

Your Ref : 546561/IT
Our Ref : CI/MSG18004905/D

14 March 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 INCIDENT INVOLVING SKM 3602U AND SLS 2598L ON 23 DECEMBER 2017

1. I refer to your letter dated 09 February 2018 and the instructions therein to comment on whether there was possibly contact between the front portion of your insured vehicle SKM 3602U (herein referred to as "**Insured Vehicle**") and the rear portion of a third party motor car SLS 2598L (herein referred to as "**Third Party Vehicle**"); and if there was contact, whether the damage on the rear portion of the Third Party Vehicle is consistent to the incident. In addition, a reasonable cost of repair to restore the Third Party Vehicle to its pre-accident condition.
2. The following documents were provided to me for my review and consideration in the preparation of this report: -
 - a) Singapore Accident Statement of the driver of the Insured Vehicle, where amongst other information, the circumstance of incident was described;
 - b) Singapore Accident Statement of the driver of the Third Party Vehicle, where amongst other information, the circumstance of incident was described; and
 - c) 12 coloured photographs showing the Third Party Vehicle before repair, after dismantling of body parts, and after repair.
3. In preparation of this report, I had conducted a physical inspection of the Insured Vehicle. Height measurements of the frontal portion of the Insured Vehicle and the rear portion of a similar make and model vehicle as the Third Party Vehicle were also carried out.

4. The information gathered during the course of my investigations and information gathered from all the documents provided, were then technically analyzed. My findings and analysis are set out below.

Nature of Incident

5. From the Singapore Accident Statement of the driver of the Third Party Vehicle, he was driving the Third Party Vehicle on the centre lane along Pasir Ris Drive 1 towards Loyang Avenue. He had slowed down and stopped to give way to a motor vehicle from the left lane. He then felt an impact from the rear and realized that the Insured Vehicle, which was travelling behind, had hit the rear portion of the Third Party Vehicle.
6. The driver of the Insured Vehicle, on the other hand, had stated in her Singapore Accident Statement that due to light rain, resulting in wet road surface, the Insured Vehicle did not stop in time. This had caused the Insured Vehicle to make contact and touch the Third Party Vehicle, which was in front of the Insured Vehicle. There was no visible damage to the Insured Vehicle and the Third Party Vehicle.

Third Party Vehicle

7. The Third Party Vehicle was not able to be inspected as repairs have been completed prior to your request to comment on this incident. I will hence be relying on the provided photographs showing the Third Party Vehicle for my analysis.
8. The photographs taken at the time of reporting on 26 December 2017 (3 days after the incident) had showed what appears to be a barely visible distortion to the rear bumper of the Third Party Vehicle, evident from the need to use non-permanent markings to highlight the area of distortion during the photograph taking. This distortion was noted to be directly at the centre of the rear bumper. See photo 1 & 2 below.



Photo 1 shows a general view of the rear portion of the Third Party Vehicle at the time of incident reporting on 26 December 2017 (3 days after the incident). Upon closer examination of the photographs, what appears to be a barely visible distortion to the rear bumper of the Third Party Vehicle was observed, evident from the need to use non-permanent markings to highlight the area of distortion. This distortion was noted to be directly at the centre of the rear bumper (arrowed).



Photo 2 shows a close up view of the distorted area of the rear bumper. This was at the time of incident reporting on 26 December 2017. The distortion (red circle) was directly at the centre of the rear bumper and barely visible.

9. The 12 coloured photographs showing the Third Party Vehicle before repair, after dismantling of body parts, and after repair, which were all taken at an unknown date after the time of incident reporting (non-permanent markings not seen during this time), appear to have been focused on the rear right side of the Third Party Vehicle.
10. What appears to be light scratches were observed on the right side of the rear bumper, towards the top area. A relatively minor dent was also observed on the right side of the Third Party Vehicle's rear bootlid. See photo 3 – 5 below.



Photo 3 shows a general view of the rear portion of the Third Party Vehicle before the start of repairs. This was at a later date after the incident report as the non-permanent markings were no longer visible. The photographs taken had appeared to primarily be focussed on the rear right side of the Third Party Vehicle.



Photo 4 shows a closer view of the rear right side of the Third Party Vehicle. From the photographs taken, I had observed what appears to be light scratches on the right side of the rear bumper, towards the top area (circled). A relatively minor dent was also observed on the right side of the Third Party Vehicle's rear bootlid (arrowed).



Photo 5 shows a close up view of the relatively minor dent (circled) that was observed on the right side of the Third Party Vehicle's rear bootlid.

11. The photograph showing the Third Party Vehicle taken at the incident location, and attached in the Singapore Accident Statement of the driver of the Insured Vehicle had showed the general view of the rear portion of the Third Party Vehicle with no close up view. Closer examination of the photograph did not produce any significant observation(s) as the resolution of the photograph deteriorates upon enlarging the size of the photograph. From the general view as seen in the photograph, there appears to be no visible damage on the rear portion of the Third Party Vehicle. See photo 6 below.



Photo 6 shows the rear portion of the Third Party Vehicle at the incident location. No notable observation(s) was made as there was no closer view of the Third Party Vehicle. However, from the general view seen in the photograph, there appears to be no visible damage seen on the rear portion of the Third Party Vehicle.

Physical Inspection of the Insured Vehicle

12. The Insured Vehicle was physically inspected on 13 February 2018 at 4 Tech Park Crescent, Singapore 638128. The inspection carried out had primarily focused on the frontal portion of the Insured Vehicle given that the incident was reported to be of a head to rear nature where the Insured Vehicle was behind the Third Party Vehicle at the material time. The mileage of the Insured Vehicle at the time of my inspection was recorded to be 127,974km.

13. My visual examination of the frontal portion of the Insured Vehicle revealed a slight bending of its front number plate and front number plate casing. No other visible damage was observed. See photo 7 – 12 below



Photo 7 shows a general view of the front right portion of the Insured Vehicle at the time of my inspection. The mileage of the Insured Vehicle at the time of my inspection was recorded to be 127,974km.



Photo 8 shows the front number plate and front number plate casing of the Insured Vehicle slightly bent at a single area (circled).



Photo 9 shows the front number plate and front number plate casing of the Insured Vehicle slightly bent at a single area (circled). Apart from this, I did not observe any other visible damage to the frontal portion of the Insured Vehicle at the time of my inspection.

14. The bending of the front number plate and front number plate casing of the Insured Vehicle that I had observed at the time of my inspection was similarly observed from the photograph showing the Insured Vehicle that was taken at the incident location. See photo 10 below.



Photo 10 shows the frontal portion of the Insured Vehicle at the incident location. Its front number plate and front number plate casing was observed to be bent (circled). This was similar to my observations at the time of my inspection of the Insured Vehicle on 13 February 2018.

Technical Analysis

15. The driver of the Insured Vehicle had stated in her Singapore Accident Statement that the frontal portion of the Insured Vehicle had touched the rear portion of the Third Party Vehicle. The sketch plan attached in the Singapore Accident Statement of the driver of the Insured Vehicle had indicated that the Insured Vehicle was directly behind the Third Party Vehicle, in a straight line. This was similarly seen in the sketch plan that was attached in the Singapore Accident Statement of the driver of the Third Party Vehicle.
16. Since the Insured Vehicle was aligned with the Third Party Vehicle, in a straight line, any form of contact would first be between the protruded body part at the front centre of the Insured Vehicle and the protruded body part at the rear centre of the Third Party Vehicle. The most protruded body part at the frontal portion of the Insured Vehicle was its front number plate and front number plate casing while the most protruded body part at the rear portion of the Third Party Vehicle was its rear bumper. The aforesaid body parts of the Insured Vehicle and the Third Party Vehicle were observed to be damaged.

17. My examination of the photographs showing the Third Party Vehicle, which was discussed earlier in paragraph 8 and paragraph 10, revealed slight distortion on the centre area of its rear bumper, light scratches on the right side of its rear bumper and slight dent on the right side of its rear bootlid. These damages were all direct contact/impact type of damage, where the object which had caused the damage had come into direct contact with the Third Party Vehicle.
18. To verify/determine whether the direct contact/impact damage found on the rear portion of the Third Party Vehicle was caused by contact from the frontal portion of the Insured Vehicle, height measurement of the damages to the Third Party Vehicle was recorded and thereafter compared with the height above ground level of the bent front number plate and bent front number plate casing of the Insured Vehicle, since these body parts were also damaged from direct contact.
19. I now set out below the findings gathered following the height measurements that was conducted: -
- a) the height above ground level of the Third Party Vehicle's rear bumper, where the slight distortion and light scratches were found was measured to be approximately 50cm and 65cm above ground level respectively;
 - b) the height above ground level of the slight dent on the right side of the Third Party Vehicle's rear bootlid was measured to be approximately 68cm above ground level;
 - c) the height above ground level of the lower end of the Insured Vehicle's front number plate casing was measured to be approximately 34cm above ground level while the top end was measured to be approximately 48cm above ground level;
 - d) comparing these measured heights, I note that the height above ground level of the top end of the Insured Vehicle's front number plate casing (48cm) was slightly below the height of the slight distortion that was found on the centre area of Third Party Vehicle's rear bumper (50cm);
 - e) there was no visible damage found on the front portion of the Insured Vehicle at the height of 65cm and 68cm above ground level. These heights were the height recorded for the light scratches and slight dent that were observed on the rear right side of the Third Party Vehicle. See photo 11 & 12 below.

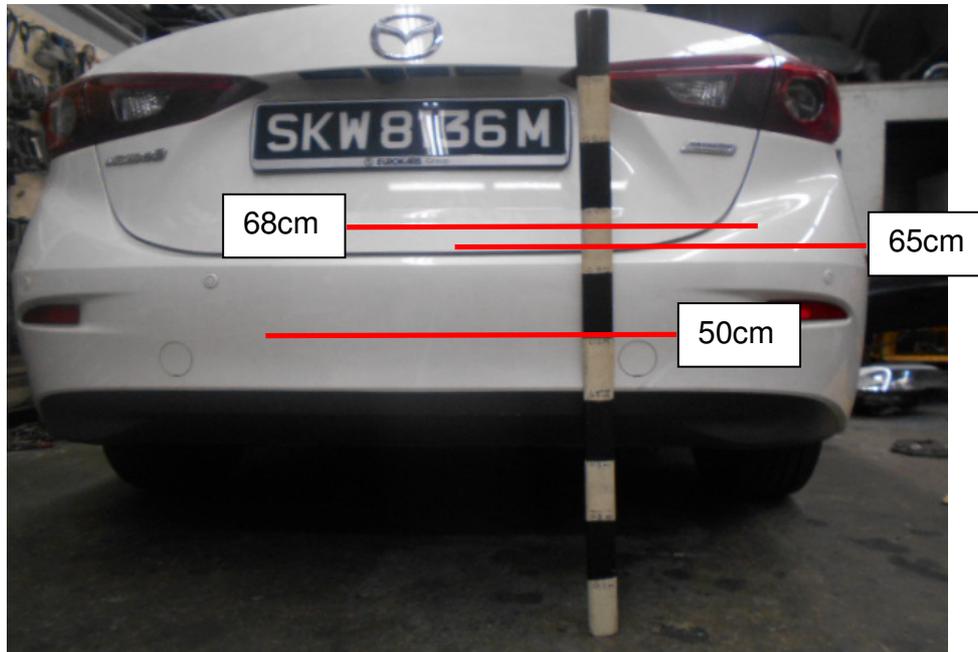


Photo 11 shows the height measurement that was conducted on the rear portion of the Third Party Vehicle. The height above ground level of the distortion on the centre area of the rear bumper was approximately 50cm; the scratches on the right side of the rear bumper was approximately 65cm; the dent on the right side of the rear bootlid was 68cm.



Photo 12 shows the height measurement that was conducted on the front portion of the Insured Vehicle. The lower end of the Insured Vehicle's front number plate casing was approximately 34cm while the top end was measured to be approximately 48cm above ground level.

20. The height measurements carried out appear to indicate that the slight distortion on the centre area of the Third Party Vehicle's rear bumper was likely caused by contact from the front number plate of the Insured Vehicle. The light scratches on the right side of the rear bumper and slight dent on the right side of the rear bootlid were unlikely to be caused by contact from the Insured Vehicle.
21. Given the findings of the height measurements, it can be established that there was a single point of contact between the Insured Vehicle and the Third Party Vehicle. This single point of contact was at the most protruded body part ie front number plate of the Insured Vehicle and the rear bumper of the Third Party Vehicle.

Cost of Repair

22. For this case, my technical analysis that were set out in paragraph 15 to paragraph 21 above had indicated that the slight distortion on the centre area of the Third Party Vehicle's rear bumper was caused by contact from the Insured Vehicle. Given that the distortion was barely visible, it would be reasonable to say that the force/load arising from the contact was minimal. This force/load would have also unlikely penetrated to other body parts, beyond the rear bumper of the Third Party Vehicle.
23. In this regard, the cost of repair to restore the rear bumper of the Third Party Vehicle would involve minor heat treatment to the rear bumper to straighten the slightly distorted area, and thereafter spray painting of the rear bumper. A reasonable cost for such nature of restoration work would be approximately \$400/- with 2 working days for the completion of the work.

Conclusion

24. Having investigated and technically analyzing the material evidence available at the time of writing this report, I am of the opinion that there was a single point of contact between the frontal portion of the Insured Vehicle and the rear portion of the Third Party Vehicle at the material time of incident.
25. The contact was at the most protruded body part ie front number plate of the Insured Vehicle and the rear bumper of the Third Party Vehicle. The force/load arising from this contact was relatively minor, resulting in a slight distortion on the centre area of the Third Party Vehicle's rear bumper.



26. Having regard to the extent of damage sustained by the Third Party Vehicle arising from this incident, I am further of the opinion that a reasonable cost to restore the Third Party Vehicle to its pre-accident condition would be approximately \$400/- with 2 working days for the completion of the work.

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