

Your Ref : 565906
Our Ref : CS3/MSG18013911/N

10 October 2018

M/s MSIG Insurance (Singapore) Pte. Ltd.
16 Raffles Quay #24-01
Hong Leong Building
Singapore 048581
(Motor Claims Department)

**AUTOMOBILE TECHNICAL INVESTIGATION REPORT OF ACCIDENT
INVOLVING SCE 3638D AND SJT 7818M ON 27 JULY 2018**

1. We refer to your letter dated 14 September 2018 and the instructions therein to comment on the damage consistency of the motor car SCE 3638D involved in the captioned accident, in particular to establish whether there was possibly contact between the rear portion of the motor car SCE 3638D and the front portion of the motor car SJT 7818M; and if there was contact, whether the damages on the rear portion of the motor car SCE 3638D 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 SCE 3638D (herein referred to as "C180"), where amongst other information, the circumstances of accident was described together with 8 coloured photographs of the C180 at the time of reporting;
 - b) Singapore Accident Statement of the driver of the motor car SJT 7818M (herein referred to as "E200"), where amongst other information, the circumstances of accident was described together with 5 coloured photographs of the E200 at the time of reporting;
 - c) 54 coloured photographs of the damage to the C180 taken during the Pre- Repair Survey by LKK Auto Consultants Pte. Ltd.;
 - d) 40 coloured photographs taken during our physical inspection of the E200;
 - e) 3 coloured post-accident photographs taken by the driver of the E200.

3. In preparation of this report, we had conducted height measurements of the rear portion of the C180 (using a similar make and model). We had also conducted a physical inspection and thereafter conducted height measurements of the front portion of the E200; 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

5. From the Singapore Accident Statement of the driver of the C180, Mr Kow Wei Heng Dudley (herein referred to as **"Mr Kow"**) he was driving the C180 on 27 July 2018 at 1840 hours along Paya Lebar Road towards Upper Paya Lebar Road. The traffic was heavy. The vehicle in front of the C180 stopped and Mr Kow followed suit. Out of a sudden the driver of the E200 could not stop in time and rear-ended the C180.
6. The Singapore Accident Statement of the driver of the E200, Mr Loh Boon Tan (herein referred to as **"Mr Loh"**), however had stated that on 27 July 2018 at 1830 hours he had stopped behind the C180 along Paya Lebar Road towards Upper Paya Lebar Road opposite the Certis Cisco building. Suddenly the C180 rolled backwards and hit the front bumper of the E200. The damage to the bumpers of both vehicles was negligible.

Damage to the C180

7. Based on the circumstances of the case contained in the Singapore Accident Statement and photographs which were taken during the accident reporting 3 days after the accident, we note that the C180 had sustained an impact onto its rear portion, particularly to the right portion of its rear bumper.
8. Our examination of the photographs taken during the Pre- Repair Survey conducted by LKK Auto Consultants Pte. Ltd. 5 days after the accident revealed paint cracks on the right portion of the rear bumper. We also noticed several vertical black marks on the right portion of the C180's rear bumper. The tow hook cover as well as the right reverse sensor was dislodged. There was a slight misalignment at the right corner edges of the C180's rear bumper.

9. In general, these physical damages observed on the rear portion of the C180 indicate that it had sustained an impact directly onto its rear portion. See photos 1 - 5 below.



Photo 1 shows a right view of the rear portion of the C180 at the time of the Pre-Repair Survey conducted by LKK Auto Consultants Pte. Ltd. taken 5 days after the accident. The damages were concentrated on the right portion of the rear bumper (circled). There was a slight misalignment at the right corner edges of the rear bumper (arrowed).



Photo 2 shows the paint cracks (arrowed) as well as the vertical black marks on the right portion of the rear bumper (circled).



Photo 3 shows a close up view of the dislodged tow hook cover (arrowed).



Photo 4 shows a closer view of the dislodged right reverse sensor (circled).



Photo 5 shows a closer view of the misalignment at the right corner edges of the rear bumper (arrowed).

Physical Inspection of the E200

10. The E200 was physically inspected on 8 October 2018 at the premises of Archipelago Condo located at 513 Bedok Reservoir Rd, Singapore 479273.
11. The mileage recorded was 94,338km.
12. At the time of our inspection, we observed that the E200 had sustained numerous damages on its front left portion as a result of past accidents as mentioned by Mr Loh who was present during the physical inspection. Mr Loh also mentioned to us that he had accidentally rolled forward and rear-ended the C180 at the material time of accident, causing damage to the C180's rear bumper.
13. We note that there was a slight distortion on the top and left portion of the E200's front number plate frame, indicating that it had sustained an impact directly onto its front number plate. Upon closer examination, we observed whitish marks on some of the top alpha-numeric letterings of the front number plate. We also noticed a faint vertical indentation at the left portion of the front bumper. There was no obvious misalignment of the front bumper at its corner edges. See photos 6 – 15 below.



Photo 6 shows the general view of the front portion of the E200 at the time of our physical inspection. We note that there was a slight distortion on the top and left portion of the E200's front number plate frame, indicating that it had sustained an impact directly onto its front number plate (red circle). We also noticed a faint vertical indentation at the left portion of the front bumper (yellow circle).



Photo 7 shows a closer view of the left front portion of the E200 at the time of our physical inspection. We observed that the E200 had sustained numerous damages on its front left portion as a result of past accidents (circled) as mentioned by Mr Loh who was present during the physical inspection.



Photo 8 shows the distortion on the top and left portion of the E200's front number plate frame (circled), indicating that it had sustained an impact directly onto its front number plate. Upon closer examination, we observed whitish marks on the top alpha-numeric letterings of the front number plate (arrowed).



Photo 9 shows a closer view of the distortion on the top portion of the E200's front number plate frame (circled).



Photo 10 shows a closer view of the distortion on the left portion of the E200's front number plate frame (circled).



Photo 11 shows a close up view of the whitish marks on some of the top alphanumeric letterings of the front number plate (circled).



Photo 12 shows the faint vertical indentation at the left portion of the front bumper (circled).



Photo 13 shows a close up view of the faint vertical indentation at the left portion of the front bumper (circled).



Photo 14 shows a closer view of the right corner edge of the front bumper of the E200. We observed that there was no misalignment at the corner edges (arrowed).



Photo 15 shows a closer view of the left corner edge of the front bumper of the E200. We observed that there was no misalignment at the corner edges (arrowed).

Accident Scene Photographs and Technical Analysis

14. For this case, we were able to obtain from Mr Loh several post- accident photographs. It shows the final position of the Involved Motor Cars at the accident scene. The front left portion of the E200 was observed to be directly behind the rear right portion of the C180. Upon closer examination of these photographs, we observed a slight horizontal crack on the damaged tow hook cover of the C180.
15. It would appear that the most significant damage to the E200 that could possibly have been a result of contact with the rear portion of the C180 was the front number plate of the E200. This is also taking into consideration that the rear bumper is the most protruded body part at the rear portion of the C180 where in the event of any contact, it will be the first body part that will come into contact with the front number plate of the E200. The reason for which is the slight horizontal crack on the damaged tow hook cover of the C180 was caused by an object pressing onto the rear portion of the C180. If one was to consider the distortion on the top portion of the E200's front number plate frame, it would then appear that the slight horizontal crack was caused by the front number plate of the E200.
16. Furthermore, if one was to consider the slight vertical indentation on the left portion of the E200's front bumper, it would then appear that the slight vertical indentation was caused by the C180's tow hook cover. See photos 16 & 17 below.



Photo 16 shows a rear view of the position of the Involved Motor Cars after the accident. The front left portion of the E200 was observed to be directly behind the rear right portion of the C180.



Photo 17 shows a close up view of the damaged tow hook cover of the C180 post- accident. We observed a horizontal indentation on the tow hook cover (circled)

Height Measurement

17. Notwithstanding that the accident scene photos had showed possible contact between the front bumper of the E200 and the rear bumper of the C180, we had conducted a height configuration test to determine whether the damages observed on the rear bumper of the C180 corresponds to the damages observed on the front bumper of the E200.
18. In order to determine this, we had measured the height above ground level of the rear portion of the C180 (using a similar make and model), at the area where the various damages were found. We had thereafter compared this measured height against the front portion of the E200. See photos 18 & 19 below.



Photo 18 shows the height measurement being conducted on the rear portion of the C180 (using a similar make and model). The height above ground level of the C180's dislodged right reverse sensor was measured to be approximately 41cm. The height range above ground level of the C180's dislodged tow hook cover was measured to be between 46cm to 52cm. The height above ground level of the top portion of the C180's rear bumper at the area where the black marks and paint cracks were found was measured to be approximately 60cm.



Photo 19 shows the height measurement being conducted on the front portion of the E200. The height range above ground level of the vertical indentation found on the left portion of the E200's front bumper was measured to be approximately between 37cm to 48cm. The bodypart at 41cm above ground level was the top portion of the alpha- numeric letterings of the front number plate where the whitish marks were found.

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

- a) the height above ground level of the C180's dislodged right reverse sensor was measured to be approximately 41cm;
- b) the height range above ground level of the C180's dislodged tow hook cover was measured to be between 46cm to 52cm;
- c) the height above ground level of the top portion of the C180's rear bumper at the area where the black marks and paint cracks were found was measured to be approximately 60cm;
- d) the height range above ground level of the vertical indentation found on the left portion of the E200's front bumper was measured to be approximately between 37cm to 48cm;

- e) the vertical indentation found on the left portion of the E200's front bumper is within the 46cm to 52cm height range of the C180's dislodged tow hook;
- f) the bodypart at 41cm above ground level was the top portion of the alpha- numeric letterings of the E200's front number plate where the whitish marks were found;
- g) the height measurements appear to support the findings of possible contact between the rear portion of the C180 and the front portion of the E200. The damage observed on the rear bumper of the C180 was a result of this contact and corresponds to the damage observed on the front bumper of the E200. In other words, the damage observed on the front bumper of the E200 is consistent to the damage observed on the rear bumper of the C180.

Conclusion

- 20. Having investigated and technically analyzing the material evidence available at the time of writing this report, we are of the opinion that the damages sustained to the rear portion of the C180 were likely to be caused by the front portion of the E200 as a result of the contact at the material time of accident.
- 21. The impact of the contact may have caused the paint cracks on the rear bumper of the C180. The impact of the contact may have also caused the dislodgment of the right reverse sensor as well as the tow hook cover of the C180.
- 22. The impact force from the contact was relatively minor and had occurred when the E200 had accidentally rolled forward and rear-ended the C180. The damage to the rear bumper of the C180 was caused by the front bumper as well as front number plate of the E200. Upon contact, the front bumper and front number plate of the E200 had compressed against the rear bumper of the C180, creating the black marks and paint cracks as well as the dislodgement of the right reverse sensor and tow hook cover of the C180.
- 23. Both damages are corresponding to their respective heights and are consistent to their nature of contact.

24. We are further of the view that the energy forces generated from the impact was not significant enough to have dissipated and affected body parts that were beyond the rear bumper of the C180.
25. Our findings are further supported, at the time of our physical inspection of the E200, Mr Loh's confession that he had accidentally rolled forward and rear-ended the C180 at the material time of accident, causing damage to the C180's rear bumper.



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