State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-231-40

Relating to Exemptions Under Section 27156 of the California Vehicle Code

Whipple Industries, Inc. Whipple Supercharger

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 Whipple Supercharger, manufactured and marketed by Whipple Industries, Inc., 3292 North Weber, Fresno, California 93722, 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 following Ford vehicles listed in Exhibit A.

The Whipple Supercharger kit for the trucks consists of the following main components: A 2.3L or a 2.9L twin screw supercharger, intercooler, open element air cleaner, air intake tubing, mass air flow sensor housing using stock mass air flow sensor element, intake manifold, bypass valve, high flow injectors, 75mm twin-blade throttle body, intercooler, and a reflashed ECM. Boost is limited to 10 pounds per square inch. Installation would not require any modification to the stock coolant thermostat. The tuner used to reflash the ECM is designed to download OEM calibration updates, non emission related upgrades, and patches or fixes in the firmware. Emission-related data files cannot be modified by the end user. 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. Breather hoses may be replaced with an SAE30R9 rated hose.

The Whipple Supercharger kit for the Mustangs consists of the following main components: Twin Screw Whipple supercharger, intercooler, intake manifold, bypass valve, reflashed ECM, dual port throttlebody, new fuel injectors, modified air cleaner lid with stock hydrocarbon adsorber, and a new air intake tube from air cleaner to the throttlebody. The breather hose may be replaced with an SAE30R9 rated hose. Boost is limited to a maximum of 10 psi. The stock crankshaft pulley, mass air flow sensor element, fuel pump, and radiator thermostat are retained during installation. The mass air flow sensor element is reinstalled in the air cleaner lid which is the same location as stock.

This Executive Order is valid provided that the installation instructions for the Whipple Supercharger will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the Whipple Supercharger, 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 Whipple Supercharger 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 Whipple Supercharger using any identification other than that shown in this Executive Order or marketing of the Whipple Supercharger 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 Whipple Supercharger may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on prior submitted emissions and OBD II test data that was generated, in support of Executive Order D-598-7, for a similar supercharger kit, on a 2012 model year 5.0L Ford Mustang certified to the Low Emission Vehicle II Ultra Low Emission Vehicle emission standards, and newly submitted emission test data generated on a 2011 model year 6.2L Ford F-150 certified to the Low Emission Vehicle II Ultra Low Emission Vehicle (LEV II ULEV) emission standards and modified with the 10 psi. Whipple Supercharger Kit. Test results showed that emission levels, met the applicable emission standards when tested using the Cold-Start CVS-75 Federal Test Procedure (FTP) and the Supplemental Federal Test Procedure (SFTP US06/SC03) test cycles. Boost pressure was measured at 7.5 psi. Examination of the OBD II system showed the Whipple Supercharger did not affect OBD II system operation. Results from emission testing conducted at Roush Emissions Laboratory, Livonia, Michigan are listed below with deterioration factors applied.

2011 model year 6.2L F150							
-	NMOG	CO	NOx	НСНО			
Standards, Useful Life	0.070	2.1	0.04	0.011			
Device Test 1	0.045	1.8	0.03	0.000			
Device Test 2	0.044	1.8	0.02	0.000			
	US06/SC03						
. NM	MHC+NOx		CO				
Standards 4k	0.60/0.44		11.8/4.0				
Device	0.06/0.03		1.8/0.4				

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 THE WHIPPLE SUPERCHARGER. 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 $28^{\cancel{\mu}}$ day of June 2013.

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Exhibit A										
YEARS	MAKE	WHIPPLE KIT #	ENGINE (LITER)	MAX BOOST PSI	COMPRESSOR SIZE	CRANK PULLEY SIZE	SC PULLEY			
2010-2013	F150, F250	WK-2000 Series	5.0L	10	2.3L	6.555	3.385			
	F150, F250	WK-2000 Series	5.0L	10	2.3L	6.555	3.500			
2010-2013	F150, F250	WK-2000 Series	5.0L	10	2.3L	6.555	3.625			
2010-2013	F150, F250	WK-2000 Series	5.0L	10	2.3L	6.555	3.750			
	F150, F250	WK-2000 Series	5.0L	10	2.3L	6.555	3.875			
2010-2013	F150, F250	WK-2000 Series	5.0L	10	2.9L	6.555	3.000			
2010-2013	F150, F250	WK-2000 Series	5.0L	10	2.9L	6.555	3.125			
2010-2013		WK-2000 Series	5.0L	10	2.9L	6.555	3.250			
2010-2013	F150, F250	WK-2000 Series	5.0L	10	2.9L	6.555	3.500			
2010-2013		WK-2000 Series	5.0L	10	2.9L	6.555	3.625			
2010-2013		WK-2000 Series	5.0L	10	2.9L	6.555	3.750			
2010-2013		WK-2000 Series	5.0L	10	2.9L	6.555	3.875			
	Ford Raptor, F150, F250, F350	WK-2000 Series	6.2L	10	2.9L	6.555	3.000			
	Ford Raptor, F150, F250, F350	WK-2000 Series	6.2L	10	2.9L	6.555	3.125			
2010-2013	Ford Raptor, F150, F250, F350	WK-2000 Series	6.2L	· 10	2.9L	6.555	3.250			
	Ford Raptor, F150, F250, F350	WK-2000 Series	6.2L	· 10	2.9L	6.555	3.500			
	Ford Raptor, F150, F250, F350	WK-2000 Series	6.2L	10	2.9L	6.555	3.625			
	Ford Raptor, F150, F250, F350	WK-2000 Series	6.2L	10	2.9L	6.555	3.750			
2010-2013	Ford Raptor, F150, F250, F350	WK-2000 Series	6.2L	10	2.9L	6.555	3.875			
	Ford Mustang	WK-2000 Series	5.0L	12	2.9L	6.500	3.625			
	Ford Mustang	WK-2000 Series	5.0L	12	2.9L	6.500	3.750			
	Ford Mustang	WK-2000 Series	5.0L	12	2.9L	6.500	3.875			
	Ford Mustang	WK-2000 Series	5.0L	12	2.9L	6.500	4.000			
	Ford Mustang	WK-2000 Series	5.0L	12	2.9L	6.500	4.125			
2011-2014	Ford Mustang	WK-2000 Series	5.0L	12	2.9L	6.500	4.250			