

Your Ref: TP/IP/65207/2019
Our Ref :CI/TPD19020147/N

13 November 2019

Fatal Accident Investigation Team

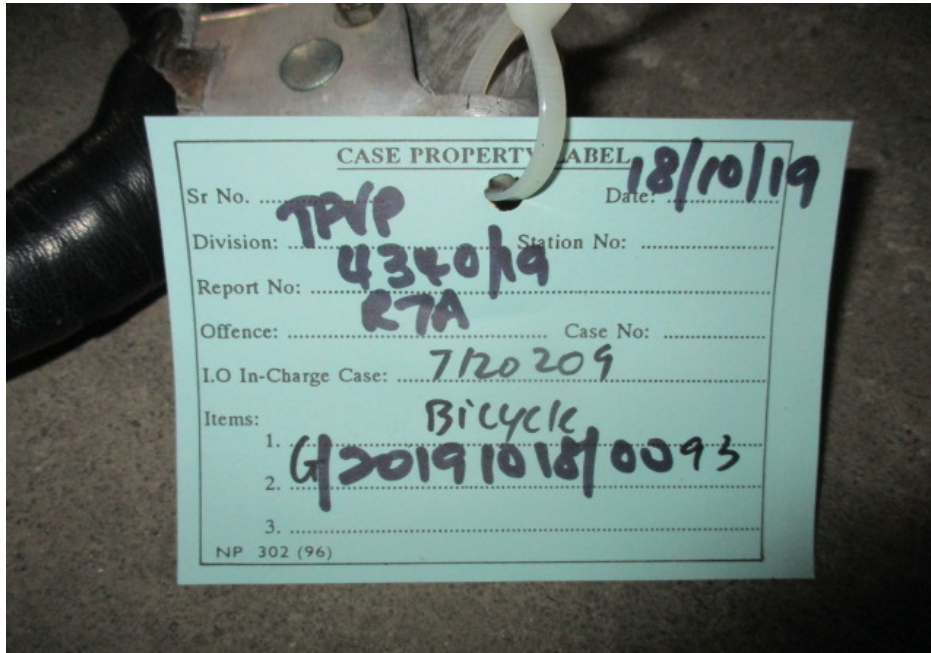
Traffic Police Department
Singapore Police Force
10 Ubi Avenue 3
Singapore 408865

**INSPECTION REPORT OF BICYCLE (WHITE & BLUE) - TRAFFIC POLICE
POUND REPORT NO. 4340/19**

1. We refer to your request dated 23 October 2019 to conduct a physical inspection of a Bicycle bearing Traffic Police Pound Report no. 4340/19 (herein referred to as "**Bicycle**"), which was involved in a fatal road traffic accident on 18 October 2019.
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 13 November 2019 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 Bicycle was observed to have sustained damages at the right and rear portion. The body parts that were found to have been damaged include its handlebar, frame, rear braking components & gear train, amongst others as a result of the accident. See photos 1 – 8 below.



CASE PROPERTY LABEL	
Sr No.	Date: 18/10/19
Division: TP/P	Station No:
Report No: 434019	
Offence: RTA	Case No:
I.O In-Charge Case: 7120209	
Items:	
1. Bicycle	
2. G2019101810093	
3.	
NP 302 (96)	

Photo 1 shows the identification of the Bicycle with reference to Traffic Police Pound Report No. 4340/17.



Photo 2 shows the left portion of the Bicycle at time of our inspection. The bicycle had sustained damages to its right and rear portion. The body parts that were found to have been damaged include its handlebar, frame, rear braking components & gear train, amongst others as a result of the accident.



Photo 3 shows the left rear portion of the Bicycle at time of our inspection. The bicycle had sustained damages to its right and rear portion.

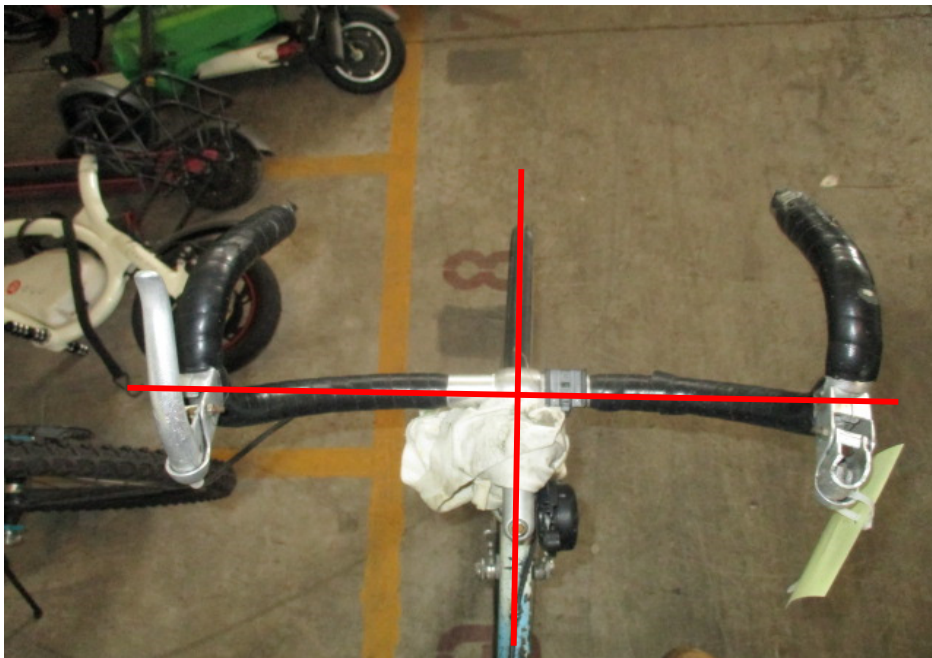


Photo 4 shows the frontal portion of the Bicycle (top view) at the time of our inspection. No misalignment of the handle bar & front tyre was observed.



Photo 5 shows the damaged right handlebar grip of the Bicycle at the time of our inspection.



Photo 6 shows a close-up view of 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.



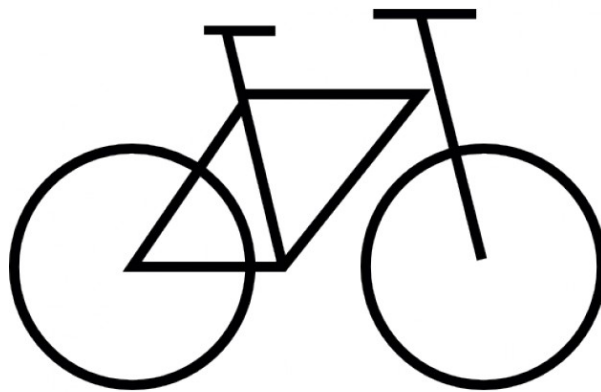
Photo 7 shows the damaged right pedal of the Bicycle at the time of our inspection.



Photo 8 shows a close-up view of the rear sub frame and gear train (arrowed) of the Bicycle at the time of our inspection. These components were observed to be pushed against the rear tyre of the Bicycle as a result of 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 front tyre was observed to be sufficiently inflated for vehicular operation. However the rear tyre was observed to be deflated. The tyre brand, tyre size and remaining tread depth of the 2 tyres were recorded as follows:-



CST 32 - 530 (27 X 1)
(Deflated)

CST 32 - 530 (27 X 1)

6. Both tyres were wrapped around alloy spoke wheel rims. At the time of our inspection, we did not observe any visible damage on the front wheel rim of the Bicycle. However we did observe that the rear wheel rim was bent and the spokes on the rear wheel rim were broken as a result of the accident. See photos 9 - 12 below.



Photo 9 shows the front tyre of the Bicycle. 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.



Photo 10 shows the rear 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. However the rear tyre was observed to be deflated due to the bent rear wheel rim.



Photo 11 shows the bent rear wheel rim of the Bicycle at the time of our inspection (arrowed).



Photo 12 shows the broken spokes on the rear wheel rim of the Bicycle at the time of our inspection (arrowed).

Drive Train

7. The gear train of the Bicycle was found to be severely damaged as a result of the accident. No free play tension test can be conducted due to the extensive damages. See photo 13 below.



Photo 13 shows a close up view of the gear train of the Bicycle, which was observed to have sustained severe damages as a result of the accident (arrowed).

Steering System & Braking System

8. Our checks on the various steering components of the Bicycle revealed that its steering system was in serviceable condition. Its front fork was found to be intact and undamaged. Turning the handle bar towards the left and right did not produce any abnormal free play and/or resistance.
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 some of the components sustained damages. However, the rear hand brake lever & connecting cables were in serviceable condition. The front hand brake lever was observed to be broken as a result of the accident. We did not observe any visible tear or cut on the connecting cables.

10. A static brake test could not be conducted on the front brake of the Bicycle due to the broken front brake lever. We also noted that the front brake clamp assembly of the Bicycle was intact however it was observed to be slightly misaligned.
11. A static brake test was conducted on the Bicycle's rear brake. The rear brake clamps responded to the gripping action after depressing the left hand brake lever. However the rear brake clamp assembly was observed to be dislodged as a result of the accident, causing the rear rubber brake blocks to be misaligned from the rear wheel rim.

Operational Test

12. We were unable to carry out an operational test of the Bicycle's braking system due to the damages sustained to the braking components as a result of the accident. See photos 14 - 22 below.



Photo 14 shows the front fork (arrowed) of the Bicycle. The front fork and fork bracket of the Bicycle were both found to be intact and undamaged. Turning the Bicycle's handle bar towards the left and right did not produce any abnormal free play. The steering system of the Bicycle was in serviceable condition at the time of our inspection.



Photo 15 shows the front wheel of the Bicycle turned towards its full right. Turning the Bicycle's handle bar towards the right did not produce any abnormal free play and/or resistance. This would indicate that the steering system of the Bicycle was in serviceable condition at the time of our inspection.



Photo 16 shows the front wheel of the Bicycle turned towards its full left. Turning the Bicycle's handle bar towards the left did not produce any abnormal free play and/or resistance. This would indicate that the steering system of the Bicycle was in serviceable condition at the time of our inspection.

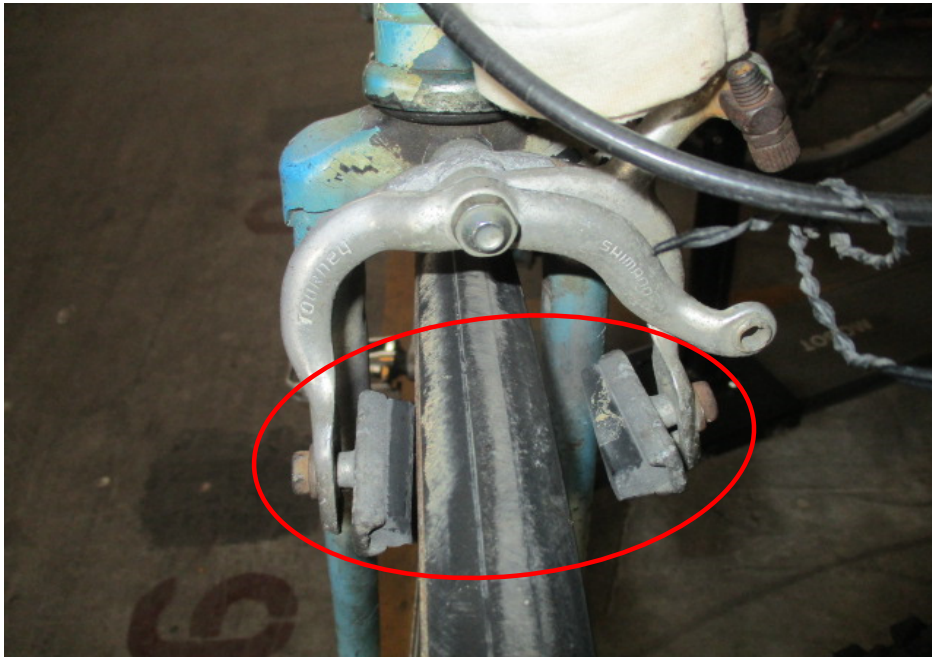


Photo 17 shows the front brake clamp assembly of the Bicycle which was intact however it was observed to be slightly misaligned (circled).

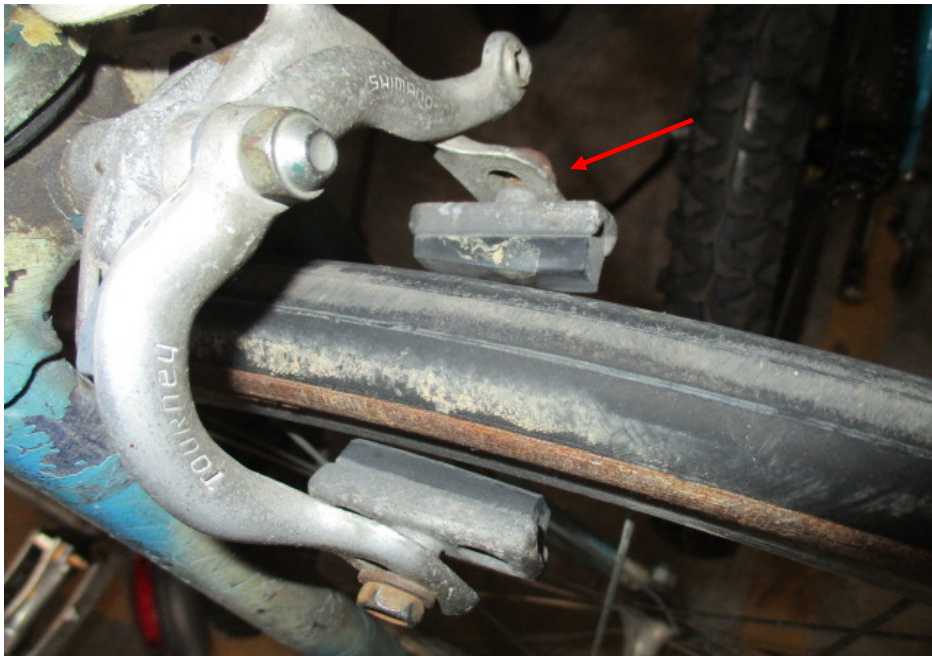


Photo 18 shows a close up view of the front brake clamp assembly of the Bicycle which was intact however it was observed to be slightly misaligned (arrowed).



Photo 19 shows the broken front brake lever as a result of the accident (arrowed). Hence a static brake test could not be conducted on the Bicycle's front braking system.



Photo 20 shows the rear brake clamp assembly which was observed to be dislodged as a result of the accident (arrowed).



Photo 21 shows a static brake test conducted on the Bicycle's rear brake. It shows that the rear brake clamps responded to the gripping action (circled) after depressing the left hand brake lever (arrowed). However the rear brake clamp assembly was observed to be dislodged as a result of the accident, causing the rear rubber brake blocks to be misaligned from the rear wheel rim.



Photo 22 shows a close up view of the rear brake rubber brake blocks which responded to the gripping action after depressing the left hand brake lever. However they were observed to be misaligned from the rear wheel rim (arrowed) due to the dislodgement of the rear brake clamp assembly and broken rear wheel rim as a result of the accident.

Conclusion

13. At the time of our inspection of the Bicycle, its steering system was found to be in serviceable condition.
14. At the time of our inspection of the Bicycle, its braking system could not be tested due to the damages as a result of the accident.
15. The 2 tyres of the Bicycle were 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 2 tyres. The front tyre was sufficiently inflated for vehicular operation. The rear tyre observed to be deflated.
16. 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 rear portion as a result of the accident which had rendered the Bicycle immobile.

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