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You're Ref: TP IP/05811/2023 27th July 2023
Our Ref: CI/TPD23003246/P

Fatal Accident Investigation Team
Traffic Police Department
Singapore Police Force
10 Ubi Avenue 3
Singapore 408865

MECHANICAL INSPECTION REPORT OF MOTOR CAR SMD 1900X

1. I refer to your request on 7th March 2023 to conduct a physical inspection of a Motor Car bearing registration number SMD 1900X (herein referred to as "**Motor Car**"), which was involved in a road traffic accident on 26th February 2023.

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, I had carried out a visual inspection of the Motor Car on 7th July 2023 at the premises of Traffic Police vehicle pound, 517 Airport Road Singapore 539942. I now set out below my observations and comments with respect to this inspection.

General Condition

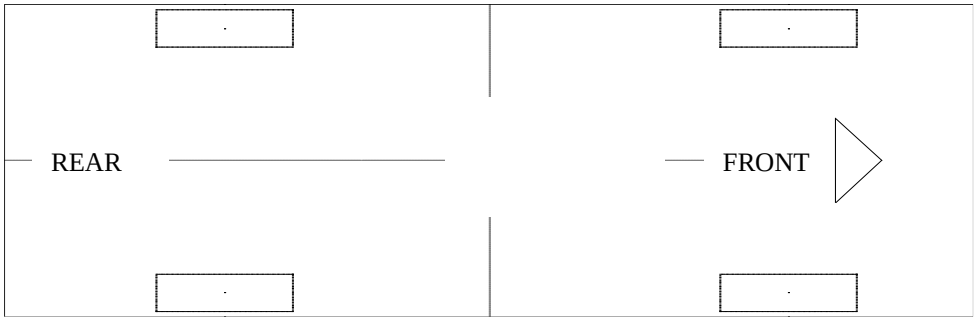
4. The mileage of the Motor Car at the time of my inspection was not recorded as there was no key provided.

5. The Motor Car was observed to have sustained damage at its front and right portion. Its front bumper, right rear-view mirror, right front fender and right door was amongst the body parts that were damaged as a result of the accident.

Tyres and Wheel Rims

6. The condition of the Motor Car's 3 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 3 tyres. However, front right tyre and rim was damaged as a result of the accident. The 3 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:-

Falken 185/55R15 (2.5mm) Roadstone 185/55R15 (3.7mm)



Falken 185/55R15 (2.7mm) Michelin 185/55R15 (4.4mm)
(Cut and deflated)

7. The 3 tyres were observed to be wrapped around standard alloy wheel rims that were found to be without any damage. However, the front right tyre and rim was observed to be damaged as a result of the accident. See photo 1 – 13 below.

Photo 1 shows a general view of the Motor Car's front body at the time of my inspection. The front portion. Its front bumper was amongst the body parts that were damaged as a result of the accident.

Photo 2 shows a close up view of the Motor Car's front body at the time of my inspection. The front portion of the Motor Car was observed to have sustained damage. Its front bumper (circled) was the body parts that were damaged as a result of the accident.

Photo 3 shows a general view of the Motor Car's right body at the time of my inspection. The right portion. Its right portion. Its right rear-view mirror, right front fender and right door was amongst the body parts that were damaged as a result of the accident.

Photo 4 shows a close up view of the Motor Car's right body at the time of my inspection. The right portion of the Motor Car was observed to have sustained damage. Its right rear view mirror (circled) was the body parts that were damaged as a result of the accident.

Photo 5 shows a close up view of the Motor Car's right body at the time of my inspection. The right portion of the Motor Car was observed to have sustained damage. Its right fender (circled) was the body parts that were damaged as a result of the accident.

Photo 6 shows a close up view of the Motor Car's right body at the time of my inspection. The right portion of the Motor Car was observed to have sustained damage. Its right door (circled) was the body parts that were damaged as a result of the accident.

Photo 7 shows a general view of the Motor Car's left body at the time of my inspection. The left portion of the Motor Car was observed to have been unaffected by the accident.

Photo 8 shows a general view of the Motor Car's rear body at the time of my inspection. The rear portion of the Motor Car was observed to have been unaffected by the accident.

Photo 9 shows the condition of the front right tyre of the Motor Car, which was observed to be in unserviceable condition with remaining tread depth of approximately 4.4mm. The tyre was observed with cut mark on the outer sidewalls and the rim was damaged as a result of the accident.

Photo 10 shows the condition of the front right tyre of the Motor Car, which was observed to be in unserviceable condition. The tyre was observed with cut mark on the outer sidewalls (red circle) and the rim was damaged (yellow circle) as a result of the accident.

Photo 11 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 2.7mm. The tyre was also observed to be sufficiently inflated for vehicular operation with no tear, cut or burst mark(s).

Photo 12 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 2.7mm. The tyre, which was wrapped around steel wheel rim, was also observed to be sufficiently inflated for vehicular operation. The 4 tyres of the Motor Car were wrapped around standard steel wheel rims.

Photo 13 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 3.7mm. 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 Motor Car's 4 tyres.

Engine Compartment & Operating Fluids

8. Examination of the engine compartment of the Motor Car was not conducted as there was no key to open the Motor Car to access the opening of the bonnet.

9. My subsequent checks on the underside of the Motor Car also revealed no sign(s) or indication(s) of fluid leak and/or fluid stain(s). Visually, the various undercarriage components of the Motor Car were all observed to be intact and without any visible damage. See photo 14 below.

Photo 14 shows the undercarriage of the Motor Car, at the area where the engine housing and transmission housing are located. I did not find any sign(s) or indication(s) of fluid leak and/or fluid stain(s) on the underside of the Motor Car.

Braking System & Steering System

10. Static brake and steering tests was unable to be conducted on the Motor Car as it was not started up. However, my visual examination of the braking and steering components, there was no sign(s) of leakage along the brake hoses, brake pipes, brake caplier and of the various steering components which had included the rack and pinion, tie rods, tie rod ends and ball joints had revealed that these components were all generally intact. See photo 15 - 20 below.

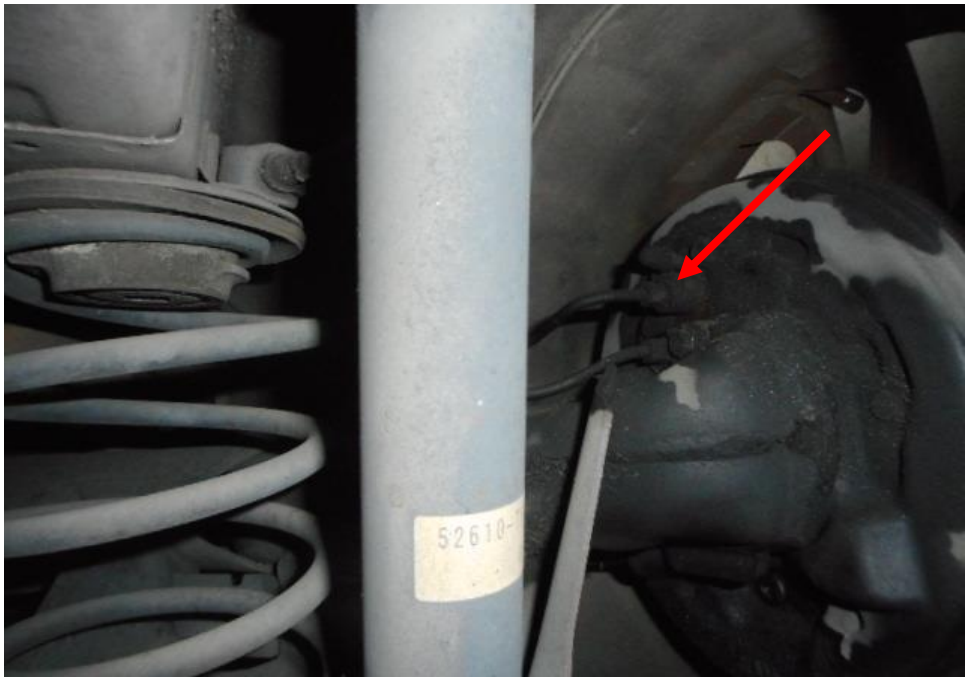


Photo 15 shows the brake hose/pipe (arrowed) at the rear right wheel of the Motor Car. Old fluid leakage of brake fluid was observed. Visual examination of the various components of the braking system like the brake calliper and hose had revealed to be intact and without visible damage.

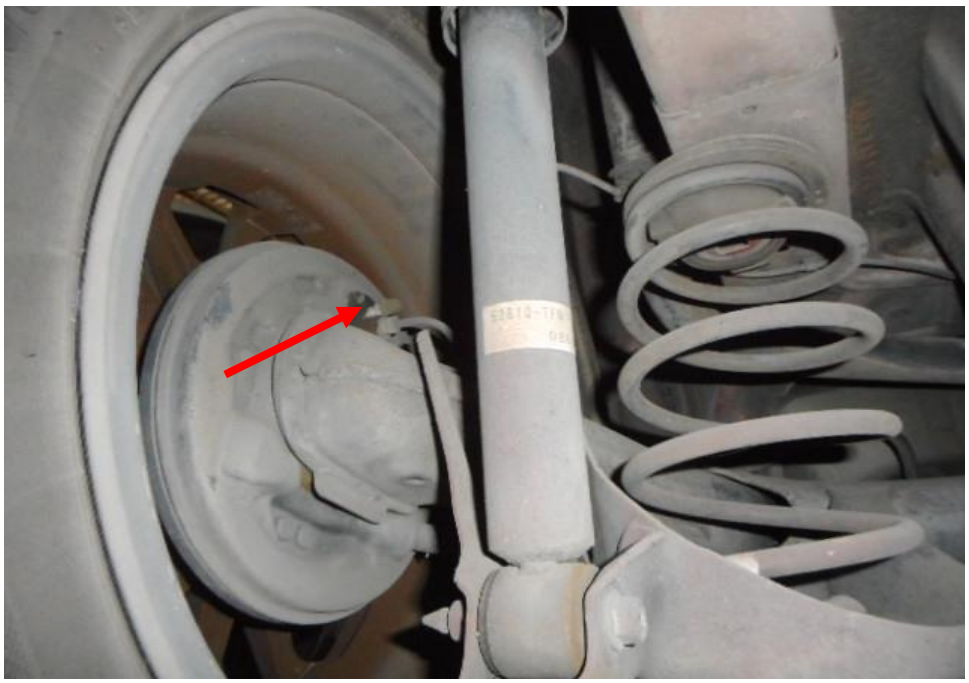


Photo 16 shows the brake hose/pipe (arrowed) at the rear left wheel of the Motor Car. No leakage of brake fluid was observed. Visual examination of the various components of the braking system like the brake calliper and hose had revealed to be intact and without visible damage.

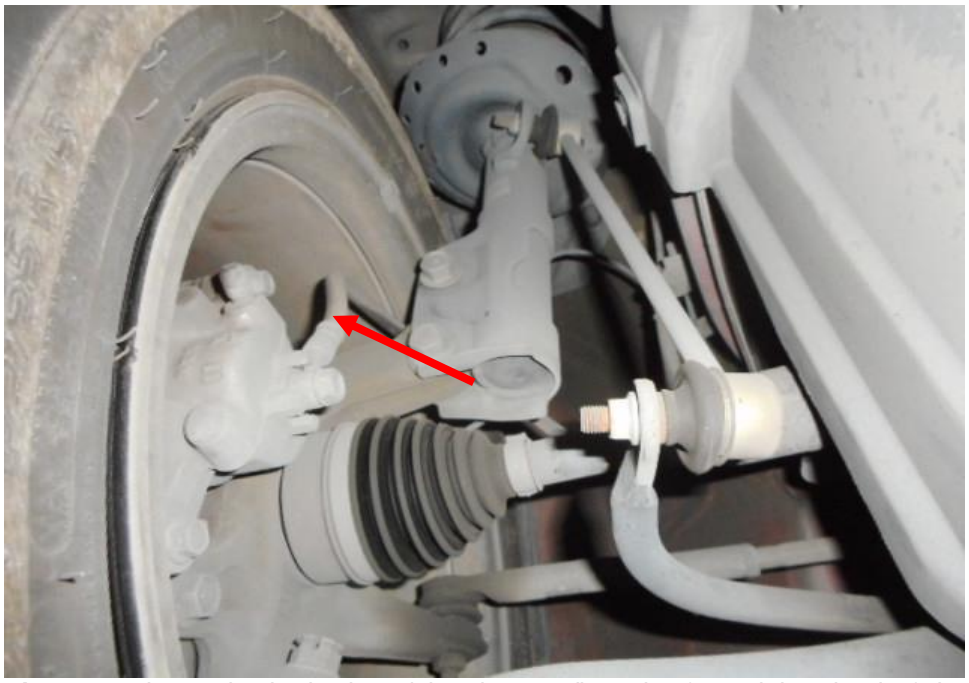


Photo 17 shows the brake hose/pipe (arrowed) at the front right wheel of the Motor Car. I did not observe any leakage of brake fluid at the time of my inspection of the Motor Car. The undercarriage components of the Motor Car were also all found to be intact and without any visible damage.

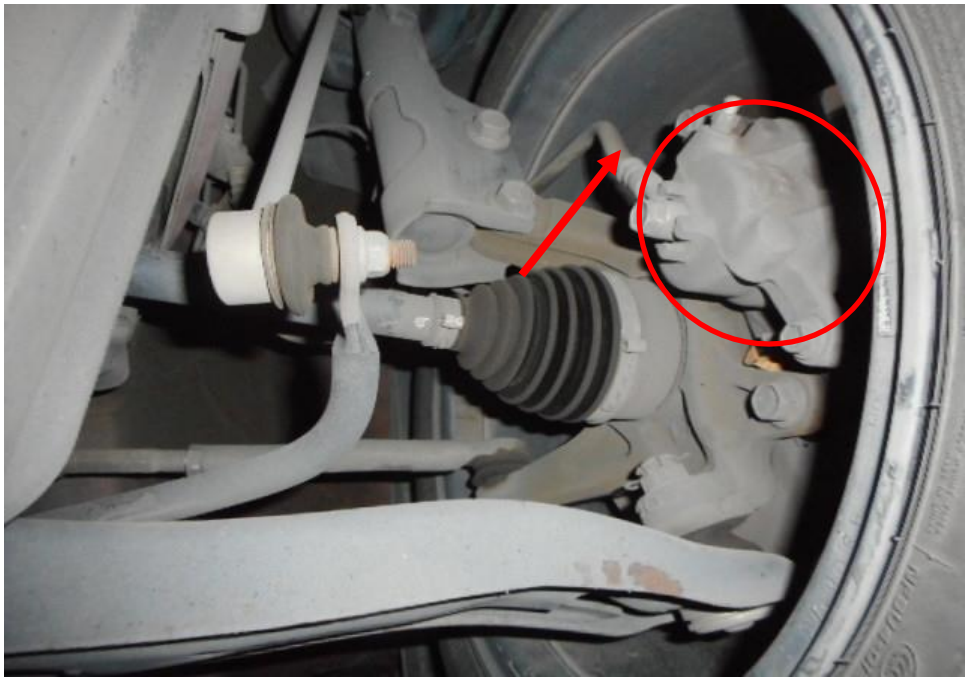


Photo 18 shows the brake hose/pipe (arrowed) at the front left wheel of the Motor Car. No leakage of brake fluid was observed. Visual examination of the various components of the braking system like the brake calliper (circled) and hoses had revealed to be intact and without visible damage.

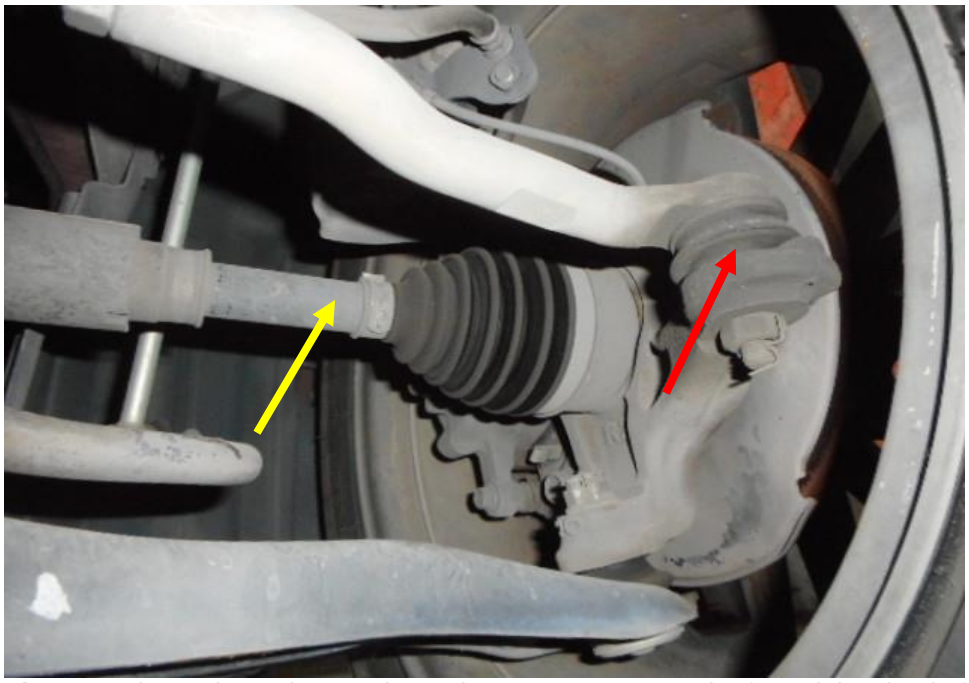


Photo 19 shows the various undercarriage components at the front right wheel of the Motor Car, in particular the steering tie rod (red arrow) and drive shaft (yellow arrow). The various steering components were all found to be intact, suggesting that the steering system of the Motor Car was likely to 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.

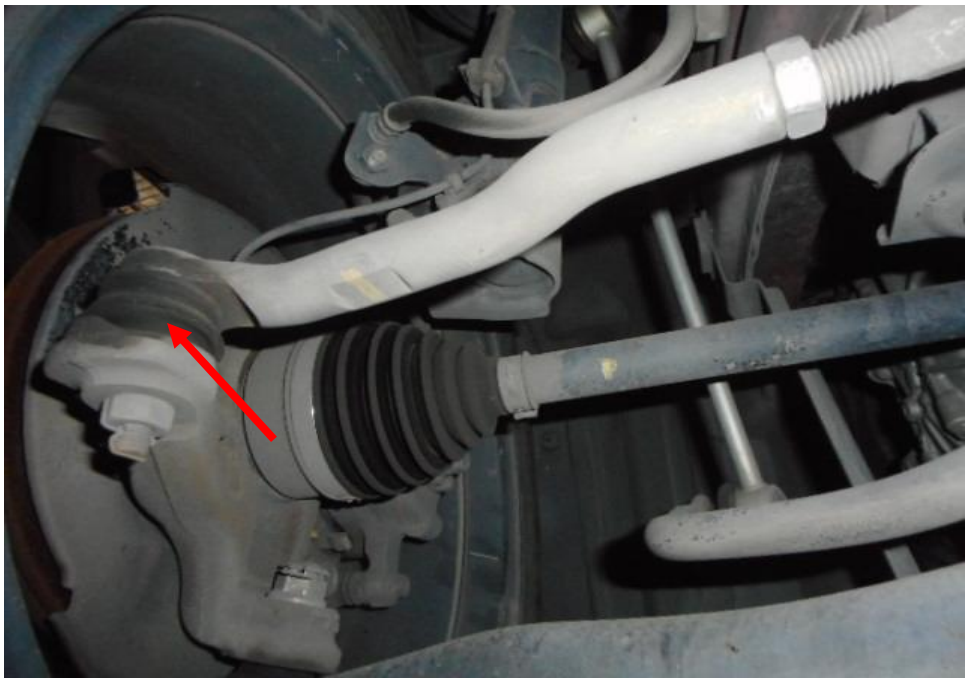


Photo 20 shows the various undercarriage components at the front left wheel of the Motor Car, which had included the steering tie rod (red arrow). The various undercarriage components of the Motor Car were all found to be intact without any visible damage.

Electronic Safety / Warning Indicators

11. The Motor Car's automatic self-test of the functionality of its various electronic operating systems was not conducted as the Motor Car was not started up.

Operational Behaviour of the Motor Car

12. As the engine of the Motor Car was not started, I was hence not able to carry out any operational test(s) to primarily determine whether there was any operational abnormality to its engine system, transmission system, steering system and braking system.

Conclusion

13. For particular case, the time of my inspection of the Motor Car, its steering system and braking system could not be tested as the Motor Car's engine was not started. Basing on my observations it appears that the steering system and braking system of the Motor Car were intact. This takes into consideration that the various mechanical components of the steering system and braking system were found to be intact and undamaged.

14. The front right tyre and wheel rim was observed to be cut and damaged as a result of the accident. However, 3 tyres of the Motor Car were 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 3 tyres. The 3 tyres were also observed to be sufficiently inflated for vehicular operation with remaining tread depth of approximately 2.5mm to 3.7mm and front right tyre with remaining tread depth of approximately 4.4mm

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