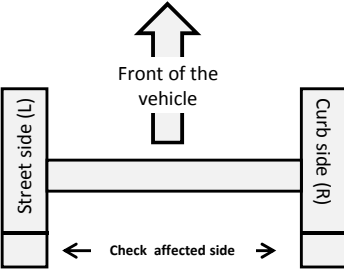



# KNORR / BENDIX brake assembly checklist


Requirements for warranty acceptance - complete one checklist per each affected caliper  
Take digital photos of marked left (L) and right (R) calipers (different temperature impact should be visible!)

Customer:				Complaint:			
Vehicle manufacturer:		Vehicle type:			Fleet number:		
In service date:		Chassis no. (VIN):			Mileage:		
Axle manufacturer:		Axle part number:					
Axle model:		Axle serial number:					
Brake chamber manufacturer:	Knorr-Bremse	Bendix	MGM e-stroke				
Brake manufacturer:	Knorr-Bremse	Bendix					
Axle position in the vehicle:	Front (steering)	Center (tag)	Rear (drive)				



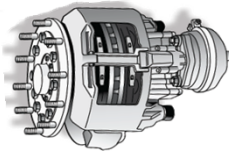
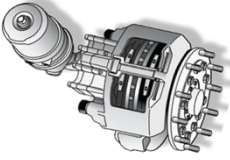


KNORR-BREMSE



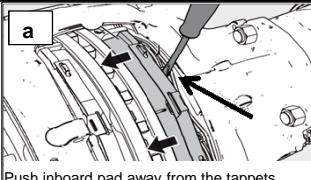
KNORR-BREMSE

**Brake type:**

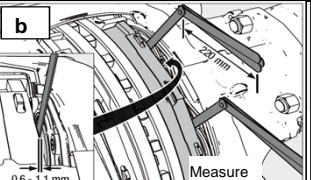
Axial	Radial
	

Note: Apply service brake one time (approx. 2 Bar) prior beginning of the measurement, after the wheels are removed

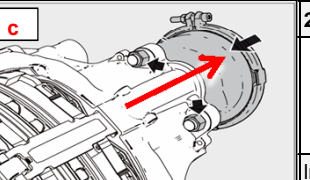
1. Measure running clearance of brake in cool down condition (a + b): Nominal: 0.6 - 1.1mm		Incoming tappet / outcoming tappet	/	mm
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Push inboard pad away from the tappets



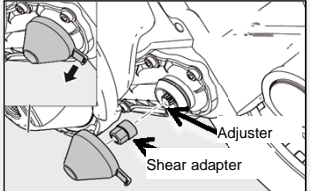
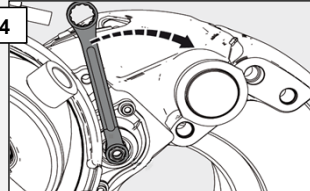
Measure



2. If running clearance is less then 0.6 mm	
<p>- remove the brake air chamber ( c )</p> <p>- measure running clearance again ( a + b )</p> <p>- if clearance OK - go to step 3</p>	
Incoming tappet / outcoming tappet	/ mm

3. Thickness of brake pads (New condition: 30mm including 9 mm back plate)	Inboard pad:	mm	Outboard pad:	mm
	OK	not OK	Comments	

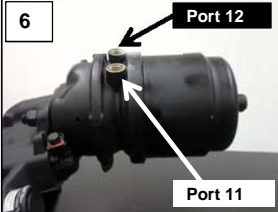
4. Check brake adjuster function (refer to KB service manual Y006471)		
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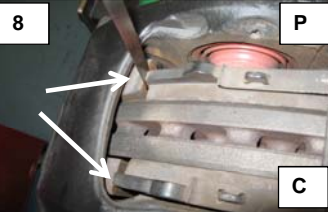



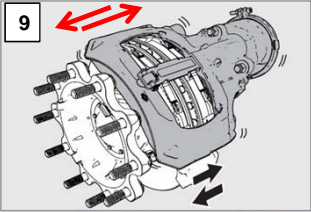
▲ Never turn **adjuster** without **shear adapter** being fitted. If the shear torque of the shear adapter is exceeded, then it is designed to fail. Try again with a new (unused) shear adapter. With a second failure of the shear adapter the caliper must be exchanged since internal damage is present. **Do not** use an open-ended spanner as this may damage the adapter.

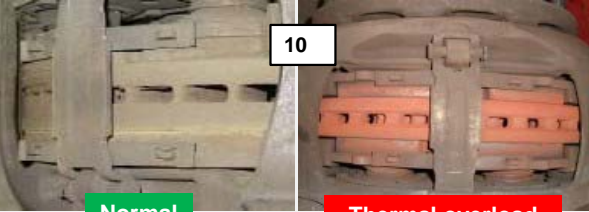
▲ Make sure the ring spanner or socket can turn freely clockwise during the following procedure.


▲ Make sure brake pads are installed in the caliper during adjuster check
















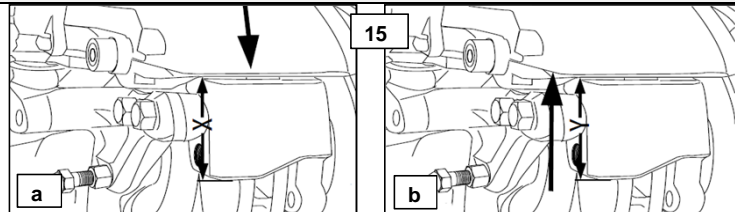
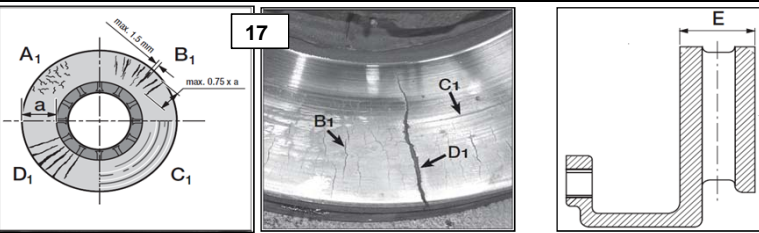




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	Yes	No	Comments		
5. Residual air pressure in service brake?					
6. Air tightness from port (12) parking brake to (11) service brake?					
7. Brake pads movement in brake carrier?					
8. Gap back plate of pad in brake carrier (mm)	Caliper side ( C )		mm	Plunger side ( P )	mm
	OK	not OK	Comments		
9. Caliper movement along guide pins - mounted on axle (slide caliper fully IN and OUT - brake pads removed)					
10. High thermal load at brake pads visible?	Yes	No			
11. Brake pad retainer springs connection to the pad back plate?	Loose	Fixed			
12. Brake pad manufacturer / date of manufacture?	Jurid ; Ferodo ; Textar ; Galfer ; other: _____			Mfg. Date:	
13. Thermal damage of tappets with rubber boots ?	Yes	No			
14. Thermal damage of fixed / loose guide pin boots ?	Yes	No			
15. Floating guide pin to rubber bushing clearance (SB models only)	Yes	No	Nominal: 3.0 mm max	Actual:	mm
		<p>- Push the caliper in the direction of the arrow (a)</p> <p>▲ Note that there is no contact between caliper and carrier (a)</p> <p>- While maintaining pressure on the caliper, measure distance X (a)</p> <p>- Pull the caliper away from the carrier and measure distance Y (b)</p> <p>- If distance Y - X is greater than 3.0 mm, rubber bushing must be replaced</p>			
16. Marks from plunger of the brake chamber in the caliper housing	Yes	No			
17. Brake disc condition (check appropriate letter) →	OK	Not OK: A1 B1 C1 D1			
		<p>A1 = Small cracks spread over the surface are allowed</p> <p>B1 = Cracks less than 1.5 mm deep or wide, running in a radial direction are allowed</p> <p>C1 = Unevenness of the disc surface less than 1.5 mm deep is allowed</p> <p>D1 = Cracks going through to the cooling duct or onto the inner or to the outer edge of the friction ring are not allowed and the disc MUST BE REPLACED.</p> <p><i>In case of surface conditions A1, B1 or C1, the disc can continue to be used until the minimum thickness E = 37 mm is reached.</i></p>			
18. ABS or Air system diagnostic information and fault codes:					
19. Service history of the bus and/or the brake system; previous exchange of brake parts:					
Corrective measures:					
Comments and remarks:					
Technician:		Date:			

For more information regarding Knorr-Bremse / Bendix brake system refer to service manuals Y006471 and C16352 available at <http://www.knorr-bremsecvs.com>