

**Measure no.**

[REDACTED]

**Subject**

Front brake caliper leaking

**Status date (mm/dd/yy)**

1/31/20

**Status**

Accepted

**Organization**

US, MOT

**Date created (mm/dd/yy)**

1/31/20

**Created by**

[REDACTED]

**PQM Problem reference**

**Release date (mm/dd/yy)**

**Approved by**

**Dealer release**

Allow automatic release

**Vehicles affected**

**E series**

K50/11 K51/11 K52 K67

**Engine**

**Body**

**Production period (from/to)**

(mm/dd/yy)

9/1/18 /

**Comment on production period**

**Feedback (all cases relating to**

**measure up to) (mm/dd/yy)**

**Complaint**

Front brake caliper leaking at the piston sealing ring or at the contact surface of the caliper parts.

**Cause**

1. Piston sealing ring damaged
  2. Seal at the contact surface of the caliper parts damaged during installation
  3. Cavity cut in the piston groove
  4. Contaminated by particles during installation
  5. The surface of the piston sealing ring and groove base on the caliper side is too rough
- > see also description in attachment

**Measure**

Visually inspect the front brake calipers on the vehicles.

1. Visible leak at the contact surface

Exchange the components if a leak is visible on the contact surface of the caliper parts, it is not possible to repair the component.

2. Leak at the piston sealing ring

If there are leaks at the piston sealing ring, different measures must be taken depending

on the vehicle identification number / serial number of the brake caliper.

Optimized calipers are installed ex works as of the following vehicle identification numbers:

- K50/11 (black caliper ) as of VIN [REDACTED]
- K50/11 (gold caliper ) as of VIN [REDACTED]
- K51/11 (black caliper) as of VIN [REDACTED]
- K51/11 (gold caliper ) as of VIN [REDACTED]
- K52 (black caliper ) as of VIN [REDACTED]
- K52 (gold caliper ) as of VIN [REDACTED]
- K67 as of VIN [REDACTED]

2.1) If there is a leak at the piston sealing ring in vehicles with a higher VIN than indicated above, exchange the sealing kit only.

Attention: Use new sealing kit part number 1 604 207

(available as of calendar week 05/2020)

In addition to the VIN, the brake caliper version can also be determined from the serial numbers on the caliper body. The technical status of the caliper body is optimized as of the following serial numbers and it must be repaired using a sealing kit:

- Left black caliper 19234161517
- Right black caliper 19234150844
- Left gold caliper 19226143856
- Right gold caliper 19225173952

2.2) In vehicles with a lower VIN than indicated above, replace the caliper completely if there is a leak at the piston sealing ring.

Attention: Use new part number 1 614 797 / 798 (black caliper) or

1 614 827 / 828 (gold caliper) (available as of calendar week 09/2020).

In the case of both repairs, we recommend carrying out a test drive with several vigorous braking actions even at high speed after carrying out the repair. This ensures the immediate conditioning of the brake caliper (settling of piston sealing rings).

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**Complaint**

<b>Fault location</b>	<b>Fault type</b>	<b>Fault place</b>
34/11 Brake caliper, front	Leak: brake fluid	Both sides / all

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**Cause**

<b>#</b>	<b>Fault location</b>	<b>Fault type</b>	<b>Fault place</b>
1	34/11 Brake caliper, front	Leak: brake fluid	Both sides / all

<b>Repair Task</b>	<b>Special Clearance</b>	<b>Area</b>
Checking, repairing, replacing	No	Chassis and Suspension

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**Fault code**341101

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**Progman / DIS / ISTA / ISTA/P**

<b>System</b>	<b>State</b>	<b>Version</b>
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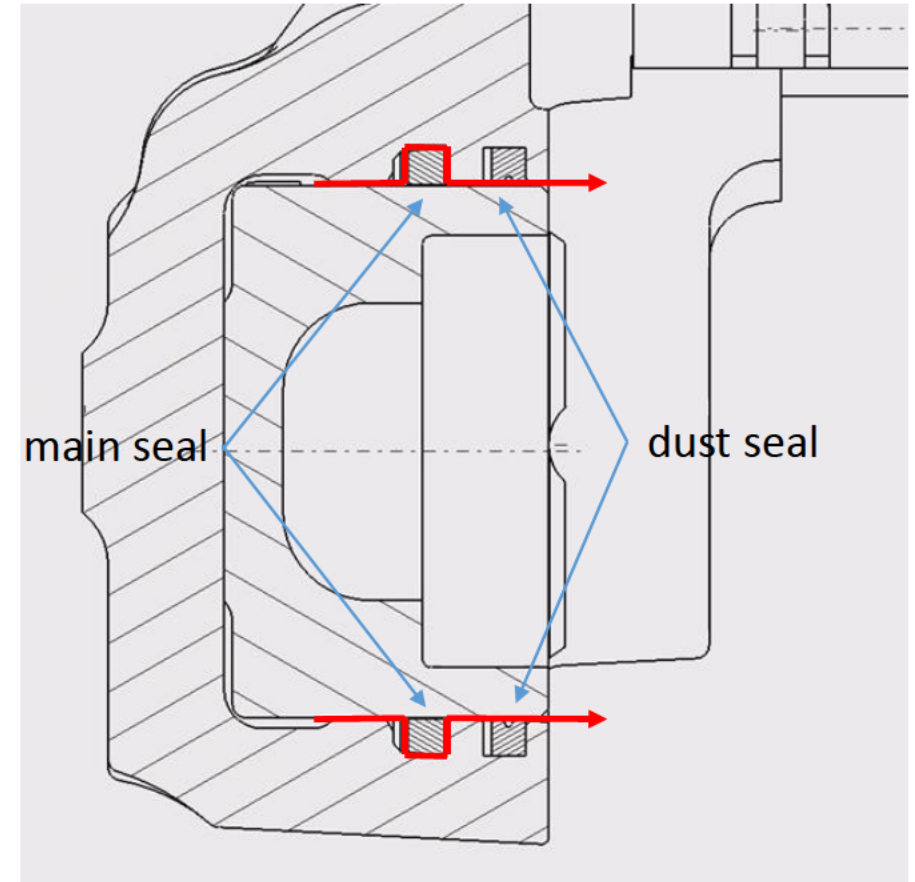
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# LOW PRESSURE LEAKAGE FRONT BRAKE CALIPER HAYES. ROOT CAUSE AND MEASURE

- **Core reason:**

Capillary effect between caliper body and primary seal due to too high finish roughness before launching the vehicle.

1. housing end : variation of finish roughness in the groove caused by the anodizing process
2. seal end : finish roughness due to production process (grinding)



# Low pressure leakage front brake caliper Hayes.

## Root cause and measure

- **Corrective actions in vehicle production:**

**Sept. 02nd 2019:** conditioning of the brake calipers before vehicle assembly (simulation of driving cycles; brake in process); → work off the rough tops

**Sept. 27th 2019 :** Lowering the roughness values of the caliper body by modification of the process

**cw 51/2019:** Lowering the roughness values of the seal outer surface by reducing the forward feed rate while grinding

**cw 03/2020 :** Change of the production process of the seal to casting process