

Your Ref: TP/IP/35321/2021
Our Ref : CI/TPD21010819/N

21 October 2021

Fatal Accident Investigation Team

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

INSPECTION REPORT OF MOTORCYCLE FBR 5386K

1. We refer to your request dated 22 September 2021 to conduct a physical inspection of a motorcycle bearing registration number FBR 5386K (herein referred to as "**Motorcycle**"), which was involved in a fatal road traffic accident on 23 July 2021.
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 21 October 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 mileage of the Motorcycle could not be recorded at the time of our inspection due to damages sustained to the seat which prevented access to the battery compartment. Hence we were unable to jumpstart the battery.
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 cowling, front mudguard, rear brake lever, left side mirror, left handlebar end, left side cowling, left lower side cowling, seat, rear side covers and exhaust muffler, amongst others as a result of the accident. See photos 1 – 16 below.

CASE PROSECUTION LABEL

Sr No. Date: 24/7/21

Division: TDP Station No:

Report No: 2482/21 ←

RTA

Offence: Case No:

I.O In-Charge Case: T8165

Items:

1. FBR 5386K

2.

3. E120210724340154

NP 302 (96)

Photo 1 shows the identification of the Motorcycle (circled) with reference to Traffic Police Pound Report No. 2482/21 (arrowed).



Photo 2 shows the damages sustained to the seat of the Motorcycle which prevented access to the battery compartment (circled). Hence we were unable to jumpstart the battery to record the mileage of the Motorcycle at the time of our inspection.



Photo 3 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 4 shows a general view of the right body of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained damages all around.



Photo 5 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 6 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, rear brake lever, left side mirror, left handlebar end, left side cowling, left lower side cowling, seat, rear side covers and exhaust muffler, amongst others as a result of the accident.



Photo 7 shows a closer view of the deformed head cowl and windshield of the Motorcycle at the time of our inspection (arrowed).



Photo 8 shows a closer view of the grazed front mudguard which was amongst the body parts at the front body of the Motorcycle that had sustained damage as a result of the accident.



Photo 9 shows a closer view of the missing right rear side cover of the Motorcycle as a result of the accident.



Photo 10 shows a closer view of the left side mirror, left handlebar end and rear brake lever of the Motorcycle which were observed to be damaged due to the accident (circled).



Photo 11 shows a general view of broken seat of the Motorcycle as a result of the accident (arrowed).



Photo 12 shows the grazed left side cowling of the Motorcycle as a result of the accident (arrowed).



Photo 13 shows a close-up view of the tail light assembly of the Motorcycle as a result of the accident.



Photo 14 shows a close-up view of the cracked left lower side cowling of the Motorcycle as a result of the accident.



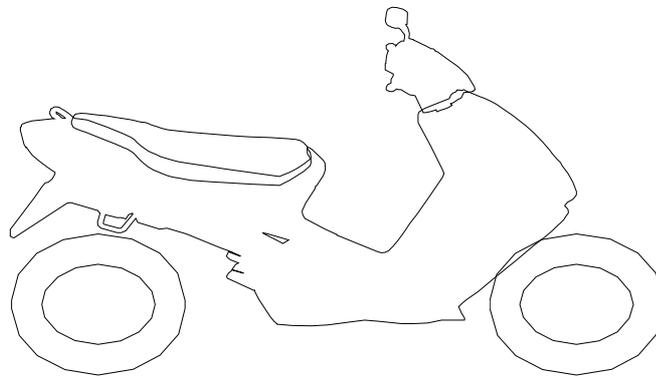
Photo 15 shows a closer view of the missing left rear side cover of the Motorcycle as a result of the accident.



Photo 16 shows a closer view of the deformed exhaust muffler of the Motorcycle as a result of the accident.

Tyres and Wheel Rims

6. The condition of the front tyre of the Motorcycle was observed to be in serviceable condition. 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 front tyre. The front tyre was observed to be sufficiently inflated for vehicular operation. However we observed a tear on the rear tyre. The rear tyre was also observed to be deflated as a result of the accident. The tyre brand, tyre size and remaining tread depth of the 2 tyres were



Maxxis 140/70 - 14 (4mm)
Cut / Deflated

Dunlop 120/70 - 15 (3mm)

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 17 - 19 below.



Photo 17 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 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.



Photo 18 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. However the tyre was observed to be deflated. We also observed a tear on the front tyre as a result of the accident.



Photo 19 shows a closer view of the tear on the rear tyre as a result of the accident (arrowed).

Engine & Drive Train

8. Upon examination of the Motorcycle's engine area, we had observed fluid leak around the left engine area of the Motorcycle.
9. The drive train of the Motorcycle was found to be intact without any misalignment. However the drive train cover had sustained damages of grazing nature as a result of the accident. There was no visible tear or cut observed on the connecting hoses and cables. The shock absorbers were also observed to be damaged as a result of the accident. See photos 20 - 24 below.



Photo 20 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 21 shows the drive train of the Motorcycle which was found to be intact without any misalignment. However the drive train cover had sustained damages of grazing nature as a result of the accident (circled). Upon closer examination of the Motorcycle's left engine area, we had observed fluid leak around the left engine area of the Motorcycle (arrowed).

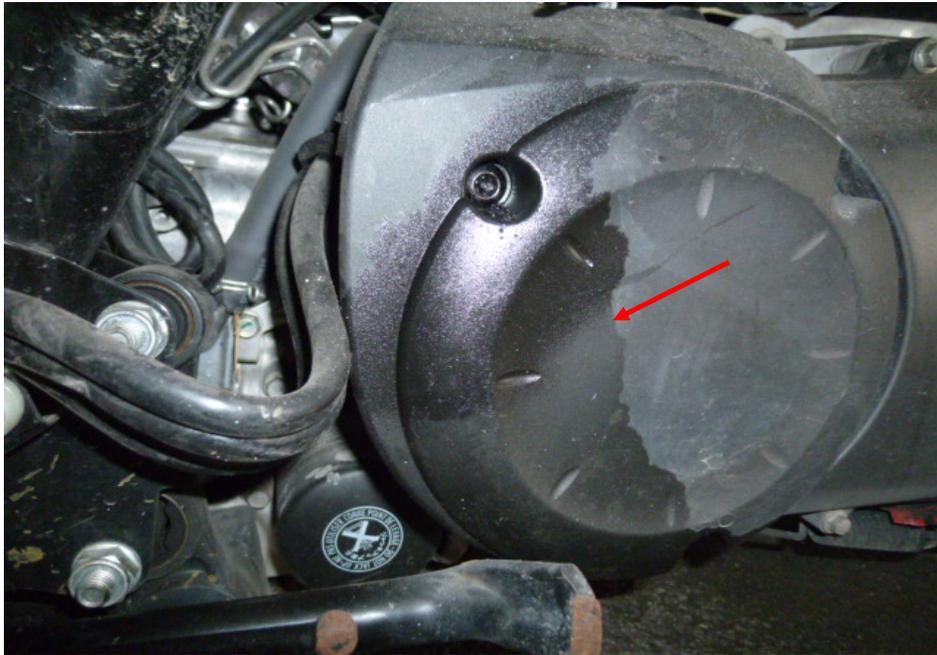


Photo 22 shows the fluid leak observed around the left engine area of the Motorcycle (arrowed).



Photo 23 shows the damaged left shock absorber of the Motorcycle as a result of the accident.



Photo 24 shows the damaged right shock absorber of the Motorcycle as a result of the accident.

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 to its rear swingarm which had rendered the Motorcycle immobile.
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 front brake system of the Motorcycle was in serviceable condition. There was some resistance felt (spongy like feel) upon pressing the right hand brake lever. This would indicate that there's no leakage of pressure/vacuum in the front brake 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. Static brake tests conducted on the Motorcycle had appeared to indicate that the rear brake system of the Motorcycle was in serviceable condition. There was some resistance felt (spongy like feel) upon pressing the left hand brake lever. This would indicate that there's no leakage of pressure/vacuum in the rear brake system. Our checks on the brake fluid had also indicated that the brake fluid was observed to be of sufficient level for operational purposes. However it was found to be slightly contaminated.
14. For this case, we were not able to carry out any operational tests to the steering system and braking system of the Motorcycle due to the damage to its rear swingarm, 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 damage to the rear swingarm of the Motorcycle (arrowed) which had rendered the Motorcycle immobile for any static or operational tests on its steering system and braking system.



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 without contamination and of sufficient level for operational purposes.



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 front brake system.

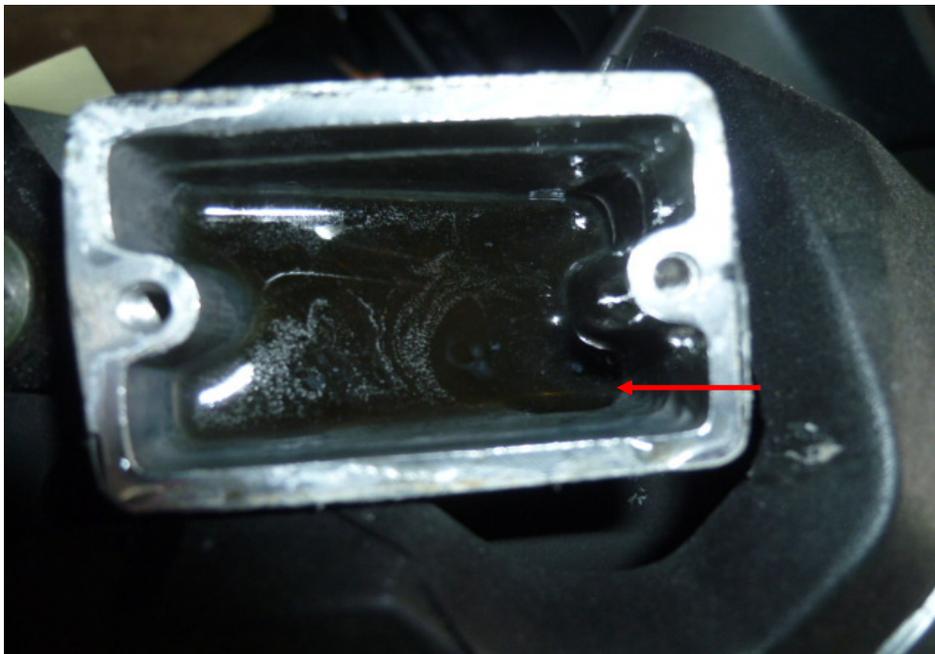


Photo 29 shows the brake fluid reservoir for the rear brake of the Motorcycle. The brake fluid was observed to be of sufficient level for operational purposes. However it was found to be slightly contaminated (arrowed).



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

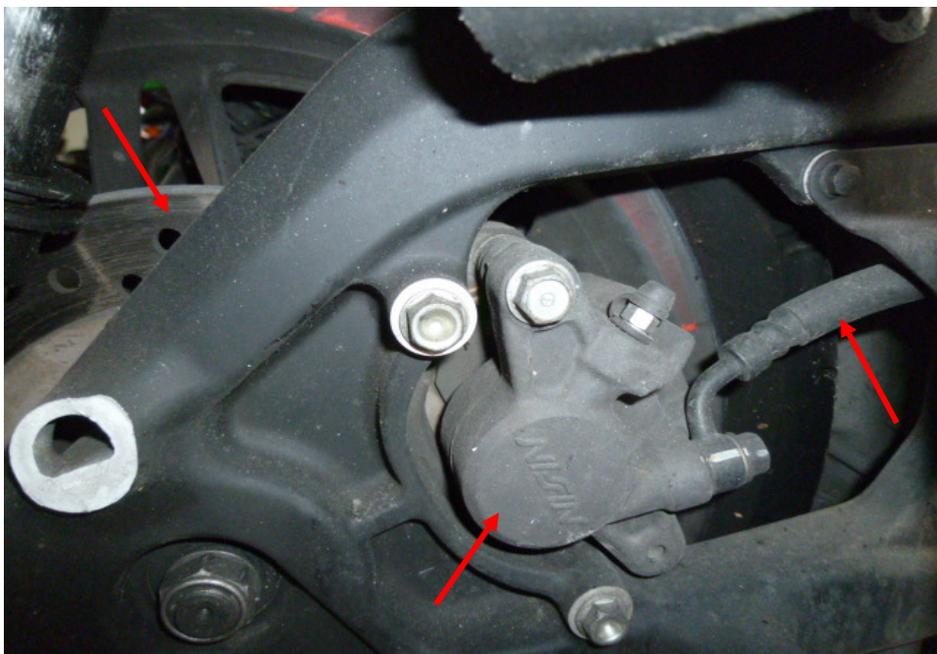


Photo 31 shows a close up view of the rear brake caliper, rear brake disc and rear brake hose (arrowed) of the Motorcycle, which are all part of the components in the hydraulic rear brake system of the Motorcycle. Our visual checks of these various components revealed all to be intact with no visible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

Conclusion

15. 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 rear swingarm was damaged as a result of the accident. The braking system of the Motorcycle was observed to be in serviceable condition.
16. The 2 tyres of the Motorcycle were found to be in serviceable condition (which had included the torn 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 front tyre. The front tyre was sufficiently inflated for vehicular operation. Both tyres had remaining tread depth of approximately 3mm and 4mm.
17. Our findings were based solely on a static and visual inspection of the Motorcycle. No operational test(s) could be carried out to the Motorcycle due to the damage of its rear swingarm (as a result of the accident), which had rendered the Motorcycle immobile.



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