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## Fryedaze Dave & Betsy

[http://home.comcast.net/~davebetsy/site/?/page/VDO\\_Tach%2Fhour\\_meter\\_gear\\_replacement\\_%5B1987\\_VDO\\_81\\_117\\_377%5D/](http://home.comcast.net/~davebetsy/site/?/page/VDO_Tach%2Fhour_meter_gear_replacement_%5B1987_VDO_81_117_377%5D/)

- **VDO Tach/hour meter gear replacement [1987 VDO 81 117 377]**

### **VDO TACH/HOUR METER GEAR REPLACEMENT [1987 VDO 81 117 377]**

*{NOTES ADDED WITH ODG: AT THE BEGINNING OF THE LINE WHERE ADDED BY ODOMETER GEARS LTD}*





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{ODG: take a picture or make a mark to where the needle points before removing. There is an internal stop with this style Tachometer/hour meter: no needle rest. Gently hold the center of the needle and gently rotate counter-clockwise. You may have to make several revolutions and the needle will start to feel loose. Gently use your first finger and thumb to pluck the needle off. The small shaft that the needle is pressed onto can be damaged if you try to just pull the needle straight off. }



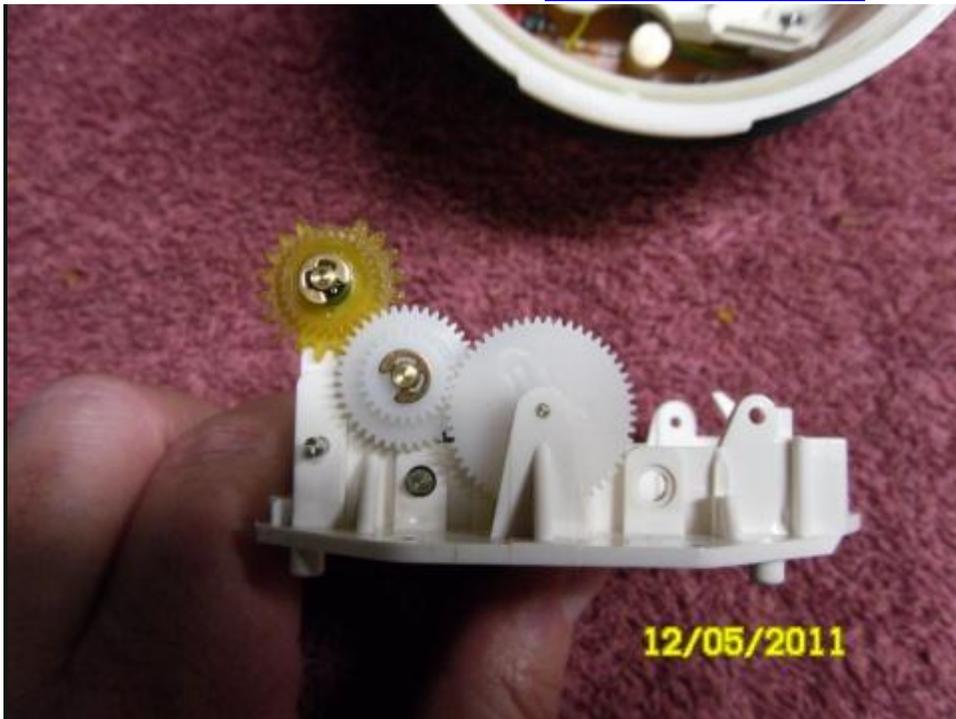


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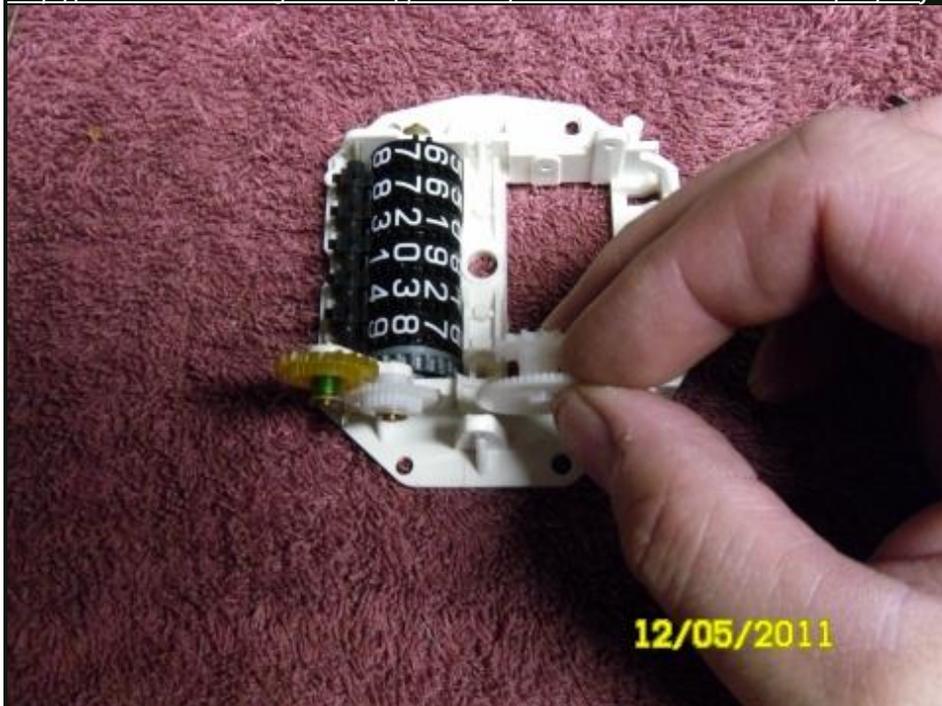


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{ODG: The amber colored gear comes in six different tooth counts. You have to count the teeth on your old gear before ordering. 20x21, 20x22, 20x23, 20x29, 20x30 or 20x32 these can be ordered directly through Odometer Gears LTD:

<http://www.odometergears.com/products/Hour+Meter+%28VDO%29/All/28>}



{ODG: Use a small punch or screw driver and press the metal shaft out of the center of this gear, remove gear. It is friction fit.}



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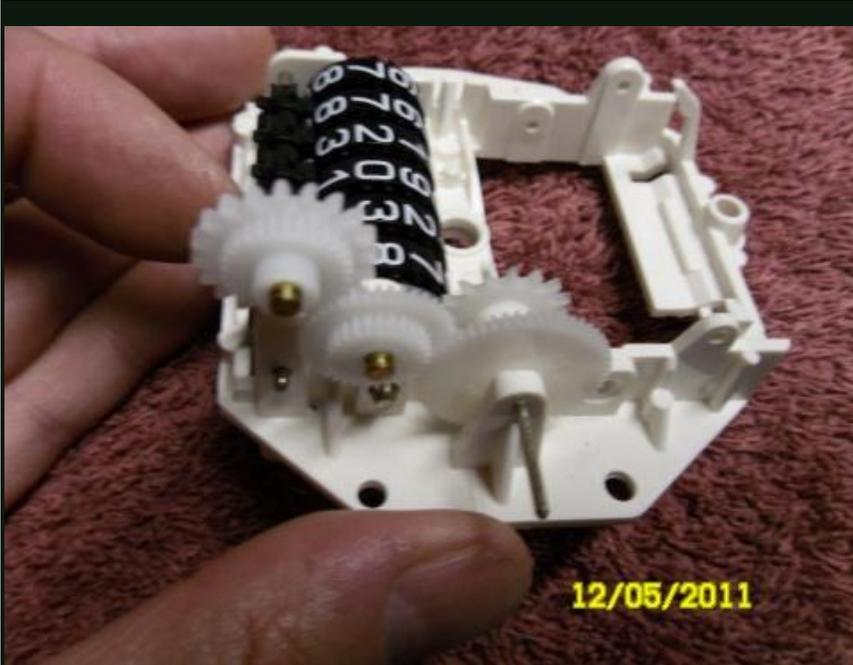
*{ODG: Remove the c-clip that secures this gear and the amber gear. Be careful and place a cloth over the unit when removing so that you do not lose the clips. Clean the shaft that the amber gear rides on as any residue from the old waxy gear can cause the unit to either work erratically or not at all. It is also recommended to inspect the hour numbers as well as the main housing and works for any flakes or debris of the old gear and remove. }*



I DO NOT recommend using a Dremel to run the numbers forward. I had 300 hours on one tach and 700 hrs. on the other. I saw some gear wear on the second tach. The stepper gears hammer the number wheel gears too hard when they spin that fast. I pulled the shaft on the stepper for the second tach, set numbers; scotch taped in place and reinserted the shaft pin. *{ODG: You can also use an air compressor with an air nozzle. Blow air on the same gear like a pin wheel. In one direction you will add time and the other direction you will subtract time.}*



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*{ODG: Install the gears in reverse order. Reinstall the c-clips and metal shaft. Reinstall in the housing. Install face and just snug the screws for the face as they can be damaged very easily. When installing the needle, place as close to the original location as you can. If the needle points a little high just rotate the needle holding the pivot point of the needle counter-clockwise until it is aligned. If the needle point low, gently rotate the needle past the top rpm reading and you will hit another internal stop. Gently continue to rotate past the stop holding the pivot point of the needle in small increments and release to see if it aligns to your mark. Continue to go back and forth until your needle is aligned. }*



If all you work on is the gears you do not take any screws out of the back of the unit.