



Your Ref: SSM00F05  
Our Ref :CS/ASM18008297/Z

25<sup>th</sup> May 2018

**M/s AXA Insurance (Singapore) Pte Ltd**  
8 Shenton Way #24-01, AXA Tower,  
Singapore 068811  
(Motor Claims Department)

**TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE  
INSURED VEHICLE SLX 452K ON 28<sup>th</sup> April 2018**

1. We refer to your request dated 07<sup>th</sup> May 2018.
2. Our analysis, comments and opinions with respect to the cause of fire to the insured vehicle SLX 452K (herein referred to as "**Insured Vehicle**") are set out below.

**Inspection of the Insured Vehicle**

3. The Insured Vehicle was physically inspected on 11<sup>th</sup> May 2018 at the premises of K.Kim Hin Auto Pte Ltd (herein referred to as "**K.Kim**") located at 160 Sin Ming Drive, #02-18/19/20/21, Sin Ming AutoCity Singapore 575722.
4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No.	: SLX 452K
Make / Model	: Toyota Lexus RX450H
Chassis No	: JTJBC11A402412792
Year of Registration	: 2010 (July)
Mileage	: Unable to start

5. The Insured Vehicle was noted to have sustained fire damage that was confined to its interior cabin at the driver's interior door compartment portion. The fire damage was also observed on the internal roof portion. The window glass at the driver's door was found to be broken at time of our inspection. See photos 1 – 11 below.



**Photo 1** shows the front view of the Insured Vehicle at the time of our inspection. It was observed to be in good condition not affected by the fire.



**Photo 2** shows the left side of the Insured Vehicle at the time of our inspection. It was observed to be in good condition not affected by the fire.





**Photo 3** shows the right side of the Insured Vehicle at the time of our inspection. Its driver's side window was observed to be shattered due to the fire incident.



**Photo 4** shows the general view of the rear of the Insured Vehicle. It was observed to be in good condition not affected by the fire.

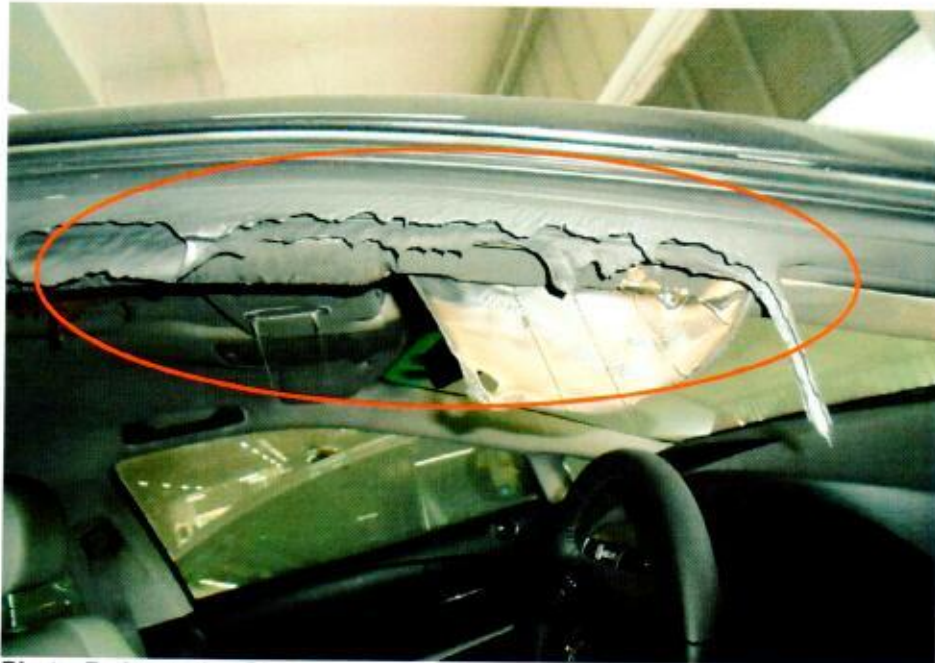


**Photo 5** shows the driver's side of the Insured Vehicle at the time of our inspection. Its driver's side window was observed to be shattered due to the fire incident.

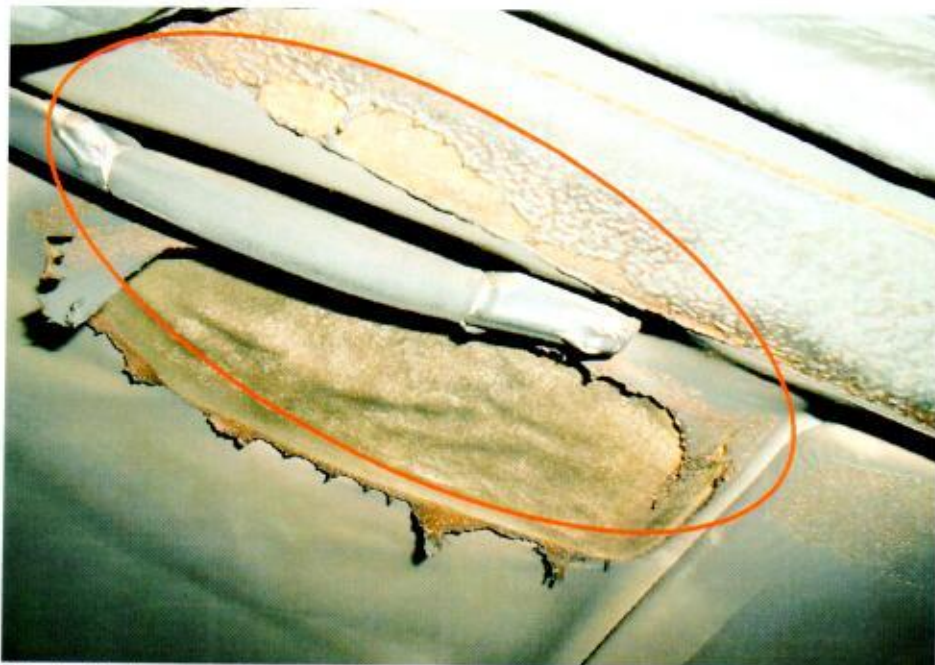


**Photo 6** shows a closer view of the driver's interior door portion of the Insured Vehicle at the time of our inspection (top view). It was observed to be significantly burnt and/or melted as a result of the fire.





**Photo 7** shows the Glass door outer & inner mounting. The components were observed to be slightly burnt and/or melted as a result of the fire (circled).



**Photo 8** shows a closer view of the right side of the interior roof top of the Insured Vehicle at the time of our inspection. It was found to be slightly burnt and/or melted as a result of the fire.



**Photo 9** shows the charred rubber substance fell onto the Insured Vehicle seat. The debris was from the burnt materials from the driver's door portion.



**Photo 10** shows the general view of the driver's seat of the Insured Vehicle (as viewed from the front passenger's seat) at the time of our inspection. The affected area was observed only around the driver's seat area.





**Photo 11** shows the passenger's interior compartment of the Insured Vehicle which was not affected by the fire incident.

6. At the time of our inspection of the Insured Vehicle, we did not find any additionally fitted electronic and/or electrical component(s) on the Insured Vehicle. There was also no modification(s) found fitted on the Insured Vehicle.

### **Investigation and Technical Analysis**

7. For this particular case, the fire appears to have originated from the interior cabin of the Insured Vehicle, at the front right portion (driver's interior door panel). This was determined basing on the area where the extent of fire damage was most severe. The burnt damages were observed to be only affecting around the interior door panel of the driver's seat portion. The melted materials that were affected by the fire damages would also support our findings of where the fire to the Insured Vehicle had originated. See photo 12 below.



**Photo 12** shows a closer view of the driver's interior door portion of the Insured Vehicle at the time of our inspection. It was observed to be significantly burnt and/or melted as a result of the fire.

8. Upon closer examination of the area around the driver's interior door panel portion, which was in the immediate vicinity of where the fire to the Insured Vehicle had likely started, we had found a burnt object which was not part of the factory fitted components for the door. The said object was found placed inside the door's compartment where the driver's hand rest was located.
9. Further investigation reveals that the said object resembles an electronics product called 'Power Bank'. Such product was normally used to charge other electronics products such as mobile phones, cameras and computers amongst others. It is normally stored in a room temperature area due to it is prone to heat where it can explode and ignite fire when exposed.



10. It was believed that the 'Power Bank' was left inside the Insured Vehicle next to the driver's seat interior door panel compartment. The Insured Vehicle was parked at an open space car park prior to the incident. Due to the hot weathered afternoon, high temperature heat will formed in the Insured Vehicle when parked for a long period of time. This would then appear to suggest that the cause of fire to the Insured Vehicle could have possibly been due to the chemical re-action that affects the 'Power Bank' from the high temperature heat inside the Insured Vehicle that caused overloaded heat & eventually creates spark to the 'Power Bank' hence ignite into fire. See photo 13 - 15 below.



**Photo 13** shows a closer view of the burnt 'Power Bank'. It was taken from the driver's interior door compartment.



**Photo 14** shows a closer view of the burnt 'Power Bank'. It was taken from the driver's interior door compartment.



**Photo 15** shows a closer view of the burnt 'Power Bank'. It was taken from the driver's interior door compartment.



11. From the Singapore Accident Statement, which was made by Mr Prem Singh, (herein referred to as "**Mr Singh**") who was the last person driving the Insured Vehicle where the Insured Vehicle belongs to Mr Hiranpal Singh S/O Prem Singh (herein referred to as "**Mr Hiranpal**"). On 28<sup>th</sup> April 2018 at about 1600hrs, while Mr Singh was playing golf at the Changi golf course, the club staff came to look for him informing him that his car was full of smoke. Mr Singh was ferried by the club staff heading to the car park where he had parked the Insured Vehicle.
12. Upon arrival, Mr Singh saw that SCDF officer had smashed the driver's window glass in the effort to extinguish the fire with water. Mr Singh then opens the Insured Vehicle door and they poured more water at the driver's door to extinguish the fire.
13. We had arranged for a face to face interview with Mr Singh at Changi Golf Club, on 15<sup>th</sup> May 2018 where we were able to gather further information pertaining to the incident as well as information pertaining to the history of the Insured Vehicle.
14. Mr Singh is currently running a business consultation company. He had been in the business since year 2000. He will be driving the Insured Vehicle most of the time since the owner Mr Harinpal (his son) drives another car. Mr Singh utilizes the Insured Vehicle mainly for going to office, meeting clients and golfing amongst others.
15. On the day prior to the fire incident, Mr Singh drove off from Yishun to Changi Golf Club for golfing. He starts driving at about 1100hrs and reaches the destination at about 1145hrs. Mr Singh parked the Insured Vehicle reversed park into parking lot no. 28 at an open car park in the vicinity of Changi Golf Club.
16. Upon parking successfully, he had locked the Insured Vehicle securely via a remote control and left for a golf game at the golf course. That was at about 1200hrs.
17. About 1545hrs, the golf club staff came looking for Mr Singh to inform him of the Insured Vehicle that was covered with smoke. They then ferried him to where the Insured Vehicle was parked earlier. By then SCDF & SPF were at scene controlling the situation. SCDF officers broke the Insured Vehicle window glass in the effort to extinguish the fire. Mr Singh managed to open the driver's door for SCDF officers to get access to the source of fire. They then poured more water to the door panel to extinguish the fire.



18. Fire was extinguished with a water jet. No one was injured & no properties were damage from the fire incident. SCDF & SPF officers conducted an interview with Mr Singh. Statements were recorded by both officers.
19. Since the fire incident happened on Saturday afternoon, Mr Singh couldn't get a hold of the insurance agent. However, eventually insurance arranged towing service from the incident location to the authorised workshop on Monday.
20. We were able to gather from Mr Singh that the Insured Vehicle was purchased pre-owned from a car dealer on 11<sup>th</sup> April 2018. According to Mr Singh, he did not experience any mechanical and/or electrical problem with the Insured Vehicle prior to the fire incident when he was driving it. To the best of his recollection, there has not been any major mechanical and/or electrical problem with the Insured Vehicle apart from the hybrid warning light appearing on the meter display console. It was solved by replacing the hybrid battery by a workshop that he sent to.
21. With regards to the burnt object which was not part of the factory fitted components for the door, we had asked Mr Singh on the identification of the object. Mr Singh acknowledged that the burnt object was a 'Power Bank' which was placed in the driver's door compartment. See photo 16 below.



**Photo 16** shows a closer view of the burnt 'Power Bank'. It was taken from the driver's interior door compartment.



### Incident Site Visit

22. We visited the incident location on 15<sup>th</sup> May 2018. The fire incident had occurred at an open space car park, which is at the vicinity of Changi Golf Club Lot 20. The car park serves both the members and visitors. When driving through the car park entrance, parking lot number 20 was observed to be on the left side of the car park. Further observations on the ground, we found burnt marks/ burnt residual/ broken glass debris. This reveals that there's evidence that fire incident happen at the said spot. See photo 17 – 21 below.



**Photo 17** shows a general view of the Changi Golf Club signage opposite the Changi Golf Club entrance.



Photo 18 shows a general view of the Changi Golf Club entrance.



Photo 19 shows a general view of the Changi Golf Club open space car park.





**Photo 20** shows the lot no. 20 at the Changi Golf Club open car park.



**Photo 21** shows a close-up view of the broken glass debris from the driver's window that was smashed to extinguish the fire.



23. In general, the information that could be gathered from the interview session and evidence from incident site had corresponded to the events that were related to me by Mr Singh. Our close examination at the incident site also showed no unusual foreign material(s) and/or object(s) found on the ground in the immediate area of the parking lot where the Insured Vehicle was parked.
24. 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.

#### Enquiry on Vehicle Recall - Vehicle Specific

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

##### Vehicle Owner Particulars

Owner ID Type: Singapore NRIC  
Owner ID: 6471D

##### Vehicle Details

Vehicle Registration number: SLX452K  
Make: TOYOTA  
Vehicle Model: LEXUS RX450H  
Engine No.: 2GRJ249868  
Chassis No.: JTBBC11A402412792

##### Recall Details

No Recall Detail records

OK

## Conclusion

25. 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 likely due to external factors. The fire had most probably originated from the 'Power Bank' that was left inside the driver's door panel compartment. The Insured Vehicle was parked at an open space car park prior to the incident. Due to the hot weathered afternoon, high temperature heat was formed in the Insured Vehicle when parked for a long period of time. This would then appear to suggest that the cause of fire to the Insured Vehicle could have possibly been due to the chemical re-action that affects the 'Power Bank' from the high temperature heat inside the Insured Vehicle that caused overloaded heat & eventually creates spark to the 'Power Bank' hence ignite into fire.



26. The cause of fire being from the 'Power Bank' is also supported by our interview session which we had conducted with Mr Singh on 15<sup>th</sup> May 2018. Whereby he acknowledged that the 'Power Bank' was placed inside the driver's door panel compartment. Our researched reveals that electronics product such as 'Power Bank' is prone to high temperature heat that can caused fire ignition or even explotion.
27. There was no modification(s) or additional electronic and/or electrical component(s) fitted on the Insured Vehicle at the time of our physical inspection of the Insured Vehicle.
28. At the time of writing this report, there was also no manufacturer recall of similar make and model vehicle as the Insured Vehicle that could possibly be related to this particular incident.

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

**DISCLAIMER OF LIABILITY TO THIRD PARTIES:-** This Report is made solely for the use and benefit of the Client named on the front page of this Report. No liability or responsibility whatsoever, in contract or tort, is accepted to any third party who may rely on the Report wholly or in part. Any third party acting or relying on this Report, in whole or in part, does so at his or her own risk.