

Your Ref: MTS2022D0011571
Our Ref : CI/III22012763/P

9th February 2023

M/s India International Insurance Pte. Ltd.

64 Cecil Street #05-02
IOB Building
Singapore 049711

**TECHNICAL INVESTIGATION REPORT OF WARRARTY CLAIM INVOLVING
THE INSURED VEHICLE SLP 6650H ON 21st December 2022**

1. We refer to your letter dated 21st December 2022 and the instructions therein.
2. Our analysis, comments and opinions with respect to the cause of abnormalities to the insured vehicle SLP 6650H (herein referred to as “**Insured Vehicle**”) are set out below.

Inspection of the Insured Vehicle

3. The Insured Vehicle was physically inspected on 21st December 2022 at the premises of Elite Autocare Club Pte Ltd located at 25 Kaki Bukit Road, #01-37 Synergy@KB, Singapore 568047
4. A physical inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No.	: SLP 6650H
Make / Model	: MERCEDES BENZ E220D (A)
Chassis No	: WDD2130042A216891
Year of Registration	: JUNE 2017
Mileage	: 180,491KM

5. The complaint on the Insured Vehicle was noted to be that the engine was unable to be started up. The vehicle was towed into the workshop as it has lost its driving ability at the material time. The recommendation by the workshop to was to dismantle and overhaul the engine. The vehicle was observed to be unaffected by any signs of accident. See photos 1 – 5 below.



Photo 1 shows the mileage of the Insured Vehicle recorded at the time inspection at 180,491KM.



Photo 2 shows the general view of the front portion of the Insured Vehicle at the time of our inspection. The Insured Vehicle is observed to be unaffected by any signs of accident.

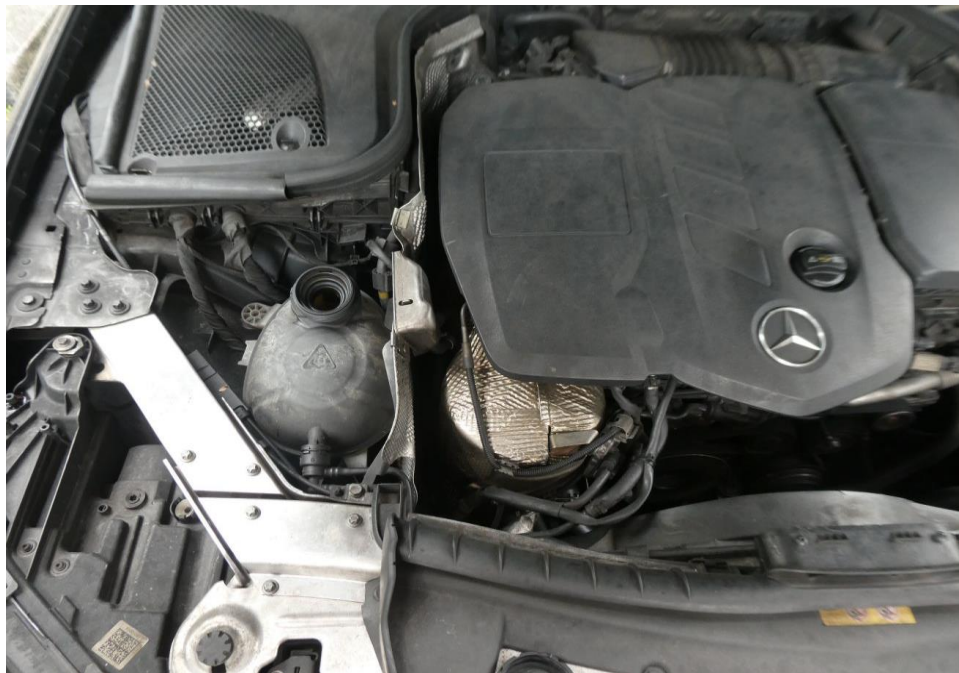


Photo 3 shows the general view of the engine portion of the Insured Vehicle at the time of our inspection. The engine compartment is observed to be unaffected by any signs of accident.



Photo 4 shows the chassis number of the Insured Vehicle at the time of our inspection.



Photo 5 shows the close up view of inside the coolant reservoir of the Insured Vehicle at the time of our inspection. The coolant reservoir is observed to be unaffected and by any signs of accident, however the coolant was observed to be insufficient.

6. Upon dismantling the engine, they have found damages to the engine head gasket, engine piston and connecting rod of the Insured Vehicle. We have observed rust that piston and inside the engine cylinder was observed to be covered in rust and rust was caused by the engine coolant. The head engine gasket was melted and stuck onto the surface of the engine block. We agreed that the complained problem of the engine being unable to be started up was caused by the overheating of the engine head gasket which had cause the engine head gasket to melt and give way to the engine coolant to flow into the engine piston and cylinder resulting in the engine piston and connecting rods to be damaged and build-up of rust on the surfaces. See photos 6 – 8 below.



Photo 6 shows the general view of the engine unit of the Insured Vehicle at the start of the dismantling. The exterior of the engine unit is observed to be unaffected and by any signs of accident.

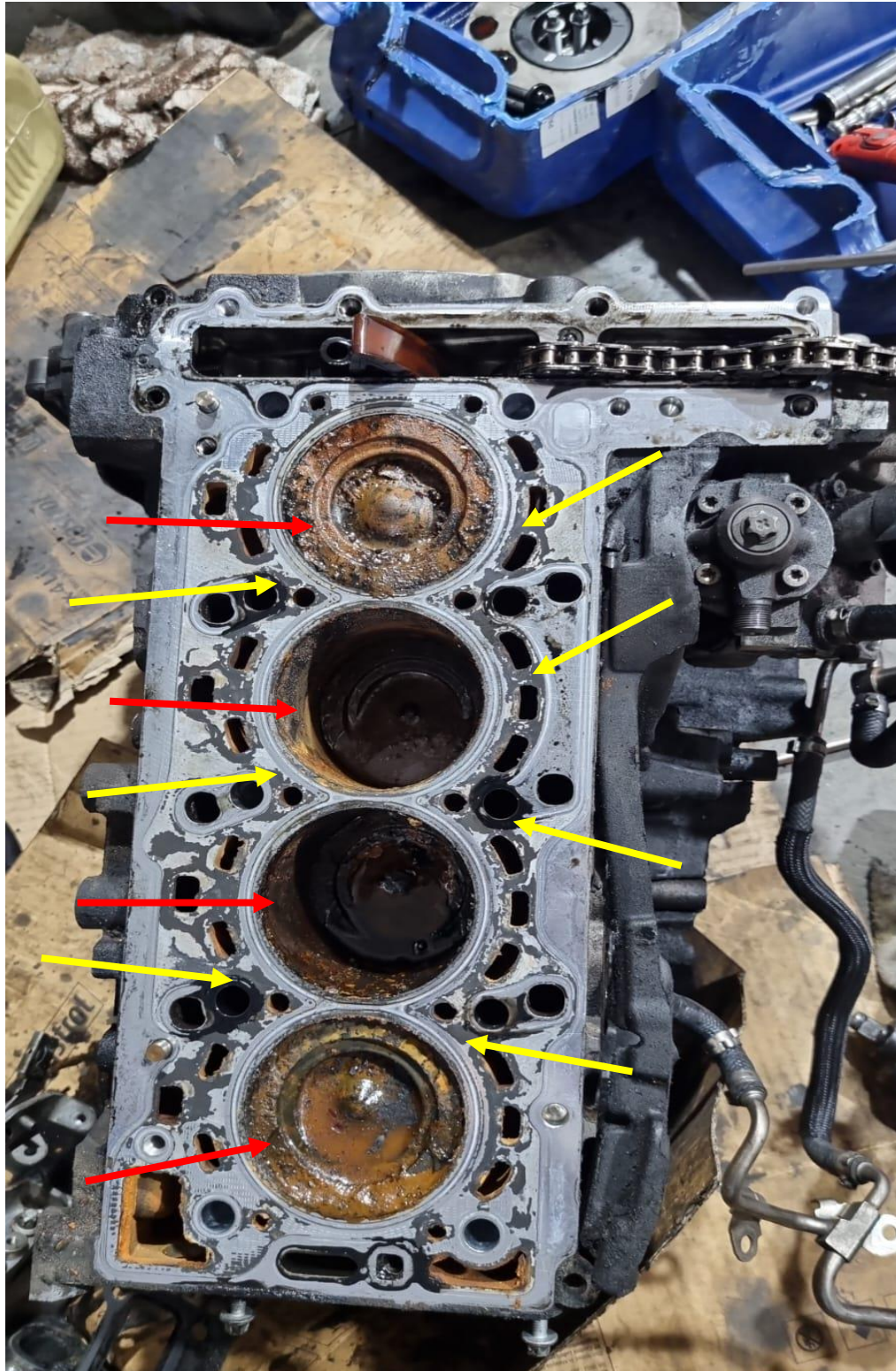


Photo 7 shows the close up view of the inside of the engine unit after the dismantling, we observed that piston and inside the cylinder (red arrow) was observed to be covered in rust as a result of engine coolant entering the engine piston and cylinder. The head engine gasket (yellow arrow) was melted and stuck onto the surface of the engine block.



Photo 8 shows the general view of the piston and connecting rod of the Insured Vehicle at the time of our inspection. We observed that the piston (red arrow) and connecting rod (yellow arrow) was damaged as a result of the engine coolant which had resulted in the damage to the engine.

7. From our understanding, the engine coolant runs in coolant galleries in a close loop system which was sealed by the engine gasket in the engine, however due to the wear and tear of the engine gasket overtime it causes the engine coolant to leak through the gasket and into the engine causing the engine to seize up and the result was rust build up on the piston and the damages to the connecting rods.
8. Our checks with both local and international bodies and associations had also revealed that at the time of writing this report, there is no manufacturer recall of similar make and model vehicle as the Insured Vehicle that may possibly be related to abnormalities being originated from the engine system of the Insured Vehicle. See search result from LTA below.

Vehicle Recall Details

* ONLY INFORMATION ON VEHICLE RECALLS SUBMITTED FROM 9 APRIL 2007 IS AVAILABLE

Owner ID Type Singapore NRIC	Owner ID 234F
Vehicle No. SLP6650H	Make/Model MERCEDES BENZ/ E220D AUTO
Engine No.: 65492080096308	Chassis No.: WDD2130042A216891
Recall Details: No Recall Detail records	

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Recall details. Shows the vehicle recall results retrieved from LTA's website. There was no recall on the Insured Vehicle at the time of incident.

Conclusion

9. Our investigations had also revealed that at the time of writing this report, there is no manufacturer recall to similar make and model vehicle as the Insured Vehicle that may possibly be related to this incident on the engine head gasket.
10. We note that the damage to the engine was caused by a worn engine head gasket. We refer to the warranty claim policy and the head gasket falls in the excluded parts in the policy coverage and is not eligible for warranty coverage.

**Sherwin Beh***Technical Investigator***Ang Bryan Tani***AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA**Senior Technical Investigator**Technical Investigation & Reconstructionist (SAE-A)*

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