THE Gilson SNOWBLOWER SHOP

Service Bulletin

Date: October 20, 2021

Service Bulletin # GSBS-13

To: Owners of Gilson Equipment with B&S, 4-16 HP, Single Cylinder, Aluminum Block, Horizontal Shaft Engines

Subject: Magnetron Ignition Conversion Details

Machine Style: Snowblowers, Tillers, Power-Bolt Log splitters and others.

Scope: This bulletin will not detail the entire replacement procedure but will cover the details surrounding the Magnetron module.

Things to know:

- When bench testing by spinning the flywheel, you will need to be quicker than with the breaker point ignition. Rotate the flywheel to position the magnet just CW of the armature then spin it clockwise. Be in a dimly lit place.
- You may read about needing to repolarize the flywheel magnets. This does not apply to the aluminum block engines.
- You will be abandoning the old breaker points and leaving them in place. Inspect for signs that oil is leaking from the points plunger This will be dripping down the center of the block below the flywheel. If leaking is apparent you will need to remove the flywheel and install a plug in the plunger hole. A failed crankshaft seal will appear similar. These are not common problems.
- The Magnetron creates spark solely based on the flywheel passing by. If the flywheel key is sheared, you will still get spark (unlike breaker points) but it will misbehave or not run at all due to incorrect timing.

Installation steps

- Unbolt the old coil module
- Clip the wire that goes behind the retainer clips and lead to the points.
    - Leave the point wire behind the clip.
- A second wire runs from the points out to your kill switch or terminal. Clip this wire above the clip.
    - Leave the kill wire behind the clip.
- Take the kill wire that runs to the switch / terminal and set it aside. You will replace it later.
- Rotate the flywheel so the magnet is at the bottom. (6:00)

- Bolt the Magnetron module in place, slide it up, then tighten it lightly.
- Rotate the flywheel so the magnets are at the top. (12:00)
- The flywheel gap wants to be .010” - .014”. Shoot for .012” with feeler gauges. A common business card often works. Place the gauge(s) or card between the flywheel and the laminated module “legs”.
- Loosen the module screws, gravity and magnetism will set the gap to your gauging.
- Tighten the module screws firmly.
- Remove the gauge(s).
- If you wish you can now test the module by removing the sparkplug from the head and connecting it to the connector while resting the body on an engine ground surface. Spin the flywheel per above and you will see spark.
- The engine could now run if reassembled but will not stop!
- Connect the provided kill wire to the spade terminal on the module.
- Route the wire using the original build as an example and run it to where the old wire connected to the kill switch or stud terminal.
- Trim, strip and terminate to restore the ignition kill function.

Button it up and you should be back in business.

A champion CJ-8 is the preferred spark plug. Set the gap to .030”