

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-75-12  
Relating to Exemptions Under Section 27156  
of the Vehicle Code

CAGLE CORPORATION  
"AUTOMATIC FUEL REGULATOR"

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, Cagle Corporation has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for the "Automatic Fuel Regulator".

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-45-5, the Air Resources Board finds:

1. The "Automatic Fuel Regulator" is an add-on device that is connected to the carburetion system in a motor vehicle.
2. The "Automatic Fuel Regulator" is a diaphragm-type vacuum modulated, downstream pressure regulator which is designed to be installed in-line between the fuel pump and carburetor float bowl. Fuel pressure to the carburetor float bowl is determined by the intake manifold vacuum. The "Automatic Fuel Regulator" is being distributed under two models: Automotive and Competition. Both models fall within the limitations of this exemption.

| <u>Model</u> | <u>Finish</u>   | <u>Flow<br/>High</u> | <u>Psi<br/>Low</u> | <u>Reference<br/>Number</u> |
|--------------|-----------------|----------------------|--------------------|-----------------------------|
| Automotive   | Black or Chrome | 7.0                  | 1.5                | 1                           |
| "            | "               | 7.0                  | 2.5                | 2                           |
| "            | "               | 4.0                  | 1.5                | 3                           |
| "            | "               | 4.0                  | 1.0                | 4                           |
| "            | "               | 7.0                  | 1.0                | 5                           |
| "            | "               | 6.0                  | 1.5                | 1                           |
| "            | "               | 5.5                  | 1.5                | 1                           |
| Competition  | Aluminum        | 7.0                  | 1.5                | 1                           |
| "            | "               | 7.0                  | 2.5                | 2                           |

- References:
1. For most vehicles and engines.
  2. For GM vehicles after 1976 with a check valve in the carburetor.
  3. For carburetors sensitive to low pressures.
  4. For maximum flow with control at low demand.
  5. For maximum flow with moderate control at low demand.

3. The "Automatic Fuel Regulator" by being installed with the carburetion system alters the original design of a motor vehicle pollution control system.
4. The "Automatic Fuel Regulator" is a device subject to the prohibitions of Vehicle Code Section 27156 and an add-on part as defined by 13 CCR Section 1900(b)(1).
5. The "Automatic Fuel Regulator" does not reduce the effectiveness of any required motor vehicle pollution control device.
6. The Air Resources Board, in the exercise of technical judgment, is aware of no basis on which the "Automatic Fuel Regulator" will provide an increase in fuel economy.
7. It has not been determined what effect use of the "Automatic Fuel Regulator" may have on any warranty, either expressed or implied, by the manufacturer of a motor vehicle on which the device is installed.
8. The "Automatic Fuel Regulator" is not a certified motor vehicle pollution control device pursuant to Health and Safety Code Section 43644.
9. The Air Resources Board by granting an exemption to Cagle Corporation for the "Automatic Fuel Regulator" does not recommend or endorse in any way the "Automatic Fuel Regulator" for emissions reduction, fuel economy, or any other purpose.

IT IS HEREBY RESOLVED that the "Automatic Fuel Regulator" is exempt from the prohibitions of Vehicle Code Section 27156 for installation on 1988 and earlier model-year vehicles 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 Air Resources Board 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 Air Resources Board. 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 Cagle Corporation, 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 "Automatic Fuel Regulator" and is only a finding that the device is exempt from the prohibitions of Vehicle Code Section 27156.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after 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.

Executive Order D-75-11, dated October 25, 1988, is superseded and of no further force and effect.

Executed at El Monte, California, this 8th day of May, 1989.

  
K. D. Drachand, Chief  
Mobile Source Division

State of California  
AIR RESOURCES BOARD

EVALUATION OF CAGLE CORPORATION'S "AUTOMATIC FUEL REGULATOR" FOR EXEMPTION  
FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH  
SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

May 1989

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AIR RESOURCES BOARD

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by

Mobile Source Division  
State of California  
Air Resources Board  
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El Monte, CA 91731

(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

Cagle Corporation has requested an update of their existing exemption, Executive Order (E.O.) D-75-11, from the prohibitions in Vehicle Code Section 27156 for their "Automatic Fuel Regulator". E.O. No. D-75-11 covers 1988 and older model-year vehicles that are powered by gasoline engines with conventional carburetors and mechanical or electrical fuel pumps with and without fuel recirculation systems. The Cagle Corporation is requesting the Air Resources Board (ARB) to update their list of models available with the respective flow pressure specifications.

Based on the fact that the operating pressures specified for the various models fall within the limits of the exemption already issued, the staff has concluded that the Cagle "Automatic Fuel Regulator" will have no adverse effect on emissions from applicable 1988 and older model-year vehicles.

The staff recommends that Cagle Corporation be granted an update as requested and that E.O. No. D-75-12 be issued.

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EVALUATION OF CAGLE CORPORATION'S "AUTOMATIC FUEL REGULATOR" 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

Cagle Corporation of Box 2536, Rolling Hills, California 90274 has requested an update of their existing exemption, ARB E.O. No. D-75-11, from the prohibitions in Vehicle Code Section 27156 for their "Automatic Fuel Regulator". E.O. No. D-75-11 covers 1988 and older model-year vehicles that are powered by gasoline engines with conventional carburetors and mechanical or electrical fuel pumps with and without fuel recirculation systems. The Cagle Corporation is requesting the ARB to update their list of models available with the respective flow pressure specifications.

II. CONCLUSIONS

Based on the fact that the operating pressures specified fall within the limits of the exemption already issued, the staff has concluded that the various models of the Cagle "Automatic Fuel Regulator" will have no adverse effect on emissions from applicable 1988 and older model-year vehicles.

III. RECOMMENDATION

The staff recommends that Cagle Corporation be granted an update as requested, and that E.O. D-75-12 be issued.

IV. DESCRIPTION AND OPERATION

The Cagle "Automatic Fuel Regulator" device is a fuel pressure regulator installed between the fuel pump and the carburetor. The device has three external fittings: (1) a fitting at the top for measuring intake manifold vacuum, (2) an inlet fitting marked "PUMP" for connection to the fuel pump, and (3) an outlet fitting marked "CARB" for connection to the carburetor. It is

designed to correct the fuel supply pressure to the carburetor according to the fuel demand. The adjustment is controlled by the degree of intake manifold vacuum.

For a more detailed description of the device and its operation, the reader is referred to ARB Staff Report dated December 17, 1980, entitled "Cagle Corporation Mark II Automatic Fuel Control Device for Compliance with the Requirements of Section 27156 of the Vehicle Code".

V. DISCUSSION

Staff noted the operational pressure ranges on the updated list of models. Since the pressure ranges fall within the limits of the exemption originally issued, staff does not foresee a problem with the updated list of models. The new listing is provided in the Appendix A.

## APPENDIX A

### UPDATED LIST OF MODELS AND PRESSURE SPECIFICATIONS FOR THE "AUTOMATIC FUEL REGULATOR"

| <u>Model</u> | <u>Finish</u>   | <u>Flow<br/>High</u> | <u>Psi<br/>Low</u> | <u>Reference<br/>Number</u> |
|--------------|-----------------|----------------------|--------------------|-----------------------------|
| Automotive   | Black or Chrome | 7.0                  | 1.5                | 1                           |
| "            | "               | 7.0                  | 2.5                | 2                           |
| "            | "               | 4.0                  | 1.5                | 3                           |
| "            | "               | 4.0                  | 1.0                | 4                           |
| "            | "               | 7.0                  | 1.0                | 5                           |
| "            | "               | 6.0                  | 1.5                | 1                           |
| "            | "               | 5.5                  | 1.5                | 1                           |
| Competition  | Aluminum        | 7.0                  | 1.5                | 1                           |
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- References:
1. For most vehicles and engines.
  2. For GM vehicles after 1976 with a check valve in the carburetor.
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