

Your Ref: SNM23D200948/C01/LEWLC
Our Ref : CS4/CTI23001276/P

16th February 2023

M/s CHINA TAIPING INSURANCE (S) PTE LTD

3 ANSON ROAD
#16-00 SPRINGLEAF TOWER
Singapore 079909
(Motor Claims Department)

**TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE
INSURED VEHICLE YQ 3448L ON 5th February 2023**

1. We refer to your letter dated 7th February 2023 and the instructions therein.
2. Our analysis, comments and opinions with respect to the cause of fire to the insured vehicle YQ 3448L (herein referred to as “**Insured Vehicle**”) are set out below.

Inspection of the Insured Vehicle

3. The Insured Vehicle was physically inspected on 3th December 2019 at the premises of Ding Auto Pte Ltd located at 176 Sin Ming Dr, #04-06 Sin Ming Autocare, Singapore 575721
4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No.	: YQ 3448L
Make / Model	: MITSUBISHI CANTER FEA01BR1SEP (CBU)
Chassis No	: FEA01BA35124
Year of Registration	: APRIL 2021
Mileage	: NIL

5. The Insured Vehicle was noted to have sustained fire damage that was confined to its interior compartment portion. The exterior body was observed to be unaffected by the fire.

6. The fire was confined to its front left dashboard portion, however the fire had resulted in the various components located in the interior of the Insured Vehicle suffer from heat and smoke damages, this includes the front windscreen and several parts at the front dashboard that were also observed to sustain damages included electronic components & wirings. See photos 1 – 6 below.



Photo 1 shows the general view of the front portion of the Insured Vehicle at the time of our inspection. The fire damage to the Insured Vehicle was confined to its interior portion. Its exterior is observed to be unaffected by the fire.



Photo 2 shows the general view of the right portion of the Insured Vehicle at the time of our inspection. The fire damage to the Insured Vehicle was confined to its interior portion. Its exterior is observed to be unaffected by the fire.



Photo 3 shows the general view of the interior compartment of the Insured Vehicle at the time of our inspection. The fire was confined to its front left dashboard portion, however the fire had resulted in the various components located in the interior of the Insured Vehicle suffer from heat and smoke damages, this includes the front windscreen and several parts at the front dashboard that were also observed to sustain damages included electronic components & wirings.



Photo 4 shows the general view of the interior compartment of the Insured Vehicle at the time of our inspection. The fire was confined to its front left dashboard portion, however the fire had resulted in the various components located in the interior of the Insured Vehicle suffer from heat and smoke damages, this includes the front windscreen (circled) and several parts at the front dashboard that were also observed to sustain damages included electronic components & wirings.



Photo 5 shows the close up view of the interior compartment of the Insured Vehicle at the time of our inspection. Its left door (circled) was observed to sustain smoke and heat damages as a result of the fire.



Photo 6 shows the close up view of the interior compartment of the Insured Vehicle at the time of our inspection. The fire was confined to its front left dashboard portion, its front dashboard, electronic components & wirings (circled) were observed to sustain heat and smoke damages as a result of the fire.

7. At the time of inspection of the Insured Vehicle, we did not find any additionally fitted electronic and/or electrical component(s) on the Insured Vehicle. There also appears to be no modification(s) fitted on the Insured Vehicle.

Investigation and Technical Analysis

8. Based on the circumstances for this particular case, the fire appears to have originated from the interior portion of the Insured Vehicle, somewhere in the front left dashboard portion. This can be determined basing on the area where the extent of fire damage was most severe, the circumstances of the fires' origin at the material time of incident and also the burn marks and melting of material that were found at the front left dashboard portion.

9. Upon closer observations, the wirings in the front left dashboard portion were observed to be where the fire had started, we had found traces of greenish residue on the original wirings leading from the electrical components to the fuse box. The wirings were original wirings fitting from manufacturer. The presence of greenish residue indicates internal heating of copper wires, a sign of an electrical short circuit occurring. The greenish residue is normally left behind from the oxidation as a result of chemical reaction involving the copper wires. This physical evidence would then appear to suggest that the cause of fire to the Insured Vehicle could have possibly been due to electrical in nature. See photo 7-9 below.

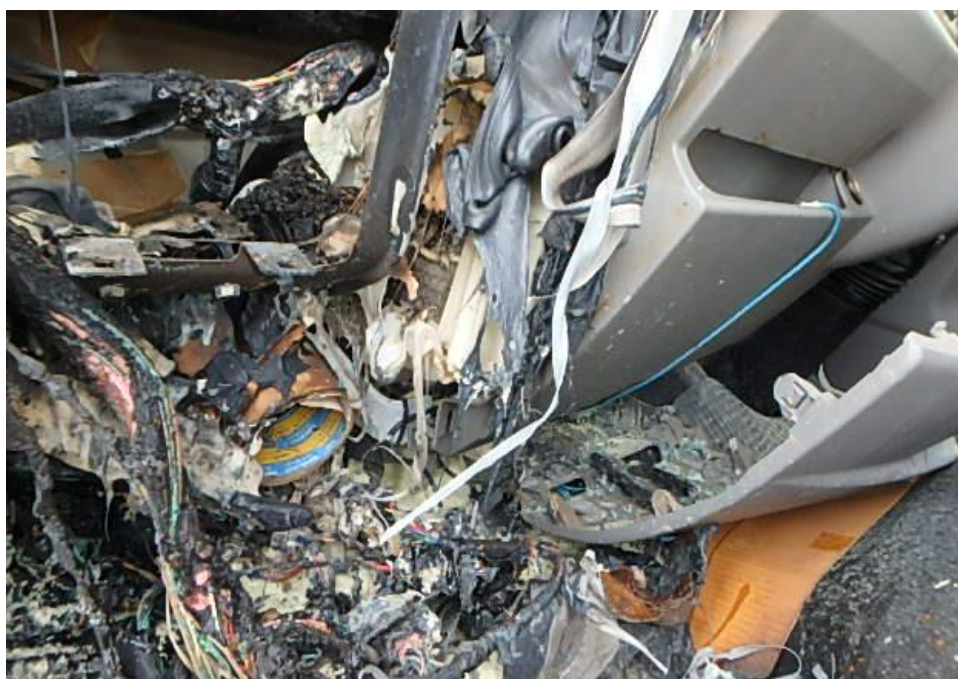


Photo 7 shows the general inside view of the front left dashboard portion of the Insured Vehicle at the time of our inspection. Observed that the items & electrical components in the front left dashboard portion had sustain heat & smoke damaged.



Photo 8 shows a close up view of the original wiring harness leading from the fuse box to the electrical components. The original wiring harness (arrowed) was observed with greenish residue on the surface. The presence of greenish residue indicates internal heating of copper wires, a sign of an electrical short circuit occurring. The greenish residue is normally left behind from oxidation as a result of chemical reaction involving the copper wires. This is likely where the fire had started from.



Photo 9 shows a close up view of the original wiring harness leading from the fuse box to the electrical components. The original wiring harness (arrowed) was observed with greenish residue on the surface. The presence of greenish residue indicates internal heating of copper wires, a sign of an electrical short circuit occurring. The greenish residue is normally left behind from oxidation as a result of chemical reaction involving the copper wires. This is likely where the fire had started from.

10. We managed to speak to the owner of the Insured Vehicle Ms Lew EE Ling on 10th February 2023 where we were able to gather further information pertaining to the incident as well as information pertaining to the history of the Insured Vehicle.
11. From the Singapore Accident Statement, which was made by Ms Lew EE Ling (herein referred to as “**Ms Lew**”), we note that the fire to the Insured Vehicle had started at a time when the Insured Vehicle was parked stationary at the parking lot in her office car park. Ms Lew was first informed by her office staff that members of public had contacted them by message informing them that the parked Insured Vehicle was emitting smoke from the interior cabin.
12. According to Ms Lew, the Insured Vehicle was a spare company vehicle that was parked at the office parking lot for the Chinese New Year break and hasn't been driven prior to the fire incident.
13. Ms Lew informed us that she was first informed by her office staff that members of public had contacted them by message informing them that the parked Insured Vehicle was emitting smoke from the interior cabin. Ms Lew informed us that upon receiving the message from members of public, they had rushed down and saw that the Insured Vehicle was smoking from the interior cabin and subsequently requested for SCDF assistances.
14. Ms Lew mentioned that SCDF arrived within 10 minutes and the smoke was put out shortly. She had her statement taken and subsequently, Ms Lew contacted insurance tow truck & had the Insured Vehicle towed to the authorised workshop Ms Lew proceeded down & made an accident report the follow day.
15. Ms Lew mentioned that he had not experienced any mechanical or electrical/electronic problems with the Insured Vehicle till the day of the incident. She also mentioned that there were neither warning lights displayed nor was there an abnormal rise in temperature throughout the period the Insured Vehicle and when driven by her staff, prior to the fire.
16. With regards to the history of the Insured Vehicle, we were able to gather from Ms Lew that the Insured Vehicle was purchased brand new and the Insured Vehicle belongs her who is the registered owner of the Insured Vehicle. Ms Lew informed us that the Insured vehicle is a spare sharing vehicle since the day the Insured Vehicle bought.

17. Pertaining to the maintenance aspect, Ms Lew staff will send the Insured Vehicle for periodical servicing. However, she informed us that all the servicing record was all kept in the front left dashboard which was all burnt up. She informed that there was no major overhaul done as the Insured Vehicle is new and seldom driven. There was no modifications done to the Insured Vehicle.
18. Given the circumstances of the incident as reported, the possibility of the cause of fire to the Insured Vehicle being due to engine overheating would seem unlikely as Ms Lew had mentioned to us that it was parked stationary for a period of time prior to the fire incident.
19. The possibility of the fire being due to external factors (foreign material(s) stuck on hot surfaces, arson and sabotage amongst others) would also seem unlikely as the fire occurred to the Insured Vehicle was from the interior cabin. The location where the Insured Vehicle caught fire was also observed to be not at a secluded location.
20. The possibility of the fire being due to electrical in nature would then seem more likely given that engine overheating and external factors would both seem unlikely. The fire being due to electrical nature is also supported by the condition of the wirings that were found leading from the original wirings from the electrical components to the fuse box on the Insured Vehicle, which was earlier discussed in paragraph 9 above.
21. 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 fire being originated from the exterior 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 Company	Owner ID 617M
Vehicle No. YQ3448L ←	Make/Model MITSUBISHI/ CANTER FEA01BR1SDEP (CBU)
Engine No.: 4P10E58036	Chassis No.: FEA01BA35124 ←
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 to the fire incident.

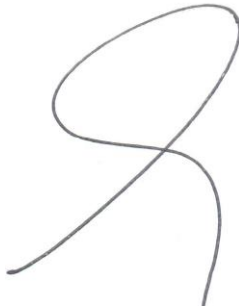
Conclusion

22. Having investigated and technically analysed the damages of burnt nature to the Insured Vehicle, we are of the view that the cause of fire to the Insured Vehicle was of electrical nature being pre-mature failure of product. For this particular case, the fire had originated along the original manufacturer wirings leading from the electrical components to the fuse box of the Insured Vehicle.
23. We did not find any evidence which had suggested that the cause of fire to the Insured Vehicle was due to poor maintenance and/or recurring electrical problem.

24. There was no modification(s) or additional electronic and/or electrical component(s) fitted on the Insured Vehicle at the time of our inspection of the Insured Vehicle.
25. 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.
26. SCDF was activated to attend to the fire incident and a fire report pertaining to their findings will likely be forth coming. We have applied for this fire report and will forward a copy of the report once it is made available to us.



Sherwin Beh
Technical Investigator



Ang Bryan Tani
AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA
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