

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-122
Relating to Exemptions under Section 27156
of the Vehicle Code

M.G.S. INC.
MORRISON (CARB II) GAS SAVER

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the "Morrison (Carb II) Gas Saver" manufactured by MGS Inc., Oklahoma City, Oklahoma, has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1982 and older gasoline-powered vehicles.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as an exemption to sell, offer for sale or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE GAS SAVER.

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

4358 S.E. 29th St.
Morrison
Oklahoma City, Oklahoma

M.G.S. INC.
MORRISON (CARB II) GAS SAVER

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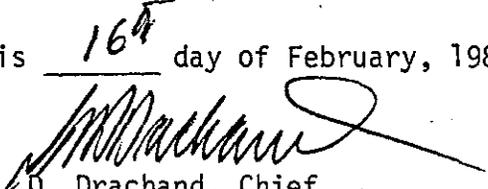
Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

"43644. (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at El Monte, California, this 16th day of February, 1982.


K. D. Drachand, Chief
Mobile Source Control Division

State of California
AIR RESOURCES BOARD

Staff Report

January 18, 1981

Evaluation of the M.G.S., Inc. Morrison (Carb II) Gas Saver Device in Accordance with Section 2222, Title 13, of the California Administrative Code

I. INTRODUCTION

M.G.S., Inc. of Oklahoma City, Oklahoma, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code for an add-on device known as the Morrison (Carb II) Gas Saver. This exemption is being requested for all 1982 and older gasoline-fueled engines.

The device was evaluated by back-to-back Constant Volume Sampler 1975 (CVS-75) tests.

II. DEVICE DESCRIPTION

The Morrison Gas Saver (Figure 1) is a supplementary carburetion device which connects to the fuel (1) upstream of the fuel pump and the PCV line (2). Fuel is drawn into the Gas Saver by a negative pressure within the canister and is regulated by a needle, seat, and float assembly (4, 5, 6, 7, 9) equivalent in design to that of a carburetor. The fuel in the gas saver is absorbed by a sponge (10), and then vaporized by engine compartment heat diluted by air entering through the filter assembly (12) and drawn by intake manifold vacuum into the engine through the PCV system Figure (2). The filter assembly is fitted with a check valve to prevent the escape of hydrocarbon vapor during shut down.

III. APPLICANT'S TEST RESULTS

The applicant submitted cold start CVS-72 and HFET data from a 1980 Federal Pontiac Grand Prix and cold start CVS-75 and HFET data from a 1981 Oldsmobile Delta 88 and a 1980 Ford Station Wagon. These data are:

Vehicle No. 1, 1980 Pontiac Grand Prix 4.3L automatic transmission, VIN 2J37SAP541012, odometer 30629:

Cold Start CVS-72 Test

	Emissions (g/mile)			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>mi/gal</u>
Baseline	1.87	18.63	1.94	20.00
Device	<u>1.43</u>	<u>8.62</u>	<u>1.95</u>	<u>20.22</u>
% Difference	24	-54	0	+1

Hot Start HFET

	Emissions (g/mile)			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>mi/gal</u>
Baseline	1.18	8.04	2.10	28.5
Device	<u>0.80</u>	<u>3.61</u>	<u>2.06</u>	<u>28.7</u>
% Difference	-32	-55	+6	+1

Vehicle No. 2, 1980 Ford 302 CID automatic transmission, VIN OA74F126693, odometer 36896.

Cold Start CVS-75 Test

	Emissions (gm/mile)			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>mi/gal</u>
Baseline	0.56	4.00	0.66	13.9
Device	<u>0.42</u>	<u>2.95</u>	<u>0.79</u>	<u>14.1</u>
% Difference	-25	-26	+20	+1

Hot Start HFET Test

	Emissions (gm/mile)			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>mi/gal</u>
Baseline	0.15	0.20	0.43	16.7
Device	<u>0.14</u>	<u>0.24</u>	<u>0.44</u>	<u>16.6</u>
% Difference	-7	+20	-2	-1

Vehicle No. 3, 1981 Oldsmobile Delta 88 3.8L automatic transmission,
VIN 16AY69A8BX103608, odometer 15597.

Cold Start CVS-75 Test

	Emissions (gm/mile)			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>mi/gal</u>
Baseline	0.60	6.96	0.51	16.7
Device	<u>0.33</u>	<u>6.26</u>	<u>0.50</u>	<u>16.5</u>
% Difference	-45	-10	-2	-1

Hot Start HFET Test

	Emissions (g/mile)			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>mi/gal</u>
Baseline	0.08	1.48	.52	22.4
Device	<u>0.08</u>	<u>2.45</u>	<u>.17</u>	<u>22.5</u>
% Difference	0	+65	-67	0

IV. DISCUSSION

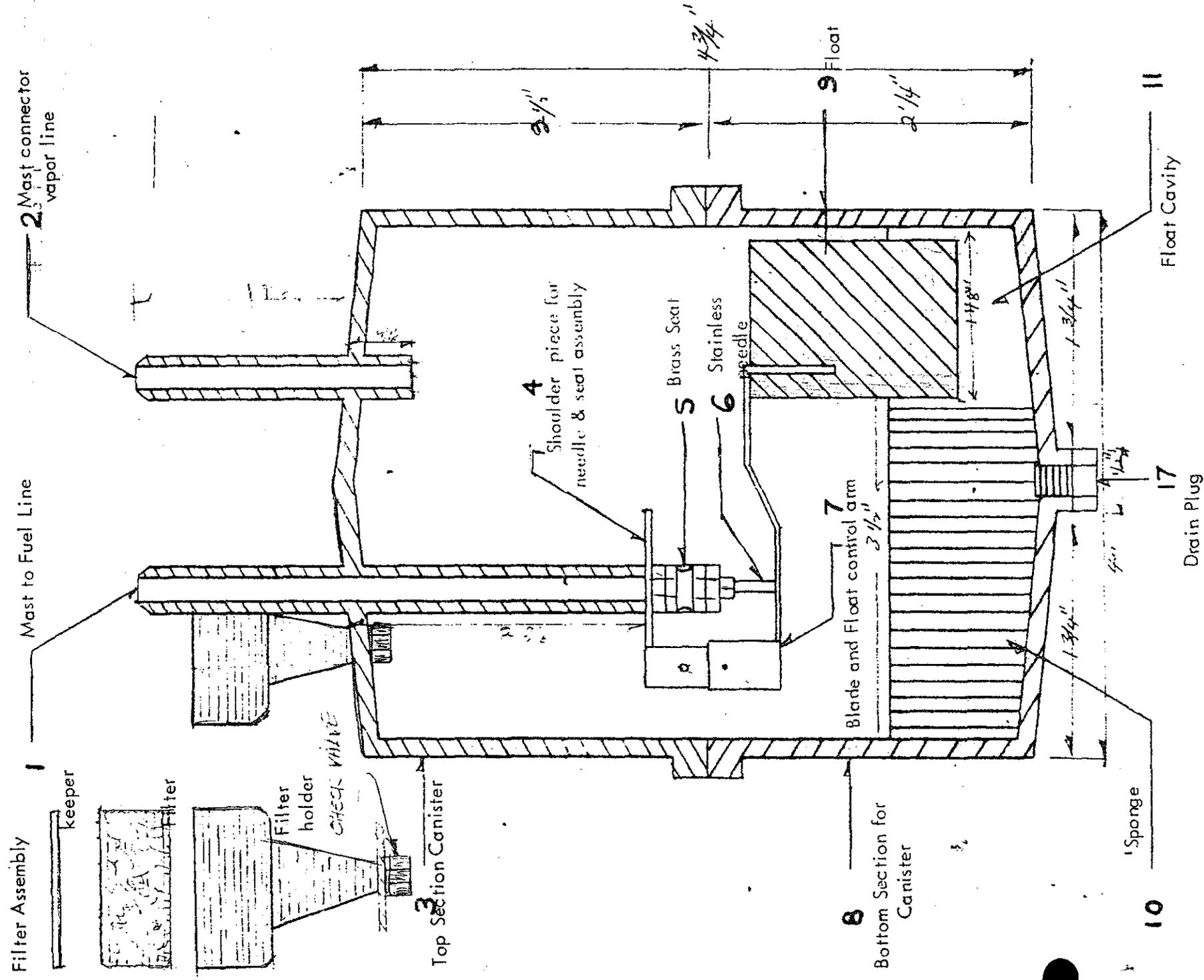
Cold-Start emissions data from vehicles 1 and 3 indicate no significant increase in exhaust emissions. Vehicle 2 appears to be marginal with respect to NOx, however this reflects only a 3.3 ppm change in bag 2 concentration and is still 29% below the applicable standard.

V. CONCLUSION AND RECOMMENDATION

The staff finds no evidence to indicate that the Morrison (Carb II) Gas Saver will have a significant effect on emissions from a motor vehicle. The staff also finds no evidence to indicate that the Morrison Gas Saver will save gas.

The staff, therefore, recommends the approval of Executive Order No. D-122 exempting the ^{fuel vapor}~~water~~ injector from the prohibitions of Vehicle Code Section 27156.

FIGURE 1



Filter Assembly

keeper

Filter

Filter holder
CHECK VALVE

Top Section Canister

Bottom Section for
Canister

Mast to Fuel Line

Mast connector
vapor line

Shoulder piece for
needle & seal assembly

Brass Seal

Stainless
needle

Blade and Float control arm

Float

Sponge

Float Cavity

Drain Plug

10

17

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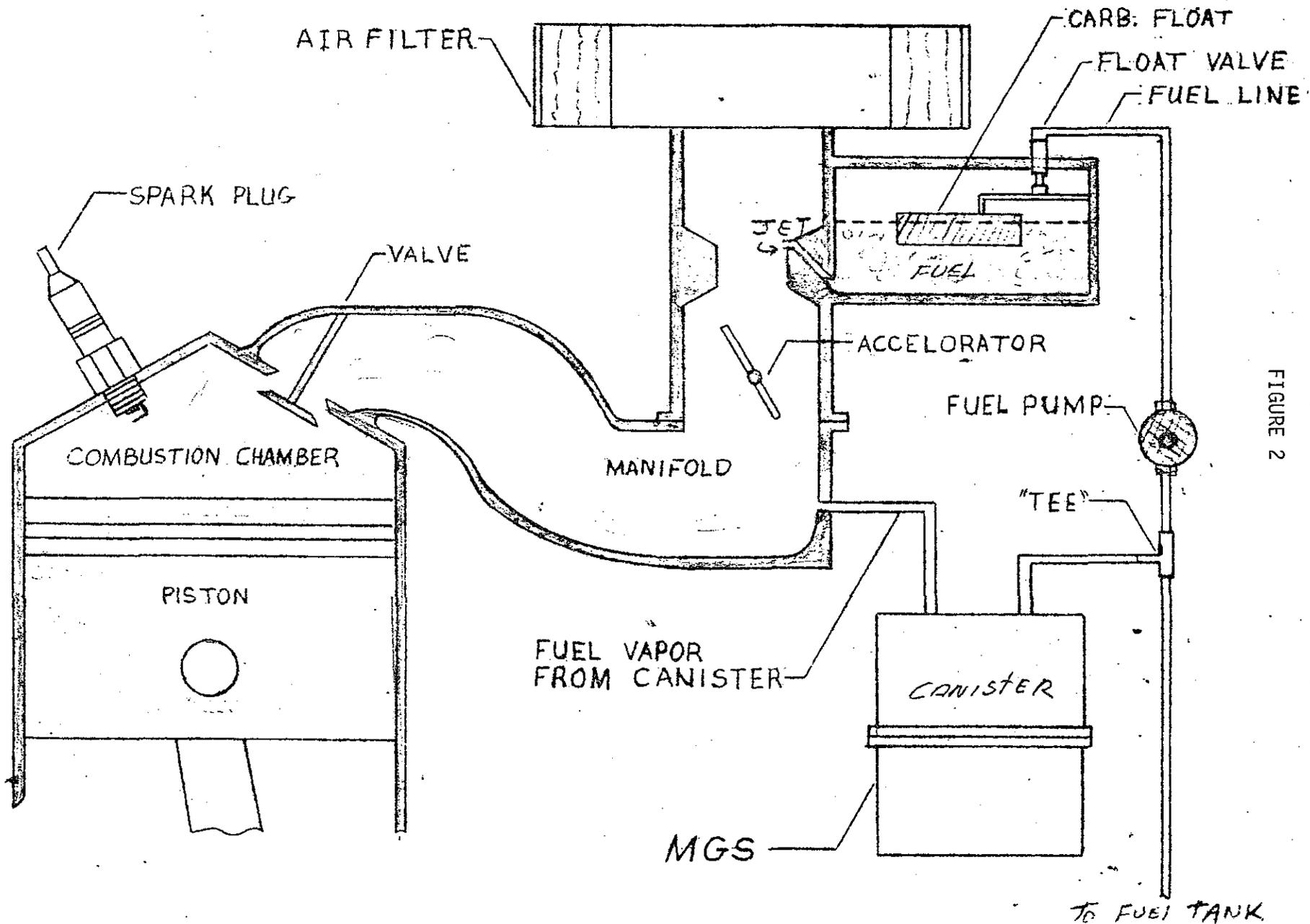


FIGURE 2