



iPE Exhaust

Automotive exhaust system engineering

Mercedes-Benz

W177-A45/A45s

Product installation instruction

I. Important information

iPE developed exhaust systems based on the OEM exhaust to avoid issue with installation. Modern car keys and the vehicle itself have an inductive power transmission function, we suggest to keep the car key at least 5 meters away from the vehicle for safety purpose. Please wear insulated gloves to replace the exhaust pipe when hot, or replace it after cool down to avoid burns.

When setting the valve to open automatically, please do not let the valve open prematurely to avoid resonance; it is recommended to set the timing of valve opening to 60% of the throttle. For detailed setting options, please refer to the **control box setting** page.

The iPE exhaust system is an evolution designed based on OEM spec. If the vehicle has ECU tuning, there may be possible resonance from the exhaust system. If you have any questions about this installation instruction, please contact your local iPE dealer or email us at info@ipe-f1.com

II. Mercedes-Benz A45/A45s(W177)

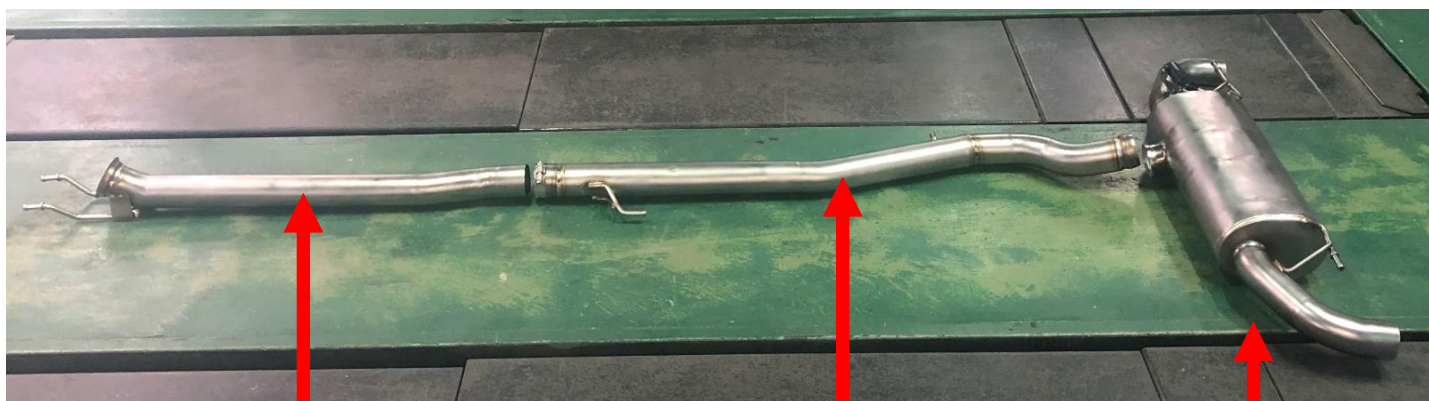
Product assembly



Cat pipe



Tips



Front pipe

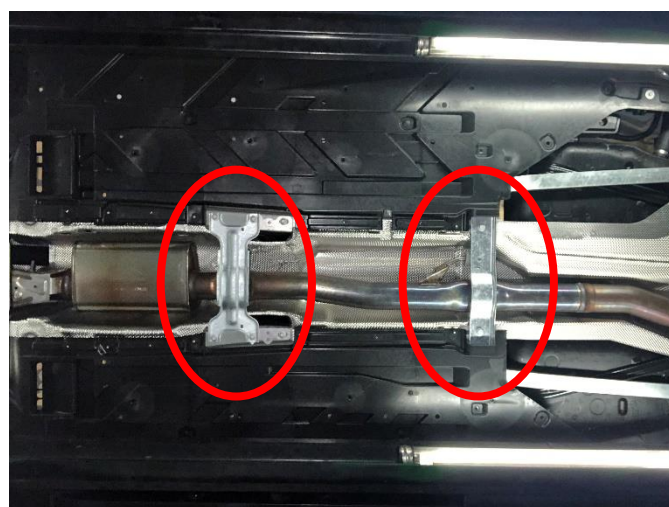
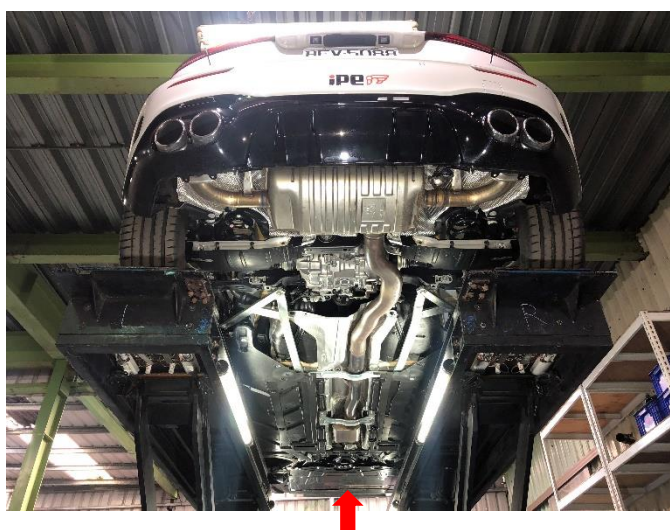
Mid pipe

Muffler

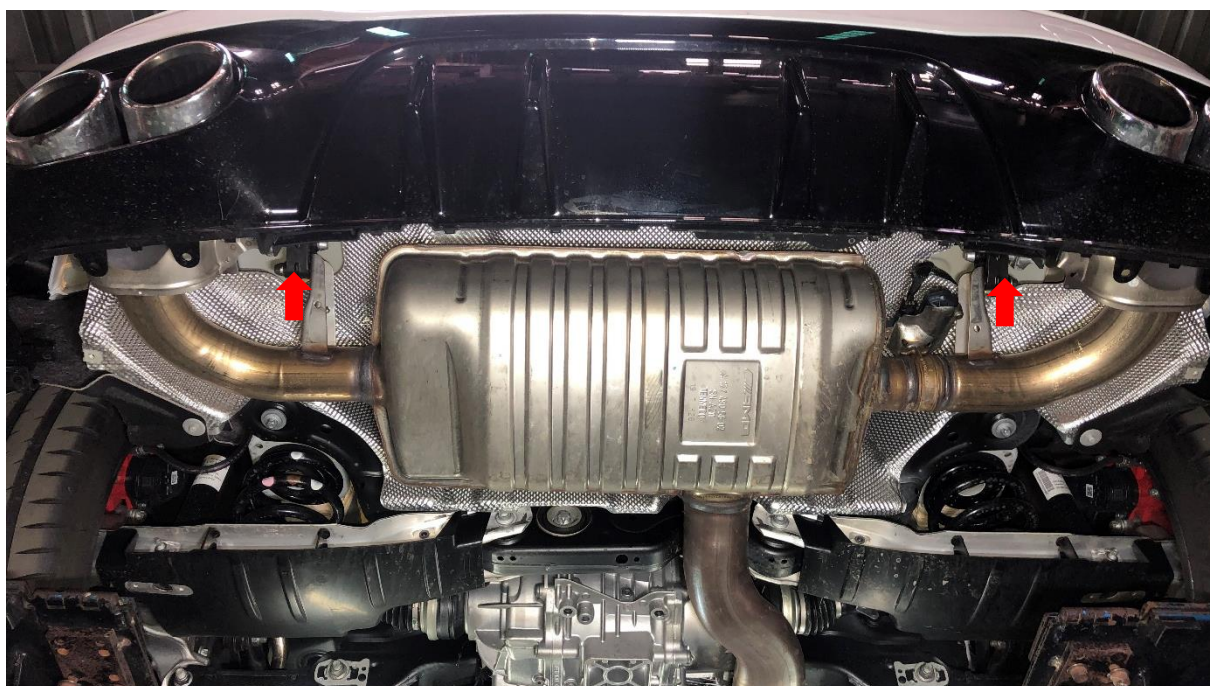
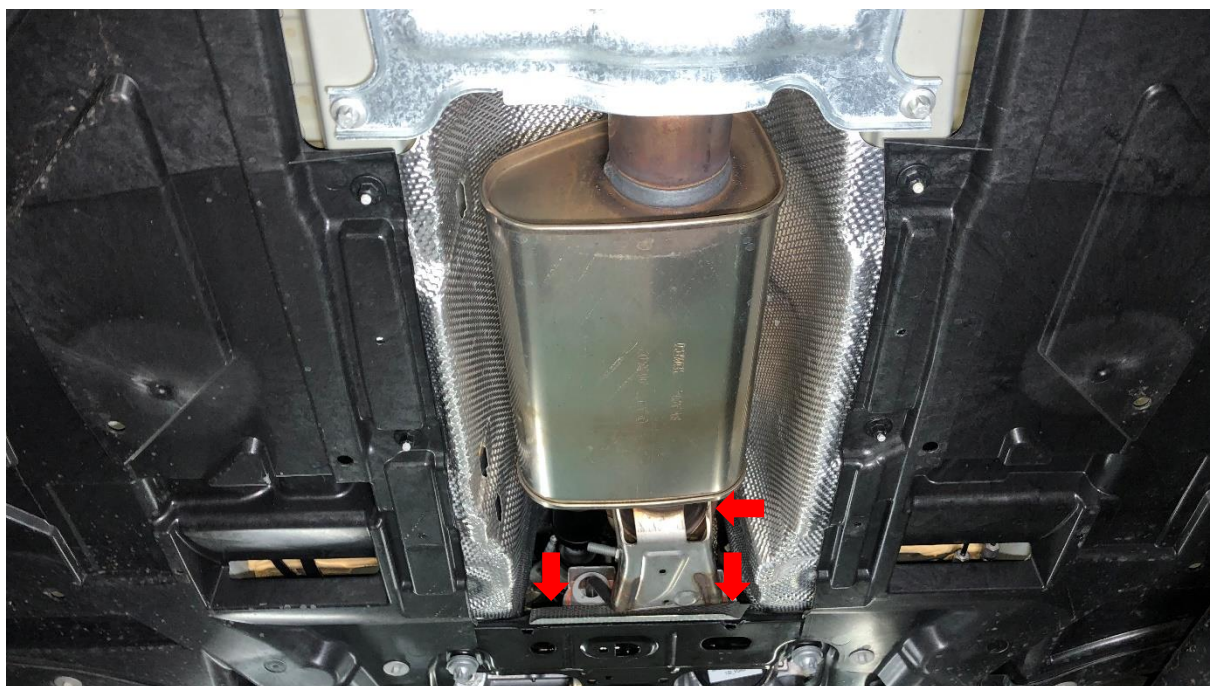
III. Remove the original exhaust

Lift up the vehicle to the working position.

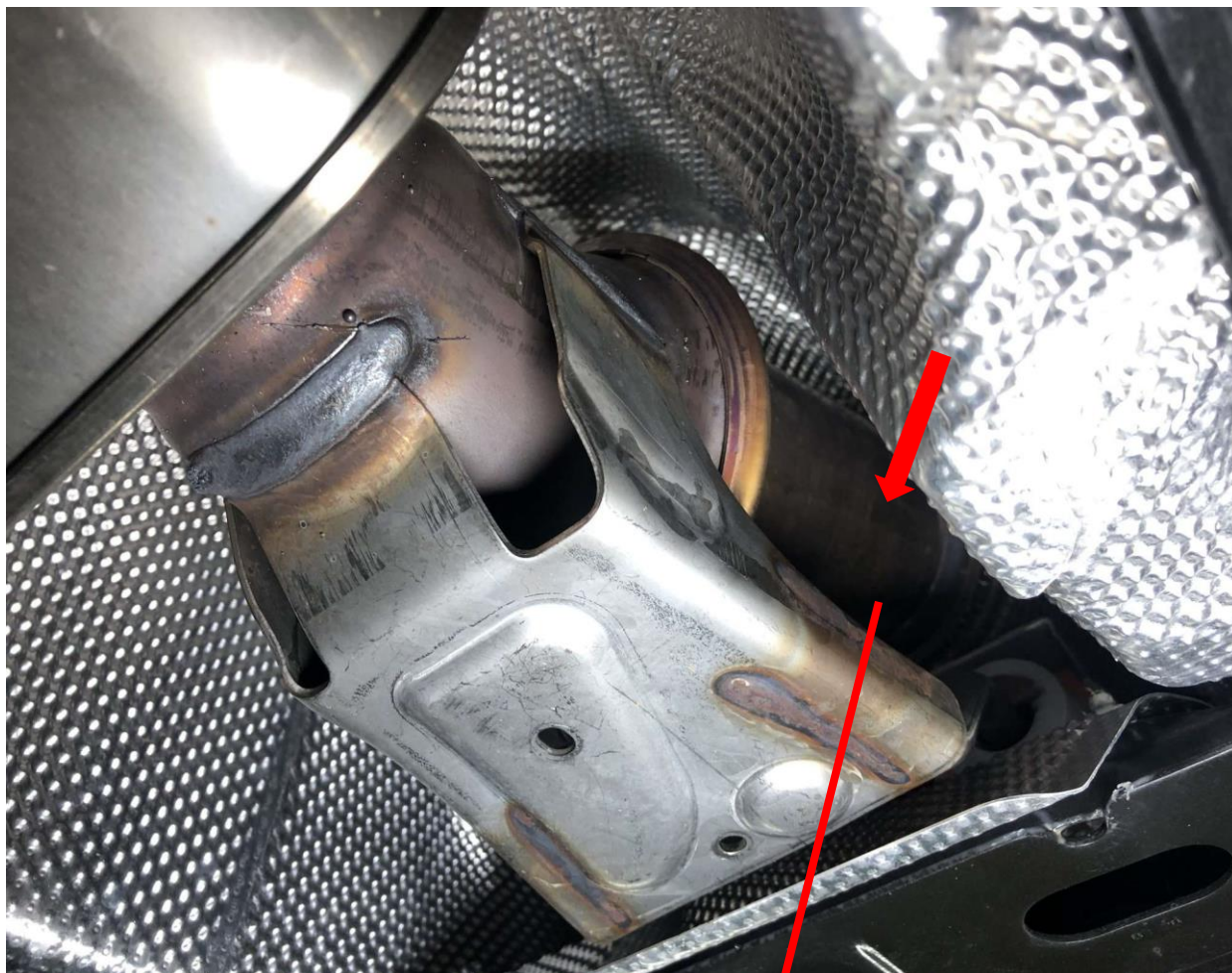
1. Unplug the electronic valve motor plug on the original muffler.
2. Remove the front lower guard and the mid pipe pull rod screw.



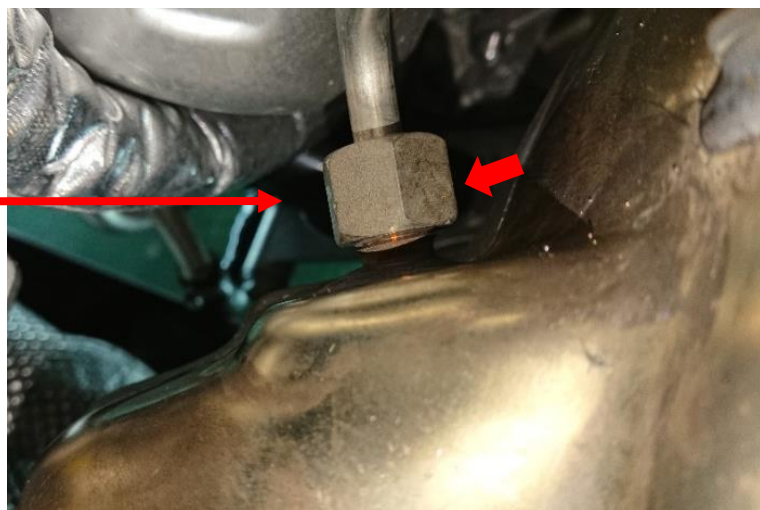
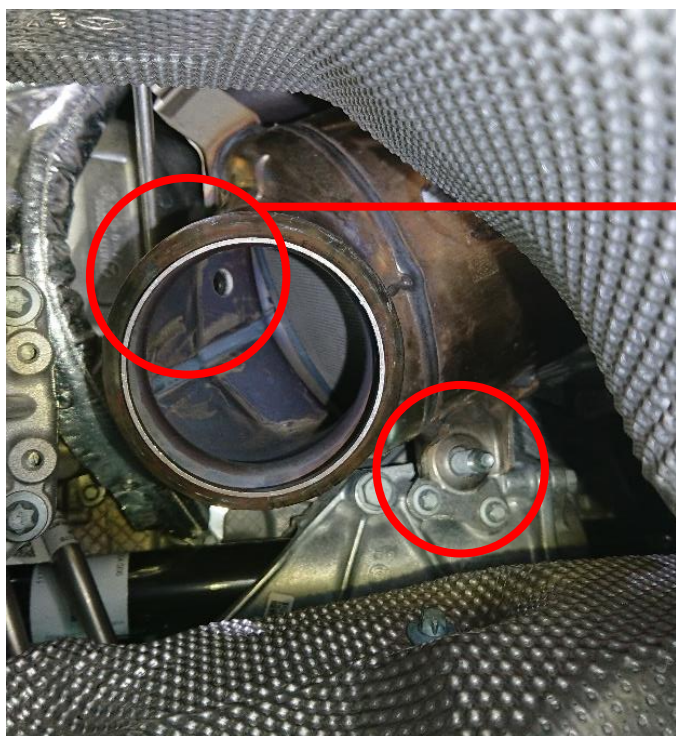
3. Remove the front pipe clamps and bush nuts.
4. Remove the bush of the muffler, then you can remove the original catback system.



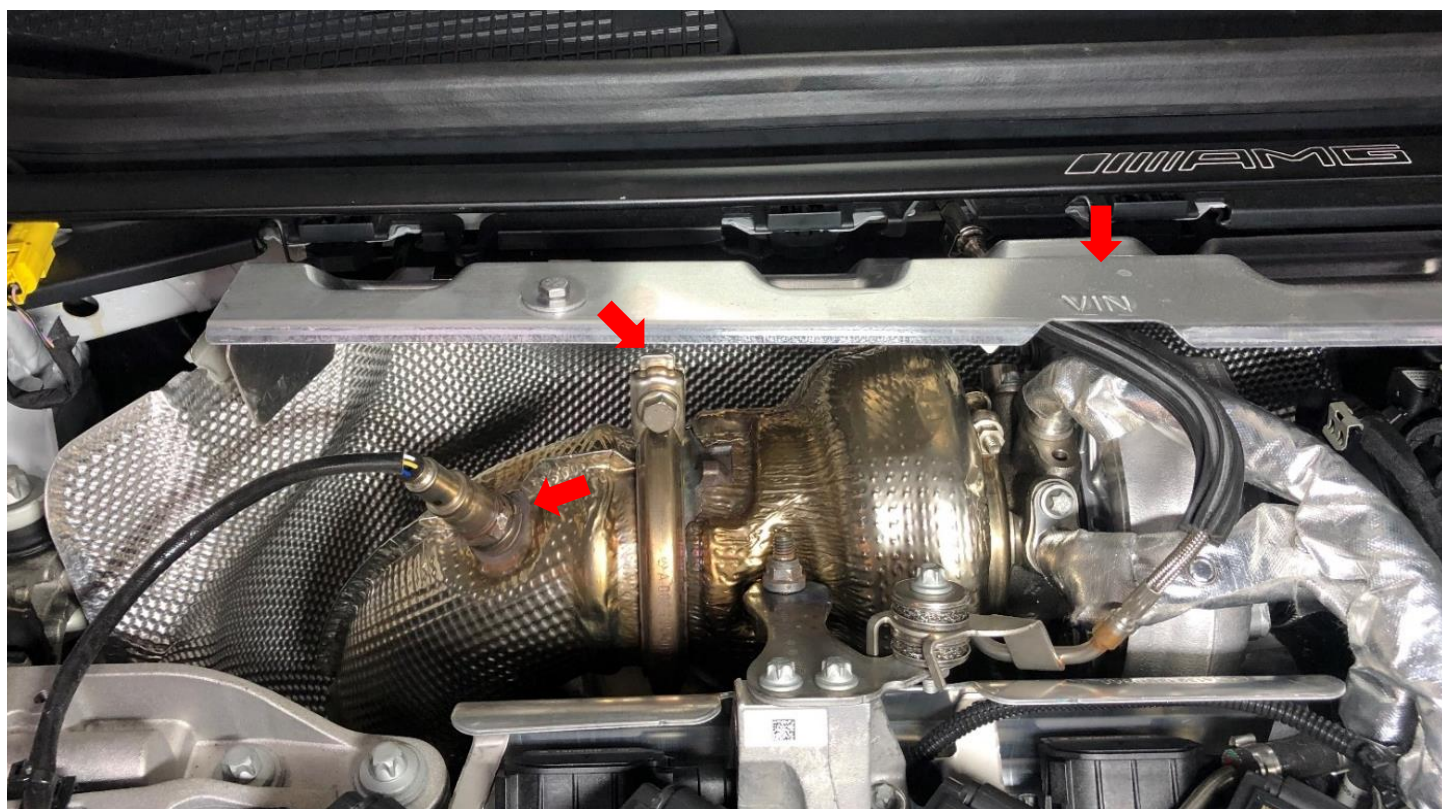
5. Dismantle the original short pipe, this section is reserved for use.



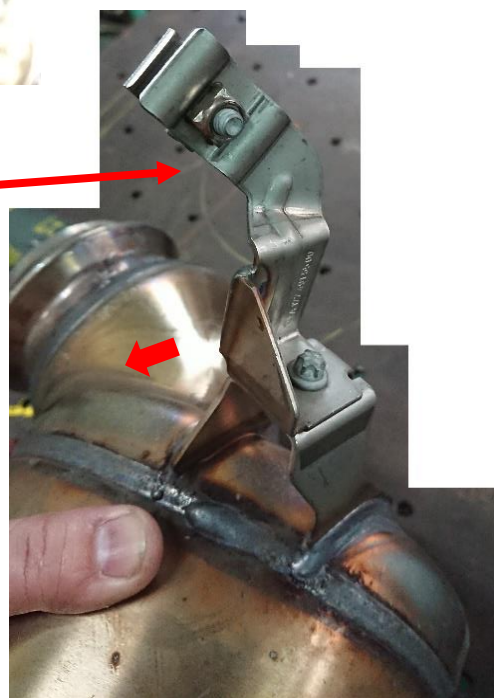
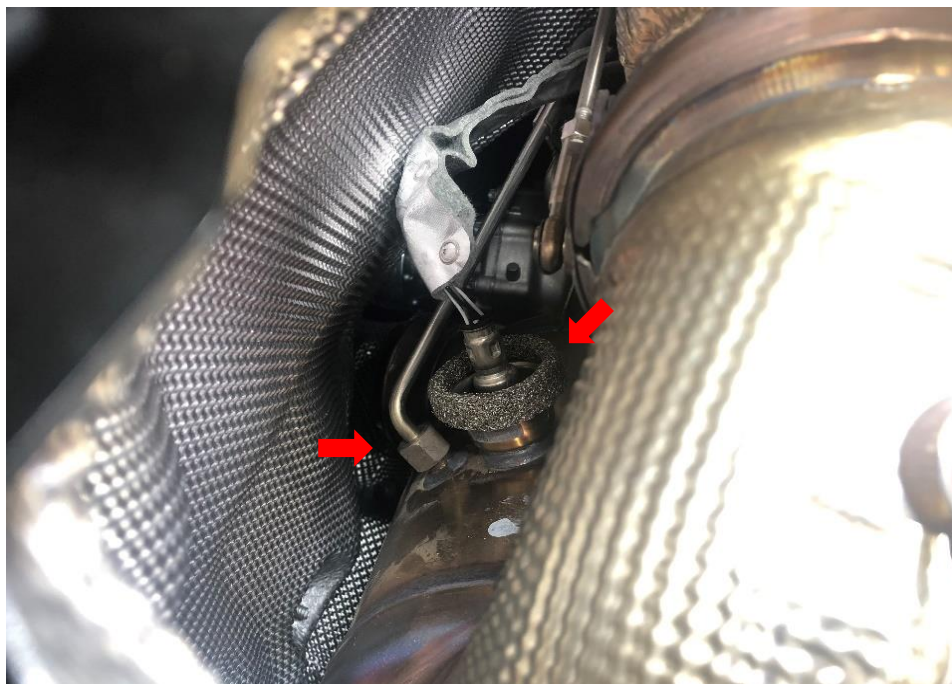
6. At the exit of the cat pipe, remove the interface nut after the OPF.
7. Remove the big nut (No. 18) of the bush at the outlet of the cat pipe.
8. Remove the entrance fixing plate of the cat pipe. (4 #10 screws)



9. Remove the engine cover upper guard.
10. Remove the bracket above the cat pipe.
11. Remove the retainer and front oxygen sensor of the cat pipe.



12. Remove the rear oxygen sensor of the cat pipe.
13. Remove the OPF front joint nut of the cat pipe.
14. Remove the OPF front pipe bracket of the cat pipe.
15. Then the cat pipe can be removed.

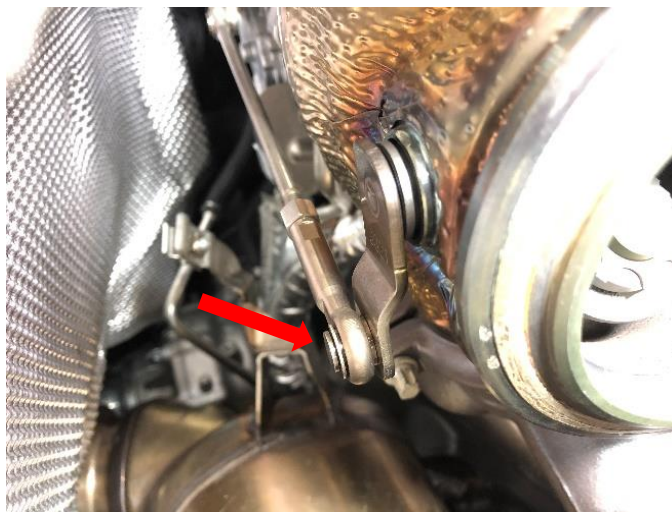
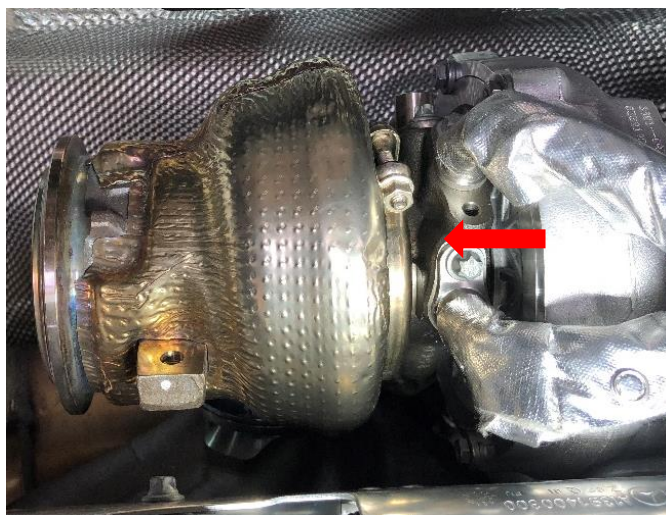
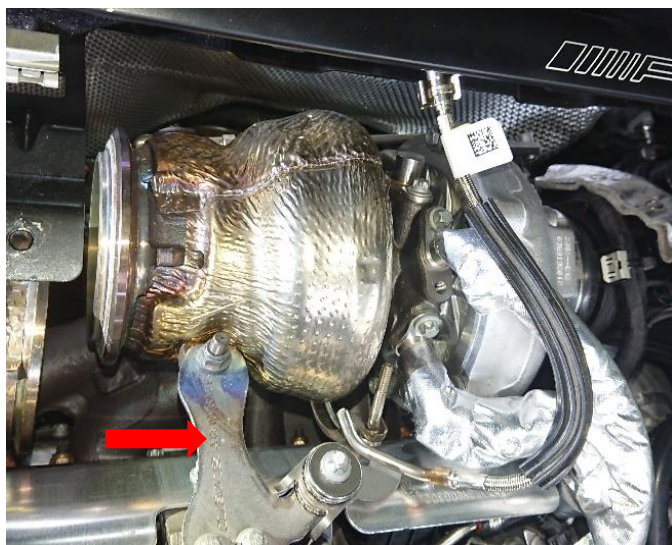


16. Remove the turbine fixing plate.

17. Remove the C-type retaining ring of the turbine.

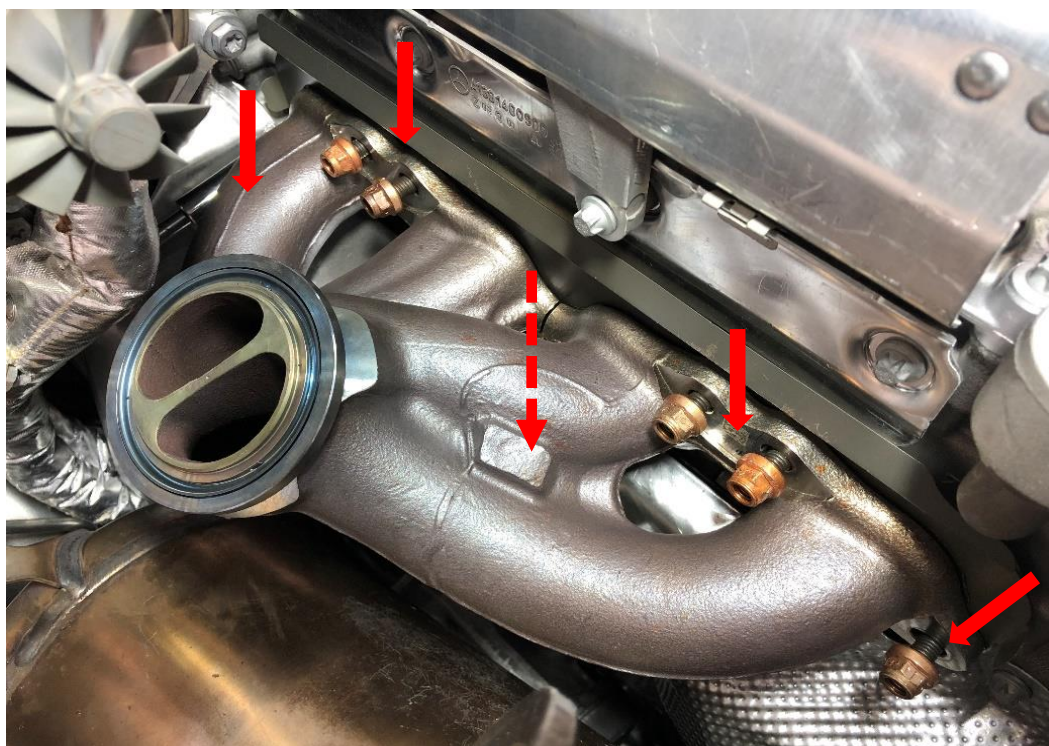
18. Remove the turbine right exit clamps.

19. Remove the inlet clamps under the turbine.



20. Take out the exhaust side of the turbine, and protect the turbine blades to avoid collision.

21. Remove the header screws (8 pcs).



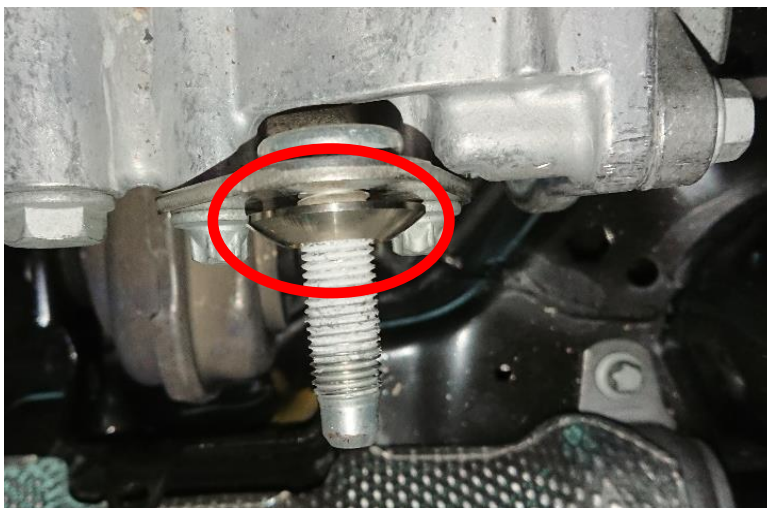
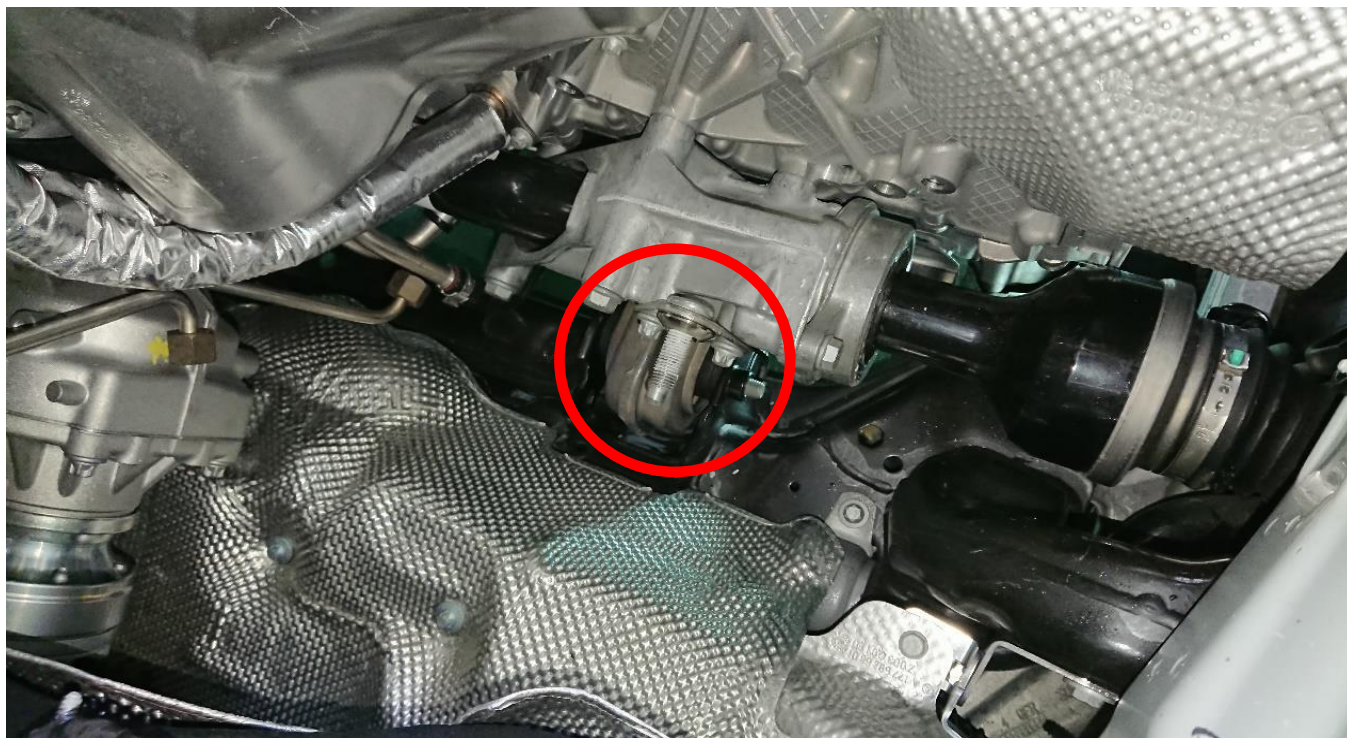
22. Take off the header, you must pay attention to the export round gasket cannot be damaged or lost.

23. Remove the header heat shield.

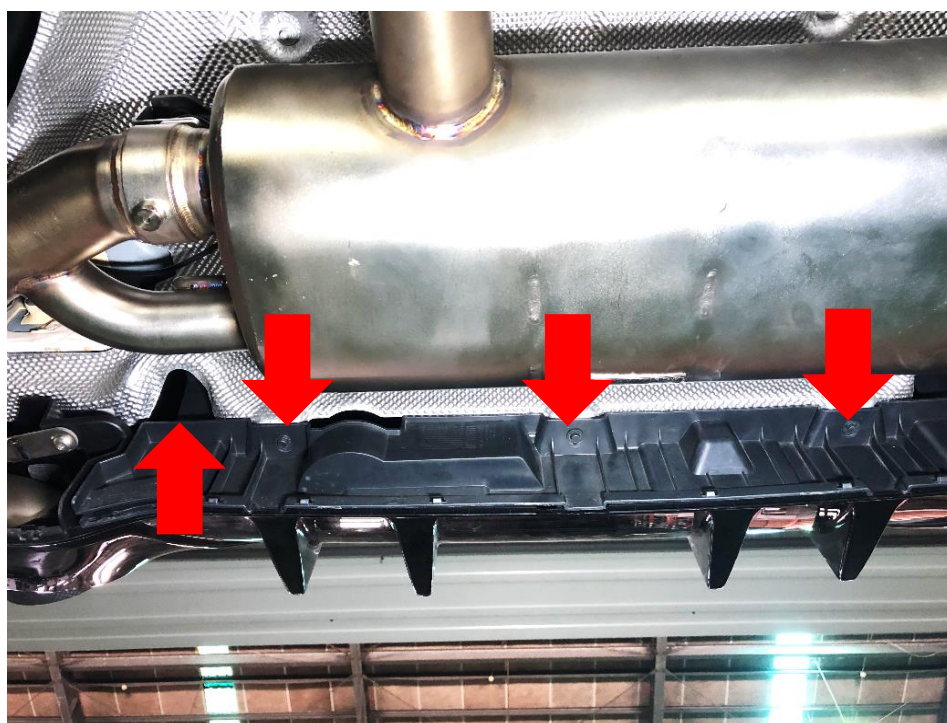
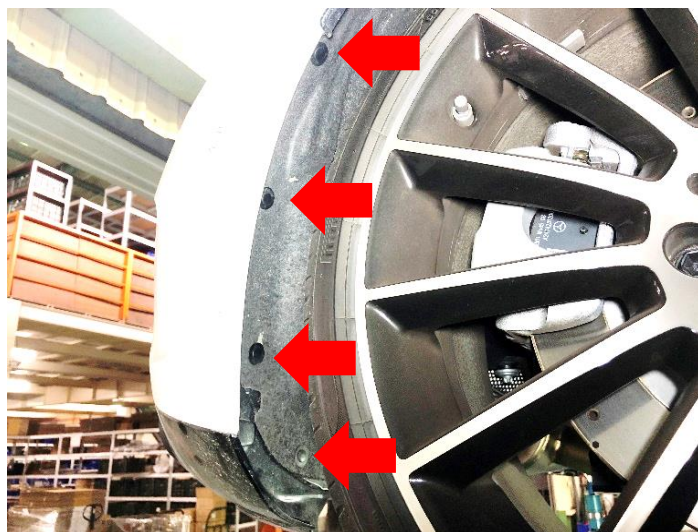


24. Cat pipe can be remove.

25. The spherical washer of the bush seat at the outlet of the cat pipe must be taken out and not used.

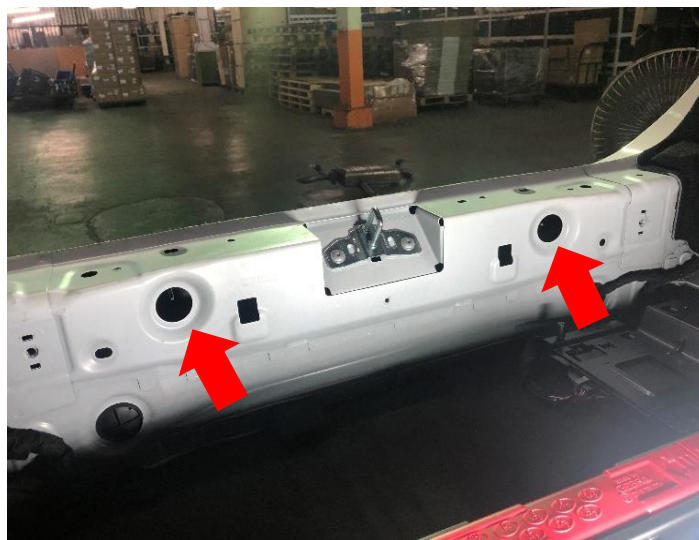


26. Remove the buttons and screws shown in the picture.



27. Remove the rubber plug after lifting the trunk floor of the rear trunk, and then remove the inner nut of the rear bumper.

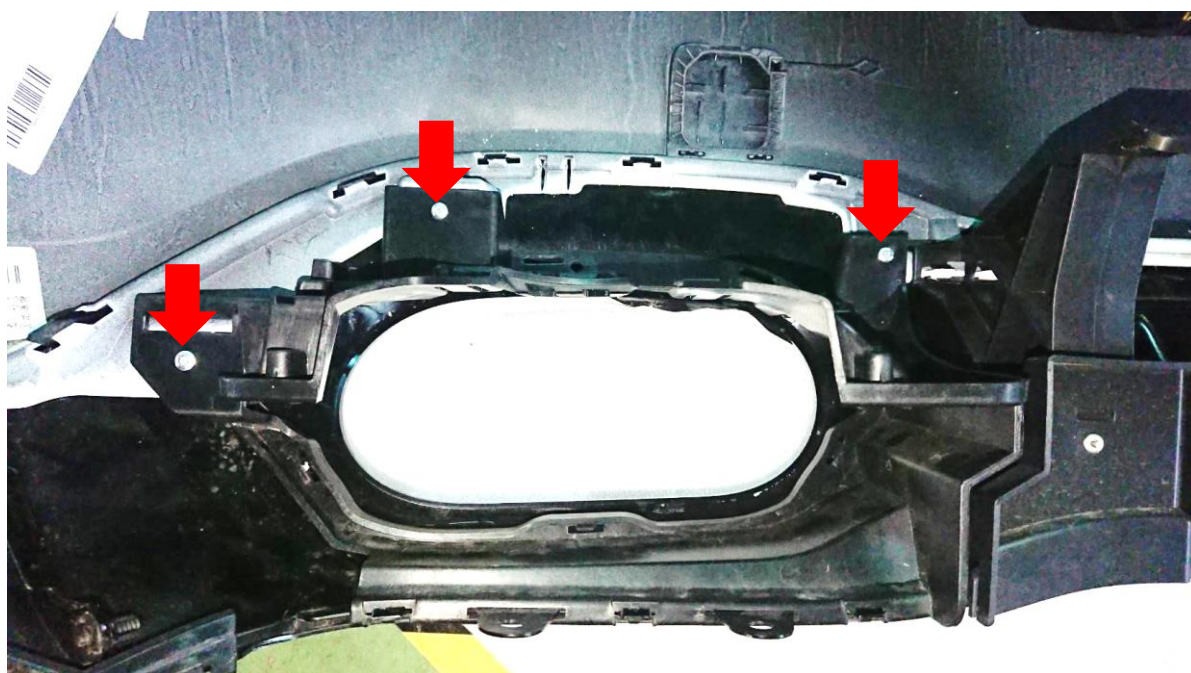
28. Disassemble the quick release head of the inner cable group of the rear bumper, and then remove the rear bumper.



29. Remove the original tips.

30. Use a 3.2mm drill bit to drill the nails of the outer frame of the tips.

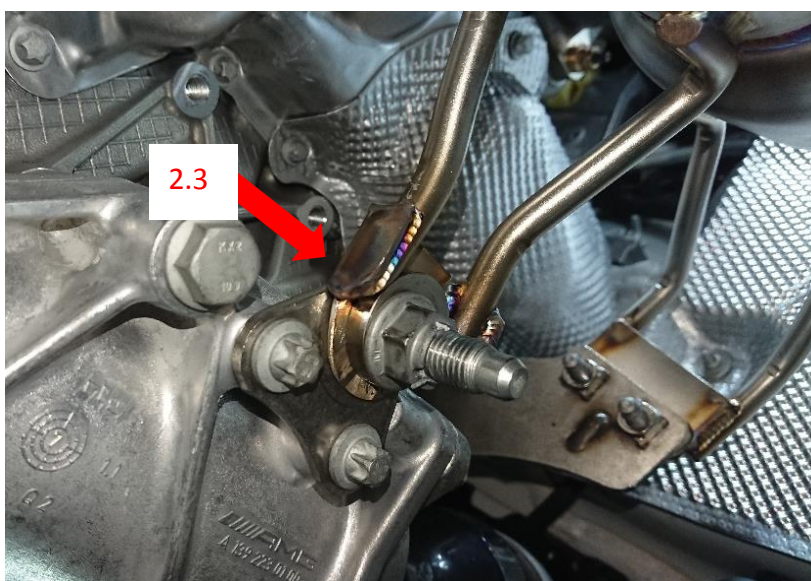
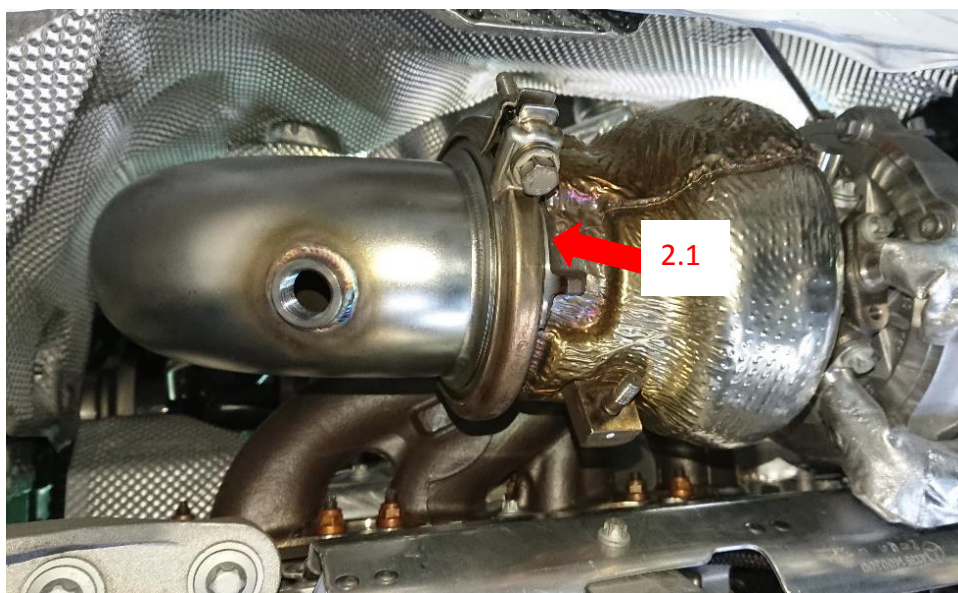
31. Take out the inner trim tip trim plate, then restore the outer frame of the trim tips, and fix it with a pull tips.



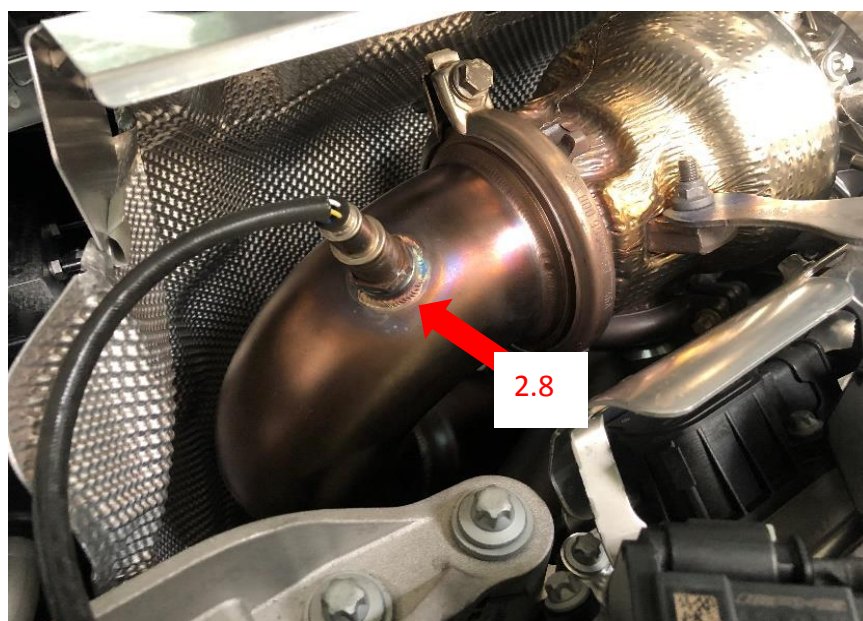
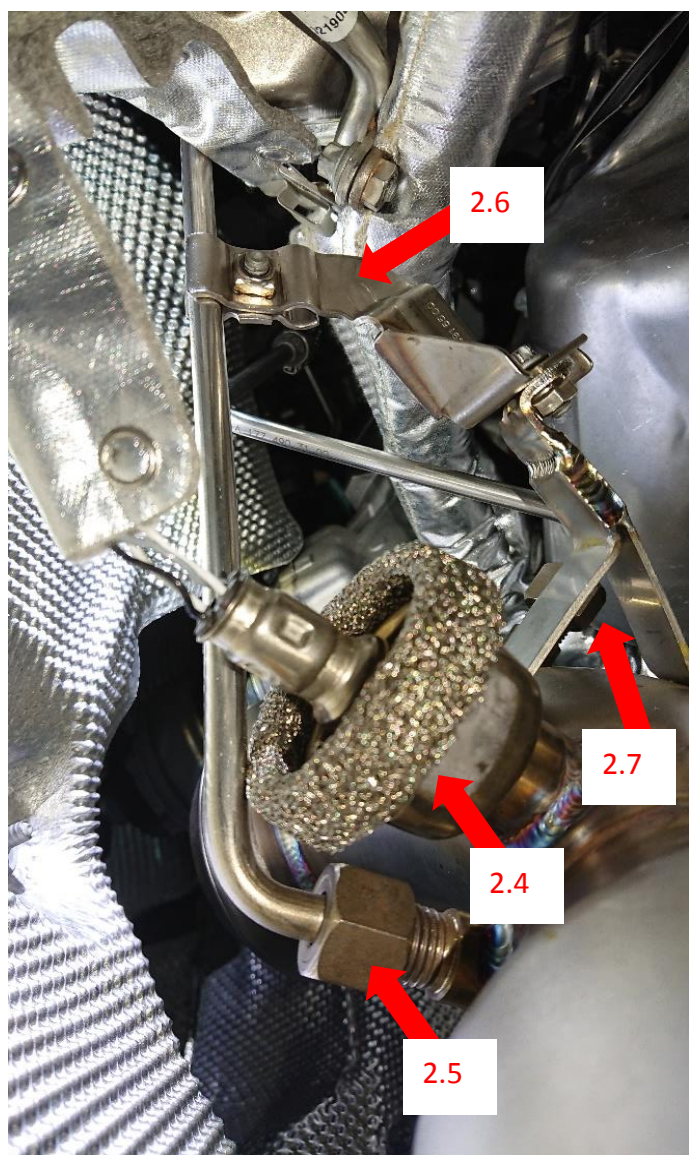
No need to reinstall this decoration

IV. Install the iPE exhaust

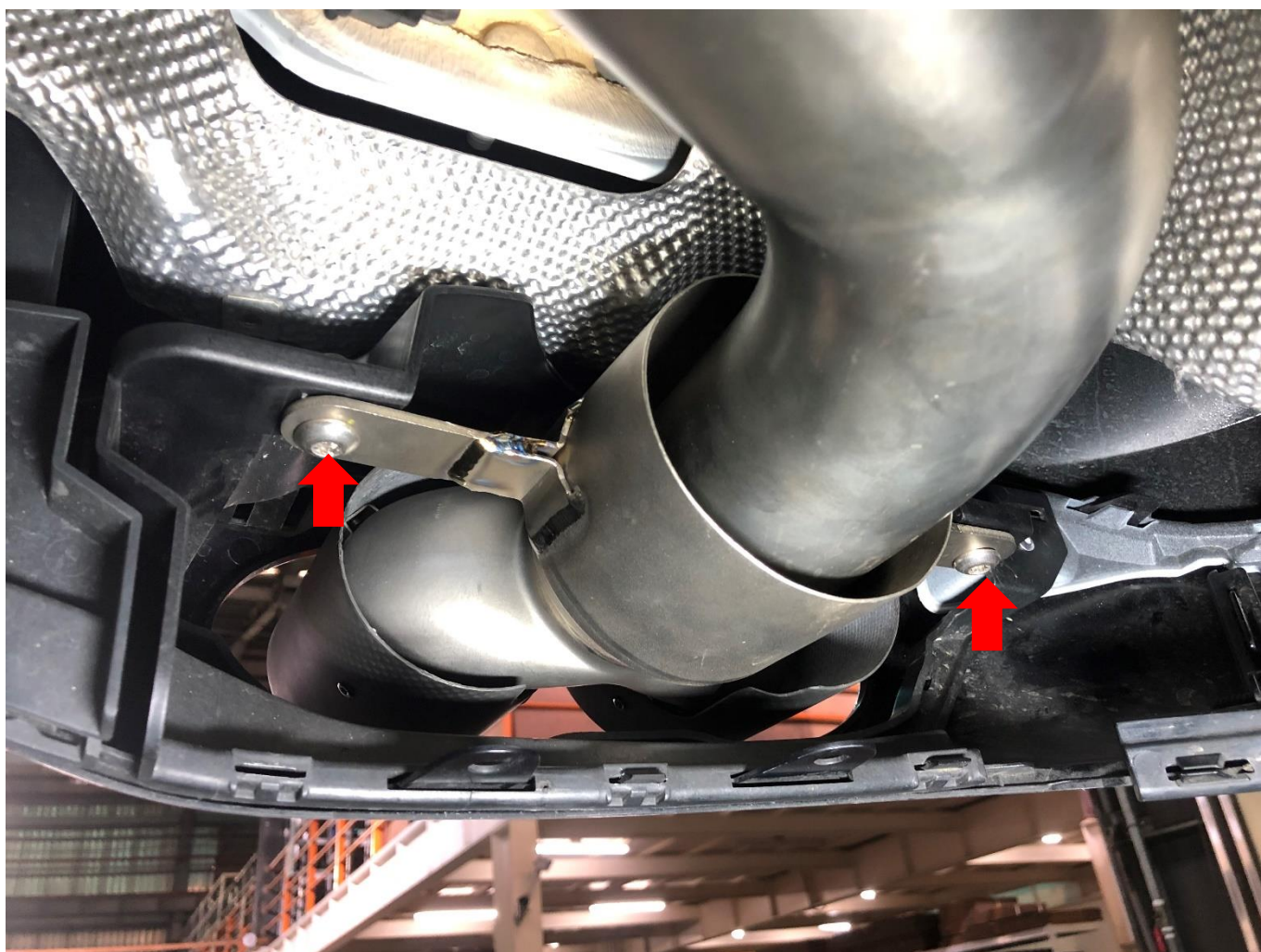
1. Install the heat shield, the header and the turbine in sequence.
2. Install the front section of the iPE cat pipe:
 - 2.1 Front retainer screw lock back.
 - 2.2 Screws of the entrance bush lock back.
 - 2.3 Screw back the bush of the outlet.



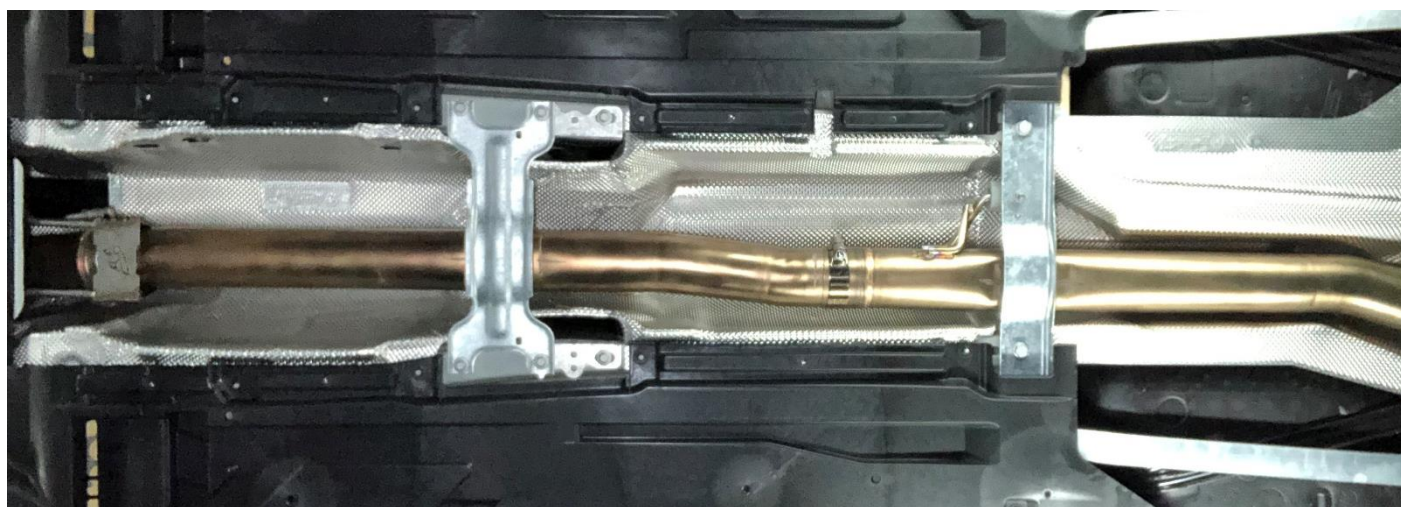
- 2.4 Install the rear Oxygen sensor of the cat pipe.
- 2.5 Install the OPF front pipe of the cat pipe.
- 2.6 Install the OPF front pipe bracket of the cat pipe.
- 2.7 Install the OPF rear pipe of the cat pipe.
- 2.8 Install the front Oxygen sensor of the cat pipe.



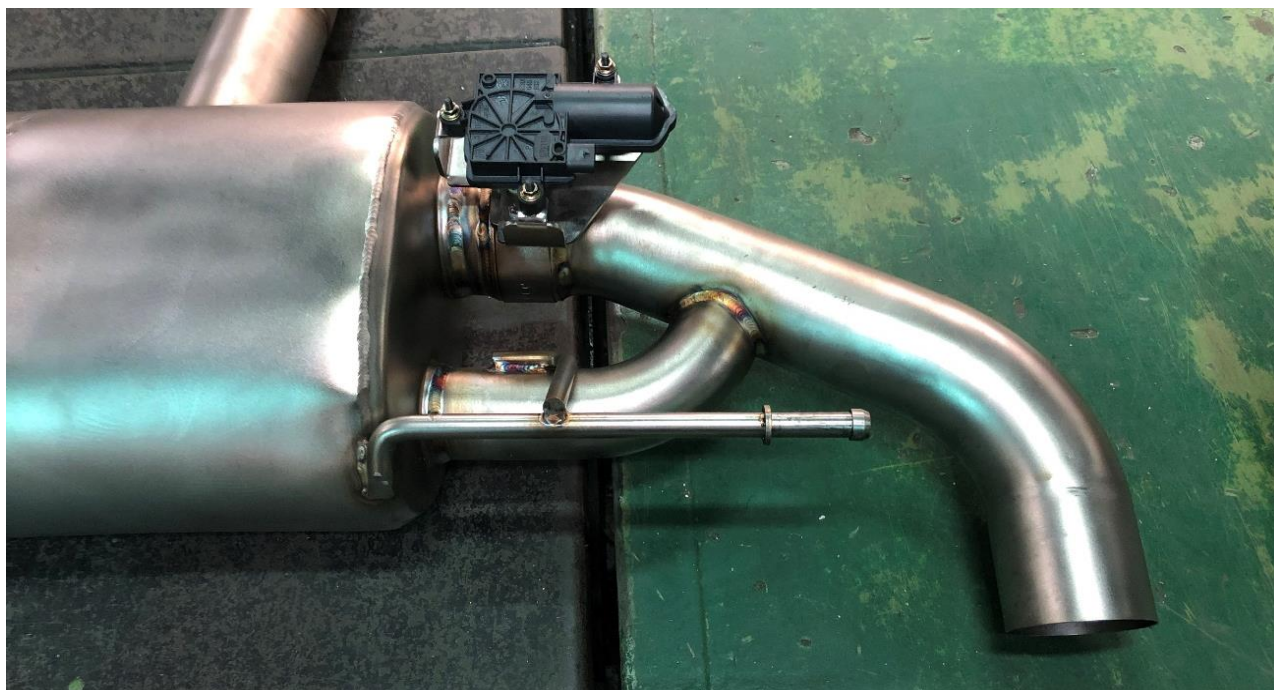
3. Install the iPE tips to the position.



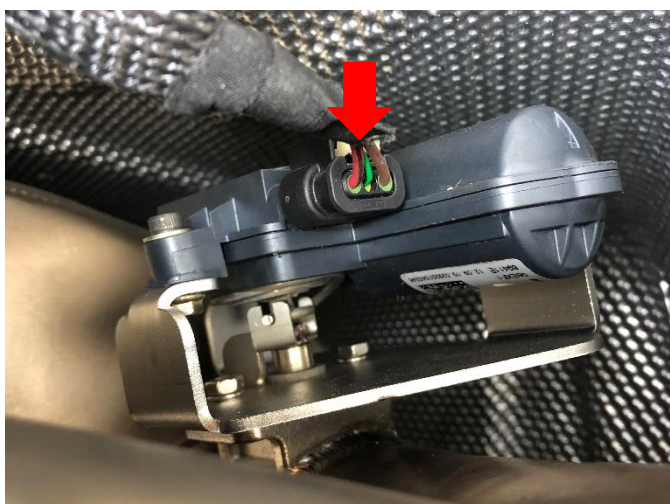
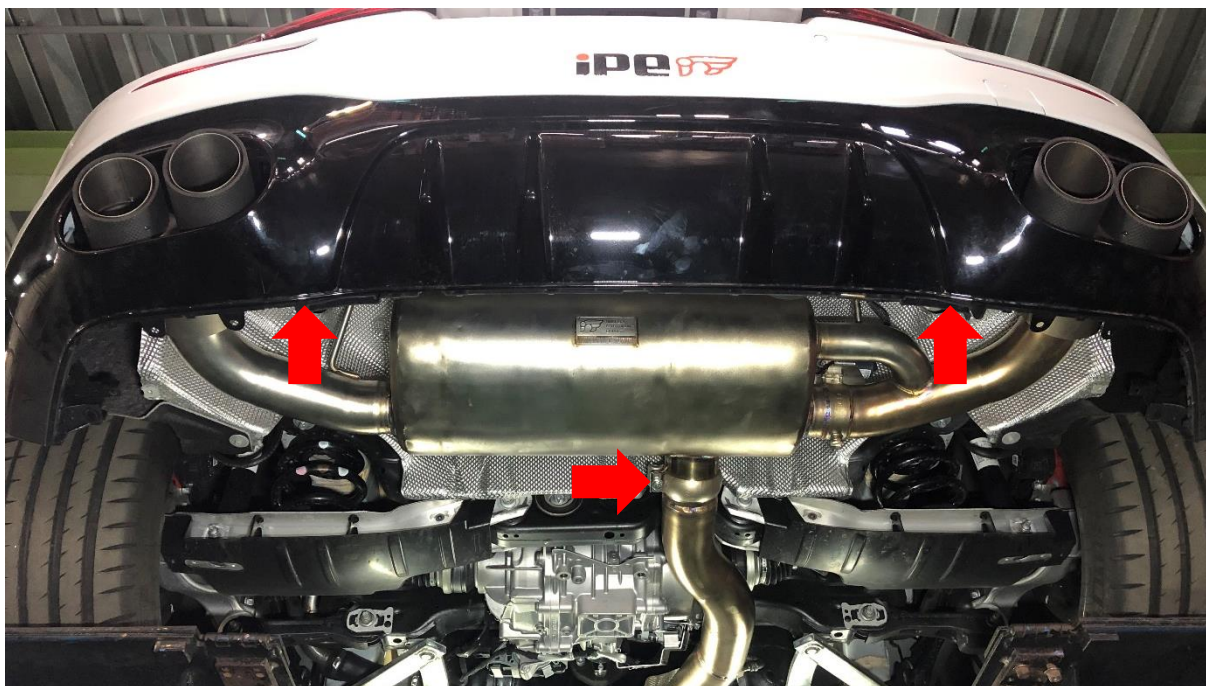
4. Install the original front pipe bush seat on the iPE front pipe.
5. Install the original mid pipe bush seat on the iPE mid pipe.
6. Lock the screw of the front pipe bush seat back to the car and tighten the clamps.
7. Lock the screws of the mid pipe bush seat back to the car and tighten the clamps.
8. Check the distance between the exhaust pipe and the chassis support is more than 15mm.



9. Remove the electronic motor and spring from the original muffler and install it on the iPE muffler. Pay attention to whether the spring is adjusted to the position when installing.



10. Lock back the bush of the muffler and tightly install the muffler clamps to the position.
11. Plug in the electronic valve.
12. Screw back the mid pipe temperature sensor.



13. Make sure to adjust the gap between the exhaust pipe and chassis by at least 15mm, adjust the exhaust pipe backwards from the front cat pipe to the position, and tighten the bush screws and the clamps.
14. After confirming the completion, the installation of the iPE full exhaust system is completed.

