

Traditional method

Oil Change Instructions

For VW 1.9 TDI

Created by DeafBug

This document provides instructions on changing the oil and filter on a VW 1.9 TDI engines. All the pictures here are taken from my 2001 New Beetle with automatic transmission. Golfs and Jettas are slightly different from the images. And manual transmissions have a full cover on the belly pan. Automatics have a cutout on the belly pan. It exposes the transmission. There is a drain plug readily visible that a quick lube place can be confused about. I have heard stories that they remove it and a dark red fluid comes out. You do not want this to happen as you can't drive it. You will have to have it towed to the dealership. Or you can do it yourself with instructions written by Drivbiwire to deal with it. You can find the ATF change instructions on the TDIClub.

Alright let's get going. First of all, you want a warm to hot engine. Then you want to put the car on ramps. I guess we should cover the materials first.

Materials:

- VW approved oil (not necessary to have VW stamp on it but meets or exceeds rating.)
- Rags or paper towels.
- Latex gloves or similar disposable gloves
- Oil filter (It should include two O rings)
- Crush washer (optional on older engines)
- Torx T-25 driver for belly pan
- 19mm socket for oil drain plug
- 10mm socket for engine cover.
- 10mm wrench for engine cover (Beetles only)
- Small screwdriver for engine cover caps
- Torque wrench to tighten drain plug
- Needle nose pliers to remove O rings
- 76mm x 14 flute oil wrench (helpful otherwise an oil wrench strap will do. BTW, a 74mm will not fit. 76 will fit but it can slip if at slight angle.)
- Funnel to help pour oil (optional but it is helpful on a Beetle)
- Oil drain pan (need to catch oil coming out)
- Turkey baster (optional)



With the car on the ramps, crawl under or slide under if you have a creeper and remove all torx screws that are holding the belly pan. (Note: there is nothing wrong with my belly pan. It is all one perfect piece. I don't know why the picture appears to have part of it appearing to be ripped off. Honestly.)



With the belly pan removed, I normally push it back so that it is under the front seats.

The silver aluminum part on the left side of the picture is the oil pan. The black part on the right side is the cover for the transmission filter pan. The dirty part in-between is the transmission, where the flywheel housing is.

Now pop the hood, if you have an engine cover, it will need to be removed. Use the small screwdriver and remove the round caps. Beetles only have two of them. Golfs and Jettas have 3 of them. With a 10mm socket, remove the nuts in the cover.) Notice the green circles in picture below.

Beetles owners, use a 10mm wrench and loosen the nut on the back end of the engine cover. (Note: it may already been loosen as most people/mechanics initially loosen it and leave it alone. If you can't remove the cover after remove the two 10mm nuts then you need to loosen it.) Remove the cover.

Jetta and Golf owners, there is a clip holding a black cloth-covered tubing near the back nut. Unclip the tubing. Remove the cover.

Sorry about the dirty cover. I normally leave it off. I just put it on to take a picture and I didn't want to clean it up. (It will get dirty anyway. ☺)





The oil filter housing is the one with the green circle. Use the flute oil wrench or strap to remove it. I suggest having paper towels and/or paper bag next to it. Once you have loosened the cap completely, pick it up and allow the oil to drip from it before you move it.



Set it somewhere as you will work on it.

This step is optional. You need a turkey baster for this. Otherwise go to the next page.



Notice the difference between the picture above and below. Use the baster to suck up the oil and dump it in the middle hole. It will drain to the pan. Oh yeah, there is plenty of oil there. There is a deep hole at the 6 o'clock position that you want to get it out. And a small hole in the 10 o'clock position.





Get the 19mm socket or wrench and loosen the oil drain plug. Just loosen it so that you can remove it by hand after you position the oil drain pan under. I strongly suggest wearing a latex glove. With the pan under, remove the drain plug. The oil will come out. Let it drain. Let's work on the filter. (Notice the drain plug on the left of the pan below my white dirty fingers.)





Remove the small O ring with the needle nose pliers. Notice where it is located, green circle.



Remove the large O ring with the needle nose pliers. There is a notch on the cap that will assist you to get the ring removed easy with the pliers.

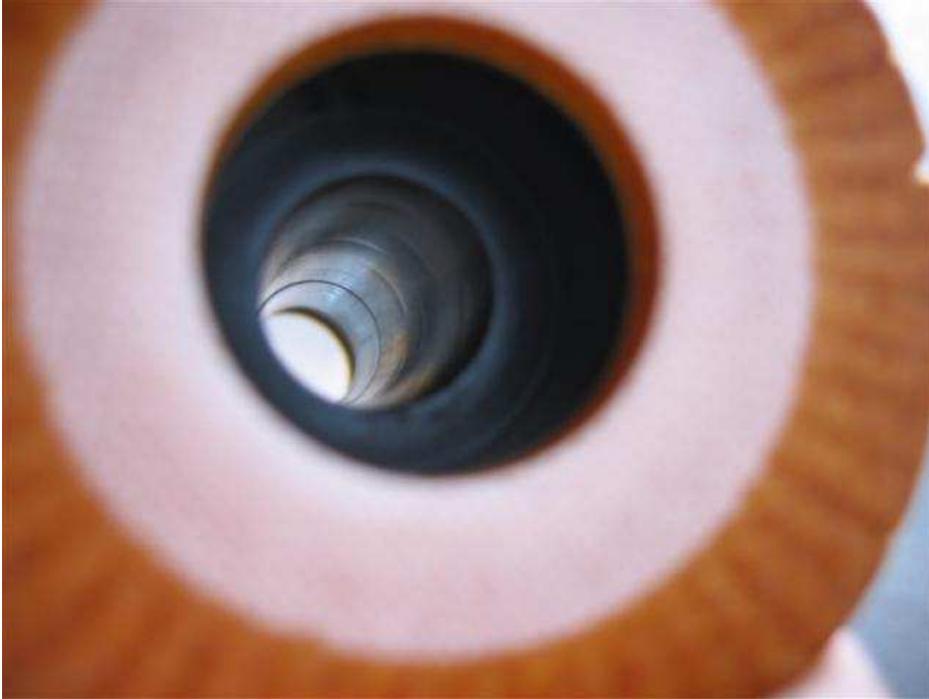
Oil both O rings (with old oil is fine.) Install the new O rings in their correct location. Put the new filter in the oil housing correctly. See pictures below.



The filter has the word Oben/Top inked on it. (Oben is German for top.) That should be facing up in the housing. If you happen to not have any wording on it, then the two pictures below should help.



Looking in to the side, see the openings in the plastic. That should be up.



Looking from the bottom, notice there are no openings. It should be down in the housing.

Once you have the oil filter in place, oil the O rings on the outside of the cap once more quickly. Insert the cap into the filter housing. Push it down a little as you turn to get it started. If you can't, then it is possible that you have the filter backwards. I generally put the filter in the cap first then put the cap and filter into the housing.

To tighten the cap on the housing, use the fluke wrench or strap. It is suppose to be torque to 18 ft/lbs (25 Nm) but a good hand tighten will do.





Check if you can easily removed the washer from the drain plug. If you can, then you may want to replace it with a crush washer. Lots of people re-use it. Newer cars, 2001+ have permanent washer. The part on the left in the picture above is the drain plug with permanent washer. It can't be remove, it can fool you thinking that it could but you can't easily. The part on the right in the picture above is a crush washer.



When the oil is done dripping, wipe up the area and clean the plug. Carefully and gently, hand screw the plug in the pan. Don't force it. You don't want to cross thread it. Once it is on correctly, fully hand tight it. With the torque wrench, tighten it to 22 ft/lbs (30 Nm.)



Remove the oil cap.



Pour 4 quarts (one gallon) in the engine. You will need more than that but it is good for now. If you want to, you can pour another 1/4-1/3 quart in. Remember you already have some old oil in the engine. You don't want to put too much in.

After you poured the oil in the engine, put the oil cap on.

Put the engine cover back on. Tighten the nuts with 10mm. (Beetle owners, you do not have to tighten the nut in the back. You can just leave it alone. Just make sure it is snug so that it won't work its way loose.)

Crawl under the car with a T-25 driver. Put the belly pan back on the car.

Start the car. Take the car off the ramps. Go for at least 10 minute drive. When you return, make sure the car is on level ground.

Wait at least 3 minutes to allow oil to drain back to pan. Remove the dipstick. (The orange thing.) Wipe the metal blade clean, re-insert it completely. Remove it and check the level. It should be within the hash marks on the dipstick. But no higher than the top bend of the dipstick. If it is higher, you must drain some out. (You don't want to ever get to that.) If you need more, top it off with oil. It is perfectly normal that the new oil is instantly black.

My helpful Tip: I check the oil over a few in-and-outs of my garage. Every time I pull into my garage coming home from work or whatever, a few minutes later, I check my oil level. Then I add a little each time until it is topped off. I top it off to the top of the hash marks.