## State of California AIR RESOURCES BOARD

## **EXECUTIVE ORDER D-747**

## Relating to Exemptions Under Section 27156 of the California Vehicle Code

Trick Flow Specialties

GenX GM LS Cylinder Head, Series 205, 215, 220, 225, 235, 245, 255, and 260

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 GenX GM LS Cylinder Head, Series 205, 215, 220, 225, 235, 245, 255, and 260, manufactured and marketed by Trick Flow Specialties, 285 West Avenue, Talmadge, Ohio 44278, 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 those applicable 1997 to 2015 model year General Motors passenger cars and trucks listed in Exhibit A, **excluding the 2014 and 2015 model year Corvette**.

The GenX GM LS Cylinder Head, Series 205, 215, 220, 225, 235, 245, 255, and 260, 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.

This Executive Order is valid provided that the installation instructions for the GenX GM LS Cylinder Head, Series 205, 215, 220, 225, 235, 245, 255, and 260 will not recommend tuning the vehicle to specifications different from those of Trick Flow Specialties.

Changes made to the design or operating conditions of the GenX GM LS Cylinder Head, Series 205, 215, 220, 225, 235, 245, 255, and 260, 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 Transport Research Center, Inc., East Liberty, Ohio, on a 2013 model year Camaro certified to the Low Emission Vehicle II Ultra Low Emission Vehicle (LEV II ULEV) standards and tested using the Cold Start Federal Test Procedure (FTP) and the Supplemental Federal Test Procedure (SFTP-US06) test cycle:

	CVS	CVS-75 FTP			
	NMOG	CO	NOx	НСНО	
Standards, Useful Life	0.070	2.1	0.04	0.011	
Device Test 1 w/df	0.044	1.1	0.03	0.001	
Device Test 2 w/df	0.048	1.2	0.03	0.001	

	US06		
	NMHC+NOx	CO	
Standards 4k	0.14	8.0	
Device	0.09	2.0	

Test results showed that the GenX 255 GM LS Cylinder Head 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 GenX 255 GM LS Cylinder Head when installed on the test vehicle did not affect the vehicle's ability to perform its OBD II monitoring. A similar effect on vehicle emissions and OBD II monitoring is expected with the installation of the GenX GM LS Cylinder Head on the other vehicles listed in this Executive Order.

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 GENX GM LS CYLINDER HEAD, SERIES 205, 215, 220, 225, 235, 245, 255, AND 260.

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 2079 day of June 2015.

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

TRICK FLOW SPECIALTIES – GENX GM LS CYLINDER HEAD – D-747

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## Exhibit A

		TRICK	FLOW SPECIALTIES			
	GenX LS Cylinder Heads					
	PART NUMBER	MODEL YEAR	MODEL			
GenX 205	TFS-30510001-C00	1997-2015	GM VEHICLES WITH 4.8L/5.3L/5.7L V8 ENGINE			
	TFS-3051T001-C00	1997-2015	GM VEHICLES WITH 4.8L/5.3L/5.7L V8 ENGINE			
GenX 215	TFS-30610001-C01	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
Genzzij	TFS-3061T001-C01	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
C	TFS-30610001	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
GenX 220	TFS-3061T001	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
	TFS-30610002	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
	TFS-3061T002	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
GenX 225	TFS-30610001-C02	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
OCHX 225	TFS-3061T001-C02	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
GenX 235	TFS-3061T001-C03	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE			
Genx 255	TFS-3061T003-C03	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE, 6 BOLT PATTERN			
GenX 245	TFS-3061T003-C04	1997-2015	GM VEHICLES WITH 5.7L/6.0L V8 ENGINE, 6 BOLT PATTERN			
GenX 255	TFS-32610001-C01	2007-2015	GM VEHICLES WITH 6.2L V8 ENGINE			
	TFS-32610002-C01	2007-2015	GM VEHICLES WITH 6.2L V8 ENGINE			
	TFS-3261T001-C01	2007-2015	GM VEHICLES WITH 6.2L V8 ENGINE			
	TFS-3261T002-C01	2007-2015	GM VEHICLES WITH 6.2L V8 ENGINE			
	TFS-3261T003-C01	2007-2015	GM VEHICLES WITH 6.2L V8 ENGINE, 6 BOLT PATTERN			
	TFS-3261T004-C01	2007-2015	GM VEHICLES WITH 6.2L V8 ENGINE, 6 BOLT PATTERN			
GenX 260	TFS-32710001-C01	2006-2015	GM VEHICLES WITH 7.0L V8 ENGINE			
GCHX 200	TFS-32710002-C01	2006-2015	GM VEHICLES WITH 7.0L V8 ENGINE			
	TFS-3271T001-C01	2006-2015	GM VEHICLES WITH 7.0L V8 ENGINE			
	TFS-3271T002-C01	2006-2015	GM VEHICLES WITH 7.0L V8 ENGINE			
	TFS-3271T003-C01	2006-2015	GM VEHICLES WITH 7.0L V8 ENGINE, 6 BOLT PATTERN			
	TFS-3271T004-C01	2006-2015	GM VEHICLES WITH 7.0L V8 ENGINE, 6 BOLT PATTERN			

