

Your Ref: 5803261617SG
Our Ref: CI/AIG22000939/D

04 February 2022

AIG Asia Pacific Insurance Pte Ltd

78 Shenton Way #08-16
AIG Building
Singapore 079120
(Motor Claims Department)

**TECHNICAL INVESTIGATION REPORT OF FIRE INCIDENT INVOLVING THE
INSURED VEHICLE SMX 6877S ON 13 JANUARY 2022**

1. I refer to your request dated 14 January 2022 and the instructions therein.
2. My analysis, comments and opinions with respect to the cause of fire to the insured vehicle SMX 6877S (herein referred to as "**Insured Vehicle**") are set out below.

Inspection of the Insured Vehicle

3. The Insured Vehicle was physically inspected on 18 January 2020 at the premises of M/s Cycle & Carriage Industries Pte Ltd, 188 Pandan Loop, Singapore 128378.
4. A static inspection was carried out to the Insured Vehicle where the following general information was recorded: -

Vehicle Registration No.	: SMX 6877S
Make / Model	: Mercedes Benz GLB200 Progressive
Chassis No	: W1N2476872W068676
Year of Registration	: 2021 (January)
Mileage	: N.A (wiring affected)

5. The Insured Vehicle was observed to have sustained extensive fire damage all around. Parts inside the interior compartment and inside the engine compartment were completely burnt, leaving charred skeletal remains. The engine and transmission were also affected.
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 all around. The body panels at the frontal portion and the undercarriage components at the front underside were all found to have been severely burnt.



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 all around. The body panels at the frontal portion and the undercarriage components at the front underside were all severely burnt.



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 as a result of the fire, leaving skeletal remains.



Photo 4 shows a general view of the Insured Vehicle's engine compartment. 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. The Insured Vehicle was observed to have sustained extensive fire damage all around. The body panels at the rear portion and the undercarriage components at the rear underside were all severely burnt.

Circumstance of Incident

7. From the Singapore Accident Statement, which was made by Madam Quek Siok Hoon (herein referred to as “**Madam Quek**”), I note that the fire to the Insured Vehicle had started at a time when she was driving the Insured Vehicle. Madam Quek was on-board the Insured Vehicle queuing up to enter the school along Bartley Road when she smelt some burning smell and saw smoke coming out from the aircon vents of the Insured Vehicle. She then turned off the engine and exited the Insured Vehicle. The smoke thickened, and fire started to burn the Insured Vehicle. The fire was eventually extinguished by SCDF.
8. I spoke to Madam Quek on 25 January 2022, where 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. According to Madam Quek, on 13 January 2022 at about 0700hrs, she left her home at 72 Jalan Tari Piring (off Jalan Kayu) driving the Insured Vehicle intending to send her son to school at Maris Stella High School (Primary), which was located along Bartley Road. The drive from her home to the school was approximately 15mins to 20mins. During this drive, she did not experience any abnormality to the Insured Vehicle.
10. Upon arriving at the school, Madam Quek formed up the Insured Vehicle into the usual queue of vehicles waiting to drive into the school to alight students. It was start stop driving condition whilst in the queue as vehicles would stop to alight students and drive off thereafter. It was whilst stationary in the queue that Madam Quek started smelling rubber burning smell and shortly thereafter saw white smoke coming out from all the aircon vents of the Insured Vehicle.
11. Madam Quek turned the engine of the Insured Vehicle off, switched on the hazard light and alighted from the Insured Vehicle. By which time, her son had already alighted. Madam Quek called her husband for help and thereafter decided to send her son into the school compound. Upon coming out from the school compound, she observed more and more smoke from the Insured Vehicle. She quickly went to retrieve some personal belongings from the Insured Vehicle. Madam Quek recall that she did not see any flames from the Insured Vehicle as she was retrieving her belongings. She was unable to retrieve all her belongings as it was too smoky, and the smoke was getting black and thicker.
12. Madam Quek stood away from the Insured Vehicle and called SCDF for assistance whilst staff from the school brought fire extinguishers to try and extinguish the smoke. Flames were then seen at the top part of the Insured Vehicle's front bonnet, near to front windscreen. The flames quickly got bigger and started to engulf the Insured Vehicle rendering the attempts to put out the fire using fire extinguishers unsuccessful. SCDF officers soon arrived, and the fire was eventually extinguished.
13. Madam Quek was allowed to tow the Insured Vehicle away after clearance was given by the SCDF fire investigators and the attending police officers. The Insured Vehicle was arranged to be towed to Cycle & Carriage (Pandan Loop) where Madam Quek and her husband, who is the registered owner of the Insured Vehicle, had lodged their Singapore Accident Statement in view of filing an own damage claim.

14. With regard to the history of the Insured Vehicle, I was informed by Madam Quek that the Insured Vehicle was purchased brand new in January 2021 from Cycle & Carriage (Mercedes Benz). The Insured Vehicle is registered under the name of her husband however she is the one that usually drives the Insured Vehicle. As far as she can recall, she did not experience any issue or abnormality to the Insured Vehicle during the past one year of ownership/driving.
15. I was able to gather from Madam Quek that the first servicing of the Insured Vehicle was booked for 14 January 2022. The fire occurred one day before this servicing. She also informed me that there was no modification(s) and/or external electrical/electronic device(s) additionally fitted on the Insured Vehicle.
16. During my conversation with Madam Quek, she informed me that she had taken a video recording whilst at the incident scene. This video recording was duly forwarded to me for my review.

At Scene Information

17. Apart from the video recording provided by Madam Quek, this particular incident was also reported in various public media websites. Upon reviewing the video recordings and the photographs from these websites, I had noted a sequence of events that had allowed me to establish where the fire to the Insured Vehicle had originated. Relevant information pertaining to these events are extracted and discussed in the below paragraphs.
18. Firstly, the Insured Vehicle could be seen stationary along the slip side turning into Maris Stella High School (Primary). It was also approximately 10 metres away from the entry gate of the school. Prior to the fire, the Insured Vehicle was seen with its front bonnet lifted, front left door and rear left door in an opened position. Greyish coloured smoke was coming out from the interior compartment of the Insured Vehicle. The fire that eventually engulfed the Insured Vehicle was also first seen coming out from the interior compartment of the Insured Vehicle, thereafter, spreading to the rear portion and the engine compartment of the Insured Vehicle, before SCDF officers arrived.
19. Following the aforesaid, the sequence of events that I was able to collectively gather from the available video recordings and photographs appear to suggest that the fire had originated from the interior compartment of the Insured Vehicle. See photo 6 – 9 below.



Photo 6 shows the Insured Vehicle at the incident scene (photograph extracted from public media website). As seen from the photograph, the Insured Vehicle's front bonnet was lifted, front left door and rear left door was in an opened position prior to the fire. Greyish coloured smoke was coming out from the interior compartment of the Insured Vehicle. Notably, no smoke was seen coming out from the engine compartment area of the Insured Vehicle.



Photo 7 shows the Insured Vehicle at the incident scene (photograph extracted from public media website). The fire that had eventually engulfed the Insured Vehicle can be first seen coming out from the interior compartment of the Insured Vehicle before spreading to the rear portion and engine compartment of the Insured Vehicle. Notably, no fire was seen from the engine compartment area (red arrow) of the Insured Vehicle at the initial stage of the fire. The rear portion can also be clearly seen to be unaffected at the initial stage of the fire. The collective information gathered would suggest to me that the fire had originated from the interior compartment of the Insured Vehicle.



Photo 8 shows the Insured Vehicle at the incident scene (screenshot extracted from the video recording provided by Madam Quek). No fire was seen from the engine compartment area (red arrow) of the Insured Vehicle at the initial stage of the fire. In fact, the frontal portion of the Insured Vehicle was seen to be unaffected even after the fire started spreading.

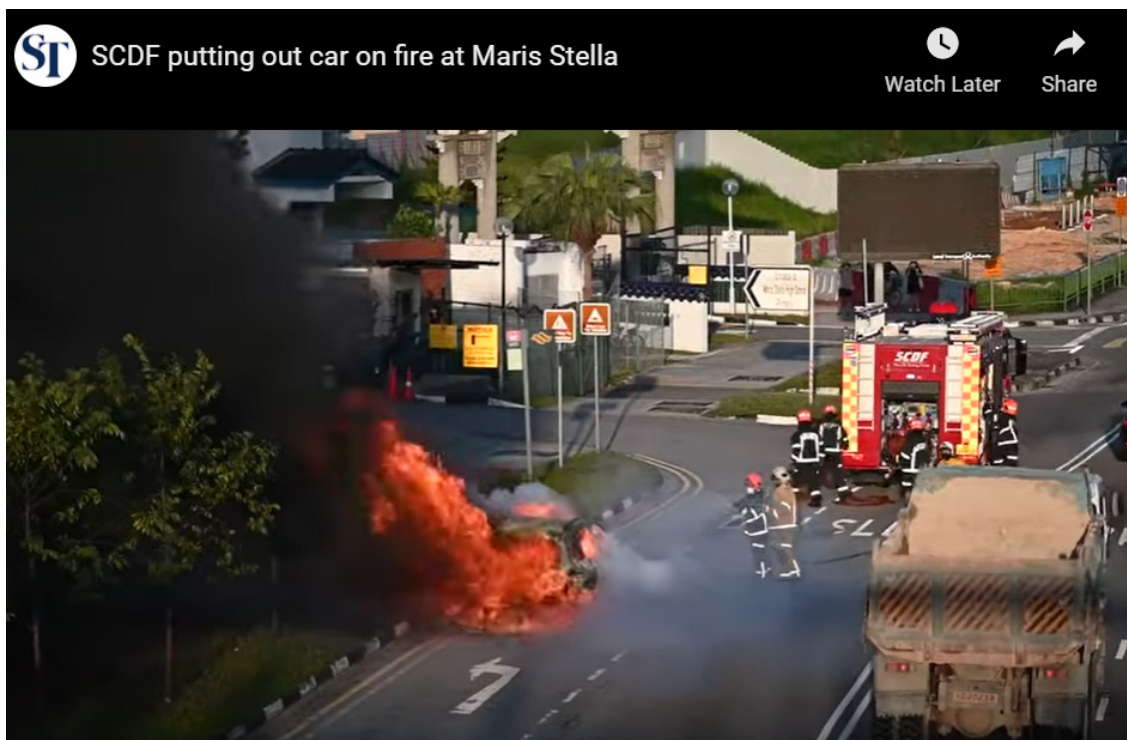


Photo 9 shows the Insured Vehicle at the incident scene (photograph extracted from public media website). The fire that had first originated from the interior compartment of the Insured Vehicle eventually engulfed the Insured Vehicle.

Comments and Opinions

20. For this case, the severity of burn damage that the Insured Vehicle had sustained did not allow me to establish any conclusive burn pattern, at the time of my inspection, to determine where the fire had originated. However, the information gathered collectively from the available video recordings and photographs from various public media websites appear to suggest to me that the fire had originated from the interior compartment of the Insured Vehicle.
21. In this aspect, the main cause of fire originating from the interior compartment of a vehicle is typically fire of electrical nature (electrical fault) whereby wirings within the interior compartment had experienced an abnormality of electrical current along its circuitry path. Madam Quek had stated that she smelt rubber burning smell and saw white smoke coming out from the aircon vents of the Insured Vehicle. This would suggest that the wirings behind the front dashboard of the Insured Vehicle had possibly experienced an abnormal spike in electrical current. This created excessive heat and/or continuous electrical arcing along the stretch of wirings leading to the melting of wire insulations. A fire then ignited when the surrounding air becomes energised by the exposed electrical arcing.
22. For this case, the wirings behind the front dashboard of the Insured Vehicle were all completely burned to its bare copper state. Because of this, I was not able to determine the electrical fault had occurred along which wiring(s). Refer to photograph 10 & 11 below.
23. My checks with both local and international bodies and associations revealed that at the time of writing this report, the Insured Vehicle was involved in a manufacturer recall campaign. The recall campaign was initiated in 2021 and had involved issue relating to the emergency call system of the Insured Vehicle. Rectification by changing the Insured Vehicle's communication software module to address the issue has yet to be carried out to the Insured Vehicle.
24. Notably, as per the brief description for the recall campaign, the issue to the emergency call system does not seem to pose a fire risk and hence is unlikely to be related and/or had contributed to this fire incident involving the Insured Vehicle. See photo 12 below showing the search result from LTA.



Photo 10 shows the front dashboard area of the Insured Vehicle at the time of my inspection. The fire to the Insured Vehicle was likely to be of electrical nature (electrical fault) originating from one or more of the wirings located behind the front dashboard of the Insured Vehicle. However, given that the wirings behind the front dashboard were all completely burned to its bare copper state, I was not able to determine the electrical fault had occurred along which wiring(s).



Photo 11 shows another view of the front dashboard area of the Insured Vehicle at the time of my inspection. The wirings behind the front dashboard of the Insured Vehicle were all completely burned to its bare copper state. Because of this, I was not able to determine the electrical fault had occurred along which wiring(s).

Owner ID 642E
Vehicle No. SMX6877S ←
Make/Model MERCEDES BENZ/ GLB200 PROGRESSIVE
Engine No.: 28291480421229 Chassis No.: W1N2476872W068676

Recall Details

Recall No.: R2021040975 ^
Manufacturer Recall Date: 19 Mar 2021 Estimated Completion Year of Recall: 2021 Brief Description (As Provided by Motor Dealer):

Mercedes-Benz AG has determined that the behavior of the emergency call system may not correspond to the specifications in certain vehicles. In this case, a temporary drop in the on-board electrical system voltage as a result of an accident could mean that the vehicle position communicated in the emergency call may not correspond with the actual position.

Date Rectified: ←

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Hotline Information:

CYCLE & CARRIAGE CUSTOMER ASSISTANCE CENTRE at 6471 9111

Photo 12 shows LTA search result pertaining to the manufacturer recall campaign involving the Insured Vehicle. As per the brief description for the recall campaign, the issue to the emergency call system does not pose a fire risk and hence unlikely to be related and/or had contributed to this fire incident involving the Insured Vehicle.

Conclusion

25. For this case, I am of the view that the fire had originated within the interior compartment of the Insured Vehicle. The cause of fire was of electrical in nature. The wirings behind the front dashboard of the Insured Vehicle had likely experienced an abnormality of electrical current, which led to the fire.
26. The information gathered during the course of my investigation did not suggest that the cause of fire was due to recurring electrical issue(s).
27. 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
28. My investigations had also revealed that at the time of writing this report, there is an on-going manufacturer recall campaign that involved the Insured Vehicle. Rectification to address the issue of the recall campaign has yet to be carried out to the Insured Vehicle. As per the brief description for the recall campaign, the issue to the emergency call system does not seem to pose a fire risk and hence is unlikely to be related and/or had contributed to this fire incident involving the Insured Vehicle.

**Ang Bryan Tani**

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