

# Speedometer Cable Flick

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This might be useful information for other Morgan owners. I had a problem with a fluctuating speedometer needle in my 1966 Plus 4. Since I have a good friend, Dennis Quinlan, in Sidney, Australia, who used to own KTT Services, an instrument restoration shop specializing in Smith's instruments, I e-mailed him with a description of the problem. Here is his answer:

Re the speedo. It is what is called a Smiths nemag type. **[1st Cause]** It could have a small instrument angle drive (type BG2410/xx ) attached at the back via a thumb screw. If it has, these have small plastic gears inside and in the four Rovers I had in 1960s I found that after some 90,000 miles the gears had worn in the area of mesh and some slipping and re-meshing occurred such that the pointer oscillated.

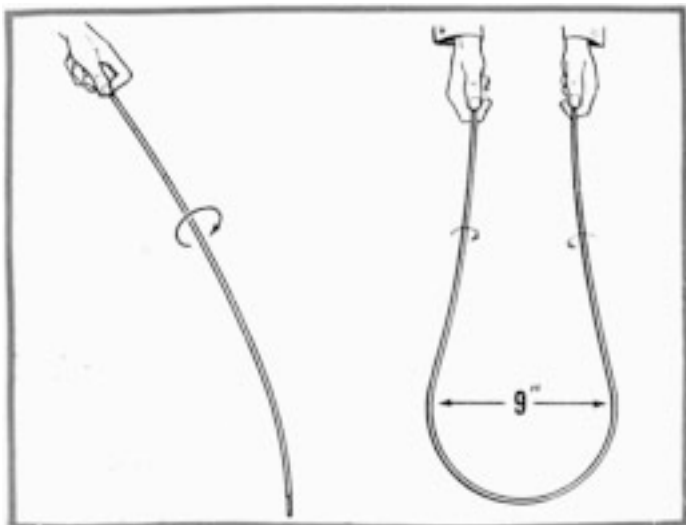
**[2nd Cause]** However, the speedo can also oscillate due to a problem developing in the odometer mechanism, which has small pushing pawls that turn the ratchet gears at the end of the odometer counter wheels. It can be that as the cable rotates and the pawl starts to push, a small load goes on the cable; it twists on itself for a fraction and recovers and this translates as a pointer flicker.

**[3rd Cause]** The final and probably likely cause is the inner cable itself with the cable having rust inside the inner layers of wire; instead of smoothly driving, the inner wire "flexes" in a twisting action and the cable then has a "flick." This again translates into an oscillating pointer.

I've attached a note from a Smiths catalogue, "Care of Your Instruments" which explains how to test any inner cable for this fault that will cause a flick on the pointer.

In fact, if you store speedo cables coiled up, even though new, in time this flick will be there and they are useless to use. I bought a heap at auction once, new mostly, and threw out over 60% in the end.

I removed my cable and, sure enough, that was the problem. I replaced it with a new one, and just to make sure that the problem would not reoccur, I also rerouted the cable so that it curved more gently. The needle is now as steady as can be.



**CHECK FOR INNER FLEXIBLE SHAFT:** Lay out shaft straight on flat clean table and roll. Any "kinks" or obvious signs of damage will be seen. Then take an end in each hand allowing shaft to hang in a loop of approximately 9" diameter. Rotate it slowly with the fingers. A satisfactory shaft will turn smoothly without "snatch."

# Routine Maintenance

Moggie Mechanic

I hope that you all had a very Happy Christmas and are looking forward to lots of Morgan driving in the New Year. Now is the time to get yourself and your favorite toy prepared for the sunny days ahead. I suggest that you get a small notebook to keep with the Morgan and keep notes of when you did some of the routine maintenance. Time slips by quickly and it is better to have a written record than to rely on memory.

**Battery:** Check your battery. If your car sits a lot during the winter, buy a trickle charger to keep your battery fully charged so it will be ready when warmer weather arrives. This also helps battery life. If your terminals show signs of white furry stuff, clean them well with a toothbrush, wipe them down with a solution of baking soda and water, then rinsed thoroughly. Be careful not to get any of the cleanings on yourself as it can easily burn holes in clothes and goodness only knows what it would do to your skin. When everything is clean, cover the affected parts with a thin film of Vaseline and you should be fine.

**Tires:** Check your tire pressure regularly and refill them if they are low. I've found it helpful to roll the car a bit it doesn't sit all winter on the same part of the tire. It is good to check your tires all over, as tires on most Morgans develop side wall cracks due to aging rubber even while lots of tread is left. The cracks can be very dangerous and cracked tires should be replaced.

**Interior:** If you have a leather interior it is a good time to treat the leather with a good leather conditioner, letting it soak in before buffing off. This is especially important if you car is in the damp conditions of the west coast or in an unheated garage as it quickly gets mould or mildew on the leather which can lead to drying out and those terrible splits.

**Radiator:** Check the water level in the radiator and top up if it necessary. Perhaps one of the most neglected parts of the car is the radiator and cooling system, but in the hot weather it has to be working well. If it has been five years or more since you drained the radiator and replaced the antifreeze solution now as clean solution protects both the radiator and engine. If in doubt drain a small amount from the bottom drain tap and look at the colour and consistency as antifreeze deteriorates with time.

**Air Filters:** Check your air filters and renew or clean if they look dirty. At the least make sure that they are still there as they are great food for mice.

**Oil:** Check the oil level and condition of your engine oil. Wipe the dipstick on a clean cloth to see just how dirty it has become. Change your oil at least once a year to protect your engine even if haven't covered much mileage as oil deteriorates. If is a good idea to change the oil filter at the same time as the additional cost is small compared to the peace of mind. Note the oil changes in your book as it is very easy to forget.

**Differential:** Check the oil in your differential (the box between your two back wheels), the transmission oil (either with a dipstick in the gearbox cover or a hole in the side of the gearbox) and finally check the oil in your steering box. These three are a little more difficult than the engine oil but equally important for the longevity of the car. If you have any difficulty, I am sure that some of the more mechanically minded members of the club would be more than willing to give you detailed instructions on doing this or even a hand. Don't rely on a quick lube shop, as many of them have little idea of such antiquated things.

**Drive:** If you don't like driving in the cold and rain, wait for one of the lovely sunny West Coast days and take your Morgan out for a drive. Warm it up thoroughly before tucking it away again.

Happy Motoring M.M.