Technical product information

Topic	Coolant pump leaking (part number 07P 121 008C) - Low coolant warning - Engine overheating - DTC's evident
Market area	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.	2071239/1
Level	EH
Status	Approval
Release date	

New customer code

Object of complaint	Complaint type	Position
engine -> cooling system	leaks	
engine -> cooling system -> coolant	component / consumables -> too little	
lighting system, signalling -> sound signals -> "coolant level" acoustic warning	functionality -> activates	

Vehicle data

W12 Bentayga - New Continental GT/GTC - New Flying Spur

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
3S31AB	2018	E		*	*	*
3S31BB	2018	E		*	*	*
3S31BB	2019	E		*	*	*
3S31BB	2020	E		*	*	*
3S31BB	2021	E		*	*	*
3S31BB	2022	E		*	*	*
3S31BB	2023	E		*	*	*
3S31EB	2021	E		*	*	*
3S31EB	2022	E		*	*	*
3S31EB	2023	E		*	*	*
3S41BB	2018	E		*	*	*
3S41BB	2019	E		*	*	*
3S41BB	2020	E		*	*	*
3S41BB	2021	E		*	*	*
3S41BB	2022	E		*	*	*
3S41BB	2023	E		*	*	*
3S41EB	2021	E		*	*	*
3S41EB	2022	E		*	*	*
3S41EB	2023	E		*	*	*
4V14A9	2017	E		*	*	*
4V14A9	2018	E		*	*	*
4V14A9	2019	E		*	*	*
4V14A9	2020	E		*	*	*
4V14A9	2021	E		*	*	*
4V14A9	2022	E		*	*	*
4V14A9	2023	E		*	*	*
4V14G9	2020	E		*	*	*
4V14G9	2021	E		*	*	*
4V14G9	2022	E		*	*	*
4V14G9	2023	E		*	*	*

ZG21BB	2020	E		*	*	*
ZG21BB	2021	E		*	*	*
ZG21BB	2022	E		*	*	*
ZG21BB	2023	E		*	*	*
ZG26BB	2023	E		*	*	*

Documents

Document name
master.xml

Technical product information Transaction No.: **2071239/1**

Coolant pump leaking (part number 07P 121 008C) - Low coolant warning - Engine overheating - DTC's evident

Customer statement / workshop findings

One or a combination of the following is evident:

- Coolant leaking from the mechanical coolant pump
- Coolant witness marks on the mechanical coolant pump although coolant is not leaking/dripping from the pump
- Low coolant level warning displayed within the DIP

Or

- Engine overheating issues and/or DTC P218100: Cooling System Performance with symptom code 8113 or air in the coolant DTC's (various) is evident, in this scenario the operative should also refer to TPI 2051893/-

Technical background

CAUTION

This TPI is only applicable to vehicles which have a mechanical coolant pump with the part number of 07P 121 008C

However

In the event that a mechanical coolant pump with the part number of 07P 121 008B is fitted please refer to TPI 2071238/-

HINT: A borescope may have to be used when checking the part number of the mechanical coolant pump

NOTICE

NOTE TO PRODUCT SUPPORT: All confirmed C level coolant pump complaints MUST be second levelled to the Powertrain Senior Engineer for review, please wait for a response from the Powertrain Senior Engineer before responding to the retailer

Production change

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Measure

07P 121 008C mechanical coolant pump fitted

1) On receipt of the vehicle - Take a photograph of the coolant level within the coolant reservoir

- Using ODIS check to confirm that no DTC's are evident relating to low coolant or overheating issues in particular

DTC P218100: Cooling System Performance with symptom code 8113

Or

Air in the coolant DTC's (See Customer statement/workshop findings section if DTC P218100: Cooling System Performance with symptom code 8113 or Air in the coolant DTC's are evident

- Save the current ODIS log
- Take a photo of any coolant related warnings which are evident within the DIP
- Take a photo of any suspected coolant leaks

WARNING

The next part of the process requires the coolant system to be pressure tested, the operative must ensure the instructions within Rep.Gr 19 are followed. The engine MUST BE cold before conducting the pressure test

2) Referring to Rep.Gr 19 - Pressure test the coolant system to confirm if a coolant leak is evident from the mechanical coolant pump

NOTICE

VERY IMPORTANT: In the event that a leak is evident on a C level mechanical coolant pump and coolant is leaking/dripping as a result of conducting the coolant pressure test - Record a clear video of the leak (whilst carrying out the pressure test) the video must then be uploaded to a new or existing DISS query

- Refer to the video located within the Bentley Hub reference TPI 2071238/- the video shows an example of a coolant pump with no leak although a small coolant witness mark is evident (Figure 1) in this scenario the coolant witness mark should be cleaned off (using a suitable cleaning agent) to the condition shown in Figure 2

Figure 1

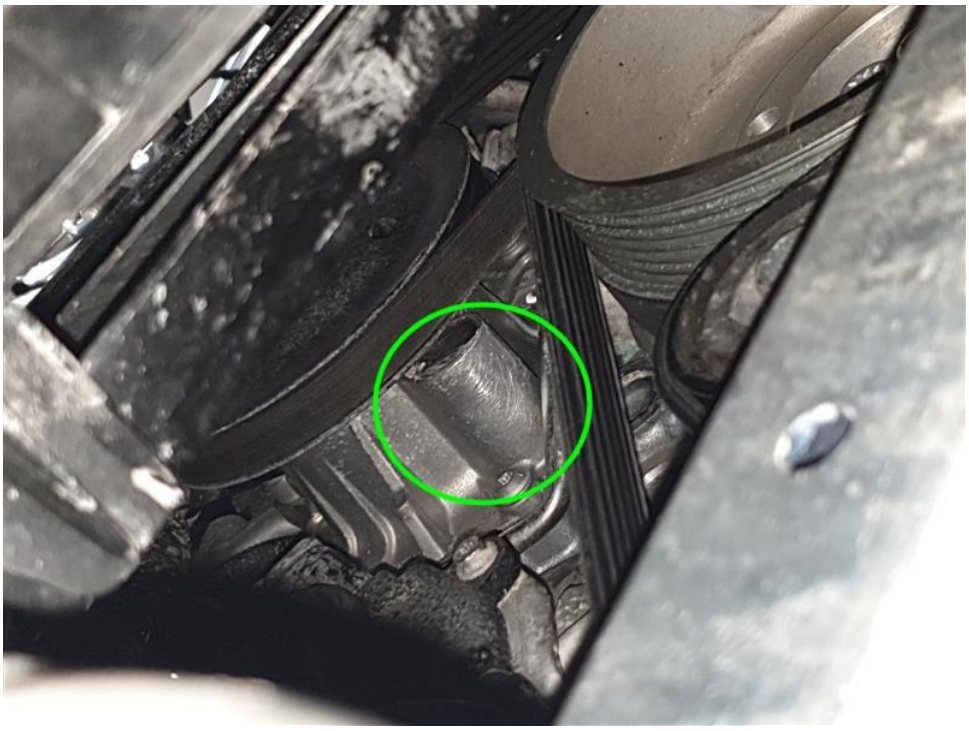

Figure 2

In the event that coolant is not leaking from the mechanical coolant pump whilst conducting the pressure test the operative must conduct Step 3 (road test) to confirm if a coolant leak is evident or not

However

If a coolant leak is evident whilst conducting the pressure test the operative must go directly to Step 4

3) Conduct a road test

- On return conduct a visual check to confirm if the leak is evident or not
- Should a leak not be evident, no further action is required

TIP: In the event there are no visible coolant leaks from the mechanical coolant pump and the coolant level is to specification as per Rep.Gr 10 - DO NOT replace the mechanical coolant pump (No further action is required)

However

- If a visible coolant leak is evident the operative should continue with the remaining instructions from Step 4

4) Referring to Figure 3 - Disconnect each vacuum hose with care from the Solenoid for coolant circuit N492 - visually monitor for any traces of coolant

Figure 3

HINT: Refer to the video on the Bentley Hub referencing TPI 2071239/-

VERY IMPORTANT: If traces of coolant are evident during disconnection, take clear photos or record a clear video of any coolant within the vacuum hoses or N492 and attach to a new or existing technical DISS query

Please note the quoted video should be used for reference purposes only as it may not show the same part which is fitted to the applicable vehicle (although the symptom is the same regardless of the type shown)

- Use a Mityvac or similar vacuum tool to check and confirm there are no vacuum related issues/leaks present within the system to check and confirm if N492 is sticking open and supplying a constant vacuum

5) The operative must raise a technical DISS query or respond via an already open DISS query to request permission to replace the mechanical coolant pump ensuring the following is attached to the DISS query:

- Clear photo of the coolant level
- Clear photo of the original mechanical coolant pump part number **07P 121 008C** (Figure 4)
- Video of the coolant leak whilst carrying out the pressure test
- Current ODIS log
- Await feedback via DISS before replacing any parts

NOTICE

NOTE TO PRODUCT SUPPORT: All confirmed C level coolant pump complaints MUST be second levelled to the Powertrain Senior Engineer for review, please wait for a response from the Powertrain Senior Engineer before responding to the retailer

NOTE: The photo shown in Figure 4 is a C level coolant pump (shown removed from the vehicle for photographic purposes) a borescope may have to be used for photographs of the coolant pump when fitted

Figure 4

6) Once permission has been given via the technical DISS query, replace the following

- Mechanical coolant pump - Rep.Gr 19
- Solenoid for coolant circuit N492 assembly - Rep.Gr 19

IMPORTANT: Ensure the vacuum hoses are free from moisture DO NOT use compressed air to attempt to remove moisture from the vacuum hoses (allow the moisture to naturally evaporate from the vacuum lines) as damage to other components and unintentional disconnection of vacuum hoses can occur if compressed air is used

Ensure all procedures within the Repair manual are followed including any alignments/calibrations which are required (Depending on vehicle specification)

NOTE: Do not discard the mechanical coolant pump (07P 121 008C or N492) as they may be requested for analysis

7) Conduct a road test to confirm the issue is no longer evident

Warranty accounting instructions

Warranty Type 110 or 910

Damage Service Number 19 50

Damage Code 00 50

Coolant pressure test

Labour Operation Code 19 01 01 00

Time 10 TU

Diagnosis time

Labour Operation Code 01 50 00 00

Time As per ODIS log (Must not exceed 30 TU)

Road test

Labour Operation Code 01 21 00 00

Time 50 TU

Bentayga

Time to replace the mechanical coolant pump and N492 assembly

Labour Operation Code 19 50 19 51

Time 70 TU

Time to remove and refit the front end module

Labour Operation Code 50 38 19 00

Time 760 TU

New Continental GT/C

Time to replace the mechanical coolant pump and N492 assembly

Labour Operation Code 19 50 19 01

Time 250 TU

New Flying Spur

Time to replace the mechanical coolant pump and N492 assembly

Labour Operation Code 19 50 19 00

Time 210 TU

Parts information

Refer to the ETKA parts catalogue