Norton Boyer Plate Fix

The Boyer electronic ignition is a wonderful thing. However, some British bikes, namely the isolastic-mounted Norton Commando, shake so violently at lower engine speeds that they not only wear out Lucas auto-advance units, they can also destroy the Boyer electronic ignition plates. If you have an older Boyer and your Norton has recently started misfiring, then you might want to use this information as the basis for some research.

Look at the Boyer circuit board that replaced the point plate. You will see two wires coming out of that plate and a gob of epoxy holding them fast on the plate. Depending on the age of the unit you may find a nylon tie wrap around the same two wires at a midpoint in the plate. Sometimes one of these wires will break under the tie; not all the way at first, just a few strands. It's hard to locate this problem sometimes, since the bike will start and run well up to a certain RPM, but the engine vibration then starts to wiggle the broken wire. The misfiring and sputtering will continue even after you replace every component on the bike. The problem can be located by using an Ohmmeter between the disconnected points lead and the circuit trace on the circuit board, while wiggling the wire.

Another method is to take the reading between the 2 leads, which should be very close to 137 Ohms. Then take another reading between the positions where the 2 wires enter the circuit board. If the readings differ, then you may have broken wires.

One solution is to unhook the bullet connectors, mark the location of the circuit board with a felt pen and remove the Boyer circuit board from the bike. Cut the zip tie and use a small knife to pry the glob of hot-melt glue off the board. Mark the position of the wire colors that enter the circuit board and using a soldering iron, carefully melt the solder on the back of the plate and pull the wires out one at a time. Carefully drill the wire holes out larger using a very high speed 1/8" drill bit.

Carefully replace the crimps on the lead coming into the engine with #4 ring lugs for #18 wire (red plastic marking). Insert #4-40 X 1/4" stainless steel screws from the rear of the circuit board, through the ring terminals and then affix them with a #4 hex nuts, which must be on the coil side of the board. Reinstall the circuit board back into the engine, being careful to set the circular circuit board back to your original marks.

The direct connection will cure your ignition miss, and the shorter wires will be less prone to vibration issues so you shouldn't have any problems in the future.

Hope this helps!

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