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Your Ref: TP/IP/38483/2021 30 November 2021
Our Ref : CI/TPD21010820/N

Fatal Accident Investigation Team
Traffic Police Department
Singapore Police Force
10 Ubi Avenue 3
Singapore 408865

INSPECTION REPORT OF BICYCLE (SILVER) - TRAFFIC POLICE POUND REPORT NO. 2688/21

1. We refer to your request dated 22 September 2021 to conduct a physical inspection of a Bicycle bearing Traffic Police Pound Report no. 2688/21 (herein referred to as **"Bicycle"**), which was involved in a fatal road traffic accident on 13 August 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 29 November 2021 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 right hand brake lever, right handlebar grip, left fork stem, right pedal, left rear frame and rack, amongst others as a result of the accident. See photos 1 – 10 below.

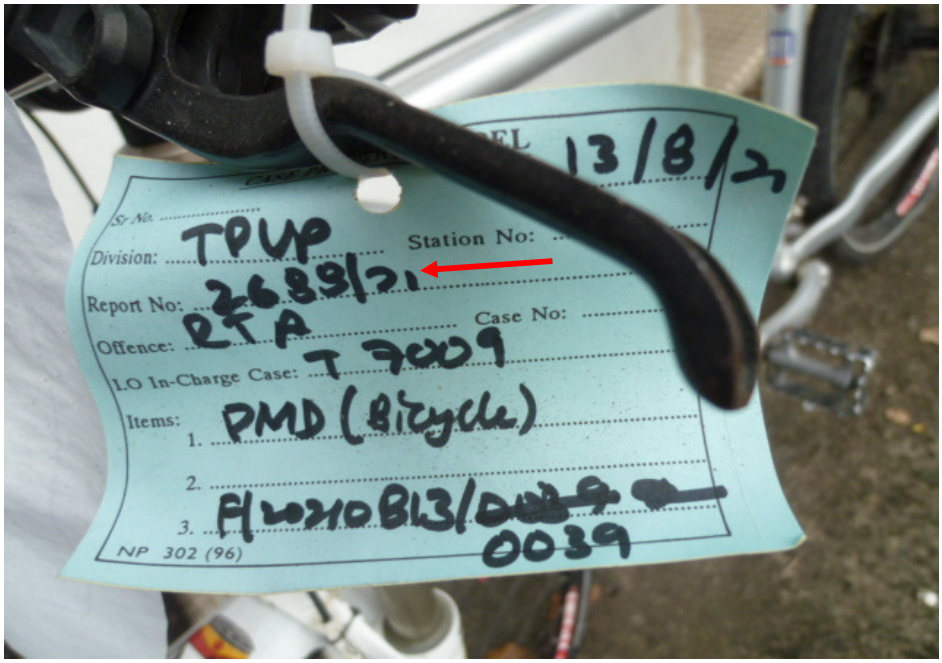


Photo 1 shows the identification of the Bicycle with reference to Traffic Police Pound Report No. 2688/21 (arrowed).

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

Photo 3 shows the rear portion of the Bicycle at time of our inspection. The Bicycle had sustained damages all around.

Photo 4 shows the left body of the Bicycle at time of our inspection. The Bicycle had sustained damages all around. The body parts that were found to have been damaged include its right hand brake lever, right handlebar grip, left fork stem, right pedal, left rear frame and rack, amongst others as a result of the accident.

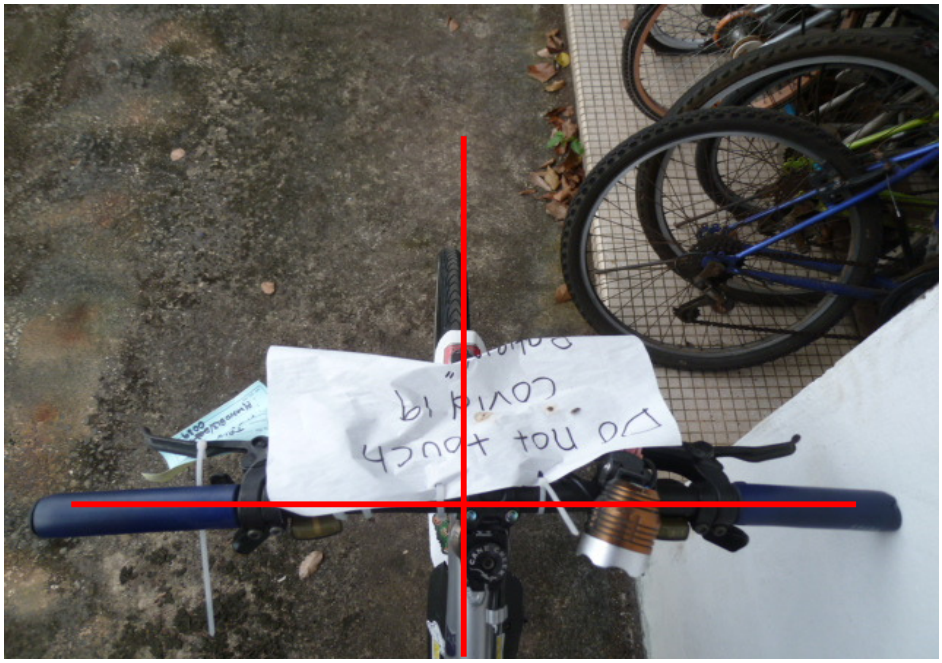


Photo 5 shows the frontal portion of the Bicycle (top view) at the time of our inspection. There was no misalignment of the handle bar & front tyre observed.

Photo 6 shows the damaged right hand brake lever and right handlebar grip (arrowed) of the Bicycle at the time of our inspection.

Photo 7 shows the damages of grazing nature on the left fork stem (arrowed) of the Bicycle at the time of our inspection.

Photo 8 shows the damages of grazing nature on the right pedal of the Bicycle at the time of our inspection.

Photo 9 shows the damages of grazing nature on the left rear frame of the Bicycle at the time of our inspection (arrowed).

Photo 10 shows a close-up view of the damages of grazing nature on the rack (arrowed) 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 at the time of our inspection. The tyre brand, tyre size and remaining tread depth of the 2 tyres were recorded as follows:-

Maxxis 26 x 1.75 (Deflated)

Maxxis 26 x 1.75

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 11 - 13 below.

Photo 11 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. The front tyre was also observed to be sufficiently inflated for vehicular operation.

Photo 12 shows the rear 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. However the rear tyre was observed to be deflated.

Photo 13 shows the deflated rear tyre of the Bicycle (arrowed).

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 14 & 15 below.

Photo 14 shows the general 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.

Photo 15 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. Our checks on the various steering components of the Bicycle revealed that its steering system was in serviceable condition. Its front fork assembly 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 braking system of the Bicycle was controlled by mechanical means (cables, calipers, brake discs and brake pads). Our visual examination of the various components in the brake system, like the left hand brake lever, right hand brake lever, brake discs, brake pads and brake calipers, revealed all to be intact and without damage. There was also no visible tear or cut observed on the connecting hoses and cables.

10. A static brake test was conducted on the front brake of the Bicycle. There was some resistance felt upon pressing the left hand brake lever. This was further confirmed by looking at the front brake pads while we pressed the left hand brake lever. It shows that the front brake pads responded to the gripping action. The front brake pads pressed against the front brake disc. This had appeared to indicate that the front brake of the Bicycle was in serviceable condition.

11. A static brake test was conducted on the rear brake of the Bicycle. There was some resistance felt upon pressing the right hand brake lever. This was further confirmed by looking at the rear brake pads while we pressed the right hand brake lever. It shows that the rear brake pads responded to the gripping action. The rear brake pads pressed against the rear brake disc. This had appeared to indicate that the rear brake of the Bicycle was in serviceable condition.

Operational Test

12. We subsequently carried out an operational test of the Bicycle's braking system. This was done by manually pushing the Bicycle forward and backward, simulating the Bicycle in motion, and thereafter engaging the front brake and rear brake levers of the Bicycle. At the end of the short operational test, we did not observe any abnormal behaviour of the Bicycle's braking system. The front and rear wheel of the Bicycle was able to stop rotating immediately upon depressing both brake levers. See photos 16 – 22 below.

Photo 16 shows the front fork assembly (arrowed) of the Bicycle. The front forks 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 17 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 18 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 19 shows a static brake test conducted on the Bicycle's front brake. There was some resistance felt upon pressing the left hand brake lever (arrowed). It also shows that the front brake pads responded to the gripping action (circled) after depressing the right hand brake lever.

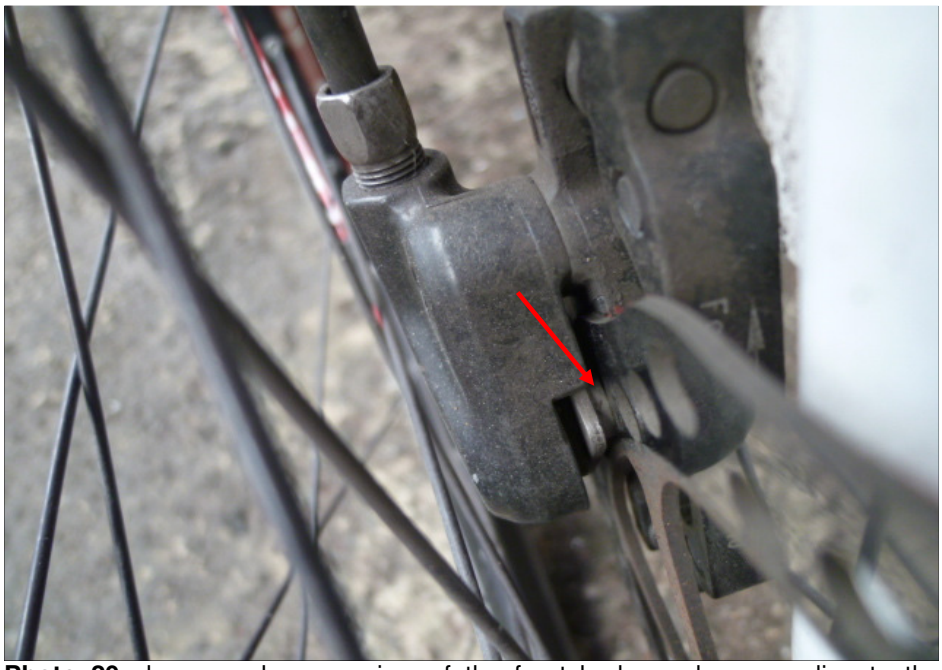


Photo 20 shows a close up view of the front brake pads responding to the gripping action. The front brake pads pressed against the front brake disc (arrowed) upon depressing the left hand brake lever. This had appeared to indicate that the front brake of the Bicycle was in serviceable condition.

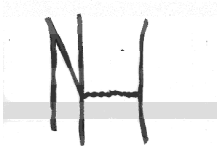
Photo 21 shows a static brake test conducted on the Bicycle's rear brake. There was some resistance felt upon pressing the right hand brake lever (arrowed). It also shows that the rear brake pads responded to the gripping action (circled) after depressing the right hand brake lever.

Photo 22 shows a close up view of the rear brake pads responding to the gripping action. The rear brake pads pressed against the rear brake disc (arrowed) upon depressing the right hand brake lever. This had appeared to indicate that the rear brake of the Bicycle was in serviceable condition.

Conclusion

13. Basing on our physical inspection of the Bicycle, it appears that the steering system and braking system of the Bicycle were all in serviceable condition. We did not find any evidence(s) to suggest that there was possible mechanical failure to the Bicycle that may have caused and/or contributed to the accident.

14. The 2 tyres of the Bicycle were found to be in serviceable condition (which had included the deflated rear 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 front tyre was observed to be sufficiently inflated for vehicular operation.



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