1. General Information

Before You Begin
1. Read and understand all instructions and procedures before beginning.
2. To prevent serious personal injury always wear eye protection and appropriate personal protection equipment.
3. Use of special tools will aid in performing service and maintenance as well as help avoid serious personal injury and damage to components.
4. Follow all warning and caution messages in this publication to prevent personal injury and/or damage to components.
5. Follow your company’s guidelines when performing diagnostic, maintenance, service or installation procedures.

Pre-assembly Considerations
1. Verify the correct parts have been supplied.
2. Verify the installation drawings match the parts supplied.
3. Ride height, hubs, wheel and tire size need to suit the application.
4. Verify that the correct tools and equipment are available to do the installation.
5. Only qualified personnel should be in charge of the installation.
6. For any parts identification and requirements, refer to the engineering drawings for your project.

⚠️IMPORTANT:
FOR COMPLETE ASSEMBLY AND MAINTENANCE INSTRUCTIONS, PLEASE REFER TO THE FOLLOWING MANUAL:

PAN 22-1 Assembly and Maintenance Instructions
New versions can be found in INFORM under www.wabco-auto.com.
1. General Information (cont.)

Exploded View of Air Disc Brake Axle Wheel End Components
(Refer to Section 04 for WHEEL END Parts)

1. Air brake actuator
2. Caliper bolt (standard)
3. Caliper bolt (shoulder)
4. ABS sensor
5. ABS clip
6. Hub
7. Wheel stud
8. Rotor bolt
9. ABS Rotor
10. Caliper

If you have additional questions, please contact your AXN Heavy Duty representative. AXN Heavy Duty, LLC  AX ADB RR 05 16 R4
2. WABCO PARTS IDENTIFICATION

Description of the Mechanical Sliding Calliper Disc Brake Components
(Refer to Section 03 for AIR DISC BRAKE Parts)

Top view and sectional view (left brake)

1. Brake calliper
2. Brake anchor plate
5. Protection caps for guide pins
6. Internal hexagon socket screw (long)
7. Internal hexagon socket screw (short)
8. Guide pin (long)
9. Guide pin (short)
11. Closing cover (short)
11.1 Closing cover (long)
13. Protection cap of the adjuster
19. Pressure plate
22. Hexagon of the adjuster
35. Brake lining rim side
36. Brake lining cylinder side
37. Retaining spring
38. Lining retaining pin
39. Hexagon screw
40. Cable guide with wear indicators
41. Retaining clip
A. Forward driving, direction of rotation

Side view and sectional view (left brake)

1. Brake calliper
2. Brake anchor plate
5. Protection caps for guide pins
11.1 Closing cover (long)
12. Sealing plug for adjuster
19. Pressure plate
35. Brake lining rim side
36. Brake lining cylinder side
37. Retaining spring
38. Lining retaining pin
39. Hexagon screw
A. Forward driving, direction of rotation

IMPORTANT: As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under www.wabco-auto.com.
3. REPLACEMENT PARTS - WABCO Air Disc Brakes

Overview

Easy maintenance & repair with Optimized Repair Kits.

A. Brake Pads including hold down system
B. Pressure Plate
C. Guiding System
D. Sealing Kit
E. AM Caliper

IMPORTANT: As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under www.wabco-auto.com.
3. REPLACEMENT PARTS - WABCO Air Disc Brakes (cont.)

A. BRAKE PADS - INCLUDING HOLD DOWN SYSTEM PN: 12 999 796

Content (per Axle):
- 4 x Pad with fixed hold down spring
- 2 x Hold down hoop
- 2 x Bolt
- 2 x Pressure plate hold down spring
- 2 x Plug

B. PRESSURE PLATES PN: 640 225 926 2

Content (per Axle):
- 1 x Pressure Plate LH
- 1 x Pressure Plate RH

C. GUIDING SYSTEM PN: 640 225 921 2

Content (per Brake):
- 1 x Plug
- 2 x Cover
- 2 x Bolt
- 1 x Seal
- 3 x Bushing
- 2 x Sliding bolt
- 2 x Seal
- 1 x Grease

IMPORTANT: As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under www.wabco-auto.com.
3. REPLACEMENT PARTS - WABCO Air Disc Brakes (cont.)

D. SEAL KIT PN: 640 175 920 2

Content (per Brake):
- 1 x Seal
- 1 x Plug
- 1 x Grease

E. AM CALIPER

PN: 40 225 015 (LH)

or

PN: 40 225 016 (RH)

Content (per Brake):
- Aftermarket calipers without pads and hold down system

IMPORTANT: As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under www.wabco-auto.com.
4. REPLACEMENT PARTS - WHEEL-END

Overview
Easy maintenance & repair with Optimized Repair Kits.

A. Caliper Mounting Bolts
B. ABS Rotor with Fasteners
C. Hub with Wheel Studs, Bearing Cups
D. ABS Sensor and Clip
E. Air Brake Actuators

IMPORTANT: As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under www.wabco-auto.com.
4. WHEEL-END REPLACEMENT PARTS - AXN

A. CALIPER MOUNTING BOLTS PN: AK-DB-CMB-001

Content (per Brake):
- 5 x M16 x 1.5 x 55mm Grade 10.9 Flange Head Bolt
- 1 x M16 x 1.5 x 55mm Grade 10.9 Flange Head Shoulder Bolt

B. ABS ROTOR w/FASTENERS PN: AK-DB-RF-001

Content (per Wheel-end):
- 1 x 22.5” Rotor (ABS)
- 10 x M16 x 35mm Socket Head Bolt

C. HUB WITH BEARING CUPS PN: AK-DB-HB-001

Content (per Wheel-end):
- 1 x Hub
- 10 x M22x1.5-122.5 Stud (Long, pressed in)
- 2 x Bearing Cup (HM518410)

IMPORTANT: As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under www.wabco-auto.com.
4. WHEEL-END REPLACEMENT PARTS - AXN

D. ABS SENSOR PN: AK-ABS-001

Content (per Brake):
• 1 x ABS Sensor: Wabco, Straight, 1 ft
• 1 x ABS Sensor Clip: Wabco

E. AIR BRAKE ACTUATORS (45° Clocking)

WABCO 20/24 PN: 925 380 003 0
WABCO TYPE 20 SERVICE PN: 423 505 074 0
TSE 24/24 PN: 2424TLD2-3721

Content (per Brake):
• 1 x Actuator

AIR BRAKE ACTUATORS (135° Clocking)

WABCO 20/24 PN: 925 380 004 0
WABCO TYPE 20 SERVICE PN: 423 505 073 0
TSE 24/24 PN: 2424TLD2-3722

Content (per Brake):
• 1 x Actuator

IMPORTANT: As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under www.wabco-auto.com.
4. SERVICE TOOLS

**BASIC SET PN: 640 195 522 2**

Content (per Set):
- 1 x Handle Bar
- 1 x Adapter
- 1 x Ratchet
- 1 x Drive Extension

**WABCO PAN 22-1 PN: 640 195 521 2**

Content (per Set):
- 1 x Drive-out bushing
- 1 x Drive-in bushing long 1
- 1 x Drive-in bushing long 2
- 1 x Drive-in bushing short
- 1 x Drive-in bushing cover
- 1 x Drive-in bushing short

**IMPORTANT:** As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under [www.wabco-auto.com](http://www.wabco-auto.com).
5. PROCUREMENT AND DISPOSAL OF SPARE PARTS

Procurement of Spare Parts

1. Identify the brake by means of the WABCO part number.

![WABCO part number diagram]

A - Vehicle manufacturer part number (this field may be blank)
B - Date of production
C - Assembly number
D - WABCO part number

Open INFORM at [www.wabco-auto.com]:

1. Enter the WABCO part number of the brake calliper.
2. Click “Repair”.
3. Open the spare part sheet.

Disposing of the brake components

1. Dispose of used and replaced parts in accordance with the national and regional regulations regarding environmental protection.

⚠ Generally brake components can be scrapped.

**IMPORTANT:** As referenced in the PAN 22-1 Assembly and Maintenance Instructions. New versions can be found in INFORM under [www.wabco-auto.com].

If you have additional questions about Installation and Maintenance, please contact your AXN Heavy Duty representative, or call AXN Headquarters at 502.749.3200.