

Application No. 245: Generator repair

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Repair of an electronically regulated generator with supermagnete



Here is a short documentation for the repair of an electronically regulated permanent field generator with supermagnete. Due to a loose screw on the motor shaft the magnetic disk was destroyed.

I removed the old magnets and thereby preserved the existing PVC spacer.



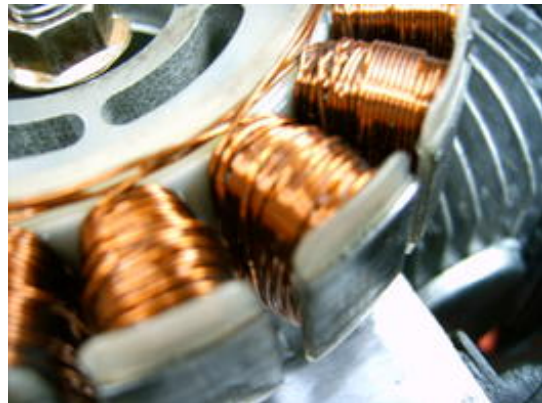
I arranged for clean adherends and glued 12 Q-19-13-06-N (www.supermagnete.nl/eng/Q-19-13-06-N) into the disk.



Since the field force of supermagnete was incomparably higher, I decided to insert only every other magnet, of course with the correct polarity and number of pole pairs. The existing PVC spacer ensured the proper distribution. The new air gap between rotor and static coils was larger now, but that didn't influence the functioning.



The feared magnetic field displacement in the air gap was easily compensated by the strength of supermagnete.



The test with the new generator yielded the following result: a 500 watt floodlight can be run without problems with this generator.



The repair with supermagnete was extremely successful. The revolutions per minute (rpm) of the electronically regulated four cycle engine was lower than before the generator broke down. Its noise emission is lower. The low working rpm range is still enough and the motor will not be "tortured", despite the now smaller centrifugal mass and the larger field force of the magnetic rotor. My decision to not implant all supermagnete was apparently the right one!



Articles used

Q-19-13-06-N (www.supermagnete.nl/eng/Q-19-13-06-N)

M-15 (www.supermagnete.nl/eng/M-15)

Online since: 21/07/2009

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