LKK Auto Consultants Pte Ltd
Company Registration No. 199607198R
51 UBI AVE 1, #01-25 PAYA UBI INDUSTRIAL PARK, SINGAPORE 408933 TEL : (065) 62563561 FAX : (065) 67414108

Your Ref: TP/IP/22475/2022
Our Ref : CI/TPD22011550/N

19 January 2022

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

INSPECTION REPORT OF MOTORCYCLE FBM 9526Z

1. We refer to your request dated 31 October 2022 to conduct a physical inspection of a motorcycle bearing registration number FBM 9526Z (herein referred to as **"Motorcycle"**), which was involved in a fatal road traffic accident on 19 August 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 18 January 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 unavailability of the ignition key.

5. The Motorcycle was observed to have sustained minor damages at the frontal portion and left body. The body parts that were found to have been damaged include its front mudguard, rear brake lever, left side mirror, left handlebar end, left side cowling, left rear bottom cowling, main stand, left pillion footpeg and top box, amongst others as a result of the accident. See photos 1 – 11 below.

Photo 1 shows a general view of the rear portion of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained minor damages at the frontal portion and left body.

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 minor damages at the frontal portion and left body.

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 minor damages at the frontal portion and left body.

Photo 4 shows a general view of the left body of the Motorcycle at the time of our inspection. The body parts that were found to have been damaged include its front mudguard, rear brake lever, left side mirror, left handlebar end, left side cowling, left rear bottom cowling, main stand, left pillion footpeg and top box, amongst others as a result of the accident.

Photo 5 shows a closer view of the 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 (circled).

Photo 6 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 7 shows the damaged left side cowling of the Motorcycle. The damage sustained was mainly of grazing nature.

Photo 8 shows a close-up view of the left lower side cowling of the Motorcycle at the time of our inspection. The damage sustained was mainly of grazing nature.

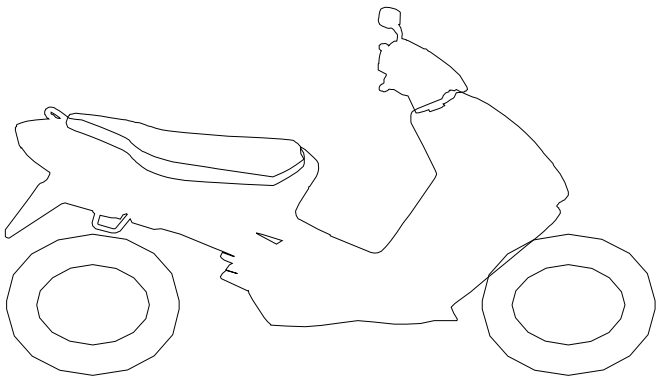
Photo 9 shows a closer view of the grazed main stand of the Motorcycle at the time of our inspection (circled).

Photo 10 shows a closer view of the damaged left pillion footpeg and left rear bottom cowling of the Motorcycle at the time of our inspection (circled).

Photo 11 shows a closer view of the top box of the Motorcycle which had sustained damages of grazing nature due to the accident (circled).

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:-



Dunlop 100/90 - 14 (5mm) Dunlop 90/90 - 14 (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 12 & 13 below.

Photo 12 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 13 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 5mm. 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 were also found to be intact without any misalignment. See photos 14 - 17 below.

Photo 14 shows the radiator of the Motorcycle at the time of our inspection. The radiator was found to be intact with no visible damage. There was also no sign(s) or indication(s) of fluid leak observed around the radiator of the Motorcycle.

Photo 15 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 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.

Photo 16 shows the left shock absorber of the Motorcycle which was found to be intact without any misalignment.

Photo 17 shows the right shock absorber of the Motorcycle which was found to be intact without any misalignment.

Steering System & Braking System

10. Our checks on the various steering components of the Motorcycle had revealed that its steering system was in serviceable condition. Its front forks and fork brackets were both found to be intact and undamaged. Turning the handle bar towards the left and right also did not produce any abnormal free play and/or resistance.

11. The brake system of the Motorcycle was of a semi-hydraulic type, where hydraulic (brake fluid) pressure controls the brake for the front wheel while the brake for the rear wheel is controlled by mechanical means (cables and springs). Our visual examination of the various components in the brake system, like the brake disc, brake caliper, drum, brake lever and brake foot pedal, revealed all to be intact and without damage. There was also no visible tear or cut observed on the connecting hoses and cables. Our checks on the brake fluid had also indicated that the front brake fluid was of sufficient level for operational purposes. However it was found to be slightly contaminated.

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 the front brake lever. This would indicate that there's no leakage of pressure/vacuum in the front brake system.

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

14. In general, the observations gathered during the brake test had indicated that the braking system of the Motorcycle was in serviceable condition. See photos 18 – 24 below.

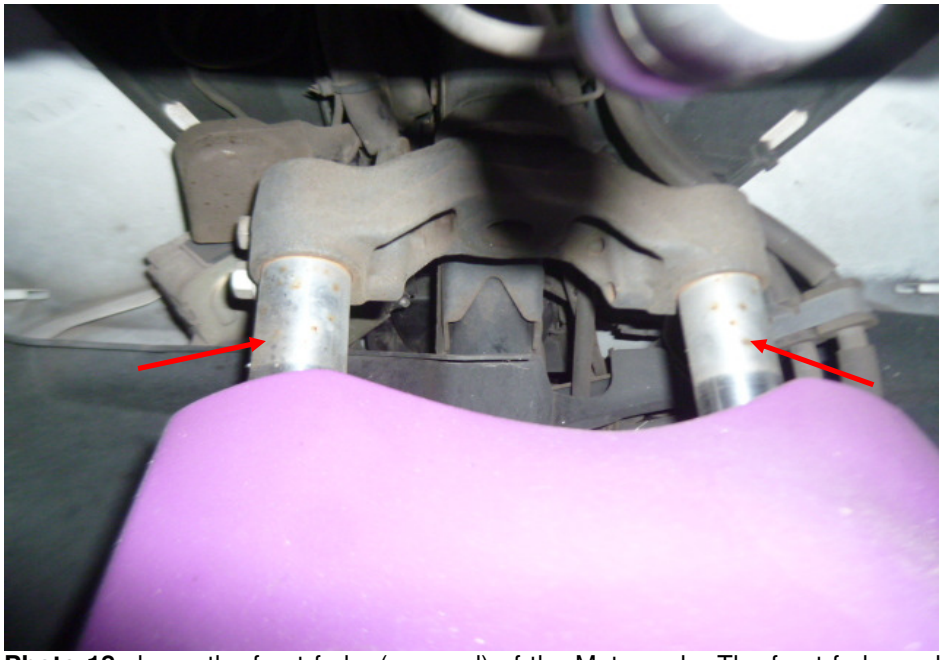


Photo 18 shows the front forks (arrowed) of the Motorcycle. The front forks and fork brackets of the Motorcycle were both found to be intact and undamaged. Turning the Motorcycle's handle bar towards the left and right did not produce any abnormal free play and/or resistance. The steering system of the Motorcycle was in serviceable condition at the time of our inspection.

Photo 19 shows the front wheel of the Motorcycle turned towards its full left. Turning the Motorcycle's handle bar towards the left and right did not produce any abnormal free play and/or resistance. This would indicate that the steering system of the Motorcycle was in serviceable condition at the time of our inspection.

Photo 20 shows the front wheel of the Motorcycle turned towards its full right. Turning the Motorcycle's handle bar towards the left and right did not produce any abnormal free play and/or resistance. This would indicate that the steering system of the Motorcycle was in serviceable condition at the time of our inspection.

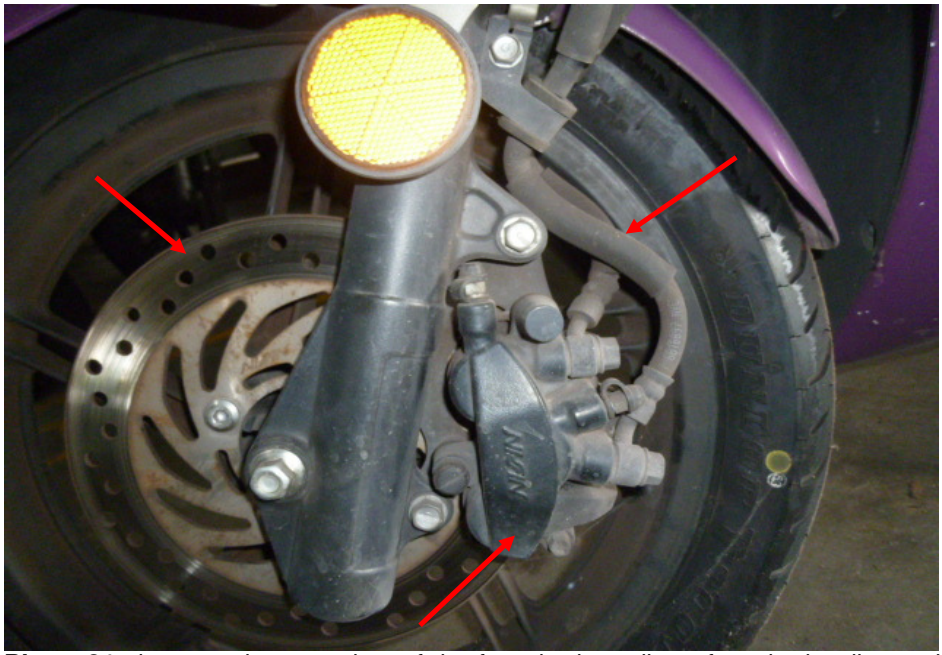


Photo 21 shows a close up view of the front brake caliper, front brake disc and front brake hose (arrowed) of the Motorcycle, which are all part of the components in the hydraulic front brake system of the Motorcycle. Our visual checks of these various components had revealed all to be intact with no visible damage. No leakage of brake fluid was also observed.

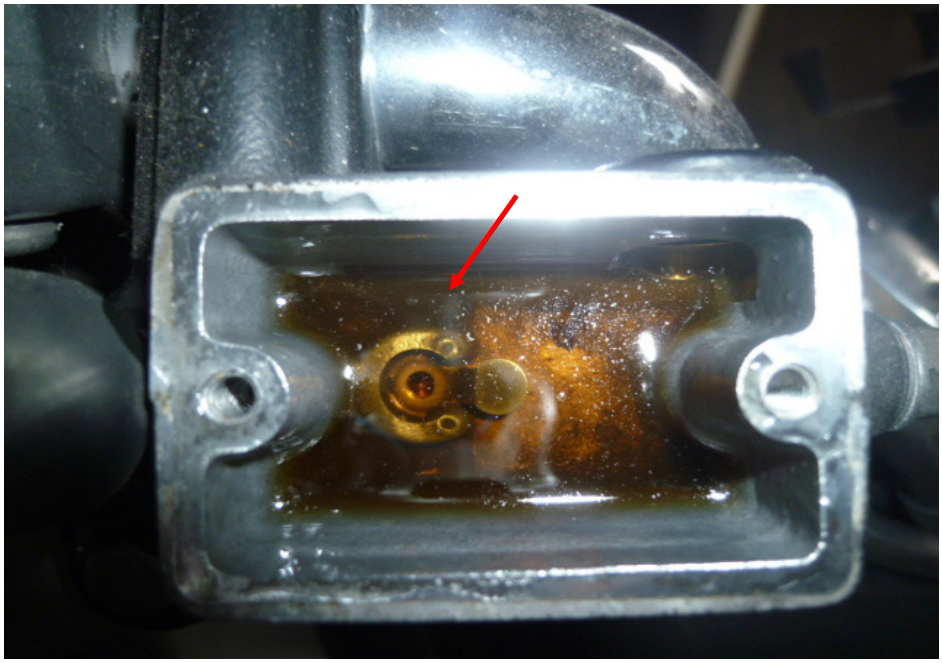


Photo 22 shows the brake fluid reservoir for the front brake of the Motorcycle. The brake fluid was observed to be of sufficient level for operational purposes. However it was found to be slightly contaminated (arrowed).

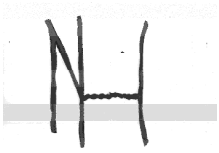
Photo 23 shows the front brake lever being depressed. There was some resistance felt (spongy like feel) upon pressing the front brake lever (arrowed). This would indicate that there is no leakage of pressure/vacuum in the front brake system.

Photo 24 shows the rear wheel of the Motorcycle. The type of brake system for the rear wheel was of a mechanical type, controlled by the brake foot pedal of the Motorcycle. Our checks of the cable (arrowed), spring and drum which are all part of the components in the rear brake system of the Motorcycle reveal all to be intact and without damage.

Conclusion

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

16. 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 3mm and 5mm.



Muhd Nazril
Senior Technical Investigator

Ang Bryan Tani
AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA
Senior Technical Investigator
Technical Investigation & Reconstructionist (SAE-A)