State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-433 Relating to Exemption Under Section 27156 of the Vehicle Code

FLUID MAGNETICS, INC. MAGNAFILTER

WHEREAS, Vehicle Code Section 27156 and Title 13 California Code of Regulations (hereafter "CCR") Section 2222(e), authorize the California Air Resources Board (ARB) and its Executive Officer to exempt add-on and modified parts from the prohibitions of Vehicle Code Section 27156.

WHEREAS, Fluid Magnetics, Inc. of 110 Terry Drive, Newtown, Pennsylvania 18940, has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for the MagnaFilter.

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Division by Health and Safety Code Section 39516 and Executive Order G-45-9, the ARB finds:

- 1. The MagnaFilter is an add-on device that is attached to the spin-on type fuel filter in a motor vehicle.
- 2. The fuel filter is part of the required motor vehicle pollution control system.
- 3. The MagnaFilter is intended for use with a required pollution control system.
- 4. The MagnaFilter by being installed on the fuel filter alters the original design of a motor vehicle pollution control system.
- 5. The MagnaFilter is a device subject to the prohibitions of Vehicle Code Section 27156 and an add-on part as defined by Title 13, CCR Section 1900(b)(1).
- 6. The MagnaFilter does not reduce the effectiveness of any required motor vehicle pollution control device.
- 7. The ARB, in the exercise of technical judgement, is aware of no basis on which the MagnaFilter will provide either a decrease in emission or an increase in fuel economy.
- 8. It has not been determined what effect use of the MagnaFilter may have on any warranty, either expressed or implied, by the manufacturer or a motor vehicle on which the device is installed.
- 9. The MagnaFilter is not a certified motor vehicle pollution control device pursuant to Health and Safety Code Section 43644.
- 10. The ARB by granting an exemption to Fluid Magnetics, Inc. for the MagnaFilter does not recommend or endorse in any way the MagnaFilter for emissions reduction, fuel economy, or any other purpose.

FLUID MAGNETICS, INC. MAGNAFILTER

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IT IS HEREBY RESOLVED that the MagnaFilter is exempt from the prohibitions of Vehicle Code Section 27156 for installation on 1997 and older model-year gasoline and diesel powered heavy-duty vehicles and light-duty commercial trucks equipped with a spin-on fuel filter subject to the following conditions:

- 1. This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.
- 2. No changes are permitted to the device as described in the application for exemption. Any changes to the device, applicable model year, or other factors addressed in this order must be evaluated and approved by the ARB prior to marketing in California.
- 3. 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 ARB. Exemption of this product shall not be construed as an exemption to sell, offer for sale, or advertise any component of the product as an individual device.
- 4. Any oral or written references to this Executive Order or its content by Fluid Magnetics, Inc., its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption it provides is not an endorsement or approval of any fuel economy or emissions reduction claims for the MagnaFilter and is only a finding that the device is exempt from the prohibitions of Vehicle Code Section 27156.
- 5. No claim of any kind, such as "Approved by the Air Resources Board" may be made with respect to the action taken in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination after hearing that grounds for revocation exist.

The Bureau of Automotive Repair will be notified by copy of this order.

Executed at El Monte, California, this $\frac{27}{43}$ day

of 'August 1997. tmu

R. B. Summerfield, Chief Mobile Source Operations Division

State of California AIR RESOURCES BOARD

EVALUATION OF FLUID MAGNETIC, INC'S. MAGNAFILTER DEVICE FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

August, 1997

State of California AIR RESOURCES BOARD

EVALUATION OF FLUID MAGNETIC, INC'S. MAGNAFILTER DEVICE FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

by

Mobile Source Operations Division

9528 Telstar Avenue El Monte, CA 91734-8001

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Fluid Magnetic, Inc. of 110 Terry Drive, Newtown, Pennsylvania 18940, has applied for exemption from the prohibitions in Section 27156 of the California Vehicle Code for the MagnaFilter device. The device is designed for installation on 1997 and older model-year heavy-duty gasoline and diesel vehicles and light-duty commercial diesel trucks with spin on fuel filters.

Based on the engineering evaluation of the MagnaFilter device and exemptions issued for devices that operate in a manner similar to the MagnaFilter, the staff believes that the MagnaFilter will not have any adverse effects on the exhaust emissions from gasoline and diesel powered vehicles.

The staff recommends that the MagnaFilter device be exempted from the prohibitions in Vehicle Code Section 27156 and that Executive Order D-433 be issued.

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EVALUATION OF FLUID MAGNETIC, INC.'S MAGNAFILTER DEVICE FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

I. INTRODUCTION

Fluid Magnetic, Inc. (aka YBM Magnex, Inc.) of 110 Terry Drive, Newtown, Pennsylvania 18940, has applied for an exemption from the prohibitions of Vehicle Code Section (VC) 27156 for the MagnaFilter device, which is designed for installation on 1997 and older model-year heavy-duty gasoline and diesel powered vehicles and light-duty commercial diesel vehicles. The applicant submitted installation instructions and specifications of the device for our evaluation.

II. <u>CONCLUSIONS</u>

Previously, the Air Resources Board (ARB) exempted devices that operate in a manner similar to the MagnaFilter. Based on the engineering evaluation of the device and the exemptions issued to devices that operate in a manner similar to the MagnaFilter, the staff has determined that the MagnaFilter will not have any adverse effects on the exhaust emissions from gasoline and diesel powered vehicles.

III. RECOMMENDATION

The staff recommends that Fluid Magnetic, Inc. be granted an exemption from the prohibitions in California Vehicle Code Section 27156 for the MagnaFilter device and that Executive Order D-433 be issued.

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IV. <u>DEVICE DESCRIPTION</u>

The MagnaFilter is a magnetic device designed to slip around any spin-on fuel filter. The MagnaFilter is a semi-hard stainless steel flux band that encases the magnets. The band is anodized and is bonded in place with a chemical resistant adhesive. According to the applicant, the MagnaFilter slips on the rounded end of the spin-on filter and then slid to the top of the filter mounting base plate. The device is secured by tightening the thumb screw attached to the MagnaFilter band. The device's installation instructions along with the correct size applications are shown in the Appendix.

V. <u>DISCUSSION</u>

Fluid Magnetic, Inc. claims that as the fuel circulates past the walls of the fuel filter (canister), the magnetic force of the MagnaFilter attracts ferrous and nonferrous particles to the walls of the canister. This keeps the damaging particles from re-circulating into the fuel delivery system, which could contribute to poor combustion, resulting in an increase in emissions. The applicant further claims that by removing these contaminants you get a cleaner fuel burn, decreased exhaust emissions and increased gas mileage. The Air Resources Board did not perform tests to confirm these claims.

Based on the engineering evaluation of the MagnaFilter device and exemptions issued for devices that operate in a manner similar to the MagnaFilter, the staff believes that the MagnaFilter will not have any adverse effects on the exhaust emissions from gasoline and diesel powered vehicles. Staff recommends that Fluid Magnetic, Inc. be granted an exemption as requested.

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APPENDIX

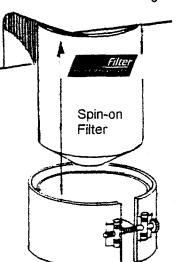
INSTRUCTIONS Patent # 5,556,540 Read carefully Before installing * Installation * Removal * Warranty * Warning

To install MagnaFilter, first slightly enlarge the band assembly using the thumbscrew attached to the outside of the retaining amplifier band. Turn counterclockwise to enlarge, turn clock wise to tighten. Enlarging the band helps ease both installation and removal. With the new spin-on filter installed and the MagnaFilter enlarged, install MagnaFilter from the rounded end of the spin-on filter, sliding the "top" of the MagnaFilter next to the filter mounting base plate. The magnets are now in proper position to most effectively remove particles and solids from the circulating fluid. Position the thumb screw in a position where you are able to "lightly tighten" using your fingers. Never use tools to tighten the thumb screw. Over-tightening could damage the filter or the MagnaFilter unit.

To remove turn thumb screw counterclockwise to enlarge the amplifier band, and help relief the magnetic attraction. After enlarging the band pull the unit toward the bottom of the canister and move it away from the old spin-on filter.

DISPOSAL INSTRUCTIONS

If for some reason a MagnaFilter unit is being discarded, do so by leaving it magnetically attached to a filter canister. An unattached MagnaFilter always represents a potential injury risk to unknowing person because of its extremely high magnetic attractive force.



Mounting Base plate

MagnaFilter Size Applications

3.70.....fits.....3.50" to 3.90" Filter
4.30.....fits.....4.10" to 4.50" filter
4.70.....fits.....4.50" to 4.90" filter
5.10.....fits.....4.90" to 5.20" filter
5.40.....fits.....5.20" to 5.55" filter