96 V12 Oil Service Valve (OSV) Change

Thanks to the usual suspects, JoeC, Buck, Brian Etc., I was able to change my OSV's on the big 12.

The cost $135.00 YMMV Time: Three hours

Parts;
http://www.realoem.com/bmw/showparts.do?model=GK23&mospid=47533&btnr=11_1432&hg=11&fg=15

REG. VALVE Price: $39.96 (Tischer) Part# 11157501564
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Includes Item 2 & 6

You also need item # 5
RUBBER BOOT X 2 Price $23.99 Part # 1115702292
I forgot to order, so I sourced locally Tischer wanted $18.00 local dealer $22.50

Order parts here, insert part numbers to access database, add to cart and pay by credit card; http://www.mileoneparts.com/partlocator/index.cfm?siteid=214336

One Craftsman ratchet specialty wrench $9.99 w/magnetic bit holder and four bits (no torx included). One T-30 Torx Bit

You have to have a tool like this; Joe C uses an HVAC wrench. As long as it is thin and ratchets w/magnetic bit holder, it will work.

I did the tear down first, starting on the drivers side, it's easiest and has the most clearance and I had no idea what this all looked like.

Remove the four torx bolts (which do not strip, unlike the V8's), bottom screws first so top will hold valve in place. Now pry the valve loose in case it is stuck to the intake, the valve will stay attached by #5 the rubber boot to the valve cover. Now reach down and remove the valve from the boot, if you tear the boot, ok, it needs replacing anyway. Once you get the OSV cover out, you can reach down and remove the boot from the valve cover nipple.

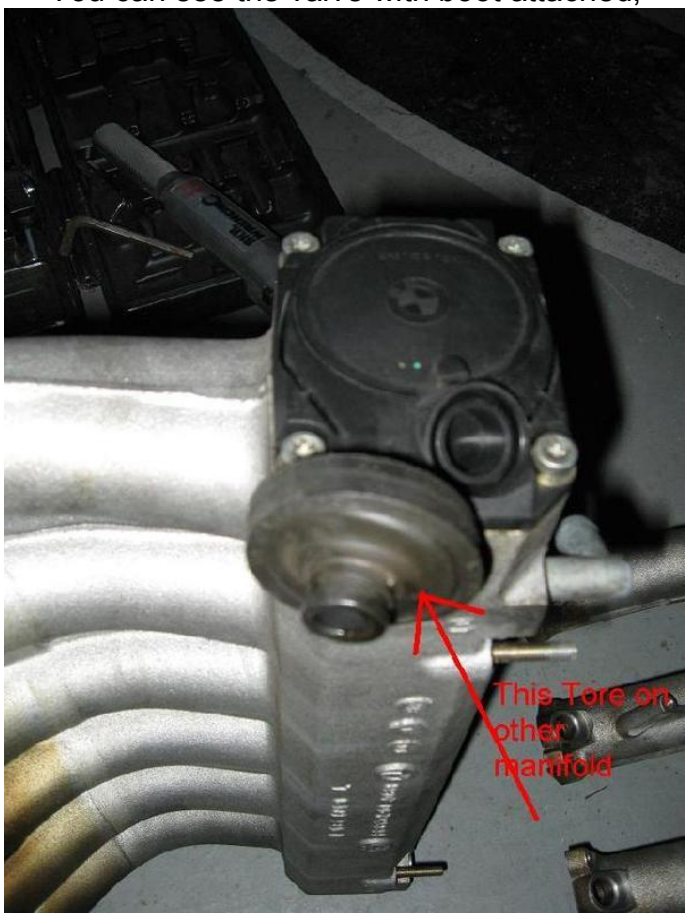
Learn how to Do It Yourself Here;

BIMMERBOARD.com

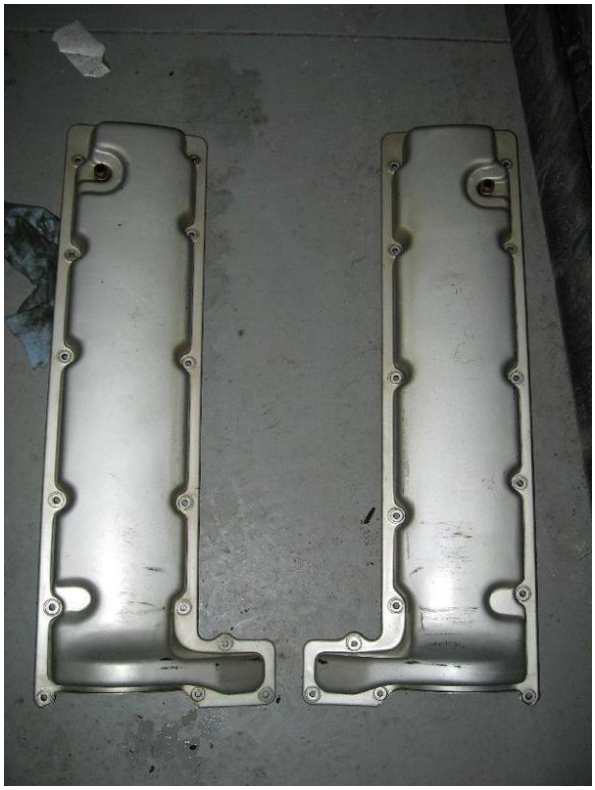
http://www.bimmerboard.com/forums/e38/

See Buck Clifford's pictures below;

You can see the valve with boot attached;



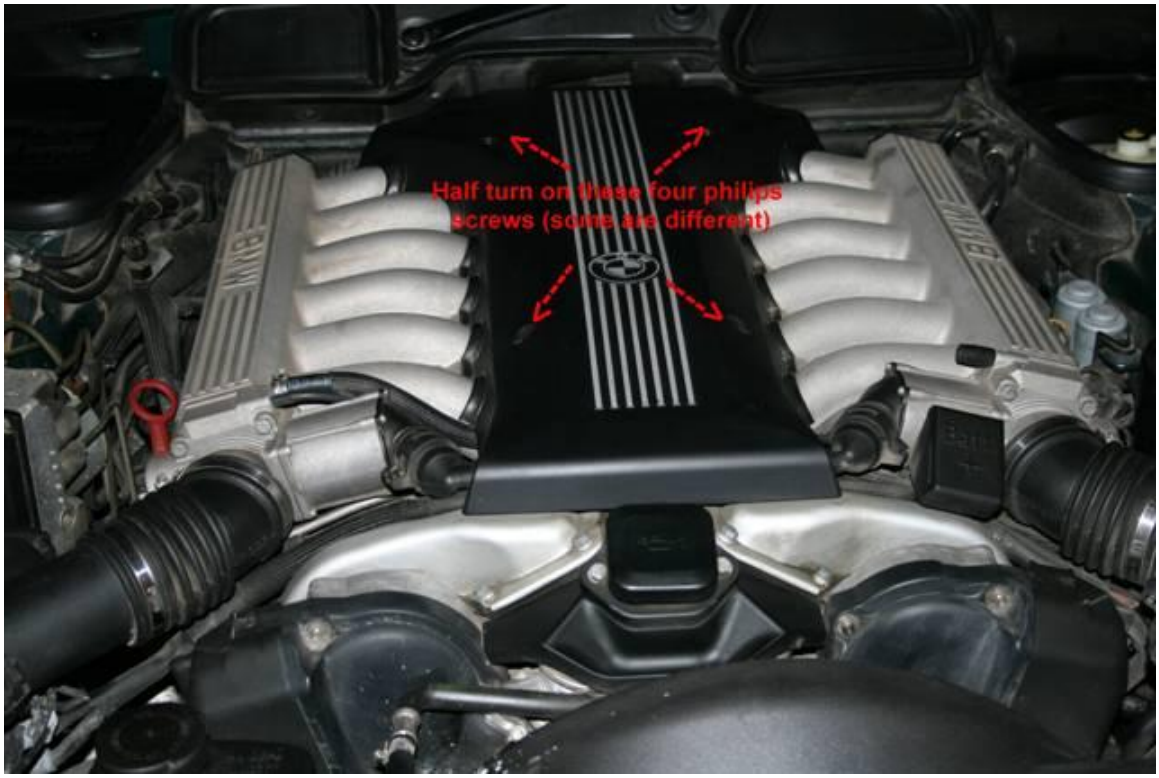
The boot attaches at the top of the valve covers below via a nipple



Thanks Buck!

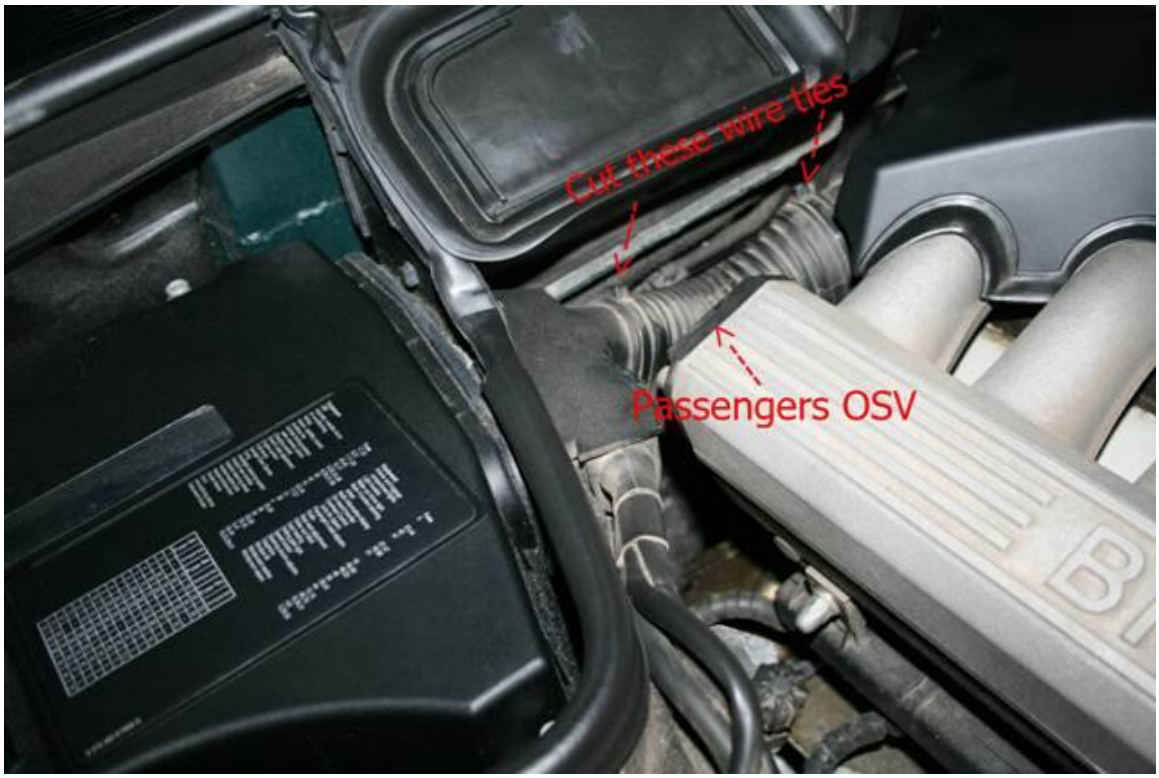
Now for the passengers side;

Remove the engine acoustic cover, half turn on each of the four Philips head screws will allow you to remove this cover, be careful this cover is expensive I know. If you're not keeping bodies in the trunk, why not put this cover in there.



Once you remove the cover you will see the EGR control system, (see picture) it is laying on top of the wire cover (sorry no picture) lift the whole EGR assembly up remove one hose so you set the system aside. Now you can remove the wire cover. It is held on with little plastic clips on the side and back. I only broke one.

Cut the two zip straps that hold the rubber boot to the plastic on each end. (see picture)



Click on the link, it will change your life

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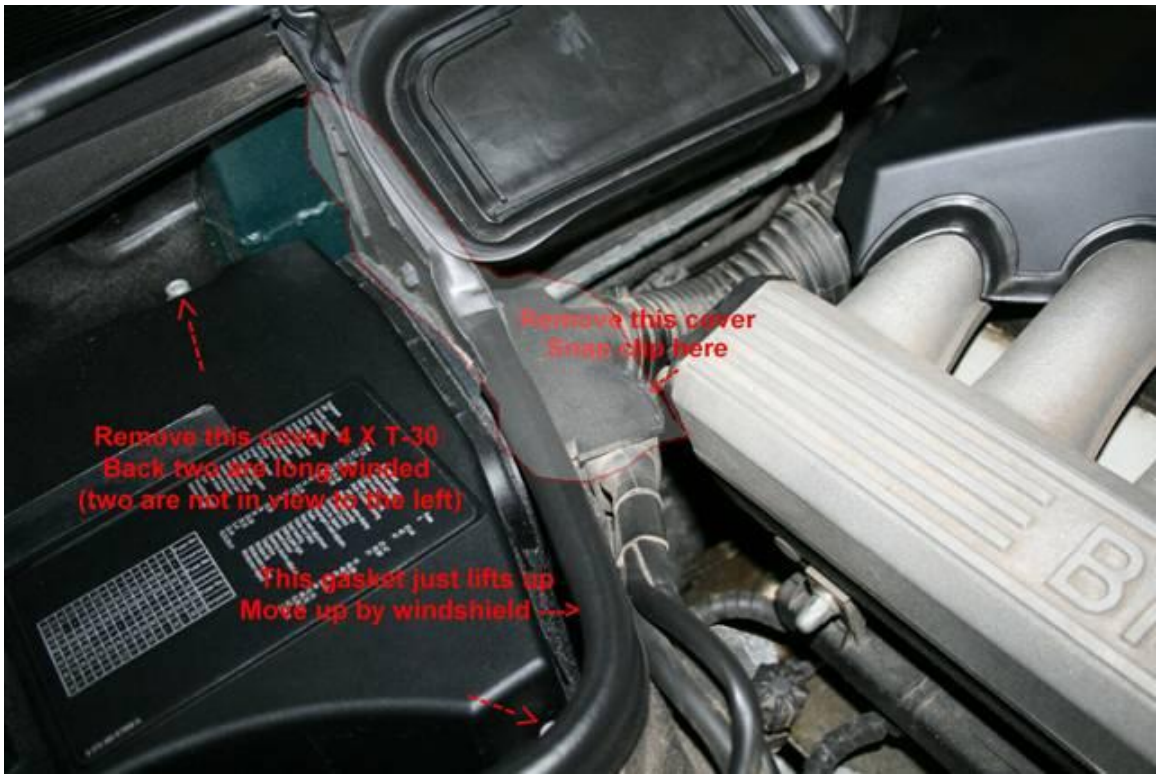
Remove the four T-30 screws from the wire control cover and then the plastic cover that the boot slides over, do this on both sides of the boot. The plastic cover below is a pain, It keeps the control box sealed, take your time, there is another snap clip, but you can't reach it, and mine did not break, it just came off, It is up by the firewall. You gain a whole lot of access to the Passenger OSV by doing this. Be careful and take your time. You will figure it out.



See the picture below. Now you have enough room to work the OSV just like the drivers side.

Below are the old OSV's the rubber boot tore off the passenger side OSV, I suspect it was already torn. This side also had a bad diaphragm inside the valve. Notice how flat the O-rings on the valve are.

Joe C only removed the wire cover on the engine and used a board to hold up the wires, I wanted more room, so I removed the cover at the wire control box. Scary as hell, but made it so much easier.

When you put the new valves in, attach the rubber boots (5) to the OSV cover and then install, you can work the boot over the nipple easier then trying to get the boot over the OSV cover. Small hands work best, since it is crowded. On the passenger side I was able to reach between the block and the wiring control housing and slip the boot on. I also used a little slick 50 on the rubber parts to help them work easier.

I used Permatex high heat thread lock (white) on all bolts when I put them back in.

Don't cheat this job; get the valves and the rubber boots.

My old valves were dated 99, so the originals lasted 3 years, I suspect changed under CPO and then almost nine years later 116000 miles, I changed them.

This DIY job fixed my rough idle, surging and bad fuel mileage.

Sorry I did not have more pictures. Let me know if you need my help.