

Your Ref: TP/IP/13095/2019
Our Ref : CS/ASM20010979/N

5 April 2021

M/s AXA Insurance Pte. Ltd.
8 Shenton Way #24-01
AXA Tower
Singapore 068811
(Motor Claims Department)

MECHANICAL INSPECTION REPORT OF MOTOR CAR SJQ 5827R

1. We refer to your request on 11 October 2020 to conduct a physical inspection of a motor car bearing registration number SJQ 5827R (herein referred to as “**Motor Car**”), which was involved in a road traffic accident on 5 March 2020.
2. The objective of this inspection is to determine if there was any possible mechanical failure to the Motor Car that may have contributed to the accident.
3. Following the request, we had carried out a physical inspection of the Motor Car on 15 October 2020 at the premises of Ethoz Group Ltd. located at 22 Tampines Street 92, Singapore 528876. We now set out below our observations and comments with respect to this inspection.

General Condition

4. The mileage of the Motor Car at the time of our inspection was not recorded as its battery and ignition system was affected by the collision.
5. Motor Car had sustained extensive impact damage. Body parts at its front portion, rear left portion and undercarriage were observed to have been damaged as a result of the accident.
6. Parts towards the front of the engine compartment and undercarriage were also damaged. This had included its front windscreen, front bonnet, both front bonnet hinges, bonnet lock mechanism, front bumper, front number plate, left and right fenders, rear left body panel, engine system, radiator, front right headlamp and its undercarriage rear right lower arm. The driver's air bag was deployed as a result of the accident. See photos 1 – 10 below.



Photo 1 shows a general view of the rear portion of the Motor Car at the time of our inspection. The rear portion of the Motor Car was observed to have been unaffected by the accident.



Photo 2 shows a general view of the front portion of the Motor Car at the time of our inspection. The Motor Car was also observed to have sustained extensive impact damage at its frontal and undercarriage portion.



Photo 3 shows a close up view of the front windscreen of the Motor Car at the time of our inspection. The front windscreen of the Motor Car was observed to have been damaged as a result of the accident.



Photo 4 shows a general view of the front right portion of the Motor Car at the time of our inspection. The Motor Car was also observed to have sustained extensive impact damage at its frontal portal, damaged parts had included its front bonnet, front bumper, right fender, engine system, radiator and front right headlamp were amongst the body parts that were observed to have been damaged as a result of the accident.



Photo 5 shows a close up view of the front portion of the Motor Car at the time of our inspection. The engine system (arrowed) of the Motor Car was observed to have been damaged as a result of the accident.



Photo 6 shows a close up view of the front portion of the Motor Car at the time of our inspection. The radiator of the Motor Car was observed to have been damaged by an induced impact as a result of the accident (arrowed).



Photo 7 shows a general view of the front left portion of the Motor Car at the time of our inspection. The front left fender and the rear left body panel (arrowed) of the Motor Car was observed to have been damaged as a result of the accident.



Photo 8 shows the close up view of the rear left panel portion of the Motor Car at the time of our inspection. The left rear body panel (arrowed) of the Motor Car was observed to have been damaged as a result of the accident.



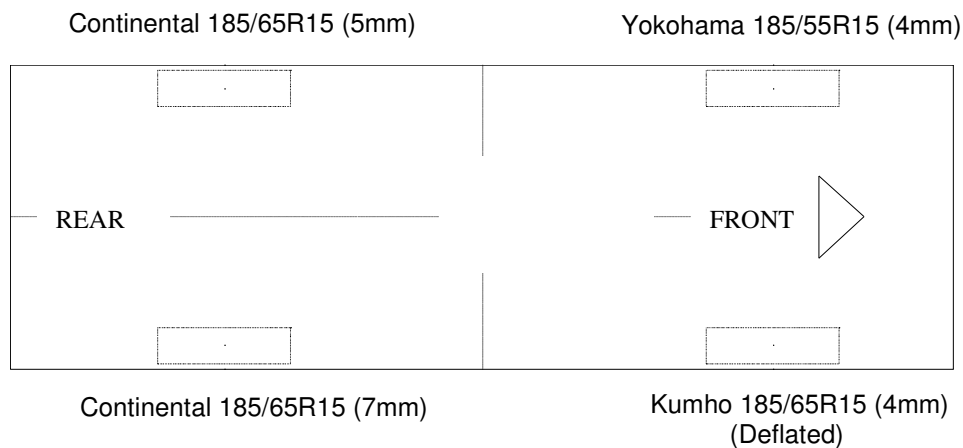
Photo 9 shows the close up view of the rear right suspension system of the Motor Car at the time of our inspection. The rear right lower arm (arrowed) of the Motor Car was observed to have been damaged as a result of the accident.



Photo 10 shows a general view of the Motor Car's interior compartment. The driver's air bag was also deployed as a result of the accident (arrowed).

Tyres and Wheel Rims

7. The condition of the Motor car's 4 tyres was observed to be in serviceable condition. We did not find any tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of the 4 tyres. The front right tyre was found to be deflated. However the other 3 tyres were also observed to be sufficiently inflated for vehicular operation. The tyre brand, tyre size and remaining tread depth of the 4 tyres were recorded as follows:-



8. All 4 tyres of the Motor Car were wrapped around steel wheel rims. The front left wheel rim was found to be slightly dented however, the front right wheel rim, rear left and right wheel rim were observed to be damaged due to the collision. See photos 11 – 15 below.



Photo 11 shows the condition of the front left tyre of the Motor Car, which was observed to be in serviceable condition with remaining tread depth of approximately 4mm. There was no tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of this tyre.



Photo 12 shows the condition of the front right tyre of the Motor Car, which was observed to be in serviceable condition with remaining tread depth of approximately 4mm. The tyre, which was wrapped around standard alloy wheel rim, was also observed to be deflated as a result of the accident.



Photo 13 shows the condition of the front right wheel rim of the Motor Car, The right front tyre was observed to sustained damage, dislodged from the rim and deflated as a result of the accident.



Photo 14 shows the condition of the rear left tyre of the Motor Car, which was observed to be in serviceable condition with remaining tread depth of approximately 5mm. There was no tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of this tyre.



Photo 15 shows the condition of the rear right tyre of the Motor Car, which were observed to be in serviceable condition with remaining tread depth of approximately 7mm. There was also no tear, cut or burst mark(s) on the outer and the inner sidewalls as well as across the tread of the 4 tyres that were fitted on the Motor Car.

Engine Compartment & Operating Fluids

9. The impact from the collision had affected the engine compartment of the Motor Car. Parts towards the front of the engine compartment were observed to be damaged. Upon examination of the Motor Car's engine compartment, the brake fluid, engine oil and auto transmission fluid (ATF) were all found to be of sufficient level for operating purposes. Visually, there was also no contamination found to these fluids. However the radiator and reserve coolant reservoir were found to be empty likely due to damages sustained as a result of the accident. See photos 16 – 21 below.



Photo 16 shows a general view of the Motor Car's engine compartment. The impact from the collision had affected the engine compartment of the Motor Car. Parts towards the front of the engine compartment were observed to be damaged.

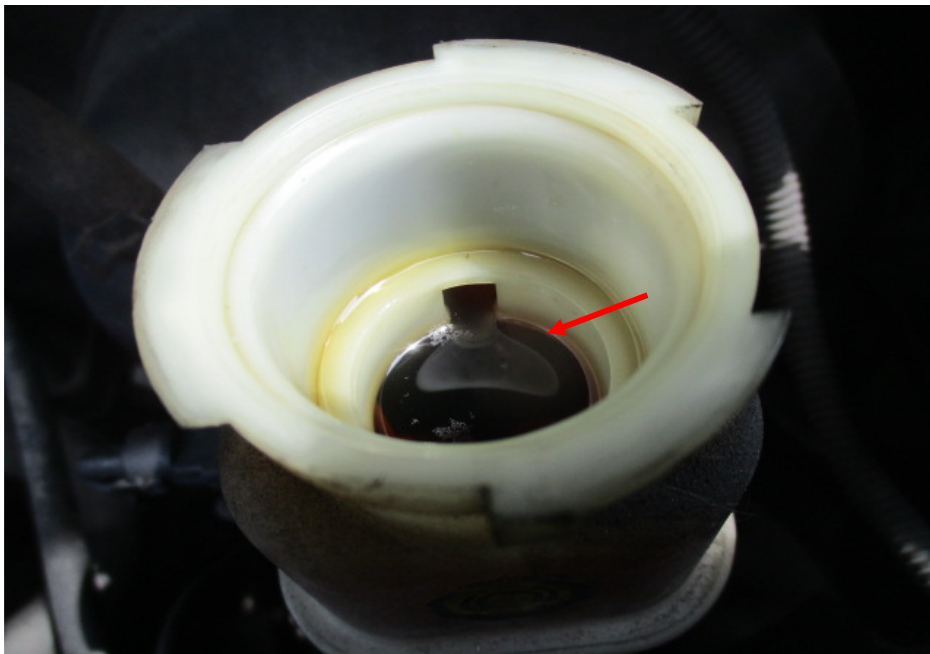


Photo 17 shows the brake fluid reservoir of the Motor Car at the time of our inspection. The brake fluid was observed to be of sufficient level for operational purposed (arrowed) and without any visible contamination.



Photo 18 shows the engine oil dip stick of the Motor Car at the time of our inspection. The engine oil was observed to be of sufficient level for operational purposes and without any visible contamination.



Photo 19 shows the ATF dip stick of the Motor Car at the time of our inspection. The ATF was observed to be of sufficient level for operational purposes and without any visible contamination.



Photo 20 shows the radiator of the Motor Car at the time of our inspection. The radiator was observed to be empty most likely due to damages sustained as a result of the accident.

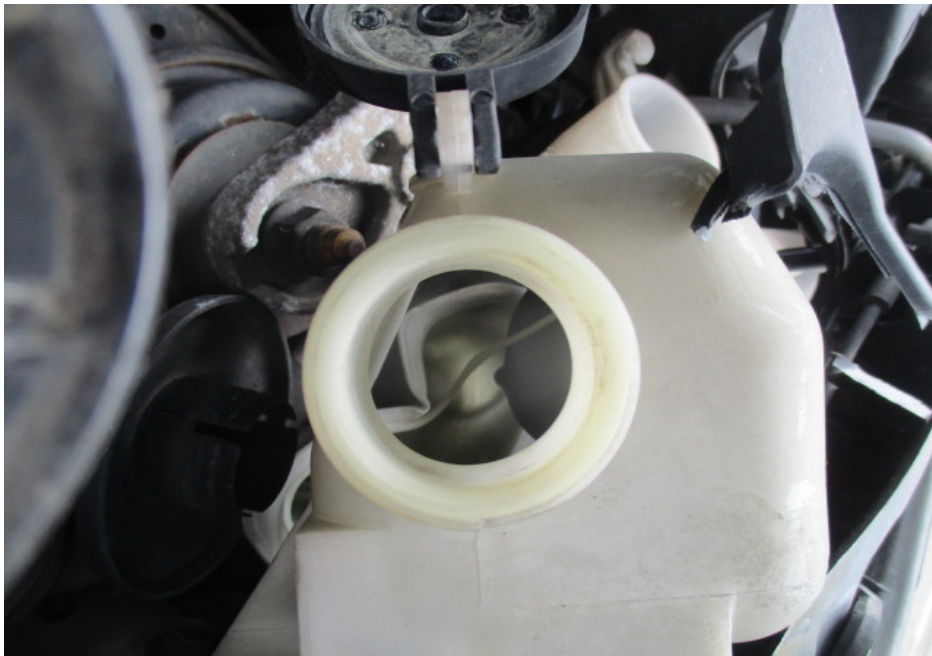


Photo 21 shows checks being carried out to the engine coolant of the Motor Car at the time of our inspection. The reserve engine coolant reservoir was observed to be cracked due to damages sustained as a result of the accident.

Steering System & Braking System

10. For this inspection, we were not able to conduct any tests on the steering system of the Motor Car due to damages to the ignition system and the engine system.
11. Our subsequent checks on the underside of the various steering components which had included the steering rack and pinion, tie rods, tie rod ends and ball joints revealed that these components were all generally in good condition.
12. With regard to the braking system, although we were also not able to carry out any tests given that the Motor Car's engine could not be started due to the damages to its ignition and steering system as a result of the accident, our visual inspection of the various mechanical components of the braking system to the parts like the brake calipers and brake hoses at the 4 wheels, amongst others were all observed to be intact and undamaged. There was also no sign(s) or indication(s) of brake fluid leak observed at the 4 wheels of the Motor Car. See photos 22 - 27 below.

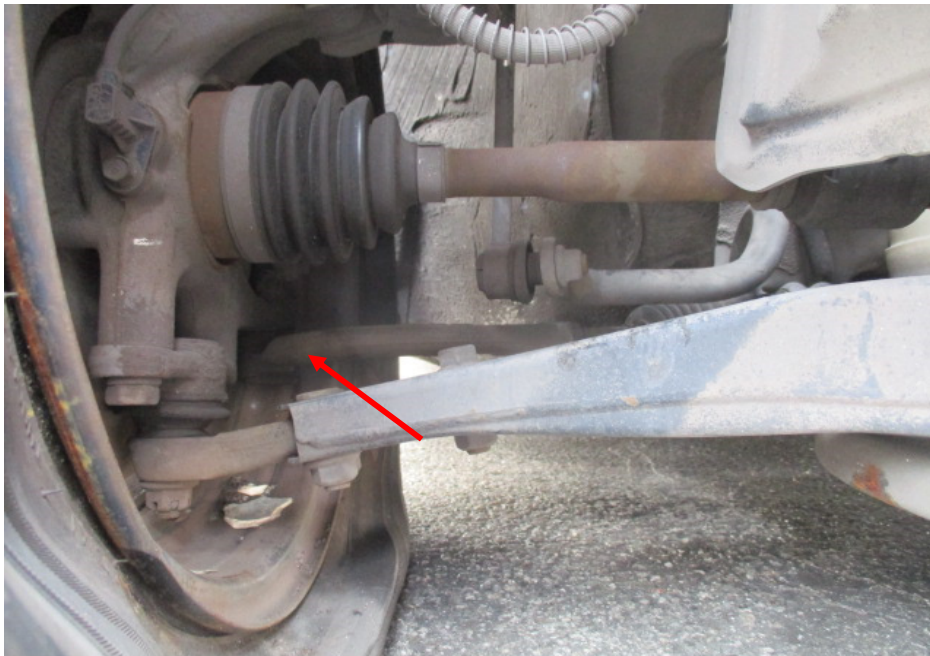


Photo 22 shows the undercarriage components at the front right wheel of the Motor Car. Our checks on the underside of the Motor Car revealed damage to the various undercarriage components. The steering rack and pinion, tie rods, tie rod ends and ball joints (arrowed) revealed that these components were all generally in good condition.



Photo 23 shows the various undercarriage components at the front left wheel of the Motor Car, which had included the steering tie rod (red arrow) and front left drive shaft (yellow arrow). The various undercarriage components of the Motor Car were all found to be intact without any visible damage.



Photo 24 shows the brake hose (arrowed) at the front right wheel of the Motor Car. We did not observe any leakage of brake fluid at the 4 wheels of the Motor Car. Our visual inspection of the various mechanical components of the Motor Car's braking system, including its brake caliper (circled), revealed all to be intact and without visible damage.



Photo 25 shows the brake hose (arrowed) at the front left wheel of the Motor Car. We did not observe any leakage of brake fluid at the 4 wheels of the Motor Car. Our visual inspection of the various mechanical components of the Motor Car's braking system, including its brake caliper (circled), revealed all to be intact and without visible damage.



Photo 26 shows the various undercarriage components at the rear right wheel of the Motor Car, in particular the brake hose (arrowed). We did not observe any leakage of brake fluid at the 4 wheels of the Motor Car. Our visual inspection of the various mechanical components of the Motor Car's braking system revealed all to be intact and without visible damage.



Photo 27 shows the various undercarriage components at the rear left wheel of the Motor Car, in particular the brake hose (arrowed). We did not observe any leakage of brake fluid at the 4 wheels of the Motor Car. Our visual inspection of the various mechanical components of the Motor Car's braking system revealed all to be intact and without visible damage.

Electronic Safety / Warning Indicators

13. The Motor Car's automatic self-test of the functionality of its various operating systems like the Anti-Brake Lock System (ABS) and Supplemental Restraint System (SRS) during cranking of the engine was not able to be initiated as the engine of the Motor Car could not be started due to damage to its battery and ignition system arising from the accident.
14. The Supplemental Restraint System (SRS) of the Motor Car was however likely to be in normal operating condition at the material time. The evidence of the deployed driver's air bag, indicate that the impact sensors and control module of the Motor Car's SRS were all in serviceable condition at the material time of accident.

Operational Behaviour of the Motor Car

15. Operational test to primarily determine whether there was any abnormality to the engine system, transmission system and braking system of the Motor Car could not be conducted given the extent of damage that it had sustained (engine could not be started and undercarriage components affected).

Conclusion

16. For this particular case, we were unable to determine whether there was any possible mechanical failure to the Motor Car that may have contributed to the accident. This was mainly due to the extent of damage that it had sustained. Its engine system, transmission system, steering system braking system and suspension system were all damaged as a result of the accident.
17. The 4 tyres of the Motor Car were found to be in serviceable condition with remaining tread depth of approximately 5mm each. This had included the deflated front right tyre.
18. Our findings were based solely on a static and visual inspection of the Motor Car. No operational test could be carried out to the Motor Car given the extent of damage that it had sustained as a result of the accident.

**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)*

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