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Our Ref : CS/EGI21004954/N

2 August 2021

ERGO Insurance Pte. Ltd.

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Singapore 038988
(Motor Claims Department)

**AUTOMOBILE TECHNICAL INVESTIGATION REPORT OF ACCIDENT
INVOLVING SLM 2910A AND SMX 6822A ON 9 APRIL 2021**

1. We refer to your letter dated 21 July 2021 and the instructions therein to comment on the damage consistency of the motor car SLM 2910A involved in the captioned accident, in particular to establish whether there was possibly contact between the frontal portion of the motor car SLM 2910A and the rear portion of motor car SMX 6822A; and if there was contact, whether the damage on the frontal portion of the motor car SLM 2910A is consistent to the accident.
2. The following documents were provided to us for our review and consideration in the preparation of this report:-
 - a) Singapore Accident Statement of the driver of the motor car SLM 2910A (herein referred to as "**Audi**"), where amongst other information, the circumstances of accident was described;
 - b) Singapore Accident Statement of the driver of the motor car SMX 6822A (herein referred to as "**BMW**"), where amongst other information, the circumstances of accident was described together with 13 coloured photographs of the BMW at the time of reporting;
 - c) 14 coloured photographs of the damage to the Audi taken during the Pre- Repair Survey by LKK Auto Consultants Pte. Ltd.;
 - d) 59 coloured photographs taken during the physical inspection of the BMW;
 - e) 5 post-accident photographs taken by the driver of the BMW;

- f) 1 video recording of the accident taken from the CCTV camera located at the accident location.
3. In preparation of this report, we had conducted height measurements of the front portion of the Audi (using a similar make and model). We had also conducted a physical inspection and thereafter height measurements of the frontal portion of the BMW; both collectively referred herein as “**Involved Motor Cars**”. An analysis of all the available documents and information gathered was subsequently carried out.
4. We now set out below our detailed findings and analysis.

Nature of Accident

From the Singapore Accident Statement of the driver of the Audi, Mr Zhuang Kuan Yuan, Zechariah (herein referred to as “**Mr Zhuang**”), on 9 April 2021 at 1100 hours, the Audi was parked at parking lot number 2 at level 2 carpark of the Mapex building located at 37 Jalan Pemimpin. Mr Zhuang was later informed by his next door neighbor that at about 1150 hours, the Audi was involved in a hit and run. He viewed the video footage from his in-car camera and noted the number plate of the vehicle that hit the Audi while reversing. Mr Zhuang also contacted the property manager regarding the accident. The parking lot CCTV camera had captured the accident.

5. The Singapore Accident Statement of the driver of the BMW, Ms Chloe Ann Kuek (herein referred to as “**Ms Chloe**”), however had stated that on the abovementioned date, time and location, she was slowly reversing out of the parking lot. She had underestimated the distance between both vehicles. The left portion of the BMW’s rear bumper had lightly touched the right portion of the Audi’s front bumper. She mentioned that the BMW had sustained minor scratches but no indentations. She mentioned that she had also inspected the Audi and observed that the right portion of the Audi’s front bumper was dented with white markings. Ms Chloe mentioned that the height of the dent is much higher than the height of the scratches on the BMW. Based on this, she concluded that she did not cause the dent to the Audi’s front bumper.

6. She added that she drove off post- accident to find a pen and paper to write a note but the Audi was not there by the time she returned. To further verify that the dent was pre- existing, she checked the footage from the in- car camera of the BMW and the footage showed that at the aforementioned date at about 1139 hours the footage showed a pre- existing dent on the Audi's front bumper.

Damage to the Audi

7. From our examination of the photographs taken during the Pre- Repair Survey conducted by LKK Auto Consultants Pte. Ltd. about 3 weeks after the accident, we note that the Audi had sustained an impact onto its frontal portion. The damages were mainly observed to be at or around the front bumper and right front fender.
8. We observed a dent and whitish marks found on the right front fender as well as paint graze marks found on the lower right portion of the front bumper of the Audi. We also noted the front bumper was dislodged at the right corner edge. See photos 1 - 7 below.



Photo 1 shows the general view of the frontal portion of the Audi at the time of the Pre- Repair Survey conducted by LKK Auto Consultants Pte. Ltd. which was taken about 3 weeks after the accident. The damage to the Audi was observed to be confined to the front bumper and right front fender (circled).



Photo 2 shows the damage observed on the front bumper and right front fender of the Audi (circled).



Photo 3 shows a closer view of the dent (yellow arrow) and whitish marks (red arrow) found on the right front fender as well as paint graze marks found on the lower right portion of the front bumper of the Audi (circled).



Photo 4 shows a close up view of the whitish marks found on the right front fender of the Audi (arrowed).



Photo 5 shows a close up view of the paint graze marks found on the lower right portion of the front bumper of the Audi (arrowed).



Photo 6 shows the right corner edge of the front bumper of the Audi. We observed that the front bumper was dislodged at the right corner edge (arrowed).



Photo 7 shows a close up view of the right corner edge of the front bumper of the Audi. We observed that the front bumper was dislodged at the right corner edge (arrowed).

Physical Inspection of the BMW

9. The BMW was physically inspected on 29 July 2021 at Ms Chloe's home premises located at 72 Jalan Pemimpin, Singapore 577223.
10. The mileage recorded was 7, 324km.
11. The physical inspection carried out had primarily focused on the rear portion of the BMW, in particular its rear bumper as the accident was reported to be of a rear to head nature where the BMW was in front of the Audi at the material time.
12. Our visual examination of the rear bumper of the BMW revealed paint graze marks at the left portion of the rear bumper. We also observed paint graze marks around the left reflector of the BMW's rear bumper. We also noted that the rear bumper was slightly misaligned at its left corner edge. See photos 8 - 16 below.



Photo 8 shows the general view of the rear portion of the BMW at the time of our inspection. The physical inspection carried out had primarily focused on the rear portion of the BMW, in particular its rear bumper as the accident was reported to be of a rear to head nature where the BMW was in front of the Audi at the material time. The mileage recorded was 7, 324km.



Photo 9 shows upon closer visual examination, we observed paint graze marks on the left portion of the BMW's rear bumper (arrowed).



Photo 10 shows a closer view of the paint graze marks on the left portion of the BMW's rear bumper (arrowed).



Photo 11 shows a close up view of the paint graze marks on the left portion of the BMW's rear bumper (arrowed).



Photo 12 shows a close up view of the paint graze marks on the lower left portion of the BMW's rear bumper (arrowed).



Photo 13 shows a closer view of the paint graze marks observed around the left reflector of the BMW's rear bumper (arrowed).



Photo 14 shows a close up view of the paint graze marks observed around the left reflector of the BMW's rear bumper (arrowed).



Photo 15 shows a closer view of the left corner edge of the front bumper of the BMW. We observed that there was a slight misalignment at the corner edges (red arrows).



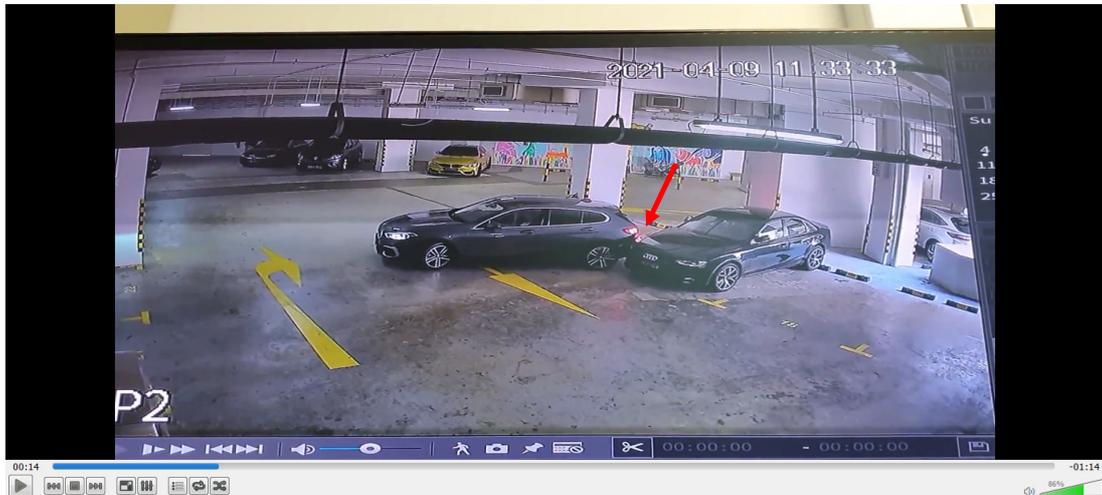
Photo 16 shows a close up view of the slight misalignment at the left corner edges of the BMW's rear bumper (red arrows).

Video Recording

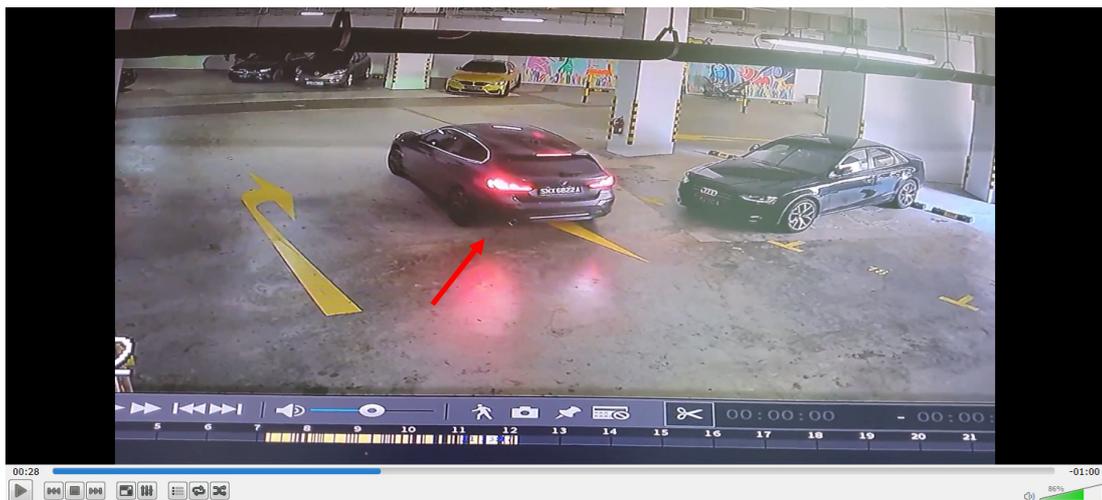
13. The video recording that was provided to us in preparation of this report was taken from the CCTV camera located at the carpark of the Mapex building. The recording was provided to us in a single recording and had showed the events before the accident, the accident itself and post- accident. The length (duration) indicated in the video recording was 1 minute 15 seconds.
14. From the video recording, the BMW could be seen reversing out of the parking lot.
15. Between the 14th and 15th second mark of the video recording, the BMW had reversed into the right front portion of the parked Audi. We had noted a slight movement of the parked Audi, indicating that there was contact between the rear portion of the BMW and the front portion of the Audi. Between the 55th and 1 min 5th second mark of the video recording, the driver of the BMW could then be seen assessing the damage to the BMW before leaving the carpark shortly after. See screenshots 1 – 4 below.



Screenshot 1 shows the 8 second mark of the video recording. The BMW could be seen reversing out of the parking lot of the carpark located at the Mapex building (arrowed).



Screenshot 2 shows the 14 second mark of the video recording. Between the 14th and 15th second mark of the video recording, the BMW had reversed into the right front portion of the parked Audi. We had noted a slight movement of the parked Audi, indicating that there was contact between the rear portion of the BMW and the front portion of the Audi (arrowed).



Screenshot 3 shows the 28 second mark of the video recording. The BMW could be seen reversing into a spot post- accident before the driver of the BMW alighted to examine the damage to the BMW (arrowed).



Screenshot 4 shows the 1 minute 01 second mark of the video recording. The driver of the BMW could be seen examining the damage to the BMW (arrowed).

Height Measurement

16. Notwithstanding the video recording which had showed contact between the Involved Motor Cars, we had conducted a height configuration test to determine whether the damages observed on the frontal portion of the Audi corresponds to the damages observed on the rear portion of the BMW.
17. In order to determine this, we had measured the height above ground level of the rear portion of the Audi (using a similar make and model), at the area where the dislodged front bumper and whitish marks were found. We had thereafter compared this measured height against the rear portion of the BMW. See photos 17 & 18 below.

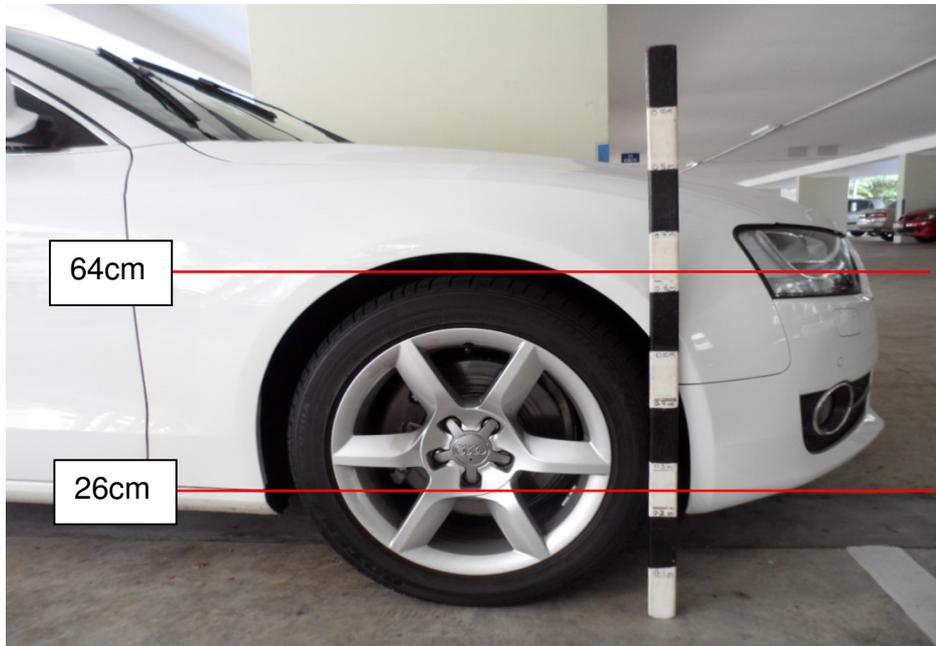


Photo 17 shows the height measurement being conducted on the right frontal portion of the Audi (using a similar make and model). The height range above ground level of the front bumper of the Audi, at the area where the damages were found, was measured to be approximately between 26cm to 64cm.



Photo 18 shows the height measurement being conducted on the rear left portion of the BMW. The body part at the height range of between 26cm to 64cm above ground level was the rear bumper of the BMW where the paint graze marks were observed.

18. We now set out below the findings that we had gathered following the height measurements that was conducted:-

- a) the height range above ground level of the front bumper of the Audi, at the area where the damages were found, was measured to be approximately between 26cm to 64cm;
- b) the body part at the height range of between 26cm to 64cm above ground level was the rear bumper of the BMW where the paint graze marks were observed;
- c) the height measurements appear to support the findings of possible contact between the rear portion of the BMW and the portion of the Mitsubishi. The damage observed on the rear bumper of the BMW was a result of this contact and corresponds to the damage observed on the front bumper of the Audi. In other words, the damage observed on the frontal portion of the Audi is consistent to the damage observed on the rear portion of the BMW.

Conclusion

19. Having investigated and technically analyzing the material evidence available at the time of writing this report, we are of the opinion that there was contact between the rear of the BMW and the front of the Audi at the material time.

20. The impact force from the contact was relatively minor and had occurred when the BMW was unable to stop in time whilst reversing and hit the Audi, which was parked at the time of contact.

21. The damage observed on the front of the Audi is consistent to the nature of the accident and also consistent to the damage observed on the rear bumper of the BMW.

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