



Your Ref: TP/IP/43683/2018  
Our Ref : CI/TPD18016125/Z

19<sup>th</sup> December 2018

**General Investigation Team 'D'**  
Traffic Police Department  
Singapore Police Force  
10 Ubi Avenue 3  
Singapore 408865

### **MECHANICAL INSPECTION REPORT OF MOTOR TAXI SHD 7126J**

1. We refer to your request on 01<sup>st</sup> September 2018 to conduct a physical inspection of a motor taxi bearing registration number SHD 7126J (herein referred to as "**Motor Taxi**"), which was involved in a road traffic accident on 02<sup>nd</sup> August 2018.
2. The objective of the inspection is to determine if there was any possible mechanical failure to the Motor Taxi that may have contributed to the accident.
3. Following the request, we had carried out a physical inspection of the Motor Taxi on 01<sup>st</sup> October 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 at 310358km.
5. The Motor taxi had sustained impact damages to its frontal left & right portion. Its front right lower bumper was observed to be damaged; it's both side headlamp, both left & right side fender, front bonnet, left & right front door & left & right side mirror was damaged likely due to the accident's collision impact.
6. This was likely due to the consistency of the accident's case facts that on 2<sup>nd</sup> August 2018 at about 1241hrs, a Motor Taxi was involved in an accident along Jurong West Avenue 1 junction of Jurong West Street 42. The said driver was driving on the left of a 3 lanes road. He claimed while changing lane, as he applying brake, his vehicle continued to surge forward despite him stepping on the brake. His vehicle then collided onto one Motor Car and Motor Lorry which were stationary while stopping at the junction due to the red light. He claimed the brake was faulty. See photo 1 to 7 below.



**Photo 1** shows the mileage of the Motor taxi at the time of our inspection was recorded at 310358km.



**Photo 2** shows a general view of the front body of the Motor Taxi at the time of our inspection. The Motor Taxi was observed to have sustained impact damages that were confined to its frontal left & right portion. Its front right lower bumper was observed to be damaged likely due to the accident's collision impact.



Photo 3 shows a general view of the front left body of the Motor Taxi at the time of our inspection. The Motor Taxi was observed to have sustained minor impact damages that were confined to its frontal left & right portion.



Photo 4 shows a general view of the front right body of the Motor Taxi at the time of our inspection. The Motor Taxi was observed to have sustained impact damages that were confined to its frontal left & right portion.





**Photo 5** shows a general view of the rear right body of the Motor Taxi at the time of our inspection. The Motor Taxi was observed to be in good general condition.



**Photo 6** shows a semi close up view of the front right portion of the Motor Taxi at the time of our inspection. The Motor Taxi had sustained damages at the front right lower bumper, headlamp, side fender, driver door & right side mirror likely due to the accident.



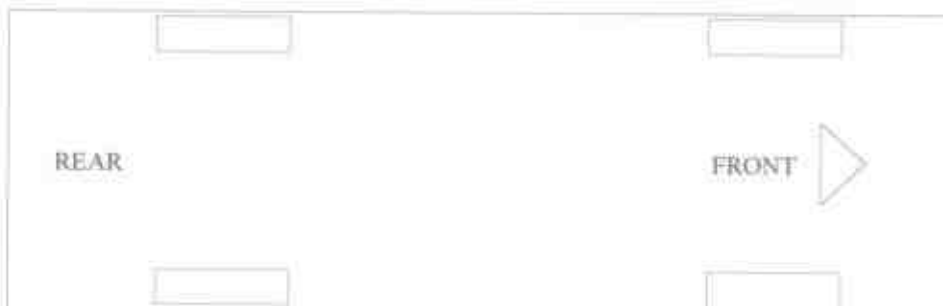
Photo 7 shows a close up view of the front left portion of the Motor Taxi at the time of our inspection. The Motor Taxi had sustained damages at the front right lower bumper, headlamp, side fender, passenger's door & left side mirror likely due to the accident.

### Tyres and Wheel Rims

7. The condition of the Motor Taxi'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:-

Westlake Radial RP26  
205/60R16 (5mm)

Westlake Radial RP26  
205/60R16 (3mm)



Hankook Optimo H724  
205/60R16 (5mm)

Westlake Radial RP26  
205/60R16 (4mm)

51 UBI AVE 1, #01-25 PAYA UBI INDUSTRIAL PARK, SINGAPORE 408933 TEL : (065) 62563561 FAX : (065) 67414108

8. The 4 tyres were observed to be wrapped around standard steel wheel rims that were found to be without any significant damage. See photo 8 to 11 below.



Photo 8 shows the condition of the front right tyre of the Motor Taxi, which was observed to be in serviceable condition with remaining tread depth of approximately 4mm.



Photo 9 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 3mm.





**Photo 10** 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.



**Photo 11** 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 5mm.

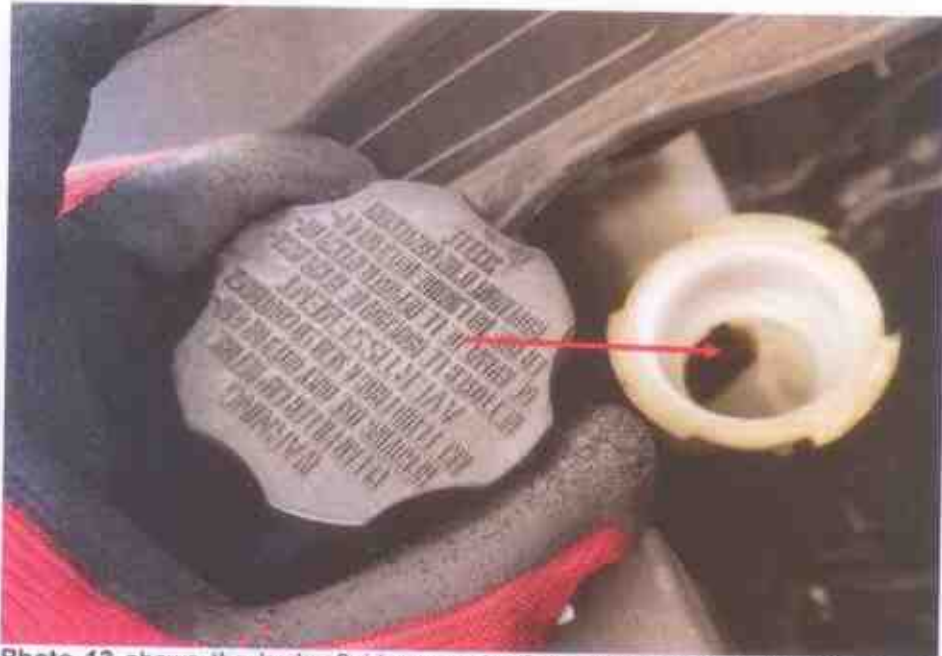
### Engine Compartment & Operating Fluids

9. Upon examination of the engine compartment of the Motor Taxi, 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.
10. Further investigation 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.
11. Our subsequent checks on the underside of the Motor Taxi revealed no fluid leakage was observed. Our checks on the engine fluid had also indicated that the engine fluid was of sufficient level for operational purposes, and without contamination. Visually, the various undercarriage components of the Motor Taxi were all observed to be intact and without any visible damage. See photo 12 – 15 below.



Photo 12 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 13** shows the brake fluid reservoir of the Motor Taxi at the time of our inspection. The brake fluid was observed to be of sufficient level (arrowed) and without any visible contamination.



**Photo 14** shows the engine coolant fluid reservoir of the Motor Taxi at the time of our inspection. The engine coolant fluid was observed to be of sufficient level and without any visible contamination.



Photo 15 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.

### Steering System & Braking System

12. The mechanical components of the Motor Taxi's steering system in particular the steering rod was found to be damaged as a result of the accident. However, our visual examination of the other various steering components, which had included the rack and pinion, tie rod ends and ball joints, revealed that these components were all generally in good condition.
13. The mechanical components of the Motor Taxi's braking system were all found to be visually intact and undamaged. Our visual examination of the various braking components like the brake master pump, brake booster, brake callipers and brake hoses amongst others were found to be in serviceable condition without any damage.
14. Static test on the steering system of the Motor Taxi was unable to be conducted due to the damage on the steering rod as a result of the accident. See photo 16 - 20 below.



Photo 16 shows the brake hose (arrowed) 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. Our visual inspection of the various mechanical components of the Motor Taxi's braking system revealed all to be intact without visible damage.



Photo 17 shows the brake hose (arrowed) 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. Our visual inspection of the various mechanical components of the Motor Taxi's braking system revealed all to be intact without visible damage.





Photo 18 shows the various undercarriage components at the front right wheel of the Motor Taxi, in particular the steering rod (circled). It was observed to be bent as a result of the accident.

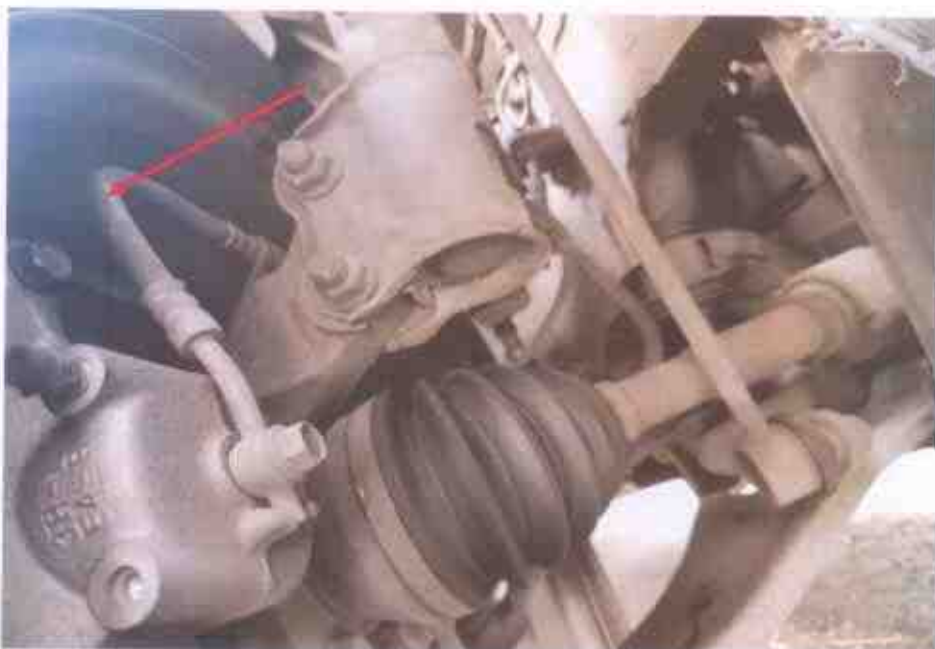


Photo 19 shows the various undercarriage components at the front right wheel of the Motor Taxi. We did not observe any leakage of brake fluid (arrowed) at the time of our inspection of the Motor Taxi. Our visual inspection of the various mechanical components of the Motor Taxi's braking system revealed all to be intact and without visible damage, indicating that the braking system was likely to be in serviceable condition at the material time of accident.

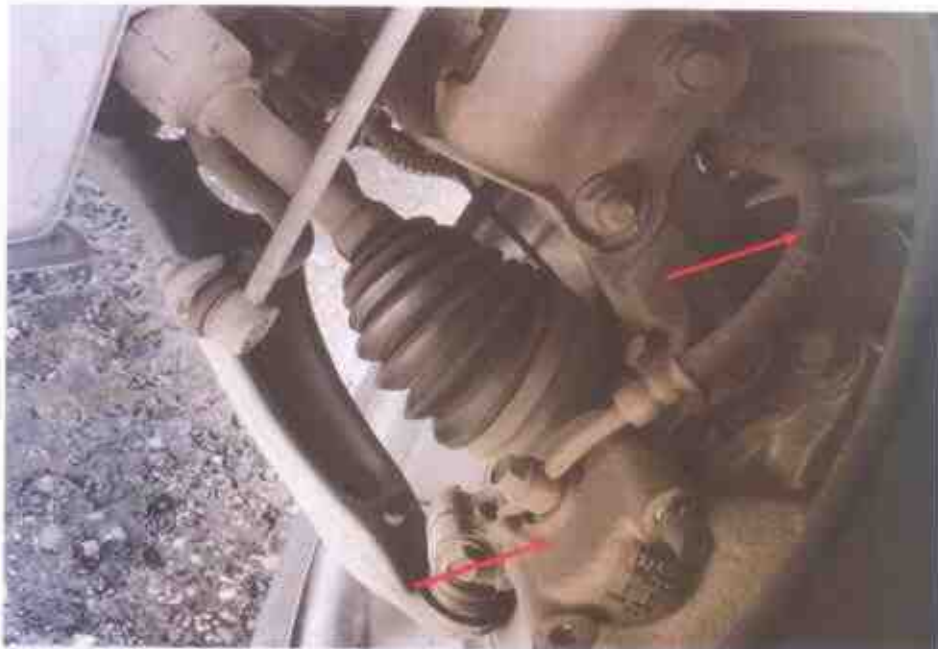


Photo 20 shows the various undercarriage components at the front left wheel of the Motor Taxi. We did not observe any leakage of brake fluid (arrowed) at the time of our inspection of the Motor Taxi. Our visual inspection of the various mechanical components of the Motor Taxi's braking system revealed all to be intact and without visible damage, indicating that the braking system was likely to be in serviceable condition at the material time of accident.

### Electronic Safety / Warning Indicators

15. The Motor Taxi's automatic self-test of the functionality of its various electronic operating systems like the Anti-Brake Lock System (ABS), SRS, engine check light, battery light and diesel glow plug during cranking of the engine had indicated that these systems were in working condition and without abnormality. This can be established from the warning lights disappearing from the instrument panel after the self-test. See photo 21 below.



**Photo 21** shows no warning lights illuminated on the instrument panel of the Motor Taxi after the engine was cranked. This would suggest that there was no abnormality to the various electronic operating systems of the Motor Taxi, like the ABS light engine check light, battery light and diesel glow plug.

### Operational Behaviour of the Motor Taxi

16. A short operational test of the Motor Taxi, to primarily determine whether there was any abnormality to its engine system, its transmission system and braking system was subsequently carried out.
17. During the operational test, the transmission system of the Motor Taxi was able to be shifted to drive mode and reverse mode without any difficulty. There were no abnormal sounds heard and/or abnormal behaviour of the Motor Taxi's engine system. It was able to move forward and backward normally. The braking system was also found to be in working condition as the Motor Taxi was able to slow down and come to a complete stop upon depressing of the brake pedal. See photo 22 below.





Photo 22 shows an operational test of the Motor Taxi. We were able to move the vehicle reverse, forward and backward normally.

## Conclusion

18. From our physical inspection of the Motor Taxi, it appears that its engine system, transmission system and braking system were all in serviceable condition. We did not find any evidence(s) to suggest that there was possible mechanical failure to the Motor Taxi that may have caused and/or contributed to the accident.
19. As for the steering system, it was observed to be damaged due to the accident's impact collision. Our visual inspection found that the steering rod was bent at time of our inspection.
20. Notwithstanding that the steering system suffered damages due to the accident; a short operational test of the Motor Taxi was able to be conducted. The short operational test reveals that it did not produce any sign(s) or symptom(s) to suggest that there was any abnormality to its engine system, its transmission system and braking system.

21. As for the braking system, a short operational test was also conducted. The Motor Taxi braking system were able to respond to the depressing of the foot brake pedal upon depress. It was able to come to a complete stop upon stepping on the brake foot pedal while performing the short operational test. Hence, our observation reveals that the braking system was in serviceable condition prior the accident.
22. The 4 tyres of the Motor Taxi were also found to be in serviceable condition. 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. The 4 tyres were sufficiently inflated for vehicular operation with remaining tread depth of approximately 3mm to 5mm each.



**Rohaizal A. Rahim**  
Technical Investigator



**Ang Bryan Tani**  
AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA  
Senior Technical Investigator  
Technical Investigation & Reconstructionist (SAE-A)

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