to the F-fitting housing at port “23” of the valve block (see figure).</p>  <p style="text-align: right;"><b>Figure 13</b></p>

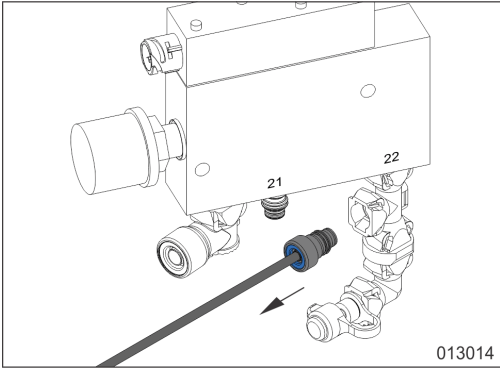
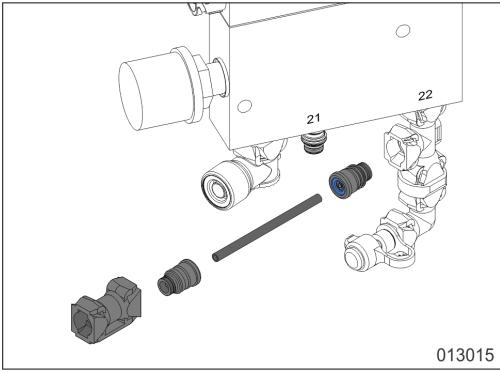
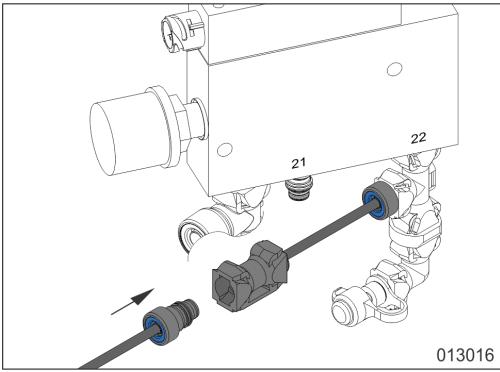
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<p><b>4.6</b></p>	<p>Fit plug-in fittings 11301067(2x), flexible compressed-air line 11524657-0100 and straight-fitting housing 11301120 from the kit to the T-fitting housing at port “23” of the valve block (see figure).</p> <div data-bbox="555 297 1058 667" data-label="Image"> </div> <p style="text-align: right;"><b>Figure 14</b></p>
<p><b>4.7</b></p>	<p>Repeat step 4.5 for the F-fitting housing at port “22” of the valve block.</p>
<p><b>4.8</b></p>	<p>Repeat step 4.6 for the T-fitting housing at port “22” of the valve block.</p>
<p><b>4.9</b></p>	<p>Fit the plug-in fitting, that you have disconnected in step 4.1, to the straight-fitting housing, connected to the F-fitting housing at port “23”.</p> <div data-bbox="555 842 1058 1211" data-label="Image"> </div> <p style="text-align: right;"><b>Figure 15</b></p>
<p><b>4.10</b></p>	<p>Fit the plug-in fitting, that you have disconnected in step 4.2, to the straight-fitting housing, connected to the T-fitting housing at port “23”.</p> <div data-bbox="555 1317 1058 1686" data-label="Image"> </div> <p style="text-align: right;"><b>Figure 16</b></p>
<p><b>4.11</b></p>	<p>Fit the plug-in fitting, that you have disconnected in step 4.3, to the straight-fitting housing, connected to the F-fitting housing at port “22” of the valve block.</p>
<p><b>4.12</b></p>	<p>Fit the plug-in fitting, that you have disconnected in step 4.4, to the straight-fitting housing, connected to the T-fitting housing at port “22” of the valve block.</p>

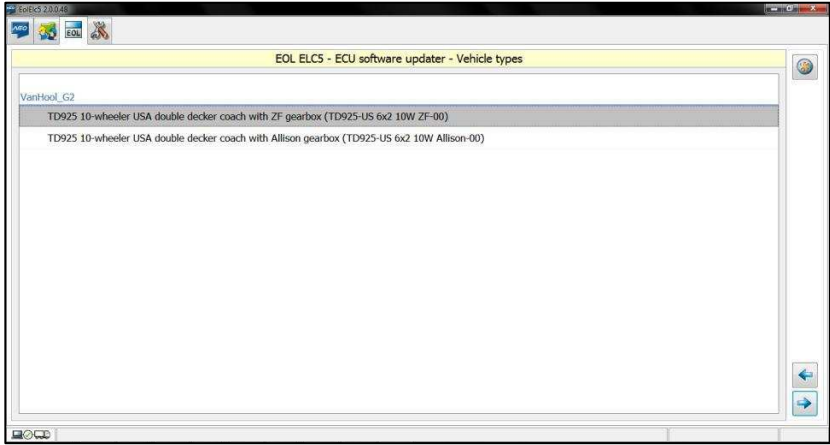
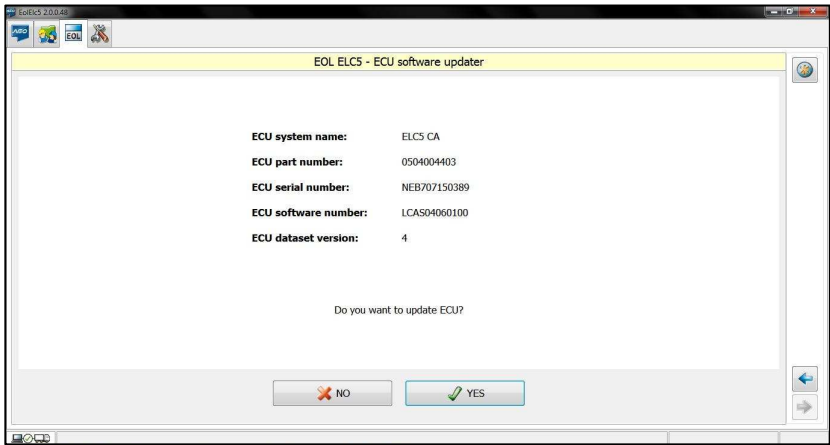
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## **STEP 5 IN DETAIL: To convert trailing-axle valve block**

Step	Action
5.1	<p>Disconnect the plug-in fitting from the T-fitting housing at port "22" of the valve block (see figure).</p>  <p style="text-align: right;"><b>Figure 17</b></p>
5.2	<p>Repeat step 5.1 for the plug-in fitting from the T-fitting housing at port "21" of the valve block.</p>
5.3	<p>Fit plug-in fittings 11301067(2x), flexible compressed-air line 11524657-0100 and straight-fitting housing 11301120 from the kit to the T-fitting housing at port "22" of the valve block (see figure).</p>  <p style="text-align: right;"><b>Figure 18</b></p>
5.4	<p>Repeat step 5.3 for the T-fitting housing at port "21" of the valve block.</p>
5.5	<p>Fit the plug-in fitting, that you have disconnected in step 5.1, to the straight-fitting housing at port "22" of the valve block</p>  <p style="text-align: right;"><b>Figure 19</b></p>
5.6	<p>Fit the plug-in fitting, that you have disconnected in step 5.2, to the straight-fitting housing at port "21" of the valve block.</p>

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## **STEP 6 IN DETAIL: To load new parameters**

<b>Step</b>	<b>Action</b>
<b>6.1</b>	Install the “DATASET INSTALLER” software on your laptop by doubleclicking on the file “SetupElc5Datasets_VanHool_GREEN_ABC-US_3.1.exe” and follow the instructions on the screen.
<b>6.2</b>	Open the “ELC EOL” program on your laptop.
<b>6.3</b>	Click on the lower arrow, at the bottom of the screen on the right until the following screen appears: 
<b>6.4</b>	Click on “YES”.  On the screen appear different parameter settings, one for every vehicle model (typical). 
<b>6.5</b>	Select the correct parameter setting, depending on your vehicle model and click on the lower arrow, at the bottom of the screen on the right. <ul style="list-style-type: none"> <li>• “TD925 10-wheeler USA double decker coach; curving inhibition disabled (TD925-US 6x2 10W Allison CurvingInhibitionDisabled-00)”: 10-wheeler with Allison transmission</li> <li>• “TD925 10-wheeler USA double decker coach; curving inhibition disabled (TD925-US 6x2 10W ZF CurvingInhibitionDisabled-00)”: 10-wheeler with Allison transmission</li> <li>• “TDX25-US/TDX27 8-wheeler double decker coach; curving inhibition disabled (TDX25-US and TDX27 CurvingInhibitionDisabled-00)”: 8-wheeler</li> </ul> <p>You can follow the load progress on the screen.</p>
<b>6.6</b>	Close the “ELC EOL” program.

**Figure 20**

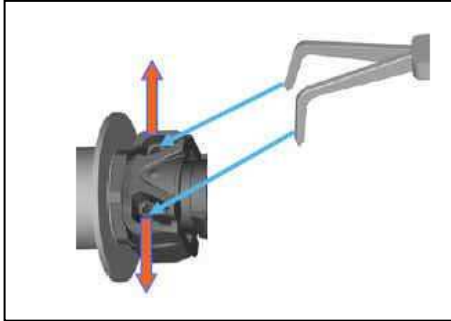
**Figure 21**

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### **Raufoss fittings:**

Most of the flexible compressed-air lines are connected with Raufoss fittings. Please find some extra information about these fittings.

#### **To separate fitting housing from nipple**

<b>Step</b>	<b>Action</b>
<b>1</b>	Open the snap arms on the fitting housing by using an ordinary snap ring pliers. <div data-bbox="491 510 944 828"></div> <div data-bbox="963 797 1070 828"><b>Figure 22</b></div>
<b>2</b>	Pull the housing from the nipple.

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### **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 to and modifications of the technical information not yet included in the Van Hool manuals 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](http://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.