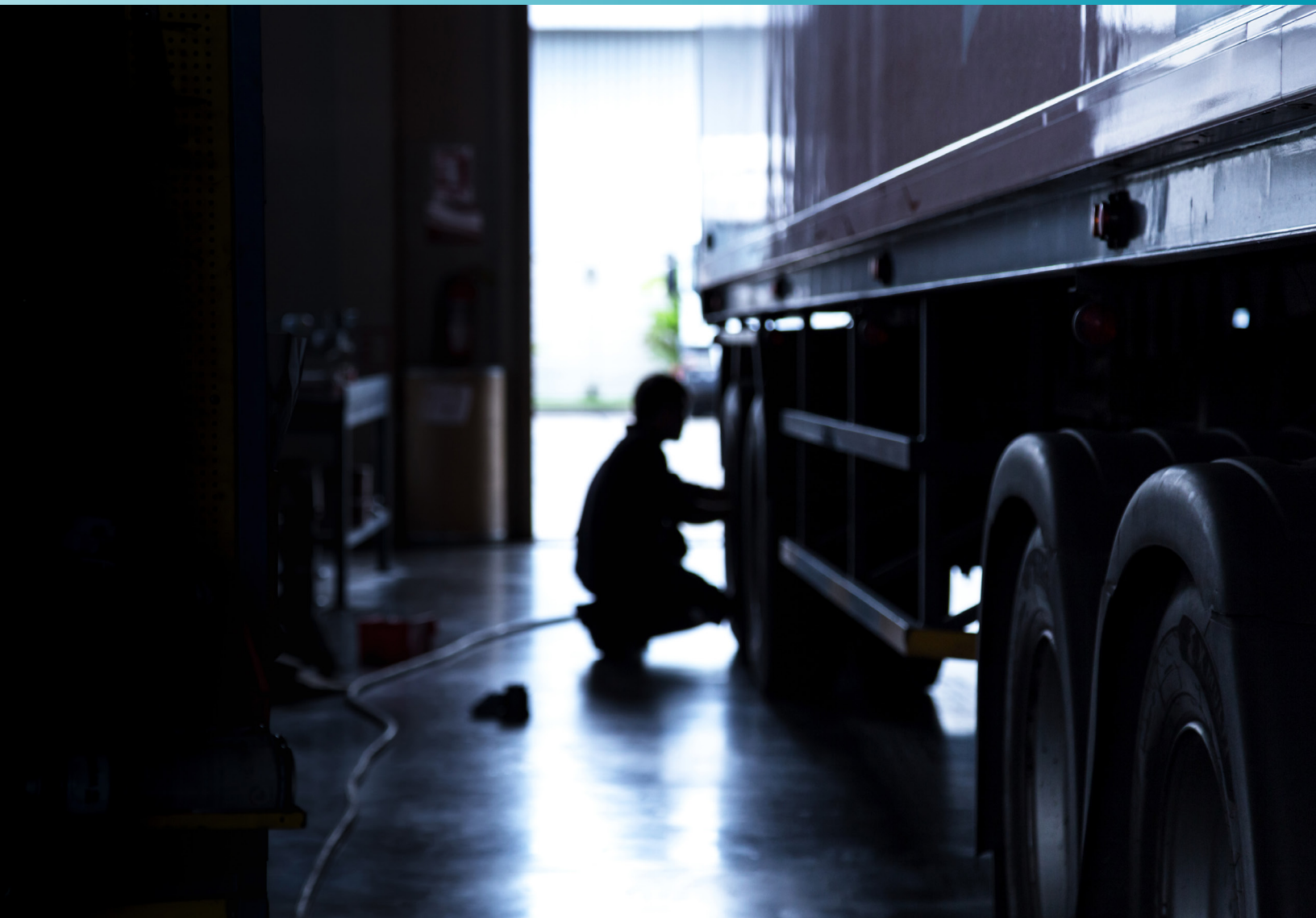




AFTERMARKET

# VISUAL INSPECTION AIR DISC BRAKES

SERVICE INFORMATION



TP19050

**WABCO**

## Purpose of Service Information

The purpose of this Service Information is to offer guidelines for the service and inspection of WABCO air disc brakes used on commercial vehicles in North America. It is highly recommended to inspect WABCO air disc brakes daily prior to driving the vehicle.

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## SAFETY INFORMATION

### CAUTION

Air disc brakes are high-performance braking equipment. Consequently, it is strongly recommended that only original equipment (OE) or genuine WABCO replacement parts be used when servicing and maintaining air disc brake repairs. Otherwise, the braking system may not perform as designed or intended.

### CAUTION

Prior to beginning any inspection, make sure the vehicle is properly parked with the parking brakes applied and wheels chocked.

## Your Direct Contact to ZF

### **ZF CV Systems North America**

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**[www.zf.com/cv](http://www.zf.com/cv)**

#### **Edition 1**

Version 1 (05.2020)  
TT19050 (en)

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## SERVICE INFORMATION

### INSIDE CABIN INSPECTION

#### Brake System Pressure

After turning the ignition on, examine the pressure gauges located on vehicle's front panel.

Always follow vehicle manufacturers specifications. If the manufacturer does not have brake system pressure specifications, primary (1) & secondary (2) circuits should reach minimum of 120 psi.

#### ABS SYSTEM (IF EQUIPPED)

Momentary illumination indicates the vehicle's ABS system is in proper working order.

Solid illumination indicates a problem with the vehicle's ABS system. If an ABS system issue is present the system should be repaired immediately to ensure full vehicle braking capability. Refer to vehicle or ABS manufacturer documentation for repair.



### EXTERNAL BRAKE SYSTEM CHECK

#### Brake Actuators

- Visually check the front and rear brake actuators for any abrasions, bulges, cuts, loose parts, broken or cracked air hoses or damaged components.
- Check that brake hoses and cables are properly secured, but allow the caliper full movement during normal operation.
- On parking brake chambers ensure that caging bolt plugs/covers are present and fully installed.



- Examine the entire pneumatic circuit, including connections, hoses and piping conditions for evidence of any heavy leakage.  
⇒ If heavy leakage is present or audible then immediate repair is recommended.



## SERVICE INFORMATION

### Brake Rotors

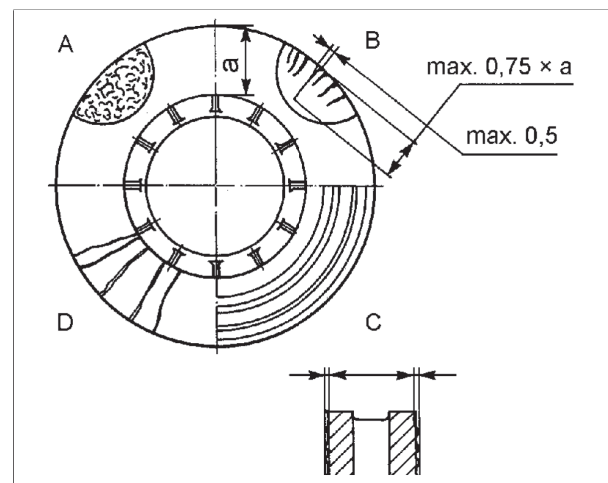
- If possible, visually check the rotors for large cracks, heavy grooves, heavy scoring, hot spots, or oil contamination.  
⇒ See below for examples of visual rotor conditions requiring further inspection.



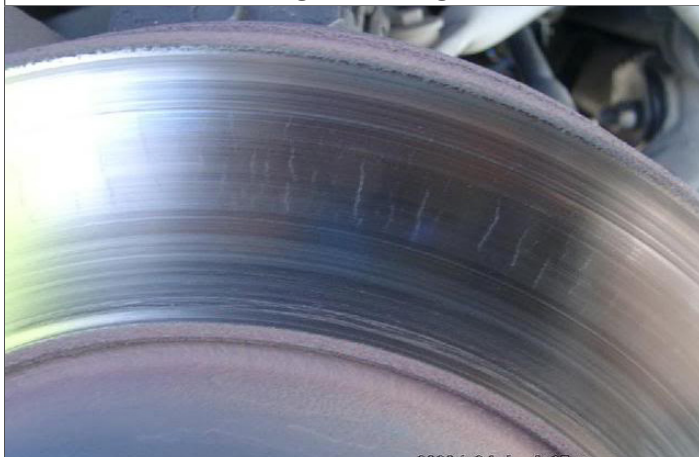
### Rotor Condition Inspection

- Check rotor for cracks, condition of rubbing surfaces and maximum wear dimension.

- A** Glazing = permissible
- B** Radial cracks max 0.019 inch / 0.5 mm = permissible
- C** Unevenness under 0.059 inch / 1.5 mm = permissible
- D** Cracks across outer surface = not permissible
- a** Outer surface



Light Cracking



Heavy Cracking - Out of Service Condition



## SERVICE INFORMATION

### Brake Pads

- Examine the brake pads visually for excessive wear, if possible.
- Inspect pads for evidence of oil or grease contamination. If pad material is contaminated it should be replaced. It is not recommended to “clean” and reuse an oil contaminated ADB pad assembly.
- Visual evidence of excessively worn pads causing “metal on metal” contact with the rotor should be inspected further.

### Maintenance Steps

- Aside from this pre-trip inspection all WABCO ADB's should be properly inspected and maintained according to the below inspection cycle table.
- Refer to the corresponding WABCO product maintenance manual for proper maintenance and service procedures for the brake caliper and pads.
- Refer to rotor manufacturer documentation for proper maintenance and service procedures.

## SERVICE INFORMATION

### INSPECTION CYCLE



A visual inspection of the brakes through the wheel is recommended during every tire pressure check.



This table provides a guide to maintenance interval planning. However, depending on the particular vehicle's application (e.g., severe duty\*\*, corrosive environment, heavy usage on rough or gravel roads, etc.) more frequent inspections of the braking system components may be necessary.

| Inspection Cycle  |   |                 |                       |
|---|---|-----------------|-----------------------|
| Kind of Inspection  | Every 6 Months<br>(4 months severe<br>duty**) | Every 12 Months | Every Pad<br>Exchange |
|   | Wheel On                                      | Wheel OFF       |                       |
| Inspect the pad thickness by visual inspection or measure caliper position with a ruler.                            | X   | X               |                       |
| Inspect the rotors for cracks through to vent channels, etc.  | X   | X               | X                     |
| Check boots, seals and end caps for rips, tears, damages, or cracks.  |   | X               | X                     |
| Measure pad wear, and inspect all retaining hardware for damage (pad retainer bar, pad springs, and mounting holes) |   | X               | X                     |
| Check running clearances and adjuster operation.  |   | X               | X                     |
| Check caliper slide movement (should move easily in and out by hand) and check caliper guiding pin bearing play.    |   |                 | X                     |
| Inspect all caps, hoses, and brake exterior for damage, etc.  |   |                 | X                     |
| Ensure brake pad retainer bar is torqued to specification.  |   |                 | X                     |



Refer to ZF warranty documentation for severe versus standard duty definition: [www.zf.com/cv](http://www.zf.com/cv)





**For further product details contact your distributor or the  
WABCO Customer Care Center at 855-228-3203.**

### **About ZF Group**

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate. ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 160,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and \$3.4 billion (WABCO). For more information, visit [www.zf.com/cv](http://www.zf.com/cv)

# **WABCO**