

Your Ref: S0M02TBB 15 September 2020

Our Ref : CS4/ASM20009786/N

M/s AXA Insurance Pte. Ltd.

8 Shenton Way #24-01 AXA Tower Singapore 068811 (Motor Claims Department)

TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE INSURED VEHICLE SKW 451E ON 3 SEPTEMBER 2020

- 1. We refer to your request dated 14 September 2020.
- Our analysis, comments and opinions with respect to the cause of fire to the insured vehicle SKW 451E (herein referred to as "Insured Vehicle") are set out below.

Inspection of the Insured Vehicle

- 3. The Insured Vehicle was physically inspected on 15 September 2020 at the premises of M/s Hin Lung Auto Pte. Ltd. (herein referred to as "**HLA**") located at Block 1008 Bukit Merah Lane 3, #01-20 Singapore 159722.
- 4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded: -

Vehicle Registration No. : SKW 451E

Make / Model : Honda VEZEL 1.5X A

Chassis No : RU11101828 Year of Registration : October 2015

Mileage : N.A (wiring affected)

- 5. The exterior front body and interior compartment of the Insured Vehicle sustained visible fire damage. This included its front windscreen, wiper panel, left 'A' pillar, left side panel and instrument panel.
- 6. The engine compartment was relatively unaffected by the fire. See photos 1 8 below.





Photo 1 shows the general view of the frontal portion of the Insured Vehicle at the time of our inspection. The exterior front body and interior compartment of the Insured Vehicle sustained visible fire damage. This included its front windscreen, wiper panel, left 'A' pillar, left side panel and instrument panel.



Photo 2 shows the general view of the left front portion of the Insured Vehicle at the time of our inspection. The exterior body of the Insured Vehicle had sustained visible fire damage. This included its front windscreen, wiper panel, left 'A' pillar, left side panel and instrument panel.



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Photo 3 shows a closer view of the front windscreen of the Insured Vehicle at the time of our inspection. The front windscreen and wiper panel had sustained minimal fire damage (arrowed).



Photo 4 shows a closer view of the front windscreen and wiper panel of the Insured Vehicle which had sustained minimal fire damage (arrowed).



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Photo 5 shows a general view of the engine compartment of the Insured Vehicle at the time of our inspection. The engine compartment was relatively unaffected by the fire.



Photo 6 shows the interior compartment of the Insured Vehicle at the time of our inspection. The left portion of the interior compartment of the Insured Vehicle had sustained minimal fire damage (arrowed).



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Photo 7 shows a closer view of the left portion of the interior compartment (after removing the glove compartment) of the Insured Vehicle at the time of our inspection. The left portion of the interior compartment of the Insured Vehicle had sustained fire damage (circled).



Photo 8 shows a close up view of the left portion of the interior compartment of the Insured Vehicle which had sustained fire damage (arrowed).



Circumstance of Incident

- 7. From the Singapore Police Report No. D/20200904/203 and Accident Statement, which was made by one Natarajan Selvakumar (herein referred to as "**Mr Kumar**"), we note that the fire to the Insured Vehicle had started at a time when he was driving the Insured Vehicle.
- 8. We spoke to Mr Kumar on 17 September 2020 and through telephone conversation, we were able to gather further information pertaining to the incident as well as information pertaining to the history of the Insured Vehicle.
- 9. On 3 September 2020 at about 1730hrs, Mr Kumar picked up his wife from her workplace at Kranji and drove home. As he approached the ground floor of the multi storey carpark of his home located at Block 509 Woodlands Drive 14, his wife smelt smoke coming from the Insured Vehicle's front passenger seat. His wife went home and Mr Kumar called his friend, Mr Mayathevan Mayandi (herein referred to as "Mr Mayandi") who came down shortly after to assist him. Mr Mayandi checked the Insured Vehicle but could not detect where the smoke is coming from. He then suggested to Mr Kumar that maybe there was insufficient coolant in the radiator but when Mr Kumar checked the radiator it was full.
- 10. Mr Kumar then contacted his workshop. He was advised to drive to the workshop at Ang Mo Kio. When Mr Kumar started the Insured Vehicle and drove for about 1 to 2 metres, both of them saw a lot of white smoke emitting from the left portion of the instrument panel. Mr Kumar immediately switched off the engine and opened all the doors. Suddenly Mr Kumar saw a fire breaking out from the compartment in front of the front passenger seat.
- 11. Mr Kumar called the SCDF who advised him to attempt to put out the fire with a hose reel whilst waiting for their arrival. My Kumar managed to extinguish the fire before the SCDF's arrival. Mr Kumar mentioned that there was neither any consequential damage to other vehicles nor government property.
- 12. Both the SCDF and police arrived at the incident scene in 10 minutes. Mr Kumar assisted the SCDF in their preliminary investigations. The police took down Mr Kumar's statement. The tow truck arrived around 2000hrs. The Insured Vehicle was towed to HLA. Mr Kumar lodged a police report the following day, on 4 September 2020 at Queenstown Neighbourhood Police Centre at 1929hrs. He later made an insurance report the on 5 September 2020 at HLA at 1039hrs.



13. With regard to the history of the Insured Vehicle, we were able to gather from Mr Kumar that the Insured Vehicle was purchased second hand in year 2017 from Straits Drive Pte. Ltd. He is the registered owner and only driver of the Insured Vehicle. As far as he can recall, he has not experienced any major mechanical and/or electrical problem with the Insured Vehicle. The last servicing carried out to the Insured Vehicle was in September 2019 at Edwin Garage Automotive Services Pte. Ltd. Mr Kumar was able to provide us a document relating to this servicing, where we note from the contents of the document, the engine oil, air filter and wipers of the Insured Vehicle were replaced. The date recorded for this servicing was 28 September 2019. See photo 9 below showing the servicing document that we had reviewed.

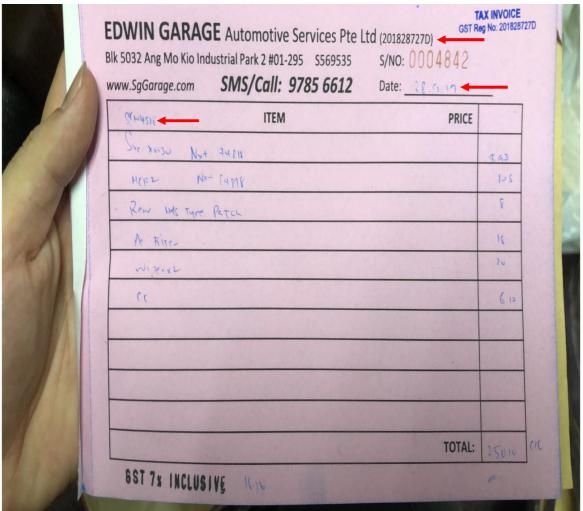


Photo 9 shows the document relating to the servicing of the Insured Vehicle on 28 September 2019 at Edwin Garage Automotive Services Pte. Ltd. (arrowed). According to Mr Kumar, this was the latest servicing carried out. From the document provided, we note that the engine oil, air filter and wipers were replaced during this servicing which was listed in the document.



14. During our telephone conversation with Mr Kumar, we were informed that he had taken video recordings of the Insured Vehicle when smoke was emitting from the left portion of the interior compartment and also some photographs after the fire was extinguished. These were duly forwarded to us for review.

Investigation and Technical Analysis

15. The video recordings provided had showed the Insured Vehicle with smoke emitting from the left portion of the interior compartment as well as after the fire was extinguished and being towed. The extent of fire damage was similar to what we observed when we inspected the Insured Vehicle. The background seen from the photographs had also corresponded to the incident occurring at the multi storey carpark near Mr Kumar's home. Generally, the information that we were able to gather from the video recordings provided by Mr Kumar had corresponded to the information that he had related to us during our telephone conversation on 17 September 2020. See photos 10 – 12 below.



Photo 10 shows screenshot taken from the video recording that was provided by Mr Kumar. The Insured Vehicle could be seen with intense smoke emitting from the left passenger side (arrowed).



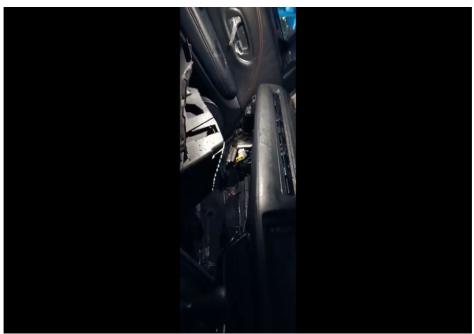


Photo 11 shows the Insured Vehicle after the fire was extinguished. Generally, the information that we were able to gather from the video recordings provided by Mr Kumar had corresponded to the information that he had related to us during our telephone conversation on 8 September 2020 which was he had managed to put out the fire with a hose reel.

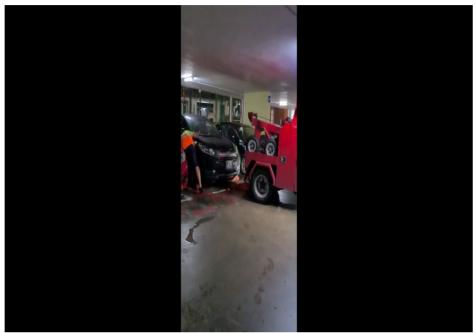
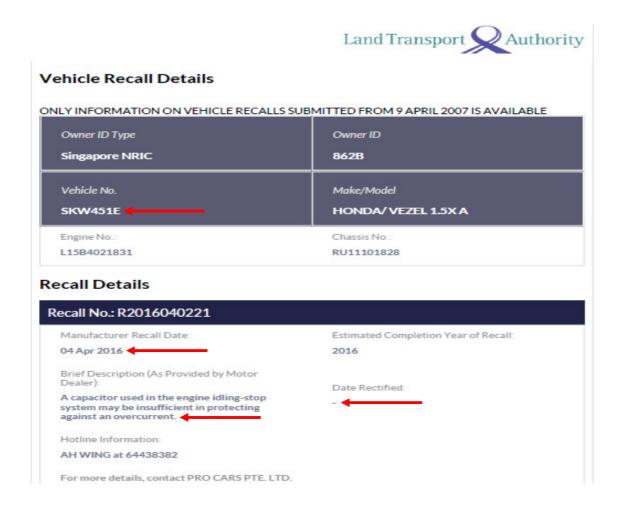


Photo 12 shows the Insured Vehicle being prepped to be towed to HLA post-incident. The extent of fire damage was similar to what we observed when we inspected the Insured Vehicle. The background seen from the photographs had also corresponded to the incident occurring at the multi storey carpark near Mr Kumar's home.



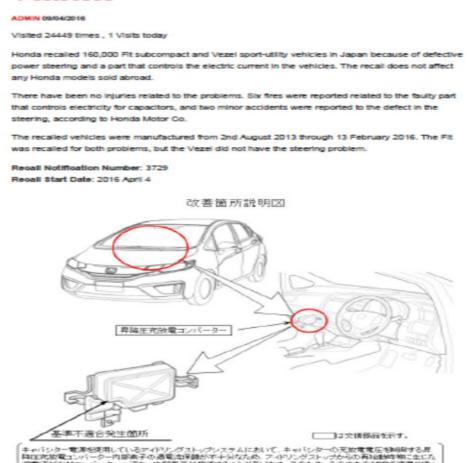
- 16. For this case, Mr Kumar first saw smoke coming out from the gaps surrounding the dashboard. Taking Mr Kumar's observations into consideration, the fire to the Insured Vehicle had originated around the left side of the dashboard, at or near the glove compartment area; with the cause of fire related to a defective originally fitted component. The following paragraphs discuss this aspect.
- 17. The Insured Vehicle was involved in a manufacturer recall campaign in year 2016. The recall was for issue relating to a capacitor used in the engine idling stop system of the Insured Vehicle, which may be insufficient to protect against an overcurrent. Notably, the records had indicated that rectification to address the issue has not been carried out to the Insured Vehicle prior to this incident. See search result below obtained from LTA.





18. Our further research and checks on the capacitor that was mentioned in the recall details of the LTA search result revealed that this capacitor is a component that is fitted onto the inner side of the Insured Vehicle's front left "A" pillar, towards the left and below the glove compartment of the Insured Vehicle. We note that this location is at or near the location where Mr Kumar had seen the most smoke. Basing on the information gathered pertaining to the capacitor; and given that no rectification to address the capacitor issue was carried out to the Insured Vehicle (as per LTA records), it can be determined that the fire to the Insured Vehicle is related to the purpose of the manufacturer recall campaign that involved the Insured Vehicle. See screenshots 1 & 2 showing the search result below gathered from our further research and checks.

Honda Recalls 160,000 Fit and Vezel Vehicles



Screenshot 1 shows the write up that we were able to gather pertaining to the manufacturer recall campaign of similar make and model vehicles as the Insured Vehicle.



「キャパシター電源を使用しているアイドリングストップシステムにおいて、キャパシターの充放電電圧を制御する昇降圧充放電コンパーター内部素子の過電流保護が不干分なため、アイドリングストップからの再始動時等に生じた過電流が当該コンパーターへ流れ、内部素子が損傷することがあります。そのため、そのままの状態で使用経過すると素子が発熱し、素子周辺の樹脂材が炭化し電流が流れ続け、発煙・発熱し、最悪の場合、火災に至るおそれがあります。

Screenshot 2 shows a zoom in view of the schematic diagram pertaining to the manufacturer recall campaign of similar make and model vehicles as the Insured Vehicle. The component, circled in the schematic diagram, is the capacitor that was mentioned in the recall details of the LTA search result. The location where this component was fitted was also at or near the location where Mr Kumar had seen smoke.



Others

19. Since our investigations revealed that the fire incident to the Insured Vehicle is related to the purpose of the manufacturer recall campaign that involved the Insured Vehicle; and also from the LTA records, which showed that no rectification work to address the issue of the recall has been carried out to the Insured Vehicle, we had checked with Mr Kumar on whether he received any letter and/or notification about this recall campaign. Mr Kumar informed us that he did not receive any.

Conclusion

- 20. 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 in nature. For this particular case, the fire was due to an originally fitted component that was defective.
- 21. Our investigations revealed that this fire incident is related to a manufacturer recall campaign that involved the Insured Vehicle as the purpose of the recall was due to a fault in an originally fitted component, which was referred to as a capacitor. However, the Insured Vehicle was not sent for any rectifications as Mr Kumar informed us that he did not receive any notification letter. Moreover, the records from LTA had also indicated that rectification to address the issue had not been carried out to the Insured Vehicle prior to this incident. We are therefore of the view that in all likelihood, the fire to the Insured Vehicle could have been prevented if rectification was carried out to address the purpose of the manufacturer recall, which had posed a fire risk.
- 22. 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.
- 23. At the time of our inspection of the Insured Vehicle, we did not find any modification(s) or additionally fitted electronic and/or electrical component(s) on the Insured Vehicle that could have caused and/or contributed to this incident.



24. 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.



Muhd Nazril Senior Technical Investigator



Ang Bryan Tani

AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA Senior Technical Investigator Technical Investigation & Accident Reconstructionist (SAE-A)

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