

Replacing the Valve Cover Seals

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Note: It is recommended that you change your oil immediately after doing the valve cover seals because dust, pollen, etc can get into your engine when replacing the seals. If you can do this indoors instead of outside, there is less chance of contamination.

While you have some of the parts out of the way, it is easier to change your plugs at this time.

Parts List from Subaruparts.com:

Part Number	Description	Price Each	Qty	Total Price
13270AA031	Gskt Rocker Cover Rh	\$11.62	1	\$11.62
13294AA020	Gskt Rocker Cover	\$ 6.06	1	\$ 6.06
13294AA030	Gskt Rocker Cover	\$ 6.06	1	\$ 6.06
13272AA031	Gskt Rocker Cover Lh	\$11.62	1	\$11.62
13293AA011	Gskt Rocker Cover No	\$ 6.06	1	\$ 6.06
13293AA020	Gskt Rocker Cover No	\$ 6.06	1	\$ 6.06
*** 13271AA051	Wash Rocker Cvr	\$ 2.48	20	\$49.60
806923060	O/ring Oil filler	\$ 2.34	1	\$ 2.34
11832AA022	Gskt Oil Separator Co	\$ 2.34	2	\$ 4.68

Subtotal: \$91.78

*** *There should be 20 washers, not the default of 16.*

Another source of parts is RockAuto.com with a Corteco valve cover set with grommets for \$58.79 + s/h. These are not OEM like the parts above, but high quality. You may have to order 2 sets because they only have half of the gaskets in one set. Be sure to check with them when you order. Some members have had some problems with this.

If you let the engine cool for 30 minutes or longer, the oil will be in the pan and there will be very little that will spill or drip out while doing the job.

1) Disconnect the Battery and remove it from the car. It is held in by two J bolts.



2) Unscrew the 2 clamps from the intake that goes onto the throttle body and MAF.



Here's a picture of the intake tube off so you can see where all the hoses plug in that you need to take off.



The air tube has been removed and you can see where it connects.

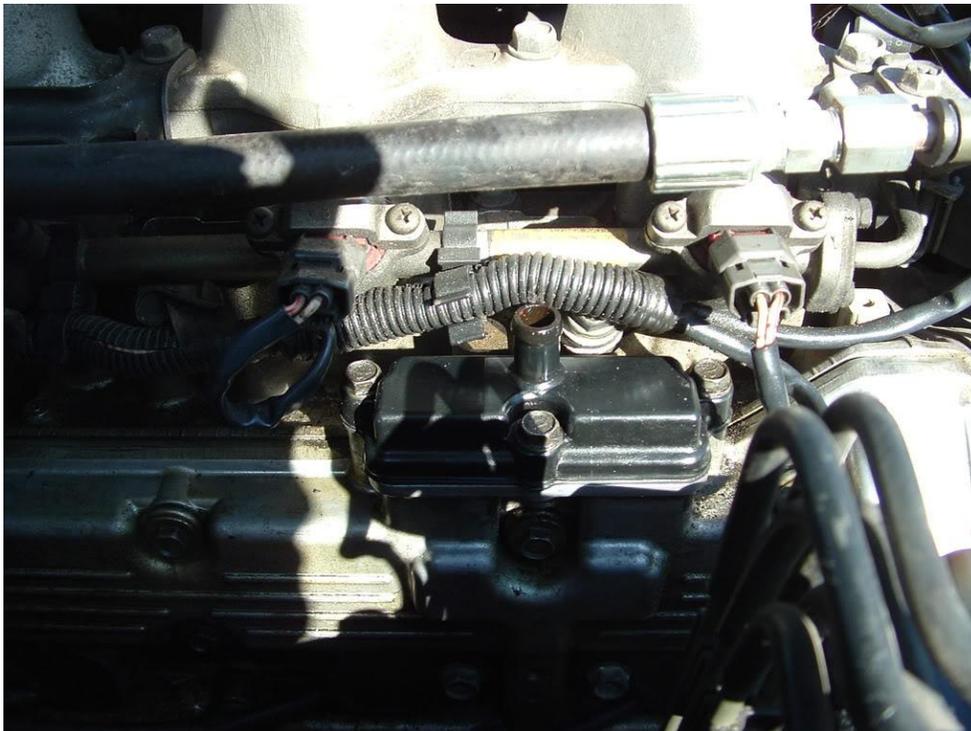


3) Remove the top of the washer fluid container and remove the 2 screw/bolts and pull it up, but remember to unplug the pump and take the rubber hose off at the bottom.



4) Unbolt the engine oil filler tube.

5) Here is the oil breather where the oil separator gasket will go. These can be done when you have the valve covers off. Remove the hoses.



6) Here are a couple of pictures of where the bolts are. Remove the ten bolts that hold each valve cover on.





The valve cover should come right off, but if not, pry gently.



Here's a picture of the valve cover (outside view).



7) Take the actual valve cover over to a bench and remove the three rubber seals. They're relatively easy to remove (one goes all around and the other two go around the middle area where the coil packs sit).



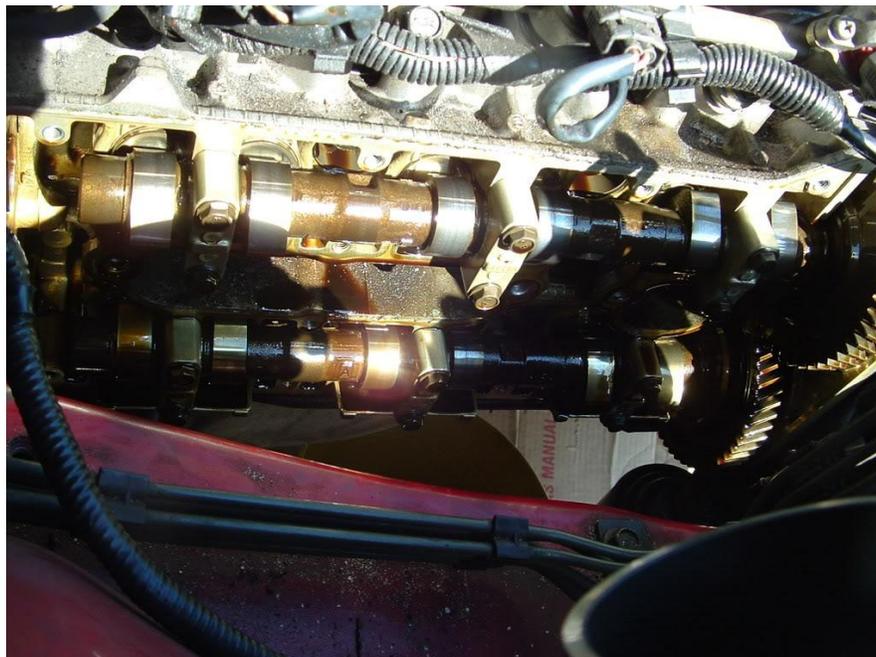
8) Replace the seals with the new ones. Note that the seals are specific to one side of the engine. When putting in the new gaskets remember to clean the groove and edges on the motor and the covers so everything will seal properly. Don't force the new seals down into the little grooves, but push them in gently (if the rubber is damaged during installation, the seal will fail)

Sometimes there are leaks by the corners where it goes into a semi-circle. You can put some gasket sealer into the grooves where the gasket goes and around the corners to hold it in place, and that should help stop the leak.

When the new ones are installed, the new gaskets should look like this.



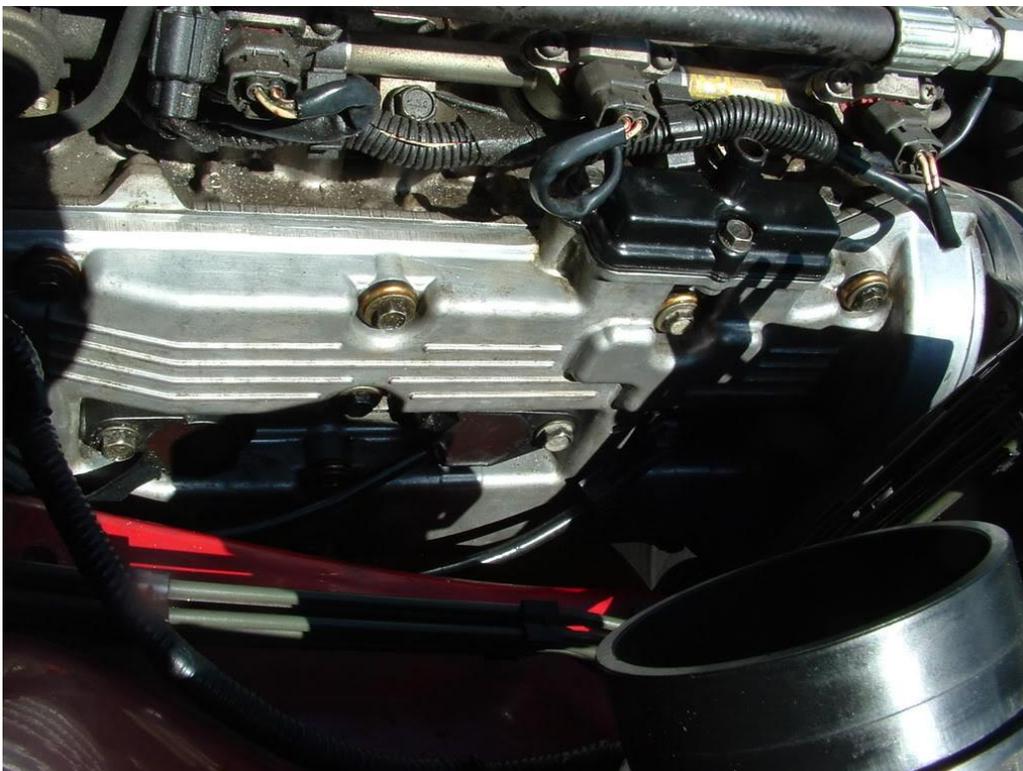
Here's a picture of the cams. Check them to see if you have any wear or cracks.



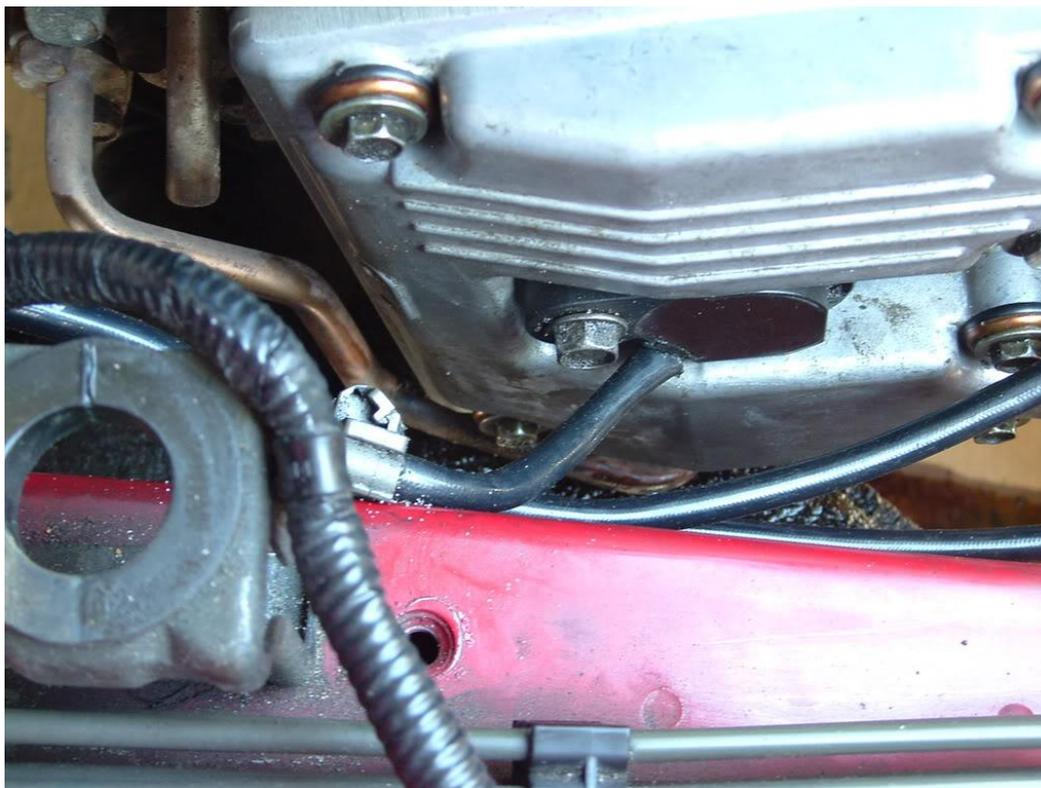
9). Remember to replace the old washers with the new ones. There are two bolts that are smaller than the rest. They go into the holes closest to the firewall.



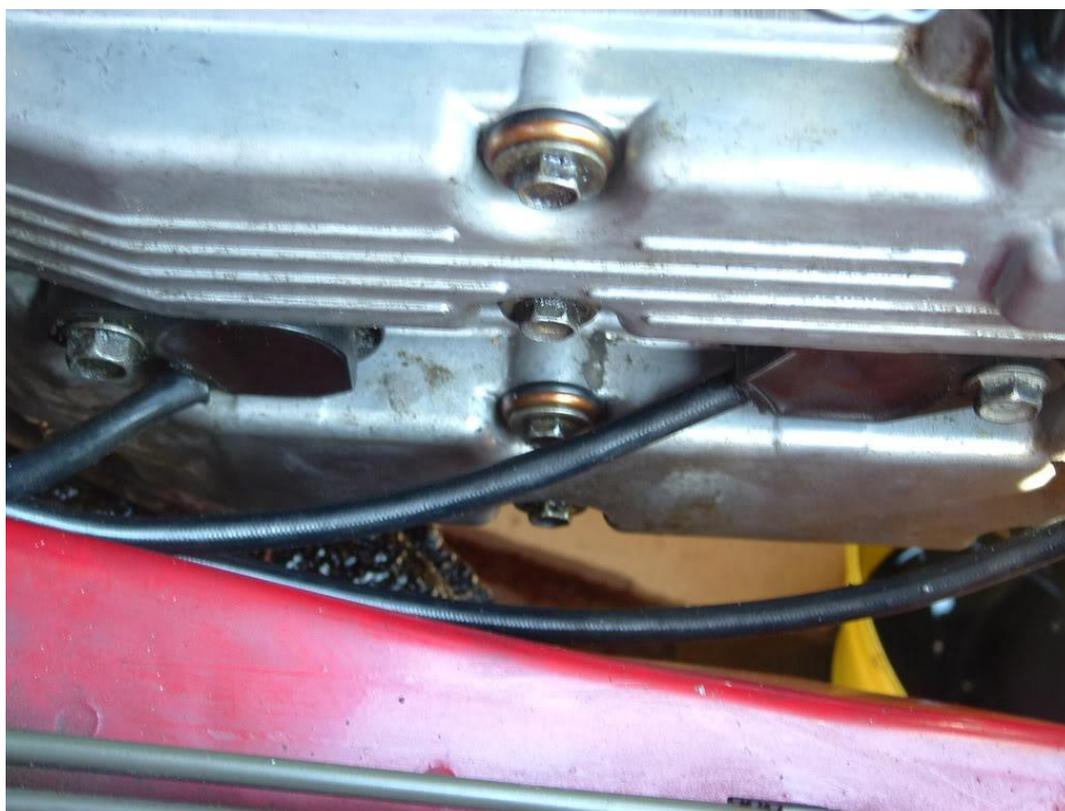
10) Carefully slide and maneuver the covers back into place and start bolting them back on with the 10 bolts per side. (The torque specs on these bolts are 10-14 ft-lbs).

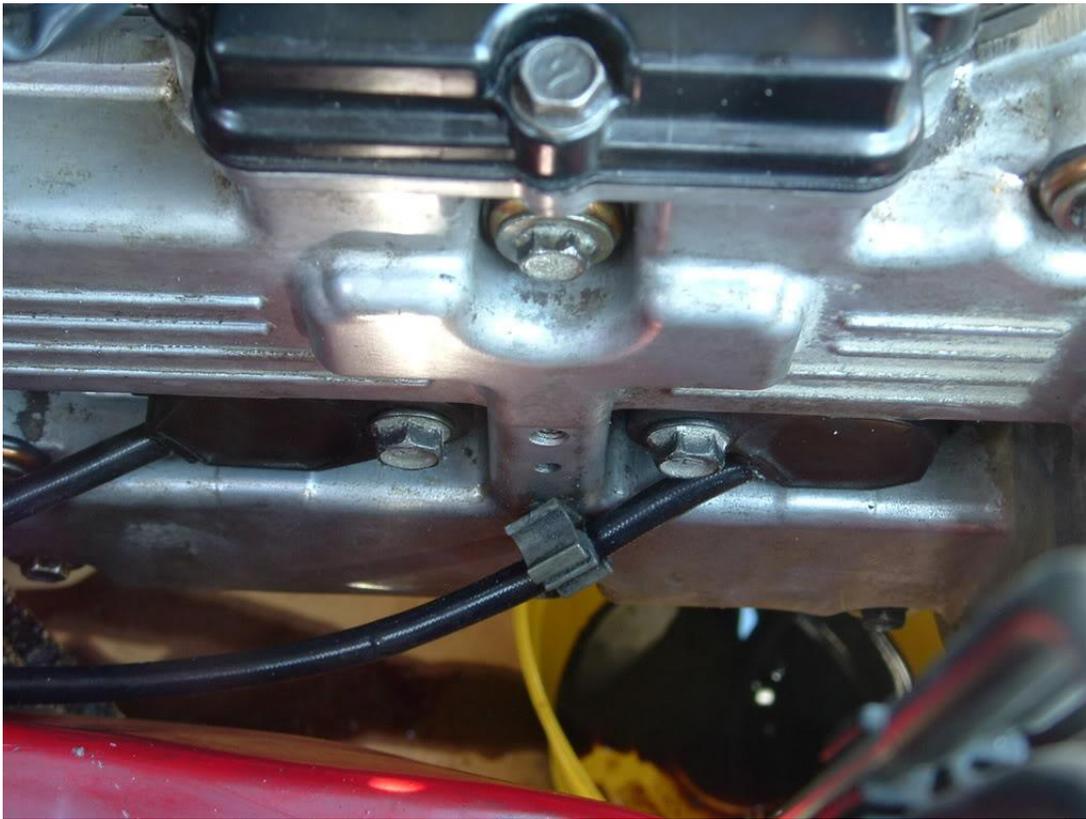


11) Replace the coils with the bolts that were removed before. (3 on each side)

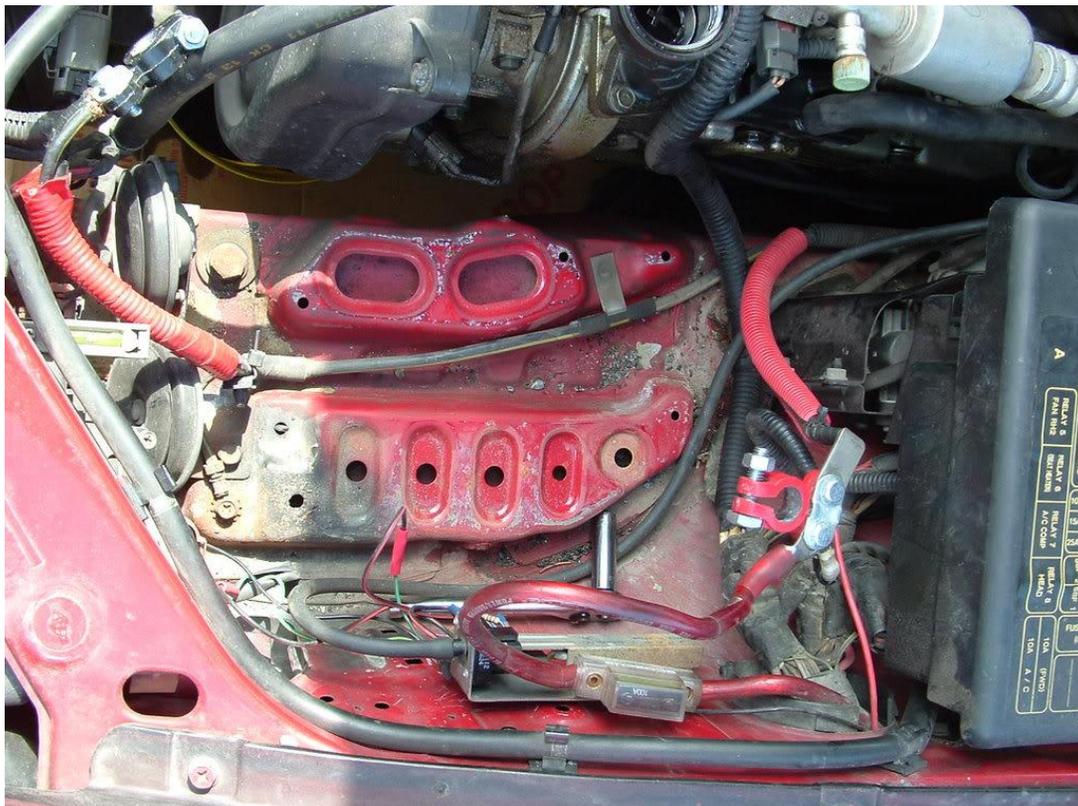


The coils and wires are visible here.

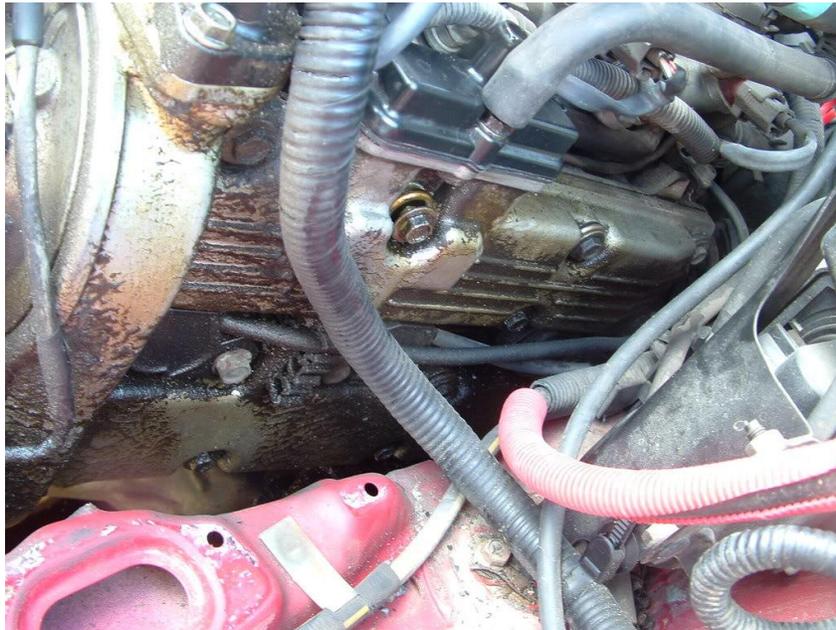




12) The first side is now done, so move to the other side and do the same thing with it. The driver side cover is a little more cramped so it will take a little longer. The battery has already been taken out, which will give you some room to work.



Here's a picture of the valve cover. The black wire in the middle of the picture can be moved to the left so it's not in your way.



13) Remove the coils, tubes and wires needed to get the valve cover off like you did on the first side.

There is a trick that can be done for removing the bottom right bolt. Turn your wheel all the way to the left and you'll see a grommet for the spark plugs. Just to the right of that, you will be able to see the bolt in the engine bay. Use an extension and you can take it out.

14) Remove the old gaskets and install the new ones.



15) Replace the bolt washers.

16) Slide the valve cover onto the engine very carefully so you don't move or damage the gasket. There is very little room to do this.

17) Reinstall the intake tube and hoses along with the battery in reverse order.

18) Let the motor run for about 5-10 min to check for leaks. If all goes well there will be no more leaks. If there are a couple of very small leaks, re-torque the bolts and that should stop them.