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Our Ref :CI/TPD17022677/Z

07th December 2017

Fatal Accident Investigation Team

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

INSPECTION REPORT OF MOTORCYCLE FBA 890T

1. We refer to your request dated 27th November 2017 to conduct a physical inspection of a motorcycle bearing registration number FBA 890T (herein referred to as "**Motorcycle**"), which was involved in a fatal road traffic accident on 16th November 2017.
2. The purpose of this inspection is to primarily determine if there was any possible mechanical failure to the Motorcycle that may have contributed to the accident.
3. Following the request, we had carried out a physical inspection of the Motorcycle on 05th December 2017 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 Motorcycle at the time of our inspection was 371,518km.
5. The Motorcycle was observed to have sustained damages at the frontal portion and its right side. The body parts that were found to have been damaged include its front left wing mirror, broken pillion's right foot rest, minor scratches at right hand side fairing and exhaust pipe amongst others. Its front fork assembly was also observed to be bent slightly to the right as a result of the accident.



Photo 1 shows the mileage at the time of inspection was recorded to be 371,518km.



Photo 2 shows a general view of the left side body of the Motorcycle at the time of our inspection. The Motorcycle was observed to be sustained with relatively minor impact due to the accident collision. The body parts that were found to have been damaged include its front left wing mirror & its front fork assembly as a result of the accident.



Photo 3 shows a general view of the right side body of the Motorcycle at the time of our inspection. The body parts that were found to have been damaged include its front left wing mirror, broken pillion's right foot rest, minor scratches at right hand side fairing and exhaust pipe amongst others. Its front fork assembly was also observed to be bent slightly to the right as a result of the accident.

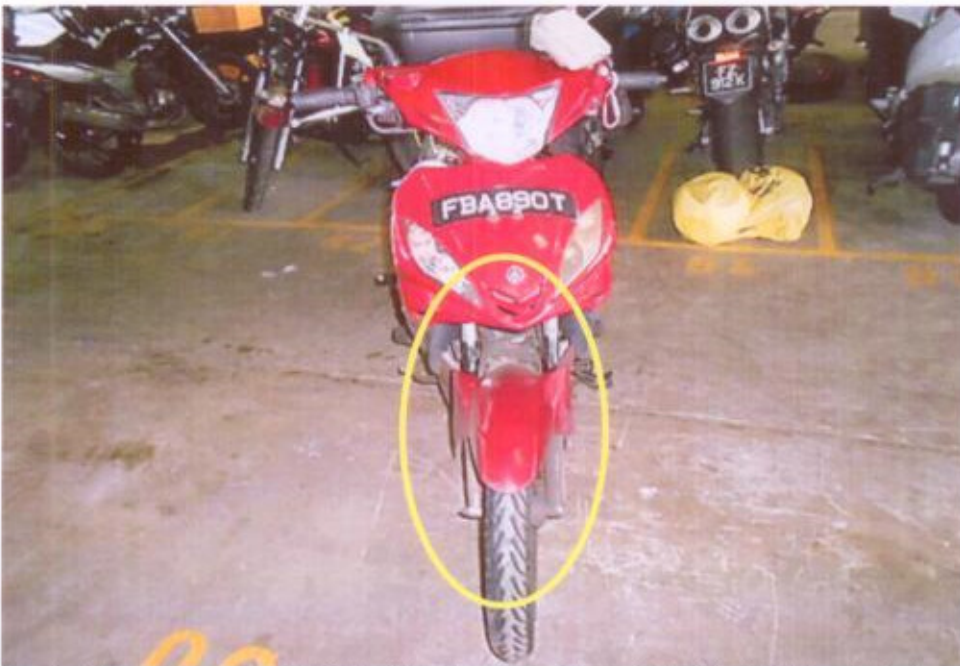


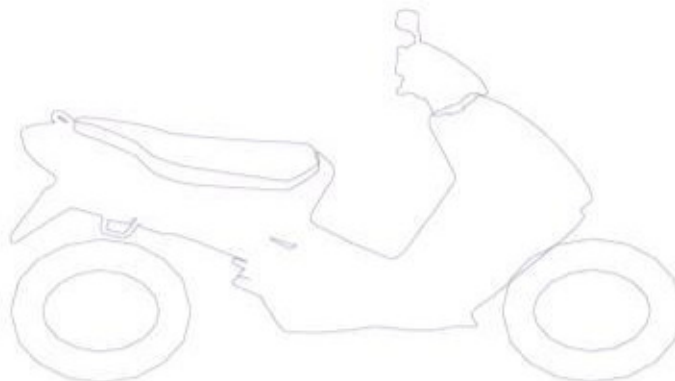
Photo 4 shows a general view of the frontal portion of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained with relatively minor impact due to the accident collision. Which includes its front fork assembly was also observed to be bent slightly to the right.



Photo 5 shows a close-up view of the broken passenger foot rest of the Motorcycle due to the accident collision.

Tyres and Wheel Rims

6. The conditions of the Motorcycle's tyres were observed to be in serviceable condition. The tread pattern of the 2 tyres was clearly visible. We did not observe any tear, burst mark(s) and/or punctured hole(s) on the sidewalls as well as across the tread of the 2 tyres. Both tyres were observed to be sufficiently inflated for vehicular operation. The tyre brand, tyre size and remaining tread depth of the 2 tyres were recorded as follows:-



Bridgestone Battlax BT 39-F
90/80 - 17 (3mm)

Pirelli Angel C.T
70/90 - 17 (2mm)

7. The front & rear tyre was wrapped around alloy wheel rim that was found to be without any significant damage. See photo 6– 7 below



Photo 6 shows the rear tyre of the Motorcycle was observed to be in serviceable condition with remaining tread depth of approximately 3mm. The tyre was also observed to be sufficiently inflated for vehicular operation. There was no significant damage observed on the rear wheel rim & tyre.



Photo 7 shows the front tyre of the Motorcycle. There was no tear, burst mark(s) and/or punctured hole(s) on the sidewalls as well as across the tread of the front tyre.

Engine & Drive Train

8. Upon examination of the Motorcycle's engine area, we had observed that the various engine related parts and components were intact with no visible damage. There was also no sign(s) or indication(s) of fluid leak observed around the engine area of the Motorcycle.
9. The gear chain of the motorcycle was found to be intact without any misalignment. It was also adequately lubricated for operating purposes. Free play tension test was also conducted & found adequately acceptable. See photo 8 – 11 below.



Photo 8 shows the engine underside view. There was also no sign(s) or indication(s) of fluid leak observed around the engine area of the Motorcycle.



Photo 9 shows the engine area view. There was also no sign(s) or indication(s) of fluid leak observed around the engine area of the Motorcycle.



Photo 10 shows the general view of the gear train (arrowed) of the Motorcycle, which was observed to be intact with no misalignment. It was also adequately lubricated for operating purposes.



Photo 11 shows the general view of the gear train (arrowed) of the Motorcycle, which was observed to be intact with no misalignment. It was also adequately lubricated for operating purposes. Free play tension was also observed & found adequately acceptable.

Steering System & Braking System

10. For this case, we were not able to conduct any test(s) on the steering system of the Motorcycle due to the damage on its front fork. Its front fork assembly was observed to be bent slightly to the right as a result of the accident.
11. The brake system of the Motorcycle was of a semi-hydraulic type, where hydraulic (brake fluid) pressure controls the brake for the front wheel while the brake for the rear wheel is controlled by mechanical means (cables and springs). Our visual examination of the various components in the brake system, like the brake disc, brake calliper, drum and brake foot pedal, revealed all to be intact and without damage. There was also no visible tear or cut observed on the connecting hoses and cables.

12. Static brake tests conducted on the Motorcycle had appeared to indicate that the brake system of the Motorcycle was in serviceable condition. There was some resistance felt (spongy like feel) upon gripping the hand brake lever & stepping on the rear brake foot paddle. This would indicate that there was no leakage of pressure/vacuum in the brake system also on the rear brake drum mechanical parts. Our checks on the brake fluid had also indicated that the brake fluid was of sufficient level for operational purposes, and without contamination.
13. For this case, we was not able to carry out any operational tests to the steering system and brake system of the Motorcycle due to the damage of its front fork, which had rendered the Motorcycle abnormality for the operational tests. See photo 12 - 16 below.

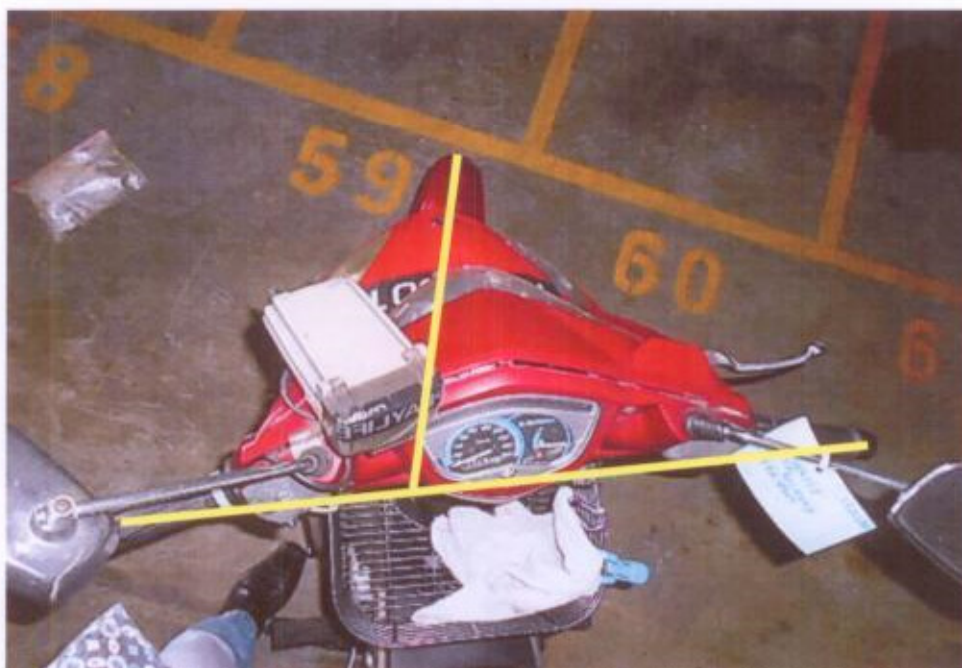


Photo 12 shows the front fork (yellow line) was observed to be misaligned as a result of the accident. Hence, we are not able to conduct any tests on the steering system of the Motorcycle.



Photo 13 shows the front brake calliper, front brake disc and front brake hose of the Motorcycle (arrowed), which are all part of the components in the front brake system of the Motorcycle. Our visual checks of these various components had revealed all to be intact with no visible damage. No leakage of brake fluid was also observed.

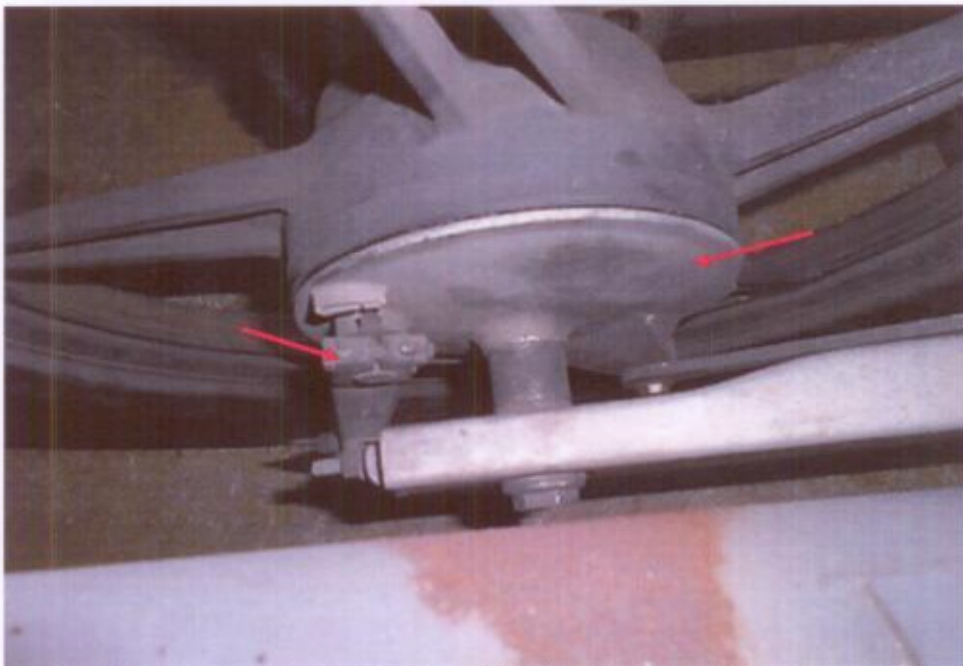


Photo 14 shows the rear brake system of the Motorcycle (arrowed). Our visual checks of these various components had revealed all to be intact with no visible damage.



Photo 15 shows the front brake static test. It was observed to be in serviceable condition at time of our inspection.



Photo 16 shows the rear brake static test of the Motorcycle. The type of brake system for the rear wheel was of mechanical type, controlled by the brake foot pedal of the Motorcycle. Our static brake test revealed that the rear brake system of the Motorcycle was in serviceable condition without damage.

Conclusion

14. At the time of our inspection of the Motorcycle, its steering system could not be tested (due to damage as a result of the accident). Its brake system was however found to be in serviceable condition.
15. Notwithstanding that the steering system could not be tested, the observations gathered from our physical inspection of the Motorcycle had indicated no evidence to suggest possible mechanical failure to the Motorcycle that may have contributed to the accident.
16. The tyres of the Motorcycle were found to be in a 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 tyre. It was sufficiently inflated for vehicular operation with remaining tread depth of approximately 2 & 3mm.
17. Our findings were based solely on a static and visual inspection of the Motorcycle. No operational test(s) could be carried out to the Motorcycle due to the damage of its front fork (as a result of the accident), which had rendered the Motorcycle's immobility.



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