

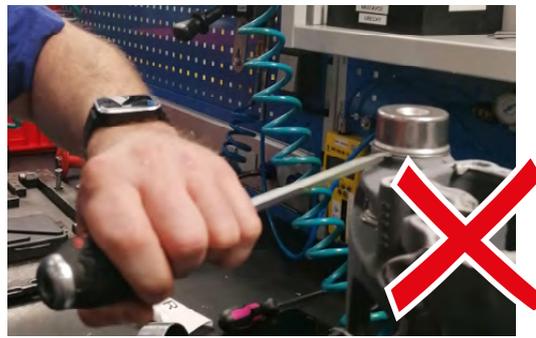
1 Failures

1.1 Air Disc Brake

1.1.1 Damage to the fixed bearing protective cap spigot



Possible cause: incorrect removal of the cover using the incorrect method.



Warning!
Use service manual (see table) and proper tooling

Overview of Tool Kits and Service Manuals for Knorr-Bremse Air Disc Brakes

Brake	Service Manual	Tool Kit	Supplemental Kit
SB5...	C16352-#	K158880K50	
SB6...			
SB7...			
SN5...	Y015044-#	K037001	
SN6...	Y006471-#	K158880K50	K209211K50
SN7...			
SK7...			
SL7...	Y081564-#	K158880K50	K209211K50
SM7...			
ST7...	Y173241-#		
SyD7	Y416977-#		

- Refer to website for latest revision
truckservices.knorr-bremse.com

1.1.2 Deformation of the Fixed bearing / loose bearing housing (all ADB types)

Deformation of a bearing



In this case the deformation and the damage are visible by eye, though generally it's not the case. All calipers with such damage go to reconditioning process and are scrapped afterwards, making it a waste of resources.

In this example the deformation and damage is visible but this is generally not the case. All calipers found to exhibit deformation after processing are scrapped.



Examples of incorrectly packaged core



Packaging OK

1 Failures



One caliper lies on another caliper (in this case on fixed bearing)

The damage on the calipers is caused by incorrect handling and packing for transportation.



Sensible area of caliper



Correct packaging-manipulation

Handle the core with care and where possible use the original box for the core return. If the box is not available then the cores should be packed in layers with spaces between the cores to prevent damage during transportation. On no account should the cores be simply stacked on top of each other.



Warning!
Do not throw from a height. Use original box or pack properly.

1.1.3 Failure – corrosion

In some cases excessive corrosion is the result of incorrect storage including exposure to cold / wet weather without adequate protection.



Part that may have been stored outside without adequate protection



Part without corrosion



Warning!
Do not store outside

1 Failures

1.1.4 Mechanical damage



Mechanical damage caused by contact with the brake disc.



Incorrect disassembly, damage caused by the use of an angle grinder.



Incorrect disassembly of the guide pin cap



Warning!

Refer to the appropriate service manual, follow the instructions and use the tooling specified.

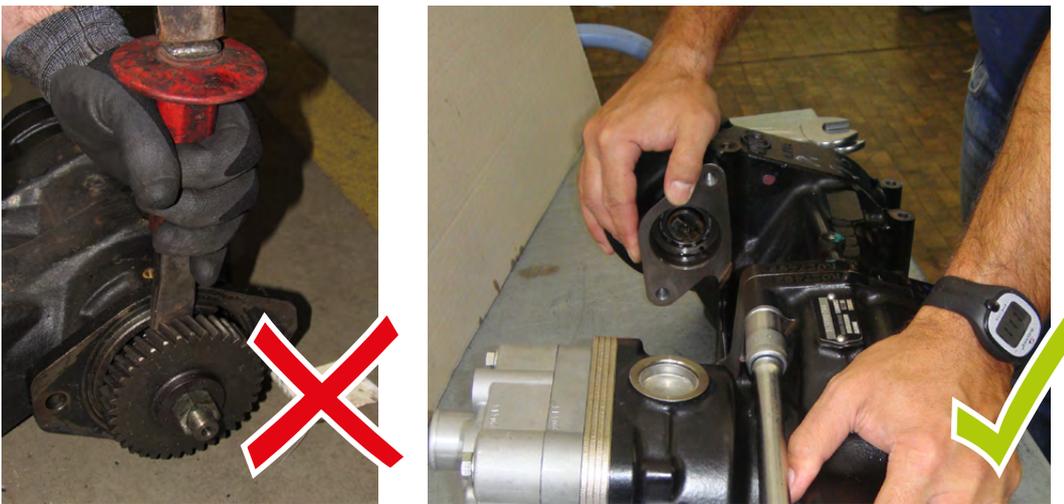
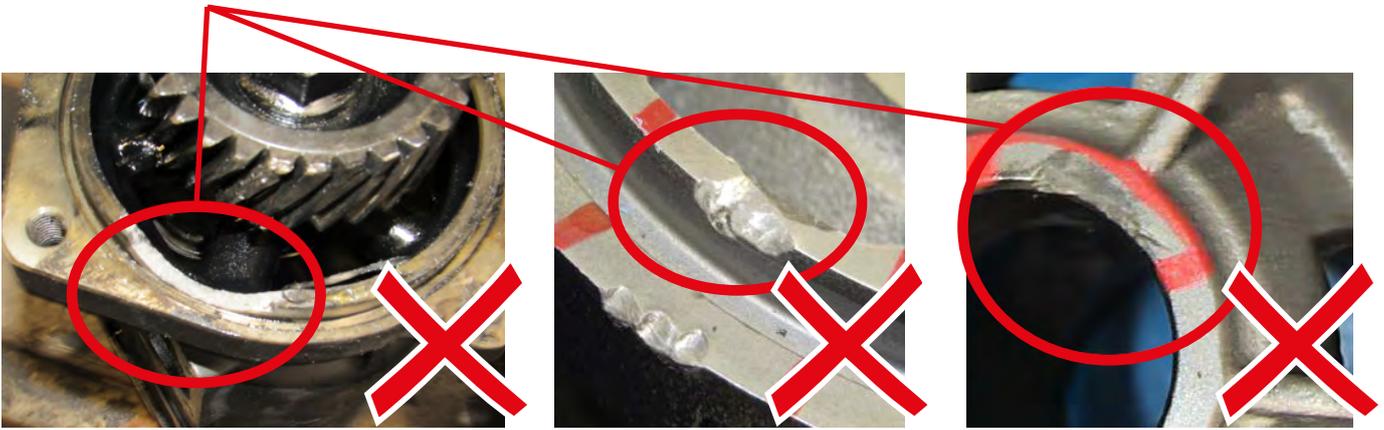
1.2 Compressors

1.2.1 Mechanical damage on flange

Disassembly

Damage to the mounting flange area can be caused by poor disassembly methods, incorrect handling after removal or poor packaging for transportation.

Damage of the contact and sealing area, the core is not usable for remanufacturing.

**Warning!**

For disassembly use the appropriate tools only!
Please follow service instructions for disassembly.

1 Failures

Handling and Packaging

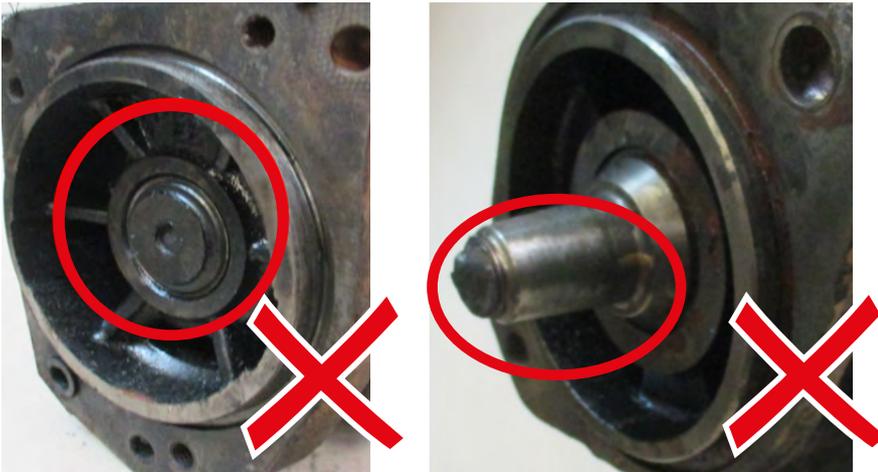


Handle the core with care and where possible use the original box for the core return. If the box is not available then the cores should be packed in layers with spaces between the cores to prevent damage during transportation. On no account should the cores be simply stacked on top of each other.

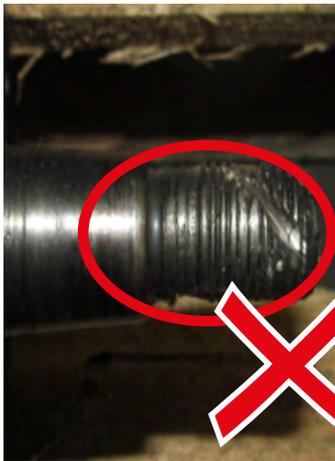


Warning!
Handle the core with care to prevent damage.

1.2.2 Damage to the thread of the crankshaft



Sheared crankshaft caused by incorrect disassembly method of the gearwheel.



Angle grinder used to remove the crankshaft nut. This removal method should be avoided.



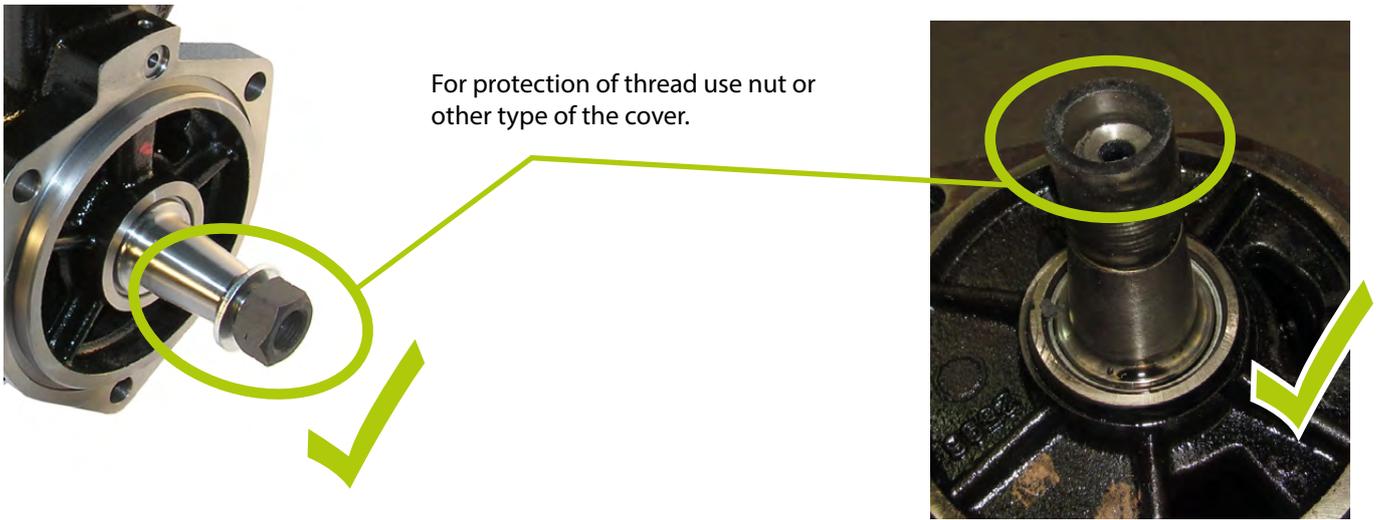
Cores stacked on top of each other without layers and spaces between each other will result in damage during transportation.



Impact damage to the crankshaft thread.

1 Failures

Examples of cores suitably protected to prevent damage to the crankshaft thread.



Warning!
For disassembly use the appropriate tools only!
Follow the Service instructions.

1.2.3 Mechanical damage to the ports of the cylinder head

Damage to the ports caused by incorrect disassembly methods, poor handling or poorly packed for transportation



Connection interface and sealing area



Warning!
We cannot repair this type of damage to the ports, resulting in the core being unusable for remanufacturing.

1 Failures

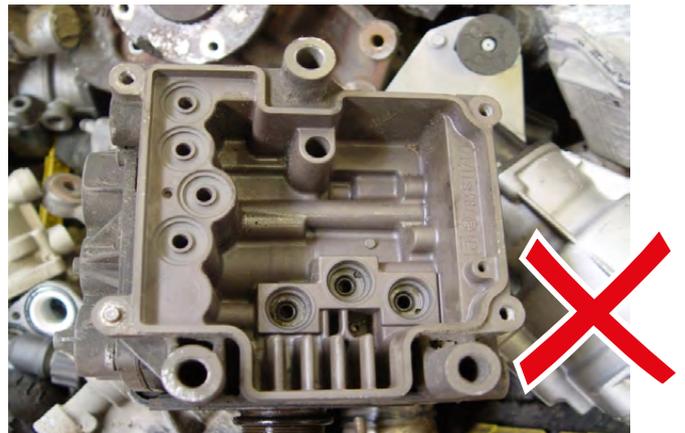
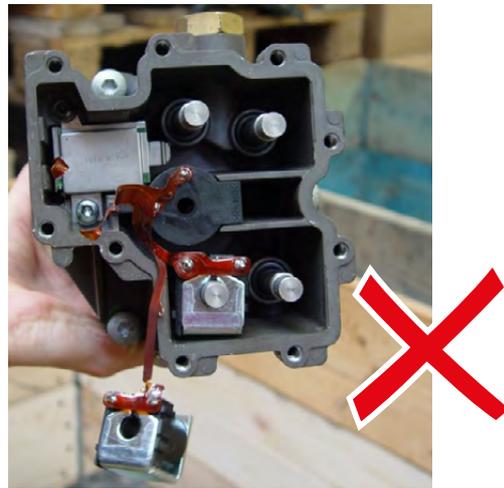
1.3 Mechatronics

1.3.1 Incomplete core

The core must be complete in order to be usable for remanufacturing.

Damage in the electronics area is not acceptable.

If the core has sign of intervention by 3rd party (repair, service), it's not usable for remanufacturing.



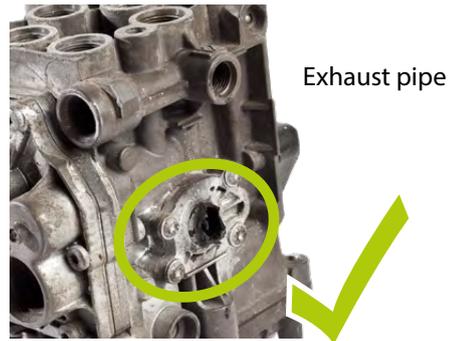
1.3.2 Exception on incomplete core

The following components **may be missing** for specific products:

Electronic Air Dryer (EAC 1) - exhaust pipe

EBS5 - silencer

EBS2 - silencer, small upper covers on electronics



Warning!
Core must be well protected for transport, especially when the small cover is missing!

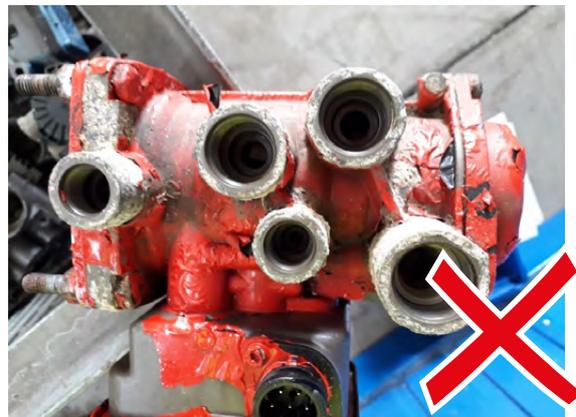
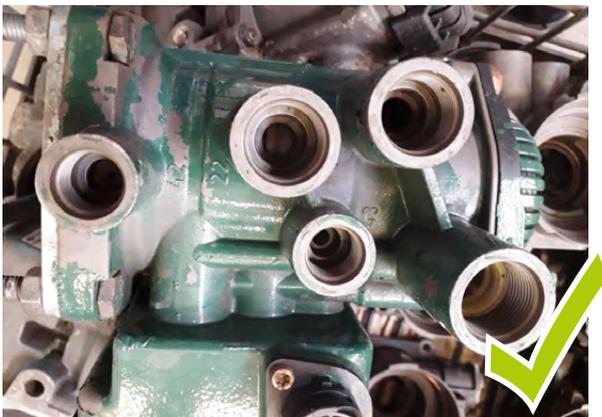
1 Failures

1.3.3 Corrosion in electronics area

Housing is heavily corroded. Core with corrosion that **expose's the electronics is unacceptable.**



1.3.4 Corrosion and painting



Slight paint layer is acceptable.

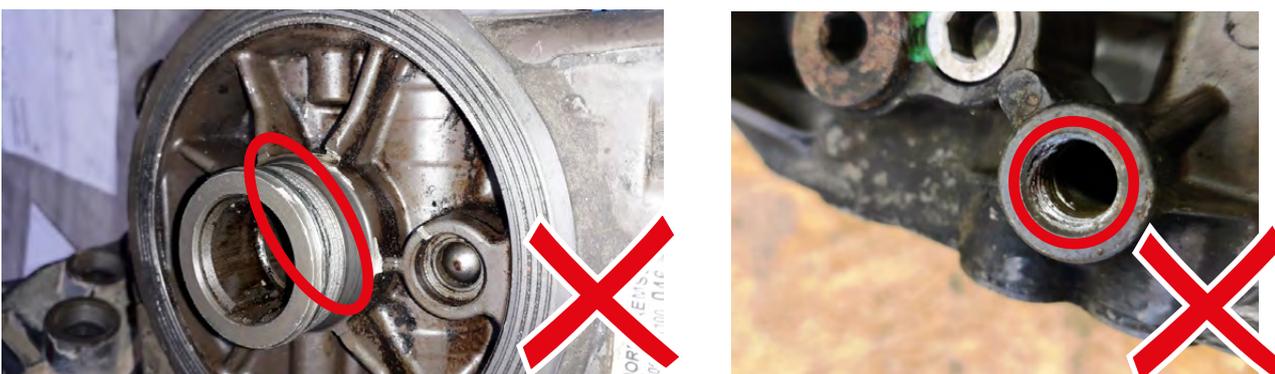
Housing is heavily corroded, ports are damaged with thick paint layer, this core is not usable for remanufacturing.

1.3.5 Mechanical damage of mechatronic body and ports

Example of failures caused by incorrect handling and / or protection of cores.



Example of damaged thread caused by rough disassembly.



1 Failures

Attach the **plug covers** to the ports right after the disassembly from a truck, to prevent any damage during the core return process.

Handle the core with care and use the (original) **packaging** for core transport to prevent the damage. (If the box is not available, use layers and spacers for the packaging.)



Cardboard spacers



Plugs



No cardboard spacers



No plugs



Cores thrown over each other