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Our Ref : CI/TPD18014212/Z

27th September 2018

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

MECHANICAL INSPECTION REPORT OF MOTOR TAXI SHB 2124H

1. We refer to your request on 02nd August 2018 to conduct a physical inspection of a motor taxi bearing registration number SHB 2124H (herein referred to as "**Motor Taxi**"), which was involved in a fatal road traffic accident on 30th June 2018.
2. The purpose of this inspection is to primarily determine if there was any possible mechanical failure to the Motor Taxi that may have contributed to the accident.
3. Following the request, we carried out a physical inspection of the Motor Taxi on 30th August 2018 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 Taxi at the time of our inspection was recorded due to the damages sustained as a result of the accident.
5. The Motor Taxi had sustained extensive impact damage at its frontal right portion (severe) & left portion. The impact force was significant, causing the various parts and components of the Motor Taxi to be damaged. This had included its steering system, which were amongst the multiple parts and components that were pushed from the right side of the Motor Taxi.

6. Other body parts that were damaged had included a buckled front bonnet, misaligned front lower bumper, buckled front left & right side fenders, crushed front right headlamp, cracked engine coolant reservoir amongst others. The interior compartment was not affected by the accident.
7. This was likely due to the consistency of the accident's case facts that on 30th June 2018 at or about 0739hrs, the Motor Taxi was travelling along Republic Avenue towards the direction of Republic Boulevard when he lost control of his Motor Taxi and collided into a motorcycle that was travelling on the opposite direction. See photo 1 to 9 below.



Photo 1 shows a general view of the frontal portion of the Motor Taxi at the time of our inspection. The Motor Taxi was observed to have sustained extensive impact damage at its frontal right portion. The impact force was significant, causing the various parts and components to be damaged as a result of the accident.



Photo 2 shows a general view of the front right portion of the Motor Taxi at the time of our inspection. The Motor Taxi was observed to have sustained extensive impact damage at its front right portion.



Photo 3 shows a general view of the front left portion of the Motor Taxi at the time of our inspection. The Motor Taxi was observed to have sustained minor impact damage at its front left portion.



Photo 4 shows a closer view of the damage sustained on the right portion of the Motor Taxi. The impact force was significant, causing the right portion of the windshield to be shattered due to the accident.



Photo 5 shows a closer view of the damage sustained on the front right of the Motor Taxi. The impact force was significant, causing the various parts and components inside the engine compartment to be damaged, which includes the headlamp, rim & tyre amongst others.



Photo 6 shows a closer view of the Motor Taxi right side mirror. The impact force was significant, causing it to be dislodged.



Photo 7 shows a closer view of the damaged engine component. The impact force was significant, causing the engine coolant reservoir to be damaged due to the accident's impact.



Photo 8 shows the interior portion of the Motor Taxi. The impact force did not affect the interior portion.



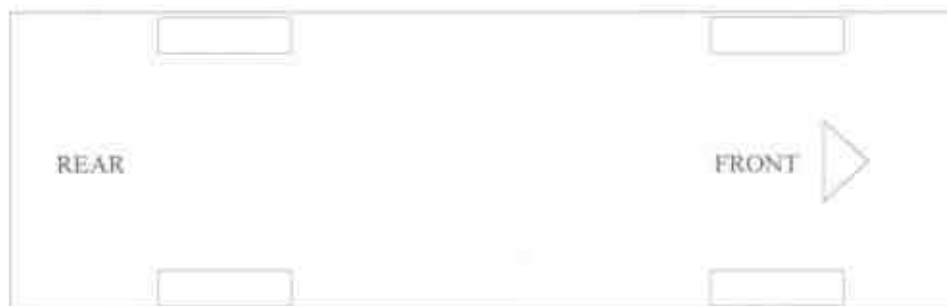
Photo 9 shows a general view of the rear right portion of the Motor Taxi at the time of our inspection. The rear portion was observed to be in good condition unaffected by the accident.

Tyres and Wheel Rims

8. The condition of the Motor Taxi's 2 rear left & right 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 2 tyres. The 2 tyres were also observed to be sufficiently inflated for vehicular operation.
9. The condition of the front left tyre was observed with a small cut mark on the outer wall likely due to the accident's impact collision. However, it was observed to be sufficiently inflated for vehicular operation.
10. As for the front right tyre, it was observed to be dislodged from the wheel rim due to the accident's impact collision. We did find torn mark & cut mark on the outer sidewall as well as across the tyre surface which was likely due to the result of the accident.
11. The tyre brand, tyre size and remaining tread depth of the 4 tyres were recorded as follows:-

Westlake Radial RP 26
205/60R16 (6mm)

Westlake Radial RP 26 205/60R16 (4mm)
(Cut mark on the outer sidewall)(Inflated)



Westlake Radial RP 26
205/60R16 (5mm)

Westlake Radial RP 26 205/60R16 (4mm)
(Deflated)(Dislodged from the wheel rim)

12. The 2 rears left & right tyres were observed to be wrapped around steel wheel rims. Both tyres were found to be without any significant damage apart for some relatively minor kerb grazing type of damage on the rim covers.
13. The front left tyre rim cover was observed to have sustained with chipped mark (likely due to the accident) that might cause the cut mark on the outer wall of the tyre. As for the right tyre, it was observed to be dislodged from the wheel rim likely due to the accident's impact collision. The rim cover was also observed to be broken that likely the cause that cut the tyre outer sidewall. See photo 10 – 17 below.



Photo 10 shows the condition of the front right tyre of the Motor Taxi, which was observed to be dislodged as a result of the accident. We did find cut mark on the outer sidewall as well as across the tyre surface which was likely due to the result of the accident.



Photo 11 shows the condition of the front right tyre of the Motor Taxi, which was observed to be dislodged from the wheel rim as a result of the accident.



Photo 12 shows the condition of the front right tyre of the Motor Taxi, which was observed to be dislodged as a result of the accident. We did found cut mark on the outer sidewall as well as across the tyre surface which was likely due to the result of the accident.



Photo 13 shows the condition of the front right tyre of the Motor Taxi, which was observed to be dislodged as a result of the accident. We did found cut mark on the outer sidewall as well as across the tyre surface which was likely due to the result of the accident.



Photo 14 shows the condition of the front left tyre of the Motor Taxi, which was observed to be in serviceable condition with remaining tread depth of approximately 4mm. However, a small cut mark was observed on the outer sidewall of the tyre likely due to the accident.



Photo 15 shows the condition of the front left tyre of the Motor Taxi, which was observed to be in serviceable condition with remaining tread depth of approximately 4mm. However, a small cut mark was observed on the outer sidewall of the tyre likely due to the accident.



Photo 16 shows the condition of the rear right tyre of the Motor Taxi, which was observed to be in serviceable condition with remaining tread depth of approximately 6mm. There was also no tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of this tyre.



Photo 17 shows the condition of the rear left tyre of the Motor Taxi, which was observed to be in serviceable condition with remaining tread depth of approximately 5mm. There was also no tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of this tyre.

Engine Compartment & Operating Fluids

14. Upon examination of the engine compartment of the Motor Taxi, we had observed most of 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. However, engine coolant reservoir & washer reservoir was found to be damaged (cracked) likely due to the accident's impact collision.
15. Further examination of the engine compartment revealed no sign(s) or indication(s) of fluid leakage and/or fluid stain within the engine compartment of the Motor Taxi.
16. Our subsequent checks on the underside of the Motor Taxi also revealed no fluid stain. Visually, the various undercarriage components of the Motor Taxi were all observed to be intact and without any visible damage. See photo 18 – 24 below.



Photo 18 shows a general view of the Motor Car's engine compartment. Most of 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 19 shows the close up view of the engine coolant that was seen with sufficient level not affected by the accident's impact



Photo 20 shows the close up view of the engine coolant reservoir that was observed to be damaged (cracked) by the accident's impact



Photo 21 shows the close up view of the brake fluid that was seen with sufficient level not affected by the accident's impact.



Photo 22 shows the close up view of the brake fluid that was seen with sufficient level not affected by the accident's impact.



Photo 23 shows the engine oil dip stick of the Motor Taxi at the time of our inspection. The engine oil was observed to be of sufficient level and without any visible contamination.



Photo 24 shows the undercarriage of the engine area. It was observed to be unaffected by the accident's impact.

Steering System & Braking System

17. We were not able to conduct any tests on the steering system of the Motor Taxi due to the damages sustained as a result of the accident, as well as damage to several mechanical components of the steering system. See photo 25 to 27 below.



Photo 25 shows the damaged steering system at the front right wheel of the Motor Taxi.



Photo 26 shows the dislodged front right wheel rim of the Motor Taxi as a result of the accident's impact collision.



Photo 27 shows the dislodged drive shaft of the Motor Taxi front right wheel as a result of the accident's impact collision.

18. As for the braking system, our investigation reveals that there was no brake fluid leakage or damages to its supporting components. The brake hoses, brake booster, brake callipers and brake fluid reservoir was found to be intact and unaffected by the accident's impact. The brake fluid was noted to be of sufficient level without any contamination for operational purposes at time of our inspection. See photo 28 - 31 below.



Photo 28 shows the braking components at the front left wheel of the Motor Taxi. We did not observe any leakage of brake fluid at the time of our inspection of the Motor Car.



Photo 29 shows the braking components at the front right wheel of the Motor Taxi. We did not observe any leakage of brake fluid at the time of our inspection of the Motor Taxi.

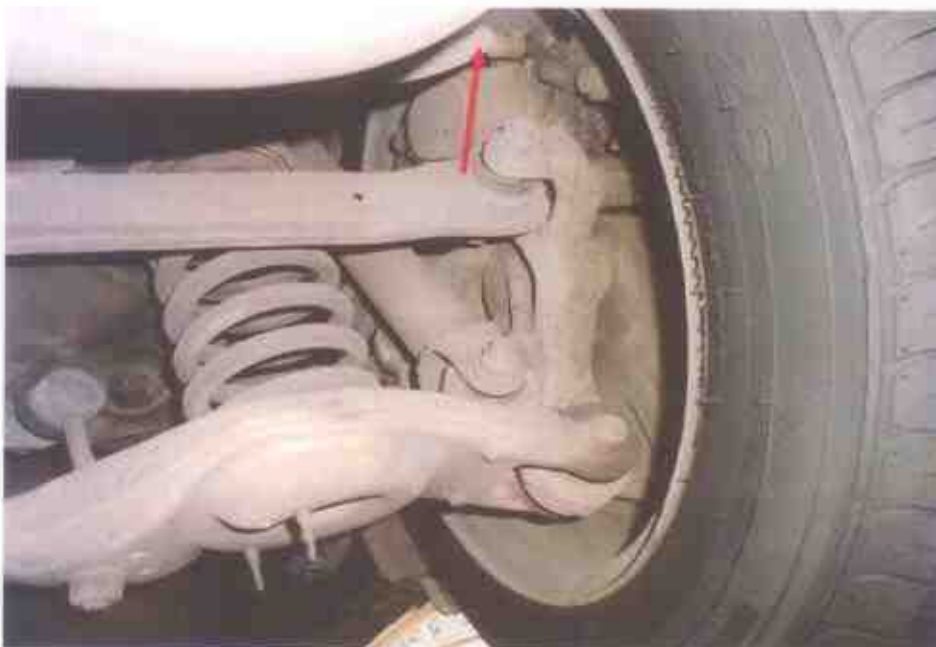


Photo 30 shows the braking components at the rear right wheel of the Motor Taxi. We did not observe any leakage of brake fluid at the time of our inspection of the Motor Taxi.



Photo 31 shows the braking components at the rear left wheel of the Motor Taxi. We did not observe any leakage of brake fluid at the time of our inspection of the Motor Taxi.

Electronic Safety / Warning Indicators

19. 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 due to damage sustained as a result of the accident.

Operational Behaviour of the Motor Car

20. No operational test to primarily determine whether there was any abnormality to the engine system, transmission system and steering system of the Motor Car could be conducted given the extent of damage that it had sustained.

Conclusion

21. For this particular case, we were unable to determine whether there was any possible mechanical failure to the Motor Car that may have contributed to the accident. This was mainly due to the extent of damage that it had sustained. Its engine system and steering system were damaged as a result of the accident.
22. However, from our detailed observation on the braking system, it shows that there's no brake fluid leakage or damages to its supporting components. The brake fluid was noted to be of sufficient level without any contamination for operational purposes at time of our inspection.
23. The condition of the Motor Taxi's 2 rear left & right tyres were 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 2 tyres. The 2 tyres were observed to be sufficiently inflated for vehicular operation.
24. The condition of the front left tyre was observed with a small cut mark on the outer side wall likely due to the accident's impact collision. However, it was observed to be sufficiently inflated for vehicular operation.
25. As for the front right tyre, it was observed to be dislodged from the wheel rim due to the accident's impact collision. We did find torn mark on the outer sidewall as well as across the tyre surface which was likely due to the result of the accident. The 4 tyres remaining tread depth were measured to an approximately of 4mm to 6mm each.

26. Our findings were based solely on a static and visual inspection of the Motor Car. No operational test could be carried out to the Motor Car given the extent of damage that it had sustained as a result of the accident.



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