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15 August 2019

Fatal Accident Investigation Team

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

INSPECTION REPORT OF MOTORCYCLE JSK 1728

1. We refer to your request dated 5 August 2019 to conduct a physical inspection of a motorcycle bearing registration number JSK 1728 (herein referred to as "**Motorcycle**"), which was involved in a fatal road traffic accident on 21 July 2019.
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 15 August 2019 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.

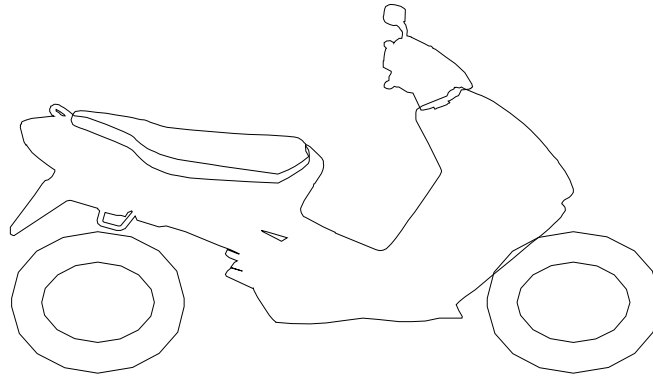
General Condition

4. The mileage of the Motorcycle at the time of our inspection was 40, 696km.
5. The Motorcycle was observed to have sustained damages all around. The body parts that were found to have been damaged include its headlamp assembly, side mirrors, front brake lever, left front footrest, left pillion foot peg, exhaust muffler heat shield 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 were recorded as follows:-



Energi 80/90 - 17 (3mm)

Vee Rubber 70/90 - 17 (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 – 17 below.



Photo 1 shows the speedometer gauge of the Motorcycle where the mileage recorded at the time of our inspection was 40, 696km (circled).



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 body of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained damages all around. Amongst the body parts that were found to have been damaged include its headlamp assembly, side mirrors, front brake lever, left front footrest, left pillion foot peg, exhaust muffler heat shield and right rear side cover, amongst others.



Photo 5 shows a closer view of the headlamp assembly which was amongst the body parts at the front body of the Motorcycle that had sustained damage as a result of the accident.



Photo 6 shows a close up view of the front mudguard which was amongst the body parts of the Motorcycle that had sustained damage as a result of the accident.



Photo 7 shows a closer view of the missing side mirrors of the Motorcycle as a result of the accident.



Photo 8 shows a closer view of the pillion grab rail of the Motorcycle that had sustained damages of grazing nature as a result of the accident.



Photo 9 shows a closer view of the right handlebar end (yellow arrow) and broken front brake lever (red arrow) which were amongst the body parts of the Motorcycle that had sustained damage as a result of the accident.



Photo 10 shows a closer view of the broken right rear signal lamp of the Motorcycle as a result of the accident (circled).



Photo 10 shows a closer view of the broken right pillion foot peg of the Motorcycle as a result of the accident (circled).



Photo 11 shows a closer view of the left front footrest which was amongst the body parts of the Motorcycle that had sustained damage as a result of the accident.



Photo 12 shows the right rear side cover of the Motorcycle that had sustained damages of grazing nature as a result of the accident (circled).



Photo 13 shows a closer view of the left pillion foot peg which was amongst the body parts of the Motorcycle that had sustained damages of grazing nature as a result of the accident (circled).



Photo 14 shows a closer view of the right front foot rest which was amongst the body parts of the Motorcycle that had sustained damage as a result of the accident.



Photo 15 shows a closer view of the dented exhaust muffler heat shield of the Motorcycle as a result of the accident (circled).



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 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 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 3mm. 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 gear chain of the Motorcycle was found to be intact without any misalignment. It was also adequately lubricated for operating purposes. See photos 18 – 21 below.



Photo 18 shows the left 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 left engine area of the Motorcycle.



Photo 19 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 20 shows the general view of the gear train (arrowed) of the Motorcycle, which was observed to be intact with no misalignment. It was also adequately lubricated for operating purposes.

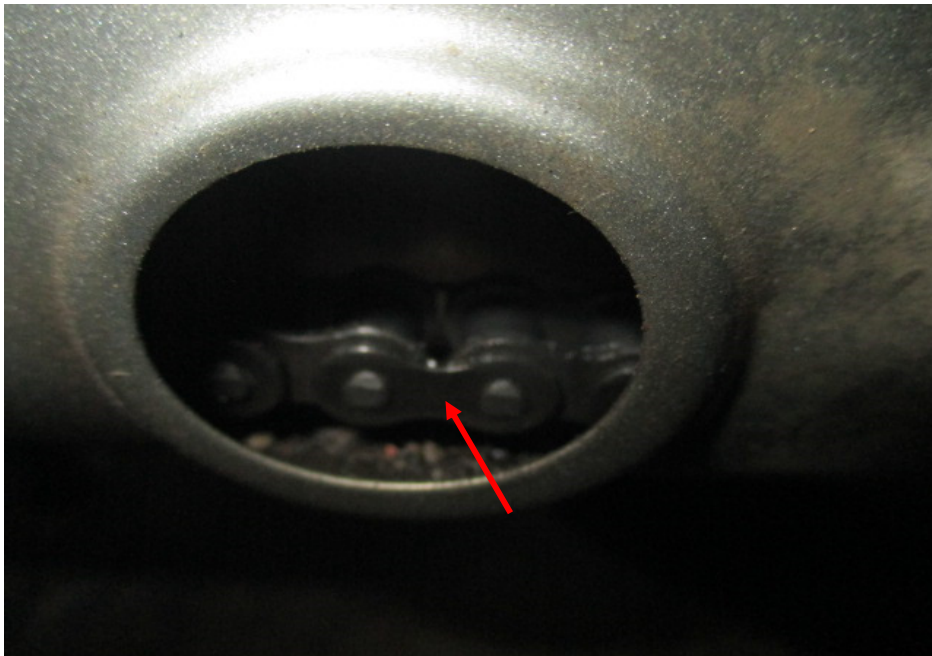


Photo 21 shows a closer view of the gear train (arrowed) of the Motorcycle, which was observed to be intact with no misalignment. It was also adequately lubricated for operating purposes.

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 braking system like the brake cable, spring, drum and brake lever reveal all to be intact and without damage. There was also no visible tear or cut observed on the connecting hoses and cables. 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 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 the brake lever and stepping on the brake pedal. See photos 22 – 25 below.



Photo 22 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 23 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 24 shows a close up view of the front fork, front brake cables 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.



Photo 25 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

14. 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.
15. 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 each.

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