

FUEL EFFICIENCY TESTING OF MAGNETIZER

NRG MAGNETICS, INC

BELLE HARBOR, N.Y. 11694

APRIL 12, 1991

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1.0 Executive Summary

The purpose of this project was to demonstrate the fuel savings that the Magnetizer would provide when installed on a gasoline engine. A scientifically controlled test was set-up to establish the amount of fuel savings with the installation of said device. A portable generator was loaded with lights to simulate actual conditions. The generator was tested with and without the device to determine that there was a fuel savings of 26%.

2.0 Test Description

The described test was conducted inside a large facility under controlled conditions. The exhaust gases were vented outside the building. All the parameters of the test were kept constant throughout the program.

2.1 Test Set-up

A Kohler generator was connected to an external graduated fuel tank that was kept at approximately the same height as the carburetor of the generator. A calibrated flow meter was inserted between the fuel tank and the generator. A load bank consisting of lights and heater was attached to the generator. The generator was placed on a small table approximately 30 inches above the floor.

2.2 The Generator

An electric portable Kohler generator with the following specifications was used for this project:

- *Model 3.5 mm65 *S/N 260058
- *KVA 3.5 *3600 RPM
- *Watts 3500

The load bank consisted of five 300 watt light bulbs and a 900 watt heater, which was approximately a 70% load. Each load source had an electric plug at the end of the wire, which was plugged into the generator.

The generator had two receptacles rated at 120 Bolt, 15 Amp. Max. Each receptacle had a load bank plugged into it.

No adjustments were made to the generator prior to the start of the test program.

2.3 Flowmeter

A separate line was run from the remote fuel tank directly to the carburetor with a flowmeter and a 12 inch steel line that ran in between, to make the attachment for the Magnetizer. The fuel pump was by passed. The flowmeter was manufactured by Brooks Instruments with the following specifications:

- *S/N 99223
- *Tube number R-215-A
- *Metering viscosity 0.640 cS
- *Date of Calibration 6-28-90
- *Flow Range 0.011 to 1.025 (liq.) gal./hrs.

The gasoline used was CITGO unleaded 87 octane.

2.4 Exhaust Gas Analysis

The exhaust gas from the generator was analyzed for oxygen and carbon monoxide. A stainless steel tube was inserted in the exhaust pipe of the generator. The gas analysis was through a system that had a pump to draw the gasses and a cold trap/drierite system to remove the water.

Gases were continually drawn through the system with continuous display readings. The following gas analysis equipment was used:

- *Servomex Oxygen Analyzer Model 540A
- *Horiba Carbon Monoxide Analyzer Model PIR-2000

3.0 Results

The generator was operated for three days before the described test results were obtained. This was done in an effort to "break-in" the engine and work out any problems that could result prior to the testing. Readings were taken as required when the Magnetizer was installed and then removed. The generator was run continuously. The results are for two sets of runs.

<u>Time of</u>	<u>Flow</u>	<u>Peak</u>	<u>Amps</u>	<u>Volts</u>	<u>O₂</u>	<u>CO</u>	<u>Comments</u>
<u>Reading</u>	<u>Range</u>	<u>Flow</u>					
2:45 pm	65-70	70	21	117.5	12.9	12	with Mag.
3:56 pm	100-110	110	21.2	117.6	14.1	7	without Mag.
4:08 pm	65-70	70	21.4	117.5	14.1	5	with Mag.
4:48 pm	95-100	100	21.2	117.5	14.4	6.5	without Mag.

with Mag. indicates with Magnetizer installed

without Mag. indicates that the Magnetizer was not installed

Each time the Magnetizer was removed or added it was necessary to readjust the carburetor.

Based on the above information the Magnetizer device for this test reduced the fuel consumption by approximately 26 percent.

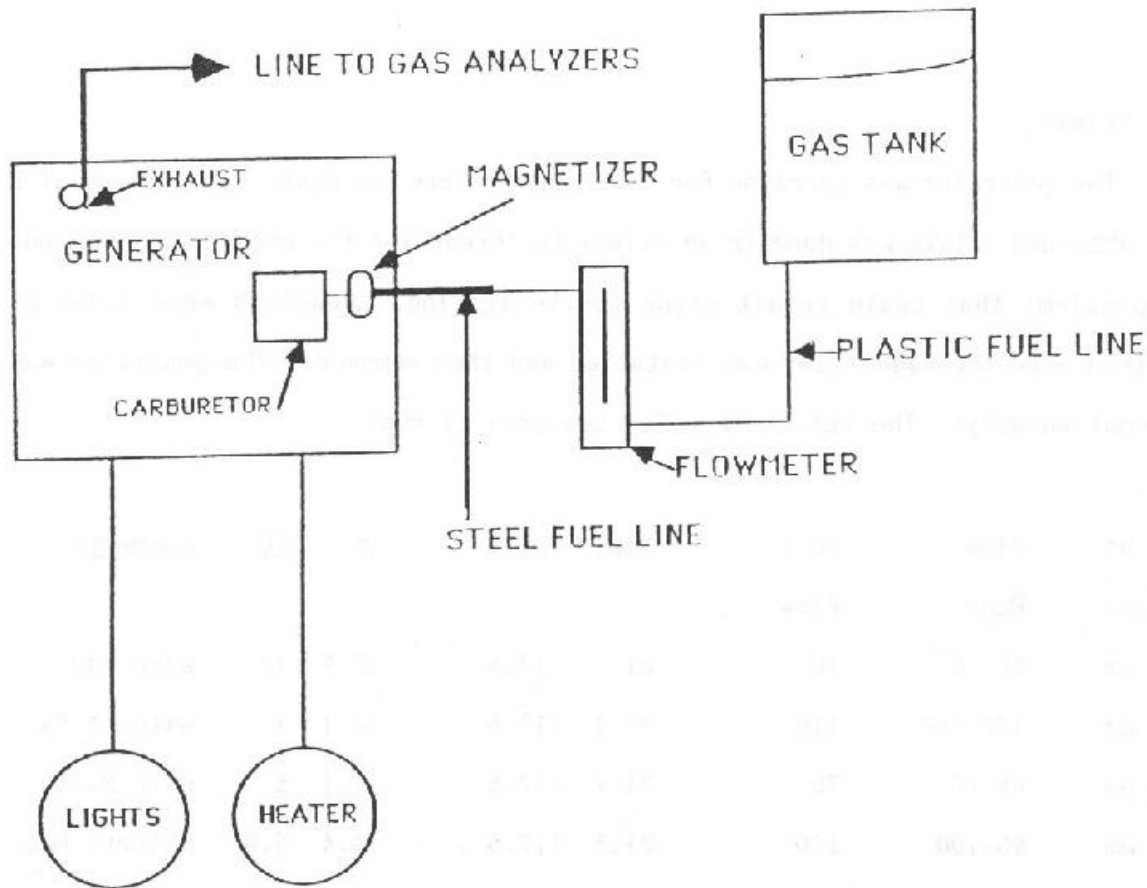
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(4.0 APPENDIX, page 7, next page)

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TEST SETUP FOR MAGNETIZER PROJECT

NRG MAGNETICS INC.

V100-245

12 APRIL 91

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