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Your Ref: SBP 2L
Our Ref : CI/TP22010085/D

12 October 2022

Wong Teck Yew
70 Pavilion Place
Singapore 658041

AUTOMOBILE INSPECTION REPORT OF MOTOR CAR SBP 2L

1. I refer to your request on 27 September 2022 to conduct a physical inspection of a motor car bearing registration number SBP 2L (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 05 October 2022 at the premises of No. 176 Sin Ming Drive #03-09 Sin Ming Autocare, Singapore 575721. 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.	: SBP 2L
Make / Model	: Nissan 300ZX
Chassis No	: GCZ32505910
Year of Registration	: 1989 (November)
Mileage	: 38,633km

6. The Motor Car was fitted with a 5-speed manual transmission system. The front (input) side of the transmission assembly is bolted to the crankshaft side of the engine block while the rear (output) side of the transmission assembly, connects to the propeller shaft, which links to the differential at the rear axle of the Motor Car. A bracket mounted to the underside of the Motor Car's floorboard, via bolts and nuts, supports the rear (output) side of the transmission assembly. Rubber bushings, sitting between the transmission assembly and this bracket, absorbs any vibrations arising from the rotation of the transmission gears, minimising any stress to the bracket.

7. The gear selector fork from the transmission assembly to the gear shifter of the Motor Car was observed to be securely fitted on the underside of the Motor Car. The gear selector fork connects to the gear shifter in the interior compartment of the Motor Car through the floorboard. See photo 1 – 9 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. It was noted that the Motor Car was fitted with a 5-speed manual transmission system.

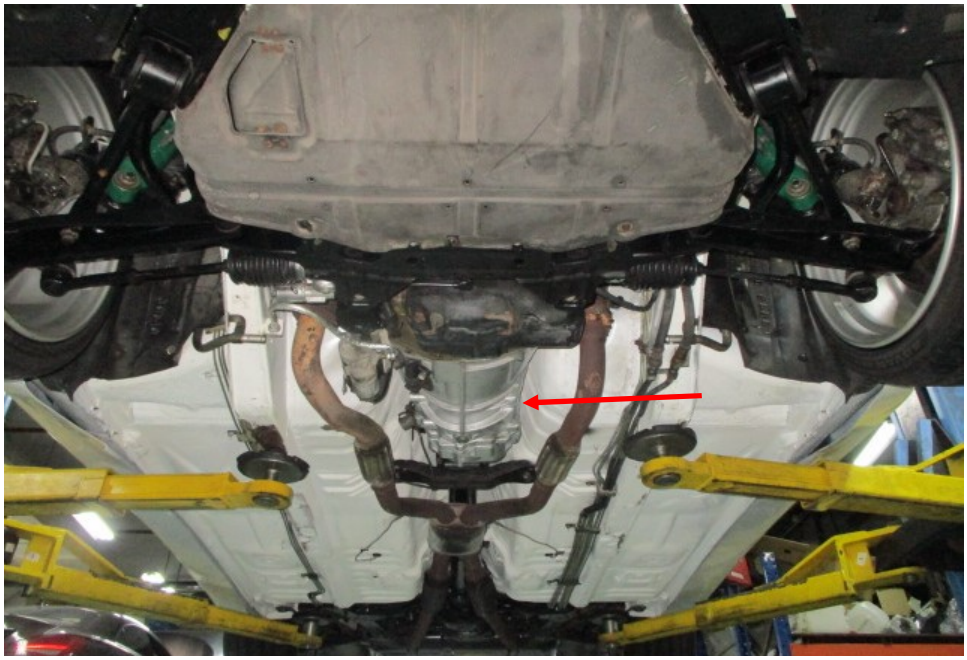

Photo 2 shows a general view of the transmission assembly (arrowed) that was fitted on the Motor Car, as viewed from the front to rear. The front (input) side of the transmission assembly is bolted to the crankshaft side of the engine block while the rear (output) side of the transmission assembly, connects to the propeller shaft, which links to the differential at the rear axle of the Motor Car.

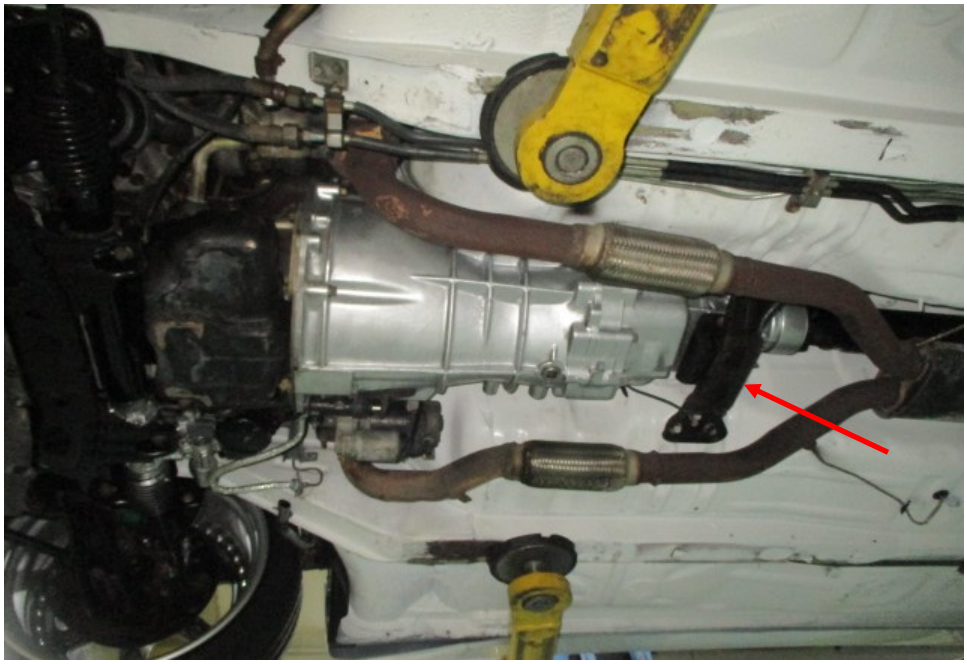

Photo 3 shows another view of the transmission assembly that was fitted on the Motor Car. The front (input) side of the transmission assembly is bolted to the crankshaft side of the engine block while the rear (output) side of the transmission assembly, connects to the propeller shaft, which links to the differential at the rear axle of the Motor Car. A bracket (arrowed) mounted to the underside of the Motor Car's floorboard, via bolts and nuts, supports the rear (output) side of the transmission assembly.

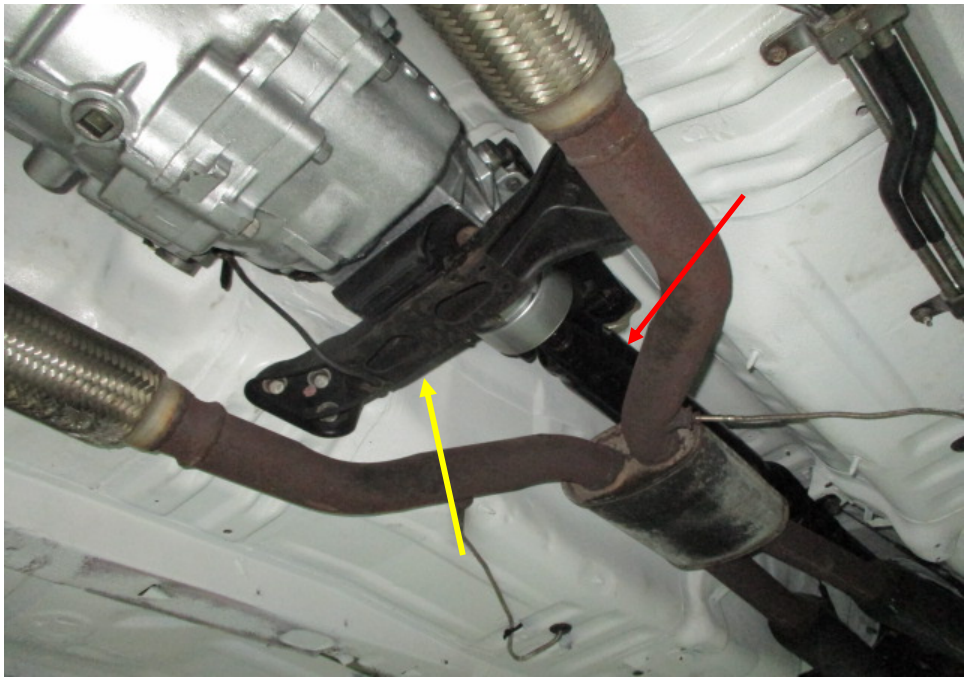

Photo 4 shows the rear (output) side of the transmission assembly that was fitted on the Motor Car. The rear (output) side of the transmission assembly connects to the propeller shaft (red arrow), which links to the differential at the rear axle of the Motor Car The transmission assembly is supported by a bracket (yellow arrow) that is mounted to the underside of the Motor Car's floorboard, via bolts and nuts.

Photo 5 shows a closer view of the bracket (arrowed) that was mounted to the underside of the Motor Car's floorboard, via bolts and nuts. The bracket supports the rear (output) side of the transmission assembly. The bracket was also with rubber bushings that absorbs any vibrations arising from the rotation of the transmission gears, minimising any stress to the bracket.

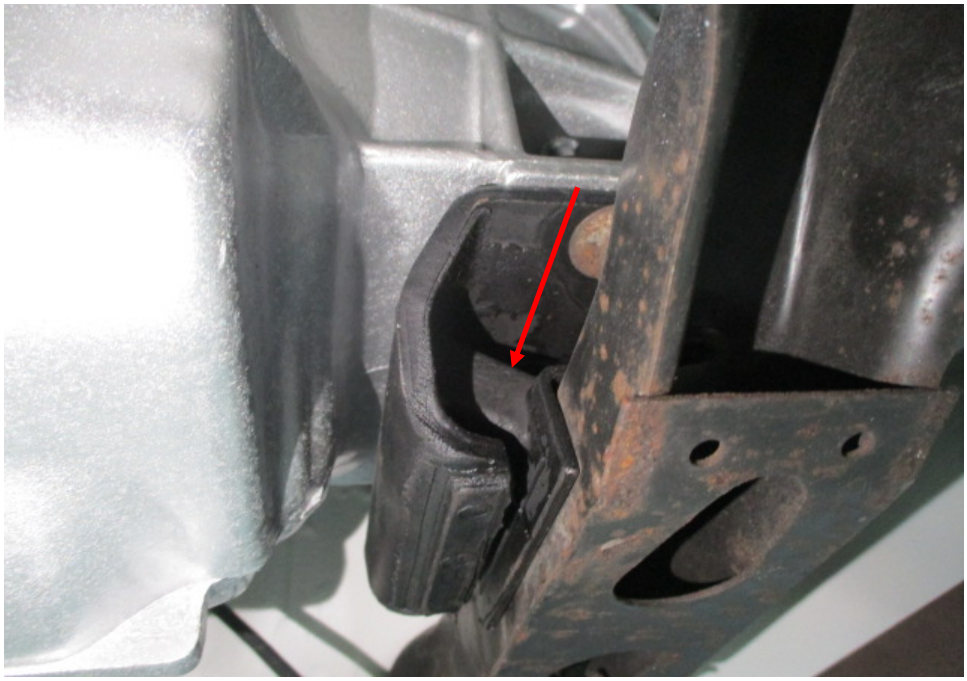

Photo 6 shows the rubber bushing (arrowed), sitting between the transmission assembly and the bracket. The rubber bushing absorbs any vibrations arising from the rotation of the transmission gears, minimising any stress to the bracket.

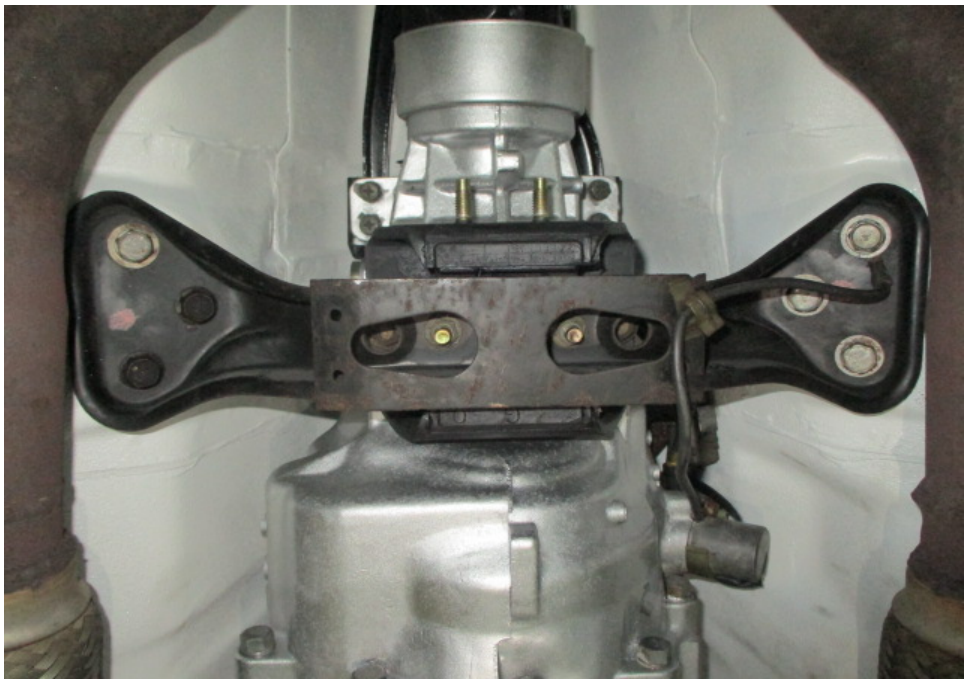

Photo 7 shows the bracket supporting the rear of the transmission assembly that was mounted to the underside of the Motor Car's floorboard, via bolts and nuts (as viewed from bottom to top).

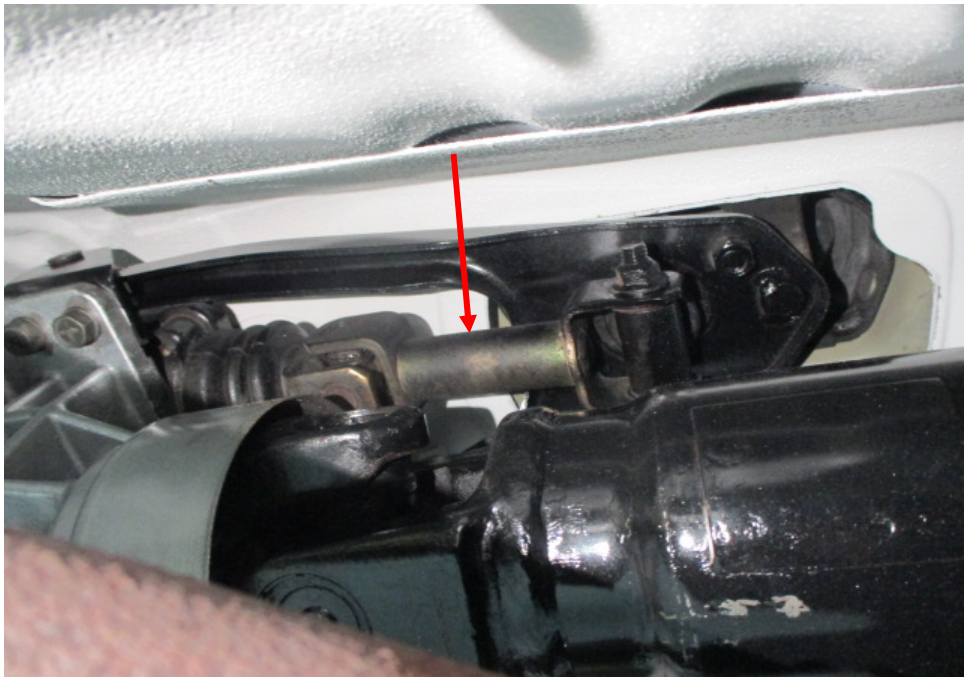

Photo 8 shows the gear selector shaft (arrowed) from the transmission assembly to the gear shifter of the Motor Car. The gear selector shaft was observed to be securely fitted to the underside of the Motor Car. This gear selector shaft connects to the gear shifter in the interior compartment of the Motor Car through the floorboard.

Photo 9 shows a general view of the transmission assembly that was fitted on the Motor Car, as viewed from the rear to front. The front (input) side of the transmission assembly is bolted to the crankshaft side of the engine block while the rear (output) side of the transmission assembly, connects to the propeller shaft, which links to the differential at the rear axle of the Motor Car.

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 10 & 11 below taken during my inspection of the Motor Car.

Photo 10 shows the Motor Car's manual gear shifter (arrowed) for manually selecting the transmission gear to be engaged.

Photo 11 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 along the various arterial roadways surrounding Sin Ming Autocare.

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 38,638km.

11. In general, the transmission assembly of the Motor Car was found to be secured properly. It was not mounted onto the chassis body or any integral body part of the Motor Car. The structural integrity of the Motor Car is not compromised by the fitment of this particular transmission assembly. Overall, the operating condition of the Motor Car's transmission system was satisfactory throughout the Motor Car's test drive.

Ang Bryan Tani
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