Technical product information

Topic	Service info: body/equipment: front exterior lighting steamed up/leaks
Market area	Bentley: worldwide (2WBE),Hongkong-Macau (5HK)
Brand	Bentley
Transaction No.	2050542/1
Level	EH
Status	Approval
Release date	

New customer code

Object of complaint	Complaint type	Position
lighting system, signalling -> exterior lights -> headlight	leaks -> water ingress	
lighting system, signalling -> exterior lights -> headlight -> headlight clear-glass lens	component / consumables -> fogged	> not specified <
lighting system, signalling -> exterior lights -> fog light	leaks -> water ingress	
lighting system, signalling -> exterior lights -> fog light -> fog light lamp	component / consumables -> fogged	

Vehicle data

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
*	2012	E		*	*	*
*	2013	E		*	*	*
*	2014	E		*	*	*
*	2015	E		*	*	*
*	2016	E		*	*	*
*	2017	E		*	*	*
*	2018	E		*	*	*
*	2019	E		*	*	*

Documents

Document name
master.xml
master.doc
checkliste_2017.doc

Customer statement / workshop findings

Customer statement:

1. The lenses of the headlights (illustration 1a) / front fog lamps (illustration 1b) are steamed up/damp from the inside with minor drips.

Illustration 1a (example for headlights)

Important: Observe accounting instructions.

Illustration 1b (example for front fog lamps)

Important: Observe accounting instructions.

or

2. Water is in the headlight (illustration 2a) / front fog lamp (illustration 2b), big drips.

Illustration 2a (example for headlights)

Illustration 2b (example for front fog lamps)

Workshop findings:

Customer statement for 1 (illustration 1a / 1b): The lenses of the headlights/front fog lamps are steamed up/damp from the inside with minor drips.

Customer statement for 2 (illustration 2a / 2b): Water is in the headlights/fog lamps, big drips on the complete lens. Leak on the headlights/front fog lamp.

Technical background

1. Damp air settles on the inner lens of the headlights/fog lamps, with recognisable misting in certain weather conditions (comparable with the steaming up of spectacle lenses when entering a warm room in winter or of the bathroom mirror after a shower).

2. Leak on the headlights/front fog lamps. For example through open covers, a damaged seal of the cap or similar.

Production change

1. Not affected.

2. Continuous fixing of detected causes.

Measure

▪

The following points have to be completed to prevent an unnecessary replacement of exterior lighting and another customer complaint about the front exterior lighting:

1. In case of a headlight complaint the light emission surface on the lens (illustration 3, point 2) must be clear after a journey of 5-10 minutes with sufficient ventilation (for example country road/motorway) and switched-on dipped beam . It is no problem if the remaining surfaces of the inner lens (illustration 3, point 1) are steamed-up after a journey. But the time for the clearing process depends on the outside temperature, the vehicle speed (at higher speeds the ventilation of the headlights is better) and the relative air humidity.

In this case use the argumentation aid (physical situation) under Customer information. **In this case a replacement of the headlights would not fix the problem and lead to a repeat repair.**

The above situation is shown in illustration 3:

Illustration 3

1 = steaming-up in the headlight

2 = light emission surface

2. In case of an obvious water ingress/leak (a lot of drips on the inside of the lens, illustration 2) check first the cover and the seals on the headlight/front fog lamp. In case of water ingress (damaged seal, lens and so on) perform the appropriate repairs according to the repair manual/parts catalogue.

Ask the customer to keep an eye on the situation. If despite above repair the customer complains again about leaking headlights/front fog lamps and water ingress or lots of drips can still be recognised after the checks, replace the headlights/front fog lamps according to the repair manual/parts catalogue.

▪

The decision whether to replace components of the front exterior lighting is yours. A technical repair enquiry to support the warranty accounting is not effective.

Even after a repair to fix a water ingress/leak components of the front exterior lighting may be steamed-up. The physical steaming-up must not be equated with renewed water ingress (drips in the headlight) and does not justify the replacement of components.

Warranty accounting instructions

▪

- **Components of the front exterior lighting submitted under warranty and determined as correct according to the test instructions of the manufacturer will be redebited. As part of the check by the manufacturer a pressure of 30 mbar is applied to the affected component of the front exterior lighting and a leakage check performed with a water bath.**
- **A simultaneous complaint on both front headlights because of a leak is very unlikely, as the fitted headlights were not installed at the same time, on the same production line or produced at the same location. A parts replacement on both sides would no t be effective. In this case please use the customer information below.**
- **The completed checklist (in the attachment) and photos of the complaint must be attached to the sent-in components of the front exterior lighting.**
- **If a warranty is made, the complaint must be documented (including photos and vehicle identification number).**
- **Relevant photos of the complaint must be attached to every vehicle report.**

Customer information

Argumentation with LED lights:

When switched on, lights with LED technology do not warm up the lens, as there are no infrared segments in the emitted light. Here only the pressure difference on the vents caused by the driving provides a through-flow and thus a clearing-up. The vents are arranged in such a way that the lens is cleared after driving a few kilometres.

Argumentation with conventional headlights/front fog lamps:

There are often complaints about steamed-up lenses on headlights/front fog lamps.

Air from outside circulates in ventilated headlights/front fog lamps. The open, splash water protected ventilation system (necessary for pressure compensation) leads to different "climate zones" in the headlight/front fog lamp. For example very hot sections where the lens is warmed up by the light and relatively cool ones where the lens is cooled down by the air stream.

High air humidity and temperature differences between headlight interior and surrounding area (sometimes when driving) can lead to condensation on the inside of the lenses, mainly in winter or in wet weather.

The steaming-up of the headlights/front fog lamps can be compared with a steamed-up windscreen but which can be kept clear by the defroster vent.

This can for example occur particularly after driving through a car wash, steam jets of the engine or the front end or overnight temperature changes and so on.

Particularly in the after-heating phase when the hot engine heats up the back of the headlight/front fog lamp while the lens is cooled down by fresh air, the slightest humidity settles straight away on the inside of the lens. On lenses with clear glass optics this phenomenon is more recognisable.

The physical steaming-up of the headlights/front fog lamps is an optical phenomenon which does not affect the function of the headlights (light output). Because of the materials used the steaming-up cannot lead to corrosion in the headlights/front fog lamps.

If the headlights/front fog lamps are steamed up, the light emission surface on the lens (illustration 3, point 2) must be clear after a journey of 5-10 minutes with sufficient ventilation (for example country road/motorway) and switched-on dipped beam . It is no problem if the remaining surfaces of the inner lens are steamed-up after a journey.

This phenomenon can occur on every headlight/fog lamp, as it is physically related.

▪

A replacement of the headlights/front fog lamps with physically related steaming-up is not permitted, as this is not a technical fault in the sense of warranty.

Checklist:
Headlamps leak/steamed-up

Dealer number: /	Customer:
Dealer name:	Registration number:
Order number:	Vehicle type (6 digit):
Contact person:	Vehicle identification number: ZZZ
Tel.:	Date of registration:
Fax No.:	Mileage:

Points to be checked: Headlamps: Halogen ☐ Xenon ☐ LED ☐

Fog lamp: ☐

Tail light cluster: Interior ☐ Exterior ☐

Side indicators: ☐

Workshop findings:

Steamed-up ☐ Leaks ☐ right ☐ left☐ Both sides ☐

Right part number:
Please read from fitted headlamps

Left part number:

					Yes	No
Are the headlamps / fog lamps / rear lights / side indicators steamed up now?					☐	☐
Has the customer accepted the argumentation (as in service info: 2043749/*?					☐	☐
Repeat repair?					☐	☐
Have the points in the Service info been completed?					☐	☐
Are there traces of dried-up water drops inside the headlamps / the fog lamps / the rear lights / side indicators?					☐	☐
Are all service lids on the headlamps / fog lamps / rear lights closed?					☐	☐
Spray water on headlamps / fog lamps / rear lights / side indicators or put vehicle in car wash: Does water get in?					☐	☐
Is there any mechanical damage which could cause a leak?					☐	☐
Park the vehicle in the workshop area (normal temperature): Do the headlamps / fog lamps / rear lights / side indicators thaw?{					☐	☐
Is the thawing speeded up by switching on the vehicle light?					☐	☐
Have the headlamps / fog lamps / rear lights / side indicators been removed and dried?					☐	☐
Have the headlamps / fog lamps / rear lights / side indicators been replaced before?					☐	☐
When did the complaint occur?	After being in car wash/high pressure cleaner				☐	☐
	After journey Urban ☐ Country road ☐ Motorway ☐				☐	☐
	The car was parked:	Outside ☐	In the garage ☐			
Was the light switched on					☐	☐
Weather:	Dry ☐	Fog ☐	Rain ☐	Snow ☐		
temperature ca. °C	Is the "Coming Home" function used (if fitted)?				☐	☐

Remarks:

Note: The check list is used to support the assessment and completion of the complaint.