

Your Ref: DMPC1900096H 14 April 2019

Our Ref : CS/ICS19006376/D

M/s ECICS Limited

10 Eunos Road 8 #09-04A Singapore Post Centre Singapore 408600 (Motor Claims Department)

TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE INSURED VEHICLE SLD 5378P ON 06 APRIL 2019

- 1. I refer to your request dated 09 April 2019.
- My analysis, comments and opinions with respect to the cause of fire to the insured vehicle SLD 5378P (herein referred to as "Insured Vehicle") are set out below.

Inspection of the Insured Vehicle

- 3. The Insured Vehicle was physically inspected on 10 April 2019 at the premises of M/s BH Auto Services Pte Ltd, Block 1 Sin Ming Industrial Estate Sector C #01-111, Singapore 575636.
- 4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded: -

Vehicle Registration No. : SLD 5378P

Make / Model : Honda Vezel 1.5X A

Chassis No : RU11114753 Year of Registration : 2016 (June)

Mileage : N.A (wiring affected)

- 5. The Insured Vehicle was observed to have sustained extensive fire damage. Parts inside the interior compartment and inside the engine compartment were all completely burnt, leaving charred skeletal remains. The rear body of the Insured Vehicle was less affected as compared to the front body, where all the body panels were burnt to bare metal state.
- 6. At the time of inspection, I did not find any unusual skeletal remains which could have suggested that there was possible modification(s) and/or additionally fitted electronic and/or electrical component(s) on the Insured Vehicle. See photo 1-5 below.



Photo 1 shows a general view of the front right body of the Insured Vehicle at the time of inspection. The Insured Vehicle was observed to have sustained extensive fire damage. The body panels at the front body and the undercarriage components at the front underside were all found to have been burnt to char.



Photo 2 shows a general view of the front left body of the Insured Vehicle at the time of inspection. The Insured Vehicle was observed to have sustained extensive fire damage. The body panels at the front body like the front bonnet, front fenders, front door amongst others were all burnt to bare metal state.



Photo 3 shows the interior compartment of the Insured Vehicle. All the parts inside the interior compartment were found to be extensively burnt. Its front seats, rear seats, roof upholstery, carpet and various trims were all burnt and/or melted, leaving charred skeletal remains.



Photo 4 shows the engine compartment of the Insured Vehicle. The various parts and components within the engine compartment of the Insured Vehicle were all extensively affected by the fire. This had included the engine and transmission of the Insured Vehicle.





Photo 5 shows the rear left body of the Insured Vehicle. Comparing the overall extent of fire damage like the rear tyres vs the front tyres, condition of rear body panels vs front body panels etc, it would appear that the front body of the Insured Vehicle was more severely affected than its rear portion.

Circumstance of Incident

- 7. From the Singapore Accident Statement, which was made by one Jumat Bin Kassim (herein referred to as "Mr Jumat"), I note that the fire to the Insured Vehicle had started at a time when he was driving the Insured Vehicle. Mr Jumat was at the Malaysia custom when he saw smoke coming out from the dashboard and glove compartment area. Upon advice of the immigration officer, Mr Jumat drove to the side lane and went to seek assistance at the office. By the time he returned to the Insured Vehicle, it was already on fire. Immigration officers then tried to put out the fire but were not successful. The fire was eventually extinguished by Malaysia's fire brigade.
- 8. I spoke to Mr Jumat on 11 April 2019 and through telephone conversation, I was able to gather further information pertaining to the incident as well as information pertaining to the history of the Insured Vehicle.
- 9. On 06 April 2019 at about 0700hrs, Mr Jumat drove the Insured Vehicle into Johor Bahru and on the same day at about 1200hrs, he drove the Insured Vehicle intending to return to Singapore when the fire occurred. During his time in Johor Bahru, the Insured Vehicle was driven to several nearby destinations where it was then parked for a duration when Mr Jumat went for grocery shopping and food. Generally, the Insured Vehicle was not driven continuously during his time in Johor Bahru.



- 10. According to Mr Jumat he started driving the Insured Vehicle towards the Malaysia custom at about 1200hrs. During this journey, he smelt some burning smell but did not experience any abnormality to the Insured Vehicle, which was why he carried on driving the Insured Vehicle. At the immigration booth, Mr Jumat stopped the Insured Vehicle and handed over his passport. At this time, he saw smoke coming out from the openings surrounding the dashboard. Mr Jumat informed the immigration officer at the booth who advised him to drive the Insured Vehicle to the side lane and thereafter to seek assistance from the office.
- 11. Upon stopping the Insured Vehicle at the side lane, Mr Jumat off the engine and alighted to walk to the office. After informing the immigration officers at the office, he returned to where the Insured Vehicle was parked with an immigration officer. Upon returning to the Insured Vehicle, he noticed flames had appeared at the glove compartment area, under the dashboard. Attempts to put out the fire by immigration officers using fire hoses were not successful. The fire soon started to spread and was eventually extinguished by Malaysia's fire brigade.
- 12. Mr Jumat subsequently made a Malaysia police report and thereafter made arrangements to tow the Insured Vehicle back into Singapore to BH Auto Services Pte Ltd on the same day.
- 13. With regard to the history of the Insured Vehicle, I was able to gather from Mr Jumat that the Insured Vehicle was purchased brand new in year 2016 from a local parallel importer. He is the registered owner and main 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 January 2019. Mr Jumat was able to provide me a document relating to this servicing, where I note from the contents of the document, the engine oil and engine oil filter of the Insured Vehicle were replaced along with checks carried out to the various operating fluids, major components and linkages, hoses, lightings etc. The date recorded for this servicing was 31 January 2019. See photo 6 below showing the servicing document that I had reviewed.



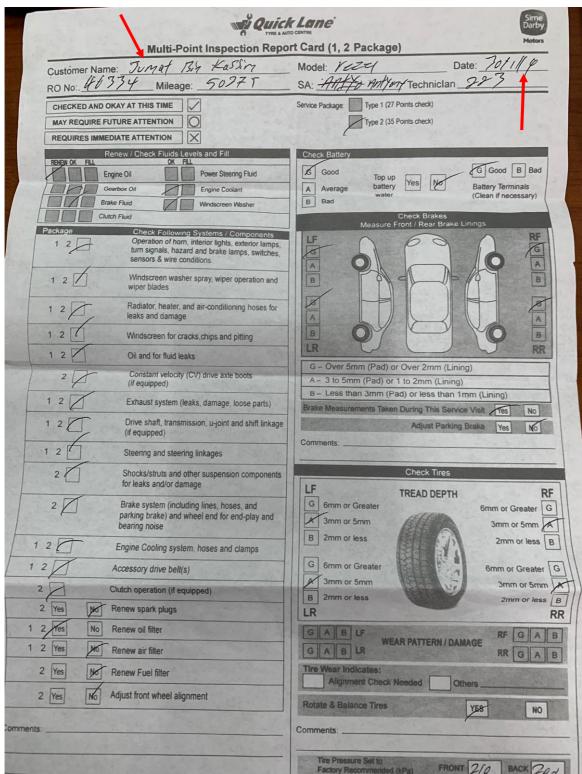


Photo 6 shows the document relating to the servicing of the Insured Vehicle on 31 January 2019. According to Mr Jumat, this was the latest servicing carried out. From the document provided, I note that the engine oil and engine oil filter were replaced during this servicing along with checks to various components and operating fluids etc which were listed in the document.



14. During my telephone conversation with Mr Jumat, I was informed that he had taken a video recording of the Insured Vehicle when it was engulfed in flames and also some photographs when after the fire was extinguished. These were duly forwarded to me for review.

Investigation and Technical Analysis

15. The video recording provided had showed the Insured Vehicle with fire engulfing its front body and interior compartment. The 2 photographs that were taken after the fire was extinguished showed the Insured Vehicle severely burnt. The extent of fire damage was similar to what I observed when I inspected the Insured Vehicle. The background seen from the photographs had also corresponded to the incident occurring at Malaysia custom. Generally, the information that I was able to gather from the video recording and photographs provided by Mr Jumat had corresponded to the information that he had related to me during our telephone conversation on 11 April 2019. See photo 7 – 9 below.



Photo 7 shows screenshot taken from the video recording that was provided by Mr Jumat. The Insured Vehicle could be seen with flames engulfing its front body and interior compartment.



Photo 8 shows the Insured Vehicle after the fire was extinguished. Generally, the information that I was able to gather from the video recording and photographs provided by Mr Jumat had corresponded to the information that he had related to me during our telephone conversation on 11 April 2019.

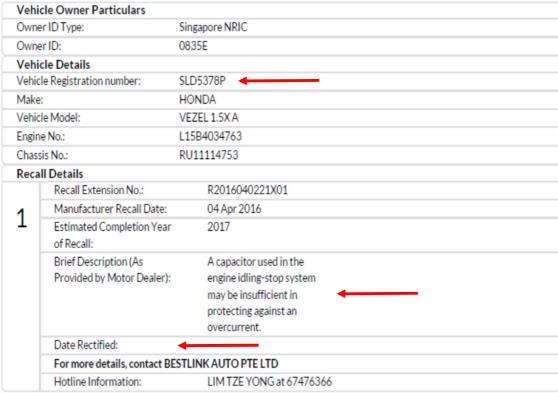


Photo 9 shows the Insured Vehicle after the fire was extinguished. The extent of fire damage was similar to what I observed when I inspected the Insured Vehicle. The background seen from the photographs had also corresponded to the incident occurring at Malaysia custom.



- 16. For this case, Mr Jumat first saw smoke coming out from the gaps surrounding the dashboard and thereafter flames at the glove compartment area, under the dashboard. Taking Mr Jumat'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 discusses 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.

Enquiry on Vehicle Recall - Vehicle Specific * ONLY INFORMATION ON VEHICLE RECALLS SUBMITTED FROM 9 APRIL 2007 IS AVAILABLE Vehicle Ourse Bertievlers



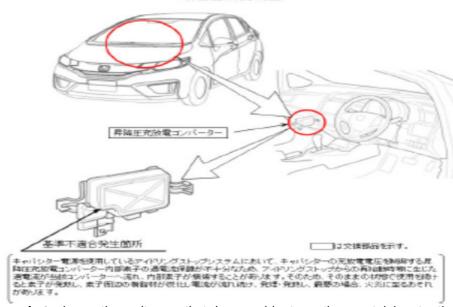
Screenshot shows the LTA search result regarding the manufacturer recall campaign that involved the Insured Vehicle. The recall was for issue relating to a capacitor fitted on the Insured Vehicle, which may be insufficient to protect against an overcurrent. From the records, rectification to address the issue has not been carried out to the Insured Vehicle yet.



18. My 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. I note that this location is at or near the location where Mr Jumat had saw flames. 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, 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 search result below gathered from my further research and checks.

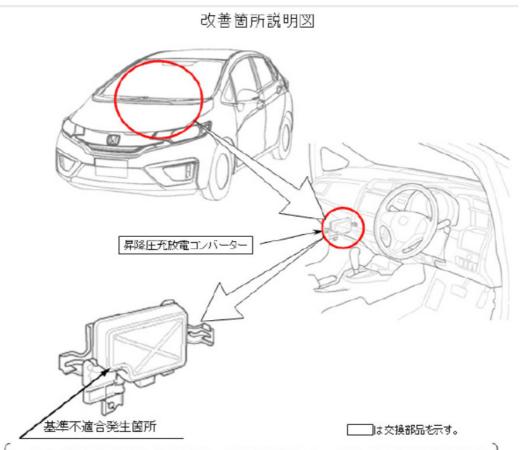
Honda Recalls 160,000 Fit and Vezel Vehicles

Vehicles Visited 24449 times,1 Visits today Honda recalled 160,000 Fit subcompact and Vezel sport-utility vehicles in Japan because of defective power steering and a part that controls the electric current in the vehicles. The recall does not affect any Honda models sold abroad. There have been no injuries related to the problems. Six fires were reported related to the faulty part that controls electricity for capacitors, and two minor accidents were reported to the defect in the steering, according to Honda Motor Co. The recalled vehicles were manufactured from 2nd August 2013 through 13 February 2016. The Fit was recalled for both problems, but the Vezel did not have the steering problem. Recall Notification Number: 3729 Recall Start Date: 2016 April 4



Screenshot shows the write up that I was 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十分なため、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を続けると素子が発熱し、素子問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 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 Jumat had saw flames.

Others

19. Since my 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, I had checked with Mr Jumat on whether he received any letter and/or notification about this recall campaign. Mr Jumat informed me that he did not received any.



20. I subsequently called the contact number indicated in the LTA record (refer to LTA search result shown above) and managed to speak to Mr Wee Kang, a representative of Best Link Auto Pte Ltd. From their records, a notification letter dated 26 September 2017 was addressed to Mr Jumat and sent to his residential address at Block 14B Lorong 7 Toa Payoh #24-245. Note that the address was the same as the address indicated in the Singapore Accident Statement made by Mr Jumat for this fire incident. See screenshot below.



Screenshot shows the record provided by Best Link Auto Pte Ltd that a notification letter pertaining to the manufacturer recall that involved the Insured Vehicle was sent to Mr Jumat on 26 September 2017.





11 Apr 2019

Mr JUMAT BIN KASSIM APT BLK 14B LORONG 7 TOA PAYOH; #24-245; ; S(312014)

Dear Sir/Mdm,

Re: Recall Initiated by the Manufacturer on Your Vehicle

We thank you for purchasing your car SLD5378P,RU11114753 from our dealer network.

Unfortunately, the manufacturer has initiated a recall on the above vehicle.

Affected vehicles are equipped with a power capacitor that enables engine start/stop during idling. Due to insufficient overcurrent protection in the bi-directional buck-boost convertor (BBC) that controls voltage charge/discharge in the power capacitor, the BBC could become damaged during overcurrent occurences. If vehicle operation continues after the buck-boost convertor (BBC) is damaged, heat generated in the BBC could result in smoke and in the worst case scenarios, a fire may occur.

We appreciate if you can login to $\underline{www.bestlinkauto.com.sg/recall.php}$ for acknowledgement and call your dealer to schedule your recall rectification.

Your safety is paramount to us.

Thank You

Bestlink Auto Pte Ltd

Screenshot shows the contents of the notification letter that was sent to Mr Jumat on 26 September 2017. Letter re-printed upon my request with an auto-generated date of 11 April 2019.

Conclusion

- 21. Having investigated and technically analysed the damages of burnt nature to the Insured Vehicle, I am 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.
- 22. My 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. Rectification to address the purpose of the recall campaign was not carried out to the Insured Vehicle prior to this incident.



- 23. My further ground investigations revealed that a notification letter pertaining to this manufacturer recall was sent to Mr Jumat, the registered owner of the Insured Vehicle, on 26 September 2017. However, the Insured Vehicle was not sent for any rectifications as Mr Jumat informed me that he did not receive the notification letter. I am 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.
- 24.I 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.
- 25. At the time of my inspection of the Insured Vehicle, I 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.

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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