# State of California AIR RESOURCES BOARD

EXECUTIVE ORDER D-216
Relating to Exemptions Under Section 27156
of the Vehicle Code

J. BITTLE AMERICAN, INC. SHORTY HEADER, MODEL NO. 1620-J.B.A.

Pursuant to the authority vested in the Air Resources by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Section 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the Shorty Header Model No. 1620-J.B.A. manufactured by J. Bittle American, Inc. of 9630 Aero Dr., San Diego, CA 92123, has been found not to reduce the effectiveness of required motor vehicle pollution control devices, and therefore is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1986-91 model-year Ford Mustangs powered by a 5.0 liter gasoline engine.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as exemption to sell, offer for sale, or advertise any component of a kit as an individual device.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of the product as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

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 J. BITTLE AMERICAN, INC. SHORTY HEADER MODEL NO. 1620-J.B.A.

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 communications.

Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

"43644, (a) No person shall install, sell offer for sale, or advertise or except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at El Monte, California, this 23 de

day of April, 1991.

R.B. Summerfield

Assistant Division Chief Mobile Source Division

# State of California AIR RESOURCES BOARD

EVALUATION OF J. BITTLE AMERICAN, INC. SHORTY HEADER
MODEL NO. 1620-J.B.A. FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA CODE OF REGULATIONS

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by

Mobile Source Division State of California Air Resources Board 9528 Telstar Avenue El Monte, CA 91731-2990

(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**

J. Bittle American, Inc. (JBA) of 9630 Aero Dr., San Diego, CA. 92123 has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Shorty Header, Model No. 1620-J.B.A. The Shorty Header is designed for installation on 1986-1991 Ford Mustangs powered by a 5.0 liter V-8 with EFI gasoline engine.

JBA has submitted a completed application and all the required information including comparative exhaust emissions test data from an independent laboratory which shows that Shorty Header does not have any adverse effects on the emissions of the applicable vehicles. Testing performed at the Air Resources Board's Haagen-Smit Laboratory confirmed the results performed at an independent laboratory.

The staff recommends that JBA be granted an exemption as requested and that Executive Order D-216 be issued for their Shorty Header, Model No. 1620-J.B.A.

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#### SUMMARY

J. Bittle American, Inc. (JBA) of 9630 Aero Dr., San Diego, CA. 92123 has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Shorty Header, Model No. 1620-J.B.A. The Shorty Header is designed for installation on 1986-1991 Ford Mustangs powered by a 5.0 liter V-8 with EFI gasoline engine.

JBA has submitted a completed application and all the required information including comparative exhaust emissions test data from an independent laboratory which shows that Shorty Header does not have any adverse effects on the emissions of the applicable vehicles. Testing performed at the Air Resources Board's Haagen-Smit Laboratory confirmed the results performed at an independent laboratory.

The staff recommends that JBA be granted an exemption as requested and that Executive Order D-216 be issued for their Shorty Header, Model No. 1620-J.B.A.

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#### I. INTRODUCTION

J. Bittle American, Inc. (JBA) of 9630 Aero Dr., San Diego, CA. 92123 has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Shorty Header, Model No. 1620-J.B.A. The Shorty Header is designed for installation on 1986-1991 Ford Mustangs powered by a 5.0 liter V-8 with EFI gasoline engine. JBA has submitted a completed application and all the required information including comparative exhaust emissions test data performed at Milton Roy Company.

#### II. CONCLUSIONS

Based on submitted data from emissions testing performed at an independent laboratory and from results of testing performed at the Air Resources Board's Haagen-Smit Laboratory, the staff concludes that the Shorty Header does not have any adverse effects on emissions of the applicable vehicles.

#### III. RECOMMENDATION

The staff recommends that JBA be granted an exemption as requested and that Executive Order D-216 be issued for their Shorty Header, Model No. 1620-J.B.A.

#### IV. <u>DESCRIPTION</u>

The JBA Shorty Header is designed to replace the original equipment manufacturer's (OEM) exhaust manifold. The OEM exhaust manifold has variable diameters and bottle necks in all four pipes, while the tube diameter of Shorty Header's four individual tubes remains constant from the

engine block to the four way junction which connects to a single exhaust pipe. The manufacturer claims this feature enhances exhaust flow. All other characteristics of the OEM header are the same as the Shorty Header.

## V. <u>DISCUSSION</u>

JBA Shorty Header, Model No. 1620-J.B.A. is designed for installation on 1986-1991 model-year Ford Mustangs powered by a 5.0 liter gasoline engine. A 1990 Ford Mustang GT Convertible powered by a 5.0 liter gasoline engine with the device installed was used as the test vehicle. Testing consisted of one cold-start CVS-75 with the device installed (emissions test data compared against the standard).

The following are the emissions test results from testing conducted at Milton Roy Company and from confirmatory test conducted at Haagen-Smit laboratory.

Independent Laboratory:

Milton Roy Company, 1238 West Grove Ave., Orange, CA 92665-4134

	THC	CO	NOx
Standard	0.41	3.4	1.0
W/Device	0.161	0.491	0.978
D. F.	1.243	1.000	1.000

#### Haagen-Smit Laboratory

Data

	THC	CO	NOx
W/Device	0.157	0.568	0.919
D. F.	1.243	1.000	1.000

Results from both tests conducted at Milton Roy Company and the Haagen-Smit laboratory show the vehicle emissions with the JBA Shorty Header installed to be lower than the emission standards. Therefore, the Shorty Header kit Model No. 1620-J.B.A. has demonstrated compliance with the requirements for the VC 27156 exemption.

APPENDIX



## Installation of JBA High Flow Headers for Late Model Mustangs

JBA High Flow Headers are designed to replace the factory tubular exhaust manifolds on '85 through '89 Mustangs, and will bolt up to the existing exhaust system or the SVO "Off Road" exhaust system. The '85 version retains the factory heat riser valve.

- 1) Raise the car and place on jack stands.
- Remove air cleaner of EFI air inlet hose from engine.
- 3) Remove plug wires and looms.
- 4) Unbolt factory exhaust manifolds from heads and exhaust system. Do not reinstall engine hoist brackets.
- 5) Install new headers with the new bolts and gaskets supplied.
- 6) Grind one edge of the dip stick bracket so that the bracket will slide under the head of the right header bolt on the #6 port. Some models will require relocation of the lower air injection tube on the passenger side to prevent the rubber hoses from contacting the header tube.
- 7) Reinstall plug wires and air cleaner. Start engine and check for gasket leaks. All tubular exhaust headers require periodic retightening of the header bolts to avoid gasket failure.

#### Parts List:

Left Header	1
Right Header	1
Flange Gaskets	2
Header Bolts	16
Collector Bolts	4
Collector Nuts	4

# J. BITTLE AMERICAN



### A JBA Shorty consists of:

Each of the following for the right and left side of the engine.

- One 3/8" mild steel head flange
- Four 1-1/2" diameter tubes
- One collector
- One flange collector flange
- One Collector to exhaust-pipe sealing dome.
- One high temperature head flange gasket
- All fasteners required for installation

# The Principle of operation is simple:

The manifold collects the exhaust gases from the exhaust ports, collects them, and provides a single passage to deliver the gases to the OEM catalytic convertors.

These exhaust manifolds are to be built exclusively by JBA