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Our Ref : CI/TPD20005979/N

11 September 2020

Fatal Accident Investigation Team

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

INSPECTION REPORT OF MOTORCYCLE FP 8084A

1. We refer to your request dated 28 April 2020 to conduct a physical inspection of a motorcycle bearing registration number FP 8084A (herein referred to as “**Motorcycle**”), which was involved in a fatal road traffic accident on 12 April 2020.
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 11 September 2020 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.

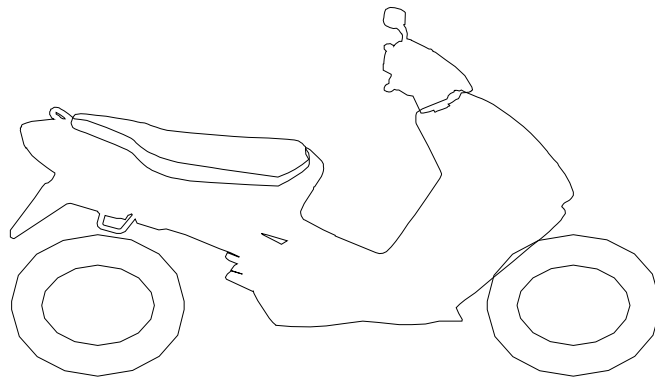
General Condition

4. The mileage of the Motorcycle at the time of our inspection was 6,506km.
5. The Motorcycle was observed to have sustained damages along its frontal portion and right body. The body parts that were found to have been damaged include its headlight assembly, headlight, front mudguard, right side mirror, front brake lever, right handlebar grip, steering column cover and right rear side cover, amongst others.

Tyres and Wheel Rims

6. The condition of the 2 tyres 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 2 tyres. Both the tyres were observed to be sufficiently inflated for vehicular operation.

7. The tyre brand, tyre size and remaining tread depth of the 2 tyres of the Motorcycle were recorded as follows:-



Michelin 3.50 - 10 (4mm)

Michelin 3.50 - 10 (3mm)

8. 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 1 – 12 below.



Photo 1 shows the speedometer gauge of the Motorcycle where the mileage recorded at the time of our inspection was 6, 506km (circled).



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 along its frontal portion and right 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 damages along its frontal portion and right body.



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 along its frontal portion and right body. Amongst the body parts that were found to have been damaged include its headlight assembly, headlight, front mudguard, right side mirror, front brake lever, right handlebar grip, steering column cover and right rear side cover, amongst others.



Photo 5 shows a closer view of the damaged steering column cover of the Motorcycle at the time of our inspection (arrowed).



Photo 6 shows a close up view of the headlamp assembly of the Motorcycle at the time of our inspection. Amongst the body parts damaged were its headlight assembly and headlight (arrowed).



Photo 7 shows the dented front mudguard of the Motorcycle as a result of the accident.



Photo 8 shows a close up view of the right handlebar grip, front brake lever and broken right side mirror of the Motorcycle which had sustained damage as a result of the accident (arrowed).



Photo 9 shows the damaged right rear side cover of the Motorcycle. The damage sustained was mainly of grazing nature (circled).



Photo 10 shows the front wheel rim and front tyre of the Motorcycle at the time of our inspection. The front tyre was observed to be in serviceable condition with remaining tread depth of approximately 3mm. The tyre was also observed to be sufficiently inflated for vehicular operation. There was no significant damage observed on the front wheel rim.



Photo 11 shows the front tyre of the Motorcycle at the time of our inspection. The front tyre was observed to be in serviceable condition. The pattern of the tread was also 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 12 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

9. 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.

10. 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 See photos 13 & 14 below.



Photo 13 shows the bottom of the Motorcycle's engine area where upon closer examination, 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 14 shows the general view of the drive train of the Motorcycle, which was observed to be intact with no misalignment. There was also no visible tear or cut observed on the connecting hoses and cables (arrowed).

Steering System & Braking System

11. Our checks on the various steering components of the Motorcycle revealed that its steering system was in serviceable condition. Its front fork was 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.
12. The braking system of the Motorcycle was observed to be controlled by mechanical means (cables and springs). Our visual examination of the various components in the Motorcycle's front braking system like the brake cable, spring, drum and brake lever reveal all to be intact and without damage. The brake for the front wheel is engaged by pressing the brake lever at the right side of the Motorcycle's handle bar while the brake for the rear wheel is engaged by stepping on the brake pedal at the right side panel of the Motorcycle.
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 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 rear braking system. The rear wheel of the Motorcycle was able to stop rotating immediately upon stepping on the brake pedal. However the front wheel of the Motorcycle was still able to rotate upon depressing the brake lever.
14. In general, the observations gathered during the brake test had indicated that only the rear braking system of the Motorcycle was in serviceable condition. See photos 15 – 18 below.



Photo 15 shows the front fork (circled) of the Motorcycle. The front fork of the Motorcycle was 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 16 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 17 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 18 shows a close up view of the front fork, front brake cable and spring of the Motorcycle (arrowed), which are all part of the components in the mechanical front brake system of the Motorcycle. Our visual checks of these various components had revealed all to be intact with no visible damage.

Conclusion

15. Basing on our physical inspection of the Motorcycle, it appears that the steering system and rear braking system of the Motorcycle were all in serviceable condition. The front braking system of the Motorcycle was found not to be in serviceable condition.
16. The 2 tyres of the Motorcycle were found to be in 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 2 tyres. The 2 tyres were sufficiently inflated for vehicular operation with remaining tread depth of approximately 3mm and 4mm each.



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