



GMC WESTERN STATES SPRING FLING RALLY

April 24 – 28, 2014
Golden Village Palms RV Resort
Hemet, CA

Tech Session – April 26, 2014
Bovee's Electronic Ignition Kit for Onan Generators
By Gary Bovee

Background

- Author "Idiot's Internet Guide for GMC MotorHome Information".
- Designer of the Wireless Air System.
- Builder of various other GMC parts.

Question

- How many here know how to check their Onan's timing?
- Goal - After my presentation you should be knowledgeable enough to be able to check your Onan's timing and also install an Electronic Ignition Kit too!

My Onan's Story

- Low hours - ran fine.
- Wife expects Onan to run like fine Swiss watch.
- Suddenly Onan quits running while on vacation!
- Time for Plan B.

Wanted - Bullet Proof Ignition

- My past drag racing experience proved to me that an Electronic Ignition is the way to go.
- With Electronic Ignition installed and stock ignition as backup I have the best of both worlds.

Why Install An Electronic Ignition?

- **Never change points again.**
- **Reliability - No moving parts to wear out. (Point ignition systems phased out in 1970s)**
- **Increase fuel economy, and spark plug life.**
- **Stable timing... Engine runs smoother.**
- **Epoxy molding makes module impervious to oil, grease and dirt.**

Electronic Ignition Kit

Fits both Onan 4K & 6K RV Generators



Note: Kit can be installed by anyone with basic mechanical skills!

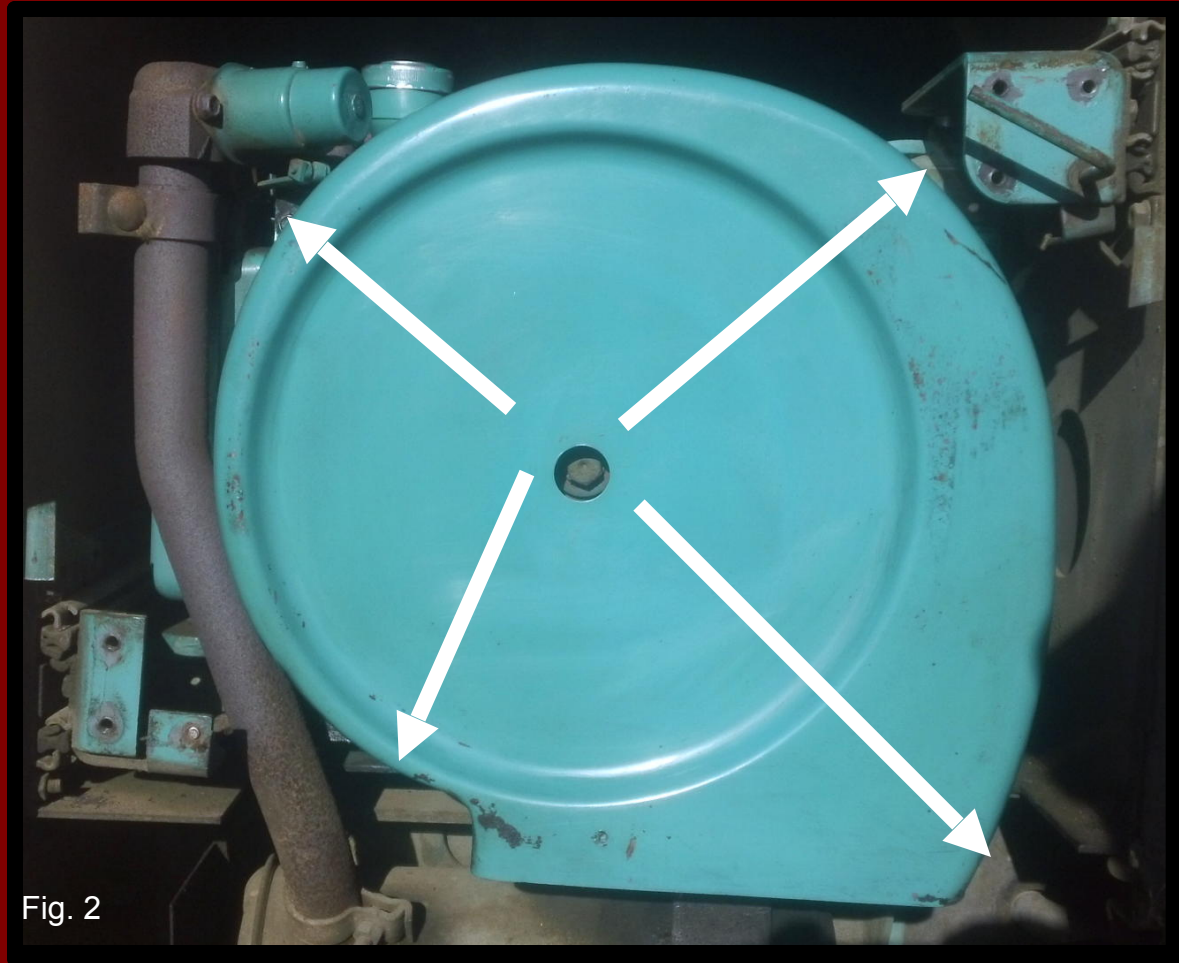
Front Cover Removal



Fig. 1

Six bolts to remove

Flywheel Cover Removal 4KW & 6KW Onans



Four bolts to remove

Hand Rotating Flywheel



Fig. 4

Turn flywheel by hand
while checking for timing mark

Timing Mark



Fig. 3

Using Multimeter to find timing mark.

4KW Timing Notch



Fig. 5

Picture of 1973 4KW showing 21 degree timing mark.

Late Model BF Power Drawer - 4KW



Fig. 6

Power Drawer NH Series 6KW 25 Degree Timing Mark



Fig. 7

Module/Bracket Location

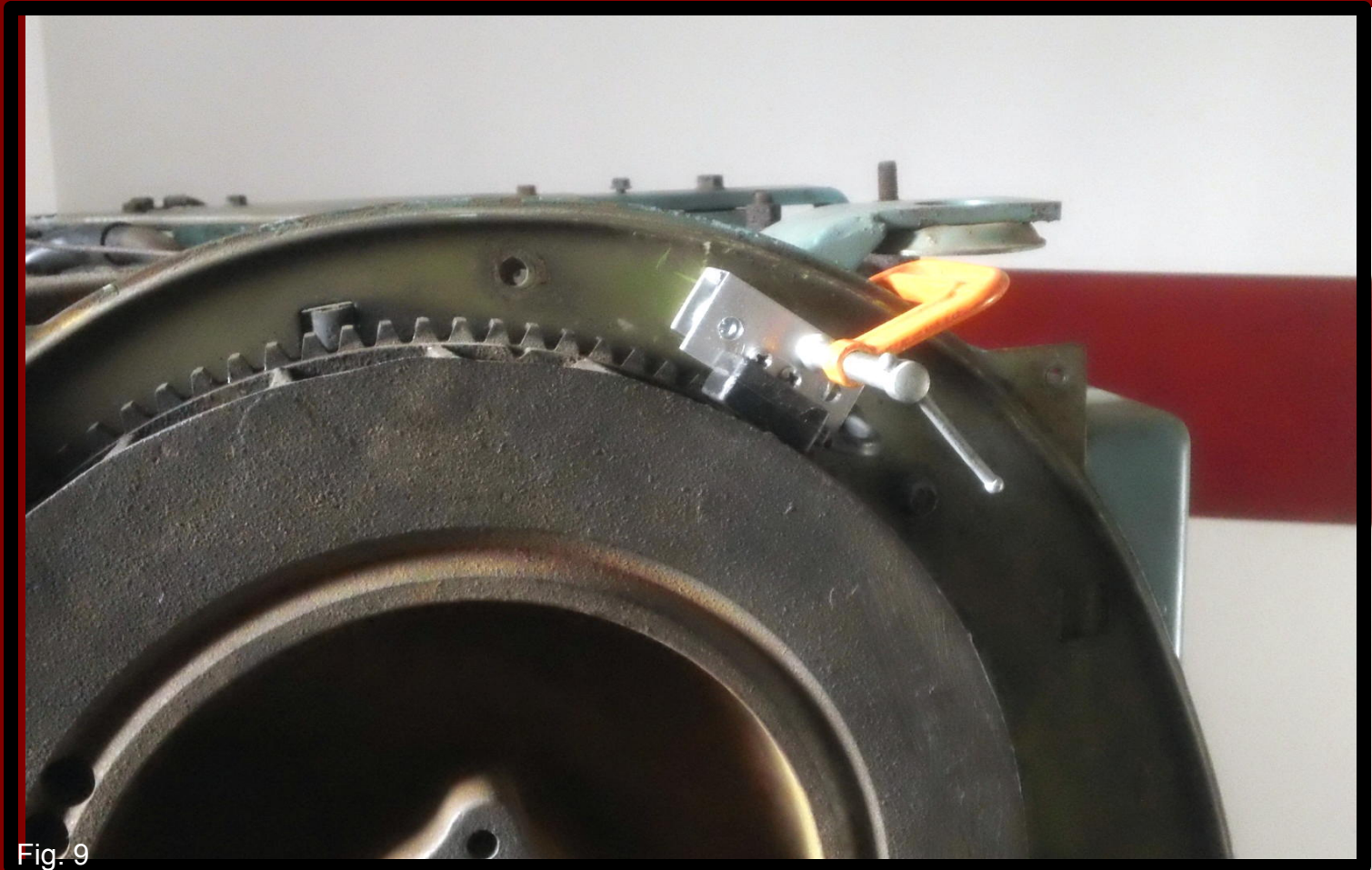
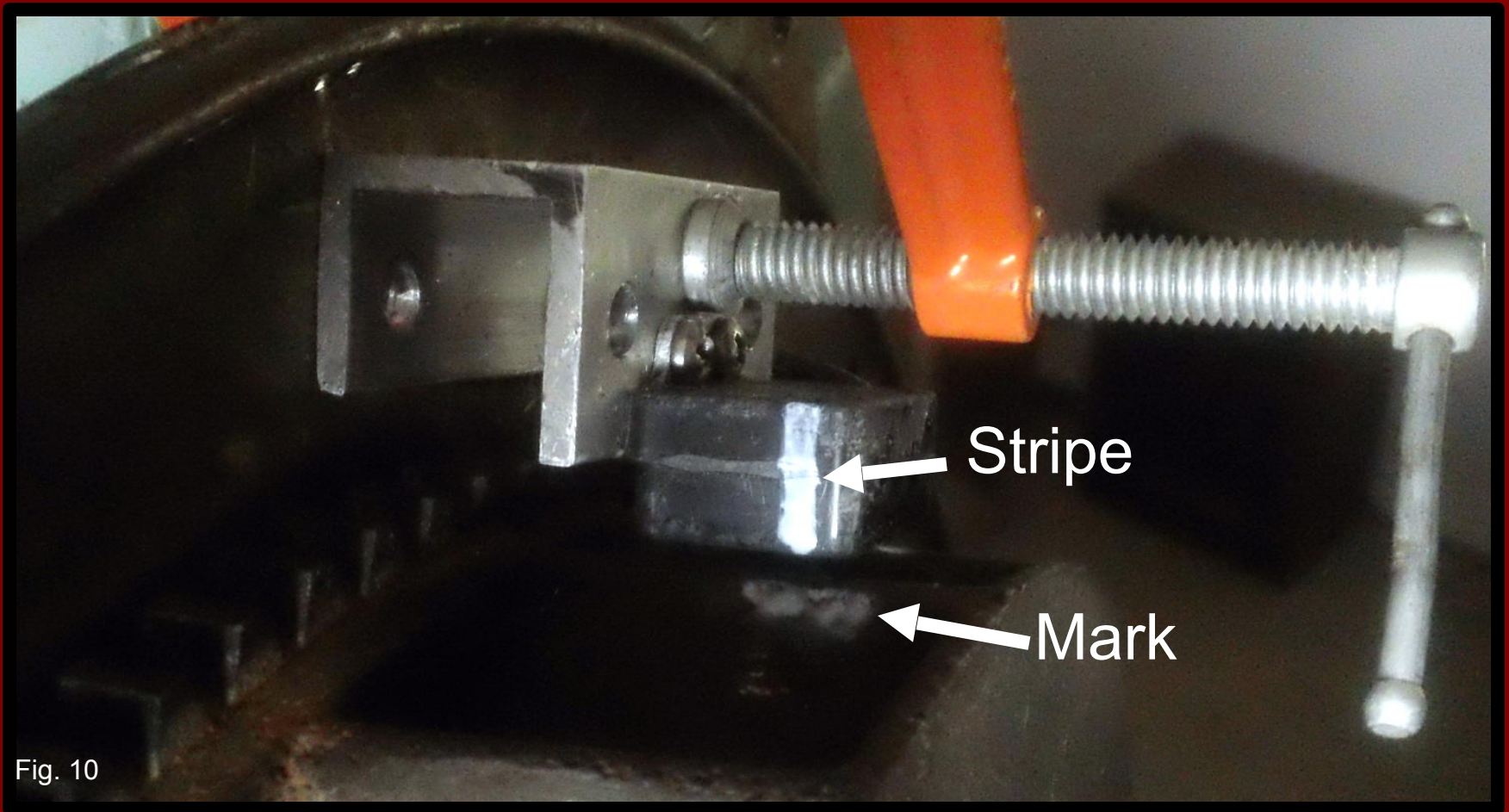


Fig. 9

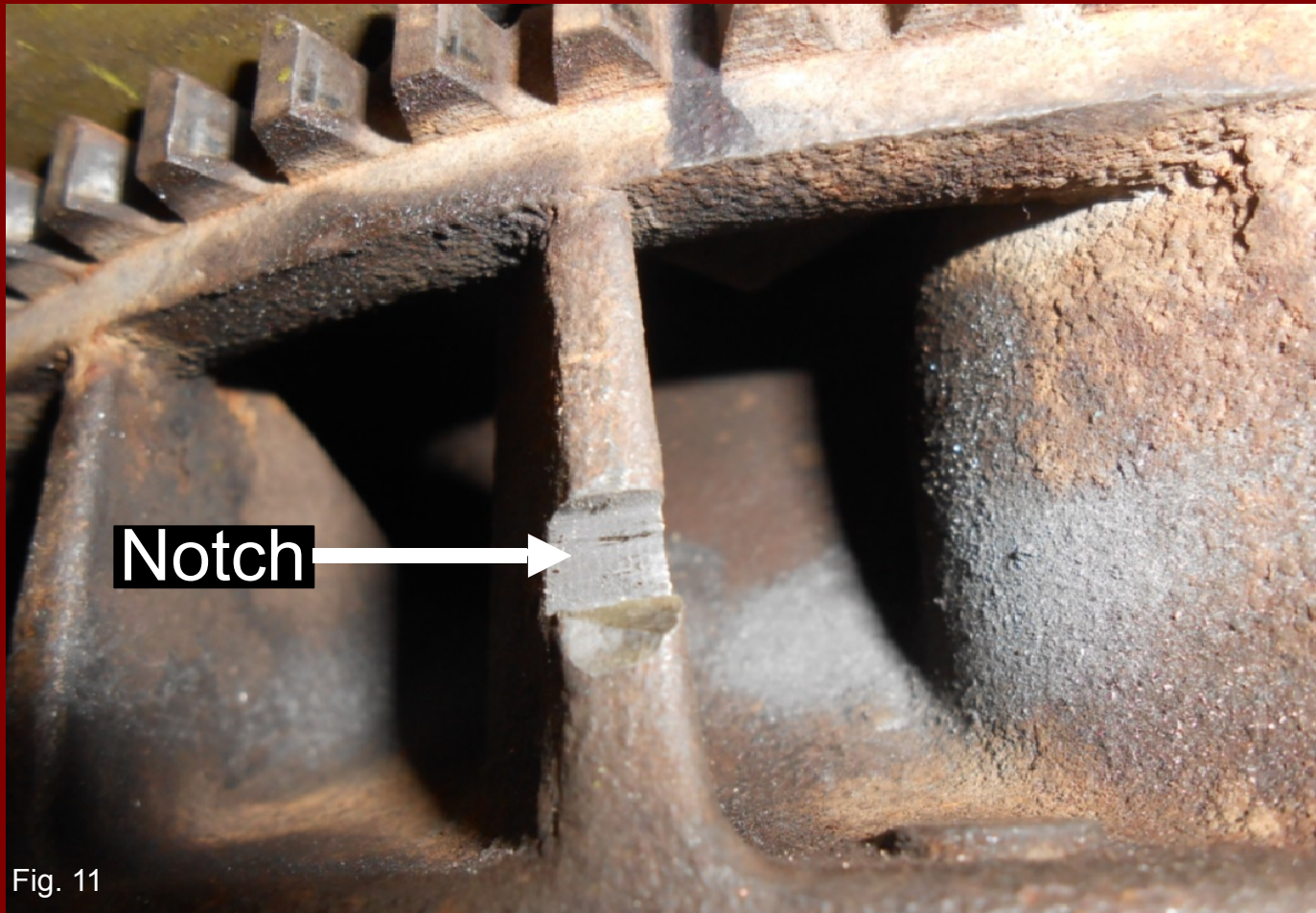
Selecting flywheel vane.

Module Stripe



Mark flywheel vane to show exactly where to cut/file notch for the magnet.

Magnet Notch



Notch

Fig. 11

Flywheel with Magnet Notch

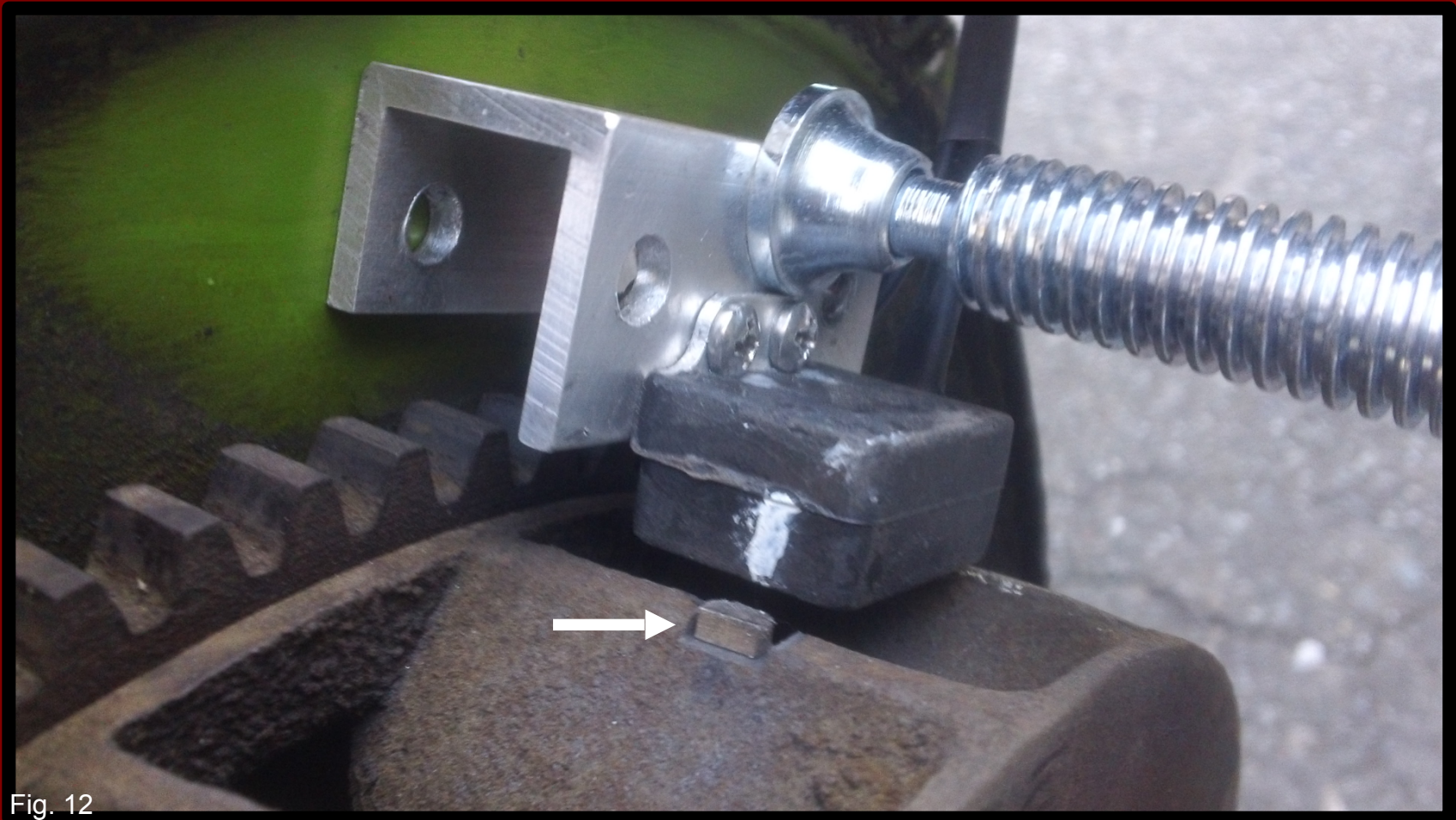


Fig. 12

Magnet ready to be glued to flywheel.

Magnet

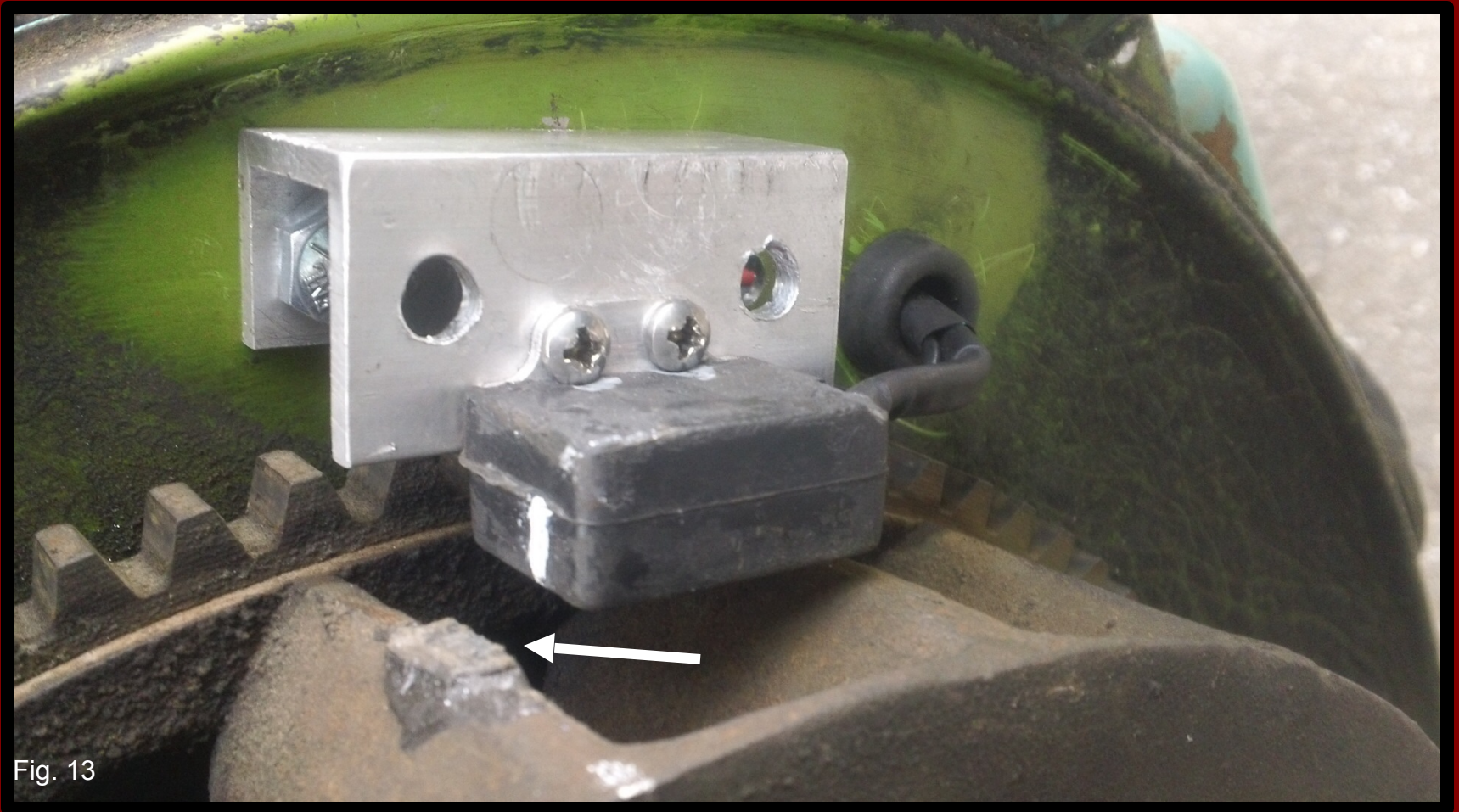
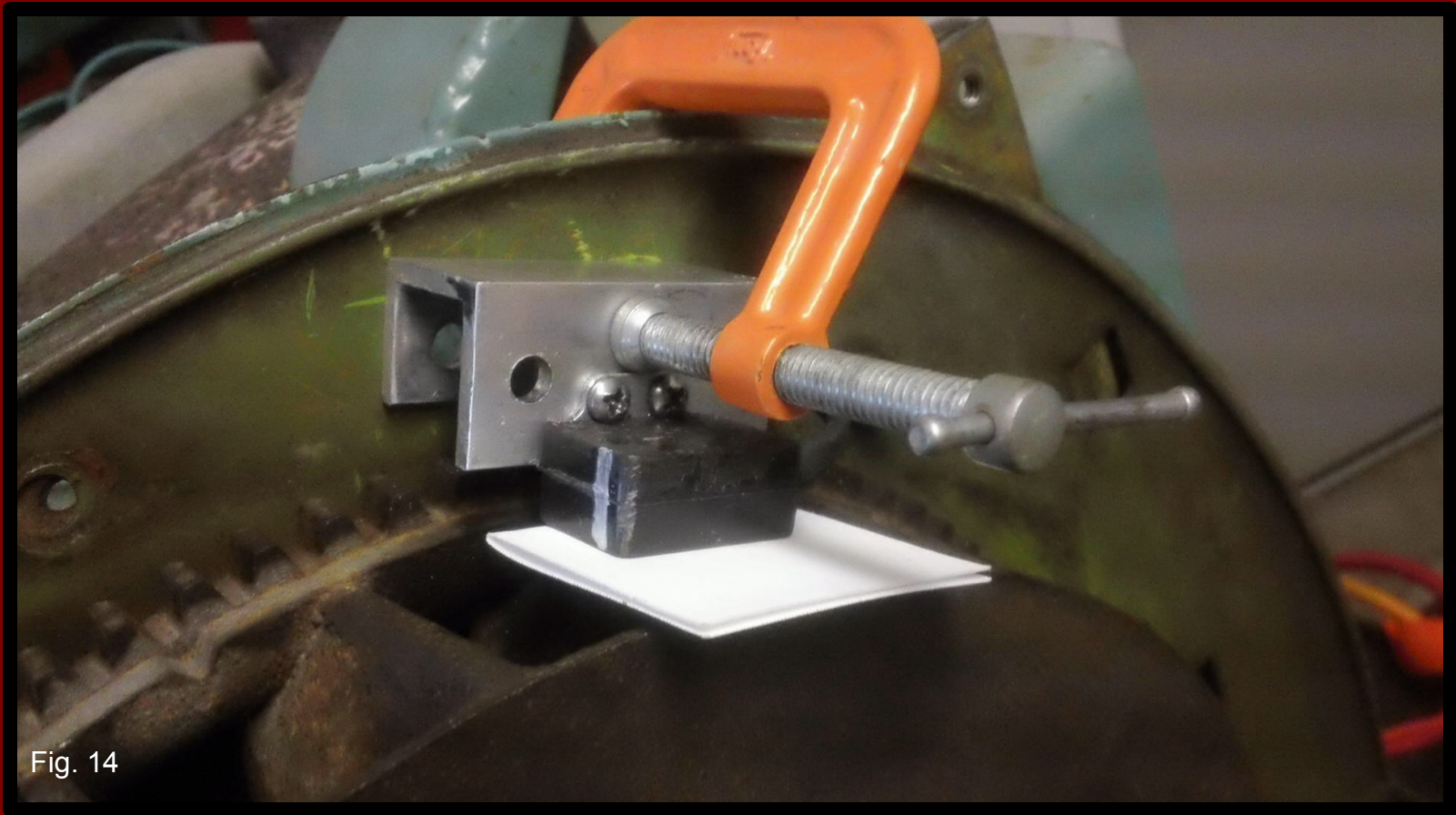


Fig. 13

Magnet glued onto flywheel vane notch

Checking Magnet Clearance



Adjusting module to magnet clearance (approximately.020).

Setting Onan Timing Wiring Diagram

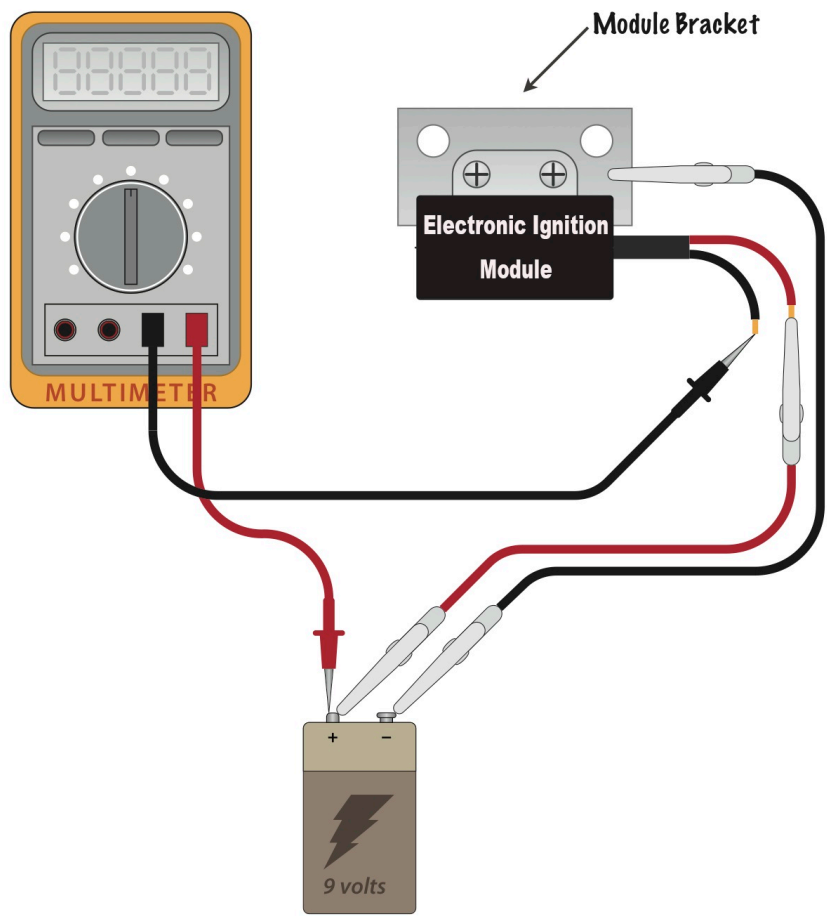


Fig. 15

The illustration is copyrighted by Byron Songer.

Rechecking Module/Flywheel Clearance

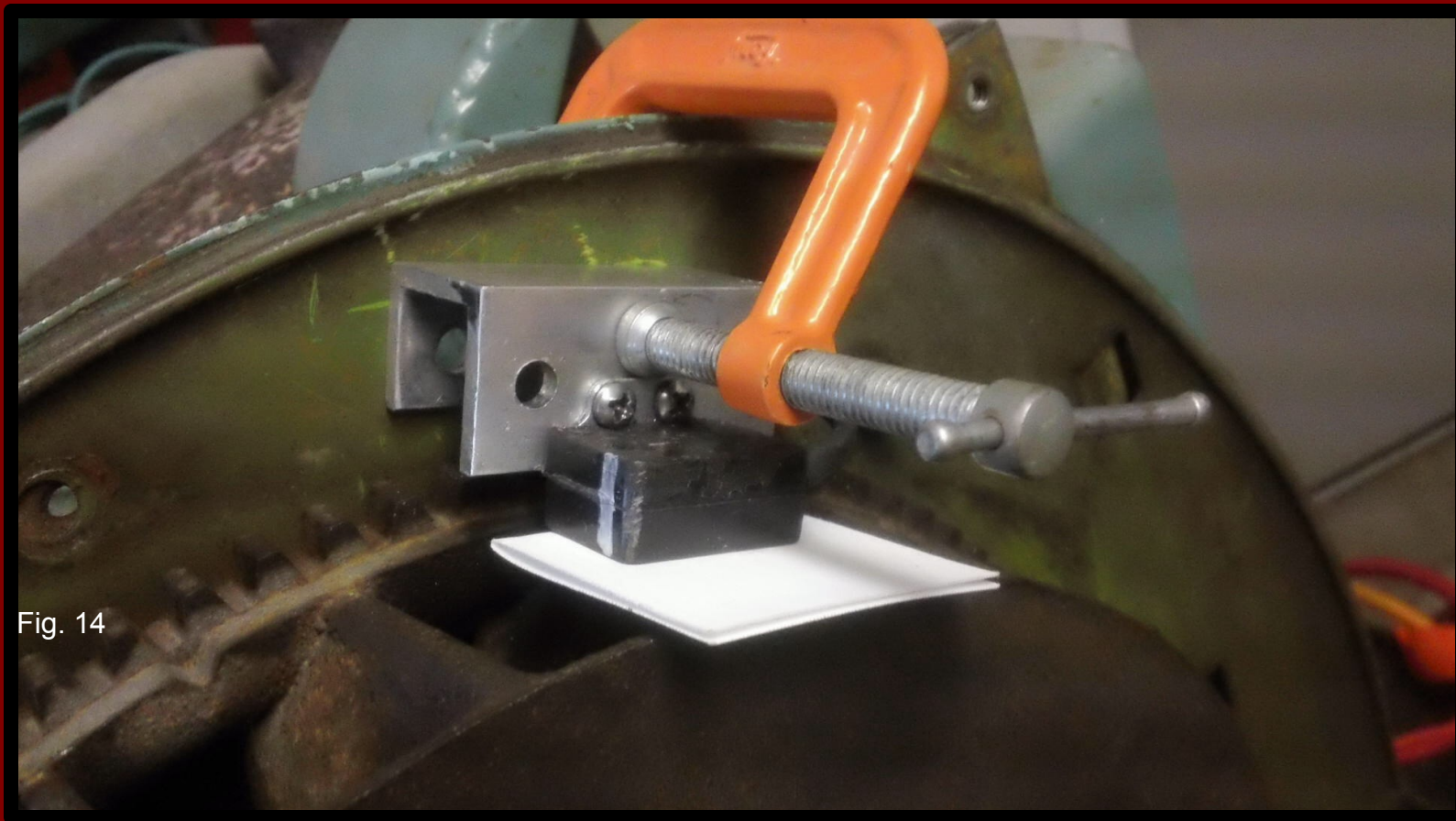


Fig. 14

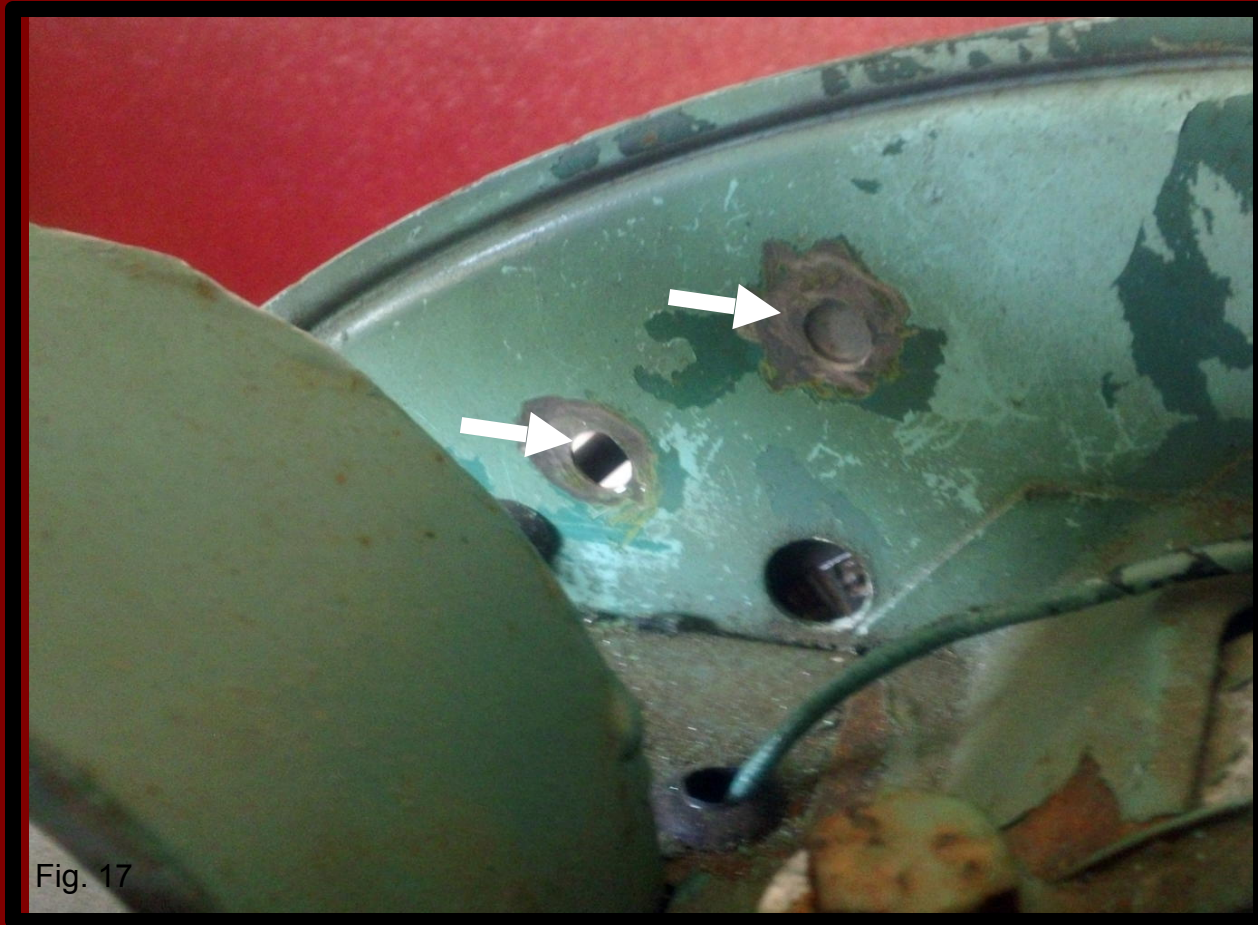
Drilling Bracket Holes



Fig. 16

Bracket positioned correctly for magnet to module clearance and set for correct timing.

Scrape Off Paint



Scrape off paint on backside of scroll plate around module bracket bolt holes.

Rechecking Module/Flywheel Clearance



Fig. 18

Grommet Hole

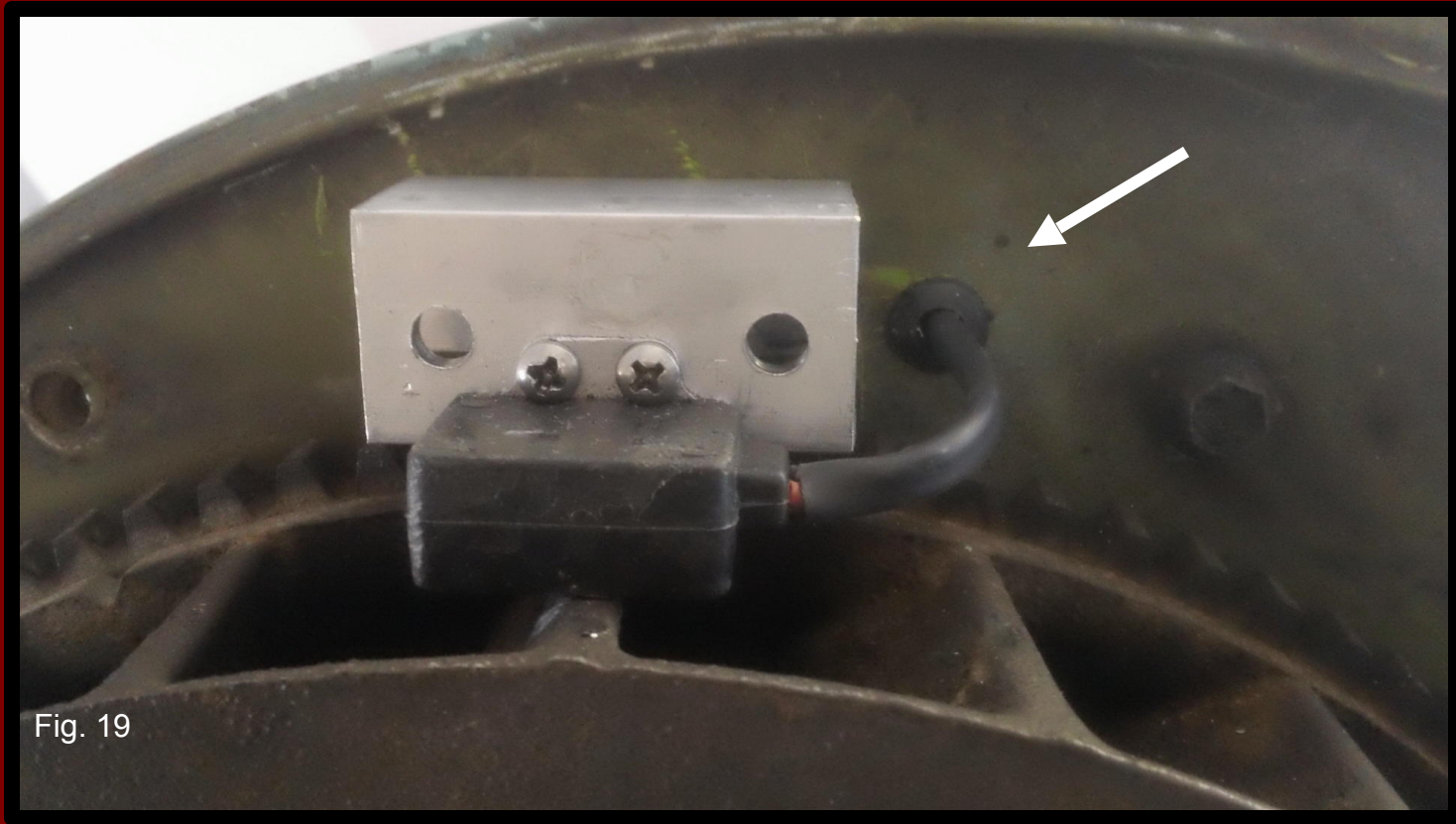


Fig. 19

Wiring Straps & Connections for 6KW

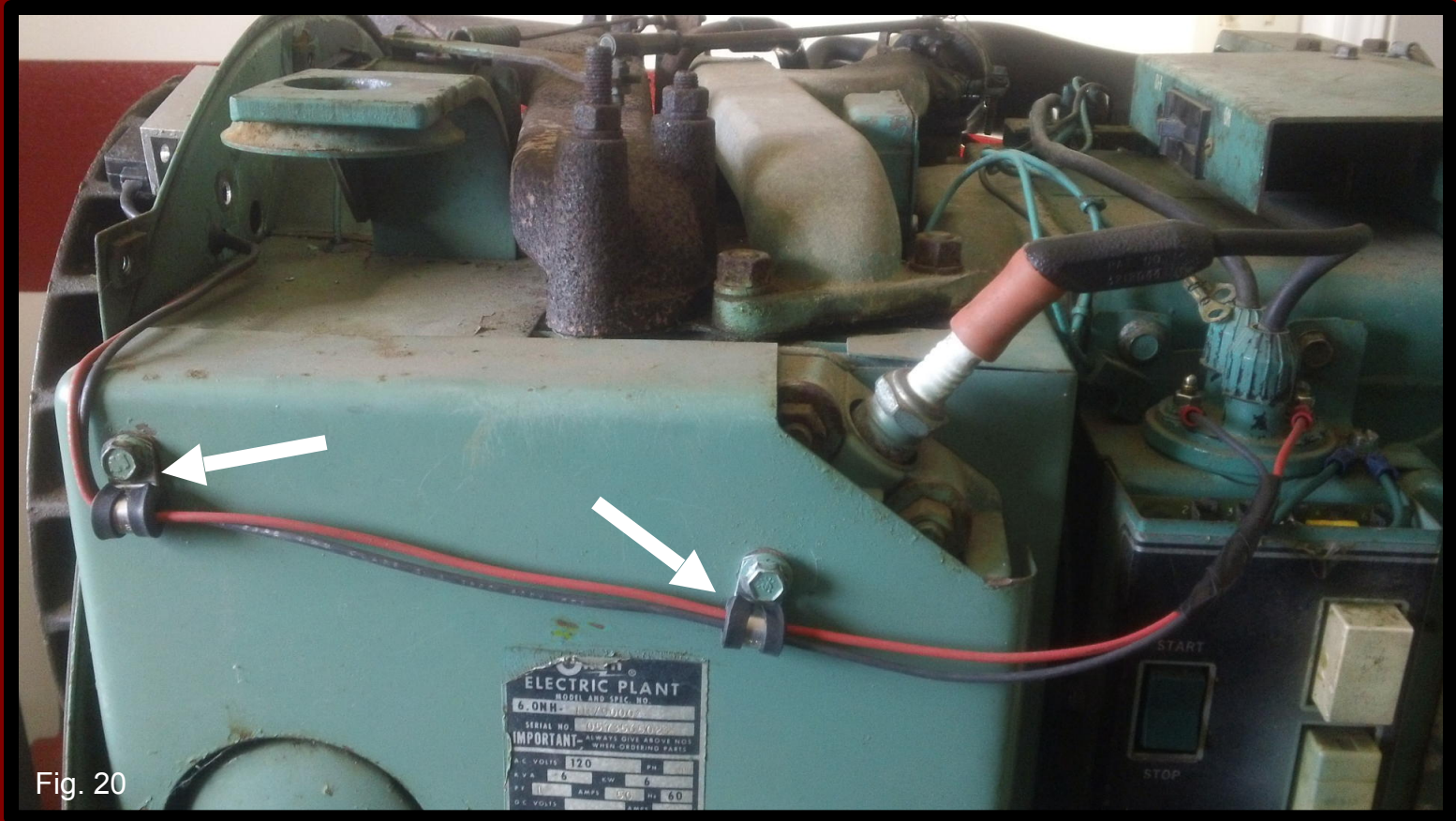


Fig. 20

Reinstall Flywheel Cover

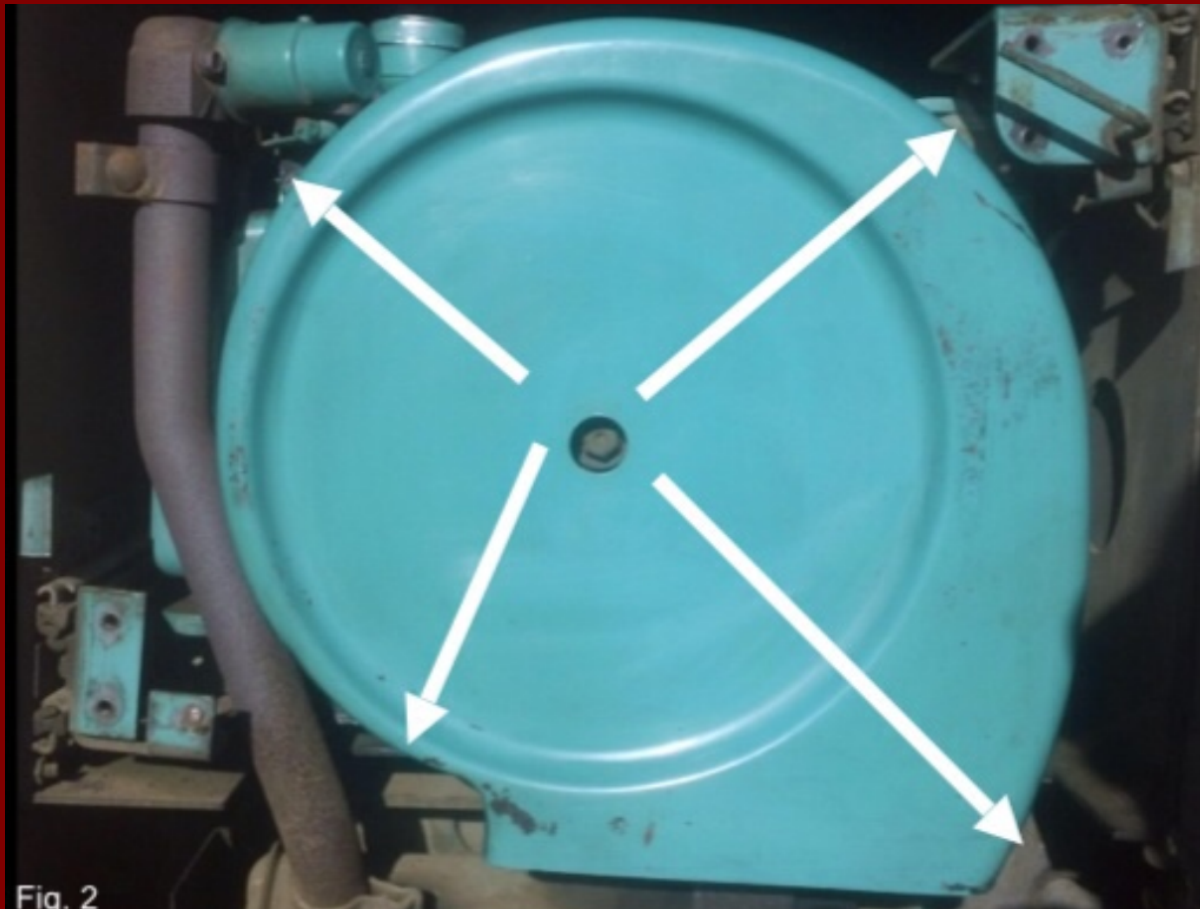


Fig. 2

Project Completed



Fig. 21

All bolted up and back together again.

Installation Instructions

- **Kit includes (2) pages of detailed written instructions.**
- **21 photos showing how to install Kit available online.**
- **Technical Support is just an email or phone call away.**

Bovee's Electronic Ignition Kit

\$129.95

- Kits are available here at my vendor's booth or order online from my website. Goto www.gmcidiotsguide.com and click on Products.
- Kits are also available at Applied GMC or on their website - www.appliedgmc.com.