

Lubing 2V K100 or K75 Drive Shaft Splines

Disclaimer: These are just my personal thoughts and opinions on the topic and how I do things. I make no claims that this is the "right" or BMW way to do things. If you choose to undertake this then you do so AT YOUR OWN RISK and I assume no risk for any harm that may come to you or your bike as a result of doing this.

General info about splines: For an overview about splines please visit the following link: http://www.motobrick.com/index.php/topic,490.0.html

Which splines to lube: If you're just lubing the drive shaft splines then all you probably need to do is lube the rear ones since those are the ones subject to the most wear. The front ones have a circlip in the splines so they don't slide under load and don't really wear very much at all, if any. (Still not a bad idea to lube them when you do a clutch spline lube though.)

Frequency: Some people lube the drive shaft splines every time they replace a rear tire or every 10,000 miles. Since it doesn't take a lot of time or work to lube the drive shaft to final drive splines either of those is probably a good approach. There's no such thing as lubing them too often IMO.

Here's a quick summary of how to lube the drive shaft splines:

Step	Description	Comments
1	Put the bike up on the center stand on a level surface.	
2	Remove the rear wheel hubcap. (If your bike is so equipped.)	Use a 4mm Allen wrench in one of the curved slots to pull the hub cap off
3	Remove the four lug bolts holding the rear wheel on and remove the rear wheel.	
4	Remove the drain plug from the final drive and drain out the gear oil. Replace the drain plug.	This isn't 100% necessary but if you don't drain the final drive then you'll need to keep it vertical when off the bike or gear oil will leak out of the breather cap on the top of the final drive or from the speedometer sensor hole.
5	Undo the two 8mm bolts that mount the rear brake caliper to the final drive.	Use a piece of string to suspend the rear brake caliper form the frame so it's out of the way.
6	Remove the 4mm Allen bolt holding the speedometer sensor in the final drive. Then remove the speedometer sensor. This is most easily accomplished by placing a knife or small screwdriver under the rear of the speedometer sensor and then using that and the front end of the sensor to rock it back and forth and slowly work it upwards.	It's very common for some dirt to have built up between the speedometer sensor on the body of the final drive so be careful not to let any of that fall into the speedometer sensor hole when you remove the speedometer sensor.

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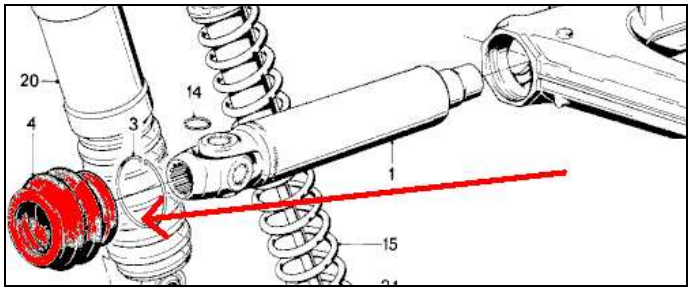
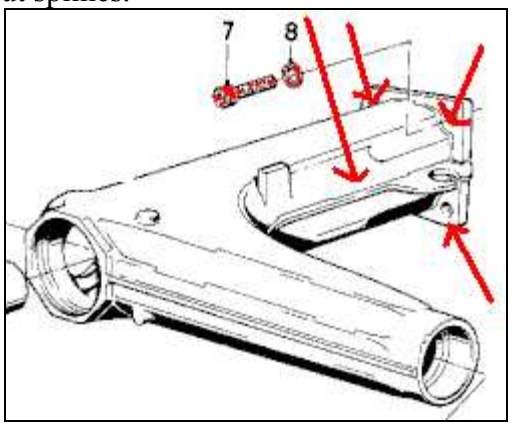
Sidenote: When removing the final drive, you'll want to use a jack, a piece of wood or a box or whatever to keep the swing arm from dropping too far as if it does fall all of the way sometimes the rubber boot at the front of it that seals it to the transmission can come off which can let water into the swing arm when riding in the wet.



7	Remove the nut securing the bottom of the shock absorber to the stud on the final drive.	Depending upon what shock absorber your bike has sometimes you might need to remove the bolt at the top of it too in order to free the bottom of the shock from the stud on the final drive.
8	Remove the four 8mm bolts holding the final drive to the swing arm. You can now pull the final drive off, exposing the rear splines of the drive shaft and the final drive input splines. 	Note that if there is gear oil under the final drive then this is an indication that your final drive pinion seal is getting old and should be replaced soon.
9	Clean any old grease from the drive shaft and final drive splines. Once cleaned, inspect the rear drive shaft splines closely for wear. (a.k.a. the mountain effect)	
10	Lubricate the splines.	
11	Reassembly is the opposite of disassembly.	
12	For ABS-equipped bikes: When remounting the rear caliper, before tightening down it's mounting bolts, place a 0.5mm-0.55mm feeler gauge between the ABS sensor on the rear caliper and the toothed ABS ring on the rear rotor to make sure the sensor gap is correct.	
13	Before riding off: a) Double check that you've adequately tightened all of the bolts and the rear wheel lug bolts as well. b) Did you remember to replace the gear oil in the final drive and make sure that both the filler and drain plugs are snug?	