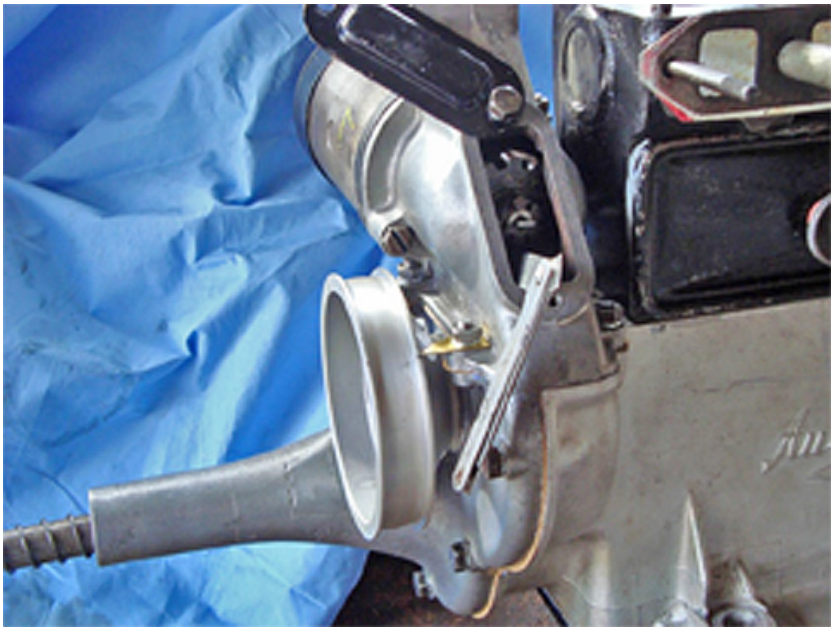
The majority of these tips have appeared in club newsletters over the years. Please note that you use them at your own risk as neither the Bristol Austin 7 Club nor the authors can be responsible for the results of trying to follow the instructions given.

More on Dynamo Housings and “the little tin cover” - by Ron Hayhurst

I liked the article on this topic in last month’s newsletter which showed ways (all to be executed with due diligence!!) to check for dynamo armature end float and backlash (or slackness) between the gears on the crankshaft and cam shaft. This prompted me to see if there was a third reason for “the little tin cover” which might enable a check on the backlash between the cam and dynamo gears. The accompanying photo shows that it is possible to wriggle a feeler gauge into the mesh of the gears ensuring that the teeth are together on one side and measuring the gap between the mating teeth on the “slack” side. Incidentally the photo also shows a brass pointer which can be aligned with a small cut in the pulley at top dead centre of pistons 1 and 4. A further mark aligns with maximum advance. These marks make it easier to check the timing with a strobe lamp.



An engine which I had recently put together was still standing on the bench which made things easy. I dug out five dynamos (not necessarily in working order!), which all looked to have the drive gear in reasonable order, and tried them in turn in the housing. I also measured the outside (or overall) diameter of the gear to see if there was any correlation between backlash and diameter. In other words, was there originally an attempt to match the dynamo gears and/or housing in the same way as with the timing gears? It would be interesting if others can comment on this.

The gears can be brought into closer mesh by removing metal from the base of the dynamo housing. My guess is to go for about 2 thou minimum slack – again it would be good to hear from others - and if found to mate too tightly, an extra gasket may be needed. After a preliminary check to determine the dynamo with the closest backlash, the base of the housing was lightly ground back on a linisher and refitted complete with gasket. I found it awkward to measure the diameters to within 2 or 3 thou and although my measurements between the five dynamos varied between 1.891” and 1.898” I don’t think the diameter of a given unit relates to its backlash.

For what it’s worth, the measured slack in the gears in thousandths of an inch were 2, 3, 4, 7 and 8. It would be good if those with more experience could comment on the effect, if any, of the larger amount of slack on gear noise.

Currently there seems to be quite a bit of gear noise in the engine in my Box Saloon which I hope is from the dynamo gear. I can’t get out there to check it right now, but I’m hoping this is the source as I thought I was pretty careful in matching the timing gears only a few thousand miles back during a rebuild! Conversely I may not be alone in having failed at any time to check the mesh of the dynamo gear.