# **Technical product information**

| Topic           | New Continental GT/GTC, New Flying Spur and Bentayga - Low Oil Pressure Warning During Early Vehicle Life - W12 only  |
|-----------------|---|
| Market<br>area  | Australia E04 Bentley rest Asia and Australia (6E04), China 723 Volkswagen (Anhui) Automotive CO (6723), China 796 VW Import Comp. Ltd (Vico), Beijing (6796), Germany E02 Bentley rest Europe (6E02), Japan E03 Bentley Japan (6E03), Korea, (South) E08 Bentley South Korea (6E08), United Arab Emirates E06 Bentley Middle East and Africa (6E06), United Kingdom E01 Bentley UK (6E01), United States E05 Bentley USA and rest America (6E05) |
| Brand           | Bentley   |
| Transaction No. | 2058423/11  |
| Level           | EH  |
| Status          | Approval  |
| Release<br>date |   |

## **Event memory entries**

| Diagnostic address          | Event memory entry                                   | Fault type | Fault status |
|-----------------------------|--|------------|--------------|
| 0001 - Engine electronics   | P052400: Engine Oil Pressure Too Low                 |            | Intermittent |
| 0001 - Engine electronics   | P052400: Engine Oil Pressure Too Low                 |            | static       |
| 0011 - Engine Electronics 2 | P052400: Engine Oil Pressure Too Low                 |            | Intermittent |
| 0011 - Engine Electronics 2 | P052400: Engine Oil Pressure Too Low                 |            | static       |
| 0001 - Engine electronics   | P15AA00: Engine oil pressure lower limit not reached |            | Intermittent |
| 0001 - Engine electronics   | P15AA00: Engine oil pressure lower limit not reached |            | static       |
| 0011 - Engine Electronics 2 | P15AA00: Engine oil pressure lower limit not reached |            | Intermittent |
| 0011 - Engine Electronics 2 | P15AA00: Engine oil pressure lower limit not reached |            | static       |

## New customer code

| Object of complaint   | Complaint type                             | Position |
|---|--|----------|
| information, navigation, communication, entertainment -> symbolic warning indicators -> oil pressure loss warning | functionality -> activates                 |          |
| information, navigation, communication, entertainment -> instrument displays -> engine oil pressure indicator     | functionality -> without function / defect |          |
| engine -> lubrication system  | concept                                    |          |
| engine -> engine operation  | functionality                              |          |

# Vehicle data

## **New Continental GT and New Continental GTC**

## Sales types

| Туре   | MY   | Brand | Designation | Engine code | Gearbox code | Final drive code |
|--------|------|-------|-------------|-------------|--------------|------------------|
| 3S31BB | 2018 | Е     |             | *           | *            | *                |
| 3S31BB | 2019 | Е     |             | *           | *            | *                |
| 3S31BB | 2020 | Е     |             | *           | *            | *                |
| 3S31BB | 2021 | Ε     |             | *           | *            | *                |
| 3S31BB | 2022 | Е     |             | *           | *            | *                |
| 3S31BB | 2023 | Е     |             | *           | *            | *                |
| 3S31BB | 2024 | Е     |             | *           | *            | *                |
| 3S31EB | 2021 | Е     |             | *           | *            | *                |
| 3S31EB | 2022 | Е     |             | *           | *            | *                |
| 3S31EB | 2023 | Е     |             | *           | *            | *                |
| 3S31EB | 2024 | Е     |             | *           | *            | *                |
| 3S41BB | 2019 | Е     |             | *           | *            | *                |
| 3S41BB | 2020 | Ε     |             | *           | *            | *                |
| 3S41BB | 2021 | Е     |             | *           | *            | *                |
| 3S41BB | 2022 | Е     |             | *           | *            | *                |
| 3S41BB | 2023 | Е     |             | *           | *            | *                |
| 3S41BB | 2024 | E     |             | *           | *            | *                |

| 3S41EB | 2021 | E | * | * | * |
|--------|------|---|---|---|---|
| 3S41EB | 2022 | Е | * | * | * |
| 3S41EB | 2023 | E | * | * | * |
| 3S41EB | 2024 | Ε | * | * | * |

# **Bentayga Series**

## Sales types

| Туре   | MY   | Brand | Designation | Engine code | Gearbox code | Final drive code |
|--------|------|-------|-------------|-------------|--------------|------------------|
| 4V14A9 | 2017 | E     |             | *           | *            | *                |
| 4V14A9 | 2018 | E     |             | *           | *            | *                |
| 4V14A9 | 2019 | E     |             | *           | *            | *                |
| 4V14A9 | 2020 | E     |             | *           | *            | *                |
| 4V14A9 | 2021 | E     |             | *           | *            | *                |
| 4V14A9 | 2022 | E     |             | *           | *            | *                |
| 4V14A9 | 2023 | Е     |             | *           | *            | *                |
| 4V14A9 | 2024 | E     |             | *           | *            | *                |
| 4V14G9 | 2020 | E     |             | *           | *            | *                |
| 4V14G9 | 2021 | E     |             | *           | *            | *                |
| 4V14G9 | 2022 | E     |             | *           | *            | *                |
| 4V14G9 | 2023 | E     |             | *           | *            | *                |
| 4V14G9 | 2024 | Е     |             | *           | *            | *                |

# **New Flying Spur**

## Sales types

| Туре   | MY   | Brand | Designation | Engine code | Gearbox code | Final drive code |
|--------|------|-------|-------------|-------------|--------------|------------------|
| ZG21BB | 2017 | Ε     |             | *           | *            | *                |
| ZG21BB | 2018 | Ε     |             | *           | *            | *                |
| ZG21BB | 2019 | Ε     |             | *           | *            | *                |
| ZG21BB | 2020 | Ε     |             | *           | *            | *                |
| ZG21BB | 2021 | Ε     |             | *           | *            | *                |
| ZG21BB | 2022 | Ε     |             | *           | *            | *                |
| ZG21BB | 2023 | Ε     |             | *           | *            | *                |
| ZG21BB | 2024 | Ε     |             | *           | *            | *                |
| ZG26BB | 2023 | Ε     |             | *           | *            | *                |
| ZG26BB | 2024 | E     |             | *           | *            | *                |

## **Documents**

Document name master.xml

INTERNAL

#### **Technical product information**

New Continental GT/GTC, New Flying Spur and Bentayga - Low Oil Pressure Warning During Early Vehicle Life - W12 only

### Customer statement / workshop findings

Warning on the Driver Instrument Panel (DIP) - Oil pressure too low

DTC's relating to oil pressure may also be stored within the Master ECU.

Diagnostic Trouble Codes (DTC) "P052400: Engine Oil Pressure Too Low" and/or "P15AA00: Engine oil pressure - Lower limit not reached stored in the Master Engine Control Unit (ECU)

Transaction No.: 2058423/11

## Technical background

#### TPI revision history - 2058423/11

- DTC's have been added into the header data
- Extra customer codes have been added into the header data



CAUTION: DO NOT CONTINUE WITH THIS DOCUMENT IF THE ENGINE EXHIBITS ANY ABNORMAL MECHANICAL NOISE OR HAS AN ENGINE LUBRICATING OIL LEAK – SEEK FURTHER ADVICE THROUGH A NEW OR EXISTING DISS QUERY

## Production change

All Vehicles post the following VIN's are to specification

- Bentayga SJAAN1ZV3MC034918
- New Continental GT SCBCW13S0NC085610
- New Continental GTC SCBDA33S9MC086073
- New Flying Spur SCBBB6ZG6MC086055

## NOTICE

NOTE: Should the issue/s described within this TPI be evident and the vehicle is post the advised VIN cut off please raise a DISS query and await feedback before conducting and further work

## Measure



VERY IMPORTANT: Prior to conducting the onward instructions, the following symptoms MUST be evident

Warning on Driver Instrument Panel (DIP) "Oil pressure too low"

## And/or

 Diagnostic Trouble Codes (DTC) "P052400: Engine Oil Pressure Too Low" and/or "P15AA00: Engine oil pressure - Lower limit not reached" stored in the Master Engine Control Unit (ECU)

Should any of the afore mentioned not be evident and the symptoms cannot be reproduced – No further action should be taken unless the issue can be reproduced or demonstrated by the customer



In the event the symptom/s are evident please conduct the onward Diagnosis Instructions

## **Diagnosis Instructions**



With a confirmed Customer complaint of low oil pressure warning displayed on the DIP and Diagnostic Trouble Codes "P052400: Engine Oil Pressure Too Low" and/or "P15AA00: Engine oil pressure - Lower limit not reached" stored in the Master ECU - Raise a full technical DISS query and proceed with this document, ensuring a detailed customer description regarding the issue is added or included to new or the existing DISS query

#### Step 1

Is this a repeat visit for the same low oil pressure concern?

Yes - Continue to Step 2

**No** – Follow <u>ALL</u> remaining instructions to completion

- Using the Bentley approved diagnostic tool take a vehicle Diagnostic log and attach to the DISS query.
- Read and record Measured Values IDE02756 and IDE02757 as follows:

**NOTE**: - Measured Values *IDE02756* – "*Number of manual engine starts*" and *IDE02757* – "*Number of automatic engine starts*" are currently only available for Continental and Flying Spur series vehicles, DO NOT attempt to record Measured Values for Bentayga.

Using the Bentley approved diagnostic tool.

- Select "Start Diagnosis" and follow the on screen prompts.
- Select "Control units" and then "Engine Control Module 1 (01 Engine Control Module 1)" Figure 1.

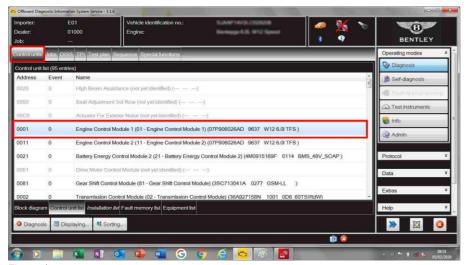


Figure 1

• "Right click" on "Engine Control Module 1 (01 – Engine Control Module 1)" and select "Guided functions" – Figure 2.

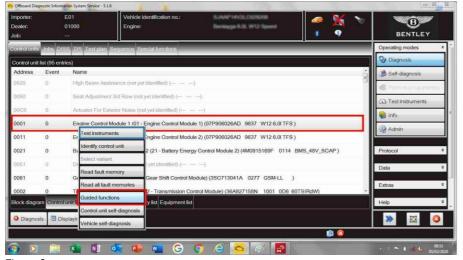


Figure 2.

Select "Read measured values" and then "Execute" – Figure 3.

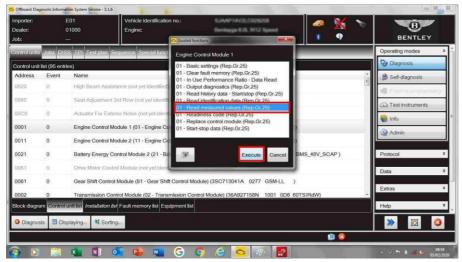


Figure 3

• Select "IDE02756" and "IDE02757" and then "OK" - Figure 4.

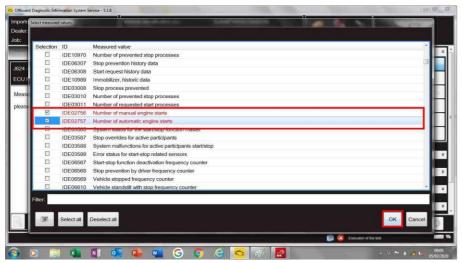


Figure 4

• Note the values of "IDE02756" and "IDE02757" and add this information to the DISS query, select "OK" - Figure 5.

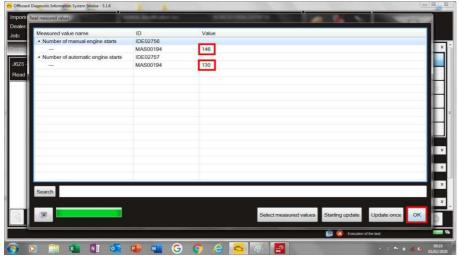


Figure 5

• Select "Done/Continue" and then exit the application – Figure 6.

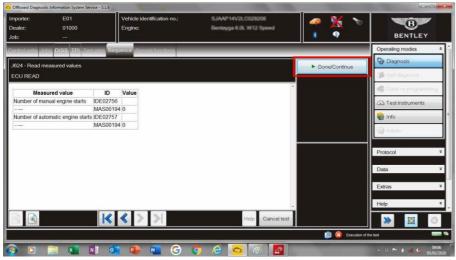


Figure 6.

- Check and confirm the engine lubricating oil level is correct, refer to Repair Group 17 Engine Lubrication / 6.0L W12 TSI / Engine oil To check add result to the DISS query.
- Measure the actual engine lubricating oil pressure, refer to Repair Group 17 Engine Lubrication / 6.0L W12 TSI / Engine oil pressure To check add result to the DISS query.

### Oil pressure values are:

| Engine Speed   | Minimum Oil Pressure (bar) | Permissible Tolerance (bar) |
|----------------|----------------------------|-----------------------------|
| 600 rpm (idle) | 1.3                        | +/- 0.3                     |
| 2000 rpm       | 1.6                        | +/-0.3                      |



Note: Always refer to the Electronic Workshop Manual (Elsa-Pro) for current minimum oil pressure values.

#### Is the oil pressure low?

Yes - Proceed to Step 2

No - Conduct a road test, as follows:

- The road test should be a minimum of 30km (18.6 miles)
- Drive the vehicle until normal Engine coolant operating temperature is achieved of 90°C
- The following procedure will cycle the engine lubricating oil pump from low duty to high duty:-
- Observing local highway rules and regulations, find a safe and suitable location to conduct the following:-
- Place the transmission selector lever into Manual gear mode "M", proceed to drive the vehicle, use the steering wheel gear selector
  paddles to select gears, when in second gear gently accelerate from 1500rpm to 4500rpm holding second gear, repeat this procedure
  fifteen times.
- Using transmission Drive mode "D" and sport mode, observe local highway rules and regulations, accelerate from standstill whilst
  depressing the accelerator pedal a maximum 25 to 50% of travel repeat five times. Do not use 100% accelerator pedal input
  during this test.



Caution: For New Continental Series vehicles

• If Sport mode is selected on the drive dynamics control, the Electronic Stability Control (ESC) is switched off, if the driver has selected manual gear mode "M" the transmission will not automatically up shift to the next gear.

## Has the issue cleared?

Yes - No further action is required.

No – Proceed to Step 2

#### Step 2

Refer to Repair Group 17 Engine Lubrication / 6.0L W12 TSI / Engine oil and filter - To renew.

- The engine lubricating oil should be drained through a fine gauze filter, once fully drained check the engine oil filter and fine gauze filter for
  contaminants or particles IMPORTANT Regardless of findings place the engine oil filter and gauze filter into a clean sealed container and
  retain for possible analysis IMPORTANT: Take clear photos of any contaminants or particles found
- Remove the Valve for Oil Pressure Control N428 (Refer to Figure 7 for fitting location) When the valve has been removed carefully
  examine it and the associated location on the engine for any signs of internal contamination, debris or damage.

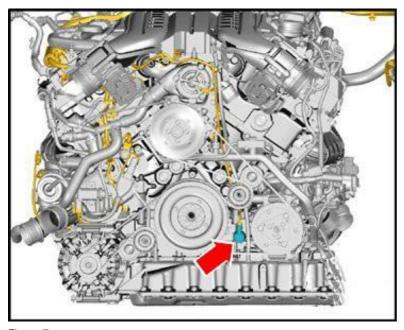


Figure 7

- Should NO contamination, debris or damage be found Refit N428
- Replace engine lubrication oil and filter Refer to Repair Group 17 Engine Lubrication / 6.0L W12 TSI / Engine oil and filter To renew.

#### Was debris found in the Engine oil - Oil filter or Oil pressure control valve?

Yes - Seek further advice via the DISS query.

No – Carry out a road test as follows:

- The road test should be a minimum of 30km (18.6 miles)
- Drive the vehicle until normal Engine coolant operating temperature is achieved of 90°C.
- The following procedure will cycle the engine lubricating oil pump from low duty to high duty:-
- Observing local highway rules and regulations, find a safe and suitable location to conduct the following:-
- Place the transmission selector lever into Manual gear mode "M", proceed to drive the vehicle, use the steering wheel gear selector
  paddles to select gears, when in second gear gently accelerate from 1500rpm to 4500rpm holding second gear, repeat this procedure
  fifteen times.
- Using transmission Drive mode "D" and sport mode, observe local highway rules and regulations, accelerate from standstill whilst
  depressing the accelerator pedal a maximum 25 to 50% of travel repeat five times. Do not use 100% accelerator pedal input
  during this test.



### Caution: For Continental Series vehicles

If Sport mode is selected on the drive dynamics control, the Electronic Stability Control (ESC) is switched off, if the driver has selected manual gear mode "M" the transmission will not automatically up shift to the next gear.

#### Is the Low oil pressure warning resolved?

Yes - No further action required.

**No** - Seek further advice via the DISS query.

## Warranty accounting instructions

Warranty Type - 110 or 910

Damage Service Number - 17 19

Damage Code - 0010

Labour Operation Codes - See table



If required - Claim for calibrating Driver Assist Systems - use the Workshop Manual procedure and labour codes in Elsa/Saga

| Description   | Labour Operation<br>Code | Time   |
|---|--------------------------|--|
| ODIS Diagnostic log   | 01 50 00 00              | Time taken from ODIS log                                       |
| ODIS Measured values - to read  | 01 50 00 00              | Time taken from ODIS log                                       |
| New Continental GT/C and New Flying Spur - Engine Oil level check - 12-cylinder, Petrol engine - Dipstick                     | 17 01 01 01              | 10TU   |
| Bentayga - Engine Oil level check - 12-cylinder, Petrol engine - Dipstick   | 17 01 01 01              | 20TU   |
| Engine Oil level check – Infotainment touch screen  | 17 01 01 02              | 10TU   |
| New Continental GT/C - Oil pressure check   | 17 03 01 50              | 10 TU  |
| Bentayga - Oil pressure check   | 17 03 01 50              | 20TU   |
| New Continental GT/C - Placing front end module into service position   | 50 38 09 00              | 500TU  |
| New Flying Spur - Oil pressure check  | 17 03 01 50              | 10 TU  |
| New Flying Spur - Placing front end module into service position  | 50 38 09 00              | 570TU  |
| New Continental GT New Continental GTC New Flying Spur Engine Oil and oil filter change - Includes - Strut remove + reinstall | 17 01 17 00              | 140TU  |
| Bentayga Engine Oil and oil filter change - Includes – Noise damping remove and reinstall                                     | 17 01 17 00              | 90 TU  |
| Road test   | 01 21 00 00              | (50 TU)  |
| Oil control valve N428 - To remove and refit  | 17 26 19 00              | (100 TU – New GT/GTC and New Flying Spur)<br>(70 TU –Bentayga) |

## **Parts information**

Refer to the Electronic Part Catalogue (ETKA)