

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-250-5

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Air Flow Research Heads, Inc.
LS Cylinder Heads, P/Ns 1840 and 1845

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-14-012;

IT IS ORDERED AND RESOLVED: That the installation of the LS Cylinder Heads, manufactured and marketed by Air Flow Research Heads, Inc., 28611 Industry Drive, Valencia, California 91355, 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 all vehicles equipped with a 2007 to 2016 model year General Motors 6.2L LS engine.

The LS Cylinder Heads, P/Ns 1840 and 1845, is a set of new modified aluminum cylinder heads, designed to increase the performance of the engine by having ported and polished intake and exhaust ports, larger valve diameters, and a modified combustion chamber volume. No other changes are required for proper installation other than the remove and replacement of the cylinder head. Part number 1840 is a 6 bolt mount cylinder head and part number 1845 is a 4 bolt mount cylinder head.

This Executive Order is valid provided that the installation instructions for the LS Cylinder Heads will not recommend tuning the vehicle to specifications different from those of Air Flow Research Heads, Inc.

Changes made to the design or operating conditions of the LS Cylinder Heads, 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 exemption is issued based on submitted emissions test data, from the SEMA Garage, Diamond Bar, California, on a 2015 model year Camaro certified to the LEV II ULEV emission standards and tested using the Cold-Start CVS-75 Federal Test Procedure (FTP) test cycle, Highway Fuel Economy Test (HWFET), and the Supplemental Federal Test Procedure (SFTP US06/SC03 (AC2 test + 20%)) test cycle.

	CVS-75 FTP			
	NMOG	CO	NOx	HCHO
Standards, UL	0.070	2.1	0.04	0.011
Device Test (w/ df applied, 2 test avg)	0.064	1.1	0.03	0.002

	US06/SC03			
Standards 4k	NMHC+NOx	CO		
	0.14/0.20	8.0/2.7		
Device	0.03/0.04	0.2/1.4		
			HWFET –	NOx
			Standard	0.05
			Device w/df	0.02

Test results showed that the LS Cylinder Heads when installed on the vehicle did not cause exhaust emissions to exceed the applicable emission standards during the FTP and SFTP. This Executive Order is also based on the On-Board Diagnostic II (OBD II) testing conducted on the same test vehicle. The LS Cylinder Heads when installed on the test vehicle did not affect the vehicle's ability to perform its OBD II monitoring.

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 LS CYLINDER HEADS.

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 26th day of May 2017.


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