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Our Ref: CI/TPD22002406/P

21st March 2022

Fatal Accident Investigation Team

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

MECHANICAL INSPECTION REPORT OF MOTOR VAN PA 7894X

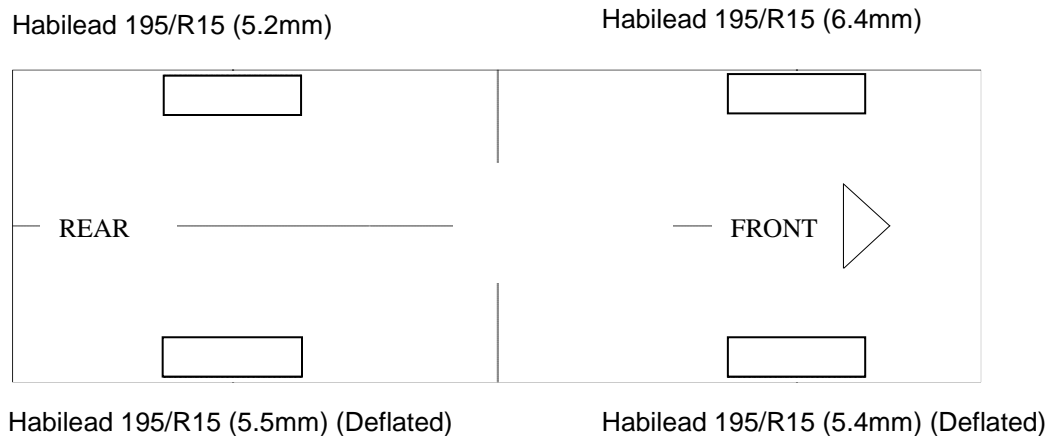
1. We refer to your request on 15th March 2022 to conduct a physical inspection of a motor Van bearing registration number PA 7894X (herein referred to as "**Motor Van**"), which was involved in a road traffic accident on 7th February 2022.
2. The objective of this inspection is to determine if there 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 18th March 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 damage all around, front windscreen, front cabin, front body panel, front left and right door. Its left and right body panel as well as its rear door and rear windscreen was damaged as a result of the accident.

Tyres and Wheel Rims

6. The condition of the Motor Van's both right front and rear was observed to be deflated due to the result of the accident. However, the left front and rear tyres was observed 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 left front and rear tyres were observed to be sufficiently inflated for vehicular operation. The tyre brand, tyre size and remaining tread depth of the 4 tyres were recorded as follows:-



7. The right front and rear wheel rims was damaged as a result of the accident. However, other 2 tyres were observed to be wrapped around standard steel wheel rims were found to be without any damages. See photo 1 - 15 below.

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Photo 1 shows a general view of the front portion of the Motor Van at the time of our inspection. The Motor Van was observed sustained damage all around, front windscreen, front cabin, front body panel, front left and right door. Its left and right body panel as well as its rear door and rear windscreen was damaged as a result of the accident.



Photo 2 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) and its front cabin (arrowed) that was crushed due to the accident's impact.



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 front body panel (circled) that was damaged as a result of the accident's impact.



Photo 4 shows the close up view of the right door of the Motor Van at the time of our inspection. The Motor Van was observed to have sustained damages to its right door (circled) as a result of the accident.

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Photo 5 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.



Photo 6 shows the close up view of the interior cabin of the Motor Van. It was observed to have sustained extensive induced damages to the dashboard (circled)

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Photo 7 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 affected by the accident. Its body panels (circled) was damaged as a result of the accident.



Photo 8 shows a general view of the Motor Van's right body at the time of my inspection. The right portion of the Motor Van was observed to have been affected by the accident. Its body panels (circled) was damaged as a result of the accident.

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Photo 9 shows the general view of the Motor Van's rear body at the time of my inspection. The rear portion of the Motor Van was observed to have been affected by the accident. Its rear door and windscreen (circled) was damaged as a result of the accident.



Photo 10 shows the general view of the Motor Van's rear body at the time of my inspection. The rear portion of the Motor Van was observed to have been affected by the accident. Its windscreen (circled) was damaged as a result of the accident.

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Photo 11 shows the general view of the Motor Van's rear body at the time of my inspection. The rear portion of the Motor Van was observed to have been affected by the accident. Its rear door (circled) was damaged as a result of the accident.



Photo 12 shows the condition of the front right tyre of the Motor Van, which was observed to be in unserviceable condition with remaining tread depth of approximately 5.4mm. The steel wheel rim, was observed damage (circled) and the tyre was deflated as a result of the accident.

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Photo 13 shows the condition of the rear right tyres of the Motor Van, which was observed to be in unserviceable condition with remaining tread depth of approximately 5.5mm. The steel wheel rim, was observed damage (circled) and the tyre was deflated as a result of the accident.



Photo 14 shows the condition of the rear left tyres of the Motor Van, which were observed to be in serviceable condition with remaining, tread depth of approximately 5.2mm. See above.



Photo 15 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 6.4mm. See above.

Engine Compartment & Operating Fluids

8. Upon examination of the Motor Van's engine compartment, I had observed all the parts and components inside the engine compartment to be intact and unaffected by the accident. The engine coolant, brake fluid, and power steering fluid were all found to be of sufficient level for operating purposes. Visually, there was also no contamination found to these fluids. However, the engine oil was observed to be insufficient due to a leakage as a result of the accident. See photos 16- 21 below.



Photo 16 shows a general view of the Motor Van's engine compartment, which was accessed by lifting the front cabin of the Motor Van. The various parts and components inside the engine compartment were unaffected by the accident. There was also no sign(s) or indication(s) of fresh fluid leakage and/or fluid stain within the engine compartment

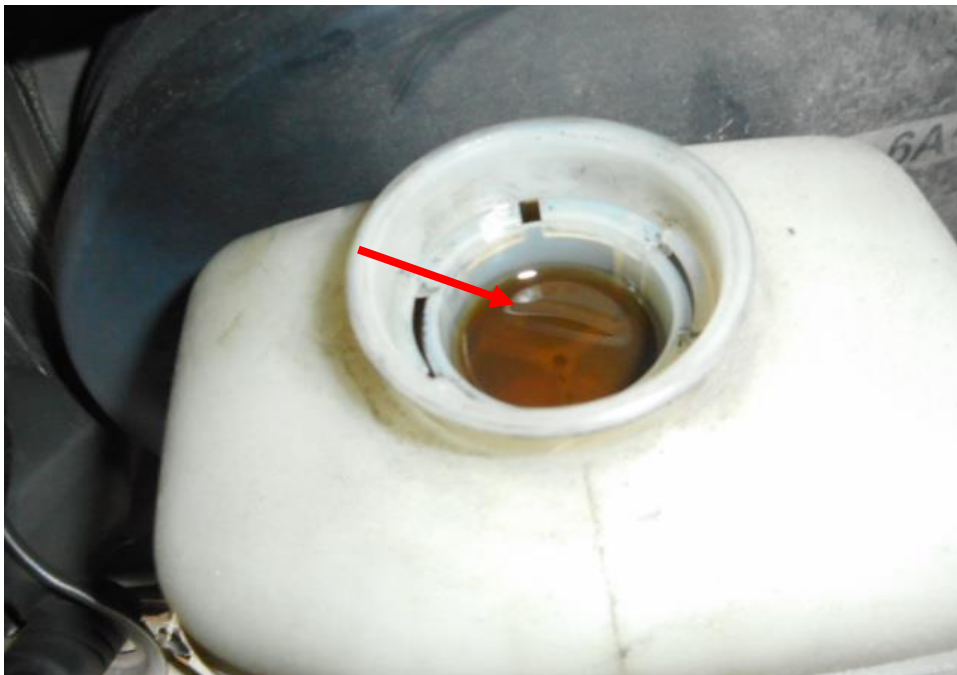


Photo 17 shows the brake fluid reservoir of the Motor Van at the time of my inspection. The brake fluid was observed to be of sufficient level (arrowed) and without any visible contamination.

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Photo 18 shows the engine coolant of the Motor Van at the time of my inspection. The engine coolant was observed to be of sufficient level and without any visible contamination.



Photo 19 shows the power steering fluid dip stick of the Motor Van at the time of my inspection. The steering fluid was observed to be of sufficient level and without any visible contamination.

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Photo 20 shows the engine oil dip stick of the Motor Van at the time of my inspection. The engine oil was observed to be of insufficient level due to a leakage as a result of the accident.



Photo 21 shows the undercarriage of the Motor Van, at the area where the engine housing and transmission housing are located. I have found engine oil leakage and fluid stain(s) on the underside of the Motor Van as 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 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. However, the front right steering components had been damaged as a result of the accident. See photo 22 - 27 below.



Photo 22 shows the various undercarriage components at the front right wheel of the Motor Van, in particular the steering tie rod (arrowed) were found to be bent as a result of the accident.

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Photo 23 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 24 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.



Photo 25 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 26 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 27 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.

Operational Behaviour of the Motor Van

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

Conclusion

12. 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.

13. In general, our visual inspection of the braking system mechanical components of the Motor Van's braking system appears to be intact and was not damaged by the accident.

14. The left front and rear tyre was observed to be in serviceable condition. The right front and rear tyres of the Motor Van were found to be deflated however 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. All 4 tyres were observed to be with remaining tread depth of approximately 5.2mm to 6.4mm.



Sherwin Beh,
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