

Your Ref: TP/IP/59995/2021
Our Ref : CI/TPD22005248/N

31 May 2022

Fatal Accident Investigation Team

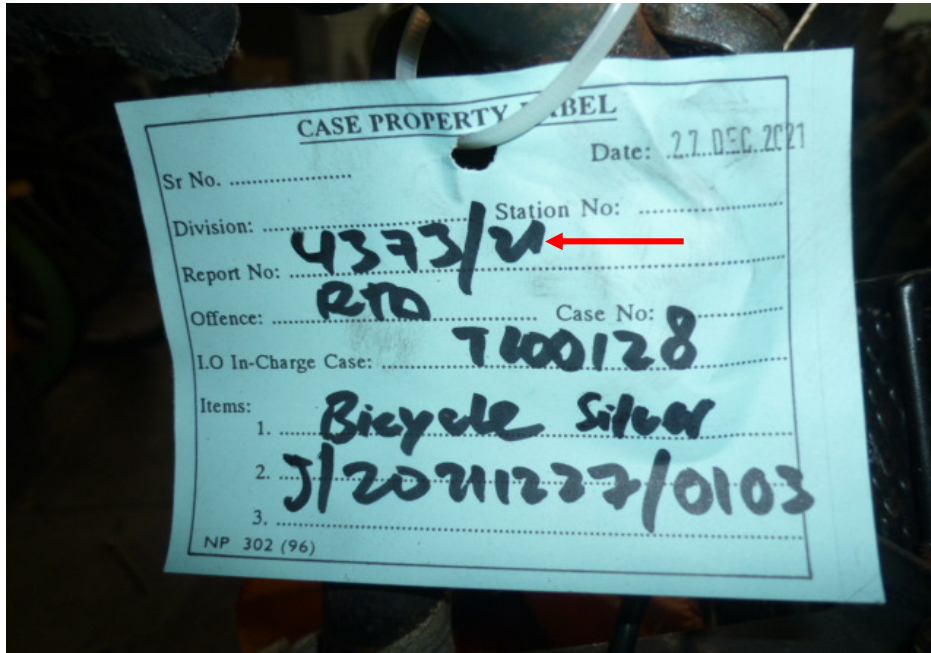
Traffic Police Department
Singapore Police Force
10 Ubi Avenue 3
Singapore 408865

**INSPECTION REPORT OF BICYCLE (BRONZE) - TRAFFIC POLICE POUND
REPORT NO. 4373/21**

1. We refer to your request dated 14 April 2022 to conduct a physical inspection of a Bicycle bearing Traffic Police Pound Report no. 4373/21 (herein referred to as "**Bicycle**"), which was involved in a fatal road traffic accident on 27 December 2021.
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 30 May 2022 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 handlebar, right handlebar grip, front basket, front fork assembly, front mudguard, left pedal, left pillion foot peg, braking components and rack, amongst others as a result of the accident. See photos 1 – 12 below.



CASE PROPERTY LABEL

Sr No. Date: 27 DEC 2021

Division: 4373/21 ← Station No:

Report No: RTO

Offence: Case No: 7600128

I.O In-Charge Case:

Items:

1. Bicycle Silver

2. 3/2021/227/0103

3.

NP 302 (96)

Photo 1 shows the identification of the Bicycle with reference to Traffic Police Pound Report No. 4373/21 (arrowed).



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 body of the Bicycle at the time of our inspection. The Bicycle had sustained damages all around.



Photo 4 shows the right body of the Bicycle at the time of our inspection. The Bicycle had sustained damages all around. The body parts that were found to have been damaged include its handlebar, right handlebar grip, front basket, front fork assembly, front mudguard, left pedal, left pillion foot peg, braking components and rack, amongst others as a result of the accident.



Photo 5 shows the frontal portion of the Bicycle (top view) at the time of our inspection. A misalignment of the handlebar & front tyre was observed.



Photo 6 shows the damaged front basket of the Bicycle at the time of our inspection.



Photo 7 shows the deformed handlebar of the Bicycle at the time of our inspection.



Photo 8 shows the damaged right handlebar grip of the Bicycle at the time of our inspection (circled).



Photo 9 shows a close-up view of the deformed front mudguard of the Bicycle due to the accident (arrowed).



Photo 10 shows the left pedal of the Bicycle which had sustained damages of grazing nature as a result of the accident (arrowed).



Photo 11 shows a close-up view of the left pillion foot peg of the Bicycle which had sustained damages of grazing nature as a result of the accident (arrowed).



Photo 12 shows the deformed rack 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 front tyre and rear tyre 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:-



CST Tyres (24 x 1.75) (3mm)

Cheng Shin Tire (24 x 1.75) (3mm)

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 and rear wheel rim of the Bicycle. See photos 13 & 14 below.



Photo 13 shows the front tyre of the Bicycle. The front tyre was observed to be in serviceable condition with remaining tread depth of approximately 3mm. 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. The front tyre was also observed to be sufficiently inflated for vehicular operation.



Photo 14 shows the rear tyre of the Bicycle. The rear tyre was observed to be in serviceable condition with remaining tread depth of approximately 3mm. 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. The rear tyre was also observed to be sufficiently inflated for vehicular operation.

Drive Train

7. The gear train of the Bicycle was found to be intact without any misalignment. It was also adequately lubricated for operating purposes. See photos 15 & 16 below.



Photo 15 shows the general view of the gear train of the Bicycle, which was observed to be intact with no misalignment. It was also adequately lubricated for operating purposes.



Photo 16 shows a closer view of the gear train of the Bicycle, which was observed to be intact with no misalignment (arrowed). It was also adequately lubricated for operating purposes.

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 assembly. The front forks were 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), drum and front brake clamp revealed some of the components sustained damages. The front brake clamp assembly of the Bicycle was intact however it was found to be misaligned as a result of the accident. The right hand brake lever was found to be missing as a result of the accident. The left hand brake lever was found to be broken due to the accident. We did not observe any visible tear or cut on the rear connecting brake cable of the Bicycle.
10. A static brake test could not be conducted on the front brake of the Bicycle due to the misaligned front brake clamp assembly as well as the missing right hand brake lever.

11. A static brake test could not be conducted on the rear brake of the Bicycle due to the broken left hand brake lever.

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 17 - 21 below.



Photo 17 shows the front fork assembly of the Bicycle. The front forks of the Bicycle were found to be bent as a result of the accident (arrowed), hence causing the whole steering system to be out of alignment and rendering the Bicycle immobile for any static or operational tests.

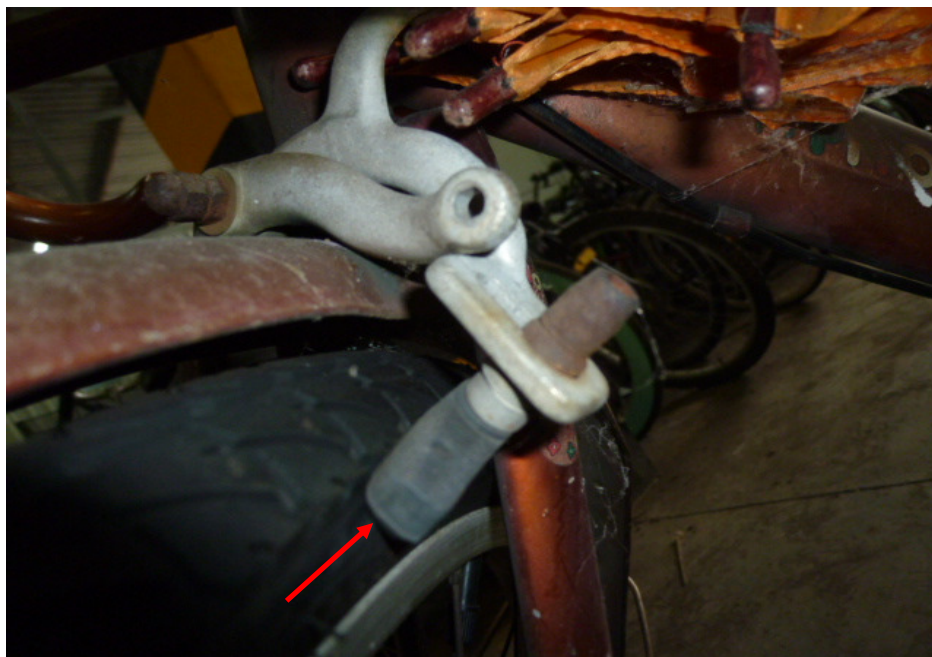


Photo 18 shows the front brake clamp assembly of the Bicycle which was intact however it was observed to be misaligned (arrowed).



Photo 19 shows the right handlebar of the Bicycle. The right hand brake lever was observed to be missing 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 left hand brake lever which was found to be broken due to the accident (arrowed). Hence a static brake test could not be conducted on the Bicycle's rear braking system.



Photo 21 shows the rear wheel of the Bicycle. The type of brake system for the rear wheel was of a mechanical type, controlled by the left hand brake lever of the Bicycle. Our checks of the cable (arrowed), spring and drum which are all part of the components in the rear brake system of the Bicycle reveal all to be intact and without damage.

Conclusion

13. At the time of our inspection of the Bicycle, its steering system & braking system could not be tested due to the damages sustained as a result of the accident.
14. The 2 tyres of the Bicycle were found to be in serviceable condition with remaining tread depth of approximately 3mm each. 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 and rear tyre were 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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