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Your Ref: TP/IP/32286/2022 17 February 2023
Our Ref : CI/TPD23001715/N

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

INSPECTION REPORT OF BICYCLE (BLUE CANYON) - TRAFFIC POLICE POUND REPORT NO. 4625/22

1. We refer to your request dated 13 December 2022 to conduct a physical inspection of a Bicycle bearing Traffic Police Pound Report no. 4625/22 (herein referred to as **"Bicycle"**), which was involved in a fatal road traffic accident on 11 November 2022.

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 16 February 2023 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 fork assembly, right rear sub frame, pedals, gear train, seat, water bottle holder and rear wheel rim, amongst others as a result of the accident. See photos 1 – 9 below.

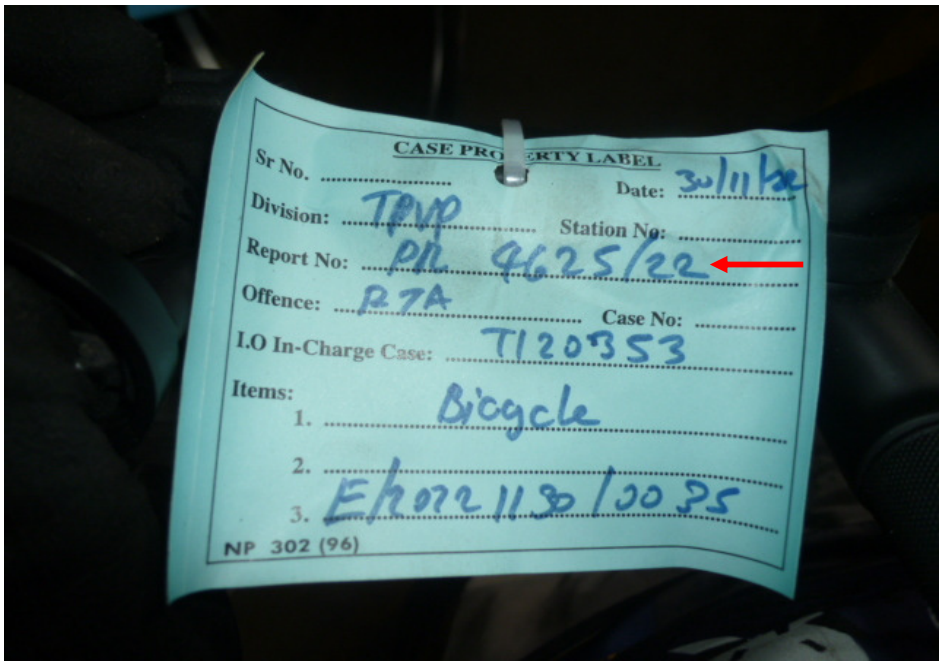


Photo 1 shows the identification of the Bicycle with reference to Traffic Police Pound Report No. 4625/22 (arrowed).

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

Photo 3 shows the right 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 front basket, rear sub frame, pedals, braking components, gear train and rack, amongst others as a result of the accident.

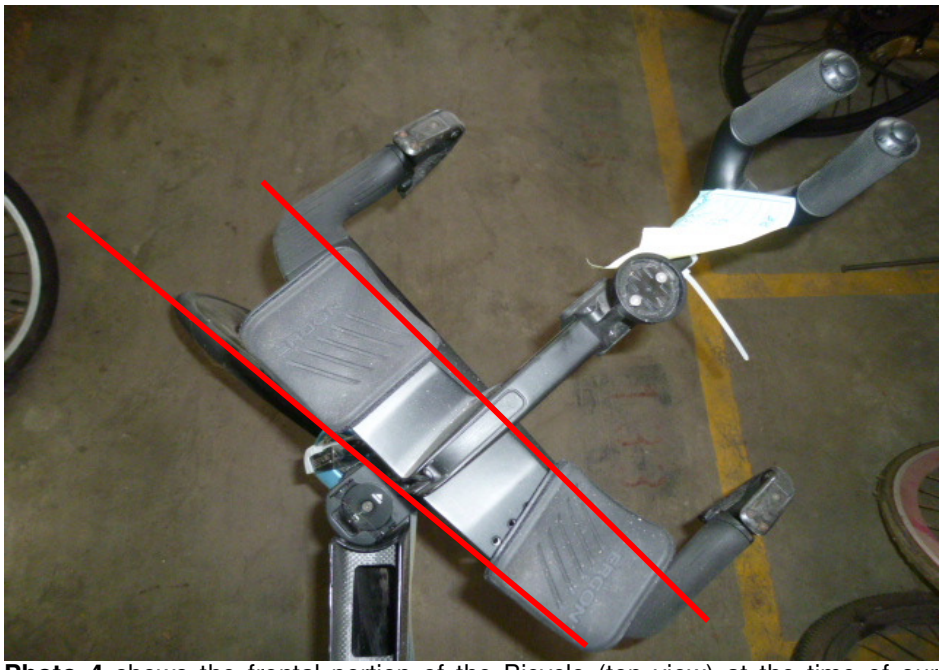


Photo 4 shows the frontal portion of the Bicycle (top view) at the time of our inspection. A misalignment of the handle bar & front tyre was observed.

Photo 5 shows the dislodged seat of the Bicycle at the time of our inspection (arrowed).

Photo 6 shows a close-up view of the deformed water bottle holder of the Bicycle as a result of the accident (arrowed).

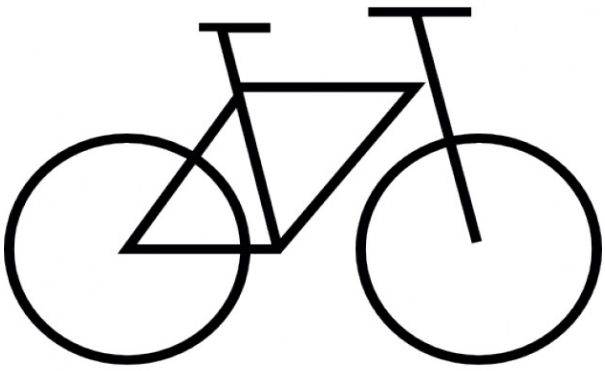
Photo 7 shows the grazed left pedal of the Bicycle as a result of the accident (arrowed).

Photo 8 shows a close-up view of the broken right pedal of the Bicycle as a result of the accident (arrowed).

Photo 9 shows the grazed right rear sub frame 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. However both the front & rear tyres were 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:-



Continental 25 – 622 (700 x 25C) (Deflated)

Continental 25 – 622 (700 x 25C) (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 front wheel rim of the Bicycle. However we did observe that the rear wheel rim was broken and the spokes on the rear wheel rim were bent as a result of the accident. See photos 10 - 13 below.

Photo 10 shows the 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 deflated front tyre of the Bicycle at the time of our inspection (arrowed).

Photo 12 shows the deflated rear 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 rear tyre.

Photo 13 shows the bent spokes and broken 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 broken as a result of the accident. The chain was also observed to be dislodged from the gear train most likely as a result of the accident. No free play tension test can be conducted due to the extensive damages. See photos 14 & 15 below.

Photo 14 shows the general view of the gear train of the Bicycle which was found to be broken as a result of the accident (arrowed). The chain was also observed to be dislodged from the gear train most likely as a result of the accident.

Photo 15 shows a close up view of the dislodged chain of the Bicycle 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 forks. 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 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 no 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 had not responded to the gripping action. The front brake pads did not press against the front brake disc. This had appeared to indicate that the front brake of the Bicycle was not in serviceable condition.

11. A static brake test was conducted on the rear brake of the Bicycle. There was no 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 had not responded to the gripping action. The rear brake pads did not press against the rear brake disc. This had appeared to indicate that the rear brake of the Bicycle was not in serviceable condition.

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 components as a result of the accident. See photos 16 – 20 below.

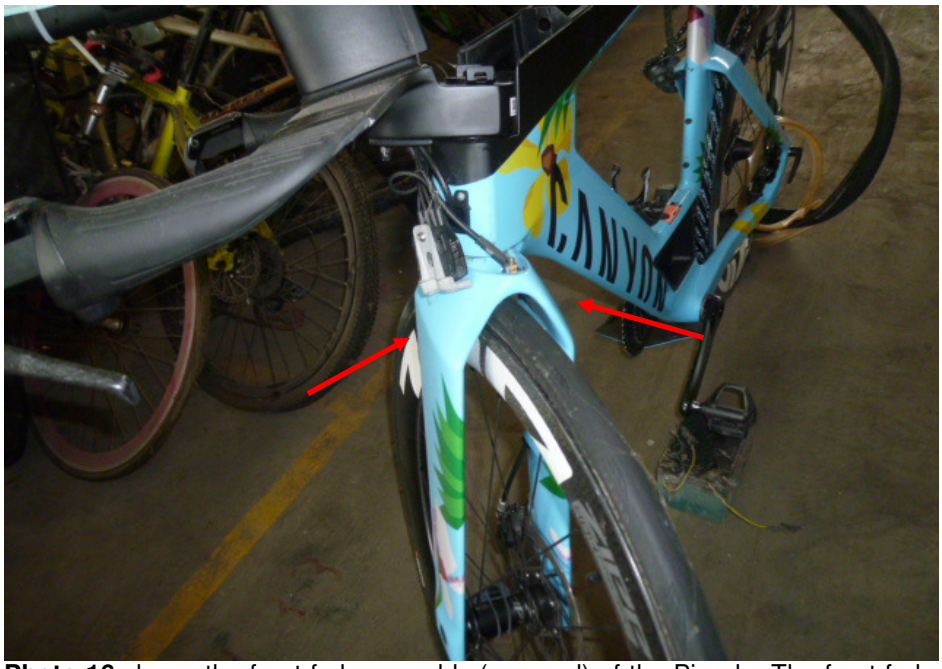


Photo 16 shows the front fork assembly (arrowed) of the Bicycle. The front forks and fork bracket of the Bicycle were both found to be bent as a result of the accident, hence causing the whole steering system to be out of alignment and rendering the Bicycle immobile for any static or operational tests.

Photo 17 shows a static brake test conducted on the Bicycle's front brake. There was no resistance felt upon pressing the left hand brake lever (arrowed). It also shows that the front brake clamps had not responded to the gripping action (circled) after depressing the left hand brake lever.

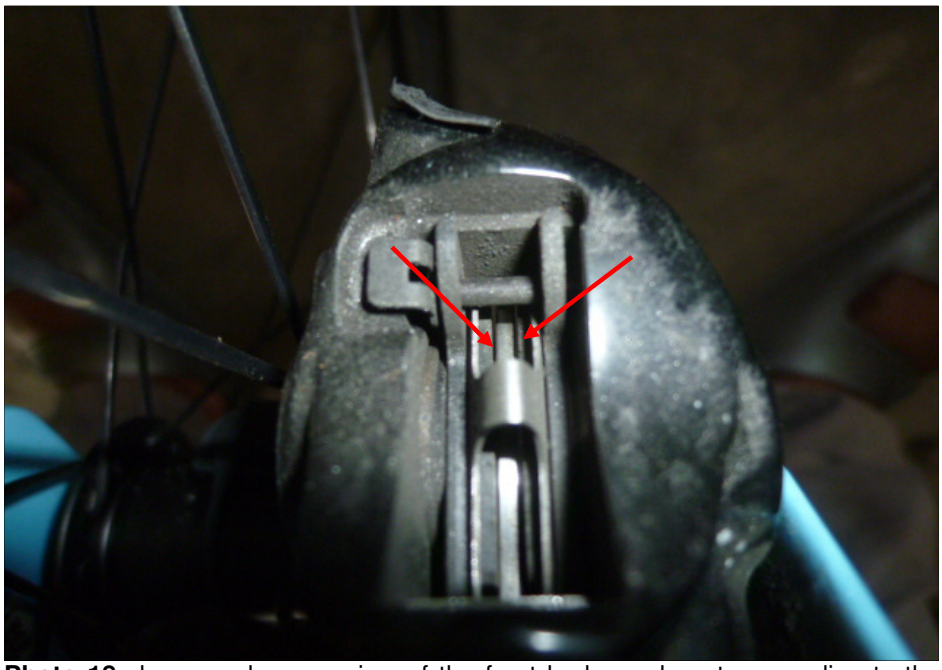


Photo 18 shows a close up view of the front brake pads not responding to the gripping action. The front brake pads did not press against the front brake disc (arrowed) upon depressing the left hand brake lever. This had appeared to indicate that the front brake of the Bicycle was not in serviceable condition.

Photo 19 shows a static brake test conducted on the Bicycle's rear brake. There was no resistance felt upon pressing the right hand brake lever (arrowed). It also shows that the rear brake clamps had not responded to the gripping action (circled) after depressing the right hand brake lever.

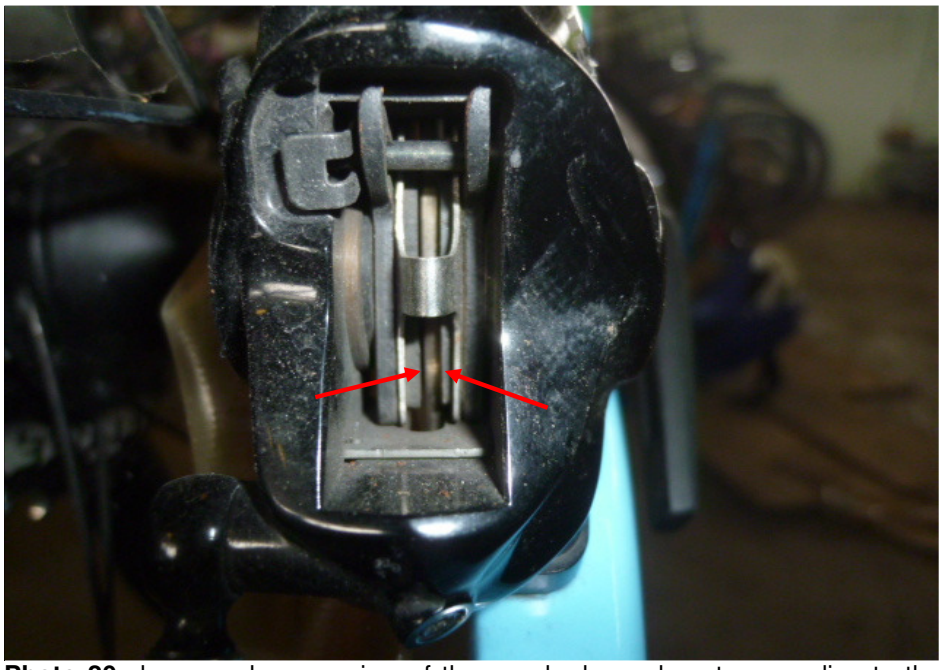


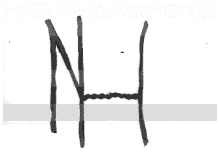
Photo 20 shows a close up view of the rear brake pads not responding to the gripping action. The rear brake pads did not press against the rear brake disc (arrowed) upon depressing the right hand brake lever. This had appeared to indicate that the rear brake of the Bicycle was not in serviceable condition.

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 and 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.

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 as a result of the accident which had rendered the Bicycle immobile.



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