# State of California AIR RESOURCES BOARD

#### **EXECUTIVE ORDER D-536**

Relating to Exemptions Under Section 27156 of the Vehicle Code

Steeda Autosports, Inc. ST-460 Supercharger Kit

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-02-003;

IT IS ORDERED AND RESOLVED: That the installation of the ST-460 Supercharger Kit, manufactured and marketed by Steeda Autosports, Inc., 1351 NW Steeda Way, Pompano Beach, Florida 33069 has been found not to reduce the effectiveness of the applicable vehicle pollution control system and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1999 through 2002 Ford Mustangs equipped with a 4.6L engine.

The ST-460 Supercharger Kit includes a Paxton, Novi 2000, supercharger with a 6.5 inch diameter pulley (8 psi. max. boost), an open element air filter to replace the stock closed element filter, a new set of fuel injectors rated at 30 lbs. to replace the stock fuel injectors, a new high volume fuel pump, and a new calibration chip which is installed into the service port of the electronic control module. The stock crankshaft pulley is utilized.

This Executive Order shall not apply to any Steeda Autosports, Inc. 's ST-460 Supercharger Kit that is advertised, offered for sale, sold with, or installed on a new motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

This Executive Order is valid provided that the installation instructions for the ST-460 Supercharger Kit 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 ST-460 Supercharger Kit, as exempt by the Air Resources Board, which adversely affect the performance of the vehicle's pollution control system shall invalidate this Executive Order.

Marketing of the ST-460 Supercharger Kit using any identification other than that shown in this Executive Order or marketing of the ST-460 Supercharger Kit 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 the ST-460 Supercharger Kit shall not be construed as exemption to sell, offer for sale, or advertise any component of the kit as an individual device.

This Executive Order does not constitute any opinion as to the effect the use of the ST-460 Supercharger Kit may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on submitted emissions test data which showed that the ST-460 Supercharger Kit did not adversely affect tailpipe emissions during a Cold-Start CVS-75 Federal Test Procedure. A 2001 model-year California-certified Ford Mustang certified to the Transitional Low-Emission Vehicle (TLEV) emission standards was used as the test vehicle.

|             | NMOG CO |     | NOx | HCHO  |
|-------------|---------|-----|-----|-------|
| Standards   | 0.125   | 3.4 | 0.4 | 0.015 |
| Device w/df | 0.096   | 1.2 | 0.1 | 0.002 |

Results showed modified emission levels with deterioration factors (df) applied were below the vehicle's applicable emission standards. This Executive Order is also based on an On-Board Diagnostic II (OBD II) testing conducted on the same vehicle. Test data showed that the ST-460 Supercharger Kit when installed on the vehicle did not affect the vehicle's ability to perform its OBD II monitoring.

The ARB finds that reasonable grounds exist to believe that use of the ST-460 Supercharger Kit may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of the Cold-Start 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 ST-460 Supercharger Kit adversely affect 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 or other evidence provides the ARB with reason to suspect that the ST-460 Supercharger Kit will affect the durability of the emission control system, Steeda Autosports, Inc. 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 STEEDA AUTOSPORTS, INC. 'S ST-460 SUPERCHARGER KIT.

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 is made after the hearing that grounds for revocation exist.

Executed at El Monte, California, this 2<sup>m</sup> day of May 2002.

Allen Lyons, Chief

New Vehicle/Engine Programs Branch

### **EVALUATION SUMMARY**

Manufacturer Name: Steeda Autosports, Inc.

Name of Device: ST-460 Supercharger Kit

### Background:

Steeda Autosports, Inc., 1351 NW Steeda Way, Pompano Beach, Florida 33069, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the ST-460 Supercharger Kit designed for 1999 through 2002 Ford Mustangs equipped with a 4.6L engine.

#### Recommendation:

Grant exemption to Steeda Autosports, Inc. as requested and issue Executive Order D-536.

## **Device Description:**

The ST-460 Supercharger Kit is an add-on system designed to enhance the overall performance of the Ford Mustang with the 4.6L engine. The ST-460 Supercharger Kit includes a Paxton, Novi 2000, supercharger with a 6.5 inch diameter pulley (8 psi. max. boost), an open element air filter to replace the stock closed element filter, a new set of fuel injectors rated at 30 lbs. to replace the stock fuel injectors, a new high volume fuel pump, and a new calibration chip which is installed into the service port of the electronic control module. The stock crankshaft pulley is utilized.

### Discussion/Basis for the Recommendation:

This Executive Order is granted based on submitted emissions test data which showed that the ST-460 Supercharger Kit did not adversely affect tailpipe emissions during a Cold-Start CVS-75 Federal Test Procedure. A 2001 model-year California-certified Ford Mustang certified to the Transitional Low-Emission Vehicle (TLEV) emission standards was used as the test vehicle. Testing parameters used were: 3625 lbs. and 9.4 hp. The additive deterioration factors were: NMOG 0.0326, CO 0.54, NOx 0.04, and HCHO 0.0008. The conversion factors were: NMOG/NMHC=1.022 and HCHO/NMHC=0.011, NMHC was measured at 0.062. Summary of the test results are as follows:

|             | NMOG CO |     | NOx | HCHO  |
|-------------|---------|-----|-----|-------|
| Standards   | 0.125   | 3.4 | 0.4 | 0.015 |
| Device w/df | 0.096   | 1.2 | 0.1 | 0.002 |

Modified emission levels with deterioration factors (df) applied were below the vehicle's applicable emission standards. An On-Board Diagnostic II (OBD II) testing conducted on the same test vehicle. Test data showed that the ST-460 Supercharger Kit when installed on the vehicle did not affect the vehicle's ability to perform its OBD II monitoring.

Based on the submitted emissions and OBD II test data, the staff concludes that Steeda Autosports, Inc.'s ST-460 Supercharger Kit meets the requirements for a VC 27156 exemption.