

Your Ref: TP/IP/55269/2021  
Our Ref: CI/TPD22000328/P

13<sup>th</sup> January 2022

### **Fatal Accident Investigation Team**

Traffic Police Department  
Singapore Police Force  
10 Ubi Avenue 3  
Singapore 408865

### **MECHANICAL INSPECTION REPORT OF MOTOR VAN GW 4855U**

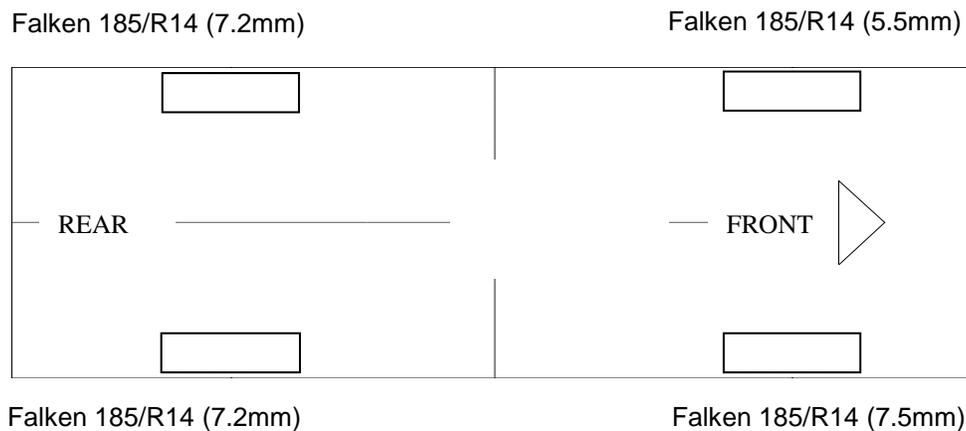
1. We refer to your request on 10<sup>th</sup> January 2022 to conduct a physical inspection of a motor Van bearing registration number GW 4855U (herein referred to as "**Motor Van**"), which was involved in a road traffic accident on 20<sup>th</sup> November 2021.
2. The objective of this inspection is to determine if there was any possible mechanical failure to the Motor Van that may have contributed to the accident.
3. Following the request, we had carried out a physical inspection of the Motor Van on 12<sup>th</sup> January 2022 at the premises of Traffic Police vehicle pound, 517 Airport Road Singapore 539942. We now set out below our observations and comments with respect to this inspection.

### **General Condition**

4. The mileage of the Motor Van at the time of my inspection was not recorded as the dashboard of the Motor Van was damaged as a result of the accident.
5. The Motor Van was observed to have sustained major damage at its front and right portion. Its front cabin, front windscreen, front bumper and front body panel portion as well as its right and left doors as a result of the accident.

### Tyres and Wheel Rims

6. The 4 tyres of the Motor Van were observed to be in serviceable condition and sufficiently inflated for vehicular operation. I did not find any tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of the 4 tyres. The tyre brand, tyre size and remaining tread depth of the 4 tyres of the Motor Van were recorded as follows:-



7. The 4 tyres were observed to be wrapped around standard steel wheel rims that were found to be without any damage See photo 1 - 13 below.

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**Photo 1** shows the general view of the Motor Van's rear body at the time of my inspection. The Motor Van rear was observed to be unaffected by the accident.



**Photo 2** shows a general view of the front portion of the Motor Van at the time of our inspection. The Motor Van was observed sustained major damages to its front and right portion. Its front cabin, front windscreen, front bumper and front body panel portion as well as its right door as a result of the accident.

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**Photo 3** shows the close up view of the front portion of the Motor Van at the time of our inspection. The Motor Van was observed to have sustained major damages to its dashboard (circled) that was crushed due to the accident's impact.



**Photo 4** shows the close up view of the front portion of the Motor Van at the time of our inspection. The Motor Van was observed to have sustained major damages to its front windscreen (circled), front body panel and its front cabin (arrowed) that was crushed due to the accident's impact.

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**Photo 5** shows the close up view of the front portion of the Motor Van at the time of our inspection. The Motor Van was observed to have sustained major damages to its front bumper (circled) that was damaged as a result of the accident's impact.



**Photo 6** shows the general view of the right body of the Motor Van at the time of our inspection. The Motor Van was observed to have sustained damages to its right doors as a result of the accident.



**Photo 7** shows the close up view of the right doors of the Motor Van at the time of our inspection. The Motor Van was observed to have sustained damages to its right doors (circled) as a result of the accident.



**Photo 8** shows the close up view of the left door of the Motor Van at the time of our inspection. The Motor Van was observed to have sustained damages to its left door (circled) as a result of the accident.

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**Photo 9** shows a general view of the Motor Van's left body at the time of my inspection. The left portion of the Motor Van was observed to have been unaffected by the accident.



**Photo 10** shows the condition of the front right tyre of the Motor Van, which was observed to be in serviceable condition with remaining tread depth of approximately 7.5mm. The tyre, which was wrapped around standard steel wheel rim, was also observed to be sufficiently inflated for vehicular operation. There was no tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of the 4 tyres that were fitted on the Motor Van.

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**Photo 11** shows the condition of the rear right tyre of the Motor Van, which were observed to be in serviceable condition with remaining, tread depth of approximately 7.2mm. See above.



**Photo 12** shows the condition of the rear left tyre of the Motor Van, which were observed to be in serviceable condition with remaining, tread depth of approximately 7.2mm.



**Photo 13** shows the condition of the front left tyre of the Motor Van, which were observed to be in serviceable condition with remaining, tread depth of approximately 5.5mm.

### **Engine Compartment & Operating Fluids**

8. We were unable to examine the engine compartment of the Motor Van's due to the damage induced has crushed and deformed the cabin of the Motor Van which immobilized its opening and viewing as a result of the accident. See Photo 14 below.



**Photo 14** shows the induced damage to the front cabin engine compartment area of the Motor Van's which had immobilised the opening and viewing of the various parts and components inside the engine compartment a result of the accident.

### **Steering System & Braking System**

9. Static braking and steering tests was not conducted on the Motor Van as the braking and steering controls in the cabin had sustain major damage as the result of the accident. Our visual inspection of the mechanical components of the Motor Van's observed that its undercarriage braking system components was intact. See photo 15 - 20 below.



**Photo 15** shows the various undercarriage components at the front right wheel of the Motor Van, in particular the steering tie rod end and ball joints (arrowed) were observed to be intact. There was also no sign of fluid stain observed on the various undercarriage components at the front right wheel of the Motor Van.



**Photo 16** shows the various undercarriage components at the front left wheel of the Motor Van, in particular the steering tie rod end and ball joints (arrowed) were observed to be intact. There was also no sign of fluid stain observed on the various undercarriage components at the front right wheel of the Motor Van.



**Photo 17** shows the various undercarriage components at the front left wheel of the Motor Van, in particular the brake hose (arrowed) and callipers (circled). The various undercarriage components of the Motor Van were all found to be intact without any visible damage. There was also no sign of fluid stain(s) observed on the various undercarriage components.



**Photo 18** shows the various undercarriage components at the front right wheel of the Motor Van, in particular the brake hose (arrowed) and callipers (circled). The various undercarriage components of the Motor Van were all found to be intact without any visible damage. There was also no sign of fluid stain(s) observed on the various undercarriage components.

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**Photo 19** shows the various undercarriage components at the rear left wheel of the Motor Van, in particular the brake hose and drum brake (arrowed). The various undercarriage components of the Motor Van were all found to be intact without any visible damage. There was also no sign of fluid stain(s) observed on the various undercarriage components.



**Photo 20** shows the various undercarriage components at the rear right wheel of the Motor Van, in particular the brake hose and drum brake (arrowed). The various undercarriage components of the Motor Van were all found to be intact without any visible damage. There was also no sign of fluid stain(s) observed on the various undercarriage components.

### **Electronic Safety / Warning Indicators**

10. The static test of the Motor Van electronic safety system could not be inspected as the instrument cluster was damaged due to the induce impact from the accident.

### **Seat Belts**

11. The checks to the seats belt was not conducted as they when missing for the Motor Van at the time of our inspection as a result of the accident.

### **Operational Behaviour of the Motor Van**

12. An operational test of the Motor Van was not conducted as the Motor Van was unsafe and unable to operate at the time of inspection.

### **Conclusion**

14. For this particular case, I was unable to determine whether there was any possible mechanical failure to the Motor Van that may have contributed to the accident. The extent of damage that it had sustained had prevented me from carrying out any operational test(s) and/or static test(s) to its engine system, transmission system, steering system, braking system and suspension system.

15. The 4 tyres fitted on the Motor Van were also found to be in serviceable condition. I did not find any tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of the 4 tyres. The 4 tyres were also observed to be sufficiently inflated for vehicular operation with remaining tread depth of approximately 5.5mm – 7.5mm.



**Sherwin Beh,**  
*Technical Investigator*



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