

Generator Belt Adjustment

We see a number of generators that have failed prematurely. A leading cause is improper belt adjustment, especially among early generators with a bushing – rather than a bearing -- in the commutator plate.

When the drive belt is over-tightened, the rotating armature will prematurely wear one side of the bushing. The armature will then drag against the field coil pole shoes and short itself out. We have seen many generators with one side of the bushing worn completely through.

The solution is proper belt tension, or, in this case, an almost lack thereof. The best method, while a bit tedious, is to sneak up on the correct tension. Start with a very loose setting. If you can move the generator pulley by hand and the belt does not move, the belt is too loose. Tighten it ever so slightly until the pulley won't "free-wheel" against the belt, but only just so. If you have installed a new belt, check the adjustment again after a few hundred miles to account for any belt stretch.

Later Lucas generators with a proper bearing on each end can withstand greater belt tension, but be very careful with these as well.