State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-436-6
Relating to Exemptions Under Section 27156
of the Vehicle Code

STEVE MILLEN SPORTPARTS, INC.
SUPERCHARGER, MODEL #V-1
PART NO. 407000

Pursuant to the authority vested in the Air Resources Board (ARB) 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-45-9;

IT IS ORDERED AND RESOLVED: That installation of supercharger, model #V-1, part no. 407000, manufactured by Steve Millen Sportparts, Inc. of 3176 Airway Avenue, Costa Mesa, California 92626, with a maximum boost of 6.0 psi has been found not to reduce the effectiveness of the applicable vehicle pollution control system, and therefore, the supercharger, is exempt from the prohibitions of Section 27156 of the Vehicle Code for installation on 1995-1998 model-year 3.0 liter Nissan Maximas.

The supercharger kit includes the following main components: Vortech supercharger, auxiliary fuel pump and fuel pressure regulator, intake tubes and air filter, and all the necessary hardware needed for installation. The kit also includes a 3.60" diameter supercharger pulley.

This exemption is based on an emission test conducted by Steve Millen Sportparts, Inc. on a 1998 model-year 3.0 liter Nissan Maxima. Steve Millen Sportparts, Inc. submitted the following Cold-Start CVS-75 Federal Test Procedure emission results:

	NMHC	CO	NOx
	(grams per mile)		
With Supercharger	0.101	0.748	0.318
DF-Applied	0.118	0.948	0.343
50,000 Mile Standards	0.25	3.4	0.4

The test data show that the supercharger did not adversely affect the exhaust emissions of the 1998 model-year Nissan Maxima. The same emissions impact is expected when the supercharger is installed on all of the vehicles for which the exemption is requested. However, the ARB finds that

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.

Violation of any of the above conditions shall be grounds for revocation of this Executive Order. The Executive Order may be revoked only after a ten-day written notice of intention to revoke the Executive Order, in which period the holder of the Executive 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 Executive Order may not be revoked until a determination after the hearing that grounds for revocation exist.

Executed at El Monte, California, this 22nd day of April 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

State of California
AIR RESOURCES BOARD

EVALUATION OF STEVE MILLEN SPORTPARTS, INC.'S SUPERCHARGER, MODEL #V-1, PART NO. 407000 FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13 OF THE CALIFORNIA CODE OF REGULATIONS

April 1999

by

Mobile Source Operations Division
Aftermarket Parts Section
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 the mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Steve Millen Sportparts, Inc. (Steve Millen) of 3176 Airway Avenue, Costa Mesa, California 92626 has applied for an exemption from the prohibitions of Section 27156 of the California Vehicle Code for their supercharger, model #V-1, part no. 407000. The supercharger is designed for use on 1995-1998 model-year 3.0 liter Nissan Maximas.

Based on the test results submitted by Steve Millen, staff concludes that the supercharger, part no. 407000, will not adversely affect the exhaust emissions or the on-board diagnostic monitoring systems of the vehicles for which the exemption is requested.

Staff recommends that Steve Millen be granted an exemption for their supercharger as requested and that Executive Order No. D-436-6 be issued.

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I. INTRODUCTION

Steve Millen Sportparts, Inc. (Steve Millen) of 3176 Airway Avenue, Costa Mesa, California 92626 has applied for an exemption from the prohibitions of Section 27156 of the California Vehicle Code for their supercharger, model #V-1, part no. 407000. The supercharger is designed for installation on 1995-1998 model-year 3.0 liter Nissan Maximas. Steve Millen has submitted all the required information including drawings and installation instructions for their supercharger. Steve Millen has also submitted Cold-Start CVS-75 Federal Test Procedure emission test results and on-board diagnostic (OBD II) system test results for evaluation.

II. CONCLUSION

Based on the test data submitted by Steve Millen, staff concludes that their Maxima supercharger, model #V-1, part no. 407000, will not adversely affect the exhaust emissions or the OBD II monitoring systems of the vehicles for which the exemption is requested.

III. RECOMMENDATION

The staff recommends that Steve Millen be granted an exemption as requested, permitting advertisement, sale, and installation of their supercharger, model #V-1, part no. 407000, on 1995-1998 model-year 3.0 liter Nissan Maximas. These vehicles have been certified to California Tier-1

exhaust emission standards (0.25 grams/mile non-methane hydrocarbons), and the applicable vehicles exclude all low-emission vehicles, including Transitional Low-Emission and Low-Emission Vehicles.

IV. DEVICE DESCRIPTION AND OPERATION

Steve Millen has designed their supercharger for installation on 1995-1998 model-year 3.0 liter Nissan Maximas. The purpose of the supercharger is to increase the vehicle's performance in both torque and power output by increasing the density of air entering the combustion chamber. This is accomplished by the addition of a centrifugal blower designed to have a maximum boost of 6 psi. Fuel enrichment is obtained by a Fuel Management Unit with a ratio of 6:1. It includes a secondary fuel pressure regulator and an auxiliary fuel pump which operate in conjunction with the stock pump and regulator. The secondary regulator is installed in series with the stock regulator on the fuel return line to the fuel tank. The unit increases fuel pressure in proportion to boost pressure to deliver the correct air/fuel ratio in boost conditions. The auxiliary fuel pump is also installed in series with the stock pump and maintains the high flow rate at elevated pressures. A manifold pressure switch activates the auxiliary fuel pump when the manifold pressure reaches 0 inches of Hg. The auxiliary fuel pump is only used during boost operation and remains off until then. On deceleration after a boost condition, a blow off valve is used to eliminate surges. This prevents heat build-up and compressor surge and allows the supercharger to run cooler.

The supercharger kit includes a serpentine belt which drives the supercharger and all the accessories from the original equipment manufacturer crankshaft pulley (5.75" diameter). The supercharger kit includes the following main components:

1. Supercharger assembly - Vortech supercharger and pulley (3.60" diameter), supercharger drive belt, idler pulley, and blow off valve

2. Air filter with provisions for crankcase breather hose and blow off hose
3. Intake tube with provision for blow off valve
4. Intake tube with provision for ambient temperature sensor and idle by-pass hose
5. Fuel Management Unit - auxiliary fuel pump, fuel pressure regulator, fuel lines
6. Crankcase breather hose - routed from valve cover to air filter
7. Manifold pressure sensor - activates the auxiliary fuel pump relay to pump
8. Miscellaneous brackets for relocation of fuse box

The supercharger is designed to be bolted on directly with no special tune-up requirements. All emission control systems are retained with the installation of the supercharger.

V. DEVICE EVALUATION AND DISCUSSION

Steve Millen tested a 1998 model-year 3.0 liter Nissan Maxima (engine family WNSXV03.0A6A; 13,507 miles) for demonstration of emission and OBD II system compliance. Automotive Testing and Development Services, Inc. (ATDS) in Ontario, California tested the vehicle at a test weight of 3,375 lbs. and a horsepower of 7.8 hp. ATDS conducted one Cold-Start CVS-75 Federal Test Procedure with the Maxima supercharger and a diagnostic check of the vehicle's OBD II system.

The following results were reported by ATDS:

	NMHC	CO	NOx
	(grams per mile)		
With Device	0.101	0.748	0.318
DF-Applied	0.118	0.948	0.343
50,000 Mile Standards	0.25	3.4	0.4

Results of the emission test conducted at ATDS showed that the deteriorated exhaust emissions of the vehicle with the supercharger are below the applicable emission standards. The vehicle was also checked for its OBD II system status. Upon delivery to ATDS, all of the vehicle's

OBD II system monitors had set to complete, and no diagnostic trouble codes (DTC's) were found. ATDS then cleared all codes and performed mileage accumulation. Upon completion of the 50-mile on-road driving, all of the readiness codes had set to complete, and no DTC's were found. At the completion of the emission test, ATDS again checked the OBD II system and found that all monitors had set to complete and that no DTC's were set. Staff did not conduct any confirmatory testing. Based on the above, staff concluded that Steve Millen's Maxima supercharger does not have any adverse impact on the vehicle's exhaust emissions or its OBD II system.