

Your Ref: CMTD2404039/SYH
Our Ref : CS/SMO24120250/K

23 December 2024

M/s Sompso Insurance Singapore Pte. Ltd.

50 Raffles Place #03-03
Singapore Land Tower
Singapore 048623

**TECHNICAL INVESTIGATION REPORT OF INSURED VEHICLE SKZ 8123J
INVOLVED IN AN ACCIDENT ON 14 DECEMBER 2024**

1. I refer to your letter dated 18 December 2024 and the instructions therein to conduct a physical inspection of the insured vehicle and thereafter to comment on the window tinted film & additional fitted aftermarket parts; and whether the window tint and additional aftermarket parts installed had complied with the requirements of the local governing body.
2. I have inspected the insured vehicle on 20 December 2024 at the premises of CYS Automobile Services Pte Ltd located at 38 Woodlands Industrial Park E1, #07-17, Singapore 757700.
3. The objective of the inspection was to check whether the Insured Vehicle was fitted with any modification(s) and/or non-standard parts, and whether if fitted, the modification(s) and/or non-standard parts are LTA compliant; regardless of whether LTA compliant, the effects of the modification(s) and/or non-standard parts on the Insured Vehicle.
4. I now set out below my observations and comments pertaining to the compliance of the window tints & aftermarket parts that were fitted on the insured vehicle at the time of my inspection.
5. The following general vehicle information was recorded during my inspection of the insured vehicle: -

Registration Number : SKZ 8123J
Make & Model : TOYOTA ALPHARD 2.5G CVT ABS D/AIRBAG 2WD 5DR
Year of Registration : APRIL 2016
Chassis Number : AGH300032567
Speedo Reading : N/A

6. The insured vehicle was observed to be in satisfactory condition without any loose exterior fittings. See photo 1- 4 below.



Photo 1 shows a general view of the Insured Vehicle front portion at the time of my inspection. The Insured Vehicle was observed to be in satisfactory condition.



Photo 2 shows a general view of the Insured Vehicle right body at the time of my inspection. The Insured Vehicle was observed to be in satisfactory condition.



Photo 3 shows a general view of the Insured Vehicle left body at the time of my inspection. The Insured Vehicle was observed to be in satisfactory condition.



Photo 4 shows the general view of the rear portion of the insured vehicle at the time of my inspection its unaffected by the accident.

7. Examination carried out to the window tints fitted on the front windscreen, rear windscreen and 6 side windows revealed that the tint film that was fitted on the Insured Vehicle windscreens and windows that were all not within the LTA requirements. See photo 5- 22 below.
8. As according to the LTA guidelines and compliance at least 70% of light must be able to pass through the front windscreen and the two front side windows and at least 25% of light must be able to pass through the rear windscreen and the two rear side windows. See photo 22 below.



Photo 5 shows the Tint Meter used to measure the Visible Light Transmission (VLT) on the Insured Vehicle's windscreen and windows which has been recalibrated (red arrow) before the testing of the Visible Light Transmission (VLT) of the window and windscreen tints. The brand of the Tint Meter was 'Laser ABS'



Photo 6 shows a general view of the measurement of the front windscreen tint of the Insured Vehicle using a tint meter (red circle) which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 7 shows the window tint reading of the front windscreen on the Insured Vehicle at the time of my inspection. The front windscreen tint is measured at 65% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 70% of light must be able to pass through the front windscreen and two front side windows.



Photo 8 shows a general view of the measurement of the front right window tint of the Insured Vehicle using a tint meter (red circle). Which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 9 shows the window tint reading of the front right side window on the Insured Vehicle at the time of my inspection. The front right window tint is measured at 29% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 70% of light must be able to pass through the front windscreen and two front side windows.



Photo 10 shows a general view of the measurement of the rear right centre window tint of the Insured Vehicle using a tint meter (red circle). Which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 11 shows the window tint reading of the rear right side centre window on the Insured Vehicle at the time of my inspection. The rear right side window tint is measured at 20% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 25% of light must be able to pass through the rear windscreen and two rear side windows.



Photo 12 shows a general view of the measurement of the rear right window tint of the Insured Vehicle using a tint meter (red circle). Which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 13 shows the window tint reading of the rear right side window on the Insured Vehicle at the time of my inspection. The rear right side window tint is measured at 21% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 25% of light must be able to pass through the rear windscreen and two rear side windows.



Photo 14 shows a general view of the measurement of the front left window tint of the Insured Vehicle using a tint meter (red circle). Which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 15 shows the window tint reading of the front left side window on the Insured Vehicle at the time of my inspection. The front left side window tint is measured at 5% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 70% of light must be able to pass through the front windscreen and two front side windows.



Photo 16 shows a general view of the measurement of the rear left centre window tint of the Insured Vehicle using a tint meter (red circle). Which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 17 shows the window tint reading of the rear left centre side window on the Insured Vehicle at the time of my inspection. The rear left side window tint is measured 21% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 25% of light must be able to pass through the rear windscreen and two rear side windows.



Photo 18 shows a general view of the measurement of the rear left window tint of the Insured Vehicle using a tint meter (red circle). Which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 19 shows the window tint reading of the rear left side window on the Insured Vehicle at the time of my inspection. The rear left side window tint is measured 24% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 25% of light must be able to pass through the rear windscreen and two rear side windows.



Photo 20 shows a general view of the measurement of the rear windscreen tint of the Insured Vehicle using a tint meter (red circle). Which measures the amount of Visible Light Transmission (VLT) that passes through a material. The Visible Light Transmission (VLT) measured on a scale of 0- 100%, with 0% meaning no light passes through and 100% meaning all light passes through.



Photo 21 shows the window tint reading of the rear windscreen on the Insured Vehicle at the time of my inspection. The rear windscreen tint percentage is measured at 19% (red arrow) Visible Light Transmission (VLT) which is not within LTA requirements, as 25% of light must be able to pass through the rear windscreen and two rear side windows.

Tinted films



These requirements must be met when installing tinted films on windscreens and windows:

- They must be non-reflective
- At least 70% of light must be able to pass through the front windscreen and the two front side windows
- At least 25% of light must be able to pass through the rear windscreen and the two rear side windows

Photo 22 shows the LTA requirements for window and windscreen tinted films (red arrows). Screenshot extracted from LTA website.

- At the time of my inspection upon checking the engine compartment of the insured vehicle, I found additional non-standard parts fitted. This includes additionally fitted battery voltage stabilizer, open pod air filter, 19- inch alloy rims and aftermarket front and rear brake kit. All these fitted components were not the standard type for the Insured Vehicle. See photos 23- 30 below.



Photo 23 shows a general view of the engine compartment of the Insured Vehicle. Additional non-standard parts were found fitted. This includes a non-standard open pod air filter and a battery voltage stabilizer.



Photo 24 shows the general view close up view of the non- standard open pod air filter fitted onto the Insured Vehicle upon our inspection (arrowed).



Photo 25 shows the close up view of the non- standard open pod air filter fitted onto the Insured Vehicle upon our inspection (circled). The brand of the open pod air filter was 'GruppeM' (circled).



Photo 26 shows the general view close up view of the non- standard battery voltage stabilizer fitted onto the Insured Vehicle upon our inspection (circled).



Photo 27 shows the close up view of the non- standard battery voltage stabilizer onto the Insured Vehicle upon our inspection (circled). The brand of the battery voltage stabilizer was 'bEiA' (circled).



Photo 28 shows the non-standard rim and non- standard front brake kit found to be fitted on the Insured Vehicle at the time of our inspection. The 19- inch alloy rims fitted on the Insured Vehicle were not the standard type for the Insured Vehicle. The brand of the non- standard rims was 'TOMMI' (red circle).



Photo 29 shows a close up view of the non- standard front brake kit (circled) fitted onto the Insured Vehicle upon our inspection. The brand of the brake kit was 'brembo' (circled).



Photo 30 shows a close up view of the non- standard rear brake kit (circled) fitted onto the Insured Vehicle upon our inspection. The brand of the brake kit was 'brembo' (circled).

Modification/ additionally fitted non-standard part	LTA's guideline	Effect(s) on Insured Vehicle
Aftermarket open pod-air filter	Compliant	Improves air intake
Aftermarket voltage stabilizer	Compliant	Acceleration response and fuel efficiency enhanced
Aftermarket front and rear brake kits	Compliant	Increases stopping power of the car.
Aftermarket 19- inch wheel rims	Compliant	Cosmetic type of modifications.
Aftermarket front and rear brake kits	Compliant	Increases stopping power of the car.

Conclusion

10. Having carried out a detailed inspection of the insured vehicle, the table above correlates the various modifications and additionally fitted non-standard parts found on the insured vehicle with the modification guidelines stipulated by Land Transport Authority (LTA), and the effects these modifications and additionally fitted non-standard parts have with respect to the general performance of the Insured Vehicle.
11. In general, the front windscreen was measured at 65% Visible Light Transmission (VLT), whilst the front right side and front left side windows were measured at 29% Visible Light Transmission (VLT). Which was not within the requirements of the LTA. (Refer to photo 22 above).

12. The rear right centre/rear right windows along with the rear left centre/ rear left windows, along with the rear windscreen, were measured at 20% (VLT) for the rear right centre window, 21% (VLT) for the rear right window, 21% (VLT) for the rear left centre window, 24% (VLT) for the rear left window and 19% (VLT) for the rear windscreen which was not within the requirements of the LTA. (Refer to photo 22 above.
13. Having inspected the Insured Vehicle, and also having considered the nature of the accident. We are of view that the 8 window tint film installed on the Insured Vehicle was not within the requirements of the LTA. These window tint film installed could have possibly slightly contributed to the accident on 14 December 2024, as at the material time (day hours) of accident. The driver's visibility would have been impaired as compared to a vehicle with LTA compliant window tints or un-tinted windows and windscreens.

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