
Modification instructions

Installing overflow valves

Translation of the document

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Validity

This document is only valid for the products listed in the following table:

Type	Model	Version	Equipment feature
E-TRUCK	LOW CAB	V2.2	Gardner Denver TXO2 compressor

Material and aids

Pipe cutter with short adjusting screw

Parts list 110225

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1 Safety regulations and information

1.1 Designwerk service portal

The following documents are available for download on the Designwerk service portal:

	Safety instructions and warnings	DW_Safety instructions
	List of abbreviations	DW_List of abbreviations
	Designwerk Imprint	DW_Imprint

2 Introduction

The 12 bar pressure relief valve ensures that there is always a pressure of at least 10.3 bar in the pressure line downstream of the compressor. This is to prevent the pressure from dropping suddenly when the operating pressure of 12.5 bar is reached. If the pressure drops suddenly, the oil separator will no longer function properly and oil will be drawn out of the compressor.

The upstream 8.5 bar overflow valve ensures that the 12 bar valve does not start to vibrate and whistle.

In tests on the test bench, it was no longer possible to detect any oil leakage.

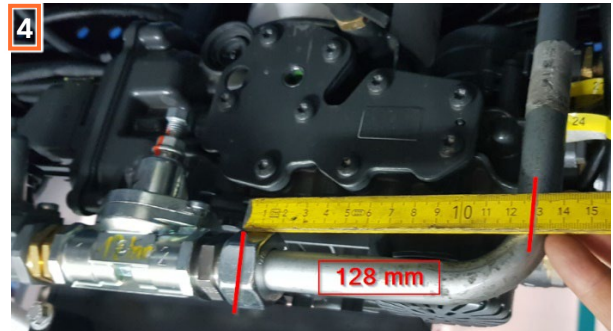
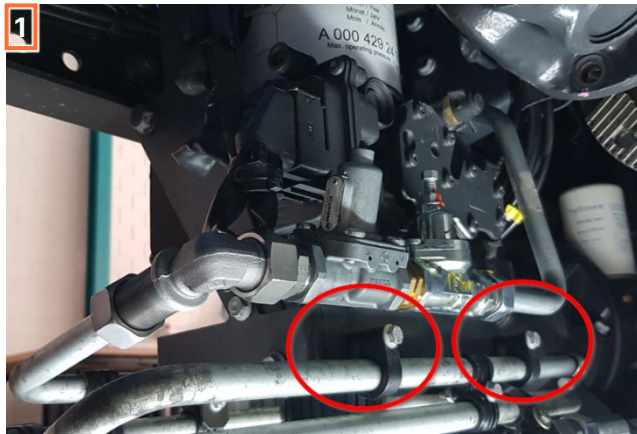
3 Prepare truck

Remove the ignition key from the ignition lock and keep it in a safe place during the conversion work to prevent unauthorized starting.

4 Cut open the cooling loop



- The cooling loop may still be under pressure, please release carefully.



1	Double clamp	2	Pipe cutter
3	Split pipe left	4	Split pipe on the right

1 Dismantle the double clamp (1).

2 Dismantling the cooling loop on the air dryer

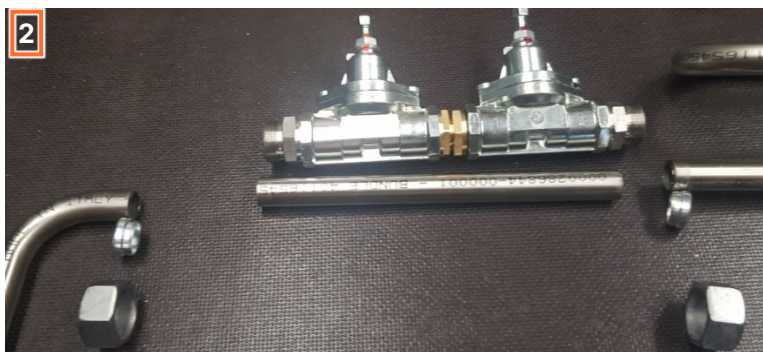
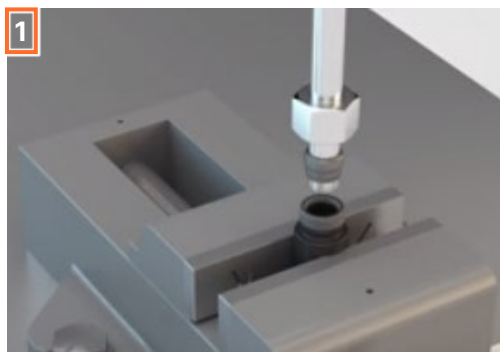


- To do this, cut the pipe at points (3) and (4) using the pipe cutter (2).
The cooling loop can be cut open with a small pipe cutter when installed. If this does not work, it must be completely dismantled.

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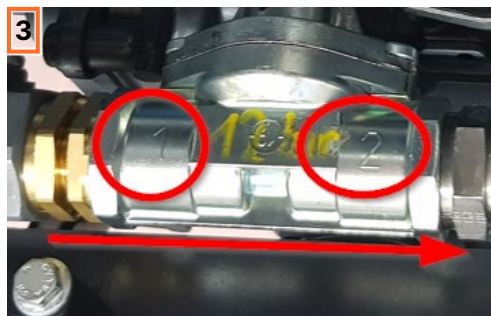
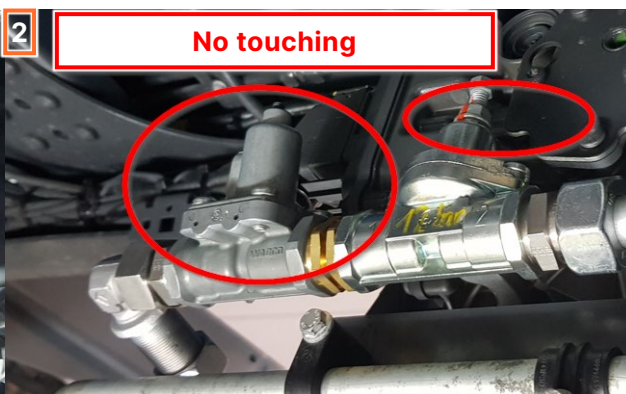
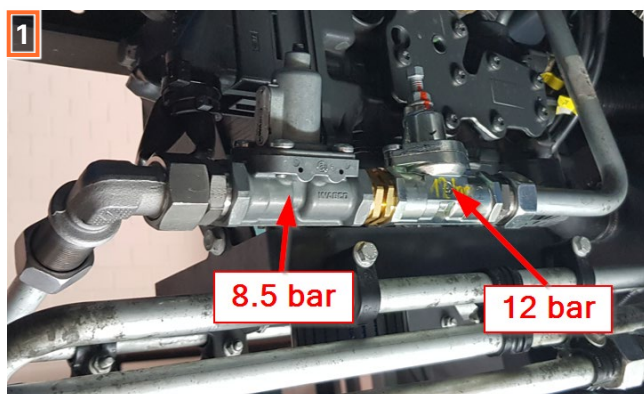
5 Fitting union nuts



1	Preferred solution	2	Example picture (not all parts correspond to this conversion)
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i The union nuts can be fitted using the pre-assembly spigot or, if not available, directly using the screw-in fitting.

6 Installing overflow valves



1	Opening pressures of the valves	2	Additionally installed parts must not touch any other areas
3	Note the figures	4	Note arrow
5	Brass screws between the valves		

1 Install the valve with the lower opening pressure before the other, see (1).

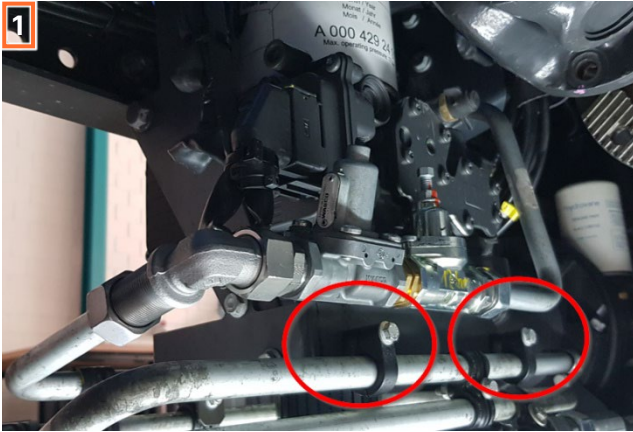
- Observe the inputs and outputs (number or arrow) of the valves, see (3) and (4). Connection 1 from the compressor, connection 2 to the air dryer.
- Install the valves with the adjusting screw pointing upwards (up to 45° tilt is okay).
- All additionally installed parts must not touch any other parts in the vicinity (2).

2 Set the brass screw connection between the valves to 16 mm, see (5).

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7 Fitting the single clamp



1	Double clamp		
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1 Replace double clamp with single clamp, see (1).

8 Review

Check the correct flow direction of the valves

- Connection 1: From the compressor
- Connection 2: To the air dryer

Check the installation position of the overflow valves

- The overflow valve with the lower opening pressure must be installed before the one with the higher pressure. Otherwise the 12 bar valve will whistle.
- The overflow valve should be installed with the adjusting screw pointing upwards.
- Install the overflow valves as straight upwards as possible, without collision.

No chafe marks, no touching of any parts

Check oil level from cold compressor

- This point does not apply if the conversion is carried out during pre-assembly.
- The oil level should be checked when the compressor is cold.
- Oil level high filler plug.

Check for leaks

- Test for leaks with a leak detector at full pressure.
- In the event of a leak, the overflow valves cannot develop their full potential and the compressor continues to lose oil.

Cables fixed

- Check that all cables are securely tied.
- Check that there are no chafe marks.

Check that the air system is loaded correctly