

The alternator kits are an item that we sell to support the sale of our voltage regulators and other electrical products. The experience we have had is that most people can install them correctly however in some cases there are issues relating to clearance around the rotor. The clearance between the rotor and inside of the stator is dependent on the installation – it is not a straight bolt on assembly. The clearance must be checked with a feeler gauge all the way around. If the clearance is less on one side then the stator must be moved accordingly on the mounts. The clearance should be 8-10 thou all the way around. If not, it should be fully investigated and corrected.

Further, the rotor may exhibit run-out depending on the crank mounting due to pre-existing damage to the crank or faulty items such as mounting bolts. Ideally the rotor would be checked for run-out with a dial gauge once it is mounted. If this is not available the clearance should be rechecked at many points around the stator as the crank is rotated through 360 degrees.

Also, the stator and rotor components were changed several times in production by Lucas and it is possible that the items we supplied are not suitable for your engine. You should have an expert assess the parts prior to any attempt at installation to ensure that they will be suitable.

The available space for the nuts that hold in the stator to its mounts is reduced with the 3 phase stators. Special thin wall nuts should be used – we have stock of them or you can source them from your parts dealer. Also, a long reach thin wall socket is required to tighten the nuts. They should not be over tightened – damage to the laminations will be the result. Use appropriate washers to spread the pressure from the nuts to the surrounding laminations.

In some engines the stator fits inside a machined ring for location. Do not force the stator into the ring. If it is a tight fit it may be necessary to file down the laminations a small amount to achieve a good fit. The stator should slide into position.

Once the engine is started and warmed up the clearance can be checked again. If the rotor touches the stator while running it will ruin both parts very quickly. The stator will turn blue and the epoxy will melt from around the coils. The rotor may demagnetise or break up into pieces.

We highly recommend getting expert help with fitting the stator as it has in the past been a problem for some of our customers. We check all of the parts before we send them out and believe that they are suitable for the task however we must state that it is not a bolt on system for every bike. It must be checked for suitability and installed with great care – some modifications may be required to get a perfect fit.

Also check carefully the recommendations in your service manuals relating to the rotor and stator installation. Note the recommended routing of the wire from the stator through the engine cases.

We will not entertain any claim relating to these parts if there has been contact between the rotor and stator or any evidence whatsoever of mishandling. We are not claiming that the parts are perfect for every engine. You must assess the situation for your engine. Care must be taken with the installation and minute adjustments may be required to get a perfect result.

We hope that you pay attention to the installation and have good success with the parts.

Kind regards,
Stephen Kelly