

Before you follow any steps, I would like to mention that these are only guidance steps and you must take every pre-caution to avoid any damage to your vehicle or yourself, and make sure you don't follow this DIY guide as step-by-step repair manual. You will be responsible for any damage caused by your actions on your vehicle.

DIY – BMW E60 M54 engine Oil Filter Housing gasket replacement

1. Raise the car either on all four jacking points, or just the two front ones. The front jacking point between the front two wheels is a bit too low that my jack could not fit under it, so you will need to raise the front wheels by couple of inches. Now either you can get the car ramps stands, but I went for a cheaper alternative (its call piece of wood, chopped in 4 pieces and then two pieces stuck together, do this at your own risk)



2. Now you can raise the car from the front jacking point.



3. Now go ahead and remove the engine in-take air-filter and its compartment so you can have access to the alternator. Be careful on the plastic clips on the air-filter and the way they hook on. You will need to disconnect the in-take sensor and un-clip the big hose going into the engine. Sorry, I don't have pics on this step, but once the engine in-take air compartment is removed, you should be able to see the alternator clearly as below.



4. Remove the top cover of the radiator and un-clip the two cables holding the lock of the bonnet/hood. (Sorry, I don't have pics on this step)
5. There is one more plastic piece under the radiator cover plate that needs to be removed before you can pull the fan out. Remove that plastic piece. (Sorry, I don't have pics on this step). Now the front fan is basically hanging and can be pulled straight out after disconnecting the two wire connection on the left. You will need to remove the fan if you have big hands and arms; I was somehow able to manage to do the repair without removing the fan. As you can see below, the fan will give you the extra 3-4 inch of space to get your tools and arms inside.



6. At this stage, you must un-plug your battery in the boot of your vehicle. Do so by taking the negative terminal first and ensure to cover the point with some tape.



7. The positive terminal can be dis-connected after the negative one, but is not necessary. So you decide for yourself. I won't have any negative impact anyways IMHO.

8. Now remove the negative and positive terminals from the alternator and make sure to cover it with tape or something so that it does not shorts with any other metal on the vehicle.



9. Now, remove the Engine serpentine belt by turning the tension pulley clockwise and pull the serpentine belt out. It is recommended to remove the AC belt as well so both the serpentine and AC belt can be removed, but while I was working, I let the serpentine belt hang on the AC belt. So this is your choice here to make.
10. Un-bolt the power steering pump that is attached to the bottom of the alternator, this is tricky as it one bolt from under the alternator that is very hard to get to, and I had no space to take the pics. Once the steering pump is free from the alternator, make sure you have some support to let the pump rest on; otherwise you will put extra pressure on the power steering hoses and damage something else.

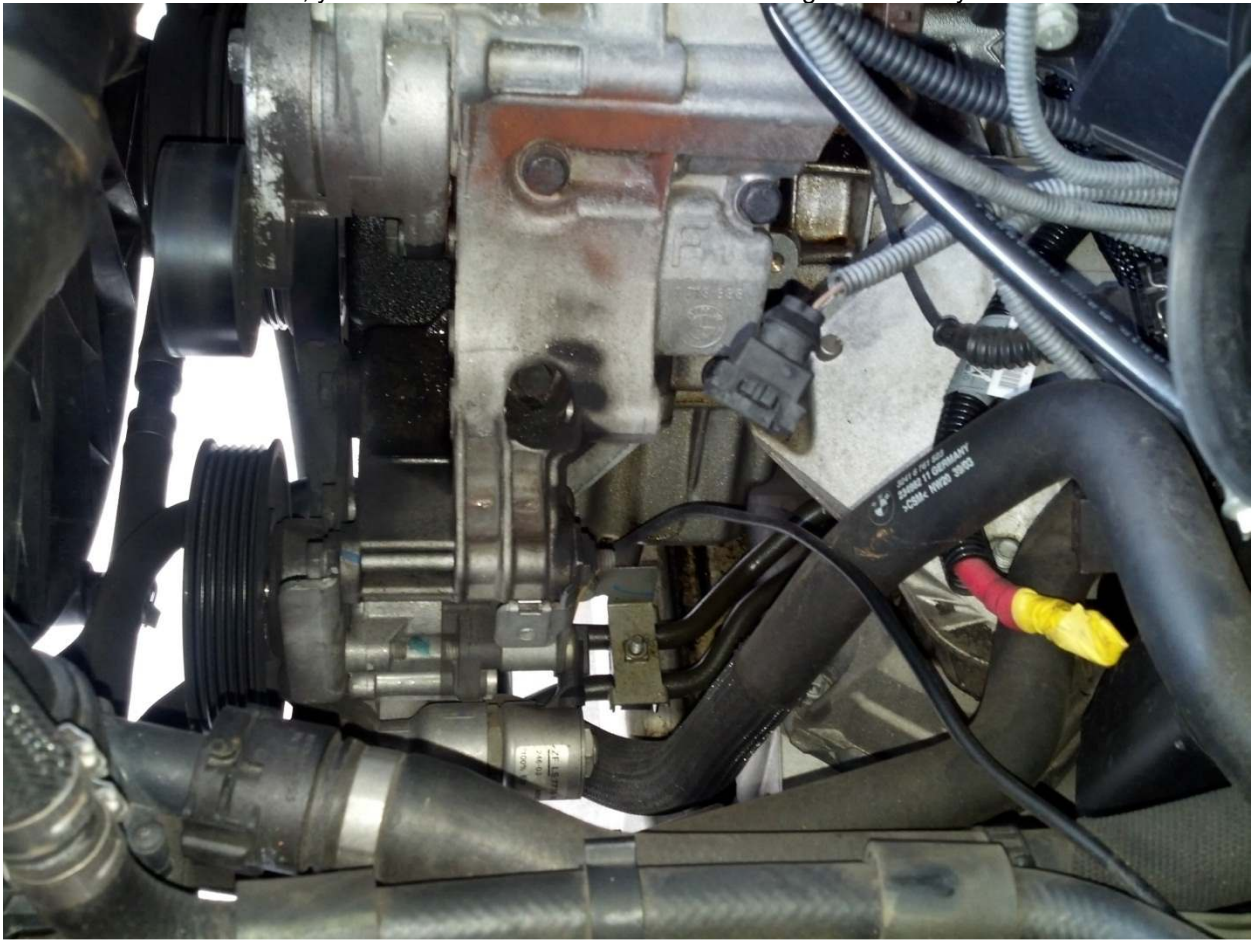
11. Now remove the bolts holding the alternator. I think, there are three of them. I am holding one of them in my hand in the pic below.



12. Once the bolts of the alternator are removed, the trick to remove the alternator is to give it a good jerk as if you are trying to lift it out.



13. Once the alternator is out, you will be able to see the oil filter housing more clearly.



14. Un-plug the oil sensor plug out.



15. Remove the banjo bolt at the back of the oil filter housing where the hose from the Vanos is connecting. Be prepared to catch some oil that might drip from that bolt. Sorry, I don't have a picture of that bolt.

16. Now remove the six bolts that are holding the oil filter housing and make sure to keep these bolts separate as they are different lengths and pull out the oil filter housing.



17. Engine section where the oil filter housing goes, needs to be cleaned up thoroughly.



18. Remove the old gasket from the oil filter housing and clean it properly.



19. Install the new gasket on the oil filter housing and start following the steps backwards to put everything together. Your last step should be to connect the battery in the boot.

Hope that helps.