

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-161-12
Relating to Exemptions Under Section 27156
of the Vehicle Code

GALE BANKS ENGINEERING
EXHAUST CROSSOVER PIPES, PARTS NO. 52702-STD AND NO. 52702-HO
FOR 1982-1989 CHEVROLET CAMAROS AND PONTIAC FIREBIRDS
EQUIPPED WITH V8 ENGINES

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 Sections 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 exhaust crossover pipes parts No. 52702-STD and No. 52702-HO manufactured by Gale Banks Engineering 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 1982 through 1989 model-year Chevrolet Camaros and Pontiac Firebirds equipped with V-8 engines.

This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

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 an exemption to sell, offer for sale, or advertise any component of a kit 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 GALE BANKS ENGINEERING EXHAUST CROSSOVER PIPES.

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

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.

Executive Order D-161-8, dated November 17, 1987, is hereby superseded and of no further force and effect.

Executed at El Monte, California, this 4th day of November, 1988.


K. D. Drachard, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF GALE BANKS ENGINEERING'S EXHAUST CROSSOVER PIPES
PARTS NO. 52702-STD AND NO. 52702-HO FOR 1982-1989 CHEVROLET
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by

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State of California
Air Resources Board
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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

Gale Banks Engineering (Banks) has requested an update to the existing Executive Order D-161-8 which exempted their exhaust crossover pipes, parts No. 52702-STD and No. 52702-HO from the prohibitions in Vehicle Code Section 27156. The E.O. covered installation on 1982-1988 Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines. Their update request is to include 1989 Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines.

Based on the previously submitted information of exhaust emissions from a 1985 Pontiac Firebird and based on the fact that the 1986-1989 model-year fuel-injected engines are carry-overs from the 1985 model-year, the staff concludes that the installation of the Banks crossover pipes will not adversely affect exhaust emissions from the vehicles for which the update is requested.

The staff recommends that Banks be granted an exemption update for their crossover pipes and that Executive Order D-161-12 be issued.

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EVALUATION OF GALE BANKS ENGINEERING'S EXHAUST CROSSOVER PIPES
PARTS NO. 52702-STD AND NO. 52702-HO FOR 1982-1989 CHEVROLET
CAMAROS AND PONTIAC FIREBIRDS EQUIPPED WITH V8 ENGINES

I. INTRODUCTION

Gale Banks Engineering (Banks) of 546 Duggan Avenue, Azusa, California 91702, has requested an update to the existing Executive Order D-161-8 which exempted their exhaust crossover pipes, parts No. 52702-STD and No. 52702-HO from the prohibitions in Vehicle Code Section 27156. The E.O. covers installation on 1982-1988 Chevrolet Camaros and Pontiac Firebird equipped with V8 engines. Their update request is to include 1989 Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines.

Banks has previously submitted a completed application, all the necessary information and comparative exhaust emissions data.

II. CONCLUSION

Based on the previously submitted information as well as the comparative exhaust emissions tests performed on a 1985 Pontiac Firebird equipped with a 305 CID V8 gasoline fuel-injected engine and based on the fact that the 1986-1989 model-year fuel-injected engines are carry-overs from the 1985 model-year, the staff concludes that the installation of the Banks crossover pipes will not adversely affect exhaust emissions from the vehicles for which an exemption update is requested.

III. RECOMMENDATION

Staff recommends that Banks be granted an exemption update for their crossover pipes to include 1989 Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines and that Executive Order D-161-12 be issued.

IV. DEVICE DESCRIPTION AND OPERATION

The Banks crossover pipes are high quality replacements for the original equipment manufacturer (OEM) crossover pipes found on 1982-1989 Camaros and Firebirds equipped with V8 engines. The function of the exhaust crossover pipes (both OEM and Banks) is to route exhaust gases from the two exhaust manifolds of the V8 engine into a common pipe which then feeds the catalytic converter. The OEM crossover pipes are press bent and the connection between the two manifold runners is a T-type joint. This configuration is restrictive and the T-type joint causes high turbulence. The Banks crossover pipes are designed to eliminate this restriction and turbulence and improve engine performance. The Banks crossover pipes use larger tubing which is mandrel bent to provide smoother bends and the two manifold runners are connected with a Y-type joint to reduce turbulence.

Two slightly different crossover pipes are necessary to cover all 1982-1989 Camaros and Firebirds equipped with V8 engines because the carbureted engines have different exhaust manifolds than the fuel-injected engines. Banks part No. 52702-H0 is for fuel-injected engines and No. 52702-STD is for carbureted engines.

The installation of the Banks crossover pipes do not require the disconnection or removal of any OEM emission control components and does not alter the location of the catalytic converter. Installation instructions, included in every kit show how to properly install the Banks crossover pipes (Appendix A). The Banks kit identification label is shown in Appendix B.

V. DEVICE EVALUATION

Banks crossover pipes for 1982-1988 Camaros and Firebirds equipped with

V8 engines were granted exemption (E.O. No. D-161-8) on November 17, 1987. Exemption was granted on the basis that Banks crossover pipes appear to be as durable as the OEM crossover pipes which they are designed to replace and that the effectiveness of vehicle's pollution control system was not reduced.

Gale Banks Engineering is making their Banks crossover pipes available for installation on 1989 Camaros and Firebirds equipped with V8 engines. Their Banks crossover pipes are identical to those previously approved by the Air Resources Board.

In response to the request, the staff compared the engine design of the 1985-1989 models. The staff found that the exhaust crossover pipes would not affect the OBD system. Since the 1989 Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines are carry-overs from 1985-1988 model-year engines, and based on the previously submitted information as well as the comparative exhaust emission tests performed on a 1985 Pontiac Firebird equipped with a 305 CID V8 gasoline fuel-injected engine, the staff is of the opinion that the installation of the Banks crossover pipes will not adversely affect exhaust emissions from the vehicles for which the exemption update is requested.



APPENDIX A
INSTALLATION
INSTRUCTIONS

Gale Banks Engineering 546 Duggan Avenue, Azusa, California 91702 (818) 969-9605

DEAR CUSTOMER,

THIS BANKS POWER PACK EXHAUST SYSTEM IS DESIGNED FOR USE ON 1983 THROUGH 1988 (F-BODY) V-8 CAMAROS AND FIREBIRDS. THESE VEHICLES HAVE BEEN PRODUCED WITH THE LG-4, H.O. AND I.R.O.C. ENGINE OPTIONS, WITH EXHAUST SYSTEMS WHICH VARY WITH ENGINE TYPE AND MODEL YEAR. YOUR BANKS POWER PACK SHOULD CONTAIN THOSE COMPONENTS THAT ARE APPLICABLE TO YOUR VEHICLE'S ENGINE / EXHAUST SYSTEM. THESE INSTRUCTIONS COVER ALL 83-88 F-BODY VEHICLES. READ THESE INSTRUCTIONS THOROUGHLY BEFORE PERFORMING ANY WORK TO FAMILIARIZE YOURSELF WITH THE INSTALLATION AND WHAT STEPS APPLY TO YOUR VEHICLE.

THESE INSTRUCTIONS CONTAIN FOUR PAGES OF TEXT, FIVE PAGES OF ILLUSTRATIONS AND A PARTS LIST. IF YOU ARE MISSING ANY PAGES, OR HAVE ANY QUESTIONS CONCERNING YOUR INSTALLATION, PLEASE CONTACT US. THANK YOU FOR BUYING BANKS PRODUCTS.

WARNING: BEFORE PERFORMING ANY WORK ON THE VEHICLE, MAKE SURE IT IS SUPPORTED BY JACK STANDS OR RAMPS OF SUFFICIENT CAPACITY FOR THE VEHICLE WEIGHT. NEVER WORK UNDER ANY VEHICLE SUPPORTED BY ONLY ITS SERVICE JACK!

- D. SAW THE NECK OFF OF THE CONVERTER BODY AT THIS POINT. KEEP YOUR CUT AS SQUARE AS POSSIBLE. A BANDSAW WORKS BEST FOR THIS CUT, HOWEVER A HACKSAW WORKS FINE IF YOU ARE CAREFUL AND TAKE YOUR TIME. REMOVE BURRS FROM THE CUT EDGE.
- E. REPEAT THE PROCEDURE IN SECTION C AND D FOR THE OUTLET END OF THE CONVERTER.
- F. WELD THE NEW INLET AND OUTLET ADAPTERS TO THE CONVERTER BODY AS SHOWN IN FIG. 5. NOTE THE DIRECTION OF THE CONVERTER AIR TUBE IN RELATION TO THE INLET AND OUTLET ENDS OF THE CONVERTER! THE OUTLET ADAPTER HAS THE MOUNTING TAB ATTACHED, AND MOUNTING TAB SHOULD BE ON THE SAME SIDE OF THE CONVERTER AS THE AIR TUBE.

NOTE: THE CONVERTER BODY IS STAINLESS STEEL. FOR BEST RESULTS, AND IF AT ALL POSSIBLE, THE WELDING SHOULD BE DONE BY THE TIG (HELIARC) PROCESS, WITH ARGON PURGE INSIDE THE CONVERTER. OTHER TYPES OF WELDING MAY WORK, BUT CRACKS ARE LIKELY TO DEVELOP IN TIME. CHECK WELD SHOPS IN YOUR AREA TO SEE IF TIG WELDING IS AVAILABLE.

- G. REINSTALL HEAT SHIELD AND INSULATION PAD ON CONVERTER (CRIMP WITH PLIERS). TRIM ENDS OF HEAT SHIELD IF REQUIRED TO FIT OVER THE NEW END ADAPTER FITTINGS. WARNING: HEAT SHIELD MUST BE IN PLACE. CONVERTERS RUN VERY HOT AND CAN CAUSE A FIRE IF HEAT SHIELD IS NOT INSTALLED.

NOTE: PERFORATED SIDE OF HEAT SHIELD FACES DOWN ON VEHICLE. SEE FIG. 6.

7. INSTALL THE CATALYTIC CONVERTER ASSEMBLY ON THE Y-PIPE AND CONVERTER SUPPORT BRACKET. CHECK THE ALIGNMENT OF Y-PIPE AND CROSS-OVER PIPE TO ENSURE CLEARANCE BETWEEN PIPES AND OIL PAN, FLOOR BOARDS, FRAME, ETC.

NOTE: FOR VEHICLES WITH 4-BOLT FLANGE CONVERTERS: USE THE ORIGINAL BOLTS TO INSTALL THE CONVERTER.

FOR VEHICLES WITH SLIP JOINT INLET CONVERTERS: INSTALL 3" U-CLAMP (BUT DO NOT TIGHTEN) ON CONVERTER INLET FITTING.

TWO 3/8-16 x1" HEX BOLTS, LOCKNUTS, AND WASHERS ARE PROVIDED FOR CONVERTERS WITH MOUNTING TABS.

8. WHEN CLEARANCES LOOK CORRECT, INSTALL A 2½" U-CLAMP ON CROSS-OVER PIPE. REINSTALL FACTORY U-CLAMP ON CONVERTER AIRFEED TUBE. TIGHTEN ALL CLAMPS AND EXHAUST MANIFOLD NUTS.

FIG. 1

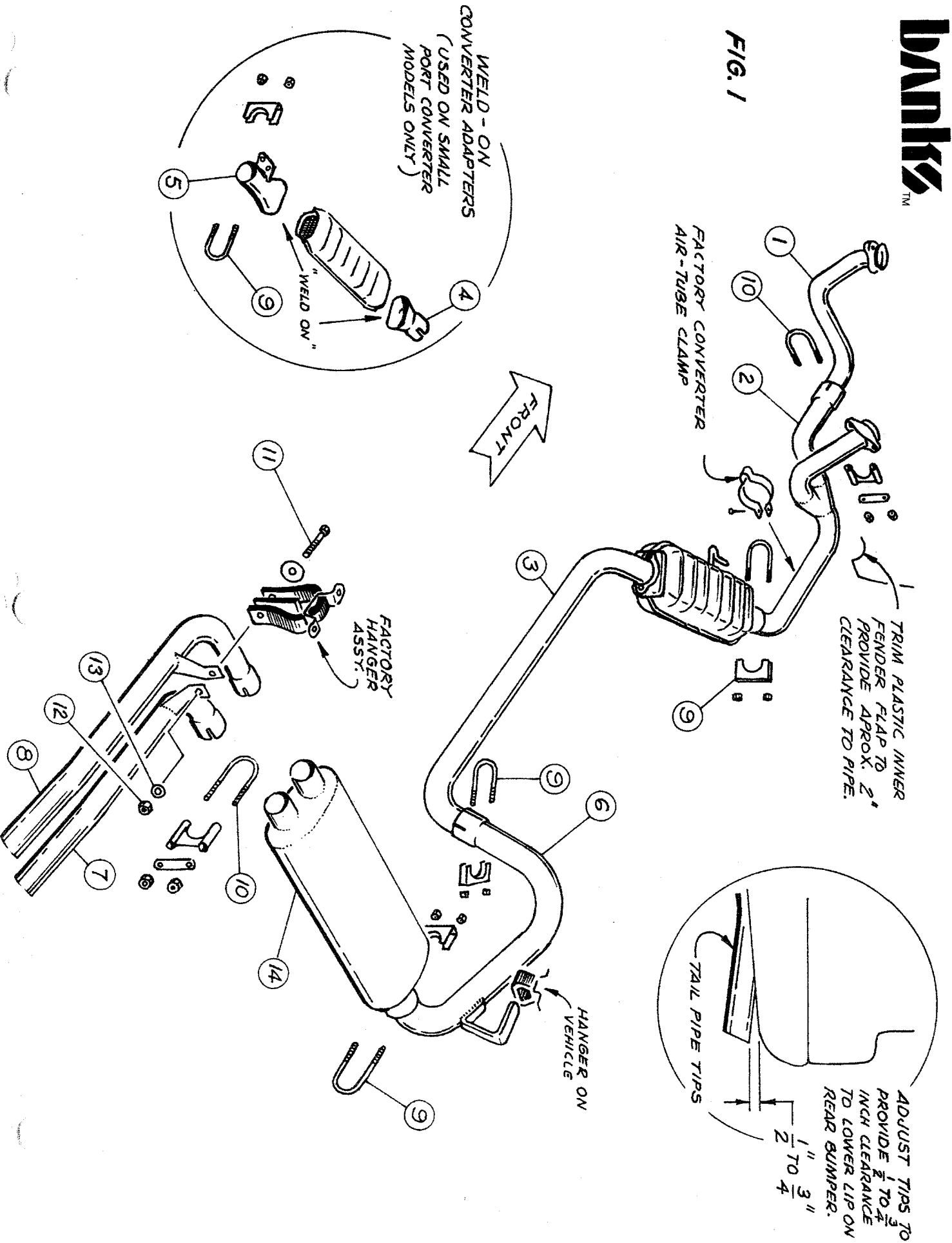
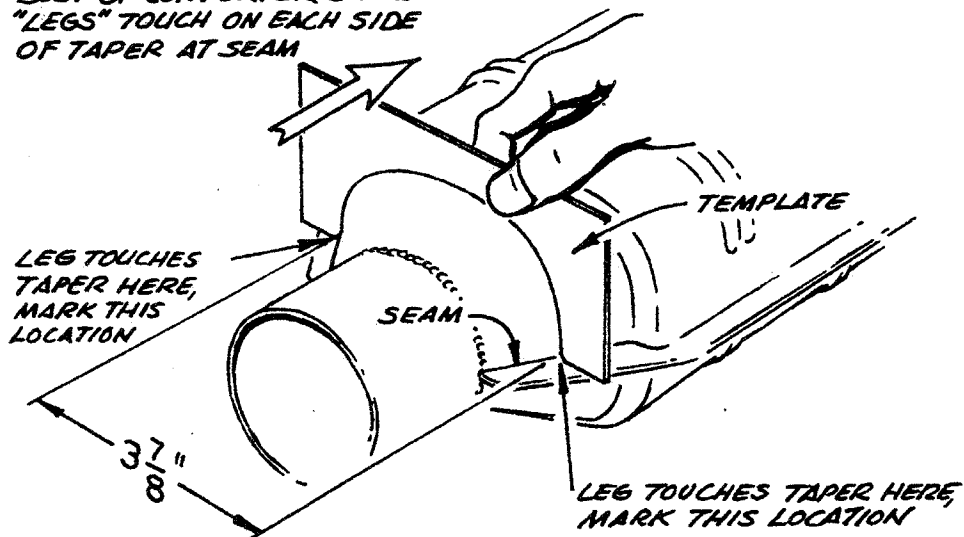
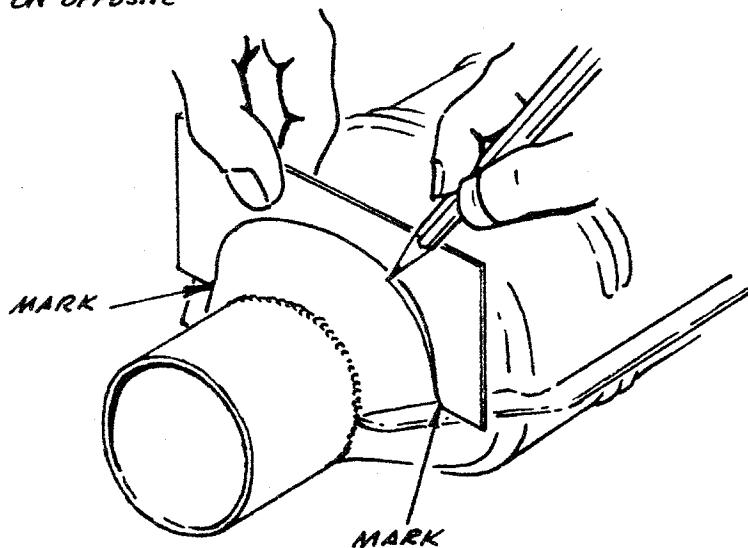


FIG. 4

SLIDE TEMPLATE TOWARD
BODY OF CONVERTER UNTIL
"LEGS" TOUCH ON EACH SIDE
OF TAPER AT SEAM



WHILE HOLDING TEMPLATE
SQUARE TO CONVERTER,
JOIN MARKS TOGETHER
TO ESTABLISH CUT LINE.
REPEAT ON OPPOSITE
SIDE.



CUSTOMER BILL OF MATERIALS
FOR CAMARO/FIREBIRD EXHAUST SYSTEM

<u>ITEM No.</u>	<u>QUANTITY</u>	<u>PART No.</u>	<u>DESCRIPTION</u>	<u>APPLICATION</u>
1	ONE ONLY	52700 52702	CROSS-OVER PIPE CROSS-OVER PIPE	ENGINE CODE H, E ALL OTHERS
2	ONE ONLY	52701 52703 52704	Y-PIPE Y-PIPE Y-PIPE	ENGINE CODE H, E 83-85 ENGINE CODE 7,G,F 86-88 ENGINE CODE G,F,8
3	ONE ONLY	52717 52718 52719	INTERMEDIATE PIPE INTERMEDIATE PIPE INTERMEDIATE PIPE	ENGINE CODE H,E 83-85 ENGINE CODE 7,G,F 86-88 ENGINE CODE G,F,8
4	1	52711	CATALYTIC CONVERTER ADAPTER, FRONT	ENGINE CODE H, E
5	1	52715	CATALYTIC CONVERTER ADAPTER, REAR	ENGINE CODE H, E
6	1	52721	OVER-AXLE PIPE	ALL
7	1	52730	TAIL PIPE, RIGHT	ALL
8	1	52729	TAIL PIPE, LEFT	ALL
9	4	52465	3" U-CLAMP	ALL
10	3	52461	2½" U-CLAMP	ALL
	2		3/8-16 x 1 GRADE 5 HEX BOLT	ALL
	2		3/8-16 NYLOCK NUT	ALL
	2		3/8 SAE WASHER	ALL
11	1		5/16-18 x 1½ GRADE 5 HEX BOLT	ALL
12	1		5/16-18 NYLOCK NUT	ALL
13	1		5/16 SAE WASHER	ALL
14	1	52410	MUFFLER	ALL
	1		INSTRUCTION PACKAGE	ALL

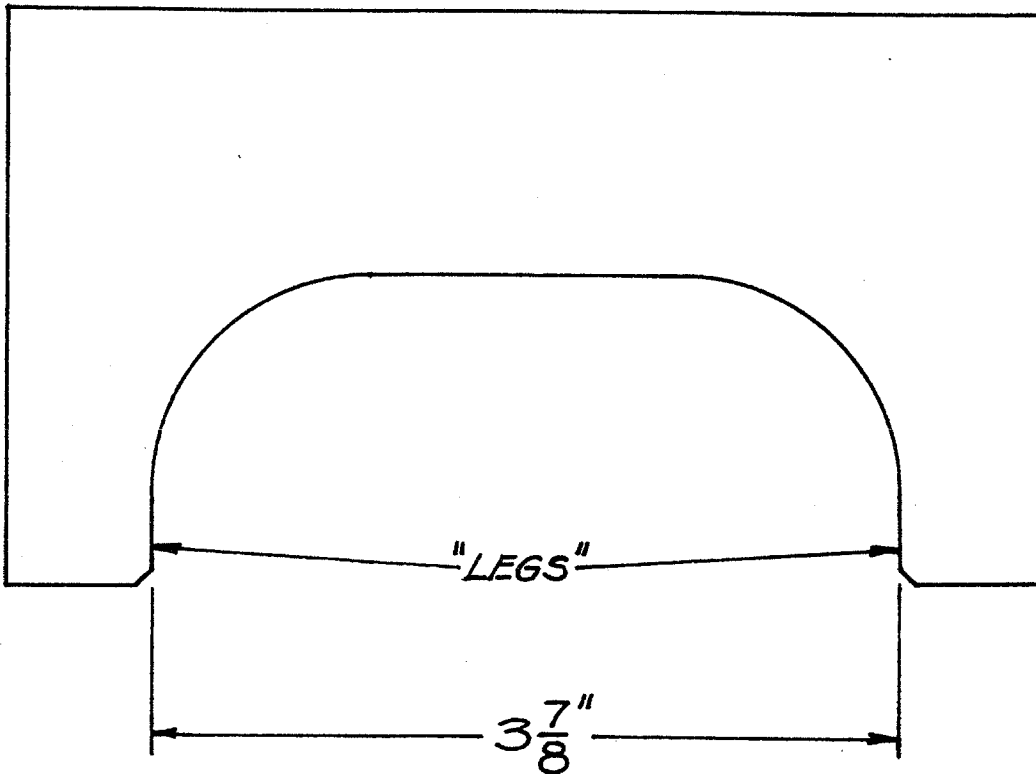
banks

Gale Banks Engineering 546 Duggan Avenue, Azusa, California 91702 (818) 969-9605

FIG. 7

CONVERTER CUT-OFF TEMPLATE

*CUT OUT, TRACE ONTO CARDBOARD,
CUT OUT CARDBOARD TO FORM TEMPLATE*





APPENDIX B
IDENTIFICATION
LABEL