CALIFORNIA
AIR RESOURCES BOARD

EXECUTIVE ORDER D-418-33

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Roush Performance Products
ROUSHcharger Kit and JACKHAMMER Kit

Pursuant to the authority vested in the California 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-14-012;

IT IS ORDERED AND RESOLVED: That the installation of the ROUSHcharger Kit and JACKHAMMER Kit, manufactured Roush Performance Products, 39555 Schoolcraft Road Livonia, Michigan 48170, and marketed by both Roush Performance Products and Ford Motor Company, 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 vehicles shown below.

Part Number	Product Name	Marketing Company	Model	Model Year
422090	ROUSHcharger	Roush Performance Products	Ford Mustang	2018 to 2019
422095	ROUSHcharger	Roush Performance Products	Ford F-150	2018 to 2019
422150	JACKHAMMER	Roush Performance Products	Roush Mustang	2018
M-6066-M8	ROUSHcharger	Ford Motor Company	Ford Mustang	2018 to 2019
M-6066-F150SCK	ROUSHcharger	Ford Motor Company	Ford F-150	2018 to 2019

The ROUSHcharger Kit for the 2018 to 2019 Ford Mustang 5.0L consists of the following main components: Roots type axial flow supercharger assembly with bypass valve, air to water intercooler with accompanying auxiliary low temperature radiator, intake manifold, reflashed ECM without user adjustments, 87 mm throttle body, high flow fuel injectors and rails, new air box with stock hydrocarbon paper heat staked in a stock location and orientation, conical air filter element, and MAP sensor. The breather hose may be replaced with an SAE30R9 rated hose. All supplied fuel hoses are either Avon's CADbar 9000 series or a stock factory replacement, and fuel and vapor line connectors supplied with the kit are OEM equivalent parts. The ROUSHcharger utilizes an 80mm diameter pulley. Boost is limited to a maximum of 12 psi. The stock fuel pump, crankshaft pulley, and radiator thermostat are retained during installation.

The ROUSHcharger Kit for the 2018 to 2019 Ford F-150 5.0L consists of the following main components: Roots type axial flow supercharger assembly with bypass valve, air to water intercooler with accompanying auxiliary low temperature radiator, intake manifold, reflashed ECM without user adjustments, 87 mm throttle body, 2018 Mustang crankshaft pulley, high flow fuel injectors and rails, new air box with stock hydrocarbon

paper heat staked in a stock location and orientation, and conical air filter element. The breather hose may be replaced with an SAE30R9 rated hose. All supplied fuel hoses are either Avon's CADbar 9000 series or a stock factory replacement, and fuel and vapor line connectors supplied with the kit are OEM equivalent parts. The ROUSHcharger utilizes an 80mm diameter pulley. Boost is limited to a maximum of 12 psi. The stock fuel pump and radiator thermostat are retained during installation.

The JACKHAMMER Kit for the 2018 Roush Mustang 5.0L consists of the following main components: Roots type axial flow supercharger assembly with bypass valve, air to water intercooler, intake manifold, reflashed ECM without user adjustments, 87 mm throttle body, high flow fuel injectors and rails, new air box with stock hydrocarbon paper heat staked in a stock location and orientation, conical air filter element, and MAP sensor. The 2018 Roush Mustang 5.0L already has the low temperature radiator factory installed. The breather hose may be replaced with an SAE30R9 rated hose. All supplied fuel hoses are either Avon's CADbar 9000 series or a stock factory replacement, and fuel and vapor line connectors supplied with the kit are OEM equivalent parts. The JACKHAMMER utilizes an 80mm diameter pulley. Boost is limited to a maximum of 12 psi. The stock fuel pump, crankshaft pulley, and radiator thermostat are retained during installation.

This Executive Order is valid provided that the installation instructions for the ROUSHcharger Kit and JACKHAMMER 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 and JACKHAMMER Kit, as exempt by the California 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 and JACKHAMMER 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 and JACKHAMMER Kit using any identification other than that shown in this Executive Order or marketing of the ROUSHcharger Kit and JACKHAMMER Kit for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the California Air Resources Board.

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

This Executive Order is granted based on submitted emission test data generated on a 2018 model year Ford Mustang 5.0L (JFMXV05.0VKN, LEV III ULEV, PC) and a 2018 model year Ford F-150 5.0L (JFMXT05.03DN, LEV III ULEV, LDT), each modified with the ROUSHcharger Kit. Test results showed that emission levels, with the ROUSHcharger Kit installed, were below the emission standards when tested using Cold-Start CVS-75 Federal Test Procedure and the Supplemental Federal Test Procedure (US06/SC03) test cycles along with the 2-day diurnal evaporative test. Results from emission testing conducted at the ROUSH Emissions Laboratory, Livonia, Michigan, are shown below, in grams per mile, with deterioration factors (df) applied.

Mustang		CVS-75			US06	SFTP Composite	
	NMOG+NOx	CO	PM	HCHO	PM	NMOG+NOx	CO
Standards	0.125	2.1	0.003	0.004	0.006	0.110 (BIN)	4.2
Device	0.087	0.9	0.002	0.001	0.002	0.090	0.7

F-150		CVS-75			US06	SFTP Composite		2DHS
	NMOG+NOx	CO	PM	HCHO	PM	NMOG+NOx	CO	HC (g/test)
Standards	0.125	2.1	0.003	0.004	0.006	0.100 (BIN)	4.2	0.500
Device	0.056	0.9	0.002	0.000	0.003	0.095	0.9	0.258

Examination of the OBD II system showed the ROUSHcharger Kit does not affect OBD II system operation.

The California 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 CALIFORNIA AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE ROUSHCHARGER KIT AND JACKHAMMER Kit.

No claim of any kind, such as "Approved by the California 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 1 day of February 2019.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division