

Your Ref: TP/IP/22829/2022
Our Ref : CI/TPD22010887/P

29th November 2022

General Investigation Team

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

MECHANICAL INSPECTION REPORT OF MOTOR CAR SNE 6080L

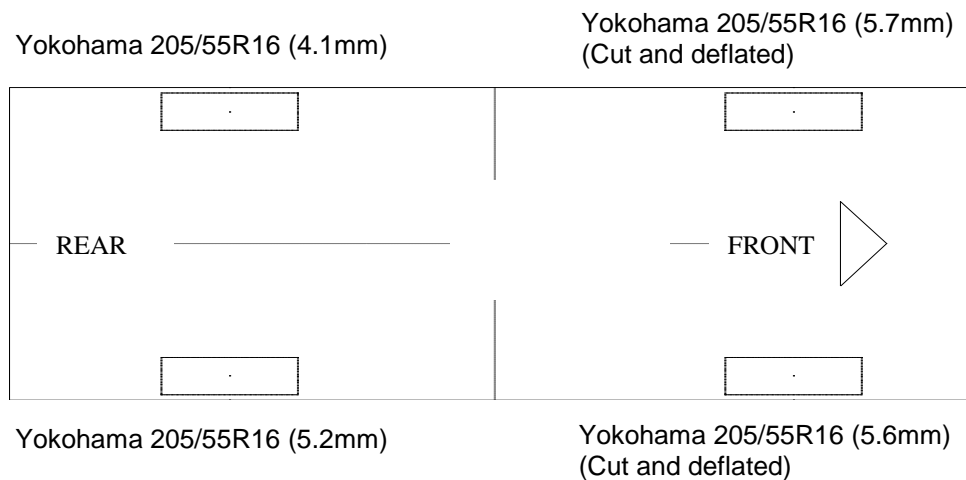
1. I refer to your request on 31st October 2022 to conduct a physical inspection of a Motor car bearing registration number SNE 6080L (herein referred to as "**Motor Car**"), which was involved in a road traffic accident on 30th August 2022.
2. The objective of the inspection is to determine if there was any possible mechanical failure to the Motor car that may have contributed to the accident.
3. Following the request, I had carried out a physical inspection of the Motor Car on 7th November 2022 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 record as the engine of the vehicle was unable to be jumpstarted up despite multiple attempts in jumpstarting it.
5. The Motor car was observed to have sustained damage at its front and left portion. Its front windscreen, front bonnet, front bumper, front left and right fender, front left and right headlamp and its left body panel was amongst the body parts and various engine components were also damaged as a result of the accident. The Supplemental Restraint System (SRS) was activated as a result of the accident.

Tyres and Wheel Rims

6. The front right and left tyre was observed to be damaged as a result of the accident. The condition of the Motor Car's rear right and left 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 rear tyres. The rear 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 photo 1 – 18 below.



Photo 1 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 undamaged by the accident.



Photo 2 shows a general view of the Motor Car's front body at the time of my inspection. The Motor car was observed to have sustained damage at its front and left portion. Its front windscreen, front bonnet, front bumper, front left and right fender, front left and right headlamp was amongst the body parts and various engine components were also damaged as a result of the accident. The Supplemental Restraint System (SRS) was activated as a result of the accident.



Photo 3 shows the close up view of the Motor Car's front body at the time of my inspection. The Motor car was observed to have sustained damage at its front portion. Its front windscreen (circled) was damaged as a result of the accident.



Photo 4 shows the close up view of the Motor Car's front body at the time of my inspection. The Motor car was observed to have sustained damage at its front portion. Its front bonnet (circled) was damaged as a result of the accident.



Photo 5 shows the close up view of the Motor Car's front body at the time of my inspection. The Motor car was observed to have sustained damage at its front portion. Its front bumper (circled) was damaged as a result of the accident.



Photo 6 shows the close up view of the Motor Car's front body at the time of my inspection. The Motor car was observed to have sustained damage at its front portion. Its front right headlamp (circled) and front right fender (arrowed) was amongst the body parts and various components in the engine compartments were also damaged as a result of the accident.



Photo 7 shows the close up view of the Motor Car's front body at the time of my inspection. The Motor car was observed to have sustained damage at its front portion. Its front left headlamp (circled) and front left fender (arrowed) was amongst the body parts and various components in the engine compartments were also damaged as a result of the accident.



Photo 8 shows a general view of the Motor Car's left body at the time of my inspection. The Motor car was observed to have sustained damage at its left portion. Its left body panel was damaged as a result of the accident.



Photo 9 shows a general view of the Motor Car's left body at the time of my inspection. The Motor car was observed to have sustained damage at its left portion. Its left body panel (circled) was damaged as a result of the accident.



Photo 10 shows a general 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 been undamaged by the accident.



Photo 11 shows the general condition of the front right tyre of the Motor Car, which was observed to be deflated due to the damaged rim as a result of the accident. The tyre was also observed with cut mark(s) with remaining tread depth of approximately 5.6mm.



Photo 12 shows the close up condition of the front right tyre of the Motor Car, which was observed to be deflated due to the damaged rim (circled) as a result of the accident. The tyre was also observed with cut mark (arrowed) with remaining tread depth of approximately 5.6mm.



Photo 13 shows the general condition of the front left tyre of the Motor Car, which was observed to be deflated due to the damaged rim as a result of the accident. The tyre was also observed with cut mark(s) with remaining tread depth of approximately 5.7mm.



Photo 14 shows the close up condition of the front left tyre of the Motor Car, which was observed to be deflated due to the damaged rim (circled) as a result of the accident. The tyre was also observed with cut mark (arrowed) with remaining tread depth of approximately 5.7mm.



Photo 15 shows the close up condition of the front left tyre of the Motor Car, which was observed to be deflated due to the damaged rim as a result of the accident. The tyre was also observed with cut mark (circled) with remaining tread depth of approximately 5.7mm.



Photo 16 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 5.2mm. The tyre was also observed to be sufficiently inflated for vehicular operation with no tear, cut or burst mark(s).



Photo 17 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 4.1mm. The tyre was also observed to be sufficiently inflated for vehicular operation with no tear, cut or burst mark(s).



Photo 18 shows the deployment of the Supplemental Restraint System (SRS) airbag in the Motor Car as a result of the accident.

Engine Compartment & Operating Fluids

8. We were unable to raise the front bonnet of the Motor car to conduct the examination of the Motor Car's engine compartment because the damage caused by the accident had resulted in the damages to the lock mechanism of the bonnet and the structure of the engine compartment. (Unable to open).
9. During our inspection, we observed that the engine system was damaged as a result of the induced impact from the accident. We also tried to jumpstart the engine of the vehicle as it was unable to be jumpstarted up despite multiple attempts in jumpstarting it.
10. My subsequent checks on the underside of the Motor Car revealed sign(s) or indication(s) of fluid leak and/or fluid stain(s) from the damaged engine as a result of the accident. See photo 19 -22 below.



Photo 19 shows the close up view of the damaged front bonnet lock mechanism (arrowed) and the structure of the engine compartment of the Motor Car at the time of my inspection resulting it unable to open a result of the accident. (Unable to open)



Photo 20 shows the close up view of the Motor Car's front body at the time of my inspection. The Motor car was observed to have sustained damage at its front portion. Its engine (circled) was amongst the various components in the engine compartments were also damaged as a result of the accident.



Photo 21 shows the jumpstarting of the Motor Car using a jump starter. The engine of the Motor Car was unable to be started up despite multiple attempts in jumpstarting it.



Photo 22 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

11. For this inspection, I was not able to conduct any static brake and steering tests on the steering and braking system of the Motor Car due to the Motor Car running on electric power steering (EPS) and braking system which requires the Motor Car to be started and the engine was unable to be jumpstarting up despite multiple attempts in jumpstarting it. (Unable to be started)
12. My visual examination of the various steering and braking components which had included the rack and pinion, tie rods, tie rod ends and ball joints, brake hoses and brake pipes had revealed only the front right and left lower control arms was observed to be damaged as a result of the accident, All the other components were all generally intact. See photo 23 - 30 below.



Photo 23 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 caliper to be intact and without visible damage.

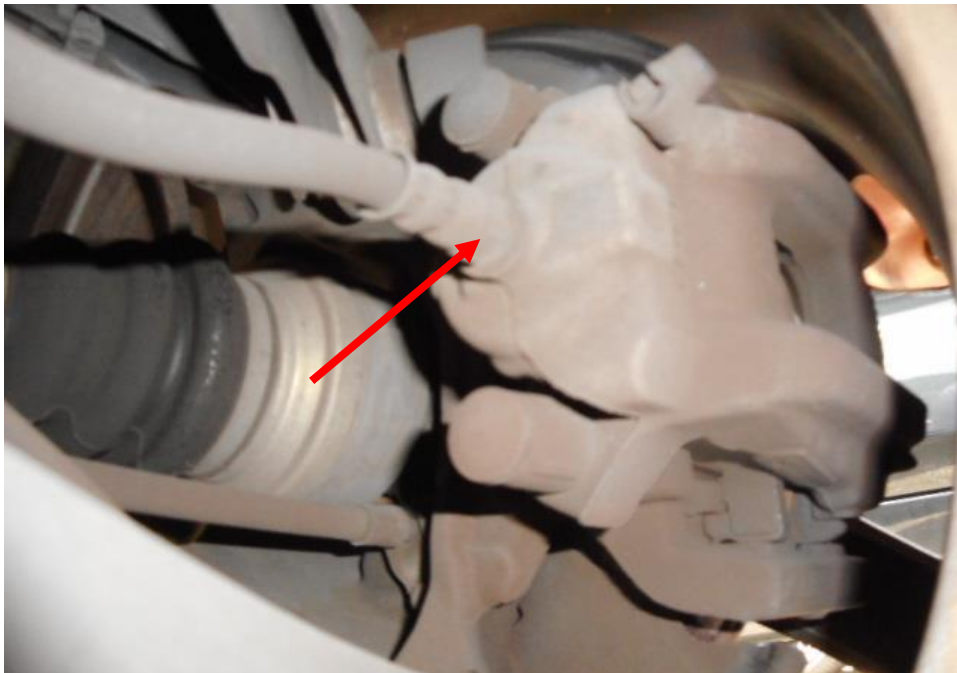


Photo 24 shows the brake hose/pipe (arrowed) at the rear right wheel of the Motor Car. No leakage of brake fluid was observed. Visual examination of the various components of the braking system like the brake caliper to be intact and without visible damage.

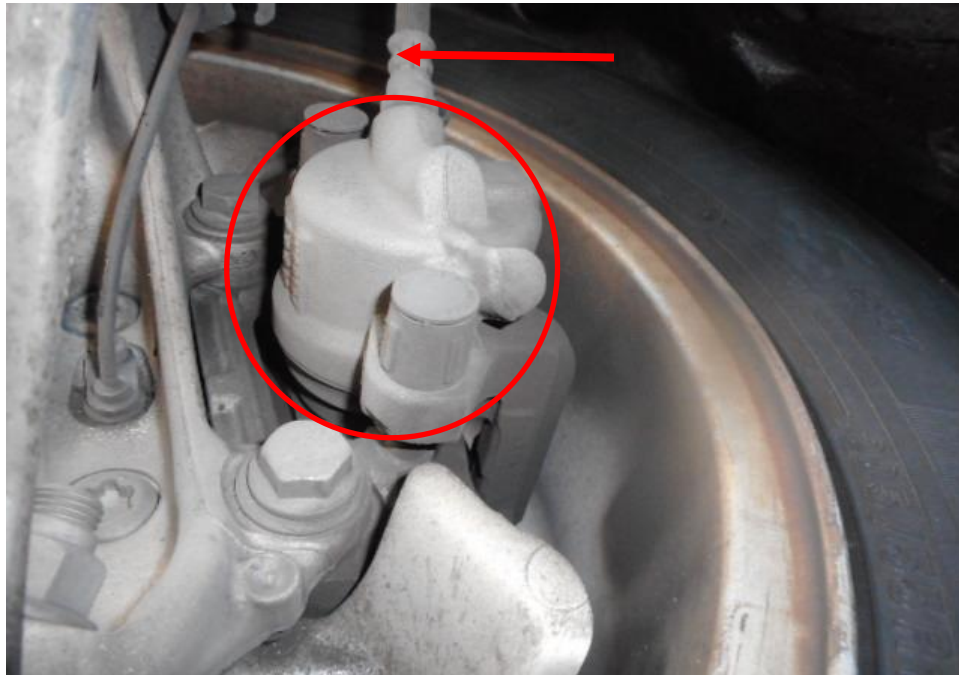


Photo 25 shows the brake hose/pipe (arrowed) at the front right wheel of the Motor Car. I did not observe any leakage of brake fluid at the time of my inspection of the Motor Car. Visual examination of the various components of the braking system the brake caliper (circled) to be intact and without visible damage.

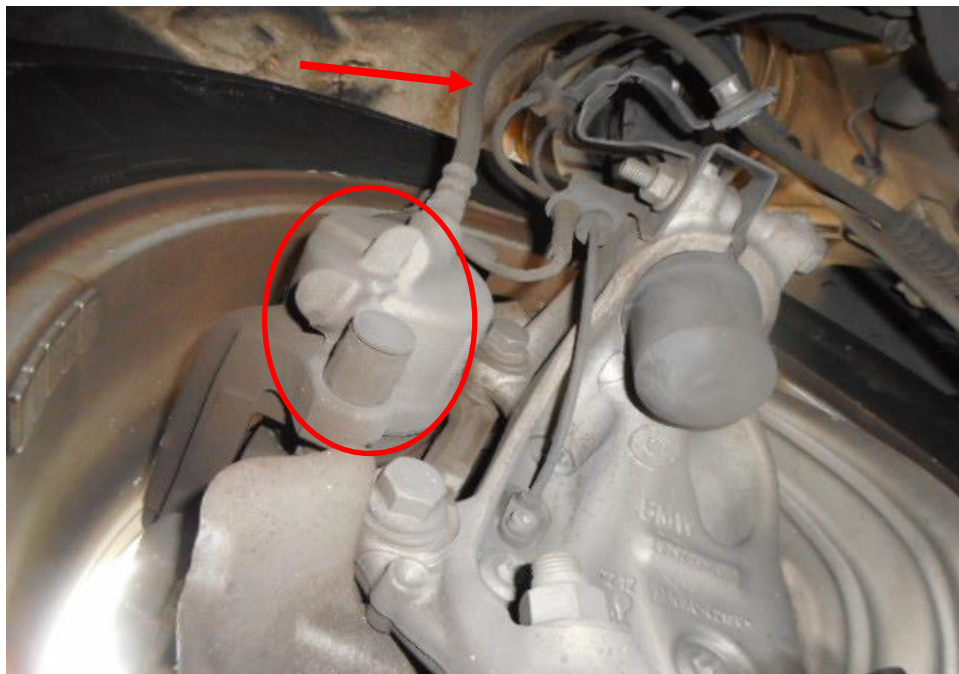


Photo 26 shows the brake hose/pipe (arrowed) at the front left wheel of the Motor Car. No leakage of brake fluid was observed. Visual examination of the various components of the braking system the brake caliper (circled) to be intact and without visible damage.



Photo 27 shows the various undercarriage components at the front right wheel of the Motor Car, in particular the steering tie rod (red arrow) was found to be intact. However, the lower control arm was observed to be damaged as result of the accident (yellow arrow). There was also no sign of fluid stain observed on the various undercarriage components at the front right wheel of the Motor Car.



Photo 28 shows the various undercarriage components the front left wheel of the Motor Car, in particular the steering tie rod (arrowed) was found to be intact. However, the lower control arm was observed to be damaged as result of the 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 29 shows the various undercarriage components the front left wheel of the Motor Car, the lower control arm (arrowed) was observed to be damaged as result of the accident.



Photo 30 shows the various undercarriage components at the front right wheel of the Motor Car, the driveshaft (arrowed) was observed to be intact. There was also no sign of fluid stain observed on the various undercarriage components at the rear left wheel of the Motor Car.

Electronic Safety / Warning Indicators

13. The Motor Car's automatic self-test of the functionality of its various electronic operating systems was not able to be conducted as the engine was not able to be started up. (unable to be started)

Seat Belts

14. The front right and left seat belts of the "Motor Car" were tested and all the seat belts were able to be fastened securely into the respective pre-tensioners that were fitted at the sides of each seat. See photo 31 and 32 below.



Photo 31 shows that the seat belt on the right seat were able to be fastened securely into the respective pre-tensioners that were fitted at the sides of each seat.



Photo 32 shows that the seat belt on the left seat were able to be fastened securely into the respective pre-tensioners that were fitted at the sides of each seat.

Operational Behaviour of the Motor Car

15. Operational test to primarily determine whether there was any abnormality to the engine system, transmission system and braking system of the Motor Car could not be conducted given the engine system of the Motor Car was damaged as a result of the accident.

Conclusion

16. For this particular case, I was unable to determine whether there was any possible mechanical failure to the Motor Car 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, braking system, transmission system, steering system and suspension system.

17. The front left and right tyres of the Motor Car was observed to be damaged as a result of the accident. However, the rear left and right tyres 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 rear left and right tyres. The rear left and right tyres were observed to be sufficiently inflated for vehicular operation with remaining tread depth of approximately 4.1mm to 5.2mm. And the front left and right tyres with remaining tread depth of approximately 5.6mm to 5.7mm.

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