

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-184-17

Relating to Exemptions under Section 27156
of the Vehicle Code

Maremont Exhaust Division of ArvinMeritor

WHEREAS, Vehicle Code Sections 27156 and 38391, and Title 13, California Code of Regulations (hereafter "CCR") Section 2222(h), authorize the California Air Resources Board (ARB) and its Executive Officer to exempt new aftermarket catalytic converter from the prohibitions of Vehicle Code Section 27156.

WHEREAS, Maremont Exhaust Division of ArvinMeritor (Maremont) of 2400 Maremont Parkway, Loudon, Tennessee 37774, has applied to the ARB for exemption from the prohibitions in Vehicle Code Sections 27156 and 38391 to market its series 38400 new aftermarket three-way catalytic converter (TWC) for the following applications, except for vehicles equipped with an on-board diagnostic II (OBD-II) system (Title 13, CCR, Section 1968.1):

Converter Type	Series Number	Converter Use	Max. Eng. Size	Max. Veh. Test Wt.
TWC	200600	TWC	4.0L (242 CID)	3,750 lbs. (GVWR = 4,900 lbs.)

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Operations Division by Health and Safety Code Section 39516 and Executive Order G-02-003, the ARB finds that the above aftermarket catalytic converter complies with the California Vehicle Code Section 27156 and Title 13, California Code of Regulations, Section 2222(h). Emission performance of the catalytic converter was based on durability bench-aging by Johnson Matthey Environmental Catalyst and Technologies Division using ARB-modified RAT A bench-aging cycle in lieu of the AMA driving cycle (Reference Appendix IV, Title 40, part 86, Code of Federal Regulations (June 28, 1977)).

WHEREAS, emissions tests conducted at Automotive Testing and Development Services, Inc. (ATDS), Ontario, California, using a 1995 Jeep Cherokee 4.0L showed the following conversion efficiencies which meet the minimum requirements for new aftermarket catalytic converters:

<u>Pollution Component</u>	<u>TWC</u>
HC: Min. Requirement	70%
Maremont's series 200600	72.6
CO: Min. Requirement	70
Maremont's series 200600	85.3
NOx: Min. Requirement	60
Maremont's series 200600	80.7

IT IS HEREBY RESOLVED that the above catalytic converter is exempt from the prohibitions in Vehicle Code Section 27156 for installation on the approved application vehicles subject to the following conditions:

1. No changes are permitted to the catalytic converter as described in the application for exemption. Any changes to the catalytic converter or any of its components, and other factors addressed in this order must be evaluated and approved by the ARB prior to marketing in California.
2. Marketing of the catalytic converter using identifications other than those shown in the exemption application, and in this Executive Order, or marketing of the catalytic converter for application other than the ones shown in this Executive Order shall be prohibited unless prior approval is obtained from the ARB. Exemption of this product shall not be construed as an exemption to sell, offer for sale, or advertise any components of the catalytic converter as individual devices.
3. Any oral or written references to this Executive Order or its content by Maremont Exhaust Division, its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption it provides is not an endorsement or approval of any emission reduction claims for the catalytic converter and is only a finding that the catalytic converter is exempt from the prohibitions of Vehicle Code Section 27156.
4. Maremont Exhaust Division's installation instructions for the new catalytic converter must conform to requirements in Paragraphs I and IX of California Evaluation Procedures for New Aftermarket Non-Original Equipment Catalytic Converters.
5. Upon installation, the catalytic converter must carry a manufacturer's warranty for 25,000 miles on the substrates and 50,000 miles or five years on the shell and end pipes.
6. Maremont Exhaust Division and its vendors may not advertise the new aftermarket catalytic converter as a "pure flow, high flow, or easy flow" catalytic converter or use any phrase that could make it appear to perform better than an OEM catalytic converter.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after ten day written notice of intention to revoke it, during 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 11TH day of March 2004.



Allen Lyons, Chief
Mobile Source Operations Division

EVALUATION SUMMARY

Manufacturer Name: Maremont Exhaust Division of ArvinMeritor

Name of Device: Series 200600 Three-way catalytic converter (TWC).

Background:

Maremont Exhaust Division of ArvinMeritor (Maremont), 2400 Maremont Parkway, Loudon, Tennessee 37774, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for its Series 200600 new aftermarket TWC. The new Series 200600 TWC is designed for application limits of 4.0L engine displacement and 3750 lbs. equivalent test weight for vehicles not equipped with the On Board Diagnostic II (OBD II) systems.

Recommendation:

Grant exemption to Maremont as requested, and issue Executive Order D-184-17.

Device Description:

Maremont's new aftermarket TWC uses one oval-shaped metallic substrate designed in the form of a spiral wound foil. The material of the metallic substrate is a high temperature stainless steel alloy designated as WN 1.4767 under the European engineering material specification system known as DIN. Its SAE equivalence is unknown. The substrate is coated with platinum and rhodium in the ratio of 1:1. The dimensions of the substrate are 3.88 inches for the major axis, 3.88 inches for the minor axis, and 3.50 inches in length. The volume of the substrate is 41.4 cubic inches. The substrate is contained in a shell constructed from 309-grade stainless steel. The substrate is brazed to the inner shell wall to prevent vibration and exhaust by-pass. The shell is sealed by seam weld. A piece of aluminized heat shield is spot-welded to the upper side of the converter to protect the vehicle underbody from excessive heat. The catalyst may be sold as a unit with installation instructions or may be used in customized direct fit exhaust applications. It is sold with a warranty for 25,000 miles on the substrate, and five years or 50,000 miles on the container or shell, and the end pipes. Johnson Matthey is the catalyst supplier for Maremont's Series 200600 TWC.

Discussion/Basis for Exemption Recommendation:

Maremont submitted data on the series 200600 TWC from testing conducted at Automotive Testing and Development Services (ATDS), Ontario, California. Two oval test catalysts were bench-aged by Johnson Matthey using ARB-modified RAT A bench-aging cycle for 37.5 hours. Johnson Matthey shipped the aged catalysts directly to ATDS for emission testing. The emission tests were conducted using a 1995 Jeep Cherokee 4.0L with the equivalent test weight of 3750 lbs.

The evaluation of the Series 200600 TWC is solely based on the bench-aging performed by Johnson Matthey and emission tests conducted at ATDS. The limits of application of the new catalytic converter are 4.0L/3750 lbs. The corresponding maximum gross vehicle weight rating (GVWR) is 4900 lbs. Testing consisted of two cold-start CVS-75 tests with a simulator ("dummy" catalyst), followed by two cold-start CVS-75 tests with the Series 200600 TWC installed. The conversion efficiencies for the new Series 200600 TWC are shown below.

Automotive Testing and Development Services, Ontario, California

Conversion Efficiency (%)

TWC

	<u>Simulator</u>	<u>Cat #902067</u>	<u>Cat #902068</u>	<u>Average Conversion Efficiency</u>
HC (g/mi)	2.330	0.647	0.628	72.6
CO (g/mi)	17.434	2.566	2.535	85.3
NOx (g/mil)	5.273	1.020	1.014	80.7

The above test results meet the minimum requirements of the California regulations on new aftermarket catalytic converters. The Air Resources Board (ARB) did not conduct confirmatory tests on the new aftermarket catalytic converters.