

## BMW Maintenance Schedule

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Maintaining your BMW is essential to ensuring that you'll be driving it through 100,000 miles and past 200,000 miles. These days with the advent of BMW's Free Scheduled Maintenance, BMW will replace your brakes, change your oil, and take care of your car until the New Vehicle Limited Warranty expires. Due to this change in how BMW handles maintenance, the recommended maintenance schedule by BMW has also changed. Many fluids have become "lifetime," which is defined as 100,000 miles, which is cleverly after the warranty expires. Prior to the advent of BMW Free Scheduled Maintenance, BMW recommended manual gearbox and differential oil changes every 30,000 miles, annual brake fluid changes, and coolant changes every two years. Air filter and fuel filters were typically replaced every 30,000 miles on most BMWs during routine inspections. Now I will admit that with new advances in synthetic lubricants, BMWs can now safely go past the 3,000 mile oil change milestone that existed many years ago, but I don't know of any oil that can last 100,000 miles without breaking down and causing wear. It is for that reason that this document exists to help you determine the right schedule to maintain your car as good or better than the day you bought it. You can choose the reason why BMW adjusted their maintenance recommendations, but one thing is for sure, I won't be following it.

This is an alternative to the BMW recommended maintenance schedule you can get from the dealership. I will also warn you that many of these items are based on my opinion and experience and you will always find others with differing opinions. One of the most highly debated topics is what the best oil is for your BMW. Please take this information and use it to come up with your own schedule that fits your needs. If you feel that it is too excessive, then tailor it to your needs. I also can't promise that if you follow this that you won't be stranded by the side of the road due to a failure, because sometimes things just break.

I hope you enjoy the information and I consider this a work in progress. If you have any recommendations or further questions, send me an email at [paul@bmw330ci.net](mailto:paul@bmw330ci.net) and I will try and get back to you. The internet is a powerful resource, take a minute and read what everyone has to say. Happy Motoring! – Paul.

### ***Break-in Service for New Cars***

The break-in period is a critical time for any new vehicle due to all of the initial wear products that will be produced following manufacturing. BMW originally performed a break-in service at 1,200 miles on all new cars, which included changing the engine oil and filter, transmission oil, and differential oil. Now with the BMW Free Scheduled Maintenance, BMW only performs break-in services on the more expensive M cars. If you're lucky enough to buy a new BMW, I recommend a full 1,200 mile break-in service and change your engine oil and filter,

transmission oil, and differential oil. Don't forget to follow the break-in guidance of moderate driving for the first 1,200 miles and minimize high RPM spirited driving.

## *Engine*

### **Oil and Filter Intervals**

BMW recommends their Castrol 5W-30 synthetic motor oil in all model BMWs (for M cars they recommend their Castrol 10W-60 synthetic motor oil). The factory oil change interval is controlled by the on board computer and roughly equates to every 15,000 miles. If you are running BMW's oil, I recommend an oil and filter change interval between 5,000 and 7,500 miles. Also remember to factor in the severity of service (autocross, track use, etc.) and reduce your service interval accordingly.

I personally use BMW's Castrol oil that you can buy at the dealership. I used to use Mobil-1 but after discovering that it wasn't a true synthetic and that it cost more than BMW Castrol, I switched back. With a regular oil change interval, it doesn't make any difference on engine wear. If you look online, there is always a huge debate on what the best oil for your BMW is, but I say skip all the hype and get something that is recommended by the people who built your car, not to mention the price is right! I'm also a big fan of Red Line synthetic oils, but the hassle of buying it online isn't worth the benefits. The more expensive synthetics can go beyond the 7,500 mile mark and approach the 15,000 mile point. Make sure that your oil is ACEA A-3 and BMW LL-01 rated to ensure it meets all standards.

As far as oil filters go, original BMW filters are recommended for price and quality (Mann, Mahle, etc.)

Some general oil information that I've gathered up over the years:

- The BMW Synthetic 5W-30 is a version of Castrol TXT Softect sold overseas. It is a Group III hydro-cracked oil which cannot be called synthetic in Europe, is a heavy 30 weight oil, and is a ACEA A3 oil which means that it is approved for longer change intervals.
- In the US, the only Group IV PAO Synthetics that are available are Mobil-1, Amsoil (but not the XI-7500), Royal Purple, and German Castrol 0W-30 (it has the red label and says on the back, "Made in Germany"). Redline is a Group V PolyEster based oil. All other Castrol, Quaker State, Pennzoil, Valvoline "synthetics" are Group III hydro-cracked oil. There is a significant amount of debated over how much better Group IV base oils are than Group III, but generally they are considered better.
- When looking for oil for any BMW that does not require Castrol TWS 10W-60, find oil that has either/both of the following ratings ACEA A-3 and BMW LL-98/LL-01.
- Mobil-1 0W-30, 5W-30, and 10W-30 are **NOT** ACEA A3 or BMW LL approved oils. This is because they all are thin 30 weight oils. Mobil-1 0W-40 and 15W-50 are ACEA A-3 rated and the 0W-40 is BMW LL-01 approved. For 99% of climates and drivers 0W-40 will

work great (This is what I used to use). ***Look for the ACEA A-3 rating, if the oil doesn't have it keep looking.***

- A quick lesson on how oil thickness is measured for those of you who are interested. The first number (0W, 5W, 10W, etc) is a measurement of how thick the oil is at temperatures of -35C to -20C (depending on the grade). The lower this first number the thinner the oil is at low temperatures. The second number (30, 40, 50, etc) refers to the oil thickness at 100C (normal engine operating temperature). Due to the differences in weight specifications, one labeled a 5W-30 (BMW synthetic) and another a 0W-40 (Mobil-1) that are very similar thicknesses at operating temperatures. To do a lot more research about oil, take a look at <http://www.bobistheoilguy.com>.
- BMW's recommended interval of 12,000-15,000 miles is too long. Used oil analysis has shown the BMW oil is generally depleted at 10,000 miles. Running it longer results in excess wear.

## Spark Plugs

I recommend changing your spark plugs every 60,000 to 80,000 with OEM Bosch or NGK spark plugs. BMW calls for 100,000 miles, which is possible depending on the car and how much hard use it has received. Due to the possibility of the valve cover gasket leaking oil, I also highly recommend taking a look at it while you replace the spark plugs. If they are brittle or you have signs of leaking oil into the engine compartment or on the spark plugs, it is ready to be replaced. I also recommend you stay away from any of the fancy platinum spark plugs, as they provide no performance gains and I have heard nothing but issues about these kinds of plugs. You may not have any problems running spark plugs for 100,000 miles in your BMWs, but this does not mean the plugs aren't worn and affecting your engine performance and gas mileage. For optimum gas mileage and engine performance, you should replace your spark plugs every 60,000 miles.

## Air Filter

I just recommend using a stock OEM paper element. If you chose to use the paper element, inspect it for dirt etc. every 10,000 miles up to a maximum of 30,000 miles. The life of the paper filters depends highly on the environment that you drive your car in. I recommend original BMW filters or aftermarket filters such as Mann and Mahle.

If you chose a performance filter like K&N oiled cotton gauze filters, clean it every 15,000 to 30,000 miles depending on condition. Make sure to only use only K&N approved cleaner, oil, and closely follow the K&N cleaning procedures. I steer clear of the oiled filters due to the possibility of damaging the Mass Airflow Sensor (MAF) due to over oiling, but it isn't a bad option at all.

## Cabin Air Filter

The interior air filter service life really depends on where you drive and how often you operate the climate control system. If the system is used all the time, I would recommend replacement every 15,000 miles. If you don't use it all the time and aren't driving through bad air, 30,000 miles should be sufficient. Not replacing this filter will not affect the performance of your vehicle at all, but rather the quality of the air you breathe.

## **Fuel Filter**

I recommend replacing your fuel filter every 60,000 miles or if the fuel pump is replaced. I recommend original BMW filters or Bosch, Mann, or Mahle. The longevity of the fuel filter is largely based on the fuel that you put in your gas tank. This is why I highly recommend using a Top Tier fuel for your car to ensure proper performance throughout its life. I personally use Shell and have had great results, but visit <http://www.toptiergas.com> to find out a station near you.

## **Valve Adjustment**

If you own an M car or an older BMW, perform every 15,000 to 30,000 miles.

## **Engine Drive Belts**

I recommend replacing your belts every 30,000 to 60,000 miles. Take a minute to inspect your belts for cracking and aging, and replace if necessary. I recommend original BMW belts or a quality alternative like Continental etc. If you neglect your cars belts, it's only a matter of time before you'll be stranded on the side of the road since your car can't live without its belts.

## **Engine Coolant Service**

I recommend changing your engine coolant at a 2 year interval. I also recommend only using OEM BMW anti-freeze mixed 50-50 with distilled water rather than a kind bought at your local parts store. The peace of mind of getting a properly formulated anti-freeze is worth any extra expense. These days, BMW says that engine coolant is a lifetime fill, but that doesn't seem quite right to me.

If you have a BMW like the 1999-2006 3 Series, I also recommend doing replacing your thermostat, water pump, and radiator expansion tank (made of plastic) every 80,000 to 100,000 miles to prevent getting stranded on the side of the road since these are high failure items.

## **Water and Fuel Hoses**

I recommend replacing all of your water and fuel hoses every 150,000 miles. I also recommend getting OEM BMW quality hoses and hose clamps due to their superior design and fit.

## **Power Steering Fluid**

Power steering fluid is very rarely changed but I recommend changing it out every 30,000 to 50,000 miles. Almost all BMWs use automatic transmission fluid in the power steering system, so make sure you check your owner's manual prior to starting. It is not necessary to drain the entire system, but I do recommend changing out as much of the fluid as possible using one of the fluid lines by the pump (be careful to not get the oil on any of your engine belts). I recommend a quality synthetic automatic transmission fluid like Red Line.

## **Manual Gearbox Oil**

Only synthetic oil should be used in BMW manual gearboxes with an oil change interval 30,000 miles. If you have a newer BMW, you most likely have a lifetime fluid, but I guarantee you that you will think twice after you change it out. You can get some of the BMW fluid from your local dealership, but I also recommend Red Line MTL as a quality alternative for a much better price (Red Line D4 ATF is also another alternative but MTL is a superior lubricant but requires more care when the transmission is cold).

## **Automatic Transmission Fluid (ATF) and Filter**

I have never owned an automatic transmission, so most of what follows is only guidance that I have heard through the grape vine. Automatic transmission cars also come with lifetime filled fluids from BMW, but I would highly recommend every 30,000 miles. Due to the large amount of automatic transmission failures in the 100,000 to 200,000 mile range, I highly recommend taking care of this vital piece of equipment on your car. As with a manual transmission car, I also recommend quality synthetic oil like Red Line.

It can also be risky to drain the fluid from a vehicle with high mileage. If your car already has high miles, I'd recommend just leaving it alone due to the large amount of people who experience problems after an automatic transmission fluid flush and filter change. With that being said, you can have a well maintained automatic transmission fail after 100,000 miles and one that wasn't touched continue to work well after 200,000 miles. Therefore, automatic transmissions are finicky and you never know what you're going to get, which is why I stick to manual transmissions. If you want peace of mind, buy a manual transmission.

## **Differential Oil**

I recommend replacing your differential gear oil every 30,000 miles for regular use. I highly recommend Red Line 75W-90 synthetic gear oil (or 75W-90NS if you need friction modifiers for limited slip differentials which today are usually only M cars). Since 75W-90NS works if you don't have a limited slip differential, save yourself some trouble and remove one of the possibilities for mistake. If you drive a M3, M5, etc. you will need a different oil like Red Line

75W-140, so make sure you check your owner's manual and do your research. Like all options, the BMW lifetime oil from the dealership is always an acceptable option.

## **Brake Fluid**

I recommend changing your brake fluid every year and prior to each track event. Make sure you check your owner's manual prior to changing it, but I use ATE Super Blue and ATE Type 200 (Yellow color) to assist in ensuring that I have properly changed out all of the fluid. This means I continue bleeding until I see the yellow or blue. I highly recommend getting a power brake bleeder and you will save yourself a lot of time and there is no need for a partner. There are many good types of brake fluid out there, just make sure you check your owner's manual to ensure you've got the right DOT standard.