Technical Service Bulletin

Topic	Engine Overheating - Coolant Pump Leaking and Low Coolant Warning | W12
Market area	Bentley: worldwide (2WBE)
Brand	Bentley
Transaction No.	2071239/4
Level	EH
Status	Released for publishing
Release date	Nov 14, 2025

New customer code

Object of complaint	Complaint type	Position
engine -> cooling system -> coolant	component, automotive fluids -> too little	
engine -> cooling system	leaks	
lighting, signaling -> acoustic signals -> coolant monitoring audio warning	functionality -> activates	

Vehicle data

W12 Engine Variants

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		*	*	*
3S31EB	2021	E		*	*	*
3S31EB	2022	E		*	*	*
3S31EB	2023	E		*	*	*
3S41BB	2019	E		*	*	*
3S41BB	2020	E		*	*	*

3S41BB	2021	E		*	*	*
3S41BB	2022	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		*	*	*
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 Service Bulletin Transaction No.: **2071239/4**

Engine Overheating - Coolant Pump Leaking and Low Coolant Warning | W12 Release date: Nov 14, 2025

Condition

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 applicable to vehicles which have a mechanical coolant pump with the part number 07P 121 008B or 07P 121 008C

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

Revision history

TPI 2071239/4

Measure section test sequence amendment, perform the vacuum leak test and line inspection prior to the road test.

Production Solution

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Service

1) On receipt of the vehicle - Take a photograph of the coolant level within the coolant reservoir and inspect the engine bay for any coolant residue (figure 1).

Figure 1

NOTICE

If coolant residue is found in the engine bay, please raise a full technical DISS query and attach a photograph of the coolant residue and a photograph of the coolant level.

2) 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 online
- 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

3) 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 2). In this scenario the coolant witness mark should be cleaned off (using a suitable cleaning agent) to the condition shown in Figure 3

Figure 2

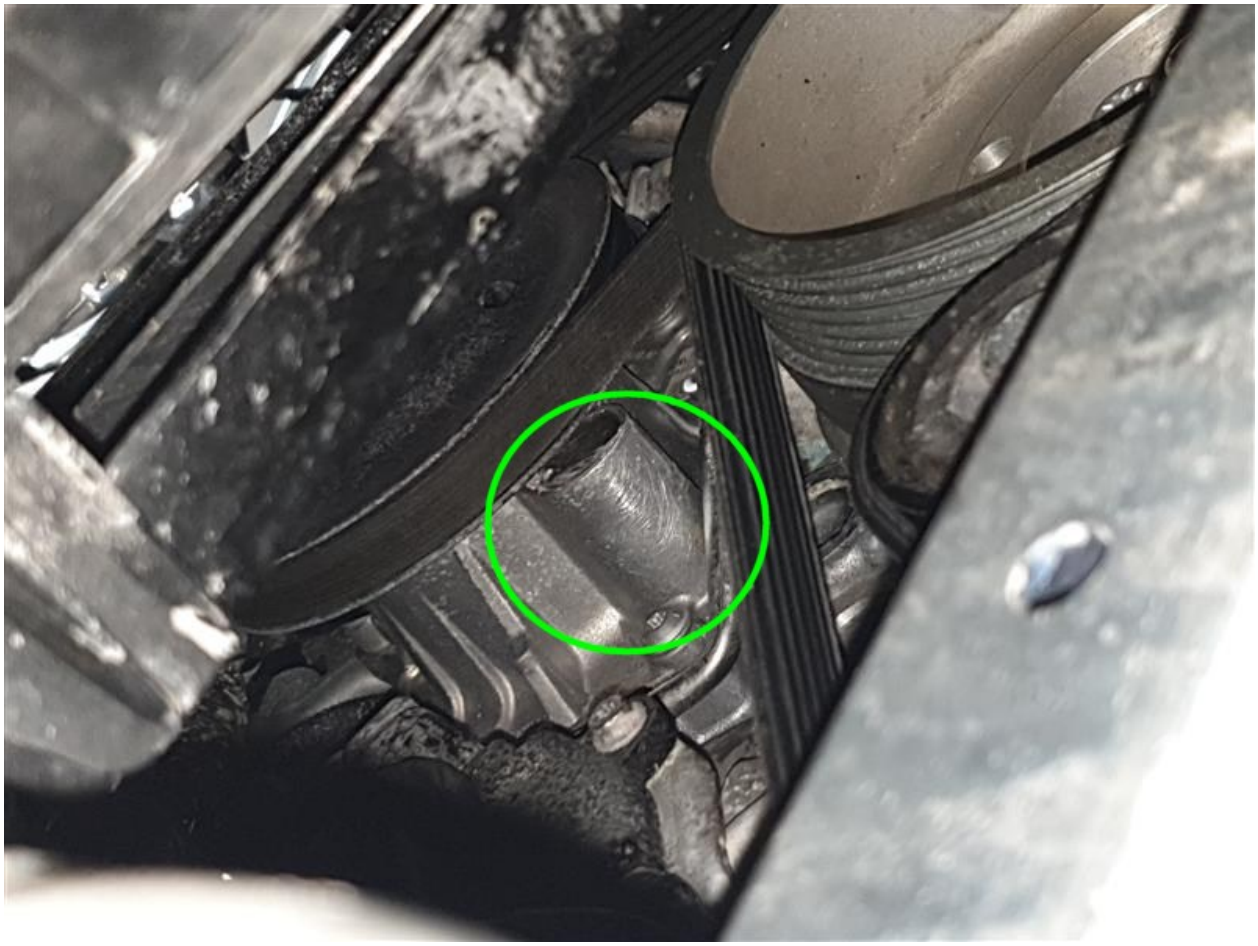

Figure 3

4) Perform a block (hydrocarbon) test

CAUTION
Before performing the block test ensure the test liquid is within its expiry date and is deep blue in colour

Note: Take photos or record a video both before and after the block test.

If the test liquid changes colour the block test has failed, please raise a full technical DISS query with the photos or videos attached.

NOTICE
If a B level coolant pump is fitted to the vehicle, proceed to step 9

If a coolant leak is evident whilst conducting the pressure test the operative must go directly to Step 8

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

Figure 4

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

NOTICE

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)

6) 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

7) Conduct a road test

On return, conduct a visual check to confirm if the leak is evident or not.

NOTICE

Should a leak NOT be evident, no further action is required.

NOTE: 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)

8) 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 5)
- Video of the coolant leak whilst carrying out the pressure test
- Current ODIS log
- Await feedback via DISS before replacing any parts

NOTE: The photo shown in Figure 5 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 5

NOTICE

If a C level coolant pump is fitted to the vehicle, permission MUST be granted before proceeding with step 9

9) Replace the following

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

NOTICE

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

In the event that 07P 121 008B was originally fitted and replaced with 07P 121 008C a non-technical DISS query is required (see NOTICE below)

NOTICE

IMPORTANT: When raising the non-technical DISS query, a clear photograph MUST be attached, confirming that the B level coolant pump was originally fitted prior to replacing it with a C level coolant pump

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

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

Warranty

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

Continental GT/GTC

Time to replace the mechanical coolant pump and N492 assembly

Labour Operation Code	19 50 19 01
Time	250 TU

Flying Spur

Time to replace the mechanical coolant pump and N492 assembly

Labour Operation Code	19 50 19 01
Time	210 TU

Required Parts and Tools

Refer to the ETKA parts catalogue