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Our Ref : CC6/CTI21010908/N

M/s China Taiping Insurance (Singapore) Pte Ltd

3 Anson Road #16-00 Springleaf Tower Singapore 079909 (Motor Claims Department)

AUTOMOBILE TECHNICAL INVESTIGATION REPORT OF ACCIDENT INVOLVING SJG 53S AND PC 4047J ON 12 OCTOBER 2021

- 1. We refer to your letter dated 26 May 2022 and the instructions therein to comment on the damage consistency of the motor car SJG 53S involved in the captioned accident, in particular to establish whether there was possibly contact between the right rear portion of the motor car SJG 53S and the left portion of the motor bus PC 4047J; and if there was contact, whether the damages on the right rear portion of the motor car SJG 53S 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 and Police Report of the driver of the motor car SJG 53S (herein referred to as "**Toyota**"), where amongst other information, the circumstances of accident was described:
 - Singapore Accident Statement of the driver of the motor bus PC 4047J (herein referred to as "Hiace"), where amongst other information, the circumstances of accident was described together with 6 coloured photographs of the Hiace at the time of reporting;
 - c) 10 coloured photographs of the damage to the Toyota taken during the Pre- Repair Survey by LKK Auto Consultants Pte. Ltd.;
 - d) 33 coloured photographs taken during the inspection of the Hiace;
 - e) 1 post-accident photograph taken by the driver of the Toyota;
 - f) 1 video recording of the accident taken from the in-vehicle camera of the Toyota.



- 3. In preparation of this report, we had conducted height measurements of the right rear portion of the Toyota. We had also conducted a physical inspection and thereafter height measurements of the left portion of the Hiace; both collectively referred herein as "Involved Motor Vehicles". 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 and Police Report Number T/20211012/7029 of the driver of the Toyota, Mr Lee Ee Thor Nivel (herein referred to as "Mr Lee") on 12 October 2021 at about 1310 hours, he was driving the Toyota along Hougang Avenue 4 beside the Hougang Polyclinic. There were road works resulting in 2 lanes merging into 1. Mr Lee was waiting behind a vehicle when the Hiace bearing registration number PC 4047J side swiped the right rear portion of the Toyota. The driver of the Hiace did not stop to check if his dangerous and reckless driving did any damage to the Toyota.
- 6. The Singapore Accident Statement of the driver of the Hiace, Mr Muhammad Faiz bin Khamis (herein referred to as "Mr Faiz"), however had stated that on the accident date and time, he recalled travelling along Hougang Avenue 4 in the Hiace and was heading towards Upper Serangoon Road. He believes that there was no accident involved as he does not recall colliding into any vehicle. Mr Faiz also states that there no damages to the Hiace. He does not have any video footage of the accident to offer.

Damage to the Toyota

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 Toyota had sustained an impact onto its rear right portion. The damages were mainly observed to be at or around the rear bumper.



8. We observed paint graze marks and black marks found on the lower right portion of the rear bumper of the Toyota. We also noted the rear bumper was dislodged at the right corner edge. See photos 1 - 7 below.



Photo 1 shows the general view of the right rear portion of the Toyota 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 Toyota was observed to be confined to the rear bumper (circled).

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Photo 2 shows the damage observed on the right portion of the rear bumper of the Toyota (circled).



Photo 3 shows a closer view of the paint graze marks (yellow arrow) and black marks (red arrow) found on the lower right portion of the rear bumper of the Toyota.

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Photo 4 shows a close up view of the black marks found on the lower right portion of the rear bumper of the Toyota (arrowed).



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



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



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

Physical Inspection of the Hiace

- 9. The Hiace was physically inspected on 1 June 2022 at the premises located at Block 686 Hougang Street 61, Singapore 530686.
- 10. The mileage recorded was 372,606km.
- 11. At the time of our inspection, the Hiace was observed to have sustained no visible impact damage to its left portion. We also observed that there were no dents or cracks at its left portion. We also found that the tyres were observed to have protruded out from the body of the Hiace. See photos 8 16 below.



Photo 8 shows the general view of the frontal portion of the Hiace at the time of our physical inspection.

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Photo 9 shows the general view of the left frontal portion of the Hiace at the time of our physical inspection. Its left frontal portion was observed to have no visible impact damage.



Photo 10 shows the general view of the left rear portion of the Hiace at the time of our physical inspection. Its left rear portion was observed to have no visible impact damage.



Photo 11 shows a closer view of the left frontal portion of the Hiace at the time of our physical inspection. There were no cracks or dents observed.



Photo 12 shows a close up view of the left frontal portion of the Hiace at the time of our physical inspection. There were no paint graze marks observed.

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Photo 13 shows a close up view of the left front tyre of the Hiace at the time of our physical inspection. We observed that the left front tyre was observed to have protruded out from the body of the Hiace (arrowed).



Photo 14 shows a closer view of the left rear portion of the Hiace at the time of our physical inspection. There were no cracks or dents observed.



Photo 15 shows a close up view of the left rear portion of the Hiace at the time of our physical inspection. There were no paint graze marks observed.



Photo 16 shows a close up view of the left front tyre of the Hiace at the time of our physical inspection. We observed that the left front tyre was observed to have protruded out from the body of the Hiace (arrowed).

12. Our examination of the photographs showing the Hiace at the time of its accident reporting on 30 October 2021 had also revealed no visible damage to its left portion. See photo 17 below.



Photo 17 shows the general view of the left portion of the Hiace at the time of its accident reporting. Its left portion was observed to have no impact damage.

Video Recording

- 13. The video recording that was provided to us in preparation of this report was taken from a video recording device that was mounted onto the front windscreen of the Toyota. The recording showed the events before the accident, and the accident itself. The length (duration) indicated in the video recording was 1 minute.
- 14. At the 55 second mark of the video recording the Toyota could be seen waiting to switch from lane 1 to lane 2 due to road works ahead. At the 56 second mark of the video recording, we had noted a slight movement (jerk like movement) of the Toyota. This was after the Hiace had abruptly proceeded straight on the 1st lane beside the Toyota. The capturing of this slight movement is a sign that there was jerk like movement to the Toyota itself. Ultimately, indicating that there was contact between the left portion of the Hiace and the right rear portion of the Toyota.



15. See screenshot 1 and 2 below showing the 56 and 57 second mark of the video recording where the Hiace can be seen abruptly proceeding straight. However one would have to view the recording to see this slight movement.



Screenshot 1 of the video recording from the video recording device that was mounted onto the front windscreen of the Toyota shows the Toyota waiting to switch from lane 1 to lane 2 due to road works ahead (circled) at the 55 second mark.



Screenshot 2 shows at the 56 second mark of the video recording, we had noted a slight movement (jerk like movement) of the Toyota. This was after the Hiace had abruptly proceeded straight on the 1st lane beside the Toyota (arrowed). The capturing of this slight movement is a sign that there was jerk like movement to the Toyota itself. Ultimately, indicating that there was contact between the left portion of the Hiace and the right rear portion of the Toyota.

Height Measurement

- 16. Notwithstanding the video recording which had showed that there was possible contact between the right rear portion of the Toyota and the left portion of the Hiace, we had conducted a height configuration test to determine whether the damages observed on right rear portion of the Toyota could have possibly been caused by the left portion of the Hiace.
- 17. In order to determine this, we had measured the height above ground level of the right rear portion of the Toyota, at the area where the paint graze marks and black marks were found. We had thereafter compared this measured height against the left portion of the Hiace. See photos 18 & 19 below.



Photo 18 shows the height measurement being conducted on the right rear portion of the Toyota. The paint graze and black marks on the right rear portion of the Toyota were between the height ranges of 35cm to 60cm above ground level.

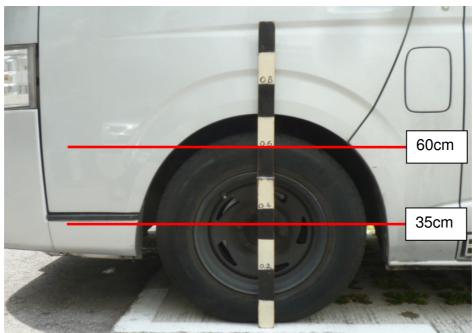


Photo 19 shows height measurement being conducted on the left frontal portion of the Hiace. The body part between the height ranges of 35cm to 60cm above ground level was the left front wheel rim and tyre of the Hiace.



- 18. We now set out below the findings that we had gathered following the height measurements that was conducted:
 - a) The paint graze and black marks on the right rear portion of the Toyota were between the height ranges of 35cm to 60cm above ground level;
 - b) the body part between the height ranges of 35cm to 60cm above ground level was the left front wheel rim and tyre of the Hiace;
 - c) the height measurements appear to support the findings of possible contact between the right rear portion of the Toyota and the front left portion of the Hiace. The point of contact to the right rear portion of the Toyota would have been from the left front wheel rim and tyre of the Hiace given that this was the most protruded body part at the left frontal portion of the Hiace and also the height above ground level had corresponded to the height above ground level of the paint graze and black marks found on the right rear portion of the Toyota.

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 right rear portion of the Toyota and the left frontal portion of the Hiace at the material time.

20. The left front wheel rim and tyre is the most protruded part of the Hiace hence as the Hiace was abruptly proceeding straight on the 1st lane beside the Toyota, the left front wheel rim and tyre grazed the right rear portion of the Toyota. The pattern of the black marks seen on the right rear portion of the Toyota corresponds to tyre rubbing marks which was caused by the left front tyre of the Hiace which came into contact with the Toyota while the Hiace was abruptly proceeding straight.

Muhd Nazril

Wiung Nazrii

Senior Technical Investigator

Ang Bryan Tani

AFF SAE-A, AMSOE AMIRTE, MATAI, Aff.Inst.AEA

Senior Technical Investigator

Technical Investigation & Reconstructionist (SAE-A)

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