

Changing Oil in Your Air-Cooled VW

by Mike C. -

As elementary as this tech article may seem to a lot of you, this is only one of the most fundamental and necessary steps in preserving the life of your VW. Oil has a difficult role to play in the air-cooled VW engine, in that it acts as a coolant as well as a lubricant. Oil temperatures can run as high as 275° F when you have been cruising the highway for a long period of time. I've seen mine go higher than that, although I believe anything higher than 275° F is asking for short oil life and is harder on your engine in the long run. I personally recommend that you change your oil every 2000 miles if driven daily, or every four months if you only take it out on sunny Sundays.

To do the job, you will need:

- 10mm socket/ratchet or open/box end wrench
- 17mm open/box wrench or large adjustable wrench
- Permatex aviation sealant (Autozone or import parts store)
- Oil change gasket kit and filter screen (import parts store)
- Can of engine degreaser
- Low-profile bucket to catch the oil
- Latex gloves (optional)
- 2.5 quarts of oil of your choice
- A couple of hours.



Unless you know someone who knows air-cooled VW's, I recommend that you do the job yourself, as this is one of the easiest things to do on a VW engine.

1. This first step is not entirely important, but will make your job easier and more enjoyable. Spray underneath where the finned oil sump is with degreaser and wash off with the hose. Unless you have stayed on top of the oil leak situation, this area will have been a small mess already. If your VW is at the stock ride height, you may not have to use the ramps. If it has been lowered, you will need to get it up higher. Get a buddy to help guide you up on the ramps so you don't drive right off them.
2. After you have raised the car, get your bucket and tools and get started. If you have a drain plug on the oil sump cover, your job will be easier. Undo the drain plug and let the oil drain for about five minutes. If you don't have a drain plug, you'll have to loosen the six nuts with the 10mm wrench or socket and try to remove the sump cover without splashing oil everywhere. After the oil is drained, remove the sump cover completely, take off the old gaskets, and pull off the oil screen. Wipe down all the gasket surfaces and make sure there are no chunks of gasket left on either the sump cover or the sump itself. Wipe all the gasket surfaces on the sump cover and the sump with some kind of solvent to remove the oil film. If your sump cover is bent or is old, or does not have a drain plug, do yourself a favor and get a new one. They cost around \$5 and are cheap insurance against leaks, plus the new ones normally have drain plugs. If you want to go all-out in leak prevention from this area, take out the six sump cover studs, clean the threads out, and apply Loctite on all of them, and put them back in. The Loctite will keep the studs from unscrewing and will seal the threads from oil seepage.
3. Now take some Permatex and coat each side of each paper gasket with a thin layer of the sealant. Put one paper gasket on, push on the new filter screen, and then another paper gasket, then the sump cover, all in that order. Take care not to bend the filter screen, or you will have a guaranteed leak. Put on all the sump cover nuts and snug them down in a criss-cross pattern. Just get the nuts snug. Don't lean real hard on these or you'll distort the sealing surface and create a leak. Make sure you put a sealing

- washer on the drain plug and tighten it down fairly snug. The washer must crush under the drain plug to seal properly. You are through underneath. Pull all the stuff out from under the car and get your 2.5 quarts of oil ready.
4. In air-cooled VW engines, I like to use straight 30W oil all year around. If you do a lot of highway driving, you can use 20W-50 in the summer months. If your engine is new or has less than 50,000 miles, you can use 10W-40 but I wouldn't use any thinner oil than this. I don't recommend full synthetics for the air-cooled VW, as the tendency to leak would only be made worse with the synthetic. A good alternative is the blend that Valvoline and Castrol make. All it is, is just a blend of mineral and synthetic oils to give the mineral oil a better start-up lubrication quality. If you don't have a deep sump addition, 2.5 quarts should get the oil level back up to the mark on the dipstick. If it doesn't, keep pouring a little at a time until you get it there, but it shouldn't take much. Don't overfill the engine! If you do, the oil will come in contact with the crankshaft and this will foam the oil. Foamy oil lubricates very poorly and you will make the life of the engine short in this way. If you want more capacity, put a deep sump kit on your engine and add more oil accordingly.
 5. Now start the engine and watch the oil light or pressure gage to indicate that you have pressure. Don't rev the engine until you have oil pressure! After you have pressure, get out and check for any obvious leaks.

That's it, you're done! Remember, don't pour the old oil in the ground. You can take it to Valvoline Instant Oil Change or Autozone to be recycled. Clean up the mess, wash your hands, and go have your favorite bratwurst burger!

Your VW Maniac and tech specialist,

Mike C.