

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-86
Relating to Exemptions under Section 27156
of the Vehicle Code

FOUR STAR MARKETING, INC.
"ROSCO"

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 "ROSCO" manufactured by Rosco Filter Air, 2666 Mark Lane, West Linn, Oregon 97068 and marketed by Four Star Marketing, Inc. P. O. Box 188, Canby, Oregon 97013 has been found to not 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 1963 through 1979 model vehicles equipped with external PCV system, without air-cooling or fuel injection.

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

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 "ROSCO."

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.

FOUR STAR MARKETING, INC.
"ROSCO"

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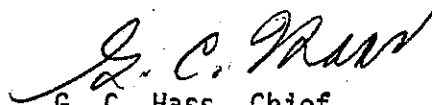
Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

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 1 day of December, 1978.



G. C. Hass, Chief
Vehicle Emissions Control Division

State of California
AIR RESOURCES BOARD

Staff Report

November 27, 1978

Evaluation of the "ROSCO" Device in
Accordance with Section 2222, Title 13 of the
California Administrative Code

I. Introduction

This staff report evaluates the "ROSCO" manufactured by Rosco Filter Air, 2666 Mark Lane, West Linn, Oregon 97068, and marketed by Four Star Marketing, Inc., P. O. Box 188, Canby, Oregon 97103, for compliance with the requirements of Section 27156 of the California Motor Vehicle Code. Starting with a brief introduction to the device, this report describes its operation, the benefit claims the applicant makes, the test data submitted by the applicant and concludes with recommendations to enable the Executive Officer to arrive at a decision.

II. System Description

Rosco is an in-line filter for the PCV system. The blow-by gases are circulated through a pair of opposing vertically mounted standard engine oil filters. The filters are screwed onto a cast aluminum bracket, which is mounted to the body of the vehicle (See Figure 1).

These filters trap the liquid from the blow-by vapors, enabling a relatively clean vapor mixture to enter the intake manifold.

In vehicles where the PCV valve is not mounted on the rocker arm cover, the "ROSCO" can be installed upstream of the PCV valve, thereby helping to keep the PCV valve clean.

ROSCO
GAS FLOW DIAGRAM

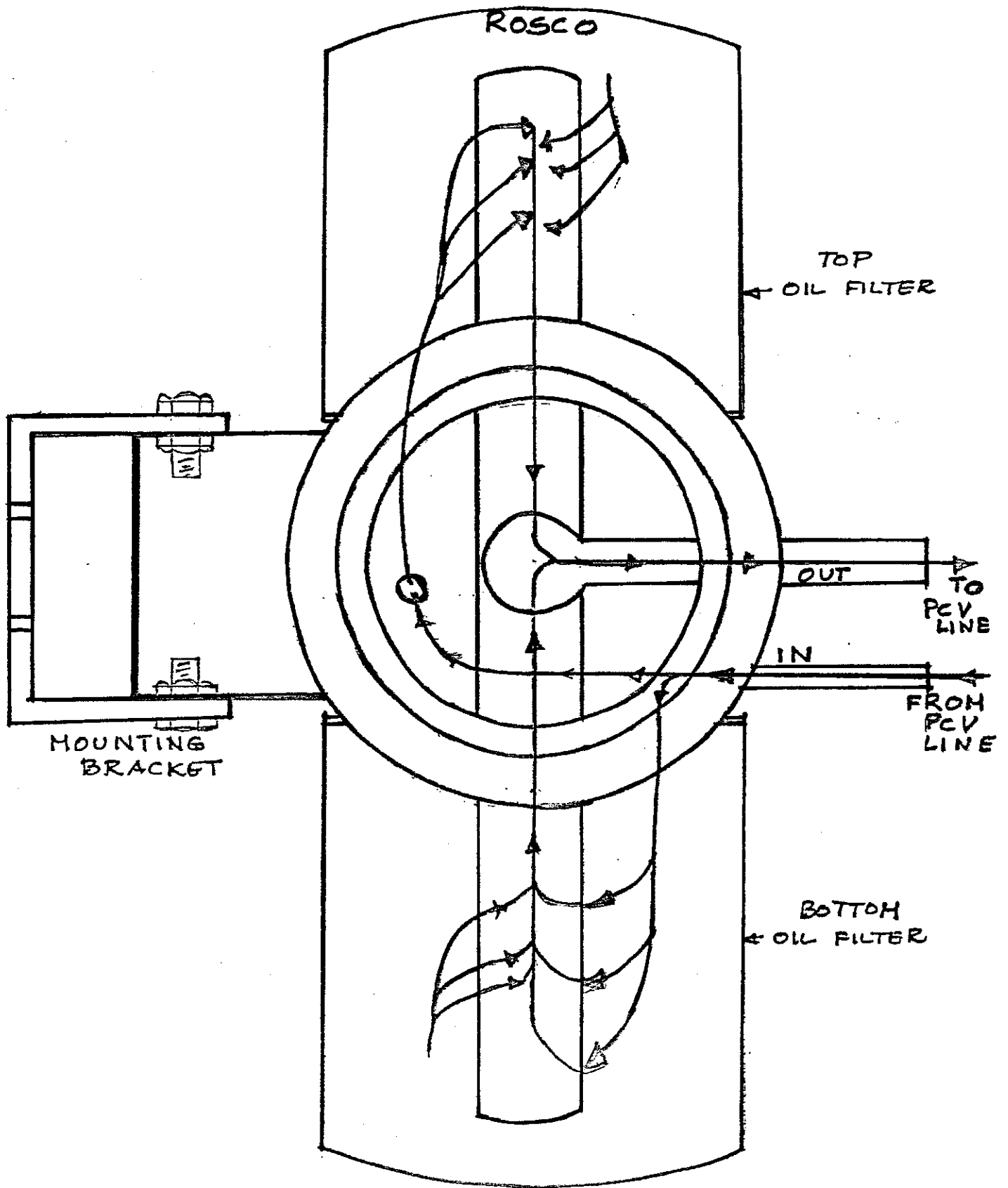


FIGURE 1

The device may be installed on all vehicles where there is an external PCV system. Since the bottom filter gets filled with oil first, the manufacturer recommends inspection of the bottom filter every 3000 miles and replacement every 6000 miles.

III. System Evaluation

The applicant submitted CVS-75 cold start emission and fuel consumption data. Back to back tests were performed at the Automobile Club of Southern California. The vehicle used was a 1978 Ford Thunderbird, 351 CID with the odometer reading 9939 miles at the start of the tests. The outcome of the tests are summarized in the table given below:

	HC	Exhaust Emissions grams per mile		MPG
		CO	NOx	
1978 Cal. Std.	0.41	9.0	1.5	-
Baseline	0.482	22.830	1.513	8.603
w/ROSCO	0.392	24.693	1.347	8.994
percent change	-18.7	+8.2	-11.0	+4.5

IV. Conclusion and Recommendation

The staff is of the opinion that the ROSCO, forming a closed loop with the PCV system, will have little influence on the emissions and the fuel economy. The percent increase in the fuel economy and the CO emissions may be considered to be within the limits of test variations. The high CO base line emissions could be due to the car being out of tune at the time of commencement of the tests.

Since the crankcase blowby gases tend to increase with the engine wear and tear, the staff is of the opinion that the installation of the "ROSCO" will be more beneficial to older vehicles.

The applicant makes the following claims for the ROSCO.

1. Better Engine Efficiency
2. Longer Engine Life
3. Cleaner Engines.

Even though the applicant has not submitted test data to substantiate these benefit claims, the staff is of the opinion that the performance of the "ROSCO" will have insignificant/marginal contribution to these claims.

Based on this evaluation and the evaluations of similar devices in the past, the staff is of the opinion that the installation of the "ROSCO" on a vehicle will not cause any additional emissions and, therefore, recommends that an exemption be granted for the device from the prohibitions of the Motor Vehicle Code Section 27156. Executive Order D-86 has been prepared for the exemption of the "ROSCO".