

# Suzuki GS850G - Changing The Final Drive Unit Oil

by BassCliff (a.k.a. BikeCliff)

This pictorial guide will give you a few quick steps to help explain how to change the oil in the final drive unit on your shaft drive GS motorcycle. The final drive unit is sometimes called the "pumpkin". It is the assembly that converts the spinning motion of the driveshaft into the forward motion of the rear wheel.

It's a pretty simple procedure. Basically, you will drain the gear oil out of the bottom plug and fill it up from the top plug of the unit. My Suzuki Shop Manual had the secondary gear oil replacement procedure and the final drive oil replacement procedure on the same page. So I am assuming that they should be replaced at about the same interval, every 7500 miles or so. Suzuki recommends 90w hypoid gear oil. I use a fully synthetic 75w-90 gear oil from Castrol or Mobil.

Here's a picture of the final drive fill plug (with the red circle).



Here is a picture of the final drive drain plug.



I apologize for the mess. I always clean up my bike *after* performing maintenance, but not before. But moving on...  
First remove the fill plug (17mm). Have a container or rag handy in case some oil drips out.



Here is a shot of the open fill plug. Mine was overfilled a little and dripped onto my tire and floor. Now I've got to clean up.



Next I take off the drain plug (same size as spark plug). Have a container handy to catch the oil.



Here's a shot of my small container catching the old gear oil. I poured this into my regular oil change receptacle so that I could recycle it along with my engine oil.



After it's all drained out, replace the drain plug then fill with about 9.5 oz to 11.2 oz of your favorite gear oil.



Just fill it up to the bottom of the fill hole threads. If it starts leaking out, that means it's over full.

If you're like me, you've made a mess all over your rear tire and garage floor. You don't want to hit the road with oil on your tire. Or, if you have oil on your tire, you just might hit the road...if you know what I mean. So I've got some cleaning up to do. I've had good luck using Simple Green to get the oil cleaned up.

For me, the hardest part about this procedure was cleaning up. If you're neater than I then you should be done in half the time.

Thanks for reading my little guide. Stop by and say "hi" to the great folks at the GS Resources online – <http://www.thegsresources.com> – and perhaps join the forum to find out all you'd ever want to know about these classic motorcycles.

Thank you for your indulgence,

BassCliff (a.k.a. BikeCliff)

**Addendum:** This helpful bit of information is from **Mr. tomcat24551:**

"In May, 1979 Suzuki produced a Technical Service Bulletin detailing instructions for filling the GS 850's final drive with Hypoid lube. The instructions were to fill the Final Drive with the smallest of the specified quantities of lube--in this case, 280ml/9.5 US Oz. Then ride the bike for a few minutes to stabilize the oil level. Then check the level again, "making sure the fluid level is up to the *bottom* (italics, mine!) of the threaded filler cap hole".

"I believe Suzuki is trying to say "Don't fill it above the bottom of the threaded filler hole". Why? Because the final drive has a breather system in it and the system's return oil hole is about at the level of the filler plug opening. If you block that return hole with an oil level that's too high, the breather system cannot work. Oil will fill up the breather system and pressure will force it out of the top breather hole and you'll end up with oil all over the sidewall of your rear tire--and a puddle on the ground, too.

"I spent several days dealing with a "leak" like this last Summer. I thought I had a seal that had failed but it turned out to be a clogged breather system--which I cured by blowing it out with compressed air and making sure I did not overfill with oil. I learned about the level of the breather's return hole by looking into the case through the filler hole with a light on a flexible stem. You can see the breather system in the GS 850 shop manual..." (also available on this website).

Thanks to Mr. tomcat24551 for the update.

And thanks again for your indulgence,

BassCliff (a.k.a. BikeCliff)