

Your Ref: 202332007245  
Our Ref : CS4/AIS23004173/P

24<sup>th</sup> May 2023

**M/s ALLIANZ INSURANCE PTE LTD**

79 ROBINSON ROAD, #09-01  
SINGAPORE 038988  
(Motor Claims Department)

**TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE  
INSURED VEHICLE SNG 1790T ON 12<sup>th</sup> APRIL 2023**

1. We refer to your letter dated 12<sup>th</sup> April 2023 and the instructions therein.
2. Our analysis, comments and opinions with respect to the cause of fire to the insured vehicle SNG 1790T (herein referred to as “**Insured Vehicle**”) are set out below.

**Inspection of the Insured Vehicle**

3. The Insured Vehicle was physically inspected on 27<sup>th</sup> April 2023 at the premises of Blk 10 Sin Ming Industrial Estate Sector C, #01-20, Singapore 575645
4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded:-

Vehicle Registration No.	: SNG 1790T
Make / Model	: BMW 325I COUPE XL
Chassis No	: WBAWB32050PV54013
Year of Registration	: OCT 2009
Mileage	: N.A (wiring affected)

5. The Insured Vehicle was noted to have sustained fire damage that was confined to its interior compartment at the front centre dashboard portion. The exterior body was observed to be unaffected by the fire.
6. The fire was confined to its interior front dashboard portion, the fire had resulted in the various components located in the surrounding to suffer from heat and smoke damages, and this includes the front windscreen, front dashboard, front dash camera, centre aftermarket infotainment unit and display panel as well as its wirings were also observed to sustain damages. See photos 1 – 7 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 left 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.

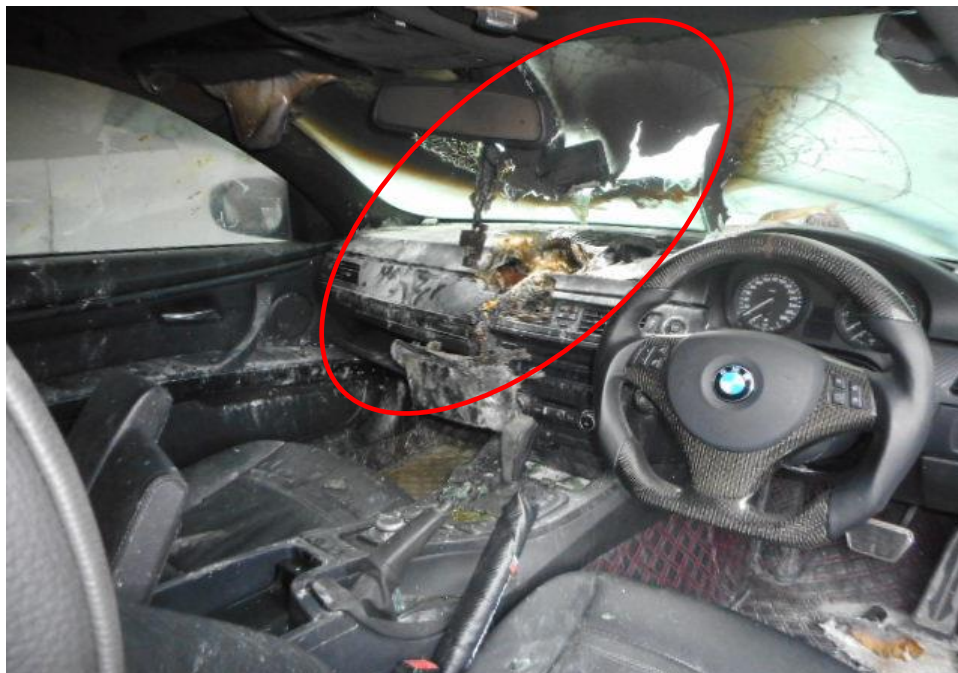


**Photo 4** shows the general view of the rear portion of the Insured Vehicle at the time of our inspection. The fire damage to the Insured Vehicle was confined to its interior portion. Its exterior is observed to be unaffected by the fire.





**Photo 5** shows the general view of the engine 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 engine compartment is observed to be unaffected by the fire.



**Photo 6** shows the general view of the interior compartment of the Insured Vehicle at the time of our inspection. The centre portion of the dashboard had suffered heat and smoke damages (circled) as a result of the fire.



**Photo 7** shows the close up view of the interior compartment of the Insured Vehicle at the time of our inspection. The front dash camera (red arrow), front windscreen (circled) and its infotainment unit and display panel (yellow arrow) had suffered heat and smoke damages as a result of the fire.

7. At the time of inspection of the Insured Vehicle, we found additionally fitted electronic component and its electrical wirings in the Insured Vehicle. The additionally fitted components are the aftermarket infotainment unit and display panel as well as its electrical wirings fitted on the centre dashboard of the interior compartment of the Insured Vehicle. See photo 8 and 9 below.





**Photo 8** shows the interior dashboard of the Insured Vehicle an aftermarket infotainment unit and display panel (circled) and its wirings (arrowed) on the Insured Vehicle, which was observed to be affected by the fire.



**Photo 9** shows the interior dashboard of the Insured Vehicle an aftermarket infotainment unit and display panel (circled) and its wirings (arrowed) on the Insured Vehicle, which was observed to be affected by the fire.

**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, in the front centre 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 centre dashboard portion.
9. Upon closer observations, we have observed that its wirings at the centre dashboard panel were observed to be where the fire had started, we had found traces of greenish residue on the wirings leading from the infotainment unit and display panel to the battery. The infotainment unit and display panel and its wirings were not originally fitted from the manufacturer and have been additionally fitted. 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 10 -12 below.

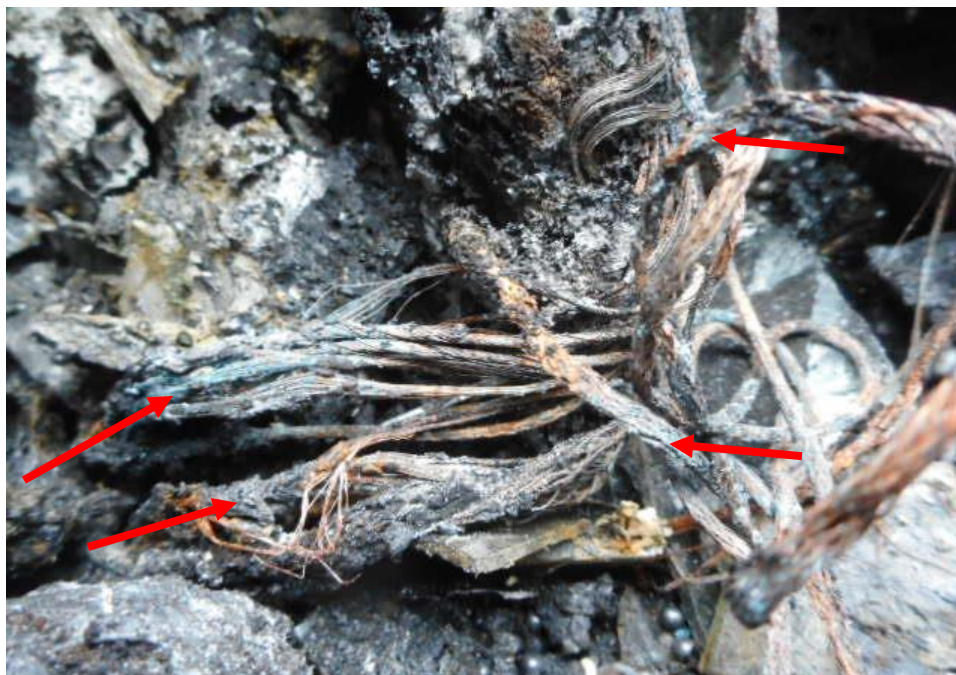


**Photo 10** shows the general view of the wirings in the front centre dashboard of the Insured Vehicle at the time of our inspection. Observed where the fire had likely started from the wirings of the aftermarket infotainment unit and display panel and its wirings connecting to the battery of the Insured Vehicle (arrowed) as there was 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. The fire damage had also melted the electrical components that it was connected to. These wirings and aftermarket infotainment unit and display panel components are not original wirings fitted from manufacturer and are additionally fitted.





**Photo 11** shows a close up view of the aftermarket infotainment unit and display panel (arrowed) and its wiring harness connected to the battery (circled) as there was 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. The fire damage had also melted the electrical components that it was connected to. These wirings and aftermarket infotainment unit and display panel components are not original wirings fitted from manufacturer and are additionally fitted.



**Photo 12** shows a close up view of the wiring harness of the aftermarket infotainment unit and display panel (arrowed). There was greenish residue on the wiring 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. The fire damage had also melted the electrical components that it was connected to. These wirings of the aftermarket infotainment unit and display panel components are not original wirings fitted from manufacturer which are additionally fitted.

10. We managed to speak to the driver and the owner Mr Lim on 10<sup>th</sup> May 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 Mr Lim Yi Sheng (herein referred to as “**Mr Lim**”), we note that the fire to the Insured Vehicle had started at a time when the Insured Vehicle was parked stationary. Mr Lim first notice the fire from the interior cabin in the Insured Vehicle when a passer-by inform that there was a Vehicle that is on fire and then Mr Lim noticed that it was his Insured Vehicle that was on fire.

12. According to Mr Lim, on 12<sup>th</sup> April 2023 at 2245 hours he parked the Insured Vehicle and switch off the engine of the Insured Vehicle and parked lot number 19 along Desker road which was in right in front of his office at shop house number 91 Desker Road. Mr Lim mentioned that he had sat at a bench right outside his office which was also right in front of the Insured vehicle and around 0200 hours he mentions that a passer-by walking along the shophouses of Desker road towards his direction where he was seated at, commented to Mr Lim that he notice that there was flames emitting from the interior front dashboard of the Car beside him. Mr Lim immediately noticed that it was his Insured Vehicle that was on fire. He tried to unlock the doors by the use of remote but the door locks were not responding, he subsequently took the spare key out from the remote and attempted to open the doors manually but the door locks did not open as well. He colleagues than took objects they could find around the vicinity and started to break into the front windscreen to gain access to the interior and started to extinguish the fire using a fire extinguisher and they managed to put the fire out before the arrival of the SCDF officers.
13. The SCDF assistance was requested by Mr Lim himself and they arrived within 15 minutes and spray fire extinguisher at the front dashboard even which after the fire was put out. Mr Lim mentioned that he had his statement taken down by the SCDF officers and after he had arranged for a tow truck to have the Insured Vehicle towed insurance authorise workshop Cheng Hoe Motor Pte Ltd and then they advise to tow the Insured Vehicle to another insurance authorise workshop Ding Auto Pte Ltd (Sin Ming) which Mr Lim proceeded down & made an accident report on the same day.
14. Mr Lim mentioned that he had not experienced any mechanical or electrical/electronic problem with the Insured Vehicle till the day of the incident. Mr Lim 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, prior to the fire.
15. With regards to the history of the Insured Vehicle, we were able to gather from Mr Lim that he is the owner of the Insured Vehicle and Insured Driver and the Insured Vehicle was purchased pre-owned 8 months ago and the Insured Vehicle is driven daily.
16. Pertaining to the maintenance aspect, Mr Lim informed us that he is the one sending the Insured Vehicle for LTA inspection and periodical servicing, he mentioned that he had recently bought the Insured Vehicle for servicing and there was no major repairs/overhaul's conducted on the Insured Vehicle.



17. Pertaining to the additionally fitted and aftermarket modifications, Mr Lim informed us that the additionally fitted aftermarket infotainment unit and display panel as well as its electrical wirings was all fitted by the previous owner 2 years and 2 months ago and Mr Lim first bought the Insured Vehicle 8 months ago. And Mr Lim informed that the previous owner had provide him with the invoice below and the vehicle number on the invoice was retained by the previous owner.

# POSHZ INFINITY

No.2 Lorong 10 Geylang singapore 399036

Phone: 88088896

VEHICLE NO:	NAME:	INVOICE #	DATE	
SJT7332Y		2216	6/3/2021	
DESCRIPTION	WARRANTY MTH	QTY	UNIT PRICE	AMOUNT
ANDROID PLAYER BMW E90 4+64	6	1	1,100.00	1,100.00
REVERS CAM	3	1	150.00	150.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
<b>TOTAL</b>				<b>1,250.00</b>

Goods Sold are not Refundable, Thank you  
Operating Hours:  
(1.00pm to 3.30am)  
Monday to Sunday

For POSHZ INFINITY

AUTHORISED SIGNATURE

**Incident Scene Photographs**

18. During the course of our investigations, we were able to obtain coloured photographs showing the Insured Vehicle at the incident location before, during and after the fire was extinguished by Mr Lim and his colleagues. These were provided to us by Mr Lim.
19. Our examination of these photographs revealed that the fire had started from the interior front centre dashboard portion of the Insured Vehicle. The photographs had also showed the extent of damage and burn pattern to the Insured Vehicle as per what we had observed during our physical inspection of the Insured Vehicle. Apart from the aforesaid, there was no further notable information that could be gathered from these photographs. See photos 13 - 16 below which were provided to us by Mr Lim.



**Photo 13** shows Mr Lim and colleagues at the scene putting the fire out on the Insured Vehicle. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Mr Lim, location when the fire broke out.





**Photo 14** shows the SCDF and Police officers at the scene inspecting the Insured Vehicle after the fire was put out. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Mr Lim, location when the fire broke out.





**Photo 15** shows Mr Lim at the scene inspecting the Insured Vehicle after the fire was put out. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Mr Lim, location when the fire broke out.





**Photo 16** shows the interior front centre dashboard portion (circled) that was damaged on the Insured Vehicle at a result of the fire. In general, the information that could be gathered from this photograph had corresponded to the events that were related to us by Mr Lim, location when the fire broke out.



20. 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 Mr Lim had mentioned to us there were no indications of abnormally high temperatures when he was driving the Insured Vehicle on the day of the incident. Moreover, there was no damaged of fire nature in the engine compartment and the Insured Vehicle had caught fire while it was parked stationary.
21. 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 as Mr Lim was just seated beside Insured Vehicle. The location where the Insured Vehicle caught fire was also observed to be not at a secluded location.
22. 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 infotainment unit and display panel to the battery that was fitted in the front centre dashboard of the Insured Vehicle. These wirings and electrical components were not original wirings and components fitted from manufacturer on the Insured Vehicle and was additionally fitted, which was earlier discussed in paragraph 9 above.
23. Our checks with both local and international bodies and associations had also revealed that at the time of writing this report, there was 3 manufacturer recall from 14<sup>th</sup> February 2013 to end 2013, 17<sup>th</sup> August 2018 to end 2019 and 29<sup>th</sup> June 2021 to end 2023 for battery positive cable behind the glove compartment becoming corroded and impair power supply, plug connection for blower controller deteriorating over time and gas generator for driver airbag malfunction due to exposure to high humidity and high temperature. All 3 recalls have been rectified. Given that the cause of fire was due to electrical nature, so the manufacturer recall of 14<sup>th</sup> February 2013 to end 2013, 17<sup>th</sup> August 2018 to end 2019 and 29<sup>th</sup> June 2021 to end 2023 whether rectified or not, it did not cause or contributed to the fire as the fire had started from the additionally fitted wiring from the infotainment unit and display panel. See search result from LTA below.



## Vehicle Recall Details

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

Owner ID Type <b>Singapore NRIC</b>	Owner ID <b>251C</b> ←
Vehicle No. <b>SNG1790T</b> ←	Make/Model <b>B.M.W./ 325I COUPE XL</b> ←
Engine No.: <b>11097238N52B25AF</b>	Chassis No.: <b>WBAWB32050PV54013</b> ←

## Recall No.: R2018090579

Manufacturer Recall Date:

17 Aug 2018

Estimated Completion Year of Recall:

2019

Brief Description (As Provided by Motor Dealer):

The plug connection from the wiring harness to the blower controller may deteriorate over time.

Date Rectified:

03 Jul 2022

Hotline Information:

PERFORMANCE MOTORS LIMITED at  
63190100

BMW EUOKARS AUTO at 6219-8388

For more details, contact BMW ASIA PTE LTD

## Recall No.: R2013030004

Manufacturer Recall Date:

14 Feb 2013

Estimated Completion Year of Recall:

2013

Brief Description (As Provided by Motor Dealer):

The plug-in contact of the battery-positive cable on the front power distributor (fitted behind the glove compartment) may be damaged by vehicle vibrations and therefore cause corrosion through rubbing in conjunction with a high current load. Damage to the plug-in contact may impair the power supply to the vehicle.

Date Rectified:

22 Oct 2013

Hotline Information:

PERFORMANCE MOTORS LTD at  
18002255269

BMW EUOKARS AUTO at 6219-8388

For more details, contact BMW ASIA PTE LTD



**Recall Extension No.: R2021071011X01**

<p>Manufacturer Recall Date:</p> <p><b>29 Jun 2021</b> ←</p>	<p>Estimated Completion Year of Recall:</p> <p>2023</p>
<p>Brief Description (As Provided by Motor Dealer):</p> <p>The gas generator of the driver's airbag can malfunction if it has been exposed to high humidity and high temperature fluctuations for many years. Remark: Airbag was manufactured by Takata. ←</p>	
<p>Date Rectified:</p> <p><b>22 Jun 2022</b> ←</p>	

Hotline Information:

PERFORMANCE MOTORS LIMITED at 1-800-2255-269

BMW EUOKARS AUTO at 6219-8388

For more details, contact BMW ASIA PTE LTD

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### Conclusion

24. 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. For this particular case, the fire had originated from the wirings that were found leading from the infotainment unit and display panel to the battery that was fitted in the front centre dashboard, these are additionally fitted and not from the manufacturer.

25. 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.
26. Upon investigation, the fire had started from the additionally fitted aftermarket infotainment unit and display panel as well as its electrical wirings on the Insured Vehicle for this particular incident. However, Mr Lim had provided us with the invoice with date of the additionally fitted aftermarket infotainment unit and display panel as well as its electrical wirings which was installed 2 years and 2 months ago and Mr Lim only purchase the Insured Vehicle 8 months ago.
27. Our investigations had also revealed that at the time of writing this report, the 3 manufacturer recall campaign in between 14<sup>th</sup> February 2013 to end 2013, 17<sup>th</sup> August 2018 to end 2019 and 29<sup>th</sup> June 2021 to end 2023 for battery positive cable behind the glove compartment becoming corroded and impair power supply, plug connection for blower controller deteriorating over time and gas generator for driver airbag malfunction due to exposure to high humidity and high temperature on the Insured Vehicle did not possess a fire risk to the Insured Vehicle.



**Sherwin Beh**  
Technical Investigator



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