

Doc. No. Y162789 (EN - Rev. 002) January 2017

# Disassembly and Assembly Instructions for the Desiccant Cartridge Interior and Main Sieve Kit in EAC2.5

This service instruction was created to support the safe disassembly and assembly of the Desiccant Cartridge Interior and Main Sieve Kit.

The procedure should be performed only by well-trained persons in a clean workshop.

Use only original Knorr-Bremse parts.

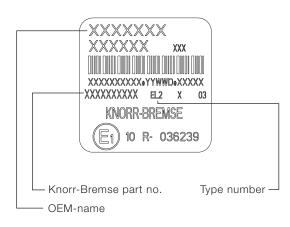
## Safety and Environmental instructions for service and repair work

- Secure the vehicle so that it cannot move prior to beginning repair and service.
- Ensure the service brake is released and the parking brake is applied.
- If the EAC2.5 has to be dismounted from the vehicle, deplete all pressure in the air system to 0 bar.
- When removing pipework/fittings, ensure they are adequately marked to ensure correct re-installation.
- Avoid touching the electrical connector pins of the EAC2.5.
- At the end of any service or repair work on the EAC2.5 a final audit must be carried out on a roller dynamometer including functional test.
- All items that are replaced should be disposed of according to local regulations. This is especially relevant for the Desiccant Cartridge, O-Ring and Silencer which MUST NOT be disposed of as general waste.

For the full Knorr-Bremse Safety and Environmental Guidelines, please observe Knorr-Bremse document **Y075876** – see **www.knorr-bremseCVS.com**.

## **Product and Part Number Identification**





- Identify Knorr-Bremse Part number from label
- Refer to website **www.knorr-bremseCVS.com** for aftermarket replacement

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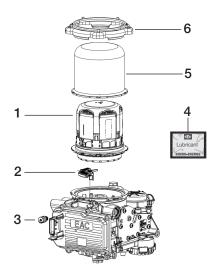
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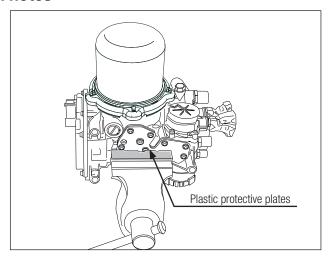
#### Legend

- 1 Desiccant cartridge interior
- 2 Main sieve
- 3 Locking screw
- 4 Grease
- 5 Desiccant cartridge housing
- 6 Bayonet ring

#### **General notes**

Dismantle and assemble the bayonet ring (6) and locking screw (3) on a clean workbench in case an exchange is not possible on the vehicle. All the following description steps can be performed on the workbench or the vehicle.

Clean the EAC2.5 and clamp it in a suitable bench vice; use plastic protective plates in order not to damage the device.



## Removal of bayonet ring (6), desiccant cartridge housing (5), desiccant cartridge interior (1), locking screw (3) and main sieve (2).

Remove the locking screw (3) - Torx T30

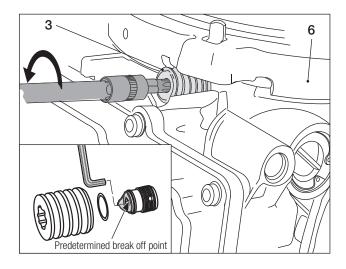
If the Torx drive slips because the hexalobular socket of the locking screw is worn out, take the next bigger bit size and drive it into the socket of the screw by means of a hammer.

Unscrew the locking screw.

If the locking screw breaks off at the pre-determined break-off point, the remainder of the locking screw can still be removed with a 5mm Allen key.



See page 1 for disposal.



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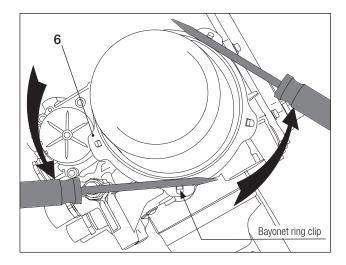




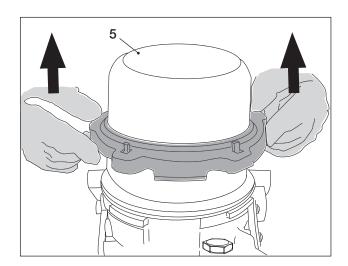
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Place two screwdrivers on the bayonet ring clips.

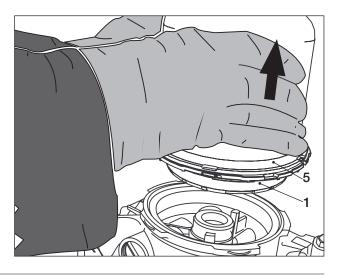
Rotate the bayonet ring with both screwdrivers anti-clockwise until it loosens



Slide the bayonet ring over the desiccant cartridge housing (5).



Remove the desiccant cartridge housing along with the desiccant cartridge interior (1) from the valve block.



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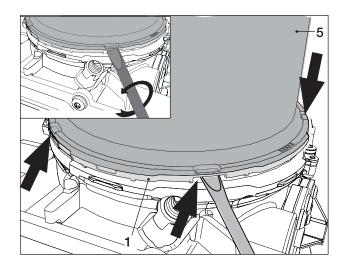
If it is **not** possible to remove the assembly from the valve block by hand, insert a flat headed screwdriver in one of the three grooves - see arrows in diagram.

Rotate or lever lightly with the screwdriver.

It should now be possible to remove the assembly.



Avoid scrapes and deformations at the valve block. Risk of corrosion.



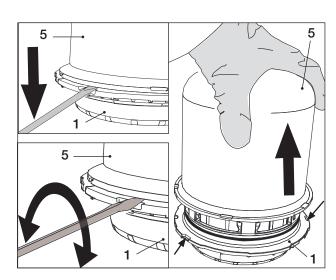
The slots in the desiccant cartridge interior (1) allow it to be removed from the desiccant cartridge housing (5) - see arrows.

Position a flat-headed screwdriver in one of these slots, lever the desiccant cartridge housing using one of the illustrated methods.

The desiccant cartridge housing can then be removed from the desiccant cartridge interior.



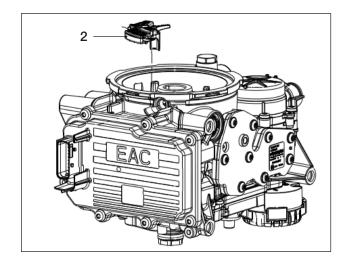
See page 1 for disposal.



Remove main sieve (2)



See page 1 for disposal.



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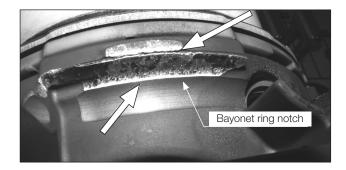




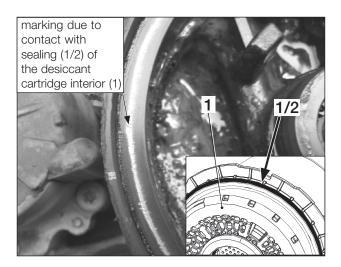
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## Visual checking of the valve block

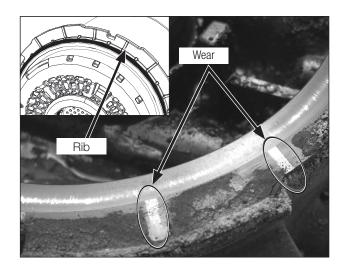
By removing the bayonet ring it is possible to check the valve block. If the protective surface is worn down to the base metal or if the bayonet ring notch has any damage, see arrows, the EAC2.5 must be replaced - see **Product and Part Number Identification** section of this document.



Wear of the sealing area as shown in the adjacent picture is permissible - see picture.



Wear caused by the ribs of the desiccant cartridge interior (1) are permitted - see picture.



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## Clean and check

Clean inside and outside of the desiccant cartridge housing (5).

Check all of the inside surface for corrosion.

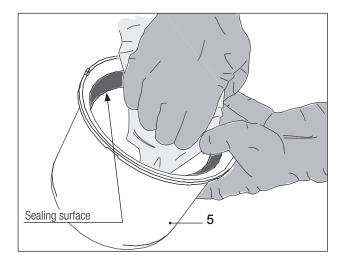
Check sealing surface for damage.



If corrosion is found inside the desiccant cartridge housing or there is damage to the sealing surface, the desiccant cartridge housing must be renewed.



See page 1 for disposal.

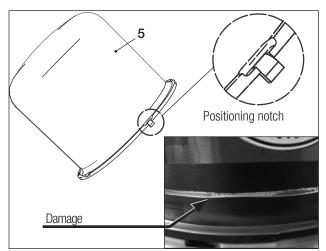


Check whether the positioning notch is still intact on the desiccant cartridge housing (5).

If this is missing, the desiccant cartridge housing (5) must be

If any damage is noted on the outside of the desiccant cartridge housing, for example as shown in the diagram, the desiccant cartridge housing must be renewed.

Apply the supplied grease (4) to the sealing surface of the desiccant cartridge housing.



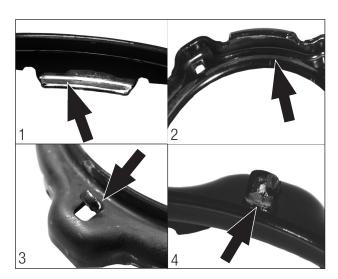
Clean the bayonet ring.

Replace the bayonet ring if the following damage is noted.

- Worn protective surface of the bayonet ring see figures 1 & 2
- If three or more bayonet ring clips are bent, contain cracks or are missing - see figure 3 & 4



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Close openings of the safety valve (A) and the non-return valve (B) with a lint free cloth or alternatively with sticky tape to help prevent any dirt from entering. Clean the chamber (grey), the sealing surfaces (C), the thread and seal area (D) of the locking screw (3) and the bayonet ring notches (E) - see arrows in diagram.



Compressed air must not be used under any circumstances in the chamber area (grey) since this may cause dirt to enter the safety valve (A) or the non-return valve (B) resulting in a malfunction.

Ensure that there is no dirt remaining in the chamber area.



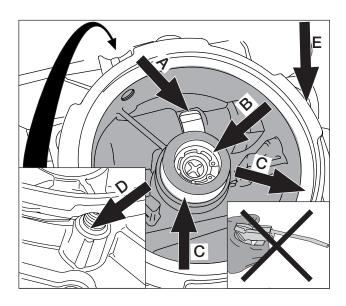
Any dirt residue in the safety valve (A) or in the non-return valve (B) should be removed with a lint free cloth

Check sealing surfaces (C), inner thread and sealing area (D) for the locking screw for scratches.

Check also valve block - see **Visual checking of the valve block** section of this document

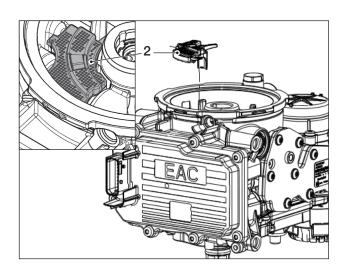


The EAC2.5 must be replaced if any such damage is noted to the valve block - see **Product and Part Number Identification** section of this document.



## Mounting of bayonet ring (6), desiccant cartridge housing (5), desiccant cartridge interior (1) locking screw (3) and main sieve (2)

Insert main sieve (2)



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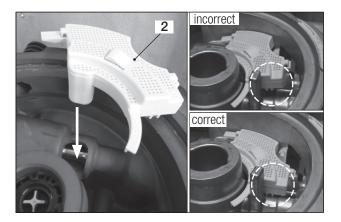
**Note:** there are two valve block variants and therefore two different installation situations.

Installation situation 1. Valve block variant 1 from KW29/2013

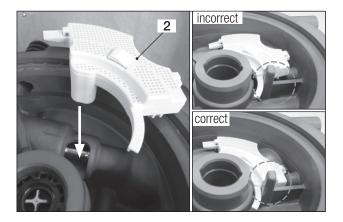


It is important with both valve block variants, to insert the locking finger of the main sieve (2) thoroughly into the opening for the safety valve - see arrow.

If the main sieve has not been inserted correctly it may become damaged when the dessicant cartridge assembly (1+5) is fitted. This will result in a malfunction of the EAC 2.5.



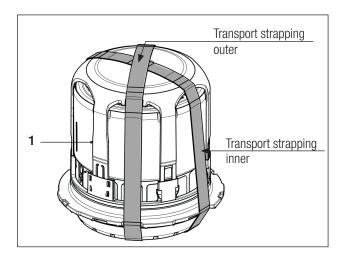
Installation situation 2. Valve block variant 2 up to KW28/2013.



Before fitting the new desiccant cartridge interior (1) the strapping must be removed.



Warning, strapping is under tension. Wear safety glasses and gloves



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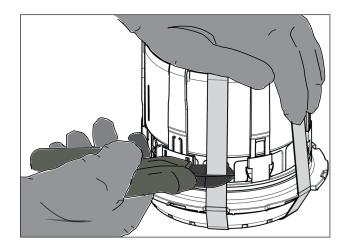




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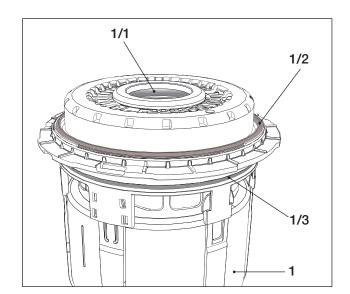
Position the tool in the lower third of the transport strapping - see diagram. Cut through first the "transport strapping outer", then the "transport strapping inner".



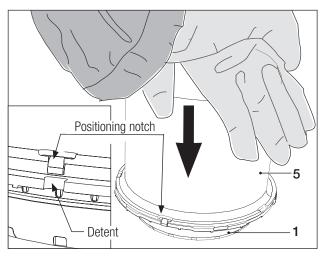


Apply the supplied grease (3) to the sealing elements 1/1 - 1/3 in the desiccant cartridge interior (1).

Note: do not alter the position of the sealing elements.



Align the positioning notch of the desiccant cartridge housing (5) directly over the desiccant cartridge interior (1) detent and push the housing to engage.



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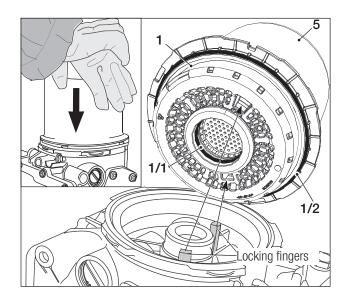
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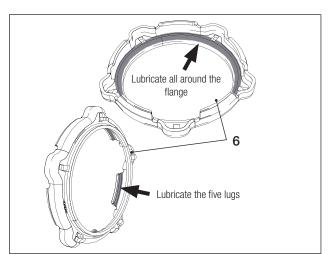
It is important that the two fingers of the valve block are aligned with the detents in the desiccant cartridge interior - see diagram.

Push the assembly on to the valve block.

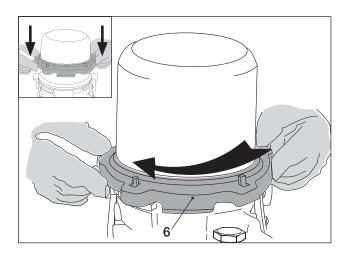
**Note:** To minimise the necessary force required, make sure that the desiccant cartridge's sealing elements (1/1) and (1/2) are sufficiently lubricated.



Apply the supplied grease (4) to the bayonet ring (6) in the highlighted places.



Fit bayonet ring and turn in a clockwise direction until it clicks into place.



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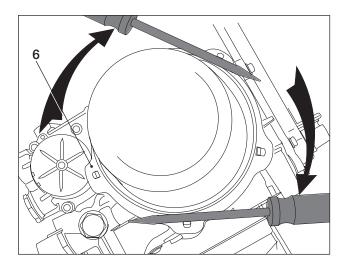
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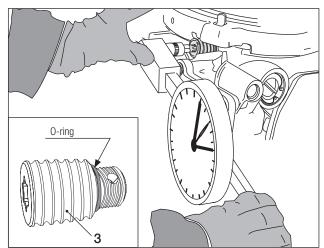
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Tighten the bayonet ring with two screwdrivers in a clockwise direction as shown.



Grease the O-ring on the new locking screw (3). Alternatively lubricate the O-ring sealing area in the valve block.

Tighten securely to a torque of 5<sup>+1</sup> Nm. - Torx T30



Reset the cartridge predictive maintenance to 0 using an appropriate diagnostics tool.

Dispose of all packaging and waste in a responsible manner - see also **Y075876** Safety and Environmental Guidelines **www. knorr-bremseCVS.com** 

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