

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-473-3
Relating to Exemptions Under Section 27156
of the Vehicle Code

SALEEN PERFORMANCE
SALEEN ENHANCED FUEL CALIBRATION

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 Section 39515 and Section 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the installation of the Saleen Enhanced Fuel Calibration, produced and marketed by Saleen Performance, 9 Whatney, Irvine, California 92618, has been found not to reduce the effectiveness of the applicable vehicle pollution control systems and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for the 1999 to 2000 model-year 4.6 liter Ford Mustang GT (p/n 172-114).

The Saleen Enhanced Fuel Calibration consists of a Ford EEC V processor that is reprogrammed for more aggressive fuel and spark calibrations for use on 92 octane fuel.

This Executive Order is valid provided that the installation instructions for the Saleen Enhanced Fuel Calibration will not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

Changes made to the design or operating conditions of the Saleen Enhanced Fuel Calibration, as exempt by the Air Resources Board, which adversely affect the performance of the vehicle's pollution control system shall invalidate this Executive Order.

This Executive Order shall not apply to any Saleen Enhanced Fuel Calibration advertised, offered for sale, sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

Marketing of the Saleen Enhanced Fuel Calibration using any identification other than that shown in this Executive Order or marketing of the Saleen Enhanced Fuel Calibration 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 the use of the Saleen Enhanced Fuel Calibration may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on emission test results submitted by Saleen Performance in certifying their Mustang GT as a small volume manufacturer of new vehicles (Saleen S281, E.O. A-324-5, engine family XS3XV04.6AAA). The final engine control configuration of a 1999 Ford Mustang GT equipped with the Saleen Enhanced Fuel Calibration is the same as the Saleen S281. The other modifications performed by Saleen Performance onto their S281 include installation of: March Industries underdrive pulleys, Borla CAT-back exhaust, and K&N air filter. The certification emission results are shown below (in grams per mile):

50k	NMHC	CO	NOx
Emission Level	0.08	0.08	0.1
(w. DF applied)			
STD	0.25	3.4	0.4
100k	NMHC	CO	NOx
Emission Level	0.10	1.2	0.1
(w. DF applied)			
STD	0.31	4.2	0.6

The certification emission test results submitted were below the applicable certification standards. Similar emission test results would be expected if the vehicles were tested in the modified configuration. Examination of the OBD II system was not performed in the conventional method for exemption testing since Saleen Performance has demonstrated OBD II compliance during certification. Therefore, based on the test results, the staff concludes that the Saleen Enhanced Fuel Calibration meets the criteria for exempting general criteria parts. However, the ARB finds that reasonable grounds exist to believe that use of the Saleen Enhanced Fuel Calibration may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of the CVS-75 Federal Test Procedure. Accordingly, the ARB reserves the right to

conduct additional emission tests, in the future, as such tests are developed, that will more adequately measure emissions from all cycle phases. If such test results demonstrate that the Saleen Enhanced Fuel Calibration adversely affects emissions during off-cycle conditions (defined as those conditions which are beyond the parameters of the Cold-Start CVS-75 Federal Test Procedure), this Executive Order shall be effectively rescinded as of the date the test results are validated. Further, if such test results affect the durability of the emission control system, Saleen Performance shall be required to submit durability data to show that the durability of the vehicle emission control system is not, in fact, affected and/or that the add-on or modified part demonstrates adequate durability.

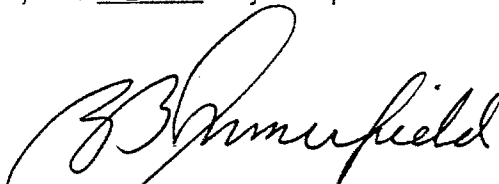
In addition to the foregoing, the ARB reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

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 SALEEN PERFORMANCE'S ENHANCED FUEL CALIBRATION.

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 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.

Executed at El Monte, California, this 3rd day of April 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division

State of California
AIR RESOURCES BOARD

EVALUATION OF SALEEN PERFORMANCE'S
SALEEN ENHANCED FUEL CALIBRATION
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA CODE OF REGULATIONS

April 2000

by

Mobile Source Operations Division
9528 Telstar Avenue
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

Saleen Performance of 9 Whatney, Irvine, California 92618, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Saleen Enhanced Fuel Calibration designed for the 1999 to 2000 model-year 4.6 liter Ford Mustang GT (p/n 172-114). The 1999 4.6 liter Ford Mustang GT equipped with the Saleen Enhanced Fuel Calibration results in a vehicle whose engine control is identical to the Saleen S281, a new vehicle certified by Saleen Performance.

Because Saleen Performance has certified the S281 as a new vehicle, the certification test results have been accepted as the basis for comparison of emissions in the modified configuration with the applicable standards. An examination of the On-Board Diagnostic II (OBD II) system with the Enhanced Fuel Calibration system installed was not performed since OBD II compliance was demonstrated during new vehicle certification. The staff concludes that the Saleen Enhanced Fuel Calibration will not adversely affect exhaust emissions from vehicles for which the exemption is requested.

The staff recommends that Saleen Performance be granted an exemption as requested and that Executive Order D-473-3 be issued.

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EVALUATION OF SALEEN PERFORMANCE'S
SALEEN ENHANCED FUEL CALIBRATION
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SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA CODE OF REGULATIONS

I. INTRODUCTION

Saleen Performance of 9 Whatney, Irvine, California, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Saleen Enhanced Fuel Calibration designed for the 1999 to 2000 model-year 4.6 liter Ford Mustang GT (p/n 172-114).

II. CONCLUSIONS

In lieu of emission testing and examination of the On-Board Diagnostic II (OBD II) system with the Saleen Enhanced Fuel Calibration installed, staff has accepted certification test results of the Saleen S281. The Saleen S281 is a new vehicle certified by Saleen Performance which is a 1999 4.6 liter Ford Mustang GT equipped with the Saleen Enhanced Fuel Calibration, with the addition of: March Industries underdrive pulleys, Borla CAT-back exhaust, and K&N air filter. The emission impact of the Saleen Enhanced Fuel Calibration installed on a 1999 or 2000 model-year Ford Mustang GT is expected to be the same as that of a Saleen S281. The staff concludes that Saleen Performance's Saleen Enhanced Fuel Calibration will not adversely affect exhaust emissions from the vehicles for which the exemption is requested.

III. RECOMMENDATION

The staff recommends that Saleen Performance be granted an exemption for their Saleen Enhanced Fuel Calibration for installation on the 1999 to 2000 model-year 4.6 liter Ford Mustang GT (p/n 172-114).

IV. SALEEN ENHANCED FUEL CALIBRATION DESCRIPTION

The Saleen Performance Enhanced Fuel Calibration has been specifically designed for installation on the 1999 to 2000 model-year 4.6 liter Ford Mustang GT (p/n 172-114).

The intent of installing the Saleen Enhanced Fuel Calibration is to increase power output from the engine. At heavy engine loads and increased throttle openings, the power produced by the engine is increased because of the modified fuel and ignition mapping of the Saleen Enhanced Fuel Calibration. The increase in fuel flow and modified ignition timing due to the Saleen Enhanced Fuel Calibration result in higher power output than from the stock programming.

The installation of the Saleen Enhanced Fuel Calibration requires removal of the stock ECU. The stock ECU is shipped to Saleen Performance for modification to the Saleen Enhanced Fuel Calibration. The modified ECU is returned to the owner for installation on the vehicle.

V. DISCUSSION OF THE SALEEN ENHANCED FUEL CALIBRATION

This Executive Order is granted based on emission test results submitted by Saleen Performance in certifying their Mustang GT as a small volume manufacturer of new vehicles (Saleen S281, E.O. A-324-5, engine family XS3XV04.6AAA). The final engine control configuration of a 1999 to 2000 Ford Mustang GT equipped with the Saleen Enhanced Fuel Calibration is the same as the Saleen S281 produced by Saleen

Performance as a new vehicle. Saleen Performance equips new 1999 Ford Mustang GT's with the Saleen Enhanced Fuel Calibration kits and sells them as new vehicles. The other modifications performed by Saleen Performance onto their S281 include installation of March Industries underdrive pulleys, Borla CAT-back exhaust, and K&N air filter. The certification emission results are shown below (in grams per mile):

50k	NMHC	CO	NOx
Emission Level	0.08	0.08	0.1
(w. DF applied)			
STD	0.25	3.4	0.4
100k	NMHC	CO	NOx
Emission Level	0.10	1.2	0.1
(w. DF applied)			
STD	0.31	4.2	0.6

The emission test results in the modified configuration were below the applicable certification standards. The same emissions impact is expected if the Saleen Enhanced Fuel Calibration is installed on the vehicles for which the exemption is requested. An examination of the On-Board Diagnostic II (OBD II) system with the Enhanced Fuel Calibration system installed was not performed since OBD II compliance was demonstrated during new vehicle certification. Therefore, based on the test results, the staff concludes that the Saleen Enhanced Fuel Calibration meets the criteria for the exemption of general criteria parts. However, the ARB finds that reasonable grounds exist to believe that use of the Saleen Enhanced Fuel Calibration may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of

the previously prescribed test procedure. Accordingly, the ARB reserves the right to conduct additional emission tests in the future, as such tests are developed.

Saleen Performance has submitted all the required information and fulfilled the requirements for an exemption.