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Our Ref : CI/TPD23001378/N

17 March 2023

Fatal Accident Investigation Team

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

INSPECTION REPORT OF MOTORCYCLE FBK 265X

1. We refer to your request dated 7 February 2023 to conduct a physical inspection of a motorcycle bearing registration number FBK 265X (herein referred to as “**Motorcycle**”), which was involved in a fatal road traffic accident on 4 January 2023.
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 16 March 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 mileage of the Motorcycle could not be recorded at the time of our inspection due to damages sustained to the speedometer gauge.
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, steering stem, right side mirror, side cowlings, inner centre cowling, lower side cowlings, right centre side cover, left rear side cover and left rear signal lamp, amongst others as a result of the accident. See photos 1 – 15 below.



Photo 1 shows the speedometer of the Motorcycle. The mileage of the Motorcycle could not be recorded at the time of our inspection due to damages sustained to the speedometer gauge (arrowed).



Photo 2 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.



Photo 3 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 4 shows a general view of the left 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, steering stem, right side mirror, side cowlings, inner centre cowl, lower side cowlings, right centre side cover, left rear side cover and left rear signal lamp, amongst others as a result of the accident.



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



Photo 6 shows a closer view of the cracked inner centre cowling of the Motorcycle as a result of the accident (arrowed).



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



Photo 8 shows a closer view of the right side mirror, right handlebar end and front brake lever of the Motorcycle which were observed to be damaged due to the accident (arrowed).



Photo 9 shows the cracked left side cowling of the Motorcycle as a result of the accident (arrowed).



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



Photo 11 shows a close-up view of the cracked right lower side cowling of the Motorcycle as a result of the accident.



Photo 12 shows a close-up view of the cracked left lower side cowling of the Motorcycle as a result of the accident (arrowed).



Photo 13 shows a general view of the cracked right centre cover of the Motorcycle as a result of the accident (arrowed).



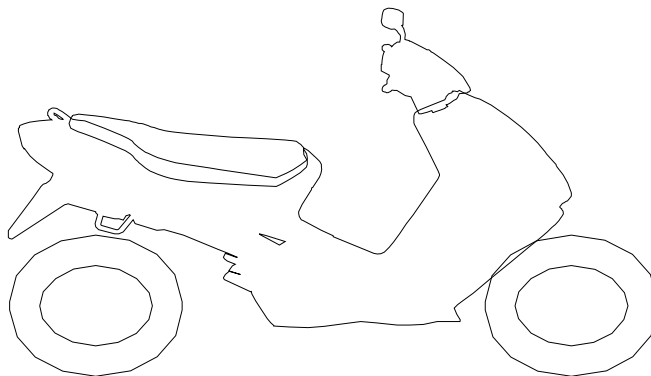
Photo 14 shows a close-up view of the cracked left rear side cover of the Motorcycle as a result of the accident (arrowed).



Photo 15 shows a close-up view of the cracked left rear signal lamp 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:-



Timsun 150/70 - 13 (4mm)

Pirelli 120/80 - 14 (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 16 & 17 below.



Photo 16 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. The tyre was also observed to be sufficiently inflated for vehicular operation.



Photo 17 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. 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 of the Motorcycle were also found to be intact without any misalignment. See photos 18 - 21 below.



Photo 18 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 19 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).



Photo 20 shows the left shock absorber of the Motorcycle which was found to be intact without any misalignment.



Photo 21 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 steering stem. The steering stem was 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 for the front brake and rear brake was of sufficient level for operational purposes. However the brake fluid for the front brake and rear brake was found to be contaminated.
13. 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 of steering stem, 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 22 – 28 below.

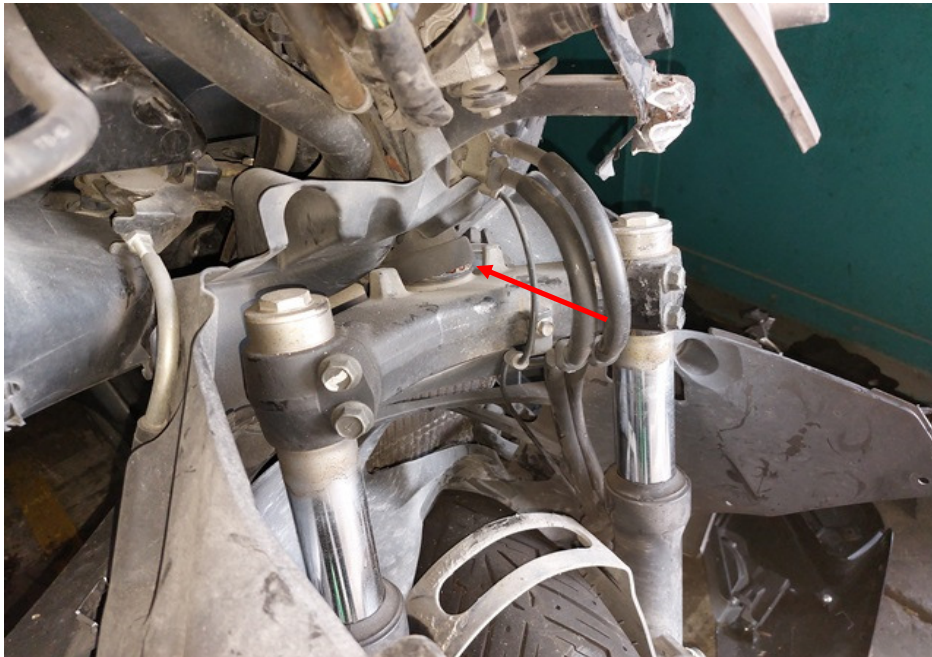


Photo 22 shows the steering stem of the Motorcycle. The steering stem (arrowed) was observed to be bent as a result of the accident. We were hence not able to conduct any tests on the steering system of the Motorcycle.

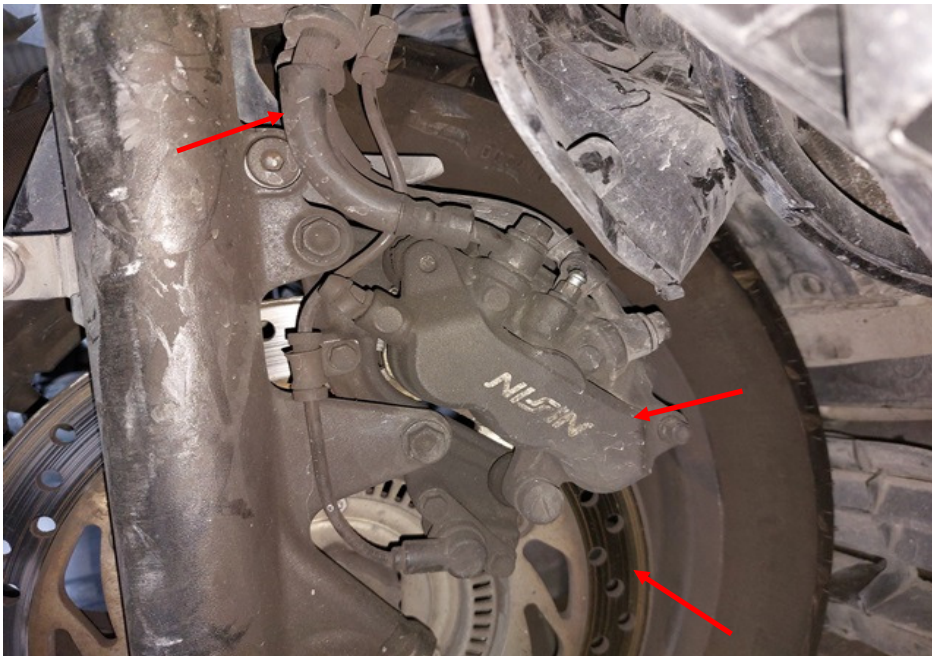


Photo 23 shows a close up view of the front brake caliper, front brake disc and front brake hose (arrowed) of the Motorcycle, which are all part of the components in the hydraulic front brake system of the Motorcycle. Our visual checks of these various components had revealed all to be intact with no visible damage. No leakage of brake fluid was also observed.



Photo 24 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. However it was found to be contaminated (arrowed).

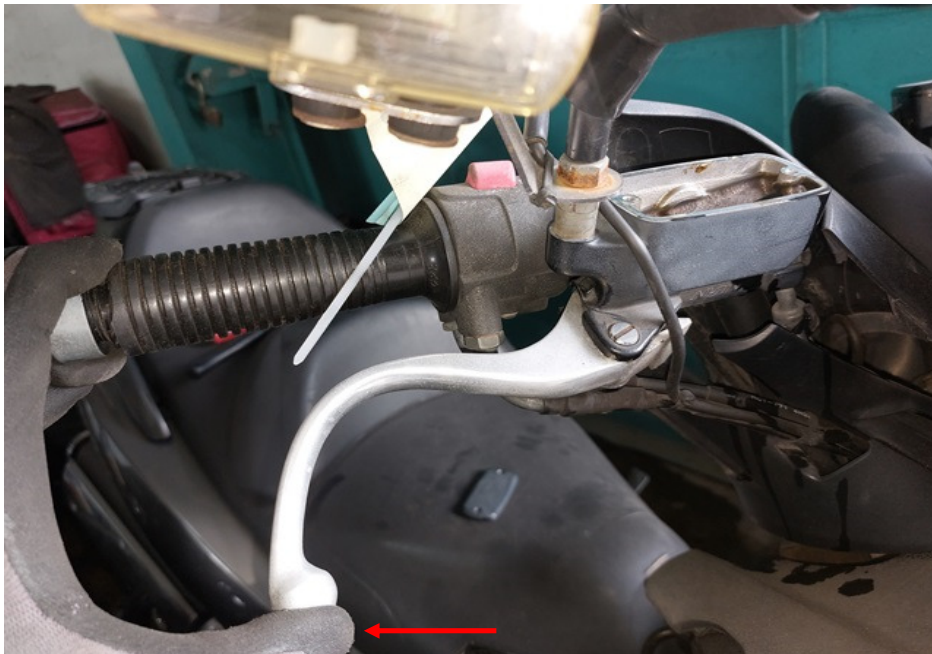


Photo 25 shows the front brake lever being depressed. There was some resistance felt (spongy like feel) upon pressing the front brake lever (arrowed). This would indicate that there is no leakage of pressure/vacuum in the front brake system.



Photo 26 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 contaminated (arrowed).



Photo 27 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 rear brake system.

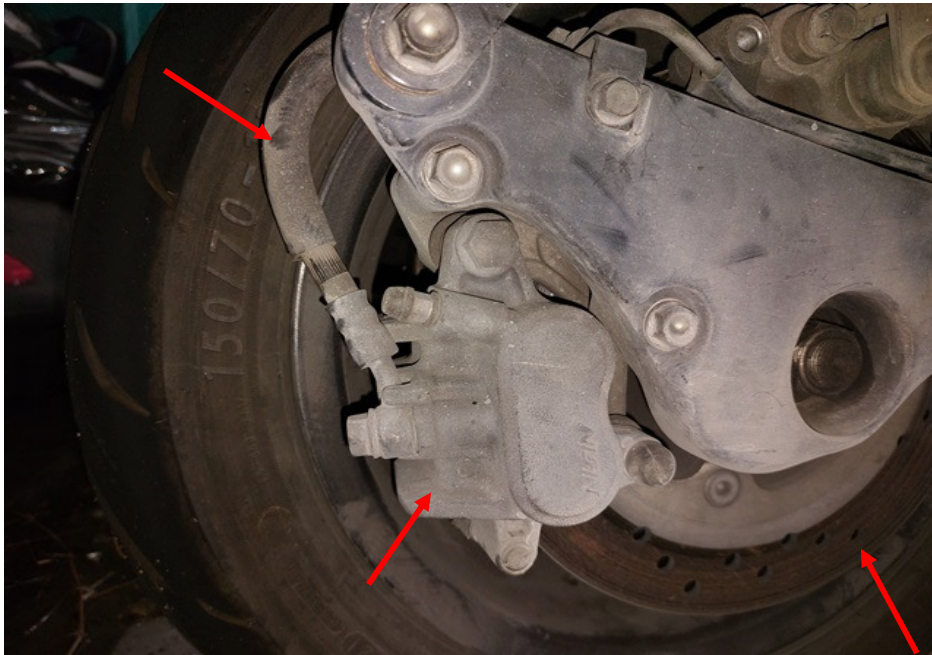


Photo 28 shows a close up view of the rear brake caliper, rear brake disc and rear brake hose (arrowed) of the Motorcycle, which are all part of the components in the hydraulic rear brake system of the Motorcycle. Our visual checks of these various components revealed all to be intact with no visible 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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