State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-418-23

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Roush Industries
Roushcharger 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 Roushcharger Kit, manufactured by Roush Industries of 777 Republic Drive, Allen Park, Michigan 48101, and marketed by Roush Industries, 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 2011 to 2014 model year Ford 5.0L Mustang and the 2011 to 2014 model year Ford F-150 with either a 5.0L or a 6.2L engine.

The Roushcharger Kit for the Ford Mustang (part number 421388) includes an Eaton TVS2300 roots type axial flow supercharger assembly, intercooler, air cleaner lid with hydrocarbon paper, intake manifold, high flow fuel injectors, recalibrated stock mass air flow sensor, and a new fuel calibration modified to operate with the supercharger. The Roush Industries Roushcharger Kit utilizes an 85 mm diameter pulley. Maximum boost produced by the supercharger would be 10.0 pounds per square inch. The stock air filter lower housing, crankshaft pulley, and radiator thermostat are retained.

The Roushcharger Kit for the Ford F-150 (part numbers 421246, 421244, 421435 or 421432) includes an Eaton TVS2300 roots type axial flow supercharger assembly, intercooler, open element air filter, intake manifold, high flow fuel injectors, recalibrated stock mass air flow sensor, and a new fuel calibration modified to operate with the supercharger. The Roush Industries Roushcharger Kit utilizes an 80 mm or 85 mm (5.0L) or an 80 or 75 mm (6.2L) diameter pulley. Maximum boost produced by the supercharger would be 10.0 (5.0L) or 9.0 (6.2L) pounds per square inch. The stock crankshaft pulley and radiator thermostat are retained.

This Executive Order is valid provided that the installation instructions for the Roushcharger 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 Roushcharger 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.

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

Marketing of the Roushcharger Kit using any identification other than that shown in this Executive Order or marketing of the Roushcharger 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.

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

This Executive Order is granted based on emission results submitted in support of a prior Executive Order (D-418-21) by Roush Industries in certifying its Stage 3 supercharged Mustang as a new vehicle (test group DRIIV05.0VD5, LEV II ULEV, PC). The final vehicle configuration with the Roushcharger Kit installed is the same as the Stage 3 supercharged Mustang. Roush Industries also submitted Federal Test Procedures (FTP) emissions data on a modified 2012 model year Ford F-150 with the 6.2L engine. The emission results are shown below in grams per mile:

Mustang

Useful Life	NMOG	CO	NOx	HCHO
Emission Level (w. DF applied)	0.040	0.8	0.02	n/a
STD	0.070	2.1	0.04	0.011

US06/SC03	NMHC+NOx	CO
Emission Level	0.07/0.05	0.7/0.4
STD	0.14/0.20	8.0/2.7

F-150

	NMOG	CO	NOx	HCHO
Supercharger (w. DF applied)	0.045	1.5	0.02	0.001
STD	0.070	2.1	0.04	0.011

The certification emission and OBD II test results submitted for new vehicle certification and the additional FTP data provided on the F-150 have been accepted as representative of emissions in the modified configuration (Roushcharger Kit installed). Therefore, based on the test results, the staff concludes that the Roush Industries' Roushcharger Kit meets the criteria for exempting general criteria parts.

The Air Resources Board 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 ROUSH INDUSTRIES' ROUSHCHARGER 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 24th day of January 2014.

J. Lourenco

Erik White, Chief
Mobile Source Operations Division