

Your Ref: SML 899G
Our Ref : CI/TP23004761/D

08 May 2023

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#14-19
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AUTOMOBILE INSPECTION REPORT OF MOTOR CAR SML 899G

1. I refer to your request on 05 April 2023 to conduct a physical inspection of a motor car bearing registration number SML 899G (herein referred to as "**Motor Car**").
2. The purpose of this inspection was to primarily determine: -
 - a) whether the manual transmission assembly of the Motor Car was fitted in a secure manner that will not affect the structural integrity of the Motor Car; and
 - b) whether there was any operational issue(s) to the manual transmission system of the Motor Car.
3. Following the request, I had carried out a physical inspection of the Motor Car on 21 April 2023 at the premises of No. 39 Woodlands Close #02-06, Mega @ Woodlands, Singapore 737856. I also conducted a short test drive of the Motor Car during this inspection.
4. I now set out below my observations and comments with respect to this inspection and test drive.

Inspection of the Motor Car

5. The following general information of the Motor Car was first recorded at the time of my inspection: -

Vehicle Registration No.	: SML 899G
Make / Model	: Suzuki Swift Sport CVT
Chassis No	: JSFZC32S00100307
Year of Registration	: 2012 (April)
Mileage	: 118,601km

6. The Motor Car was fitted with a 5-speed manual transmission assembly. The input side of the transmission assembly is bolted to the crankshaft side of the engine block. The left and right drive shafts were observed to be securely fitted from the main shaft, located inside the transmission assembly, to the front left wheel and front right wheel respectively. There was also no crack and/or hole observed on the housing of the transmission assembly.
7. The transmission assembly of the Motor Car was supported by 2 brackets. One was at the rear of the transmission assembly while the other was at the left side of the transmission assembly. The bracket at the rear of the transmission assembly was mounted onto the engine cross member while the bracket at the left side was mounted onto the left side front chassis, adjacent to the Motor Car's left side front wheel house. The 2 brackets are with rubber bushings, which absorbs any vibrations arising from the rotation of the transmission gears, minimising any stress to the bracket and correspondingly also minimise any stress to the engine crossmember and left side front chassis that these brackets are mounted onto.
8. The transmission assembly was operated by a clutch pedal, for engaging and disengaging the transmission gears, and a manual gear shifter for manually selecting the transmission gear to be engaged. See photo 1 – 10 below taken during my inspection of the Motor Car.



Photo 1 shows the Motor Car hoisted up for checks on its undercarriage, in particular to its transmission assembly.



Photo 2 shows a general view of the transmission assembly (arrowed) that was fitted on the Motor Car. as viewed from the front to rear. The input side of the transmission assembly is bolted to the crankshaft side of the engine block. The left and right drive shafts were securely fitted from the main shaft, located inside the transmission assembly, to the front left wheel and front right wheel respectively. There was no crack and/or hole observed on the housing of the transmission assembly.

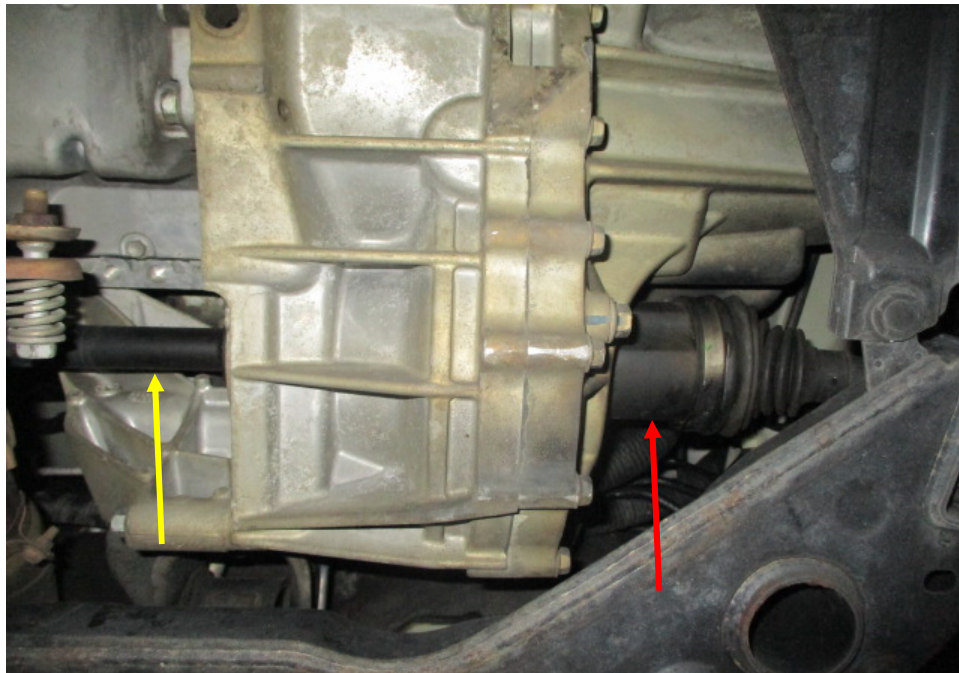


Photo 3 shows the left drive shaft (red arrow) and right drive shaft (yellow arrow) of the Motor Car. The left and right drive shafts were observed to be securely fitted from the main shaft, located inside the transmission assembly, to the Motor Car's front left wheel and front right wheel respectively.



Photo 4 shows another view of the transmission assembly (yellow arrow) that was fitted on the Motor Car, as viewed from the right to left. The transmission assembly of the Motor Car was supported by 2 brackets. One bracket (red arrow) was at the rear of the transmission assembly while the other was at the left side of the transmission assembly (refer to photograph 7 & 8 below).



Photo 5 shows the bracket supporting the rear of the Motor Car's transmission assembly. This bracket was mounted onto the engine cross member. The bracket was with rubber bushings (arrowed) that absorbs any vibrations arising from the rotation of the transmission gears, minimising any stress to the bracket and correspondingly also minimise any stress to the engine crossmember.



Photo 6 shows the transmission assembly (arrowed) that was fitted on the Motor Car, as viewed from the rear to front. The transmission assembly of the Motor Car was supported by 2 brackets. One bracket was at the rear of the transmission assembly (refer to photograph 4 & 5 above) while the other was at the left side of the transmission assembly (refer to photograph 7 & 8 below).



Photo 7 shows the Motor Car's transmission assembly (arrowed) as viewed from the engine compartment. The bracket supporting the left side of the Motor Car's transmission assembly is located below the battery (hidden from view). This bracket was mounted onto the left side front chassis, adjacent to the left side front wheel house of the Motor Car.



Photo 8 shows the bracket supporting the left side of the Motor Car's transmission assembly. This bracket was mounted onto the left side front chassis, adjacent to the left side front wheel house of the Motor Car. The bracket was with rubber bushings that absorbs any vibrations arising from the rotation of the transmission gears, minimising any stress to the bracket and correspondingly also minimise any stress to the engine crossmember.



Photo 9 shows the Motor Car's manual gear shifter (arrowed) for manually selecting the transmission gear to be engaged.



Photo 10 shows the Motor Car's clutch pedal (arrowed) for engaging and disengaging the transmission gears.

9. I subsequently test drove the Motor Car to primarily determine whether there was any operational issue(s) to its manual transmission system. The Motor Car was driven within the building premises of No. 39 Woodlands Close, Mega @ Woodlands.
10. The general performance of the transmission system of the Motor Car was satisfactory throughout the Motor Car's short test drive. Operationally, I did not find any abnormal behaviour of the transmission system. I was able to engage the different transmission gears without any significant difficulty. Selecting the required transmission gear by manually upshifting and downshifting of the gear shifter was relatively smooth. The Motor Car was also able to reverse when the gear was manually shifted to reverse. The mileage of the Motor Car at the end of the test drive was 118,603km.
11. In summary, the transmission assembly of the Motor Car was found to be secured properly. It was observed to be supported by 2 brackets with all related components forming a complete manual transmission system, securely fitted/attached.

12. The operating condition of the Motor Car's transmission system was found to be satisfactory during a test drive of the Motor Car that I had carried out.



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