

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-182-15
Relating to Exemptions Under Section 27156
of the Vehicle Code

WALKER MANUFACTURING
"TUBULAR EXHAUST HEADER"

WHEREAS, Vehicle Code Sections 27156 and 38391, and Title 13, California Code of Regulations (hereafter "CCR"), authorize the California Air Resources Board (ARB) and its Executive Officer to exempt add-on and modified parts from the prohibitions of Vehicle Code Section 27156.

WHEREAS, Walker Manufacturing of 2701 N. Dettman Road, Jackson, Michigan 49201, has applied to the ARB for exemption from the prohibitions in Vehicle Code Sections 27156 and 38391 for their aftermarket tubular exhaust header for the models and model-year GM and Ford vehicles shown in the appendix.

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Division by Health and Safety Code Section 39516 and Executive Order G-45-9, the ARB finds that the above aftermarket header complies with the California Vehicle Code Section 27156 and Title 13, California Code of Regulations. Emission performance of the header was based on comparative tests conducted at an independent vehicle test laboratory.

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

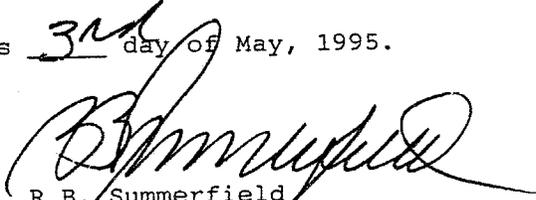
1. No changes are permitted to the header as described in the application for exemption. Any changes to the header or any of its components, and other factors addressed in this order must be evaluated and approved by the ARB prior to marketing in California.
2. Marketing of the header using identification other than those shown in this Executive Order or marketing of the header for application other than the one listed in the appendix 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 header as individual devices.

3. Any oral or written references to this Executive Order or its content by Walker Manufacturing, 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 emissions reduction claims for the header and is only a finding that the header is exempt from the prohibitions of Vehicle Code Section 27156.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OR ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE TUBULAR EXHAUST HEADER.

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 3rd day of May, 1995.



R.B. Summerfield
Assistant Division Chief
Mobile Source Division

APPENDIX

Walker Tubular Exhaust Header

<u>Part Number</u>	<u>Vehicle Application</u>
87700 (w/A.I.R.) [*] /	1988-93 GM 7.4L C2500/C3500 2WD truck
87706 (wo/A.I.R.) ⁺	1990 GM 7.4L C1500, 454SS 2WD truck
	1988-93 GM 7.4L C2500/C3500 4WD truck
87701	1986-92 Ford 5.0L F150/F250 2WD truck
	1985-92 Ford Bronco 5.0L 2WD
	1986-92 Ford 5.0L F150/F250 4WD truck
	1985-92 Ford Bronco 5.0L 4WD
87702 (w/A.I.R.)/	1988-93 GM 5.0-5.7L C1500/C2500 2WD truck
87707 (wo/A.I.R.)	1988-93 GM 5.0-5.7L K1500/K2500 4WD truck
87703	1988-93 Ford 7.5L F150/F250/F350 2WD truck
	1988-93 Ford 7.5L F150/F250/F350 4WD truck
87704/85117/86117	1986-93 Ford Mustang 5.0L
87705	1982-87 GM 5.0L Camaro/Firebird
	1992 GM Camaro Z28 5.0L TPI
	1988-92 GM Camaro RS 5.0L TPI
	1991-92 GM Firebird 5.0L TPI
	1988-92 GM Firebird Formula 5.0L TPI

* w/A.I.R. = with Air Injection Reaction

+ wo/A.I.R. = without Air Injection Reaction

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EVALUATION OF WALKER MANUFACTURING TUBULAR EXHAUST HEADER FOR EXEMPTION
FROM THE PROHIBITIONS IN VEHICLE CODE SECTIONS 27156 AND 38391,
AND TITLE 13, CALIFORNIA CODE OF REGULATIONS

May 1995

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by

Mobile Source Division

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(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Walker Manufacturing (Walker) of 2701 N. Dettman Road, Jackson, Michigan 49201, has applied for an exemption from the prohibitions in Vehicle Code Sections 27156 and 38391, for their tubular exhaust header with part numbers and vehicle applications shown in the appendix. Design changes to the original equipment manufacturer (OEM) header include use of low carbon steel and stainless steel instead of cast iron. No modification to vehicle manufacturer's tune-up specifications is required in order to install the header.

Emissions data submitted from comparative CVS-75 tests show that the tubular exhaust header meets the requirements of Vehicle Code Sections 27156 and 38391. Based on the above, the staff recommends that the exemption be granted as requested and that Executive Order D-182-15 be issued.

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I. INTRODUCTION

Walker Manufacturing (Walker) of 2701 N. Dettman Road, Jackson, Michigan 49201, has applied for an exemption from the prohibitions in Vehicle Code Sections 27156 and 38391 to allow the installation of their tubular aftermarket exhaust header on the model and model-year vehicles shown in the appendix.

II. CONCLUSION

The applicant has submitted all the required information, and based on the submitted exhaust emissions test data, the staff concludes that the tubular exhaust header meets the criteria set forth in Vehicle Code Section 27156 and Title 13, California Code of Regulations.

III. RECOMMENDATION

The staff recommends that the exemption be granted as requested and that Executive Order No. D-182-15 be issued, permitting the advertisement, sale and installation of the new aftermarket tubular exhaust header.

IV. DEVICE DESCRIPTION

The tubular exhaust header is constructed using two different steel, 18 gage low carbon steel for vehicles powered by an engine with a displacement less than 7.4L, and stainless steel for vehicles powered by an engine with a displacement more than 7.4L. The header is treated with an aluminum based coating to prevent corrosion. The tubular header replaces the OEM cast iron exhaust manifold, and provides for reconnection of all emission control system. Four primary tubes from each side of the exhaust are merged into one secondary pipe on the sides. The two secondary pipes are then merged further downstream into one single exhaust pipe and then connected to the catalytic converter. The applicant claims that their design improves and optimizes the gas dynamics of the automobile engine

exhaust. No changes to vehicle manufacturer's tune-up specifications are required in order to install the tubular exhaust header. The header is sold with steel cross-over pipes, and complete installation instructions and kit.

V. DEVICE EVALUATION

Walker Manufacturing has submitted test data from comparative CVS-75 tests which were conducted at Automotive Testing and Development Services, Inc. (ATDS), Ontario, California. The tests were conducted using a California certified 1993 7.4L GM C3500 heavy-duty truck, and a 1993 Ford Mustang 5.0L. A cold-start CVS-75 test was first conducted in the baseline (unmodified) configuration followed by another cold-start CVS-75 with the tubular exhaust header installed. Due to heavy workload at the ARB's Haagen-Smit Laboratory, confirmatory tests were not conducted by the ARB. The exemption of the header is, therefore, based on the test data generated by ATDS, an independent test laboratory. The test data are shown below.

	<u>ATDS, ONTARIO</u>		
	<u>THC</u>	<u>CO</u>	<u>NOx</u>
<u>Mustang 5.0L</u>			
Baseline (unmodified) (g/mi)	0.235	0.660	0.840
Device (modified) (g/mi)	0.191	0.626	0.643
Change (g/mi)	-0.044	-0.034	-0.197
% Change	19	5	24
<u>GM Truck 7.4L</u>			
Baseline (unmodified) (g/mi)	0.450	9.325	3.033
Device (modified) (g/mi)	0.392	8.676	2.985
Change (g/mi)	-0.058	-0.649	-0.048
% Change (g/mi)	13	7	2

The data show that the installation of Walker Manufacturing's tubular exhaust header will not cause an adverse effect in HC, CO, and NOx emissions.

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