

Your Ref : 556994
Our Ref : CS/MSG18007877/N

29 May 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 SJU 1138B AND SGQ 8709P ON 25 APRIL 2018**

1. We refer to your letter dated 14 May 2018 and the instructions therein to comment on the damage consistency of the motor car SJU 1138B involved in the captioned accident, in particular to establish whether there was possibly contact between the right front portion of the motor car SJU 1138B and the left portion of motor car SGQ 8709P; and if there was contact, whether the damage on the right front portion of the motor car SJU 1138B 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 Police Report and Accident Statement of the driver of the motor car SJU 1138B (herein referred to as "**BMW**"), where amongst other information, the circumstances of accident was described together with 8 coloured photographs of the BMW at the time of reporting;
 - b) Singapore Accident Statement of the driver of the motor car SGQ 8709P (herein referred to as "**Toyota**"), where amongst other information, the circumstances of accident was described together with 6 coloured photographs of the Toyota at the time of reporting;
 - c) 34 coloured photographs taken during the physical inspection of the BMW;
 - d) 62 coloured photographs taken during the physical inspection of the Toyota;
 - e) 2 video recordings of the accident taken from the in-vehicle cameras mounted onto the front and rear windscreens of the BMW;

- f) 2 post-accident photographs of the BMW taken by the driver of the BMW.
3. In preparation of this report, we had conducted a physical inspection and thereafter height measurements of the right front portion of the BMW. We had also conducted a physical inspection and thereafter height measurements of the left portion of the Toyota; 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 Police Report and Accident Statement of the driver of the BMW, Ms Tan Min Hwee (herein referred to as “**Ms Tan**”), on 25 April 2018 at 1244 hours she had parked the BMW outside No. 49 Coronation Road and was waiting to turn into Nanyang Kindergarten to pick up her son. A dark blue Toyota Camry bearing registration number SGQ 8709P drove very closely to the BMW and scratched the right side of the front bumper. There were scratch marks found on the BMW post- accident. The movement of the Toyota had been recorded by the BMW’s in- vehicle car cameras.
6. The Singapore Accident Statement of the driver of the Toyota, Mr Teo Teck Chye (herein referred to as “**Mr Teo**”), however had stated that there was no accident or any contact with any vehicle at the material date and time. He had received a letter from his insurance company and was asked to make an insurance report.

Physical Inspection of the BMW

7. The BMW was physically inspected at the home premises of Ms Tan located at 32 Luxus Hill Avenue, Singapore 804890. The mileage of the BMW recorded at the time of our inspection was 46,682km.
8. At the time of our inspection, the BMW was observed to have sustained relatively minor impact damage at its right frontal portion. The right front portion of the front bumper was observed to be grazed.

9. In general, the physical condition found on the BMW indicates that it had sustained an impact directly onto its right frontal portion. This impact was relatively light as we did not observe any obvious misalignment at the corner edges of the front bumper, adjacent to the front fenders. See photos 1 – 5 below.



Photo 1 shows the general right view of the front of the BMW at the time of our inspection. Its right frontal portion was observed to have sustained relatively minor impact damage, which had affected its front bumper (circled).



Photo 2 shows the paint graze marks found on the right portion of the BMW's front bumper (circled).



Photo 3 shows a closer view of the paint graze marks found on the right portion of the BMW's front bumper.



Photo 4 shows no obvious misalignment at the corner edges of the BMW's front bumper, adjacent to its front right fender (circled). This would indicate that the impact onto the frontal portion of the BMW was relatively light.



Photo 5 shows no obvious misalignment at the corner edges of the BMW's front bumper, adjacent to its front left fender (circled). This would indicate that the impact onto the frontal portion of the BMW was relatively light.

10. Our comparison of the condition of the BMW at the time of our inspection with the photographs of the BMW that were taken by Ms Tan post- accident had showed similar condition, which was discussed earlier in paragraph 8 & 9, on the frontal portion of the BMW immediately post- accident. See photos 6 & 7 below of the BMW taken by Ms Tan at the accident scene.



Photo 6 shows the condition of the Toyota's front bumper as depicted in the photographs that were taken by Ms Tan post- accident outside Nanyang Kindergarten (arrowed). The same paint graze marks towards the right front portion of the BMW were observed (circled).



Photo 7 shows a closer view of the condition of the BMW's front bumper as depicted in the photographs that were taken by Ms Tan post- accident. The same paint graze marks on the right front portion of the BMW were observed (circled).

Physical Inspection of the Toyota

11. The Toyota was physically inspected on 21 May 2018 at the premises of LKK Auto Consultants Pte. Ltd. located at 51 Ubi Avenue 1, #01/02-25, Paya Ubi Industrial Park, Singapore 408933. The mileage of the Toyota recorded at the time of our inspection was 189,858km.
12. At the time of our inspection, we note that there were paint scratch marks on the left front passenger door. Paint scratch marks and paint graze marks were also found on the left rear portion, on the rear bumper. However, upon closer examination we observed that several areas around the paint scratch marks had been painted over.
13. In general, the physical condition found on the Toyota indicates that it had sustained an impact directly onto its left rear portion. This impact was relatively light as we did not observe any obvious misalignment at the corner edges of the Toyota's rear bumper. See photos 8 – 19 below.



Photo 8 shows the general left view of the front of the Toyota at the time of inspection at LKK Auto Consultants Pte. Ltd.



Photo 9 shows the general view of the Toyota's left portion at the time of inspection. Its left portion was observed to have sustained relatively minor impact damage, which had affected its left passenger door and rear bumper only.



Photo 10 shows upon closer inspection, we note that there were paint scratch marks on the left front passenger door of the Toyota (circled).



Photo 11 shows a close up view of the paint scratch marks found on the left front passenger door of the Toyota (circled).



Photo 12 shows the paint scratch marks (arrowed) and paint graze marks (circled) found on the left rear portion of the Toyota, on the rear bumper.



Photo 13 shows a close up view of the paint graze marks (circled) found on the left rear portion of the Toyota, on the rear bumper.



Photo 14 shows a close up view of the paint graze marks (circled) found on the lower left rear portion of the Toyota, on the rear bumper.



Photo 15 shows a closer view of the paint scratch marks found on the left rear portion of the Toyota, on the rear bumper (arrowed).



Photo 16 shows upon closer examination, we observed that several areas around the paint scratch marks (arrowed) had been painted over (circled).



Photo 17 shows a closer view of the paint scratch marks found on the left portion of the Toyota's rear bumper (circled).

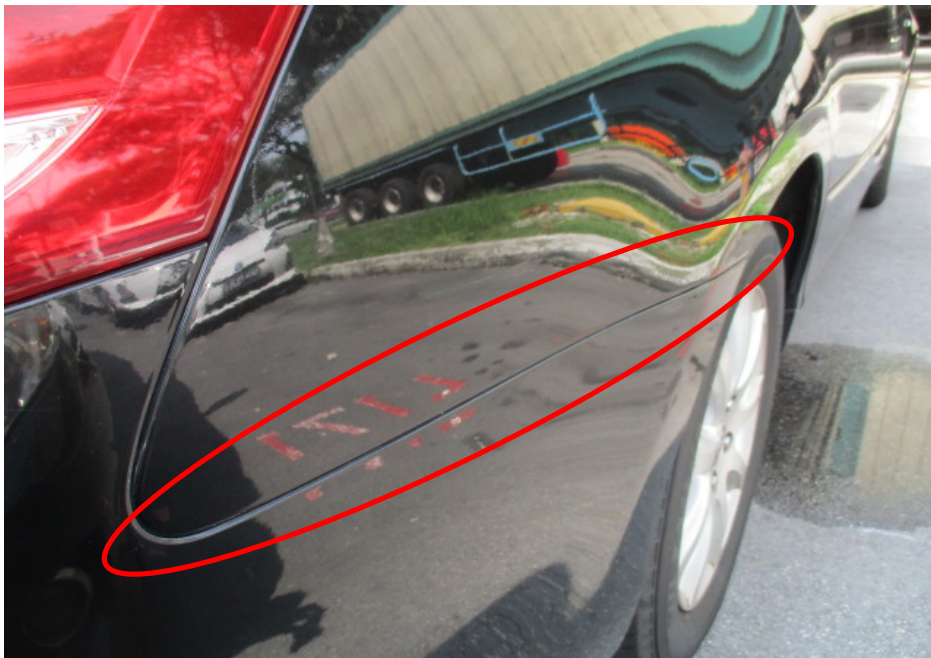


Photo 18 shows no obvious misalignment at the corner edges of the Toyota's rear bumper, adjacent to its rear right fender (circled). This would indicate that the impact onto the rear portion of the Toyota was relatively light.



Photo 19 shows no obvious misalignment at the corner edges of the Toyota's rear bumper, adjacent to its rear left fender (circled). This would indicate that the impact onto the rear portion of the Toyota was relatively light.

Video Recordings

14. The video recordings that were provided to us in preparation of this report were taken from video recording devices that were mounted onto the front and rear windscreens of the BMW. The recordings showed the events before the accident, the accident itself and the events after the accident. The length (duration) indicated in the video recordings were 1 minute each.
15. From the video recording taken from the video recording device that was mounted onto the front windscreen of the BMW (herein referred to as “**front video**”), the BMW could be seen initially waiting outside the Nanyang Kindergarten along the left side of the roadway. At the 7 second mark of the video recording taken from the video recording device that was mounted onto the rear windscreen of the BMW (herein referred to as “**rear video**”), the Toyota could be seen approaching the BMW from the right.
16. At the 11 second mark of the rear video, we had noted a slight movement (jerk-like movement) to the parked vehicle behind the BMW. Impact sound could also be heard at the 11 second mark. When viewing the front video at the 11 second mark where the slight jerk- like movement was noted to the parked vehicle behind the BMW, it could be seen that the left rear portion of the Toyota had just passed the right front portion of the BMW, indicating possible contact between the left rear portion of the Toyota and the right front portion of the BMW.
17. The capturing of this slight jerk- like movement of the parked vehicle behind the BMW by the rear video is a sign that there was jerk- like movement to the BMW itself. Ultimately, indicating possible contact between the left rear portion of the Toyota and the right front portion of the BMW. However one would have to view the recordings to see this movement. See screenshots 1 – 4 below.



Screenshot 1 of the front video shows the BMW waiting outside the Nanyang Kindergarten (arrowed).



Screenshot 2 of the rear video shows the Toyota (arrowed) approaching the BMW from the right at the 7 second mark.



Screenshot 3 shows at the 11 second mark of the rear video, slight jerk- like movement was noted to the parked vehicle behind the BMW (arrowed). The capturing of this slight jerk- like movement of the parked vehicle behind the BMW by the rear video is a sign that there was jerk- like movement to the BMW itself. Impact sound could also be heard at the 11 second mark.



Screenshot 4 of the front video shows at the 11 second mark where the slight jerk- like movement was noted to the parked vehicle behind the BMW, the left rear portion of the Toyota had just passed the right front portion of the BMW (arrowed), indicating possible contact between the left rear portion of the Toyota and the right front portion of the BMW.

Height Measurement

18. Notwithstanding that the video recordings had showed possible contact between the left rear portion of the Toyota and the right front portion of the BMW, we had conducted a height configuration test to determine whether the damages observed on the left rear portion of the Toyota correspond to the damages observed on the right front portion of the BMW.
19. In order to determine this, we had measured the height above ground level of the right front portion of the BMW, at the area where the paint graze marks were found. We had thereafter compared this measured height against the left rear portion of the Toyota. See photos 20 & 21 below.

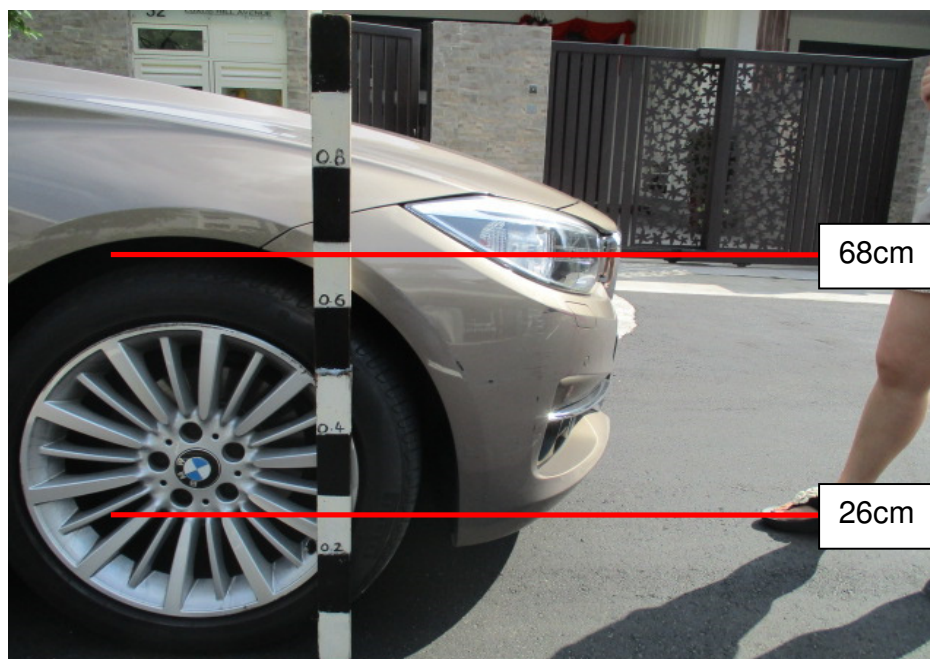


Photo 20 shows the height measurement being conducted on the right front portion of the BMW. The paint graze marks on the right front portion of the BMW were between the height ranges of 26cm to 68cm above ground level.

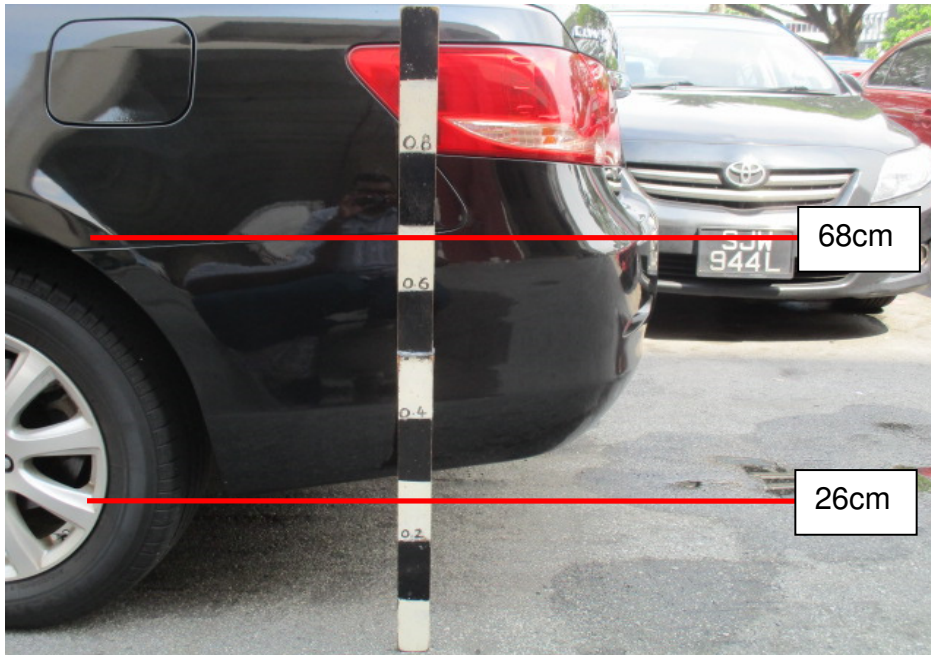


Photo 21 shows the height measurement being conducted on the left rear portion of the Toyota. The paint graze marks and paint scratch marks on the left rear portion of the Toyota are within the 26cm to 68cm range.

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

- a) the paint graze marks on the right front portion of the BMW were between the height ranges of 26cm to 68cm above ground level;
- b) the paint graze marks and paint scratch marks on the left rear portion of the Toyota are within the 26cm to 68cm range;
- a) the height measurements appear to support the findings of possible contact between the left rear portion of the Toyota and the right front portion of the BMW.

Conclusion

21. 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 left rear portion of the Toyota and the right front portion of the BMW at the material time of accident.
22. The impact force from the contact was relatively minor and had occurred as the Toyota was overtaking the BMW which was stationary at the material time. The impact resulted in a slight contact of grazing nature between the left rear portion of the Toyota and the right front portion of the BMW, causing significant permanent damage to both vehicles.
23. Both damages are corresponding to their respective heights and are consistent to their nature of contact. Furthermore the pattern of the graze marks observed on the left rear portion of the Toyota corresponds to the pattern of the paint graze marks observed on the right front portion of the BMW.

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