

Your Ref: TP/IP/13255/2020
Our Ref : CI/TPD20005416/N

15 May 2020

Fatal Accident Investigation Team

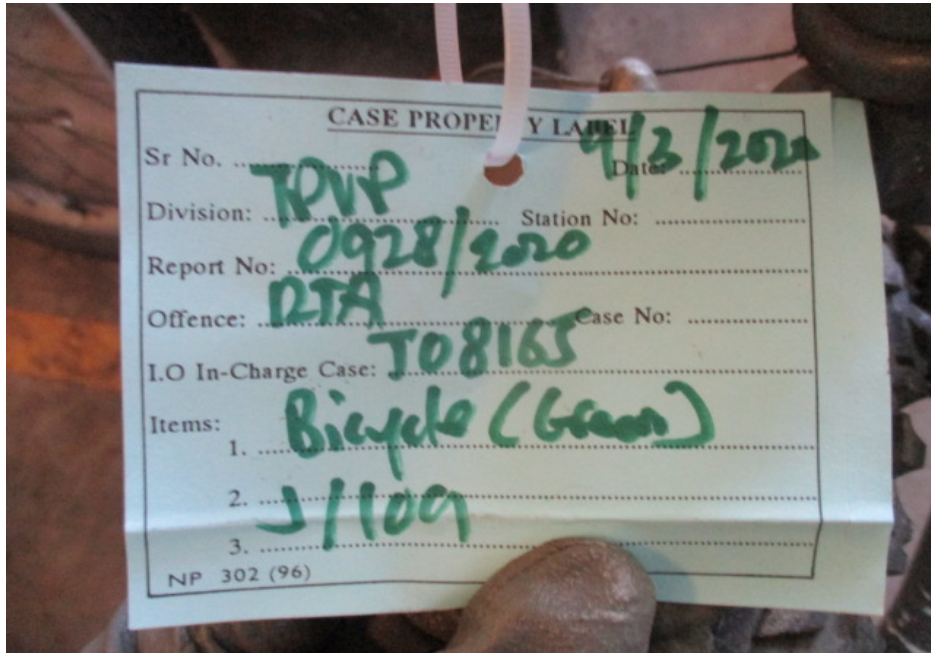
Traffic Police Department
Singapore Police Force
10 Ubi Avenue 3
Singapore 408865

**INSPECTION REPORT OF BICYCLE (DARK GREEN) - TRAFFIC POLICE
POUND REPORT NO. 0928/2020**

1. We refer to your request dated 2 April 2020 to conduct a physical inspection of a Bicycle bearing Traffic Police Pound Report no. 0928/2020 (herein referred to as "**Bicycle**"), which was involved in a fatal road traffic accident on 9 March 2020.
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 15 May 2020 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 all around. The body parts that were found to have been damaged include its front forks, handlebar, frame and braking components, amongst others as a result of the accident. See photos 1 – 9 below.



CASE PROPERTY LABEL

Sr No. Date: 9/13/2021

Division: TRVP Station No:

Report No: 0928/2020

Offence: RTA Case No:

I.O In-Charge Case: T08165

Items: Bicycle (Green)

1.

2. J/1009

3.

NP 302 (96)

Photo 1 shows the identification of the Bicycle with reference to Traffic Police Pound Report No. 0928/2020.



Photo 2 shows the frontal portion of the Bicycle at the time of our inspection. The Bicycle had sustained damages all around.



Photo 3 shows the left portion of the Bicycle at time of our inspection. The Bicycle had sustained damages all around. The Bicycle had sustained damages all around. The body parts that were found to have been damaged include its front forks, handlebar, frame and braking components, amongst others as a result of the accident.

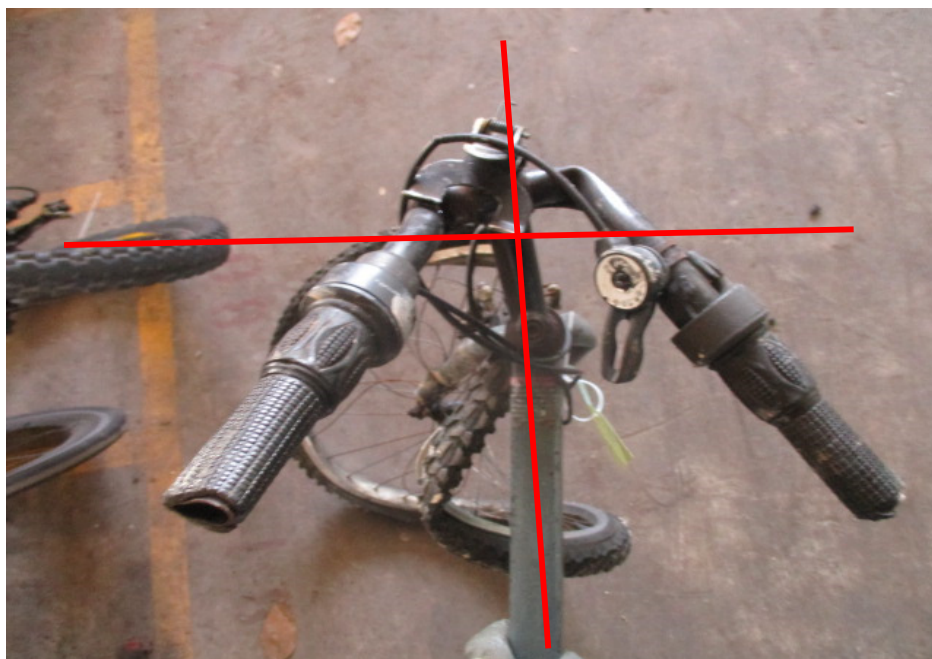


Photo 4 shows the frontal portion of the Bicycle (top view) at the time of our inspection. A misalignment of the handle bar & front tyre was observed.



Photo 5 shows the deformed handlebar of the Bicycle at the time of our inspection.



Photo 6 shows the damaged right handlebar end of the Bicycle at the time of our inspection (circled).



Photo 7 shows a close-up view of the torn seat of the Bicycle due to the accident.



Photo 8 shows the right pedal of the Bicycle which sustained damage as a result of the accident.



Photo 9 shows a close-up view of the bent rear frame which was observed to be pushed against the rear tyre of the Bicycle as a result of the accident (arrowed).

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 rear tyre was observed to be sufficiently inflated for vehicular operation. However the front tyre was observed to be deflated as a result of the accident. The tyre brand, tyre size and remaining tread depth of the 2 tyres were recorded as follows:-



Cheng Shin Tyre (26 x 1.95)

Chao Yang Tyre (26 x 1.95)
(Deflated)

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 rear wheel rim of the Bicycle. However we did observe that the front wheel rim was bent and the spokes on the front wheel rim were bent as a result of the accident. See photos 10 - 12 below.



Photo 10 shows the deflated front tyre of the Bicycle most likely as a result of the accident. 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 11 shows the bent spokes and front wheel rim of the Bicycle at the time of our inspection (arrowed).



Photo 12 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 rear tyre.

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 photos 13 & 14 below.



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



Photo 14 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). No free play tension test can be conducted due to the extensive damages.

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 bent as a result of the accident, hence causing the whole steering system to be out of alignment and rendering the Bicycle immobile for any static or operational tests.
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 levers (left & right), brake clamps (front & rear), revealed some of the components sustained damages. The front hand brake lever was jammed as a result of the accident. The rear hand brake lever was broken as a result of the accident. We did not observe any visible tear or cut on the front connecting cable. However the rear connecting cable had been disconnected from the rear hand brake lever as a result of the accident.

10. A static brake test could not be conducted on the front brake of the Bicycle due to the jammed front hand 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 could not be conducted on the rear brake of the Bicycle due to the broken rear hand brake lever as well as the disconnected rear brake connecting cable.

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 steering and braking components as a result of the accident. See photos 15 - 19 below.



Photo 15 shows the front fork (arrowed) of the Bicycle. The front fork and fork bracket of the Bicycle were both found to be bent as a result of the accident, hence causing the whole steering system to be out of alignment and rendering the Bicycle immobile for any static or operational tests.



Photo 16 shows the front brake clamp assembly of the Bicycle which was intact however it was observed to be misaligned (circled).



Photo 17 shows the jammed 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.

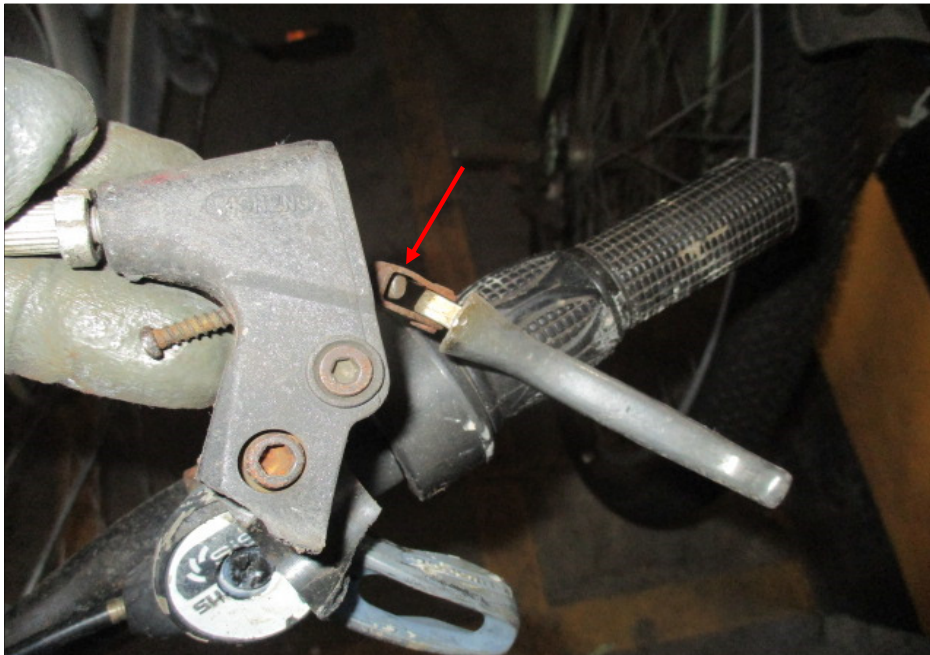


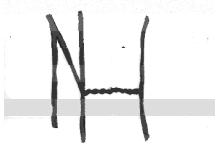
Photo 18 shows the broken rear brake lever as a result of the accident (arrowed). Hence a static brake test could not be conducted on the Bicycle's rear braking system.



Photo 19 shows the rear connecting cable which had been disconnected from the rear hand brake lever as a result of the accident (circled).

Conclusion

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

**Muhd Nazril***Senior 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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