

Your Ref: TP/IP/25487/2022
Our Ref : CI/TPD23001386/N

17 March 2023

Fatal Accident Investigation Team

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

MECHANICAL INSPECTION REPORT OF MOTOR CAR SMZ 5135X

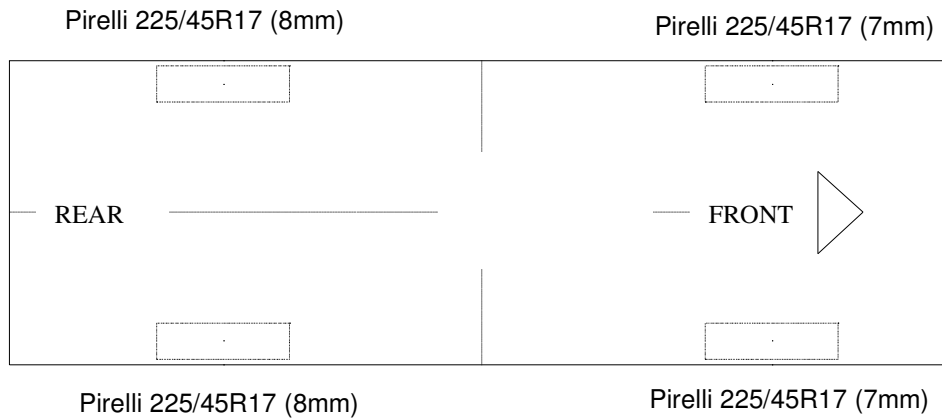
1. We refer to your request on 7 February 2023 to conduct a physical inspection of a motor car bearing registration number SMZ 5135X (herein referred to as “**Motor Car**”), which was involved in a fatal road traffic accident on 21 September 2022.
2. The objective of the inspection is to determine if there was any possible mechanical failure to the Motor Car that may have contributed to the accident.
3. Following the request, we had carried out a physical inspection of the Motor Car on 16 March 2023 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 Car could not be recorded at the time of our inspection despite several attempts to jumpstart the battery.
5. The Motor Car had sustained relatively minor impact damage that was confined to its left portion. Its front left fender, left front door and left rear door were observed to have been dented.

Tyres and Wheel Rims

6. The condition of the Motor Car's 4 tyres was observed to be in serviceable condition. We 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. The tyre brand, tyre size and remaining tread depth of the 4 tyres were recorded as follows:-



7. The 4 tyres were observed to be wrapped around alloy wheel rims that were found to be without any damage. See photos 1 – 10 below.



Photo 1 shows a general view of the frontal portion of the Motor Car at the time of our inspection. The Motor Car was observed to be in good general condition except for some relatively minor impact damage at its left portion. The mileage of the Motor Car could not be recorded at the time of our inspection despite several attempts to jumpstart the battery.



Photo 2 shows a general view of the front right body of the Motor Car at the time of our inspection. The Motor Car was observed to be in good general condition. However we had observed relatively minor impact damage that was confined to its left portion.



Photo 3 shows a general view of the front left body of the Motor Car at the time of our inspection. The Motor Car was observed to be in good general condition. However we had observed relatively minor impact damage that was confined to its left portion. Its front left fender, left front door and left rear door were observed to have been dented.



Photo 4 shows a closer view of the dented left front fender of the Motor Car at the time of our inspection (arrowed).



Photo 5 shows a closer view of the dented left front door of the Motor Car at the time of our inspection (arrowed).



Photo 6 shows a closer view of the dented left rear door of the Motor Car at the time of our inspection (arrowed).



Photo 7 shows the condition of the front left tyre of the Motor Car, which was observed to be in serviceable condition with remaining tread depth of approximately 7mm. The tyre, which was wrapped around alloy 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.



Photo 8 shows the condition of the front right tyre of the Motor Car, which was observed to be in serviceable condition with remaining tread depth of approximately 7mm. The tyre, which was wrapped around alloy wheel rim, was also observed to be sufficiently inflated for vehicular operation.



Photo 9 shows the condition of the rear left tyre of the Motor Car, which was observed to be in serviceable condition with remaining tread depth of approximately 8mm. The tyre, which was wrapped around alloy wheel rim, was also observed to be sufficiently inflated for vehicular operation. There was also no damage found on the 4 wheel rims of the Motor Car.



Photo 10 shows the condition of the rear right tyre of the Motor Car, which was observed to be in serviceable condition with remaining tread depth of approximately 8mm. There was also no tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of the 4 tyres.

Engine Compartment & Operating Fluids

8. Upon examination of the engine compartment of the Motor Car, we had observed all the parts and components inside the engine compartment to be intact and unaffected by the accident. The brake fluid, engine oil and engine coolant were all found to be of sufficient level for operating purposes. Visually, there was also no contamination found to these fluids.
9. Further examination of the engine compartment revealed no sign(s) or indication of fluid leakage and/or fluid stain within the engine compartment of the Motor Car.
10. Our subsequent checks on the underside of the Motor Car also revealed no fluid stains. Visually, the various undercarriage components of the Motor Car were all observed to be intact and without any visible damage. See photos 11 – 14 below.



Photo 11 shows a general view of the Motor Car's engine compartment. The various parts and components inside the engine compartment were unaffected by the accident. There was also no sign(s) or indication(s) of fluid leakage and/or fluid stain within the engine compartment.



Photo 12 shows the brake fluid reservoir of the Motor Car at the time of our inspection. The brake fluid was observed to be of sufficient level for operating purposes and without any visible contamination.



Photo 13 shows checks being carried out to the engine coolant of the Motor Car at the time of our inspection. The engine coolant was observed to be of sufficient level for operating purposes and without any visible contamination.

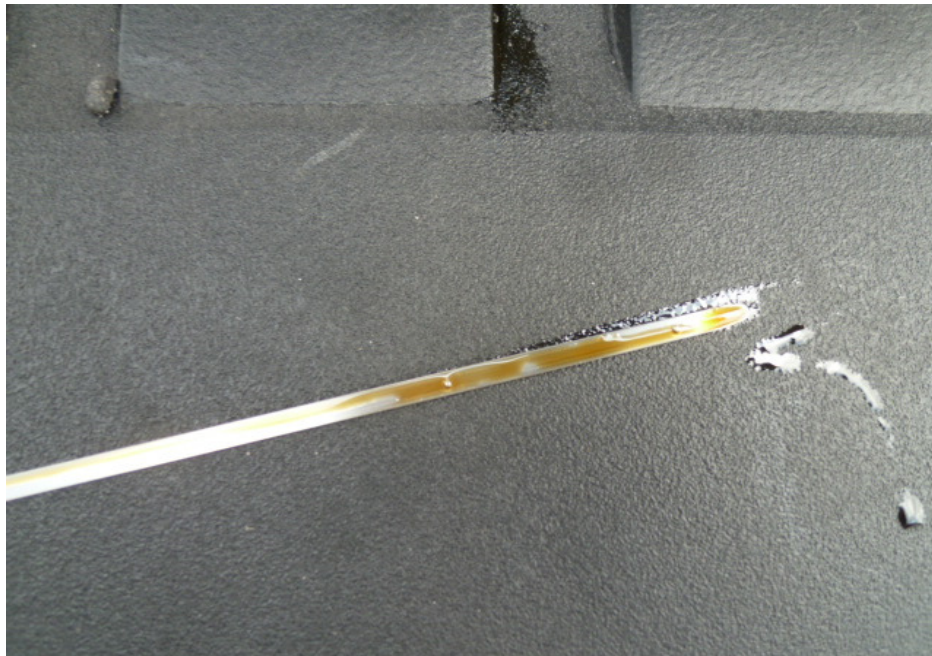


Photo 14 shows the engine oil dip stick of the Motor Car at the time of our inspection. The engine oil was observed to be of sufficient level for operating purposes and without any visible contamination.

Braking System & Steering System

11. We were not able to conduct any tests on the steering system and braking system of the Motor Car as we were not able to jumpstart the battery despite several attempts.
12. Our visual examination of the various braking components had suggested that there was no internal leakage of pressure/vacuum in the braking system of the Motor Car. This was taking into consideration that the brake fluid was of sufficient level, and also that there was no sign(s) of brake fluid leakage along the brake hoses and brake pipes.
13. Our visual examination of the various steering components of the Motor Car which had included the steering rack and pinion, tie rods, tie rod ends and ball joints revealed that these components were all generally in good condition. See photos 15 - 18 below.

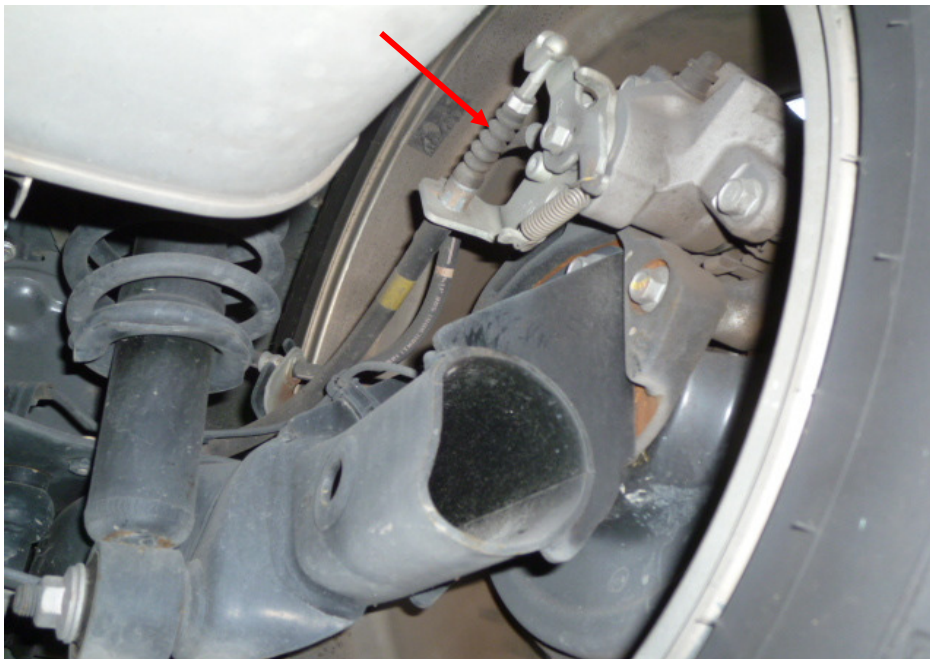


Photo 15 shows the brake hose/pipe (arrowed) at the rear right wheel of the Motor Car. We did not observe any leakage of brake fluid at the time of our inspection of the Motor Car. Static tests of the Motor Car's braking system had indicated that there was no internal leakage of pressure/vacuum. Hence the braking system was likely to be in serviceable condition at the material time of accident. The undercarriage components of the Motor Car were also all found to be intact and without any visible damage.



Photo 16 shows the brake hose/pipe (arrowed) at the front left wheel of the Motor Car. No leakage of brake fluid was observed. Visual examination of the various components of the braking system like the brake caliper (circled), brake pedal etc. had revealed all to be intact and without visible damage.



Photo 17 shows the various undercarriage components at the front right wheel of the Motor Car, in particular the steering tie rod (arrowed). The various steering components were all found to be intact, suggesting that the steering system of the Motor Car was likely to be in serviceable condition at the material time of accident. There was also no sign of fluid stain observed on the various undercarriage components at the front right wheel of the Motor Car.



Photo 18 shows the various undercarriage components at the front left wheel of the Motor Car, which had included the steering tie rod (red arrow) and left drive shaft (yellow arrow). The various undercarriage components of the Motor Car were all found to be intact without any visible damage.

Electronic Safety / Warning Indicators

14. The Motor Car's automatic self-test of the functionality of its various operating systems like the Anti-Brake Lock System (ABS) and Supplemental Restraint System (SRS) during cranking of the engine was not able to be initiated as the engine of the Motor Car could not be started despite several attempts to jumpstart the battery.

Operational Behaviour of the Motor Car

15. No operational test to primarily determine whether there was any abnormality to the engine system, transmission system and braking system of the Motor Car could be conducted as the engine of the Motor Car could not be started despite several attempts to jumpstart the battery.

Conclusion

16. At the time of our inspection of the Motor Car, its steering system and braking system could not be tested as the Motor Car's engine could not be started due to a flat battery. However basing on our observations, it would appear that the steering system and braking system of the Motor Car were in serviceable condition. This is taking into consideration that all the various mechanical components were found to be intact and undamaged.
17. The observations gathered from our physical inspection of the Motor Car had indicated no evidence to suggest possible mechanical failure to the Motor Car that may have contributed to the accident.
18. The 4 tyres of the Motor Car were also found to be in serviceable condition. We 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 7mm each.
19. Our findings were based solely on a static and visual inspection of the Motor Car. No operational test(s) could be carried out to the Motor Car as its engine could not be started at the time of our inspection.

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