<u>Disclaimer</u>: This is what I do/use for my personal K bikes and am comfortable with. I make no claims that it is the be all and end all, it's just how I maintain my own bikes. If you think I'm wrong about anything and want to do/use something else then that's fine with me. Any advice you take from me is AT YOUR OWN RISK. Any questions or comments can be sent to <a href="mailto:smithduck@gmail.com">smithduck@gmail.com</a>.

### **MOTOR OIL**

K bikes have a dry clutch so there is no need to buy special motorcycle oil for a K. This means that you can save money by using plain old car oil. I use Mobil 1 15-50 on a 10,000 mile change interval which is cheapest when purchased at Wal-Mart in the big jug. I also use Shell Rotella T6 synthetic 5-40 as it is another good synthetic oil. Amsoil's also good oil but overpriced if you ask me.

If I were going to use regular oil then I'd use Castrol GTX 20-50 on a 6,000 mile change interval. (If your bike is low mileage then use the Castrol GTX for the first 20,000 miles to let the rings seat properly.) In fact, once my Mobil 1 is past 5,000 miles then I'll top it off with either more Mobil 1 or use Castrol since that will hold up until the next oil change. It's OK to mix synthetic and regular oil.

## **OIL FILTERS**

BMW OEM oil filters are, like many things BMW, overpriced. Fram oil filters are crap. I use Bosch 72161 oil filters which cost about \$3.50 on-line at Rock Auto. Since the oil filter is "wet" (submerged), whatever filter you use make sure that any stickers or labels on the outside of the filter are removed prior to installation.

## **OIL FILTER WRENCH**

You'll need a special oil filter wrench to remove/install the oil filter. You can buy an overpriced one from BMW or take your oil filter to an auto parts store or Wal-Mart and find one that looks like this:



I prefer metal over plastic since the plastic ones will wear out eventually but if plastic is all you can find.... The specifications for the oil wrench are a 76mm diameter with 14 flutes. AutoZone sells the "OEM" brand type "B" Oil Filter Wrench - part number 25401.

### **CRUSH RING & OIL FILTER COVER GASKET**

I generally change these every other oil change.

## **REFILLING WITH OIL AFTER CHANGING THE FILTER**

Once you have your new oil filter installed, don't just read the owner's manual specs and pour that much in. If you haven't done so already, put the bike up on the center stand on a level surface. Slowly add oil until you can see it in the sight glass and fill it slowly until it's about at the top of the sight glass. Start the engine and let it run for a couple of minutes to fill up the oil filter. Then turn the bike off and let it sit for 5-10 minutes to let the oil drain back into the sump. Then add oil slowly until it's about 2/3 to 3/4 of the way up the sight glass. Go for a ride and then be sure to check the sight glass again the next day and top off to the 2/3 to 3/4 level in the sight glass as needed.

# **OIL CONSUMPTION**

It is normal behavior for K bike engines to burn oil so if you're going through a quart of oil every 1,500 to 2,000 miles there is no need for concern. Be sure to check the sight glass every several hundred miles and top off as need to the 2/3 to 3/4 level in the sight glass. Check the oil level (with the bike on the center stand) when the engine is cold or has at least sat for several minutes after a riding.

# **FINAL DRIVE OIL**

I use Mobil 1 75-90 gear oil in the final drive on a 20,000 mile change interval. The final drive should be filled to the bottom of the threads of the filler hole.

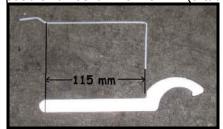
# **TRANSMISSION OIL**

I use Mobil 1 75-90 oil on a 20,000 mile change interval in the transmission too. If you feel as though your transmission shifting is a bit "chunky" then using Mobil 1 75-140 can sometimes improve things a bit. I also use Guard Dog Moly Gear Oil Additive in my final drives and transmissions. Seems to make them shift a bit more smoothly.

For K75s and 2 valve K100 models the shock wrench in the factory tool kit has a line marked on it. This serves as a dipstick in the transmission filler hole.

For K100RS Four Valve models and K1100s there should be an L-shaped piece of metal in your tool kit which is marked with the proper level for transmission.

If you don't have either then it's very easy to make your own transmission oil dipstick. Take a piece of coat hanger wire, put a right angle in one end of it and then put a small bend in it 115 mm (a tad over 4.5") away from the right angle.



When draining the transmission, as it gets to the end and the draining stream of oil gets thin it tends to cling to the right bar of the center stand, run down the center stand and make a nice gear oil mess on the floor. This can be avoided if, prior to removing the transmission drain plug, you place some aluminum foil between the drain hole and the center stand and shape it so that the oil is directed into your drain pan.



Side note: Before changing any oil always remove the filler plug first. The last thing you want is to drain it and then not be able to refill it. This is seldom an issue on K bikes though.

#### **FORK OIL**

I use Honda 10W red fork oil (SS-8) and change it annually. Here's a link to a good write-up on identifying what forks you have and what amount of fork oil you should use in each side: http://www.ibmwr.org/ktech/fork-oil.shtml

When draining the fork oil place some aluminum foil on the brake rotor and tire below the fork drain plug so you don't get them all messy when draining the forks.

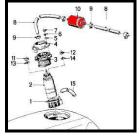
DO NOT over-tighten the fork drain plugs when putting them back in. Just get them snug and be careful not to strip the threads.

To refill the forks I use a small kitchen funnel and measure the fork oil with a Pyrex measuring cup. Go SLOWLY as it takes time for the oil to find its way in.

### **RADIATOR COOLANT**

Just about any automotive coolant is fine in a K bike. Just make sure the bottle says that it's safe for aluminum engine parts. Most are these days so that's not as much of an issue as it used to be.

I use a combination of 40% coolant and 60% **distilled** water. It's OK to use the premixed 50/50 stuff if you're lazy but 40/60 is a tad better as water has better thermal <u>transfer properties than</u> coolant.



#### **FUEL FILTER**

Like many things BMW, the OEM fuel filters are insanely priced. I use Napa Gold 3032 fuel filters and change them either annually or every 10,000 miles, whichever comes first.

On K bikes the fuel filter resides in the fuel tank. Changing it is easier if you run the tank down or siphon the gas out first. You need to open the gas cap and remove it to change the fuel filter. If you're not careful its easy to strip the heads of the four small Phillips screws that hold the gas cap to the tank so clean out the heads of those screws with a tack or needle or something and use a good screwdriver with adequate downward pressure to break them free.

Unscrew the forward hose clamp first. You can then pull the fuel filter out of the tank and undo the other hose clamp. Be sure to note the direction of flow arrow printed on the fuel filter (or in/out markings) and install the new one with the fuel flowing to the front of the bike.

## **AIR FILTER**

K bike air filters are way oversized and do not need to be replaced every 12,000 miles as recommended by BMW. I change them every 50,000 miles - whether they need it or not. Given the long service life I just pay the money for the BMW OEM air filters and have never bothered trying to track down a substitute.

K&N air filters let more crud through than the BMW air filters and require periodic cleaning and re-oiling so I would recommend not using them. They WILL NOT increase the horsepower output of a K bike despite all of K&N's clever marketing claims.

# **SPARK PLUGS**

The Bosch spark plugs recommended for K bikes and sold by BMW are good spark plugs and there's nothing wrong with using those on a 12-15,000 mile interval. If you want to go the less expensive route then Autolite 4163 plugs or NGK D7EA work just fine in K bikes although they don't come with the little screw on caps you need. I'd change those on a 10,000 mile interval. I've run them in my K bikes in the past and know others who have run them for tens of thousands of miles with no issues.

It's a good idea to synch the throttle bodies after the spark plugs have been changed.

# **GASOLINE**

I generally (but not obsessively) use Chevron or Texaco Supreme gas with Techron in it to help keep the injectors and fuel system clean. It's good stuff. BMW recommends the use of super grade gasoline.

### **FUEL SYSTEM CLEANER**

Every once in a while I buy a bottle of Chevron Techron Concentrate at an auto parts tore and add 6 ounces when filling up to keep the fuel injectors and fuel system clean. If you just bought a bike that's been sitting for a while then I'd recommend doing this. Be sure to get the Techron Concentrate, not the fuel injector cleaner.

### **BRAKE FLUID**

Use ONLY DOT4 compatible brake fluid.

# **DISC BRAKE "SQUEAL"**

This is caused by high frequency vibrations between the caliper pistons and the backs of the brake pads. This isn't usually a problem on the four valve front brakes since the pads have anti-vibration springs on them. For 2 valve front brakes and all rear brakes spraying Disc Brake Quiet on the backs of the brake pads should eliminate break squeal:



### **BLEEDING ABS BRAKES**

Bleed at the modulator first, then the caliper.

# **THROTTLE, CLUTCH & CHOKE CABLES**

DO NOT put any lubricants in K bike control cables. They are lined with a Teflonish substance and anything you put in there will degrade that lining and reduce their service life.

### **CLUTCH CABLE LUBRICATION**

It's a good idea to annually lubricate the barrels at both ends of the clutch cable (clutch lever and clutch arm on the back of the transmission) with grease.



## **K75 & 2 VALVE K100 THROTTLE LUBRICATION**

This should be lubricated annually. First remove the right side combination switch by removing the small Philips head machine screw near the bottom of it. Use a good screwdriver as sometimes this screw can be sticky and you don't want to strip the head of the machine screw. Next remove the large Philips head machine screw on the top of the throttle perch next to the front brake reservoir and lift off the plate that it is holding down. I can't say that it's the "right" lubricant to use but I've found that a K75/K100 throttle will snap back much better if you clean out all of the old grease and spray down the gears with silicone lubricant.

# **K75RT/K1100LT ELECTRIC WINDSCREEN**



The rods on which the electric windscreen travels should be cleaned and lubricated annually. This reduces the load on the windscreen motor and will prolong its service life. BMW recommends using a silicone lubricant as that tends to attract less dust than other lubricants. I use this:



## **IGNITION AMP HEAT SINK COMPOUND**

For 93 and earlier 4V K bikes (K1, K100RS4V, K1100RS & K1100LT) it's also a good idea to periodically clean off and renew the heat sink compound (can be purchased at Radio Shack) between the ignition amp and front left side of the battery box: