



Innotech Performance

Exhaust

Vehicle exhaust system
technology

Product Installation Manual

Applicable model: Mercedes
Benz A250

Version 1

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www.ipe-ti.com

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Preface

This document explains installation procedures that relates to setting and operation methods for the exhaust sold by IPE.













II. Important notice

IPE developed this exhaust according to the improvement of stock . Therefore, there will be no effect of the car from the original manufacturer after installation. There is an inductive power supply function between the car key and the car for many vehicle models. Therefore, the car key should be kept away from the car with a distance of at least five meters to maintain safe conditions.

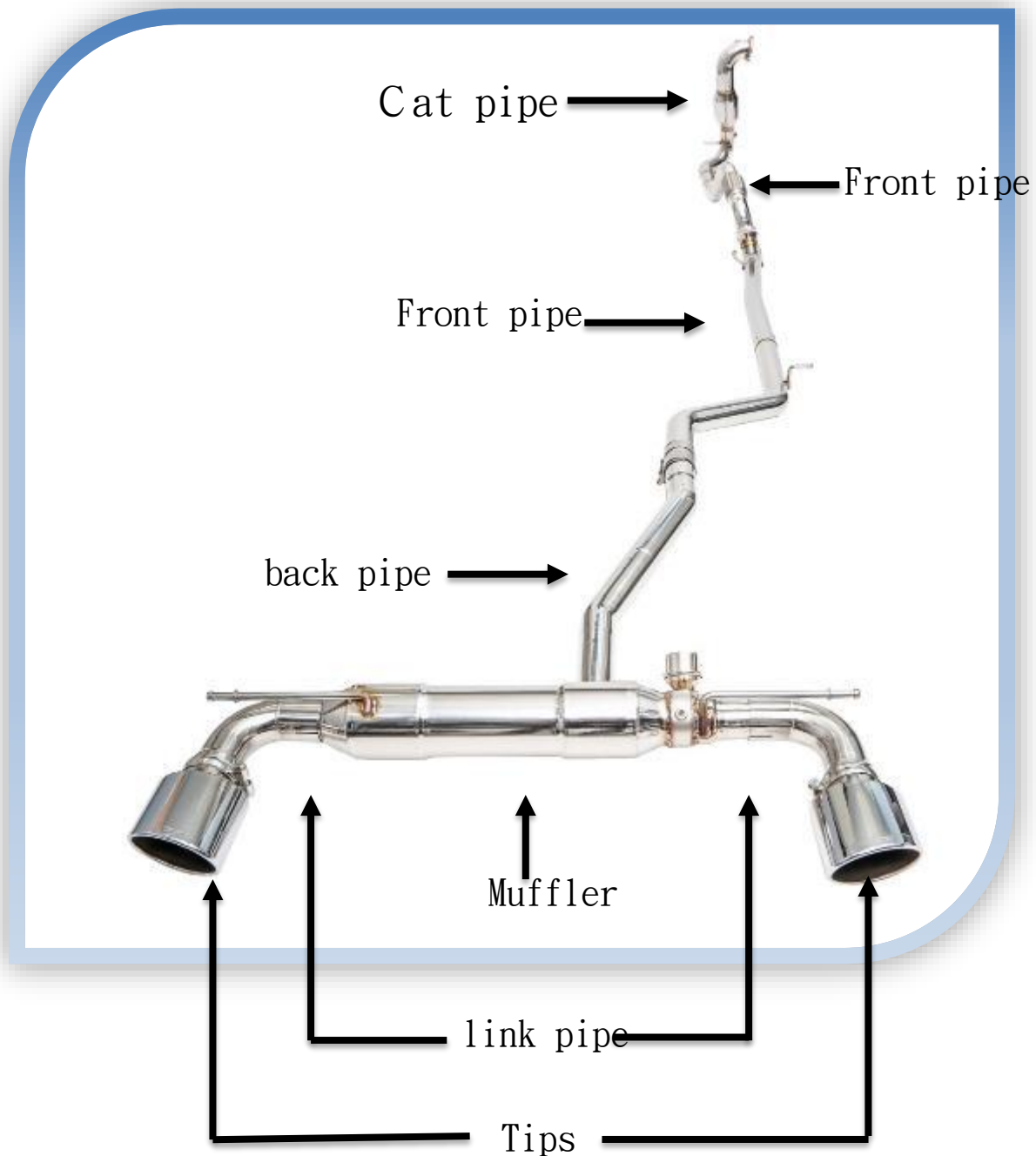
The exhaust of a car right after driven is still in a high temperature. Thus, please wear heat insulating gloves to replace the exhaust, or perform the replacement after the temperature lowered to avoid burns.

For avoiding the generation of resonance, please don't let the valve open too early when setting the valve to open automatically. The opening of the valve is recommended to be set to 60% of gas pedaling. Please refer to page 21 for the explanation of detail setting.

III. Tools required

Names of tool	Appearance	Specifitation
Star grove sleeve	 	T30
hexagonal sleeve	 	13mm
Outer hexagonal wrench	 	13mm 、 22mm
Torque wrench	 	
Anti-rust oil / lubricating oil	 	

V. The whole appearance of IPE A250 Exhaust

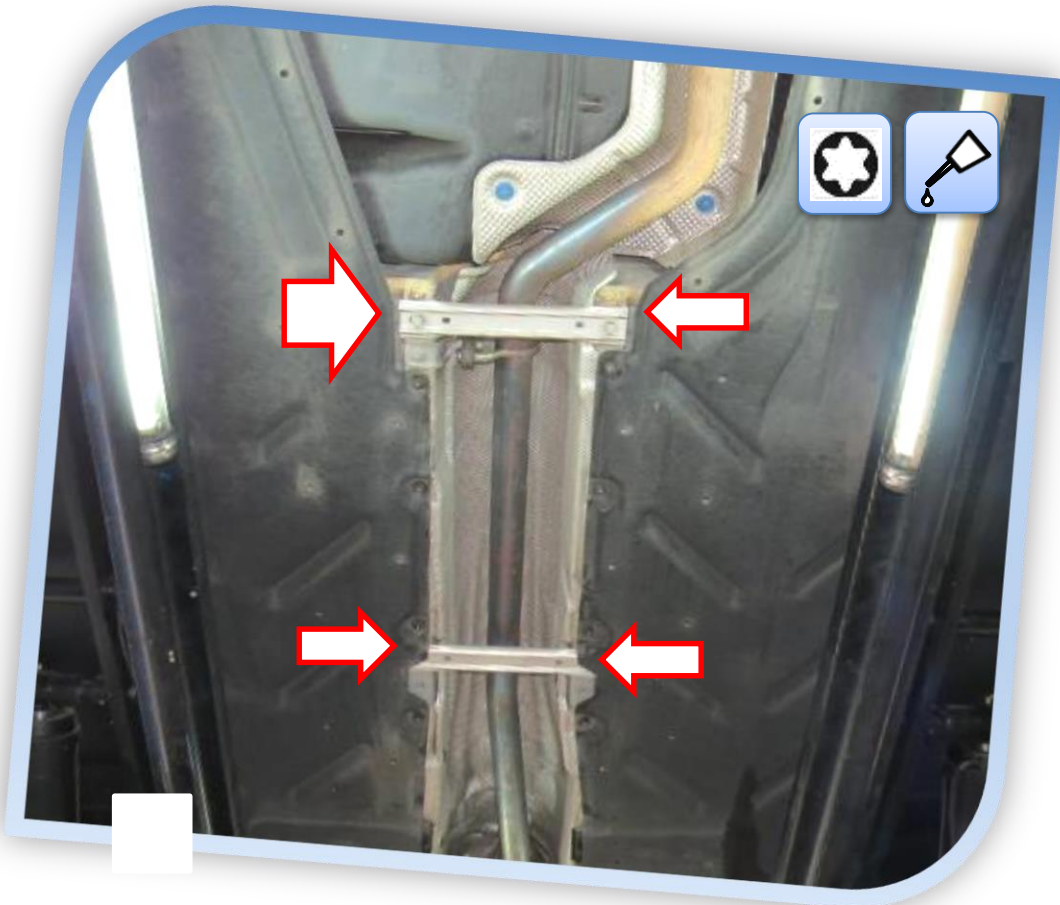


5. Steps and notification of demounting stock exhaust.

(1) Demounting the engine shield:

1. Use star sleeve to loose the engine shield.
See Figure 1-1 ◦

Figure
1-1



Attention:

1. Please apply lubricant on screws if necessary.

(1) Cut off the cat pipe:

1. Use cutting tools to cut the cat pipe into two parts in order to remove it. See Figure 1-2 and 1-3.

Figure
1-2



Figure
1-3

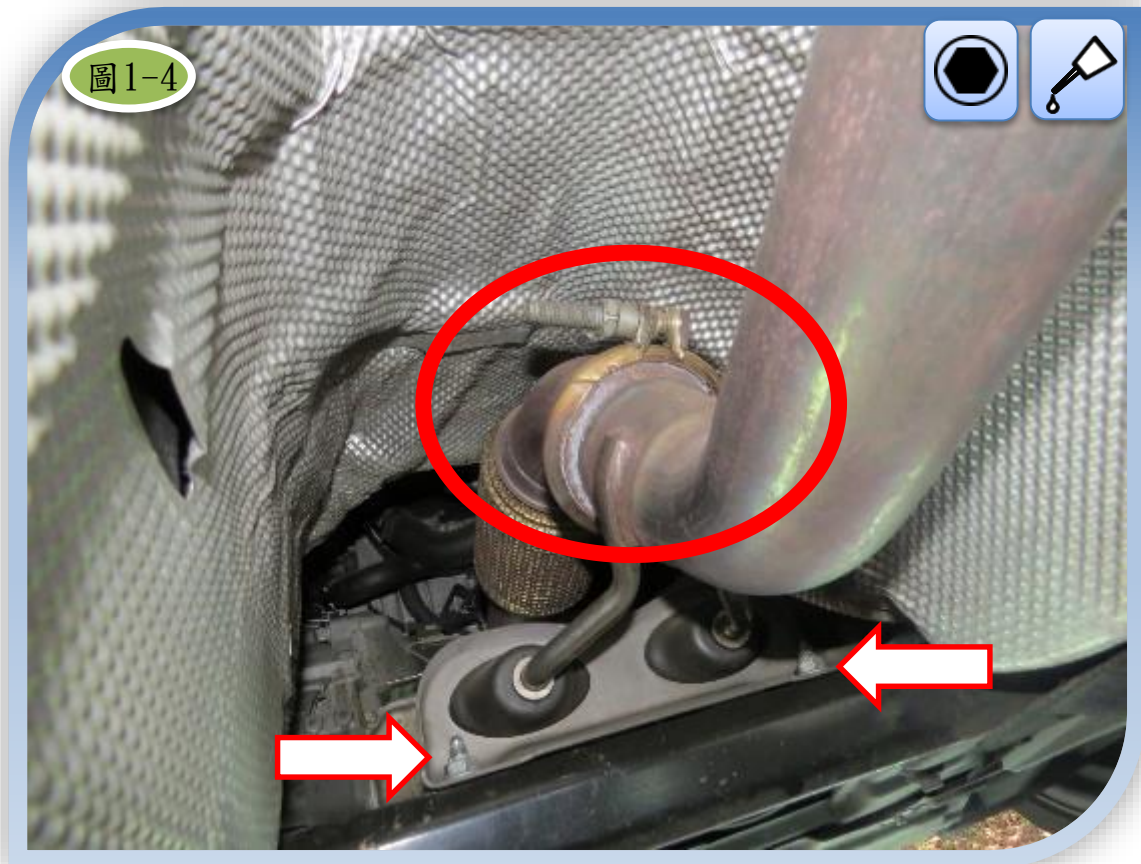


Attention:

1. Please estimate the proper distance before cutting, like red line in Figure 1-2 shows.
2. Due to the length, angle and space, stock cat pipe would be damaged. If you 'd like to keep the stock pipe completed, You can follow the standard steps of OEM to remove the cat pipe.

(3) Demount the connection of cat pipe and mid pipe:

1. Use outer hexagonal wrench and sleeve to loose the clamps connected between cat pipe and mid pipe. Like the red circle in Figure 1-4 shows.
2. Use outer hexagonal sleeve to remove the hangers bracket on the front of mid pipe. As the arrows indicate in Figure 1-4.



Attention:

1. Please apply lubricant on screws if necessary.

4. Demount mid pipe and muffler:

1. Use hanger pliers to remove mid pipe hangers. See Figure 1-5
2. Use outer hexagonal sleeve to demount the hangers on both sides of muffler. Then take down mid pipe and muffler. See Figure 1-6

Attention:

1. Please apply lubricant on screws if necessary.

Figure
1-5

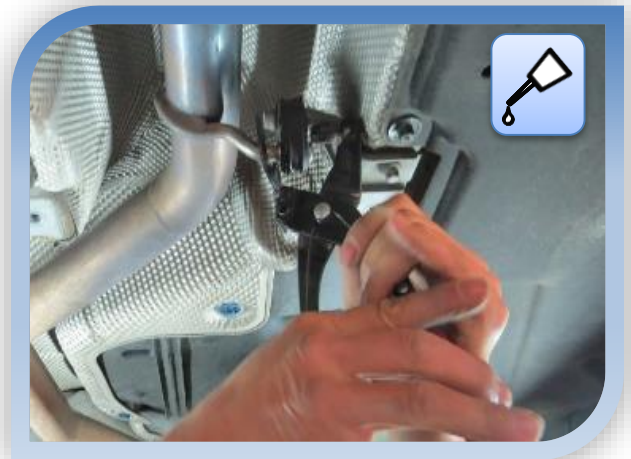
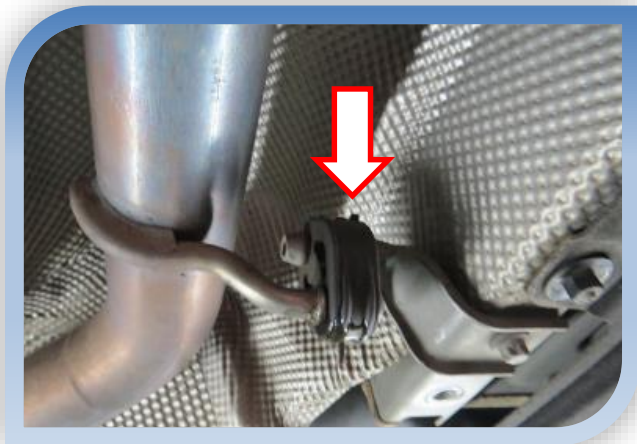
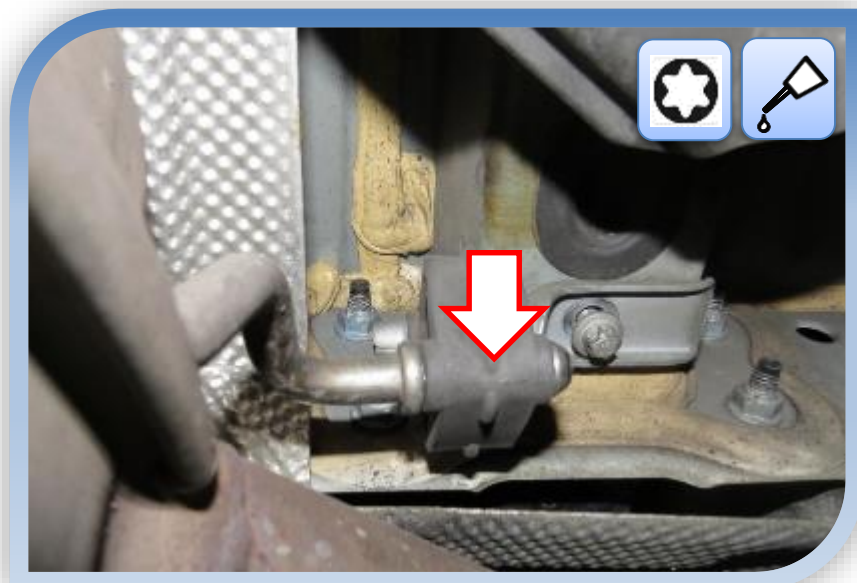


Figure
1-6



5. Demounting air cartridge and oxygen sensor:

1. Demount engine shield. As figure 1-7
2. Use outer hexagonal sleeve to demount oxygen sensor. See figure 1-7
3. Use Phillips screwdriver and flathead screwdriver to loose the screws and clamps, then demount the air cartridge. See Figure 1-7

Figure 1-7



Figure 1-8



Attention:

1. Please apply lubricant on screws if necessary.
2. Figure 1-8 as demounting completed

6. Demount engine shield bracket and the shield:

1. Use outer hexagonal sleeve to demount the engine shield bracket See Figure 1-9
2. Use outer hexagonal sleeve to demount the engine shield. See Figure 1-9

Attention:

1. Please apply lubricant on screws if necessary.
2. Figure 1-10 as demounting completed

Figure 1-9

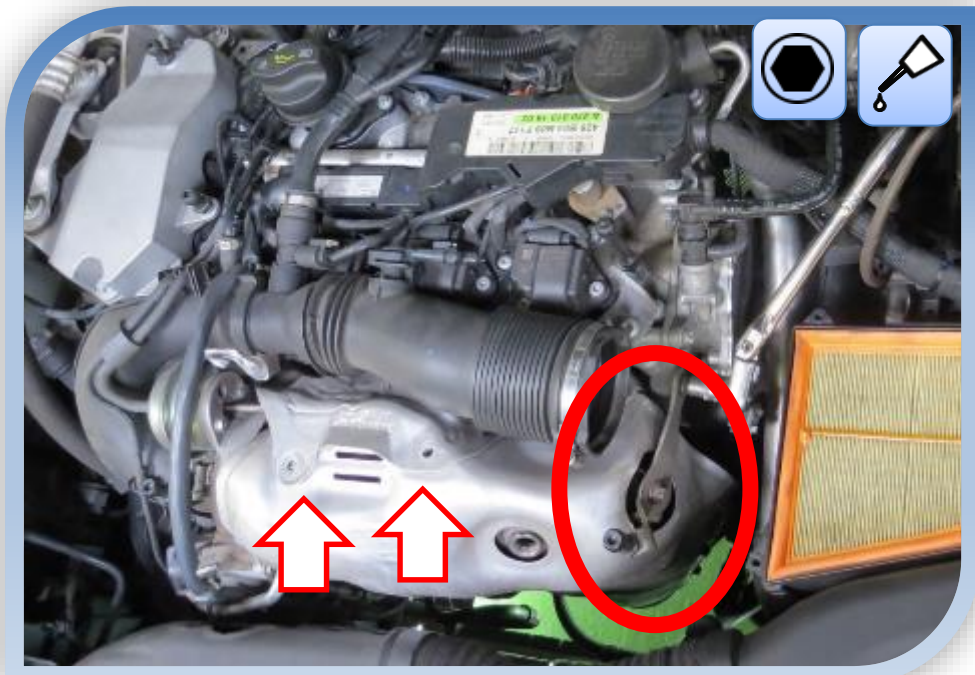


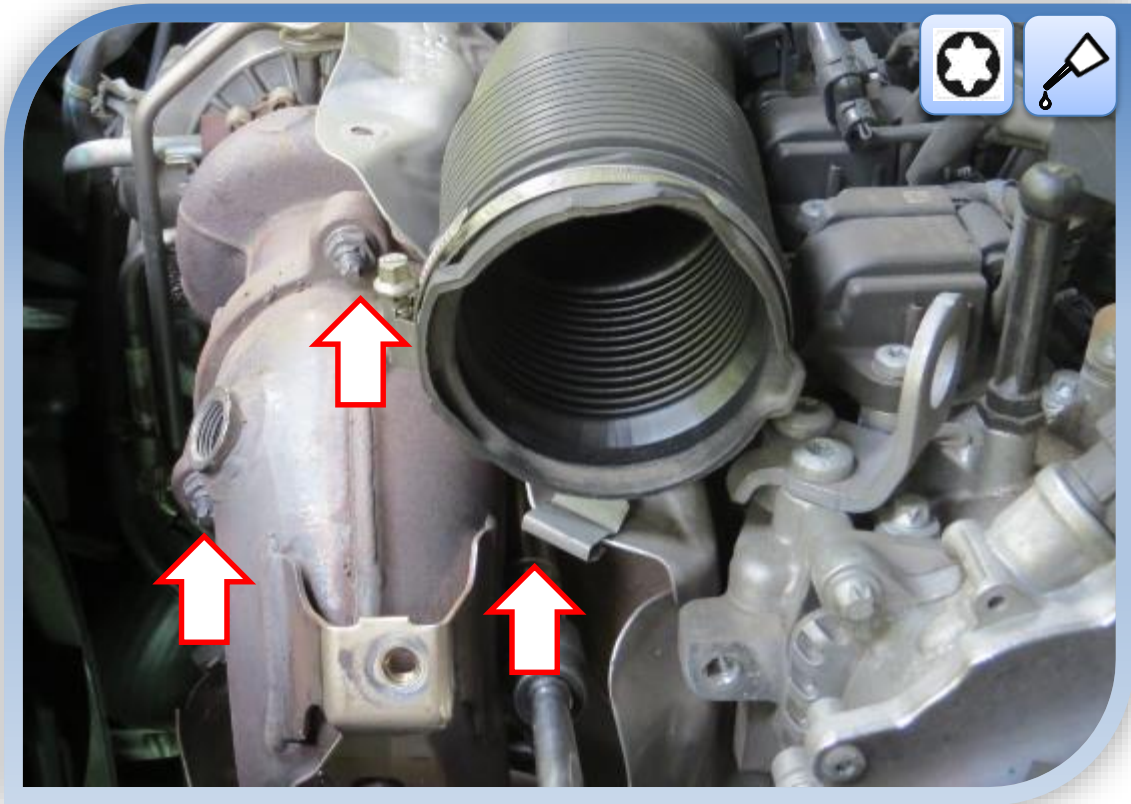
Figure 1-10



7. Demounting cat pipe:

(1) Use outer hexagonal sleeve to demount cat pipe. See Figure 1-10

Figure
1-10



Attention:

1. Please apply lubricant on screws if necessary.

The end of demounting

VI. Steps & key points of installing IPE Exhaust

1. Oxygen sensor:

1. Use outer hexagonal wrench to fasten oxygen detection device. See Figure 2-1

Figure 2-1



Attention:

1. Please apply lubricant on screws if necessary.

2. Cat pipe and Oxygen sensor electronic connectors installation:

1. Use star groove sleeve to fasten cat pipe. See Figure 2-2 & 2-3.
2. Fasten the oxygen sensor connectors, as the red circle shows in Figure 2-2

Figure 2-2

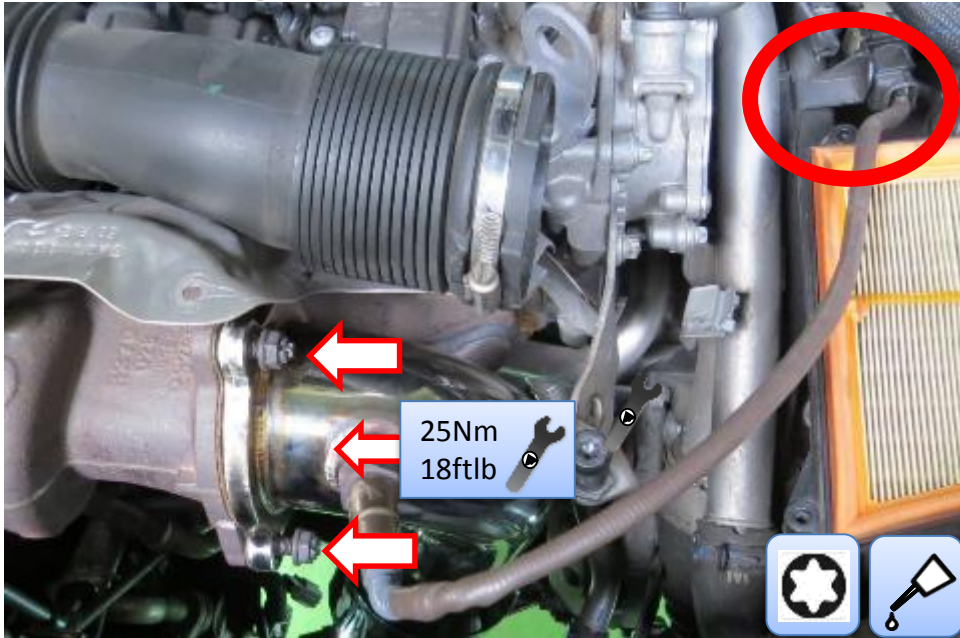
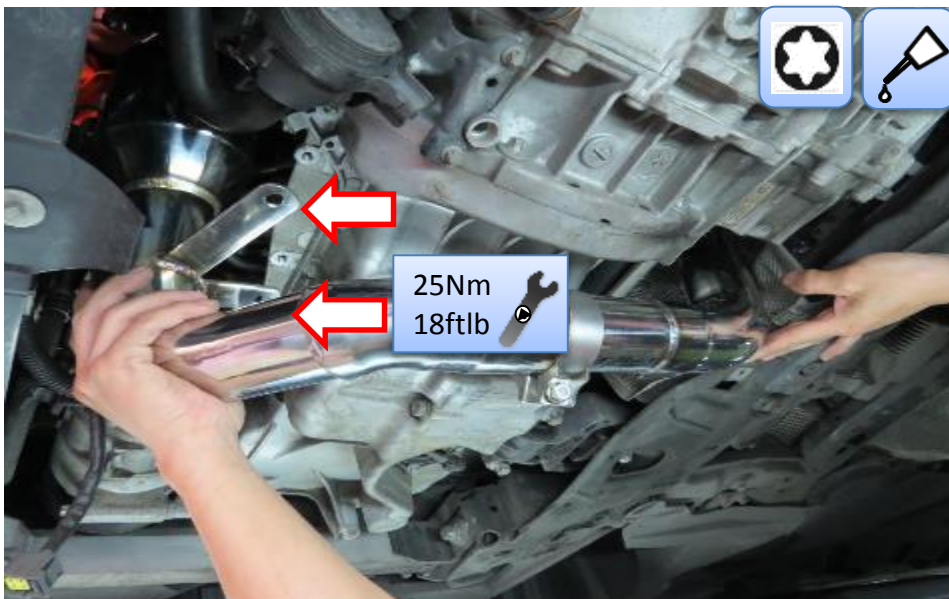


Figure 2-3



Attention:

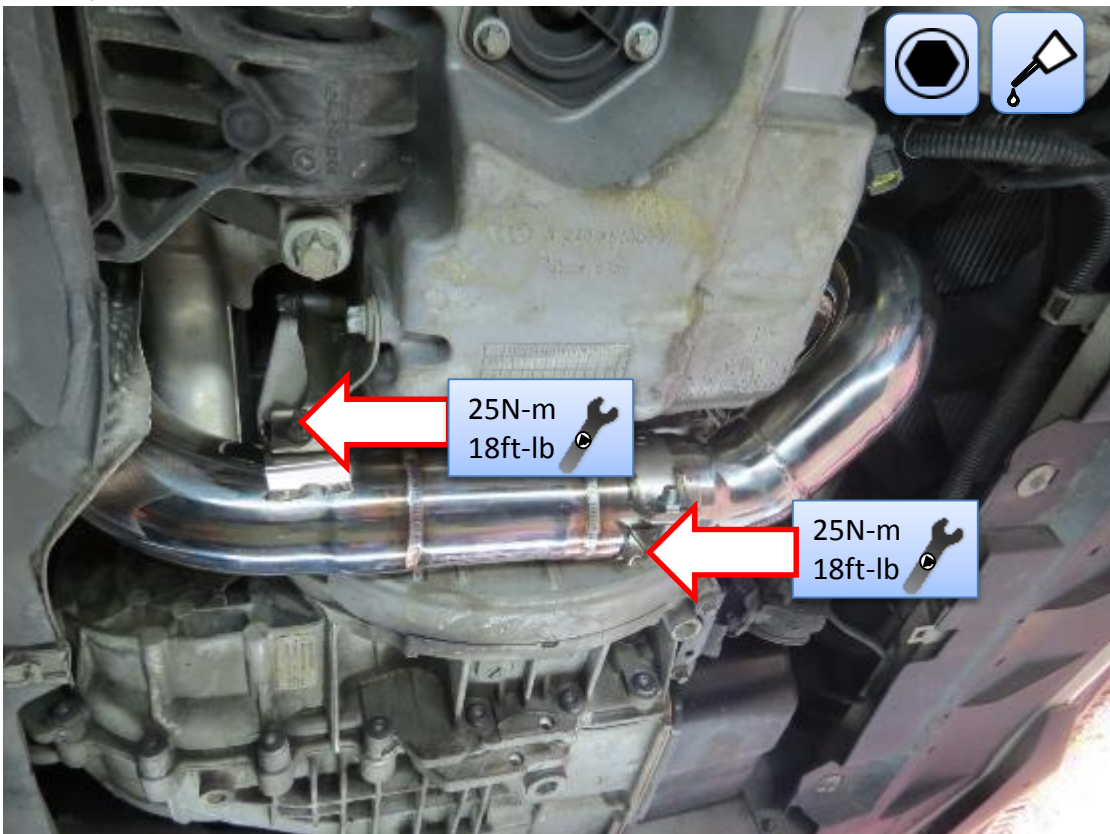
1. Please apply lubricant on screws if necessary.

3. Installing the front pipe:

1. Use outer hexagonal wrench and sleeve to fasten front pipe. See Figure 2-4
2. Use outer hexagonal wrench and sleeve to fasten 65mm clamp to connect front pipe and cat pipe. See Figure 2-4

Attention: Please apply lubricant on screws if necessary.

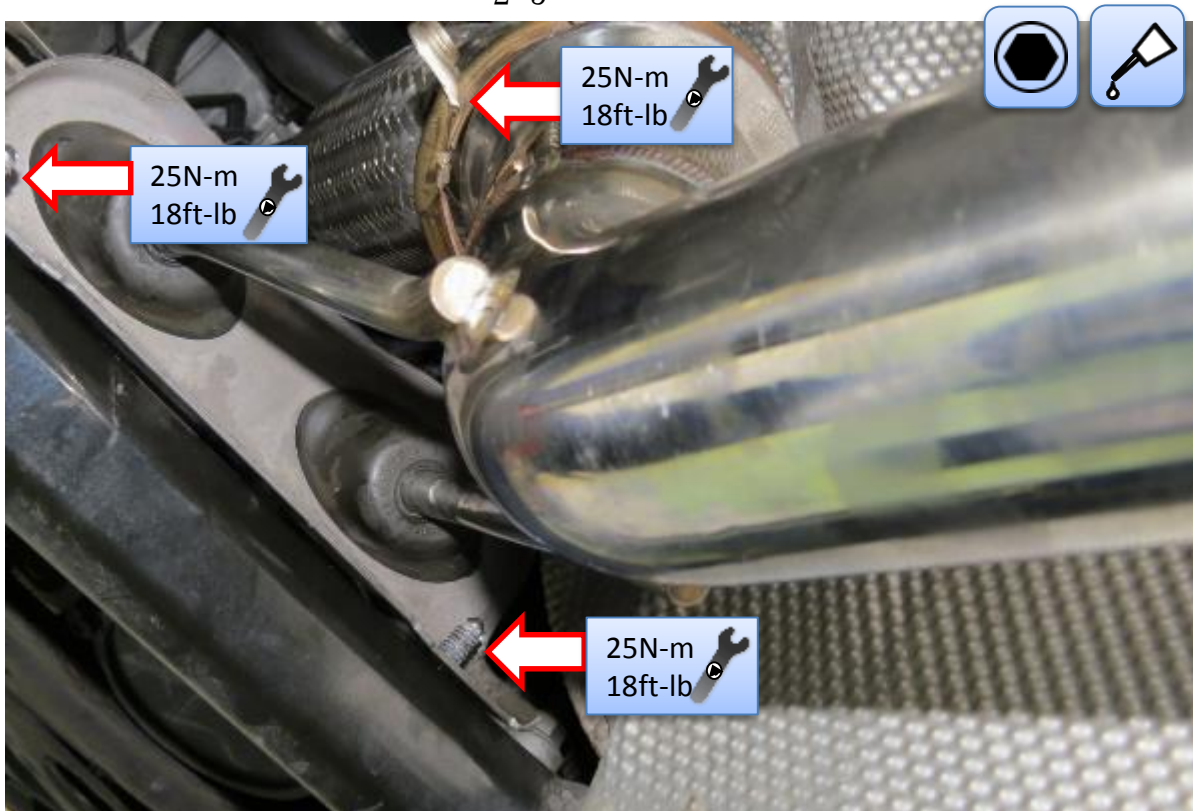
Figure 2-4



4. Installing the front of mid pipe.

1. Use outer hexagonal sleeve to fasten the hangers on the front mid pipe, See Figure 2-5
2. Use outer hexagonal wrench and sleeve to install stock clamp to connect front pipe and middle pipe. See Figure 2-5 °

Figure
2-5



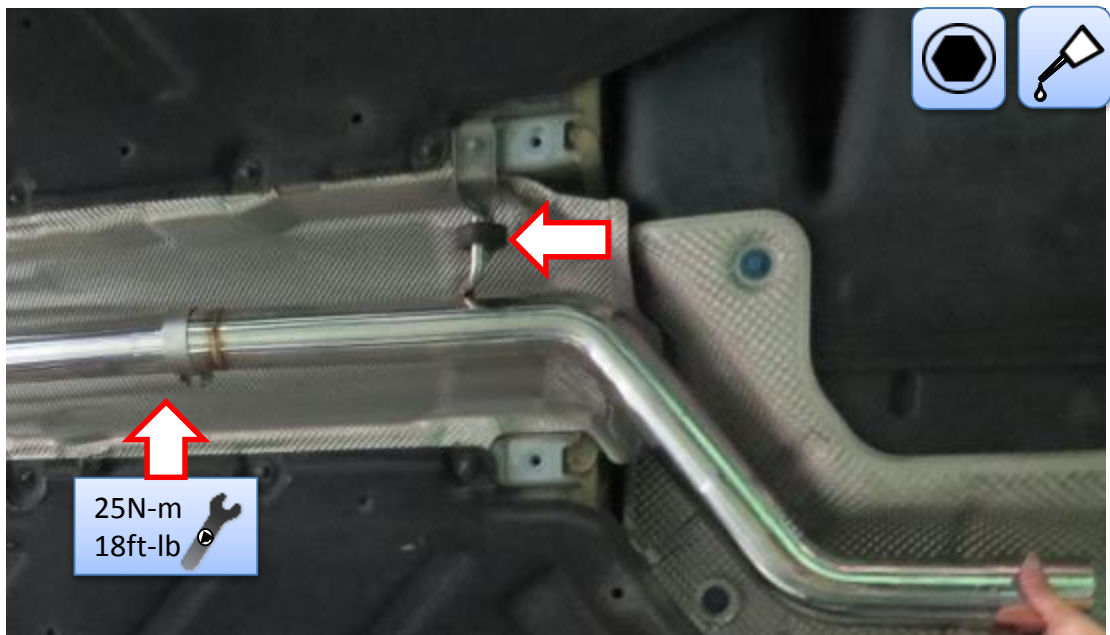
Attention:

1. Please apply lubricant on screws if necessary.

5. Installing the back part of mid pipe:

1. Use hanger pliers to install mid pipe hanger. See Figure 2-6 °
2. Use outer hexagonal wrench and sleeve to fasten 63 mm clamp to connect front pipe and middle pipe. See Figure 2-6

Figure
2-6



Attention:

1. Please apply lubricant on screws if necessary.
2. 63 mm clamp should be fastened after the whole exhaust system installation finish.

6. Muffler installation:

1. Use Outer hexagonal sleeve to fasten hangers on both side. See Figure 2-7
2. Use Outer hexagonal sleeve to fasten 63mm clamp to connect middle back pipe and muffler. See Figure 2-8

Figure
2-7

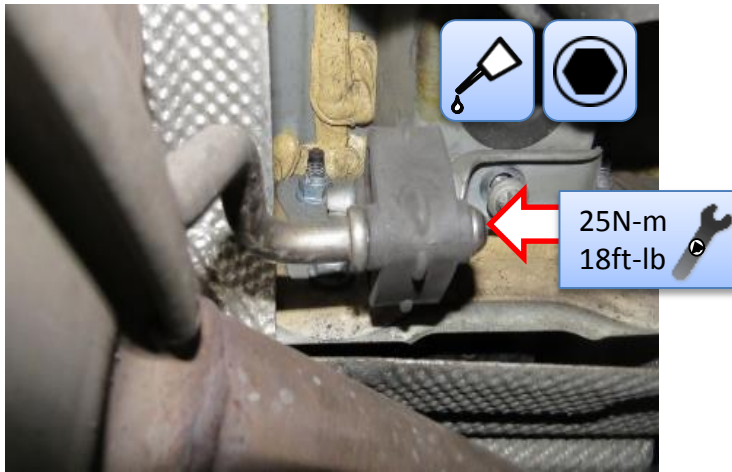
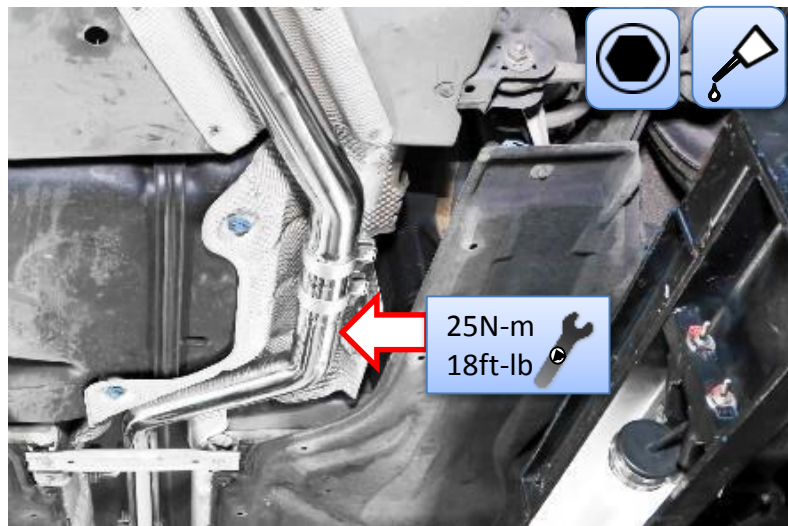


Figure
2-8



Attention:

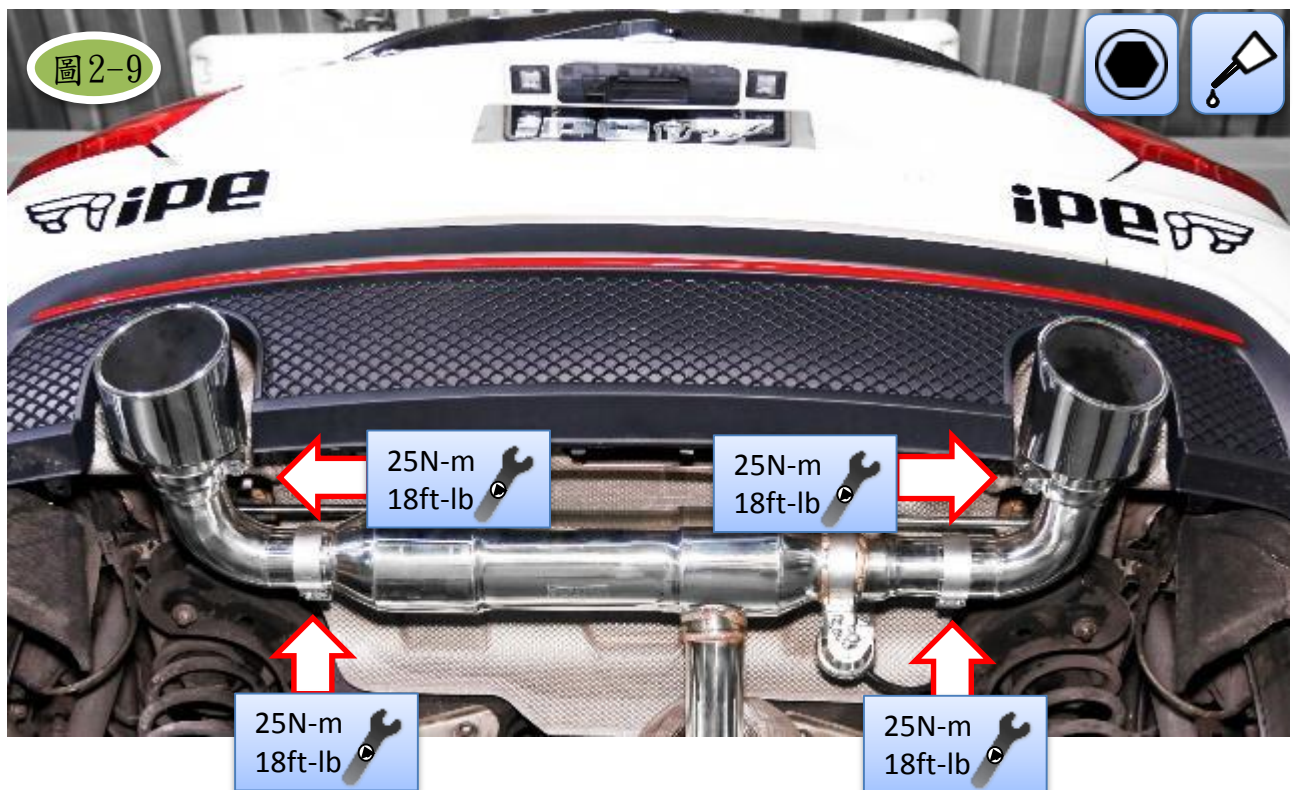
1. Please apply lubricant on screws if necessary.
2. 63 mm clamp should be fastened after the whole exhaust system installation finish.

7. Install link pipes and tips:

1. Use Outer hexagonal wrench and sleeve to fasten 60mm clamp to connect the muffler and link pipes. See Figure 2-9
2. Use Outer hexagonal wrench and sleeve to install tips. See Figure 2-9

Attention:

1. Please apply lubricant on screws if necessary.



8. Installing reinforcement down the engine:

1. Use star groove wrench to fasten the reinforcement down the engine. See Figure 2-10

Attention: Please apply lubricant on screws if necessary.

Figure
2-10



9. Installing vacuum hose and solenoid valve

1. Connect vacuum hose to the valves. See figure 2-11
2. Use wrench to fasten the solenoid valve which is located back tire rack. See Figure 2-12

Figure 2-11



Figure 2-12



Attention:

1. Please apply lubricant on the connecting point between screws and vacuum hose if necessary.
2. Please use belts to tighten the connection point of vacuum pipe to prevent leaking or losing.

10. Installation of controlling wire and vacuum piping:

1. Conect 3 way- branch onto vacuum source. See figure 2-13
2. Pull controlling wire to shotgun seat to connect with control box. See figure 2-14

Figure 2-13



Figure 2-14



Attention:

1. Please apply lubricant on vacuum pipe connecting point if necessary.
2. Please use belts to tighten the connection point of vacuum pipe to prevent leaking or loosing.

11. Installation Completed



Exhaust installation finished