

Your Ref: TP/IP/08448/2022
Our Ref : CI/TPD22005262/N

5 July 2022

Fatal Accident Investigation Team

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

INSPECTION REPORT OF MOTORCYCLE FBH 7625K

1. We refer to your request dated 30 May 2022 to conduct a physical inspection of a motorcycle bearing registration number FBH 7625K (herein referred to as "**Motorcycle**"), which was involved in a fatal road traffic accident on 13 April 2022.
2. The purpose of this inspection is to primarily determine if there was any possible mechanical failure to the Motorcycle that may have contributed to the accident.
3. Following the request, we had carried out a physical inspection of the Motorcycle on 4 July 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 mileage of the Motorcycle could not be recorded at the time of our inspection due to a broken key.
5. The Motorcycle was observed to have sustained damages all around. The body parts that were found to have been damaged include its windshield, head cowlings, front mudguard, fork assembly, side mirrors, side cowlings, lower side cowlings, left pillion step panel, rear side covers, top box and exhaust muffler heat shield, amongst others as a result of the accident. See photos 1 – 18 below.



Photo 1 shows the ignition of the Motorcycle at the time of our inspection. The mileage of the Motorcycle could not be recorded at the time of our inspection due to a broken key (arrowed).



Photo 2 shows a general view of the rear portion of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained damages all around.



Photo 3 shows a general view of the left body of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained damages all around.



Photo 4 shows a general view of the frontal portion of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained damages all around. The body parts that were found to have been damaged include its windshield, head cowl, front mudguard, fork assembly, side mirrors, side cowlings, lower side cowlings, left pillion step panel, rear side covers, top box and exhaust muffler heat shield, amongst others as a result of the accident.



Photo 5 shows a closer view of the cracked windshield of the Motorcycle at the time of our inspection (arrowed).



Photo 6 shows a closer view of the grazed head cowl of the Motorcycle as a result of the accident (arrowed).



Photo 7 shows a closer view of the grazed front mudguard of the Motorcycle as a result of the accident (arrowed).



Photo 8 shows a closer view of the left side mirror of the Motorcycle which was observed to be damaged due to the accident (arrowed).



Photo 9 shows a closer view of the right side mirror of the Motorcycle which was observed to be damaged due to the accident (arrowed).



Photo 10 shows the grazed left side cowling of the Motorcycle as a result of the accident (arrowed).



Photo 11 shows the grazed right side cowling of the Motorcycle as a result of the accident (arrowed).



Photo 12 shows a close-up view of the cracked right lower side cowling of the Motorcycle as a result of the accident.



Photo 13 shows a close-up view of the grazed left lower side cowling of the Motorcycle as a result of the accident (arrowed).



Photo 14 shows a general view of the cracked left pillion step panel of the Motorcycle as a result of the accident (arrowed).

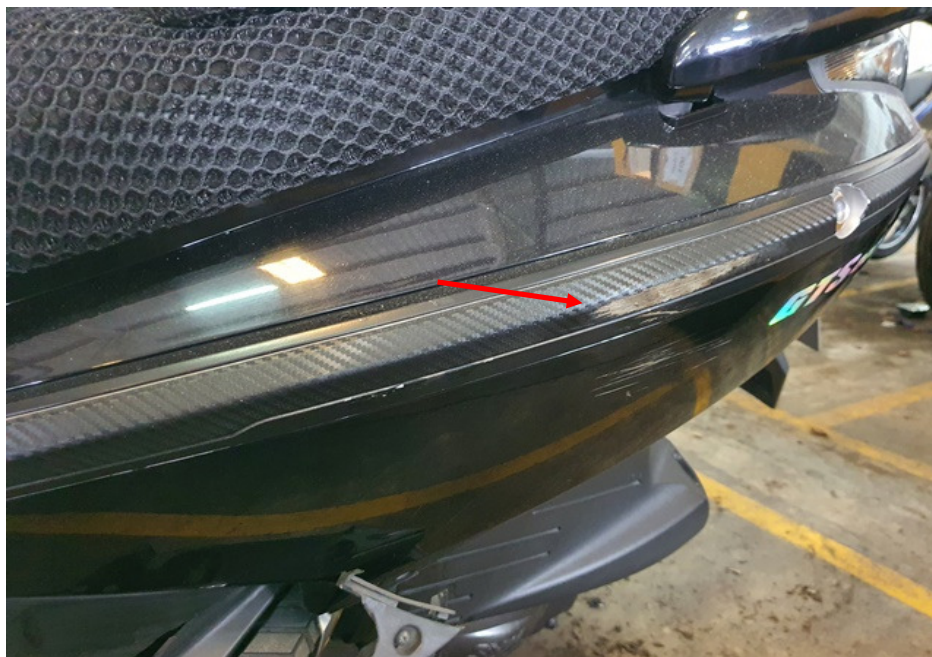


Photo 15 shows a close-up view of the grazed left rear side cover of the Motorcycle as a result of the accident (arrowed).



Photo 16 shows a close-up view of the grazed right rear side cover and right pillion grab rail of the Motorcycle as a result of the accident (arrowed).



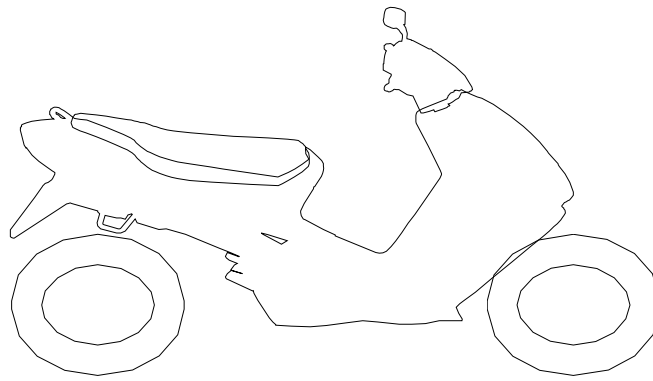
Photo 17 shows a close-up view of the grazed top box of the Motorcycle as a result of the accident (arrowed).



Photo 18 shows a close-up view of the dented exhaust muffler heat shield of the Motorcycle as a result of the accident (arrowed).

Tyres and Wheel Rims

6. The condition of the Motorcycle's 2 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 2 tyres were both 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:-



Pirelli 130/70 - 12 (4mm)

Michelin 110/90 - 13 (4mm)

7. The 2 tyres were wrapped around alloy wheel rims. At the time of our inspection, we did not observe any visible damage on the front and rear wheel rim of the Motorcycle. See photos 19 & 20 below.



Photo 19 shows the condition of the Motorcycle's front tyre. The front tyre was observed to be in serviceable condition with remaining tread depth of approximately 4mm. 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 20 shows the condition of the Motorcycle's rear tyre. The rear tyre was observed to be in serviceable condition with remaining tread depth of approximately 4mm. The tyre was also observed to be sufficiently inflated for vehicular operation. 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 rear tyre.

Engine & Drive Train

8. Upon examination of the Motorcycle's engine area, we had observed that the various engine related parts and components were intact with no visible damage. There was also no sign(s) or indication(s) of fluid leak observed around the engine area of the Motorcycle.
9. The drive train of the Motorcycle was found to be intact without any misalignment. There was also no visible tear or cut observed on the connecting hoses and cables. The shock absorbers were also observed to be intact without any misalignment. See photos 21 - 24 below.



Photo 21 shows the right side of the engine of the Motorcycle at the time of our inspection. The various engine related parts and components were found to be intact with no visible damage. There was also no sign(s) or indication(s) of fluid leak observed around the right engine area of the Motorcycle.



Photo 22 shows the drive train cover of the Motorcycle which was found to be intact without any misalignment.



Photo 23 shows the left shock absorber of the Motorcycle which was found to be intact without any misalignment.



Photo 24 shows the right shock absorber of the Motorcycle which was found to be intact without any misalignment.

Steering System & Braking System

10. For this case, we were not able to conduct any test(s) on the steering system of the Motorcycle due to the damage of its front forks. The front forks were found to be bent as a result of the accident.
11. The braking system of the Motorcycle was observed to be of a full hydraulic type, where hydraulic (brake fluid) pressure controls the brake for the front wheel and rear wheel. The brake for the front wheel is engaged by pulling the brake lever at the right side of the Motorcycle's handle bar while the brake for the rear wheel is engaged by pulling the brake lever at the left side of the Motorcycle's handle bar.
12. Static brake tests conducted on the Motorcycle had appeared to indicate that the brake system of the Motorcycle was in serviceable condition. There was some resistance felt (spongy like feel) upon pressing both brake levers. This would indicate that there's no leakage of pressure/vacuum in the braking system. Our checks on the brake fluid had also indicated that the brake fluid was of sufficient level for operational purposes and without contamination.

13. For this case, we were not able to carry out any operational tests to the steering system and front braking system of the Motorcycle due to the damage of its front forks, which had rendered the Motorcycle immobile for the operational tests. We were not able to push the Motorcycle manually forward and backward, simulating movement of the Motorcycle, for the operational tests. See photos 25 – 31 below.

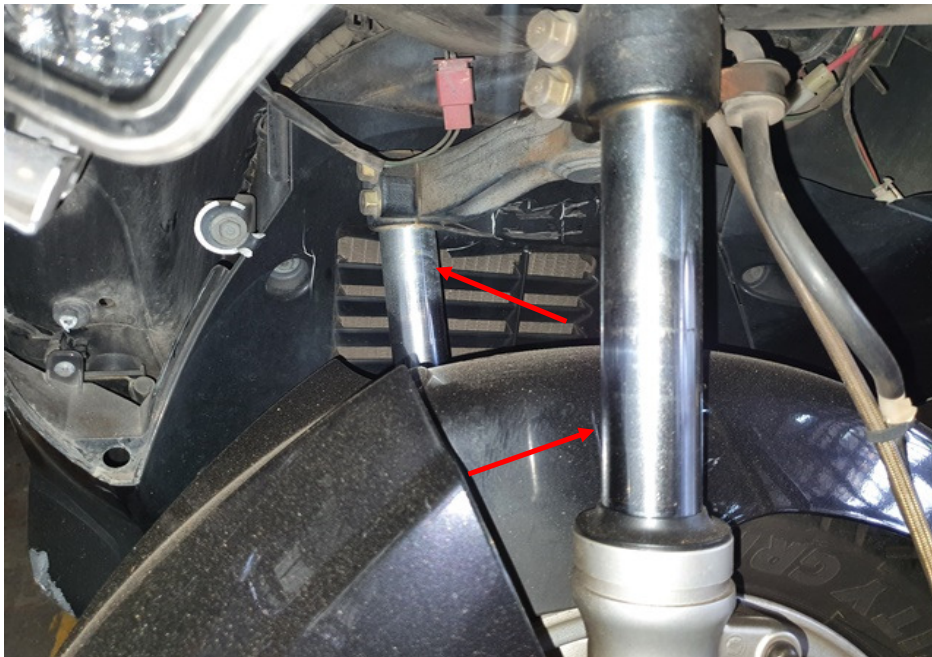


Photo 25 shows the front forks of the Motorcycle. The front forks (arrowed) were observed to be bent as a result of the accident. We were hence not able to conduct any tests on the steering system of the Motorcycle.



Photo 26 shows a close up view of the front brake caliper, front brake disc and front brake hose (arrowed) of the Motorcycle, which are all part of the components in the hydraulic front brake system of the Motorcycle. Our visual checks of these various components had revealed all to be intact with no visible damage. No leakage of brake fluid was also observed.



Photo 27 shows the brake fluid reservoir for the front brake of the Motorcycle. The brake fluid was observed to be of sufficient level for operational purposes and without contamination.



Photo 28 shows the front brake lever being depressed. There was some resistance felt (spongy like feel) upon pressing the front brake lever (arrowed). This would indicate that there is no leakage of pressure/vacuum in the brake system.



Photo 29 shows the brake fluid reservoir for the rear brake of the Motorcycle. The brake fluid was observed to be of sufficient level and without contamination for operational purposes.



Photo 30 shows the rear brake lever being depressed. There was some resistance felt (spongy like feel) upon pressing the front brake lever (arrowed). This would indicate that there is no leakage of pressure/vacuum in the brake system.



Photo 31 shows a close up view of the rear brake caliper, rear brake disc and rear brake hose (arrowed) of the Motorcycle, which are all part of the components in the hydraulic rear brake system of the Motorcycle. Our visual checks of these various components revealed all to be intact with no visible damage. No leakage of brake fluid was also observed.

Conclusion

14. For this particular case, we were unable to determine whether there was any possible mechanical failure to the Motorcycle that may have contributed to the accident. This was mainly due to the extent of damage that it had sustained. Its steering system was damaged as a result of the accident. The braking system of the Motorcycle was observed to be in serviceable condition.
15. The tyres of the Motorcycle were found to be in a 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 tyres. It was sufficiently inflated for vehicular operation with remaining tread depth of approximately 4mm each.

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