

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-525

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Airforce One Performance Industries
Airforce One Performance Intakes

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 Airforce One Performance Intakes, produced and marketed by Airforce One Performance Industries, 7720 W. Sierra Hwy, Agua Dulce, California 91350, have been found not to reduce the effectiveness of the applicable vehicle pollution control systems and, therefore, are exempt from the prohibitions of Section 27156 of the Vehicle Code for the vehicles listed in Exhibit A.

The Airforce One Performance Intakes include the following main components: open-element reusable air filter, Intakes system tubing, crankcase ventilation hose (as applicable, which may be silicone, and a color other than black), assorted brackets, and hardware.

This Executive Order is valid provided that the installation instructions for the Airforce One Performance Intakes 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 Airforce One Performance Intakes, 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 Airforce One Performance Intakes 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 Airforce One Performance Intakes using any identification other than that shown in this Executive Order or marketing of the Airforce One Performance Intakes 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 Airforce One Performance Intakes may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on an examination of the On-Board Diagnostic II (OBD-II) system of a 2000 model-year California-certified Ford F-150 (engine family YFMXA05.4HGC, LEV, MDV2) in the modified configuration, and an engineering evaluation of the emissions impact of the device if measured using the Cold-Start CVS-75 Federal Test Procedure. However, the ARB finds that reasonable grounds exist to believe that use of the Airforce One Performance Intakes 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 Airforce One Performance Intakes 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 Airforce One Performance Intakes will affect the durability of emission control systems, Airforce One Performance Industries shall be required to submit durability data to show that the durability of vehicle emission control systems are not, in fact, affected and/or that the add-on or modified part demonstrates adequate durability.

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 AIRFORCE ONE PERFORMANCE INDUSTRIES' AIRFORCE ONE PERFORMANCE INTAKES.

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 15th day of October, 2001.

A handwritten signature in black ink, appearing to read "R. B. Summerfield FOR".

R. B. Summerfield, Chief
Mobile Source Operations Division

Exhibit A

MY	Make	Model	Engine	P/N
1999-2002	Lincoln	Navigator	5.4L Triton 32 valve V8	AF1-F-NAV32
1997-2002	Ford	F-150, Expedition	4.6 L & 5.4 L Triton V8	AF1-F-V8
1997-2002	Ford	F-150	4.2 L V6	AF1-F-V6
1999-2002	Ford	Super Duty Truck, Excursion Series	6.8L Triton V10	AF1-F-V10
1998-2002	Ford	Super Duty Truck, Excursion Series	5.4L Triton V8	AF1-F-SDV8

EVALUATION SUMMARY

Manufacturer Name: Airforce One Performance Industries

Name of Device: Airforce One Performance Intakes

Background:

Airforce One Performance Industries of 7720 W. Sierra Hwy, Agua Dulce, California 91350, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Airforce One Performance Intakes designed for the vehicles listed in Exhibit A. The vehicle application includes those certified to the Low Emission Vehicle (LEV) standards.

Recommendation:

Grant exemption to Airforce One Performance Industries as requested and issue Executive Order D-525.

Device Description:

Airforce One Performance Industries' Airforce One Performance Intakes are air intake systems specifically designed for installation on the vehicles listed in Exhibit A. The installation of each system does not require any major modifications to the stock motor, except for the modification of the factory air intake system to accommodate the Airforce One Performance Intakes air filter and plumbing. On some models, relocation of the crankcase ventilation hose is required. In these cases, the Airforce One Performance Intakes are supplied with crankcase ventilation hoses (which may be silicone, and a color other than black). The filter element used in the Airforce One Performance Intakes is an open-element, reusable cotton gauze unit, designed to be less restrictive than the stock air filter.

The Airforce One Performance Intakes are intended to increase the vehicles' volumetric efficiency and power output at particular engine loads and throttle openings. At heavy engine loads and increased throttle openings, the airflow into the engine is increased because the Airforce One Performance Intakes are less restrictive than stock air filters. This allows more air to enter the engine, which is compensated by the vehicle engine control module with an increase in fuel flow, resulting in a higher power output. However, the fuel enrichment is limited and the typical net effect is an overall leaning effect of the fuel mixture. The leaning effect is manifested in a marginal, but measurable, NOx increase. Worst-case vehicles are examined for their certification emissions. In cases where certification emissions have values low enough to accommodate any small increase in emissions (in this case NOx), emission testing is deemed not required.

Discussion/Basis for the Recommendation:

A 2000 model-year California-certified Ford F-150 (engine family YFMXA05.4HGC) was used for the evaluation of the Airforce One Performance Intake. The test vehicle was certified to the Medium-Duty Vehicle Low-Emission Vehicle (MDV2, LEV) standards and was equipped with an enhanced evaporative system. Testing consisted of one CVS-75 Federal Test Procedure (FTP) in the modified configuration (Airforce One Performance Intakes installed) to set all On-Board Diagnostics (OBD) II readiness indicators. Testing was conducted at Automotive Testing and Development Services. No emissions measurement was required since

similar systems have been tested previously and have shown to marginally increase the NOx when tested in accordance with the CVS-75 FTP. This marginal increase in NOx is due to a leaning effect of the less restrictive Intakes system. Since the affected vehicles have certification values that are considerably below the standards, they can accommodate any small increase in NOx emissions.

Based on engineering evaluation and the OBD-II test results, the staff concludes that the Airforce One Performance Industries' Airforce One Performance Intakes meets the requirements for a VC 27156 exemption for the vehicles listed in Exhibit A.

Exhibit A

MY	Make	Model	Engine	P/N
1999-2002	Lincoln	Navigator	5.4L Triton 32 valve V8	AF1-F-NAV32
1997-2002	Ford	F-150, Expedition	4.6 L & 5.4 L Triton V8	AF1-F-V8
1997-2002	Ford	F-150	4.2 L V6	AF1-F-V6
1999-2002	Ford	Super Duty Truck, Excursion Series	6.8L Triton V10	AF1-F-V10
1998-2002	Ford	Super Duty Truck, Excursion Series	5.4L Triton V8	AF1-F-SDV8