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## 2003-2010 Saab 9-3 Krona Turbo back exhaust Installation Instructions

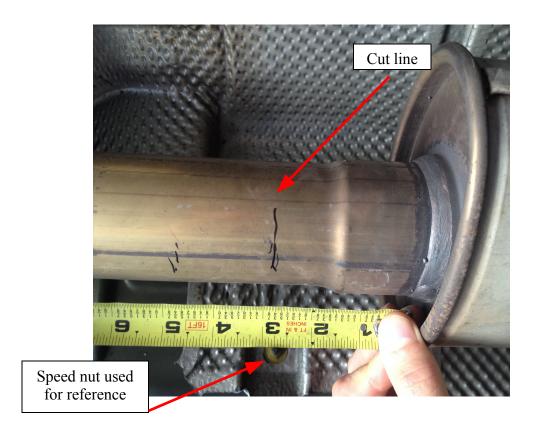
## What's Included:

- (1) 3" downpipe (with or without catalyst)
- ① (1) 3" center pipe with resonator
- ① (1) 3" under axle pipe
- ① (1) 3" hybrid muffler with dual 2.5" exhaust tips
- ① (1) Turbo stud mounting hardware (x3 stainless nuts, washers, and lock washers)
- (3) 76mm (3") exhaust band clamp



## **Installation:**

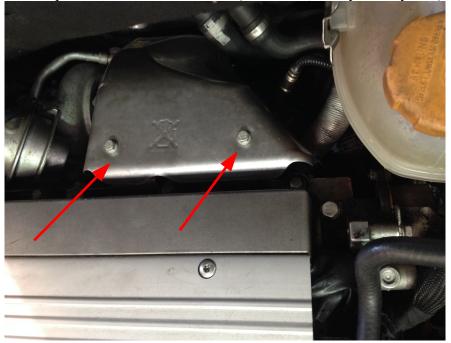
- 1.
- Place the vehicle in a secure location and allow the vehicle to cool. Support the vehicle high enough off the ground that you can work easily under the car (please be very diligent when supporting the vehicle, you can't enjoy all the performance you're about to gain if the car falls on your head).
- 2.
- To install the complete turbo back system it is possible to remove the entire system in one piece if you have a lift or you are able to get the car high enough off the ground. Otherwise you will need to cut your stock exhaust system after the OE center resonator or immediately after the first exhaust hanger located prior to the factory center resonator . Which ever you choose will allow your exhaust to be reinstalled at a later time if needed.
- 3. Cut the stock exhaust system ~2.75" <u>after</u> the OE center resonator. The cut mark should line up with the speed nut on the heat shield (see picture below).



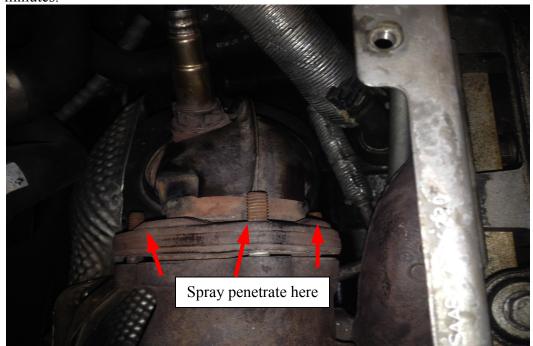
Or exactly 2.75" after the primary exhaust hangar coming off the factory downpipe.



4. Open the hood and remove the two bolts holding the turbo heat shield on with a 10mm socket/wrench. See the picture below for reference. (Be careful, it may be very hot!)

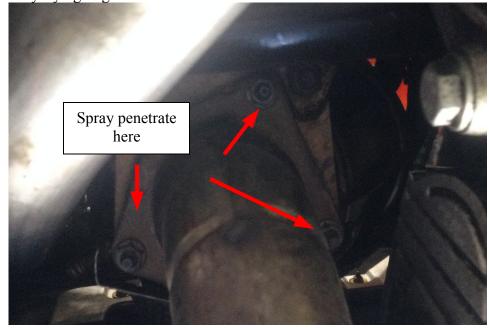


5. Spray penetrate onto the three exposed downpipe nuts (nuts not pictured below) and let them soak for at least 15 minutes.



6. Move to the underside of the car. Spray the four downpipe nuts with a penetrate and let them soak for at least 15 minutes. Remove the four downpipe nuts with a 13mm socket and ratchet (see picture below).

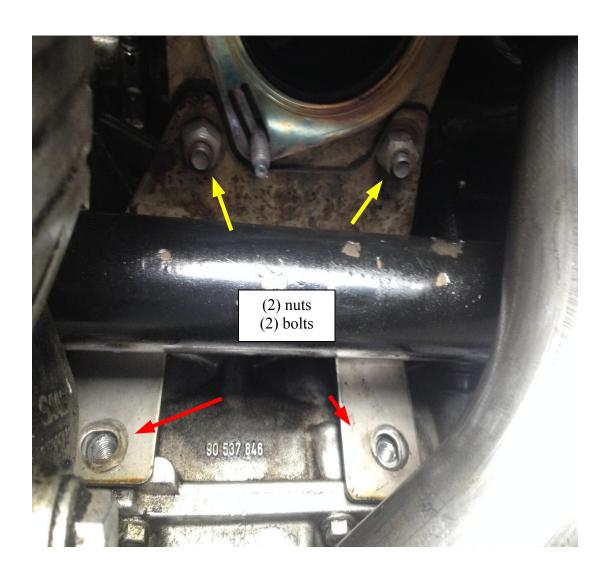
**CAUTION:** If the nuts are very difficult to loosen, spray more penetrate onto them, wait at least 15 more minutes and try again. Do not force the nuts, they will round off and then you will have a very long rest of the day trying to get them off  $\odot$ 



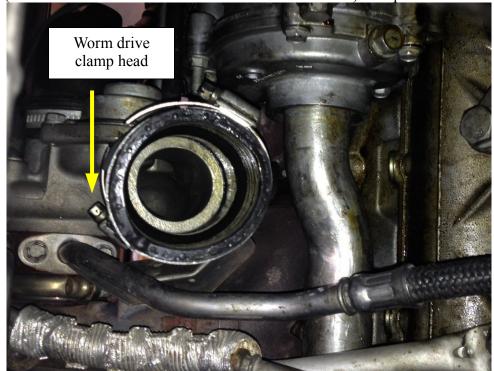
7.

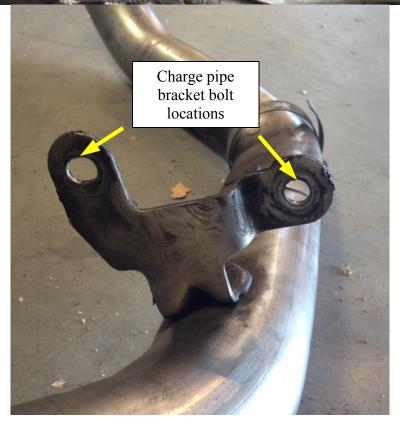
There are only 6 rubber exhaust hangers holding the OE exhaust to the vehicle (two at the OE downpipe after the flex joint, one just after the center resonator, one just before the rear muffler and two on the rear muffler. Remove the exhaust from these and pull it out from under the vehicle. See step #3 above for the location to make the cut.

8. Now we're ready to make room to take the downpipe out. Using a 13mm wrench/socket and ratchet, remove the two bolts and two nuts that secure the downpipe bracket (see pictured below).

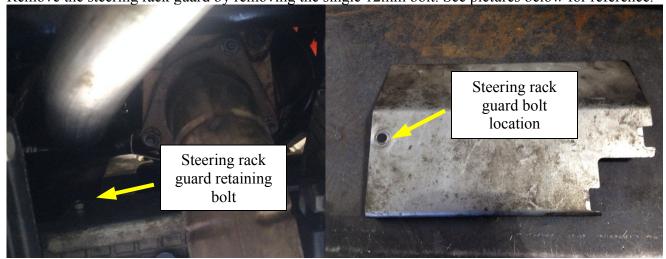


Remove the lower charge pipe. The charge pipe is secured by a worm drive clamp at the turbo side on the back of the engine (use a flat head screwdriver or a 9mm socket to loosen), two bolts on the charge pipe flange (10mm socket to remove bolts) and a worm drive clamp at the inter-cooler side on the front of the engine (use a flat head screwdriver or a 9mm socket to loosen). See pictures below for reference.

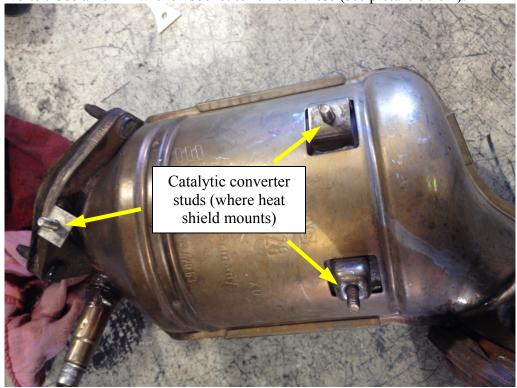




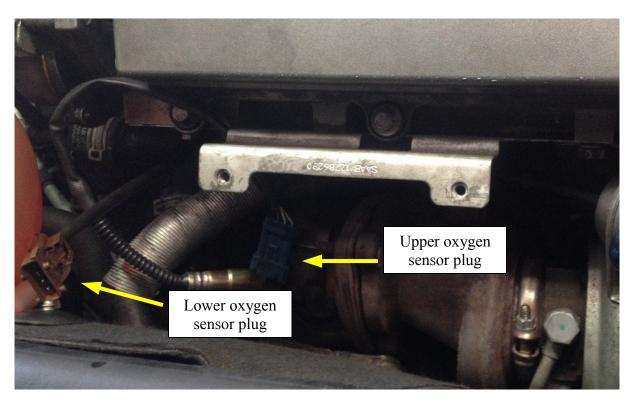
Remove the steering rack guard by removing the single 12mm bolt. See pictures below for reference.



10. Remove the heat shield from the catalytic converter. There are 3 nuts that hold the heat shield onto the catalytic converter. Use a 10mm wrench/socket to remove these (see picture below).



11. Unplug the 2 O2 sensors (see picture below) and voila! The downpipe is now free! You will have to drop the downpipe down through the path you just cleared and rotate it about 60 degrees to get it free.



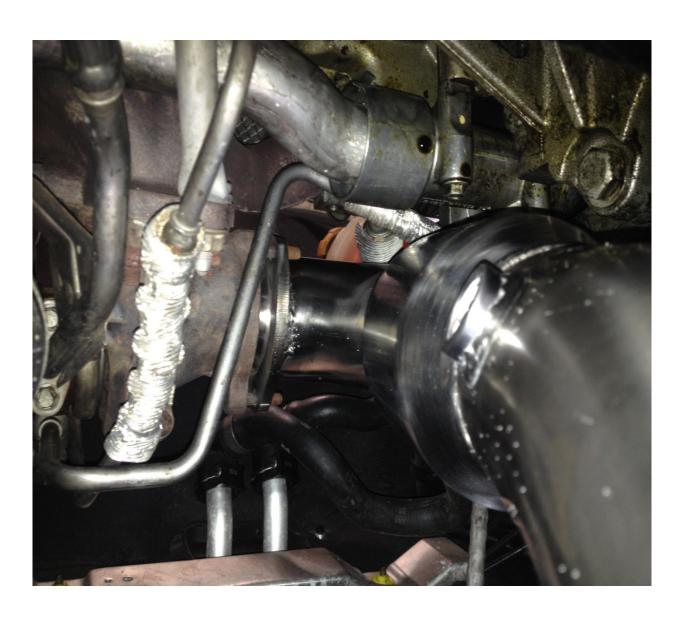
12. Spray both oxygen sensors with LOTS of penetrate and let them soak for at least 15 minutes. Mount the downpipe in a vice (or step on it while it's lying on the ground) and use a LONG oxygen sensor wrench to remove the oxygen sensors. Note which sensor is higher up on the downpipe (for installation into the Krona downpipe).

**CAUTION:** The oxygen sensor threads will strip very easily. If either sensor is not turning when a lot of force is applied, soak the threads in penetrate for 30 more minutes and then heat the nut with a torch. Try to loosen the sensors again while they are very hot (and don't burn yourself please ③).

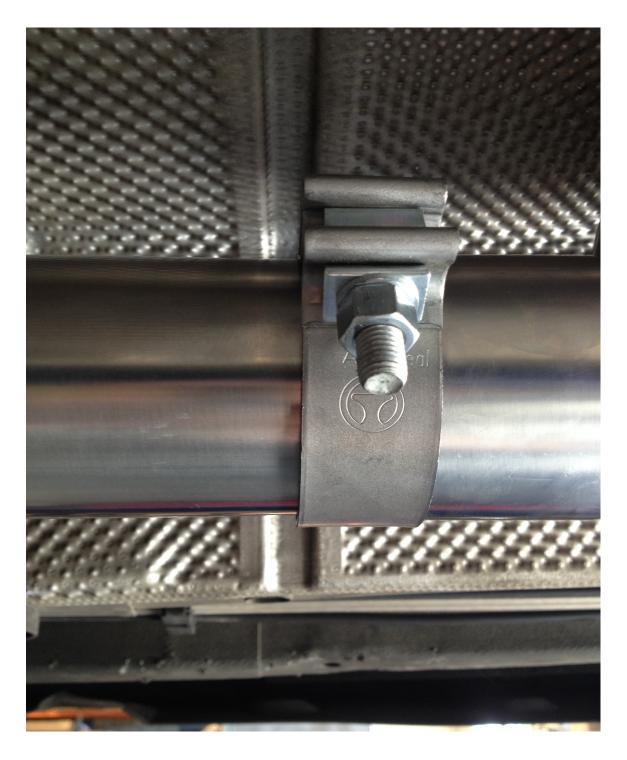
13. Once the oxygen sensors are free, install them into the Krona downpipe (paying attention to which sensor was higher up on the OE downpipe). Make sure to use plenty of anti-seize on the threads of both oxygen sensors!

14.

Slip the shiny, new Krona downpipe up to the turbo. Slip the flange over the three turbo stubs (see picture below. Note that no oxygen sensors were installed on the Krona downpipe in the picture). No gasket is required for the mating area between the turbo and the Krona downpipe ©. Go ahead and put anti-seize onto the turbo studs and hand-tighten the downpipe nuts to loosely secure the downpipe to the turbo.



15. Slip the provided 3" clamp over the exposed end of the downpipe, and slip the center resonator pipe over the end of the downpipe. Align the clamp as shown below (the clamp pictured below is not on this system). THIS IS VERY IMPORTANT! If the clamp is not just on the edge of the coupler, it will not seal properly! Do not tighten the clamp



16.

Next you may move to connecting the under axle pipe (be sure to slide a clamp over the end closest to the resonator prior to making the connection). Your progress should look similar to the pictures below. Slide exhaust hangers into the factory location. Pay close attention to the spacing of the center resonator pipe and the bend in the under axle pipe on the body of the car. As the system thermally expands it will grow outward and can expand up to a ¼ inch. (The clearance below is spaced perfectly.)



17.

The following modification can be disregarded on vehicles equipped with a factory cut out (lucky you guys;-)). Vehicles which utilize the "hidden tip section" from the factory will need to have the bumper trimmed for proper tip location on the Krona system. This must be done at your own risk as a slip with a saw or grinder could permanently damage your rear valence. On our test vehicle we used a grinder and <u>VERY</u> carefully cut of the factory opening as the outline on the inside of your bumper dictates.





18. Once you have made the bumper modification you should now be getting excited... You are almost done:-)! You may now install the muffler/tip section, be sure to slip a clamp over the under axle pipe prior to making the connection. Lift the muffler into place and install the hangers in the factory location.





19.

Position the muffler so that it is center perfectly in the bumper cut out. Once you are happy with its location you may now tighten all exhaust clamps starting with the muffler and working your way forward. **Torque all slip fit connections to 20 ft lbs.** 

ALL DONE!, Now......

Go let everyone in a 30 mile radius know that you just installed the best exhaust on the market :-)!!!

## Final Check off list

- 1. Reinstall O2 sensors and make sure to use a small amount of anti seize at each location (don't forget to reconnect them).
- 2. <u>IMPORTANT</u>: Wipe the system clean of all dirt, finger prints or debris using a glass cleaner, simple green or similar. (Once the exhaust gets hot, any remaining dirt particles will burn onto the finish and become permanent.)
- 3. Ensure the exhaust tips protrude evenly inside the bumper and no parts of the exhaust system are touching the chassis or body paneling.
- 4.Start your car to check for leaks ...and to hear your new Krona exhaust system!

*Please note:* It is completely normal for exhaust to smell initially and for the first couple drives. This will slowly dissipate as the system heat cycles several times.

Upon breaking the system in and the thermal expansion and contraction of the metal it may be necessary to retighen the turbo studs and exhaust band clamps.

If you have any questions or comments please feel free to send us an email saab@kronaperformance.com.