

Your Ref: TP/IP/59521/2017
Our Ref: CI/TPD17023255/Z

21st December 2017

Fatal Accident Investigation Team

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

MECHANICAL INSPECTION REPORT OF MOTORCYCLE FBL 7393H

1. We refer to your request dated 24th November 2017 to conduct a physical inspection of a motorcycle bearing registration number FBL 7393H (herein referred to as "**Motorcycle**"), which was involved in a fatal road traffic accident.
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 11th December 2017 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 recorded at time of our inspection was 7,356km.
5. The Motorcycle was observed to have sustained relatively minor damages at the left portion. The body parts that were found to have been damaged include its left hand rear brake lever, left hand wing mirror, left top fairing, left lower fairing & main stand amongst others as a result of the accident.

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Photo 1 shows the mileage of the Motorcycle recorded at time of our inspection was 7,356km. (Circled)



Photo 2 shows a general view of the front body of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained with relatively minor damages at the left handle due to the accident collision. (Circled)

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Photo 3 shows a general view of the front left body of the Motorcycle at the time of our inspection. The Motorcycle was observed to have sustained minor damages at the frontal portion & along its left side. (Circled)



Photo 4 shows a closer view of the frontal portion of the Motorcycle at the time of our inspection. The Motorcycle was observed to be sustained relatively minor impact due to the accident collision. (Circled)



Photo 5 shows a closer view of the left portion fairing of the Motorcycle at the time of our inspection. It was observed to have sustained deep grazing mark due to the accident collision. (Circled)



Photo 6 shows a closer view of the left portion fairing of the Motorcycle at the time of our inspection. It was observed to have sustained deep grazing mark due to the accident collision. (Circled)



Photo 7 shows a closer view of the left portion fairing of the Motorcycle at the time of our inspection. It was observed to have sustained deep grazing mark due to the accident collision. (Circled)

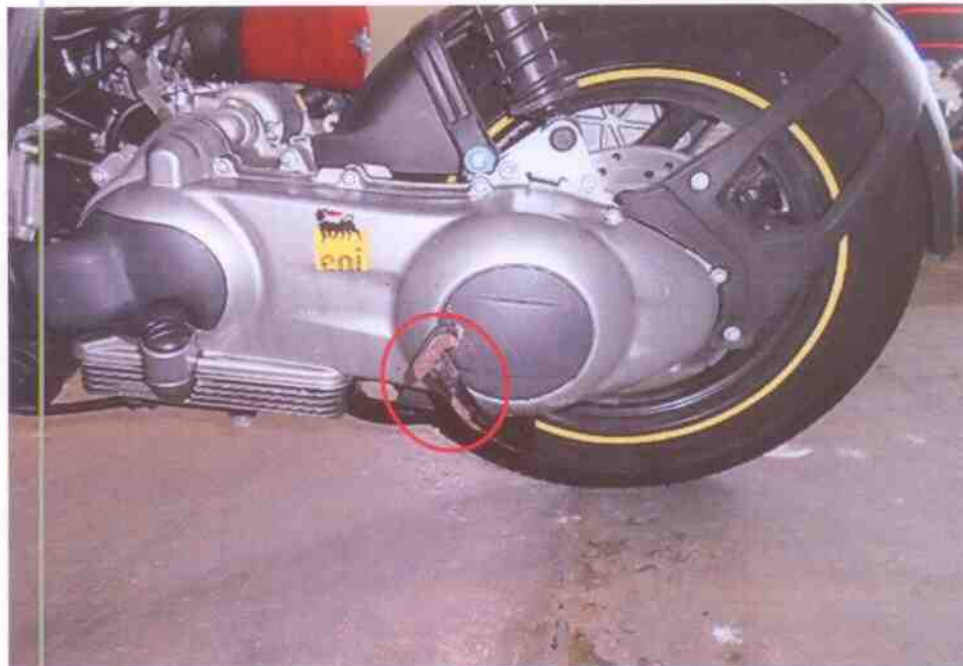


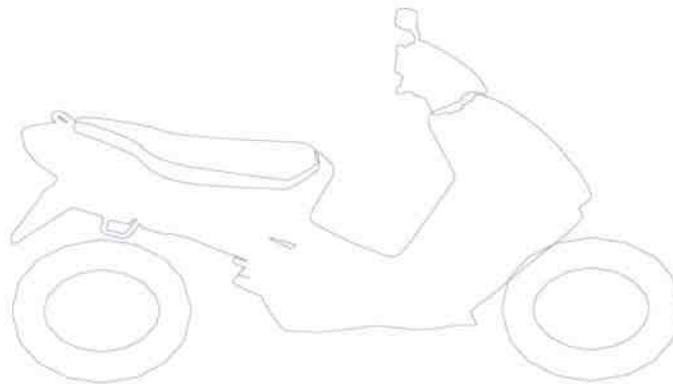
Photo 8 shows a closer view of the left side main stand of the Motorcycle at the time of our inspection. It was observed to have sustained grazing mark due to the accident collision. (Circled)



Photo 9 shows a view of the rear of the Motorcycle at the time of our inspection. It was observed to be in good general condition without any damages.

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:-



Michelin City Grip 140/60 -R15
(4mm)

Michelin City Grip 120/70 -R14
(4mm)

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7. The rear tyre was wrapped around alloy wheel rims that were found to be without any significant damage. See photo 10 – 11 below



Photo 10 shows the rear tyre of the Motorcycle. 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.



Photo 11 shows the front tyre of the Motorcycle. The pattern of the tread was 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.

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. Except for there was sign(s) or indication(s) of fresh fluid leak observed around the engine area of the Motorcycle likely due to the accidents impact.
9. 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 photo 12 – 15 below.



Photo 12 shows was sign(s) or indication(s) of fresh fluid leakage observed around the engine area of the Motorcycle.



Photo 13 shows was sign(s) or indication(s) of fluid leakage observed around the engine undercarriage area of the Motorcycle.



Photo 14 shows the rear shock absorber of the motorcycle was found to be intact without any misalignment.



Photo 15 shows the drive train of the motorcycle was found to be intact without any misalignment.

Steering System & Braking System

10. My checks on the various steering components of the Motorcycle had 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.
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 front brake 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 brake lever at the right side of the handle bar. This would indicate that there's no leakage of pressure/vacuum in the brake system. The rear brake on the other hand, although due to the accident's impact that loosen the brake lever from the original installation, the braking system of the Motorcycle was also likely to be in serviceable condition. There was some resistance felt (spongy like feel) upon pressing the brake lever at the right side of the handle bar. This would indicate that there's no leakage of pressure/vacuum in the brake system. This is taking into consideration that the various mechanical parts of the braking system were all intact & undamaged.
13. We subsequently carried out an operational test of the Motorcycle's braking system. This was done by riding on the Motorcycle moving forward and backward, getting the Motorcycle in motion via twisting the throttle accelerator (automatic), 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 left & right hand 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 photo 16 - 20 below.

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Photo 16 shows the steering system was observed to be in a serviceable condition. It was able to be steered to the full left & right at time of our inspection.



Photo 17 shows the static brake tests conducted on the Motorcycle front brake 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 brake lever at the right side of the handle bar.



Photo 18 shows the static brake tests conducted on the Motorcycle rear brake 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 brake lever at the right side of the handle bar.



Photo 19 shows the right hand brake fluid reservoir on the Motorcycle that indicates that it was sufficient at time of inspection.



Photo 20 shows the left hand brake fluid reservoir on the Motorcycle that indicates that it was sufficient at time of inspection.

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 tyre. It was sufficiently inflated for vehicular operation with remaining tread depth of approximately 4mm for both tyres.



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