Scorpio Odometer Fix_____

The odo gear appears to go bad for two reasons: it runs dry of lubricant, and it's made of the cheesiest material ever. You have some options. One is to send your speedo out for repair. Another is to fix it yourself. And a third is to make your own gear.

Once done, a new gear, with grease, should last a lifetime.

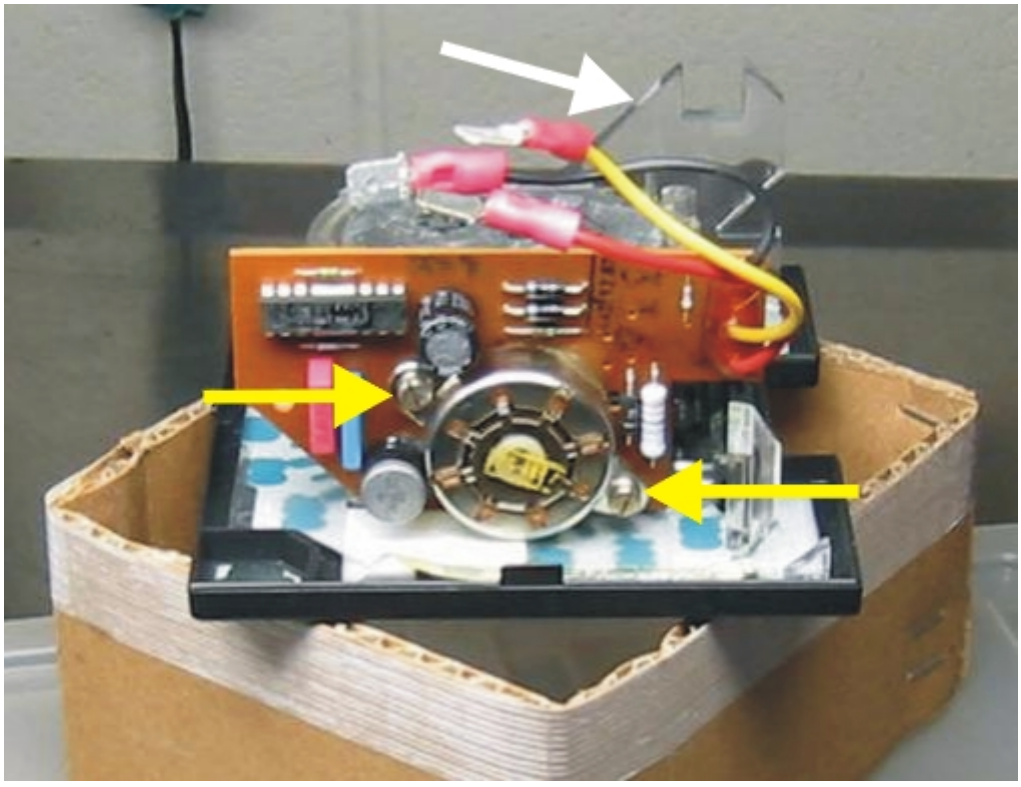
*Fix Your Own*_____

First, obtain a gear. Instructions on making one are below. Or talk to these people.

Next, disassemble your speedo. In the picture below, the yellow arrows point to the screws for removing the odometer motor. Driven by the same current as the speedo, it's mechanically separate. The pictured unit is my test meter for checking VSSs.

The white arrow is pointing to a plastic illumination channel. The corresponding one next to the odo motor (just below the right yellow arrow) is broken off, to get access to the screws. There might be a less destructive method. Once you gain clearance, pull the motor. Inside it are two gears, the smaller of which is likely needing a trip to the dentist.

Pop in a new gear, lube, reassemble and go.

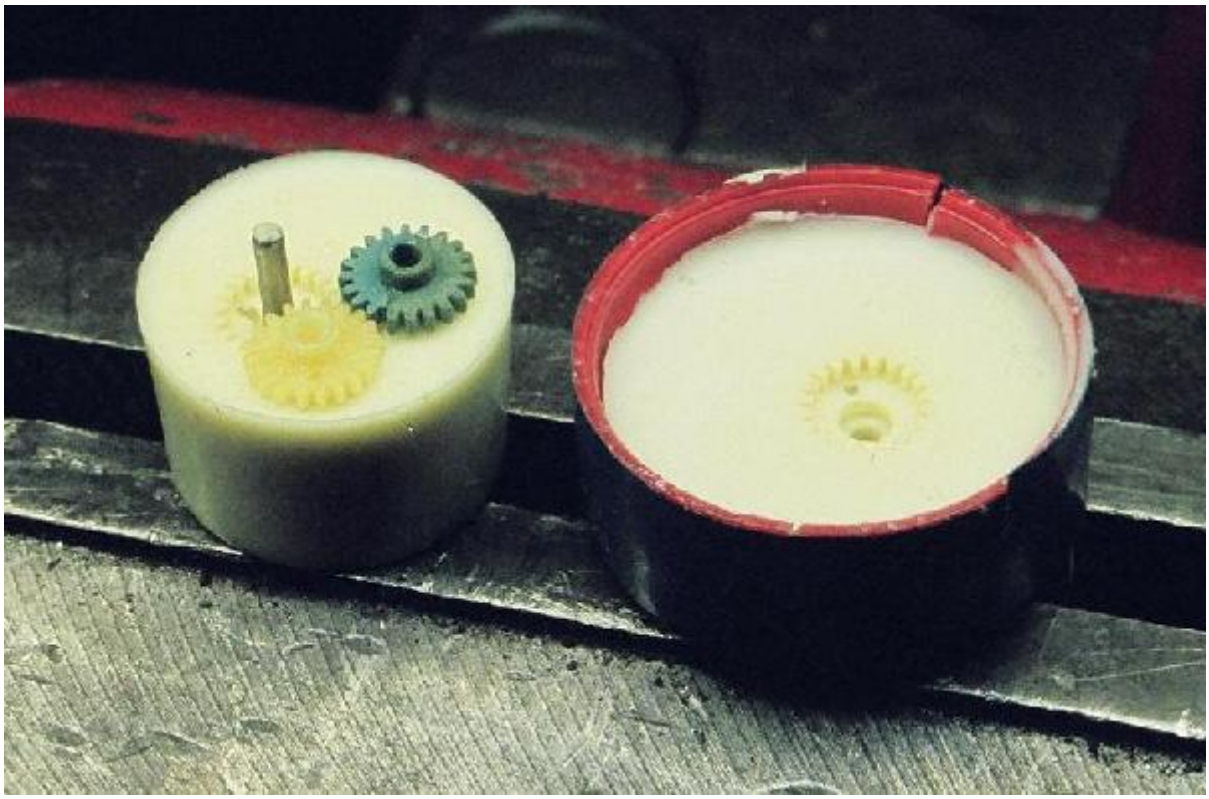


*Gear Casting*_____

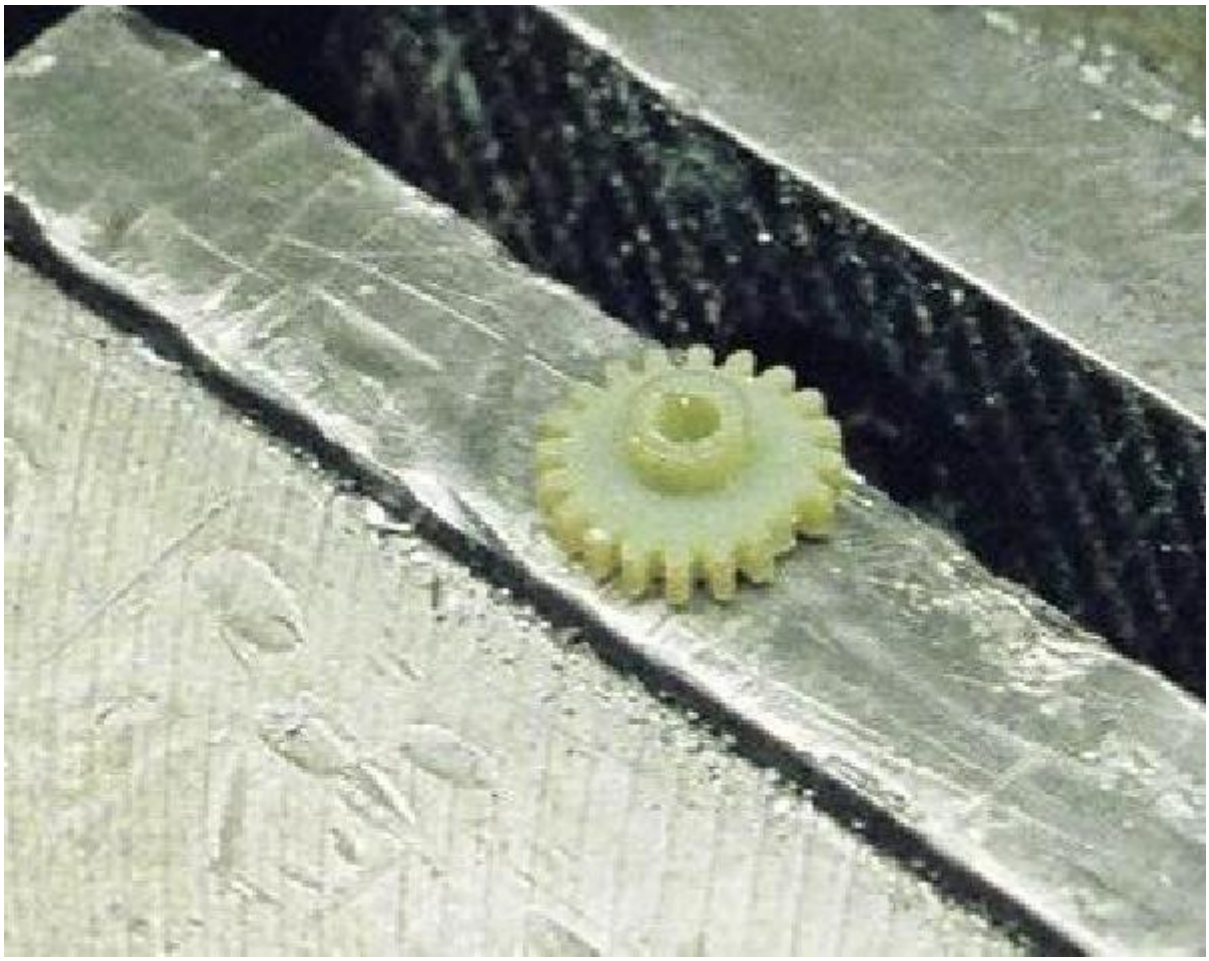
To do your own, here's what you need:

Some casting material. Here's what I use:

Here's what you do:



Take an old gear (or two, if you can)



I cut two bad ones in half and glued them together for a mold, as you can see in the second photo. Obviously you can use the old as pictured above. I tried cutting the mold afterward, but the resultant gear is obviously a kludge.

I used a soda bottle cap as a form for the mold. Set the pattern gear up on something, like a nut or washers (so that the top of the gear is just below the top of the bottle cap). Pour the mold material, and let it sit overnight.

To make the gear, match the inside diameter of the old gear with a drill bit or piece of rod. Mix the chemicals, then pour. With Alumilite, you will need to take a needle a let out air bubbles from the form that will collect along the outside/actual gear part of the mold.

Be quick- this stuff sets in a heartbeat. You'll definitely get to practice, because the first couple may not come out clean. But you've got enough material for several hundred gears. By the way, this material won't work on the dash vent door motor assemblies. It's not strong enough, even with powdered metal poured in. The motors simply have too much torque.

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