

Your Ref: TP/IP/60517/2017
Our Ref :CI/TPD17022591/Z

28th November 2017

Fatal Accident Investigation Team

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

**INSPECTION REPORT OF BICYCLE (BLACK) - TRAFFIC POLICE POUND
REPORT NO. 4663/17**

1. We refer to your request dated 16th November 2017 to conduct a physical inspection of a Bicycle bearing Traffic Police Pound Report no. 4663/17 (herein referred to as "**Bicycle**"), which was involved in a fatal road traffic accident on 08th November 2017.
2. The purpose of this inspection is to primarily determine if there was any possible mechanical failure to the Bicycle that may have contributed to the accident.
3. Following the request, we had carried out a physical inspection of the Bicycle on 27th November 2017 at the premises of Traffic Police vehicle pound, 517 Airport Road Singapore 539942. We now set out below my observations and comments with respect to this inspection.

General Condition

4. The Bicycle was observed to have sustained damages at the frontal portion & along both its left side and right side. The body parts that were found to have been damaged include its handle bar, bicycle pedals & gear train amongst others as a result of the accident.

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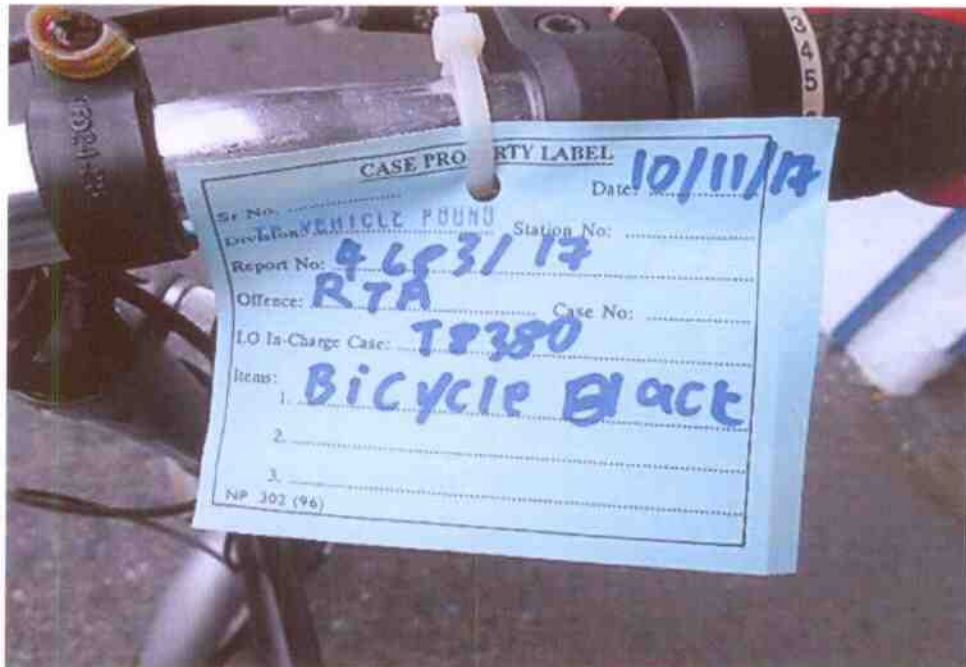


Photo 1 shows the identification of the Bicycle with reference to Traffic Police Pound Report No. 4663/17.



Photo 2 shows the frontal portion of the Bicycle at time of inspection. Misalignment of the handle bar & front tyre was observed.



Photo 3 shows the frontal portion of the Bicycle (top view) at time of inspection. Misalignment of the handle bar & front tyre was observed.



Photo 4 shows a close-up view of the left pedal of the Bicycle at the time of our inspection. It was observed to have sustained damages at the left pedal of the Bicycle.



Photo 5 shows a close-up view (top view) of the left pedal & the drive train of the Bicycle at the time of our inspection. It was observed to have sustained damages at the circled area of the Bicycle due to the accident.

Tyres and Wheel Rims

5. The condition of the Bicycle's front & rear tyres was 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. The 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:-



Cheng Shin Tire 47-305 16 X 1.75 (2mm)

Wandaking 47-305 16 X 1.75 (2mm)

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6. The tyres were wrapped around alloy spork wheel rim that was found to be without any significant damage. See photo 6 & 7 below



Photo 6 shows the rear tyre of the Bicycle at the time of our inspection. The rear tyre was observed to be in serviceable condition with remaining tread depth of approximately 2mm. The tyre was also observed to be sufficiently inflated for vehicular operation.



Photo 7 shows the front tyre of the Motorcycle. The pattern of the tread was clearly visible. 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.

Drive Train

7. The gear chain of the Bicycle was found to be deformed & misaligned as a result of the accident. Free play tension test was found to be unacceptable. See photo 8 below.



Photo 8 shows the general view of the gear train of the Motorcycle, which was observed to be misaligned due to the accident. It was not adequately lubricated at time of inspection.

Steering System & Braking System

8. For this case, we were not able to conduct any test(s) on the steering system of the Bicycle due to the damages on its front fork. The front fork was found to be misaligned as a result of the accident, hence causing the whole steering system to be out of alignment.
9. The brake system of the Bicycle was controlled by mechanical means (cables and springs). Our visual examination of the various components in the brake system, like the hand brake lever (left & right), brake clamps (front & rear), revealed all to be intact and without damage. There was also no visible tear or cut observed on the connecting cables.

10. A static brake test was conducted on the Bicycle. There was some resistance felt (spongy like feel) upon gripping both the left & right hand brake lever. This was further confirmed by looking at both brake clamps while we gripped on both hand brake levers. It shows that both brake clamps responded to the gripping action. This had appeared to indicate that the brake system was in serviceable condition
11. For this case, we was not able to carry out any operational tests to the steering system and brake system of the Bicycle due to the damage of its front fork, which had rendered the Bicycle immobility for the operational tests. We were not able to push the Bicycle manually forward and backward, simulating movement of the Bicycle, for the operational tests. See photo 9 - 13 below.



Photo 9 shows the front brake (circled) was observed to be intact without any damages. Static brake test was conducted on both front & rear brake & found to be in serviceable condition.



Photo 10 shows the front brake static test before gripping the brake lever.

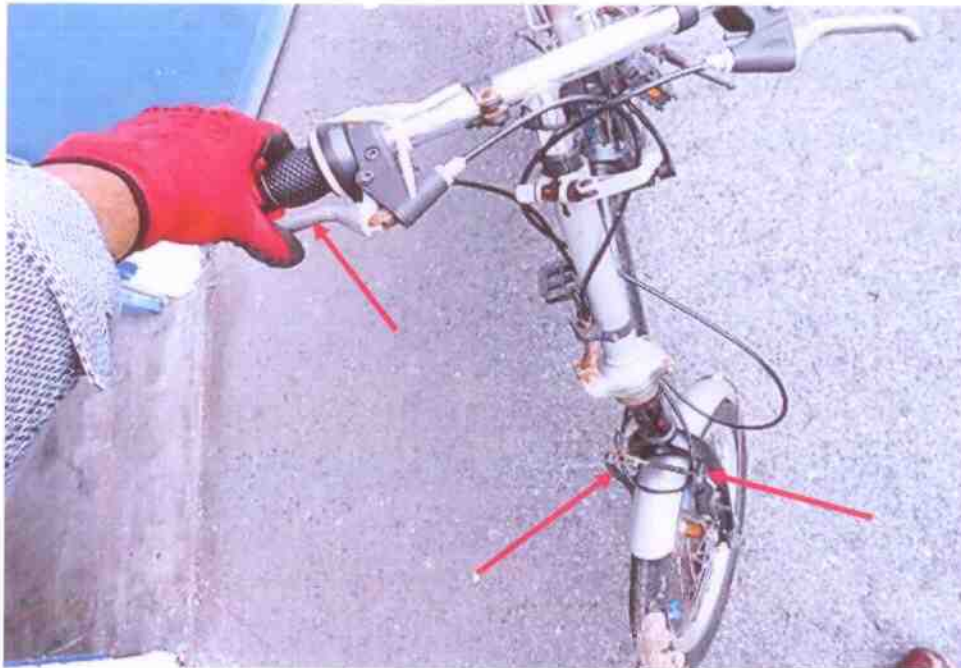


Photo 11 shows the front brake static test upon gripping the brake lever. It responded to the braking action indicates that it was in serviceable condition.



Photo 12 shows the rear brake static test before gripping the brake lever.



Photo 13 shows the rear brake static test upon gripping the brake lever. It responded to the braking action indicates that it was in serviceable condition.

Conclusion

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



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