

Your Ref : 531386
Our Ref : CS3/MSG17018815/N

6 February 2108

M/s MSIG Insurance (Singapore) Pte Ltd

16 Raffles Quay #24-01
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Singapore 048581
(Motor Claims Department)

**AUTOMOBILE TECHNICAL INVESTIGATION REPORT OF ACCIDENT
INVOLVING A MOTOR VAN GZ 2179K AND A MOTOR LORRY YN 1975K ON
28 SEPTEMBER 2017**

1. We refer to your letter dated 2 February 2018 and the instructions therein to comment on the damage consistency of the motor van GZ 2179K involved in the captioned accident, in particular to establish whether the damages on the front of the motor van GZ 2179K were caused by the rear of the motor lorry YN 1975K and whether the damages were 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 van GZ 2179K (herein referred to as "**Van**"), where amongst other information, the circumstances of the accident was described together with 7 coloured photographs of the Van at the time of reporting;
 - b) Singapore Accident Statement of the driver of the motor lorry YN 1975K (herein referred to as "**Lorry**"), where amongst other information, the circumstances of the accident was described together with 6 coloured photographs of the Lorry at the time of reporting;
 - c) 25 coloured photographs of the damage to the Van taken during the Pre-Repair Survey by LKK Auto Consultants Pte. Ltd.;
 - d) 8 coloured photographs of both vehicles post-accident at the accident scene taken by the driver of the Van;
 - e) 5 coloured photographs of both vehicles post-accident at the accident scene taken by the driver of the Lorry;

- f) 51 coloured photographs taken during the physical inspection of the Lorry.
3. In preparation of this report, we had conducted height measurements of the Van's front portion (using a similar make and model). We had also conducted a physical inspection and thereafter height measurements of the rear and right rear portion of the Lorry; both collectively referred herein as “**Involved Motor Vehicles**”. Thereafter an analysis of all the available information gathered was carried out.
4. We now set out below our detailed findings and analysis.

Technical Analysis

5. The information gathered from the available documents for this case had indicated that there was contact between the rear of the Lorry and the front of the Van. Based on the photographs depicting the damages, the contact point was at the front centre portion of the Van and the rear of the Lorry, at the area slightly towards the left of the Van's front centre portion.
6. The rear profile of the Isuzu is of a flat type profile (due to its rear doors). However this flat profile had commenced at a certain height above ground level. During the collision, the rear door lock mechanism of the Lorry would have come into contact with the front centre portion (the front bonnet) of the Van as the rear door lock mechanism was the most protruded body part at the rear portion of the Lorry and not its rear lower step panel as the rear lower step panel is positioned slightly inwards from the rear doors. The front bumper of the Van would not have come into contact with the rear door lock mechanism of the Lorry due to the front bumper of the Van commencing at a lower height above ground level than the height of the rear doors of the Lorry.
7. Since the front bumper of the Van is positioned at a height which is lower than the rear doors of the Lorry, it would have unlikely come into direct contact with the rear doors and the rear door lock mechanism of the Lorry. Additionally, it would have unlikely come into direct contact with the rear lower step panel of the Lorry. This is also supported by the height measurement test that we had carried out. See photos 1 - 4 below.



Photo 1 shows the rear portion of the Lorry at the time of our inspection. During the collision, the front bumper of the Van would have unlikely come into direct contact with the rear door lock mechanism or the rear lower step panel of the Lorry as the rear lower step panel is positioned slightly inwards from the rear doors of the Lorry (as indicated by the red arrow).

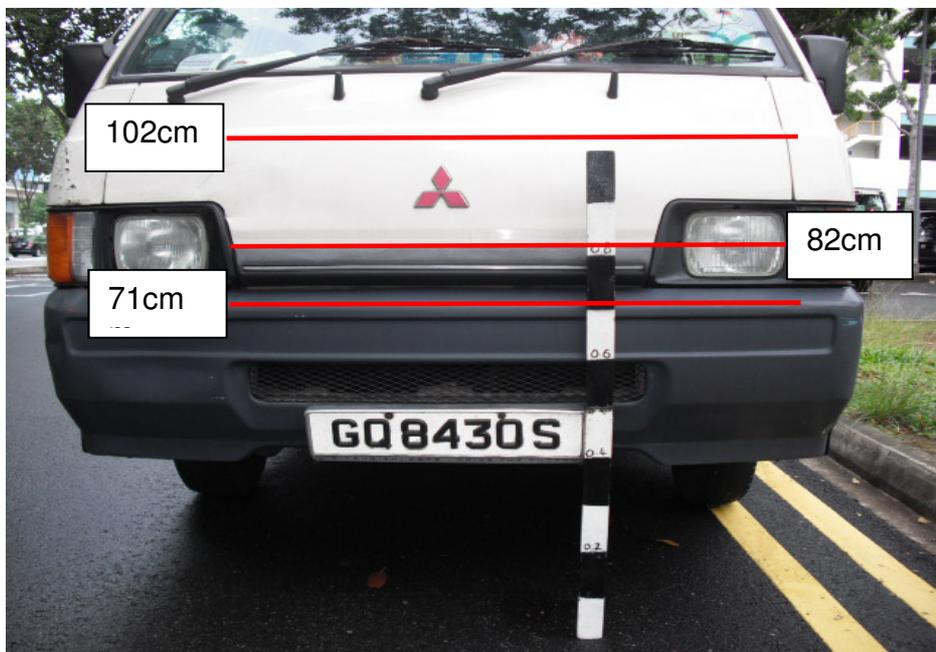


Photo 2 shows the height measurement being conducted on the front portion of the Van (using a similar make and model). The height range of the damages sustained to the centre portion of the front bonnet of the Van was between 82cm to 102 cm above ground level. The most protruded part of the front bumper of the Van was measured at 71cm above ground level.

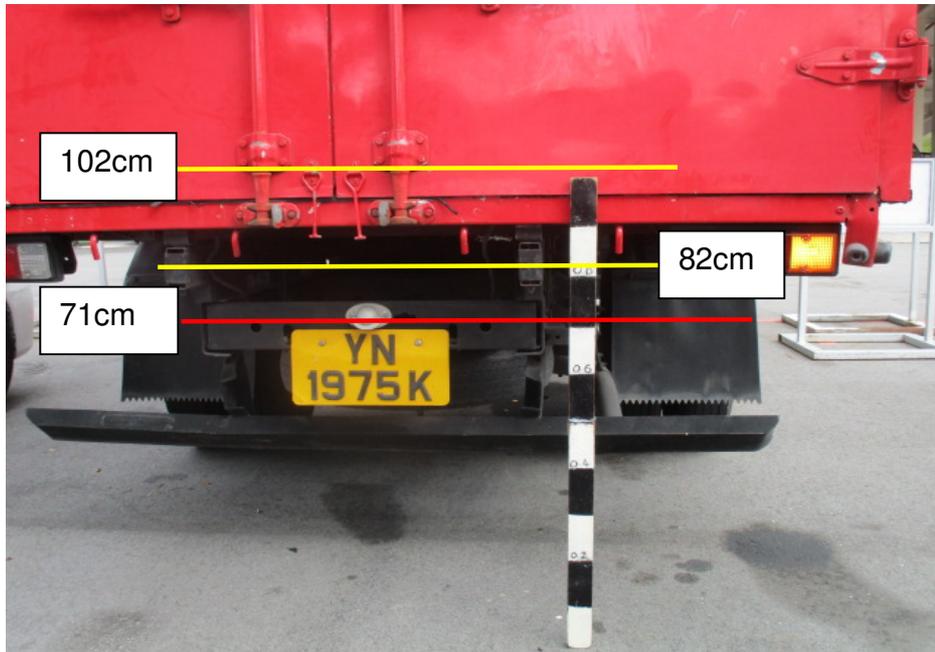


Photo 3 shows the height measurement being conducted on the rear portion of the Lorry. The height above ground level of the damaged centre portion of the front bonnet of the Van appear to correspond to the height above ground level of the rear doors and rear door locking mechanism of the Lorry (within the 82cm to 102cm range). The height of the most protruded part of the front bumper of the Van (71cm) is lower than the height above ground level of the rear doors and rear door locking mechanism of the Lorry.

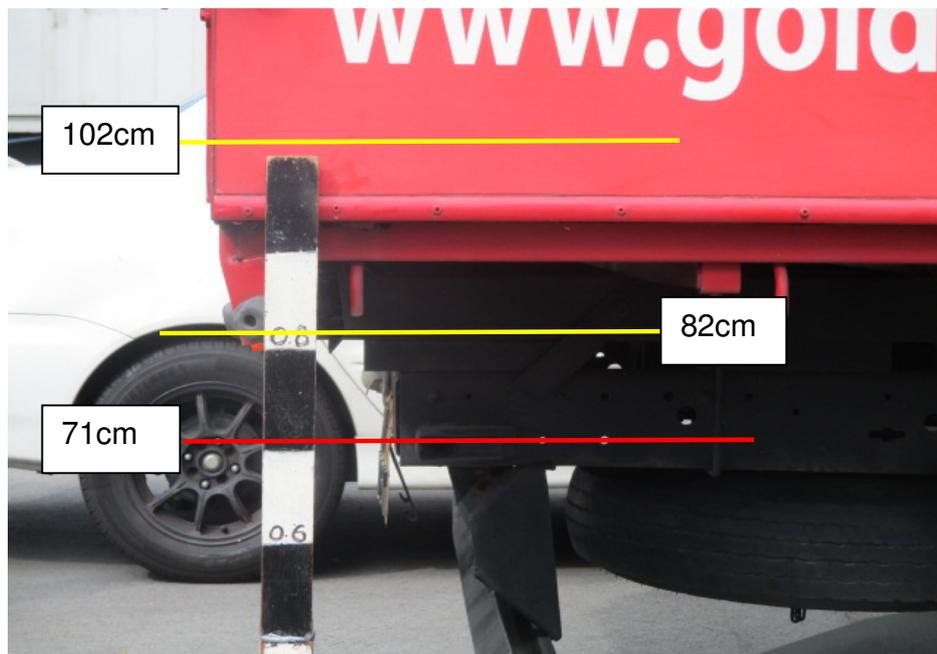


Photo 4 shows the height measurement being conducted on the right rear portion of the Lorry. The height above ground level of the damaged centre portion of the front bonnet of the Van appear to correspond to the height above ground level of the rear doors and rear door locking mechanism of the Lorry (within the 82cm to 102cm range). The height of the most protruded part of the front bumper of the Van (71cm) is lower than the height above ground level of the rear doors and rear door locking mechanism of the Lorry. It can also be seen that the rear lower step panel of the Lorry is positioned slightly inwards from the rear doors of the Lorry.

8. Basing on our height measurement and the profile of the Lorry and the Van as discussed in paragraph 6, the damages to the front centre portion of the front bonnet of the Van was caused by the rear doors and rear door locking mechanism of the Lorry due to the collision from the Lorry. The rear lower step panel of the Lorry would have unlikely been able to come into direct contact with the front bumper of the Van.
9. The damages to the front bumper of the Van could not have been caused by the rear lower step panel of the Lorry as for this to occur, the rear lower step panel of the Lorry would have to be positioned directly below the rear doors of the Lorry. However photographs taken during the physical inspection and height measurements of the Lorry showed that the rear lower step panel of the Lorry was positioned slightly inwards from the rear doors of the Lorry.

Conclusion

10. 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 rear of the Lorry and the front of the Van at the material time.
11. However this contact would have been between the height ranges of 82cm to 102cm above ground level due to the flat rear profile of the Lorry as well as the slightly inward position of the rear lower step panel of the Lorry at the time of collision.
12. The damages to the front bumper of the Van which are at 71cm and below are hence unlikely to be related to this particular accident. Therefore, the front bumper, front bumper reinforcement as well as the front number plate of the Van will not be included in the finalised cost of repairs.

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Technical Investigator

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