Changing Lower Valve Cover Gaskets
& Cam Chain Cover Rubber Grommets

This procedure outlines how to change the lower valve cover gaskets and the lower cam chain cover rubber grommets which can be reached without removing the engine.

For pictures illustrating this procedure, see here:
https://picasaweb.google.com/bruce.carter54/ChangingLowerValveCoverGaskets?authkey=Gv1sRgCOnrmJiH_Mr-lQE

Parts and Materials Needed

Lower Valve Cover Gaskets	993-105-135-02 (2)	$15.80 each Sunset
Combination Screw	900-067-238-01 (22)	$0.53 each Sunset
Cam Chain Cover Grommets	964-105-140-01 (18)	$2.12 each Sunset
Locking Nuts	999-084-094-02 (18)	$0.48 each Sunset
Molykote 55 O-Ring Lubricant	Dow Corning	$17
LM 508 Anti-Seize Compound	Lubro Moly	$12
Parts cleaner(s) and tools	Simple Green, etc.	

Note: the number of rubber grommets and locking nuts for the cam chain cover shown is for the complete refit which is only possible if the engine is out.

Tools Needed

Beyond the essentials which every Porsche home mechanic must have you will need a torque wrench that can achieve a 10Nm torque specification. A small wrench with a 1/4 inch drive is perfect. My choice is the Hazet 5108-2CT. Paired with the Snap-On 5mm bit socket (TMAMS5E) you will have the perfect combo.

Procedure

1. Note Date and Mileage

2. Raise Car

3. Remove rear wheels

4. Remove the heat exchangers

> No one changes the lower valve cover gaskets until they are leaking. When that occurs, the heat exchangers get oil on them and it is best to clean them off the engine. This also affords easy access to all bolts. Alternatively, you could remove the mufflers instead. You will then need torque wrench with a narrow ratchet head and stubby bit socket.

On the left side you will need to disconnect the rear stabilizer to be able to access the front nut holding the heat exchanger on. See my post on doing the SAI port clean out where I wrote this up in detail.

5. Remove the black heater hose

6. Disconnect the spark plug wires and hang out of the way

7. Remove the valve cover

8. Remove the old gasket and clean the cover

   I found that this can be hardest step of all if the cosmoline (yellow rust inhibitor) sprayed on the car underside is present. Try Simple Green that has been heated. Pour it over the cover in a tub, let it soak and scrub with a toothbrush and Q-tips to remove the cosmoline. Clean the spark plug wires with a rag and some mineral spirits.

9. Clean the engine mating surface with the cover to remove oil.

10. Apply Molykote 55 to the new valve cover gasket with your fingers. Coat the inside and outside and use a Q-tip to lube inside the donut holes.

11. Insert the new gasket into the cover with the smooth side going into the groove of the cover.

12. Apply some copper anti-seize compound to the combination screws.

13. Place the valve cover with the new gasket up into place on the engine and start each of the 11 combination screws. Run them up finger tight using a cross-pattern to apply an even pressure to the cover.

14. Set the torque wrench for 10Nm. Tighten the screws a little at a time in a cross-pattern until you begin to feel the resistance. Complete the final tightening pass until the wrench clicks indicating the 10Nm torque spec has been achieved.

15. Refit the spark plug wires

16. Refit the black heater hose

17. Refit the heat exchanger. Make sure to lubricate the fasteners and follow the steps previously documented. (23Nm for all fasteners)

18. On the left side, refit the rear stabilizer. (23Nm for stabilizer bar to cross member, 46Nm for stabilizer to drop-link mount)

19. Start the engine and check for leaks

20. Refit the rear wheels

21. Lower the car

22. Torque the rear wheel bolts to 130Nm

23. Update the log

Changing the Cam Chain Cover Rubber Grommets

This is one of those "while-you're-in-there" items. It's likely that if your lower valve cover gaskets are leaking, then so are the lower cam chain cover rubber grommets and they are easy to change. That is, the ones which can be reached without taking the engine out.

On the right side you first need to remove the heat shield. The idea is to remove and install one grommet at a time to keep the torque even across the cover. Usually the nut, thrust washer and bolt come out together. Then use a pick to remove the rubber grommet. Apply Molykote 55 to the new rubber grommet and insert it into the hole in the cover. Insert the bolt, thrust washer, nut combination and torque to 10Nm if you can get a torque wrench on it. If not, just guess with a small 10mm wrench.