State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-256-1 Relating to Exemptions Under Section 27156 of the Vehicle Code

WEIAND AUTOMOTIVE INDUSTRIES, INC. "SUPERCHARGER KIT MODEL 6510"

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 supercharger kit model 6510 manufactured by Weiand Automotive Industries, Inc. of 2316 San Fernando Road, Los Angeles, California 90065, has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions in Vehicle Code Sections 27156 and 38391 when installed on 1962-1986 model-year carbureted "small block" Chevrolet vehicles powered by 283, 302, 305, 307, 327, 350, and 400 CID gasoline engines.

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.

This Executive Order is valid provided that installation instructions for the supercharger kit model 6510 will not recommend tuning the vehicle to specifications different from those submitted by the supercharger kit manufacturer.

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

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

This Executive Order does not constitute any opinion as to the effect the use of the supercharger 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 WEIAND AUTOMOTIVE INDUSTRIES, INC.'S SUPERCHARGER KIT MODEL 6510 SHOWN ABOVE.

WEIAND AUTOMOTIVE INDUSTRIES, INC. "SUPERCHARGER KIT MODEL 6510"

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

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

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day of December, 1992.

R.B. Summerfield
Assistant Division Chief
Mobile Source Division

State of California AIR RESOURCES BOARD

EVALUATION OF WEIAND AUTOMOTIVE INDUSTRIES, INC. "PRO-STREET" SUPERCHARGER KIT MODEL 6510 FOR EXEMPTION FROM THE PROHIBITIONS IN VEHICLE CODE SECTION 27156 AND TITLE 13, SECTION 2222, CALIFORNIA CODE OF REGULATIONS

December, 1992

EVALUATION OF WEIAND AUTOMOTIVE INDUSTRIES, INC. "PRO-STREET" SUPERCHARGER KIT MODEL 6510 FOR EXEMPTION FROM THE PROHIBITIONS IN VEHICLE CODE SECTION 27156 AND TITLE 13, SECTION 2222, CALIFORNIA CODE OF REGULATIONS

by

Mobile Source Division

State of California AIR RESOURCES BOARD 9528 Telstar Avenue El Monte, CA 91731-2990

(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

Weiand Automotive Industries, Inc. (Weiand) of 2316 San Fernando Road, Los Angeles, California 90065, has applied for an exemption from the prohibitions in Vehicle Code Sections 27156 and 38391 for their add-on supercharger kit model 6510. The supercharger kit is intended for installation on 1962-1986 model-year carbureted "small block" Chevrolet vehicles powered by 283, 302, 305, 307, 327, and 400 CID gasoline engines.

Weiand has submitted data from emissions test conducted on a 1986 Chevrolet light-duty pick-up truck powered by a 302 CID (5.0L) gasoline engine at Milton Roy Company (Milton Roy), an independent laboratory in Orange, California. Confirmatory tests were conducted on the same vehicle at the Air Resources Board's (ARB's) Haagen-Smit Laboratory.

Based on the results from the comparative emission tests performed by Milton Roy and by the ARB, the staff concludes that Weiand's add-on supercharger kit will not adversely affect exhaust emissions from vehicles for which exemption is requested.

The staff recommends that Weiand be granted an exemption as requested for their add-on supercharger kit model 6510, and that Executive Order No. D-256-1 be issued.

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EVALUATION OF WEIAND AUTOMOTIVE INDUSTRIES, INC. "PRO-STREET" SUPERCHARGER KIT MODEL 6510 FOR EXEMPTION FROM THE PROHIBITIONS IN VEHICLE CODE SECTION 27156 AND TITLE 13, SECTION 2222, CALIFORNIA CODE OF REGULATIONS

I. <u>INTRODUCTION</u>

Weiand Automotive Industries, Inc. (Weiand) of 2316 San Fernando Road, Los Angeles, California 90065, has applied for an exemption from the prohibitions in Vehicle Code Sections 27156 and 38391 for their supercharger kit model 6510. The supercharger kit is intended for installation on 1962-1986 model-year carbureted "small block" Chevrolet vehicles powered by 283, 302, 305, 307, 327, 350, and 400 CID gasoline engines.

Weiand has submitted data from comparative emissions tests conducted at Milton Roy, an independent test laboratory in Orange, California.

Confirmatory tests were conducted on the same vehicle at the ARB's Haagen-Smit Laboratory in El Monte, California.

II. CONCLUSION

Based on the results from tests conducted at Milton Roy on a 1986 carbureted Chevrolet light-duty pick-up truck powered by a 302 CID (5.0L) gasoline engine, and the ARB's confirmatory tests on the same vehicle, the staff concludes that Weiand's add-on supercharger kit will not adversely affect exhaust emissions from vehicles for which the exemption is requested.

III. RECOMMENDATION

The staff recommends that the exemption be granted as requested and that Executive Order No. D-256-1 be issued, permitting the advertisement, sale and installation of the Weiand's supercharger on 1962-1986 model-year carbureted "small block" Chevrolet vehicles powered by 283, 302, 305, 307, 327, 350, and 400 CID gasoline engines.

IV. <u>DEVICE DESCRIPTION</u>

The Weiand supercharger kit is specifically designed for installation on 1962-1986 Chevrolet vehicles indicated above. The purpose of supercharging an engine is to increase the volumetric efficiency of the engine by forcing more air into the engine than it would consume in normal aspirated, non-supercharged condition. This is accomplished by the addition of a centrifugal blower. The inducted air and fuel drawn from the carburetor are then compressed by the supercharger and mechanically pumped into the intake manifold. The carburetor throttle blades must be in the open position for the supercharger to have a full charge to compress and reach the boost pressure.

The supercharger kit includes an intake manifold which provides for connection of all pollution control devices required on the vehicle. All other original equipment manufacturer (OEM) emission controls are left intact. Weiand supercharger is designed to produce maximum boost pressure of 4-6 psi when installed on stock 350 CID engine. The applicant claims a power gain of 30-40 percent by the use of the supercharger on an engine in a good operating condition. The supercharger is packaged with installation instructions, hardware, and technical manual.

V. DEVICE EVALUATION

The applicant has submitted test results conducted at Milton Roy, an independent test laboratory, in Orange, California. One CVS-75 test was conducted on a 1986 Chevrolet light-duty pick-up truck powered by a 5.0L gasoline engine in the unmodified (baseline) configuration, and one CVS test was conducted following the installation of the supercharger by Weiand at their facility. The same test procedures were repeated during the confirmatory tests by the ARB following the successful completion of testing at Milton Roy. The test results are shown bellow.

CVS-75 Test Results (Milton Roy Company Laboratory)

| | <u>THC</u> | <u></u> | <u>NOx</u> |
|--------------------------|------------|---------|------------|
| Baseline (gm/mi) | 0.551 | 11.709 | 0.683 |
| Supercharger kit (gm/mi) | 0.510 | 12.388 | 0.325 |
| Percent change | -7.4 | +5.8 | -52.4 |

CVS-75 Test Results (Air Resources Board)

| | | THC | CO | NOx |
|--------------------------|---------|-------|--------|-------|
| Baseline | (gm/mi) | 1.027 | 21.748 | 1.231 |
| Supercharger kit (gm/mi) | | 0.991 | 18.360 | 1.232 |
| Percent change | | -3.5 | -15.6 | +0.1 |

The test results from Milton Roy and the ARB showed no significant emissions increase from the test vehicle due to the installation of the Weiand's "Pro-Street" supercharger kit model 6510. Based on the test results, the staff concludes that the Weiand's supercharger kit model 6510 will not produce adverse effect on applicable vehicles.