

Your Ref: Porsche 718 Boxster GTS

08 December 2021

(chassis number WP0ZZZ98ZKS220446)

Our Ref: CI/TP21012425/D

Armstrong Auto Pte Ltd

61 Bukit Batok Crescent #08-06 Heng Loong Building Singapore 658078

INSPECTION REPORT OF AN UNREGISTERED PORSCHE 718 BOXSTER GTS MOTOR CAR WITH CHASSIS NUMBER WP0ZZZ98ZKS220446

- 1. I refer to your request on 16 November 2021 to conduct a physical inspection of an unregistered Porsche 718 Boxster GTS motor car bearing chassis number WP0ZZZ98ZKS220446 (herein referred to as "**Motor Car**").
- 2. The purpose of this inspection is to primarily determine:
 - a) the general road worthiness of the Motor Car, whether there is any possible mechanical problem(s) and/or operational issue(s) to the various operating systems of the Motor Car;
 - b) whether there was any work (repair) done to the chassis/structural body of the Motor Car, and if yes, whether all major components, welding and critical points of the Motor Car has been properly restored.

Damage to the Motor Car

- 3. The photographs provided to me had showed damages at the front right portion, left front portion and rear right portion of the Motor Car. Body parts observed to be damaged at the front right portion include the front bumper, front bumper lower grille, front bumper sponge, front bumper reinforcement, front bumper lower reinforcement, front bonnet, front centre air guide, front right day light, front right headlamp, front right fender, front right fender inner shield, front right aircon condenser and front right radiator amongst others.
- 4. With regard to the left front portion, I had observed damage to the Motor Car's front left fender.
- 5. For the rear right portion, I had observed damage to the rear bumper, rear bumper lower cover, rear bumper tow hook cover, rear bumper right reflector, rear exhaust, rear bootlid, rear right taillamp, rear right fender, rear right wheel rim and right side rocker panel garnish amongst others.



- 6. The orientation of the Motor Car's rear right wheel indicates damage to its rear right undercarriage parts. Undercarriage parts that may possible be damaged include the rear right lower arm, rear right upper arm, rear right shock absorber and rear right knuckle arm amongst others.
- 7. No physical damage was observed to other areas of the Motor Car. The airbags were not deployed as seen from the photographs that were provided to me. See photo 1 8 below.



Photo 1 shows the front right body of the Motor Car (photograph provided to me). The Motor Car was observed to have sustained damages at its front right portion. The front bumper, front bumper lower grille, front bumper sponge, front bumper reinforcement, front bumper lower reinforcement, front centre air guide, front right day light, front right headlamp, front right aircon condenser and front right radiator were amongst the body parts that were observed to have been damaged.



Photo 2 shows a closer view of the damaged front right fender, front right headlamp, front right aircon condenser and front right radiator of the Motor Car (photograph provided to me).



Photo 3 shows the frontal body of the Motor Car (photograph provided to me). The front bumper, front bumper sponge, front bumper reinforcement and front bonnet were amongst the body parts that were observed to have been damaged.





Photo 4 shows the left side body of the Motor Car (photograph provided to me). The Motor Car's front left fender was observed to be damaged (circled).



Photo 5 shows the rear body of the Motor Car (photograph provided to me). Apart for the front right portion and left front portion, the Motor Car had also sustained damages at its rear right portion. Body parts damaged include the rear bumper, rear bumper lower cover, rear bumper tow hook cover, rear bumper right reflector, rear exhaust, rear bootlid and rear right taillamp amongst others.





Photo 6 shows the damage to the rear right wheel rim and right side rocker panel garnish of the Motor Car (photograph provided to me). The orientation of the Motor Car's rear right wheel indicates damage to its rear right undercarriage parts. Undercarriage parts that may possible be damaged include the rear right lower arm, rear right upper arm, rear right shock absorber and rear right knuckle arm amongst others.



Photo 7 shows the rear left body of the Motor Car (photograph provided to me). No physical damage was observed to the rear left portion of the Motor Car.



Photo 8 shows the interior compartment of the Motor Car (photograph provided to me). Parts and components within the interior compartment were observed to be unaffected. The airbags of the Motor Car were also not deployed as seen from the photographs that were provided to me.

Inspection of the Motor Car

- 8. Following the request, I had carried out a physical inspection of the Motor Car on 23 November 2021 at the premises of 1 Bukit Batok Crescent #06-12, WCEGA Plaza, Singapore 658064. I also conducted a short test drive of the Motor Car during this inspection. My observations and comments with respect to this inspection and test drive are set out below.
- 9. The mileage of the Motor Car recorded at the time of my inspection was 17,710miles. The Motor Car was also hoisted up during the inspection to facilitate my examination of its undercarriage.

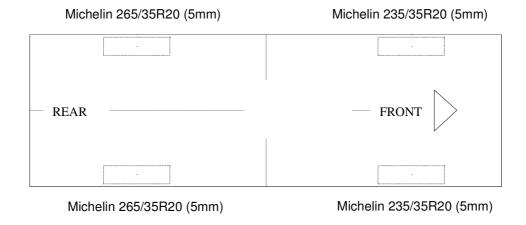
Exterior Condition

- 10. The Motor Car was observed to be in a relatively good general condition with no loose exterior fittings observed.
- 11. Its soft top roof was tested and found to be operating normally. The soft top roof was able to fold and unfold without any difficulty. It was also observed that during the folding and unfolding process, the soft top roof did not extend laterally beyond the Motor Car's body. As a safety feature, the soft top roof could only open and close when the Motor Car was in a stationary position.



Tyres and Wheel Rims

12. It was fitted with 20inch sport wheel rims that were wrapped with tyres that were observed to be of serviceable condition. The tyres were also sufficiently inflated for vehicular operation. The tyre brand, tyre size and approximate remaining tread depth of the 4 tyres of the Motor Car were recorded as follows: -



Body Panels (Detachable & Non-detachable)

- 13. The detachable body panels of the Motor Car like the front fenders, front bumper, rear bumper, doors, bonnet and rear bootlid amongst others were all found to be fitted securely.
- 14. Checks on the non-detachable body panels like the rear fenders, floorboard, pillars and rocker panels amongst others, revealed that these body panels were spot welded onto the chassis/structural body of the Motor Car. The original factory sealant at the joints of the non-detachable body panels was all untouched indicating no replacement of the non-detachable body panels was carried out; and that these body panels were all originally fitted.

Chassis/Structural Body

15. Visually, I did not find any weld marks, other than the original spot weld marks, on the chassis/structural body of the Motor Car. The original factory sealant at the joints along the chassis/structural body was also untouched, indicating that no replacement of the chassis/structural body was carried out; and that the chassis/structural body was originally fitted. I did however found signs of repair work carried out to the end section of the Motor Car's rear right chassis (refer to photograph 40 below).



Interior Compartment (Seats)

16. The seats of the Motor Car were found to be secured to the floorboard of the Motor Car via seat rails bolted onto the floorboard. Retractable seat belt reels and pre-tensioners were fitted on all seats of the Motor Car. The seat belt reels were tested and were able to be fastened securely into the respective pre-tensioners that were fixed to the side of all the seats.

Electronic Safety Features

17. The Motor Car's automatic self-test of the functionality of its various electronic safety features like the Anti-Lock Brake System (ABS), Supplemental Restraint System (SRS), Tyre Pressure Monitor (TPM) and Traction Control System (TCS) during cranking of the engine had indicated that these electronic systems were in working condition. This was determined from the respective warning lights disappearing from the instrument panel after the self-test.

Engine Compartment & Operating Fluids

- 18. My examination of the engine compartment of the Motor Car revealed that the various parts and components inside the engine compartment were all intact and properly fitted. The engine oil, brake fluid and engine coolant were all found to be of sufficient level for operating purposes. Visually, there was also no contamination found to these fluids.
- 19.My checks on the underside of the Motor Car revealed no sign(s) or indication(s) of fluid leakage and/or fluid stain(s). The engine block and automatic transmission assembly were both secured properly. All undercarriage components of the Motor Car were also observed to be intact and secured in an appropriate manner.

Steering System & Braking System

20. Static brake tests conducted on the Motor Car revealed no abnormality. The brake booster had responded well to the various tests conducted. There was also no abnormal movement of the brake pedal when it was depressed. The brake hoses and brake pipes were all intact with no leakage found. In general, the static brake tests had suggested that there was no internal leakage of pressure/vacuum in the braking system of the Motor Car and that the braking system is in serviceable condition.



21. Static test on the steering system of the Motor Car also revealed no abnormality to the steering system. I did not experience any abnormal free play and/or other resistance when turning the steering wheel left and right to full lock positions. My visual examination of the various steering components which had included the rack and pinion, tie rods, tie rod ends, and ball joints revealed that these components were all generally in good condition.

Test Drive of the Motor Car

- 22.I subsequently conducted a short test drive of the Motor Car to operationally determine if there was any possible mechanical problem(s) to the various operating systems of the Motor Car. The test drive was carried out within the building premises of WCEGA Plaza, where I was able to make multiple right turns and left turns; travel over road humps; left bend and right bend; upslope and downslope.
- 23. During this test drive, the general performance, stability, braking and handling of the Motor Car were satisfactory. No abnormal sound(s) was heard when executing left turns and right turns or when the Motor Car was going over road humps.
- 24. Operationally, I did not find any abnormal behaviour of the steering system and braking system. The Motor Car had responded well to my steering input and was able to come to a complete stop effectively during braking. The mileage of the Motor Car at the end of the test drive was 17,711miles.

Conclusion

- 25. Basing on my physical inspection of the Motor Car, I am of the view that the overall general condition of the Motor Car was relatively good as at the time of my inspection. There was also no sign(s) or indication(s) of fluid leak and/or fluid stain found.
- 26. The body parts at the front right portion, left front portion and rear right portion of the Motor Car were visually examined and it was noted that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 1 6 above) were reasonably adequate and in order.



- 27.I had found signs of repair work carried out to the end section of the Motor Car's rear right chassis. The repairs carried out were in order as the repairs did not involve any cutting and/or re-welding of the Motor Car's original chassis/structural body. Furthermore, lower body chassis alignment measurements carried out by STA Inspection Pte Ltd on 29 November 2021 also showed the chassis/structural measurements of the Motor Car to be without any major deviation (refer to Appendix 1 at page 29 of this report).
- 28. My test drive of the Motor Car revealed no evidence to suggest possible mechanical problem(s) to the Motor Car. I did not experience any abnormal behaviour and/or sound(s) from the various operating systems of the Motor Car. The general performance, stability, braking and handling of the Motor Car were satisfactory throughout the Motor Car's short test drive. In general, I had found the Motor Car to be of road worthy condition. See photo 9 44 below taken at the time of my inspection.



Photo 9 shows a general view of the front right body of the Motor Car at the time of my inspection. The Motor Car was observed to be in a relatively good general condition with no loose exterior fittings observed. The body parts at the front right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 1 - 3 above) were reasonably adequate and in order.



Photo 10 shows a closer view of the Motor Car's front bumper, front bumper lower grille, front right day light, front right headlamp and front right aircon condenser. The body parts at the front right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 1 & 2 above) were reasonably adequate and in order.



Photo 11 shows a closer view of the Motor Car's front bonnet, front right headlamp, front right fender and front right signal lamp. The body parts at the front right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 1 & 2 above) were reasonably adequate and in order.



Photo 12 shows a closer view of the Motor Car's front right fender, petrol filler outer cover and front right door. The body parts at the front right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 1 & 2 above) were reasonably adequate and in order.



Photo 13 shows a general view of the front left body of the Motor Car at the time of my inspection. The Motor Car was observed to be in a relatively good general condition with no loose exterior fittings observed. The body parts at the front left portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 3 & 4 above) were reasonably adequate and in order.



Photo 14 shows a closer view of the Motor Car's front bumper, front bumper lower grille, front left day light and front bonnet. The body parts at the front left portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 3 above) were reasonably adequate and in order.



Photo 15 shows a closer view of the Motor Car's front bumper, front left signal lamp, front left fender and front left wheel rim. The body parts at the front left portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 3 & 4 above) were reasonably adequate and in order.



Photo 16 shows a general view of the Motor Car's front bonnet compartment at the time of my inspection. All inner trims, garnishes and upholstery etc were observed to be properly fitted.



Photo 17 shows a general view of the rear right body of the Motor Car at the time of my inspection. The Motor Car was observed to be in a relatively good general condition with no loose exterior fittings observed. The body parts at the rear right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 5 & 6 above) were reasonably adequate and in order.



Photo 18 shows a closer view of the Motor Car's rear right wheel rim, rear right tyre and right side rocker panel garnish. The body parts at the rear right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 6 above) were reasonably adequate and in order.



Photo 19 shows a closer view of the Motor Car's rear bumper, rear bumper right reflector, rear bumper lower cover and rear right taillamp. The body parts at the rear right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 5 above) were reasonably adequate and in order.



Photo 20 shows a closer view of the Motor Car's rear bumper, rear bumper reflectors, rear bumper lower cover and rear exhaust. The body parts at the rear right portion of the Motor Car were visually examined and it was observed that the repair/restoration works carried out to the damaged area of the Motor Car (refer to photograph 5 above) were reasonably adequate and in order.



Photo 21 shows a general view of the rear left body of the Motor Car at the time of my inspection. The Motor Car was observed to be in a relatively good general condition with no loose exterior fittings observed. The mileage of the Motor Car recorded at the time of my inspection was 17,710miles.

 $51\,UBI\,AVE\,1, \#01\text{-}25\,PAYA\,UBI\,INDUSTRIAL\,PARK, SINGAPORE\,408933\,\,TEL: (065)\,62563561\,\,FAX: (065)\,67414108$



Photo 22 shows a general of the Motor Car's rear boot compartment at the time of my inspection. All inner trims, garnishes and upholstery etc were observed to be properly fitted.



Photo 23 shows the chassis number of the Motor Car. The chassis number recorded WP0ZZZ98ZKS220446.



Photo 24 shows the interior compartment of the Motor Car at the time of my inspection. The various parts and components, seats, trims, carpet and upholstery inside the interior compartment were all observed to be intact and properly fitted



Photo 25 shows the seats of the Motor Car. All the seats of the Motor Car were secured via seat rails to the floorboard. They were also fitted with a retractable seat belt reel and a pre-tensioner. The seat belts (arrowed) were tested and were able to be fastened into the respective pre-tensions that were fitted on the side of each individual seat.



Photo 26 shows the Motor Car's soft top roof being tested. It was observed that as a safety feature, the soft top roof could only open and close when the Motor Car was in a stationary position. When in an open position, the soft top roof is completely folded into its rear compartment with no parts protruding out of the Motor Car's body. The soft top roof was also found adequately secured to the "A" pillar after closing.



Photo 27 shows the Motor Car with its soft top roof in an open position. It was observed that as a safety feature, the soft top roof could only open and close when the Motor Car was in a stationary position. When in an open position, the soft top roof is completely folded into its rear compartment with no parts protruding out of the Motor Car's body. The soft top roof was also found adequately secured to the "A" pillar after closing.



Photo 28 shows the warning lights for the various electronic safety features appearing on the instrument panel of the Motor Car during its self-test when the engine is cranked, in particular the ABS, SRS, TPM and TCS lights (arrowed).



Photo 29 shows the respective warning lights no longer illuminated, indicating that there is no fault detected to the ABS, SRS, TPM and TCS systems of the Motor Car during the self-test. These electronic systems were hence in working condition at the time of my inspection.





Photo 30 shows the Motor Car hoisted up for checks on its undercarriage. There was no sign(s) or indication(s) of fluid leakage and/or fluid stain(s) on the underside of the Motor Car. The undercarriage components of the Motor Car were also all observed to be intact and secured in an appropriate manner.



Photo 31 shows a general view of the control arms and linkages at the rear right wheel of the Motor Car. I did not observe any fluid leak and/or fluid stain on the underside of the Motor Car. All of the Motor Car's undercarriage components were observed to be intact and secured in an appropriate manner.

 $51~\text{UBI AVE 1,} \#01\text{-}25~\text{PAYA UBI INDUSTRIAL PARK,} \text{SINGAPORE 408933} \quad \text{TEL:} \ (065) \ 62563561 \quad \text{FAX:} \ (065) \ 67414108 \\ \text{FAX:} \ (065) \ 67414$



Photo 32 shows a general view of the control arms and linkages at the rear left wheel of the Motor Car. I did not observe any fluid leak and/or fluid stain on the underside of the Motor Car. All of the Motor Car's undercarriage components were observed to be intact and secured in an appropriate manner.



Photo 33 shows the various undercarriage components at the front left wheel of the Motor Car. The mechanical components, control arms and linkages were all found to be intact and secured in an appropriate manner.



Photo 34 shows the various undercarriage components at the front right wheel of the Motor Car. The mechanical components, control arms and linkages were all found to be intact and secured in an appropriate manner. I also did not observe any fluid leak and/or fluid stain on the underside of the Motor Car.



Photo 35 shows the Motor Car's rear mufflers (arrowed). My examination of the Motor Car's exhaust system revealed no sign(s) or indication(s) of any cut or weld marks along its exhaust pipes, on its catalytic converters and on its rear mufflers.



Photo 36 shows the Motor Car's catalytic converters. My examination of the Motor Car's exhaust system revealed no sign(s) or indication(s) of any cut or weld marks along its exhaust pipes, on its catalytic converters and on its rear mufflers.



Photo 37 shows a general view of the Motor Car's engine compartment. The engine compartment was at the rear underside of the Motor Car. The various parts and components inside the engine compartment were all observed to be intact and properly fitted. There was also no sign(s) or indication(s) of fluid leak and/or fluid stain found inside the engine compartment.



Photo 38 shows another view of the Motor Car's engine compartment. The engine compartment was at the rear underside of the Motor Car. The various parts and components inside the engine compartment were all observed to be intact and properly fitted. There was also no sign(s) or indication(s) of fluid leak and/or fluid stain found inside the engine compartment.



Photo 39 shows the chassis/structural body at the underside rear left of the Motor Car. I did not find any weld marks other than original spot weld marks (yellow arrow) on the chassis/structural body of the Motor Car. The original factory sealant (red arrow) at the joints along the chassis/structural body was also untouched. In general, the Motor Car's chassis/structural body was found to be originally fitted.



Photo 40 shows the chassis/structural body at the underside rear right of the Motor Car. The end section of the chassis/structural body at the underside rear right was found with signs of repair. However, the rear right chassis of the Motor Car was still observed to be an originally fitted part given that original factory sealant (red arrow) and original spot weld mark (yellow arrow) were seen on the rear right chassis.



Photo 41 shows the chassis/structural body at the underside front right of the Motor Car. The original factory sealant (arrowed) at the joints along the chassis/structural body was observed to be untouched. In general, I had found the chassis/structural body of the Motor Car to be originally fitted.



Photo 42 shows the chassis/structural body at the underside front left of the Motor Car. The original factory sealant (arrowed) at the joints along the chassis/structural body was observed to be untouched. In general, I had found the chassis/structural body of the Motor Car to be originally fitted.



Photo 43 shows the right side "A" pillar of the Motor Car. I did not find any weld marks other than original spot weld marks (arrowed) on the right side "A" pillar of the Motor Car, which indicates that there was no re-welding works carried out. In general, I had found all the non-detachable body panels of the Motor Car to be originally fitted at the time of my inspection.





Photo 44 shows the rear right body panel of the Motor Car. I did not find any weld marks other than original spot weld marks (arrowed) on the rear right body panel of the Motor Car, which indicates that there was no re-welding works carried out. In general, I had found all the non-detachable body panels of the Motor Car to be originally fitted at the time of my inspection.



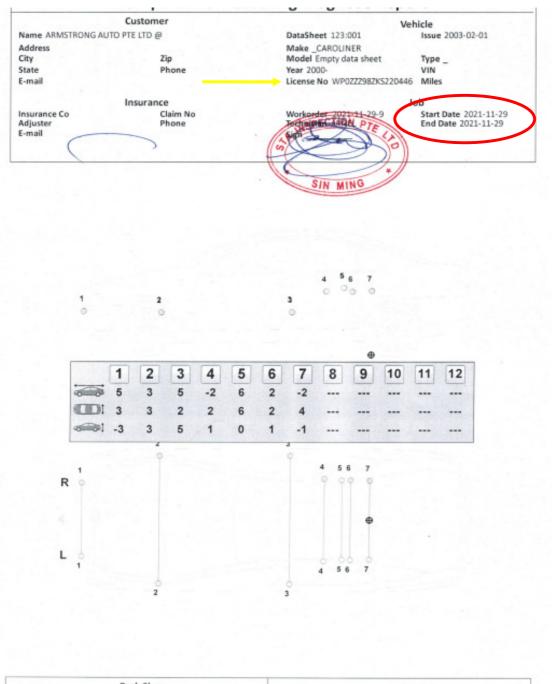
Ang Bryan Tani

AMSOE, AMIRTE, AFF SAE, M.MATAI, AFF.Inst.AEA Senior Technical Investigator Technical Investigation & Accident Reconstructionist (SAE-A)

DISCLAIMER OF LIABILITY TO THIRD PARTIES:- This Report is made solely for the use and benefit of the Client named on the front page of this Report. No liability or responsibility whatsoever, in contract or tort, is accepted to any third party who may rely on the Report wholly or in part. Any third party acting or relying on this Report, in whole or in part, does so at his or her own risk.



Appendix 1





Appendix 1 shows the lower body chassis measurements of the Motor Car (yellow arrow) that was carried out by STA Inspection Pte Ltd on 29 November 2021 (circled). I note that the chassis/structural measurements of the Motor Car were without major deviation (red arrow).