

Measure no.

[REDACTED]

Subject

Front brake caliper weeping when parked

Status date (mm/dd/yy)

2/14/20

Status

Accepted

Organization

US, MOT

Date created (mm/dd/yy)

2/14/20

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 K69

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 weeping at the piston sealing ring or at the contact surface of the caliper parts when the motorcycle is parked / at standstill.

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 weep at the contact surface

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

2. Weep at the piston sealing ring

If there is weeping 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 at the factory 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 weep 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 KW05/2020)

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 weep 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).

As of production date 02/10/2020, the 'new sealing ring' remedial measure was introduced at the factory. If vehicles exhibit anomalies after this production date, create a TSARA case.

Complaint

Fault location	Fault type	Fault place
34/11 Brake caliper, front	Sealing surface not OK	Both sides / all

Cause

#	Fault location	Fault type	Fault place
1	34/11 Brake caliper, front	Surface fault	Both sides / all
	Repair Task	Special Clearance	Area
		No	

Fault code

341101

Progman / DIS / ISTA / ISTA/P

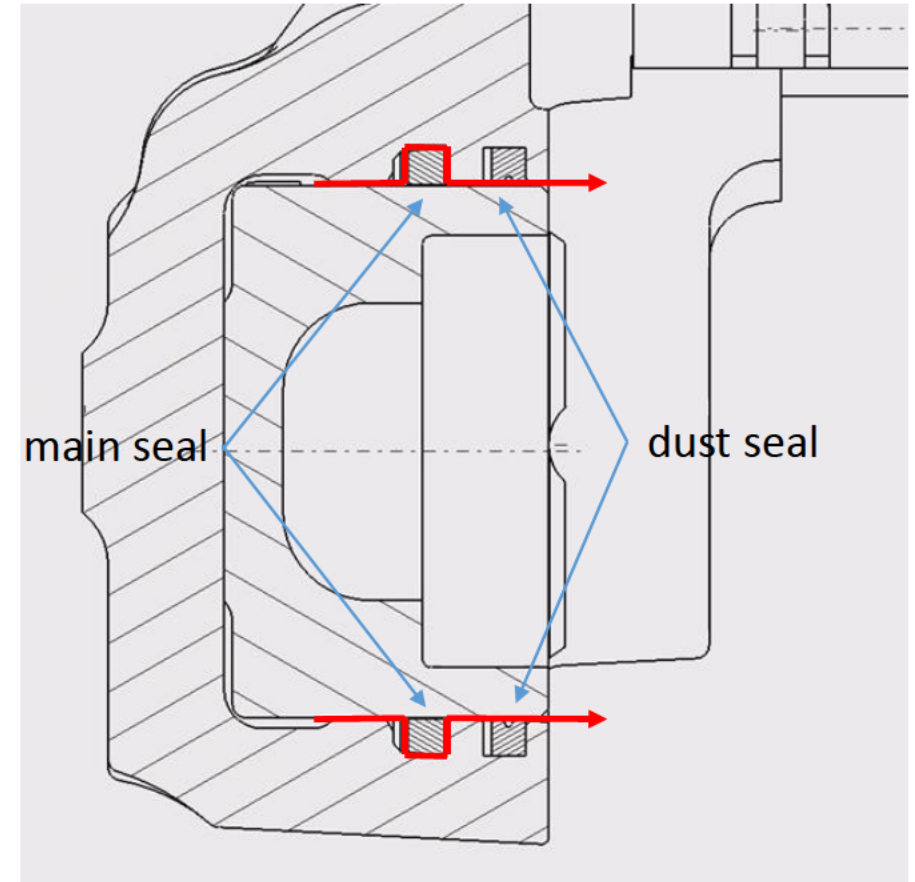
System	State	Version
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LOW PRESSURE WEEPING FRONT BRAKE CALIPER HAYES. ROOT CAUSE AND MEASURE

- **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 weepage 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