

Your Ref: Mercedes Benz E53 30 July 2021

(chassis number WDD2130612A731628)

Our Ref: CI/TP21008084/D

#### **Focus Auto Pte Ltd**

1 Kaki Bukit Avenue 6 #02-50 Kaki Bukit @ Autobay Singapore 417883

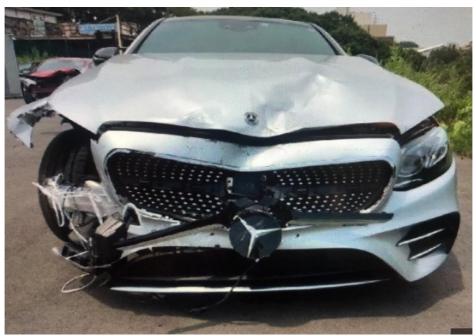
# INSPECTION REPORT OF AN UNREGISTERD MERCEDES BENZ E53 MOTOR CAR WITH CHASSIS NUMBER WDD2130612A731628

- 1. I refer to your request on 12 July 2021 to conduct a physical inspection of an unregistered Mercedes Benz E53 motor car bearing chassis number WDD2130612A731628 (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 damage to the Motor Car's frontal body. Body parts observed to have been damaged include the front bumper, front bumper centre garnish, front bumper centre lower grille, front bumper right lower grille, front bumper reinforcement, radiator grille, front emblem, front headlamps, front bonnet, front bonnet locks, front bonnet hinges, front right fender, front right fender inner shield, front top centre panel, front headlamp top right panel, front support panel and front top air duct amongst others.
- 4. No physical damage was observed to other areas of the Motor Car. The airbags were also not deployed as seen from the photographs that were provided to me. See photo 1 4 below.





**Photo 1** shows the frontal body of the Motor Car prior to any repairs being carried out (photograph provided to me). The Motor Car was observed to have sustained damage at its frontal body. Body parts damaged include its front bumper, front bumper centre garnish, front bumper centre lower grille, radiator grille, front emblem and front bonnet amongst others.



**Photo 2** shows the front left body of the Motor Car prior to any repairs being carried out (photograph provided to me). The Motor Car was observed to have sustained damage at its frontal body. Body parts damaged include its front bumper, front bonnet, front bonnet hinges, front bonnet locks, front left headlamp and radiator grille amongst others.





**Photo 3** shows the front right body of the Motor Car prior to any repairs being carried out (photograph provided to me). The Motor Car was observed to have sustained damage at its frontal body. Body parts damaged include its front bumper, front bumper reinforcement, front bumper right lower grille, front right headlamp, front bonnet, front right fender and front right fender inner shield amongst others.



**Photo 4** shows the interior compartment of the Motor Car prior to any repairs being carried out (photograph provided to me). The airbags of the Motor Car were not deployed.



# **Inspection of the Motor Car**

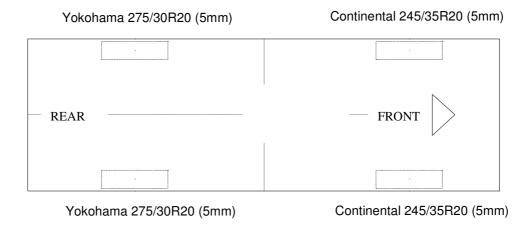
- 5. Following the request, I had carried out a physical inspection of the Motor Car on 19 July 2021 at the premises of 1 Kaki Bukit Avenue 6 #02-50, Kaki Bukit @ Autobay, Singapore 417883. I also conducted a short test drive of the Motor Car during this inspection. My observations and comments with respect to this inspection and test drive are set out below.
- 6. The mileage of the Motor Car recorded at the time of my inspection was 8,120km. The Motor Car was also hoisted up during the inspection to facilitate my examination of its undercarriage.

#### **Exterior Condition**

7. The Motor Car was observed to be in a relatively good general condition with no loose exterior fittings observed.

# **Tyres and Wheel Rims**

8. 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)**

9. 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.



10. Checks on the non-detachable body panels like the rear fenders, floorboard, roof panel, 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**

11. 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, again indicating that no replacement of the chassis/structural body was carried out; and that the chassis/structural body was originally fitted.

## **Interior Compartment (Seats)**

12. 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**

13. The Motor Car's automatic self-test of the functionality of its various electronic safety features like the Anti-Brake Lock System (ABS), Supplemental Restraint System (SRS), Electric Power Steering (EPS), 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**

14. 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.



15.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

- 16. 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.
- 17. 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**

- 18.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 Kaki Bukit @ Autobay, where I was able to make multiple right turns and left turns; travel over road humps; left bend and right bend; upslope and downslope.
- 19. 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.
- 20. 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 8,121km.



#### Conclusion

- 21. 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 no sign(s) or indication(s) of any work (repair) done to the chassis/structural body of the Motor Car. There was also no sign(s) or indication(s) of fluid leak and/or fluid stain found.
- 22. The body parts at the frontal body of the Motor Car were all visually examined, and it was noted that the repair/restoration works carried out to the damaged area of the Motor Car (refer photograph 1 3 above) were reasonably adequate and in order.
- 23. 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 5 30 below taken at the time of my inspection.



**Photo 5** 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 frontal body 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 6** shows a closer view of the front bumper, front bumper centre garnish, front bumper right lower grille, front right headlamp and radiator grille of the Motor Car. The body parts at the frontal body 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 7** shows a closer view of the front bumper, front bumper centre lower grille, front emblem and radiator grille of the Motor Car. The body parts at the frontal body 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 8** shows a closer view of the front right headlamp, front right fender and front bonnet of the Motor Car. The body parts at the frontal body 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 9** 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 frontal body 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 front bumper, front bumper centre garnish, front emblem, radiator grille and front left headlamp of the Motor Car. The body parts at the frontal body 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 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 8,120km.



**Photo 12** shows the chassis number of the Motor Car. The chassis number recorded was WDD2130612A731628.



**Photo 13** shows a general view of the engine compartment of the Motor Car at the time of my inspection. 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. The repair/restoration works carried out to the various parts within the engine compartment like the front top centre panel, front headlamp top right panel, front support panel and front top air duct amongst others, were reasonably adequate and in order.



**Photo 14** shows a general view of the interior compartment of the Motor Car at the time of my inspection. The various parts and components, trims, carpet and upholstery inside the interior compartment were all observed to be intact and properly fitted.



**Photo 15** shows the rear 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) of the Motor Car were tested and were able to be fastened into the respective pre-tensions that were fitted on the side of each individual seat.





**Photo 16** 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, EPS, TPM and TCS lights (arrowed).



**Photo 17** shows the respective warning lights no longer illuminated, indicating that there is no fault detected to the ABS, SRS, EPS, 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 18** 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 19** 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 the Motor Car's undercarriage components were observed to be intact and secured in an appropriate manner.





**Photo 20** 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 the Motor Car's undercarriage components were observed to be intact and secured in an appropriate manner.



**Photo 21** 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.



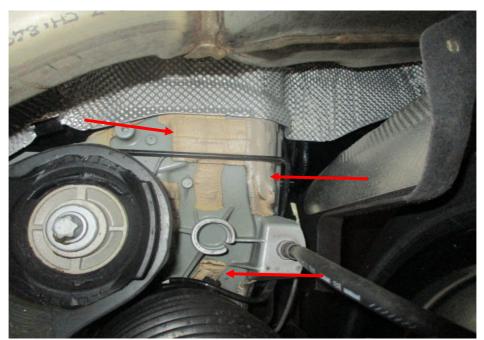
**Photo 22** shows the various undercarriage components at the front left wheel of the Motor Car. The mechanical components, control arms and linkages were all found to be intact and secured in an appropriate manner. I also did not observe any fluid leak and/or fluid stain on the underside of the Motor Car.



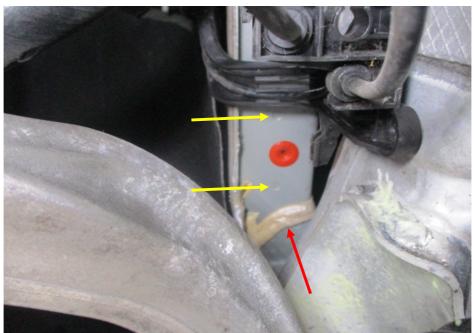
**Photo 23** shows a general view of the rear section of the Motor Car's exhaust system. My examination of the Motor Car's exhaust system revealed no sign(s) or indication(s) of any cut or weld marks along its exhaust pipes (arrowed), on its catalytic converter, centre resonator box and on its rear mufflers.



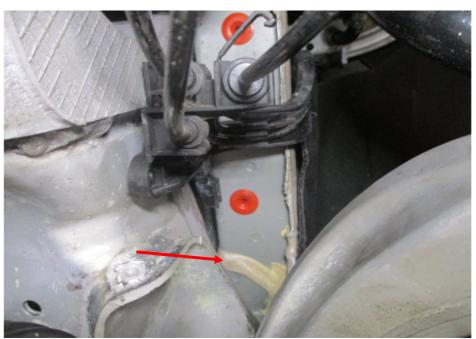
**Photo 24** shows a general view of the front section of the Motor Car's exhaust system. My examination of the Motor Car's exhaust system revealed no sign(s) or indication(s) of any cut or weld marks along its exhaust pipes, on its catalytic converter, centre resonator box (arrowed) and on its rear mufflers.



**Photo 25** shows the chassis/structural body at the underside rear right of the Motor Car. The original factory sealant (arrowed) at the joints along the chassis/structural body was untouched. In general, I had found no work was carried out on the chassis/structural body of the Motor Car. The chassis/structural body of the Motor Car was originally fitted.



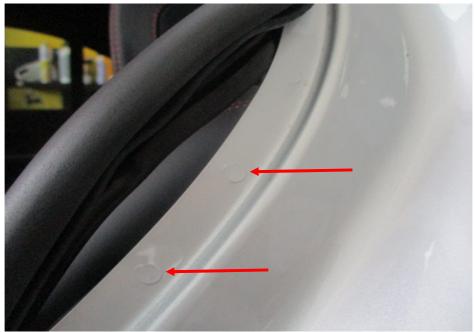
**Photo 26** shows the chassis/structural body at the underside front left of the Motor Car. I did not find any weld marks other than original spot weld marks (yellow arrow) on the chassis/structural body of the Motor Car. The original factory sealant (red arrow) at the joints along the chassis/structural body was untouched, indicating no work was done on the chassis/structural body of the Motor Car and that the chassis/structural body was originally fitted.



**Photo 27** 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 no work was carried out on the chassis/structural body of the Motor Car. The chassis/structural body of the Motor Car was originally fitted.



**Photo 28** 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 29** shows the left side "C" pillar of the Motor Car. I did not find any weld marks other than original spot weld marks (arrowed) on the left side "C" 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 30 shows the right side "C" pillar of the Motor Car. I did not find any weld marks other than original spot weld marks (arrowed) on the right side "C" 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.



# **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.