Technical product information

Topic	V8 Kovomo - Engine misfires - Engine management light illuminated within the DIP
Market area	Russische Föderation (5RU),Australia E04 Bentley rest Asia and Australia (6E04),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.	2064776/1
Level	EH
Status	Approval
Release date	

New customer code

Object of complaint	Complaint type	Position
engine -> engine operation -> engine refinement	functionality -> misfire	
engine -> emission control	control units, services	
engine -> engine operation -> power development -> engine power	functionality -> uneven	
engine -> engine operation -> cylinder management	functionality -> without function / defect	

Vehicle data

V8 Kovomo engine

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
3S32CB	2020	E		*	*	*
3S32CB	2021	E		*	*	*
3S32CB	2022	E		*	*	*
3S42CB	2020	E		*	*	*
3S42CB	2021	E		*	*	*
3S42CB	2022	E		*	*	*
4V14D9	2019	E		*	*	*
4V14D9	2020	E		*	*	*
4V14D9	2021	E		*	*	*
4V14D9	2022	E		*	*	*
ZG22CB	2021	E		*	*	*
ZG22CB	2022	E		*	*	*

Documents

Document name
master.xml

Customer statement / workshop findings

- Engine misfiring
- Engine running rough (not refined)
- Engine misfire DTC's evident
- Engine management light illuminated within the DIP
- Knocking noise from the cylinder head (NOTE: The noise can be evident on either bank)

IMPORTANT: The symptoms described are typically evident during early life stages of vehicle use (between 100Km and 250Km)

Technical background

Refer to the Measure section of this TPI in the event the symptoms are as described

Production change

Not applicable

Measure

Compression test (All 8 cylinders)

1) Ensure all 8 cylinders are compression tested, the results MUST be photographed and recorded IMPORTANT: This action is an essential element of the investigation

Cylinder leakage test (All 8 cylinders)

2) Ensure all 8 cylinders are leak tested, the results MUST be photographed and recorded IMPORTANT: This action is an essential element of the investigation

Once a cylinder has been identified as having low compression and/or cylinder leakage issues, the operative MUST conduct the remaining steps to completion

NOTE: In the event that the compression and leak down tests show no obvious issues and the results for each cylinder are to specification

And

Misfires are still evident, please raise a new DISS query or respond via the already open DISS query

IMPORTANT: Await feedback from product support before conducting any further work

3) Referring to Rep.Gr 27 - Disconnect the battery

The next part of the process requires the engine rotating by hand, please ensure the engine is rotated in a clockwise direction (Normal direction of rotation)

NOTE: A second operative is required to manually rotate the engine clockwise whilst the valve operation of the suspected cylinder is closely monitored, a borescope is required to check the operation of each valve and piston surface condition within the suspected cylinder

4) Whilst the engine is rotated by hand - Record a clear video capturing the operation of each valve from the suspected cylinder IMPORTANT: Ensure any irregular valve operation is clearly captured within the video

- Using the borescope the operative must check for any signs of piston to valve contact and piston related damage
- Referring to the applicable Rep.Gr - Remove the CDA solenoid which operates the CDA of the suspected cylinder
- Using the borescope - Inspect inside the CDA solenoid orifice, check for any signs of broken valve spring(s) IMPORTANT: Where possible capture photos of valve spring(s)

TIP: In the event that the valve spring cannot be inspected through the CDA solenoid orifice, the operative should raise a new DISS query or respond via an already open query

5) On completion of the diagnosis process, the operative should raise a new DISS query or respond via an already open query ensuring all requested information is attached as follows:

- Clear video and photos of valve operation from the suspected cylinder
- Clear video and photos showing piston to valve contact/piston related damage from the suspected cylinder
- Clear video and photos of any broken valve spring(s)

VERY IMPORTANT: Await feedback from product support before conducting any further work

In the event the DISS query requests the operative to replace the engine or cylinder head, after removal of the original engine the operative MUST conduct the following:

- Remove the affected cylinder head
- Referring to Figure 1 - Take clear photos of the broken valve spring (from the affected cylinder only)

VERY IMPORTANT: Ensure the photos show the location in which the valve spring(s) is broken (ARROW) the various paint markings should also be captured within the photos

Figure 1

- Attach all photos to the open DISS query
- Attach the replacement engine number to the DISS query
- Affected parts may be requested back as per the normal parts return process