

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-241-1
Relating to Exemptions Under Section 27156
of the Vehicle Code

M.A.C. PRODUCTS, INC.
DIRECT REPLACEMENT EXHAUST SYSTEM
STUBBIE HEADER, MODEL # 9358690 AND SHORTIE HEADER, MODEL # 508692

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 #16 gage steel Stubbie Header Model No. 9358690 and Shortie Header Model No. 508692 manufactured by M.A.C. Products, Inc. of 1410 W. Gaylord St., Long Beach CA 90813, 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 Stubbie Header Model No. 9358690 applicable to 1986-1992 Ford F-150, F-250, and Bronco powered by a 5.0 or 5.8 liter V-8 with EFI gasoline engine and Shortie Header, Model No. 508692 applicable to 1986-1992 Ford Mustang and Lincoln Mark VII powered by a 5.0 liter V-8 with EFI 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 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 M.A.C. PRODUCTS, INC.'S STUBBIE HEADER MODEL NO. 9358690 AND SHORTIE HEADER MODEL NO. 508692.

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.

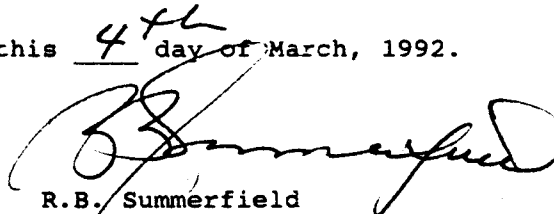
Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

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.

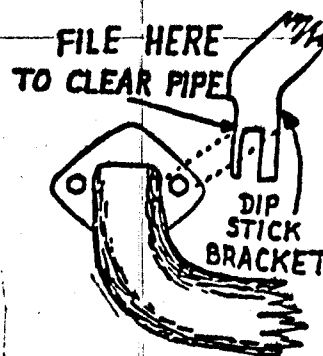
Executed at El Monte, California, this 4th day of March, 1992.



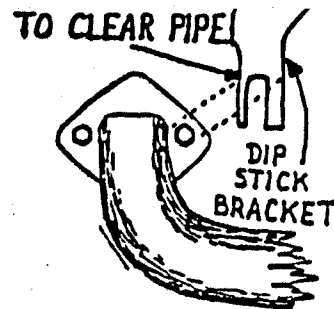
R.B. Summerfield
Assistant Division Chief
Mobile Source Division

Tools Required For Installation

- one 7/16, 1/2, 9/16 socket and wrench
- one 3/8 drive extension and ratchet
- one 5/8 socket with 1/2 drive extension and ratchet
- one 11/16 wrench
- one flat screwdriver
- one file



1. REMOVE ALL SPARK PLUGS AND OIL DIPSTICK TUBE. CONTINUE BY REMOVING AIR TUBE BRACKETS FASTENED TO EXHAUST MANIFOLD ON PASSENGER SIDE.
2. IT IS POSSIBLE TO PERFORM THE FOLLOWING STEPS WITHOUT STANDS. BUT SLIGHT ELEVATION OF CAR MAY BE NEEDED TO GAIN ACCESS TO Y-PIPE AND HEADER CONNECTION.
3. YOU WILL NEED TO REMOVE OXYGEN SENSOR LOCATED ON PASSENGER SIDE OF Y-PIPE TO GAIN ACCESS TO NUTS ATTACHING HEADER TO Y-PIPE. NOW REMOVE NUTS SECURING Y-PIPE TO STOCK HEADER SYSTEM ON BOTH SIDES OF TRUCK.
4. NEXT GO BACK TO TOP OF TRUCK WITH 9/16 SOCKET WITH EXTENSION AND RATCHET REMOVING ALL HEADER BOLTS ON BOTH HEADERS. PROCEED TO REMOVE STOCK HEADERS FROM CAR. AFTER REMOVAL OF STOCK HEADERS. USE A SCRAPER TO REMOVE ANY OLD HEAD GASKET MATERIAL THAT MIGHT BE ADHERED TO EXHAUST PORT.
5. TAKE PASSENGER SIDE STUBBIE WITH ONE HAND AND GENTLY PULL AWAY ANY AIR TUBE OR WIRING FOR HEADER CLEARANCE. ONCE IN PLACE TIGHTEN DOWN ALL HEADER BOLTS TO PROPER SPECIFICATIONS WITH YOUR 7/16 WRENCH. DO NOT TIGHTEN DOWN THE BOLTS IN NUMBER ONE PORT LEFT SIDE BOLT AND NUMBER FOUR PORT RIGHT SIDE BOLT. TAKE TWO BRACKETS ONE FOR EACH BOLT HOLE AND PUT 3/8"X1" BOLT THROUGH HOLE THAT IS OFFSET. ATTACH BOLT TO HEAD AND TIGHTEN DOWN. NOW TAKE 5/16" BOLT, WASHER, AND NUT. ATTACH AIR TUBE BRACKETS TO BRACKETS ON NUMBER ONE AND FOUR CYLINDER.
6. PROCEED TO DRIVER'S SIDE AND SLIDE HEADER INTO POSITION FOR INSTALLATION. THEN TIGHTEN HEADER BOLTS TO SPECIFICATION WITH YOUR 7/16 WRENCH LEAVING BACK BOLTS OF NUMBER SIX AND SEVEN CYLINDERS LOOSE FOR INSTALLATION OF DIPSTICK TUBE BRACKET AND BRACE BRACKET. NOW WITH FILE. FILE AWAY A PORTION OF THE DIPSTICK BRACKET AS SHOWN IN THE ILLUSTRATION ON THE BOTTOM OF THE PAGE.
7. AFTER TIGHTENING DOWN BOTH HEADERS. YOU WILL NEED TO GO UNDER VEHICLE AGAIN WITH FOUR 7/16 BOLTS, NUTS, AND WASHERS. YOU WILL ALSO NEED A 5/8" SOCKET WITH A HALF INCH DRIVE EXTENSION AND RATCHET. FROM THE BOTTOM OF TRUCK STARTING WITH THE PASSENGER SIDE. PUSH ONE BOLT WITH WASHER THROUGH FLANGE ON Y-PIPE AND FLANGE ON STUBBIE COLLECTOR TO ATTACH 7/16" NUT TO COLLECTOR SIDE. YOU WILL LIKELY NEED A SECOND PERSON TO HOLD NUT IN PLACE WITH 11/16" WRENCH WHILE TIGHTENING. WHILE TIGHTENING BOLTS ON BOTH SIDES OF VEHICLE MAKE SURE THAT BOTH ARE TIGHTENED EQUALLY WHILE BROUGHT UP TO PROPER TORQUE SPECIFICATIONS.
8. YOU WILL NEED TO RETIGHTEN HEADER BOLTS AFTER SEVERAL HOURS OF DRIVING DUE TO THE TIME IT TAKES FOR THE BOLTS TO EXPAND WITH HEAT AND BECOME TIGHT WITHIN THE HEAD.



TOOLS FOR INSTALLATION

one 7/16", 1/2", 9/16" socket and wrench
 one 3/8" drive extension and ratchet
 one 5/8" socket with 1/2" drive extension and ratchet
 one 11/16" wrench, one 10mm socket
 one flat screwdriver, and one flat file

1. REMOVE AIR FILTER COVER AND SET ASIDE WITH AIR FILTER. NEXT REMOVE THE TWO AIR FILTER BOX NUTS FROM FENDER WALL USING 7/16 SOCKET WITH EXTENSION AND RATCHET. PROCEED BY REMOVING AIR FILTER BOX.
2. NEXT REMOVE MASS AIR FLOW SYSTEM BY REMOVING THE TWO SCREWS WITH A 10mm SOCKET LOCATED ON THE SHOCK TOWER. THEN TAKE A SCREWDRIVER AND LOOSEN THE CLAMP SECURING AIR FLOW SYSTEM TO THROTTLE BODY AND REMOVE AIR FLOW SYSTEM. CONTINUE BY REMOVING ALL SPARK PLUGS AND OIL DIPSTICK TUBE.
3. NEXT YOU WILL NEED TWO JACK STANDS AND A JACK IN ORDER TO LIFT FRONT TIRES OFF GROUND A COUPLE OF INCHES. (OPTIONAL PROCEDURE) IT IS POSSIBLE TO PERFORM THE FOLLOWING STEPS WITHOUT STANDS. BUT SLIGHT ELEVATION OF CAR MAY BE NEEDED TO GAIN ACCESS TO H-PIPE AND HEADER CONNECTION.
4. NEXT GO UNDER CAR AND REMOVE NUTS SECURING H-PIPE TO STOCK HEADER SYSTEM ON BOTH SIDES OF CAR. YOU WILL NEED TO REMOVE OXYGEN SENSOR LOCATED ON PASSENGER SIDE OF H-PIPE TO GAIN ACCESS TO NUTS ATTACHING HEADER TO H-PIPE.
5. NEXT GO BACK TO TOP OF CAR WITH 9/16" SOCKET, EXTENSION AND RATCHET REMOVING ALL HEADER BOLTS ON BOTH HEADERS. PROCEED TO REMOVE STOCK HEADERS FROM CAR. AFTER REMOVAL OF STOCK HEADERS USE A SCRAPER TO REMOVE ANY OLD GASKET MATERIAL THAT MIGHT BE ADHERED TO EXHAUST PORT.
6. TAKE PASSENGER SIDE STUBBIE WITH ONE HAND GENTLY PULL UP AIR CONDITION LINE FROM HEADER CLEARANCE NO HARM SHOULD BE DONE BENDING AIR CONDITIONING LINE FOR IT CONTAINS A FLEXIBLE HOSE SECTION FOR FLEXIBILITY. WHILE HOLDING LINE UP, TAKE PASSENGER SIDE HEADER IN OTHER HAND GENTLY SLIDE HEADER DOWN INTO POSITION FROM FRONT OF THE MOTOR. ONCE IN PLACE TIGHTEN DOWN ALL HEADER BOLTS TO PROPER SPECIFICATIONS WITH YOUR 7/16" WRENCH.
7. TIGHTEN DOWN ALL HEADER BOLTS EXCEPT BACK BOLT ON NUMBER FOUR CYLINDER WHICH IS 3/8" X 1" BOLT AND WILL BE USED FOR BRACKET THAT IS SUPPLIED IN KIT. TAKE BRACKET AND PUT 3/8" X 1" BOLT THROUGH HOLE THAT IS OFFSET. ATTACH BOLT TO HEAD AND TIGHTEN DOWN. NOW TAKE 5/16" BOLT, WASHER AND NUT ATTACH AIR TUBE BRACKET ON NUMBER FOUR CYLINDER WITH 5/16" BOLT, NUT AND WASHER.
8. PROCEED TO DRIVER'S SIDE AND SLIDE HEADER INTO POSITION FOR INSTALLATION. THEN TIGHTEN HEADER BOLTS TO SPECIFICATION WITH YOUR 7/16" WRENCH LEAVING BACK BOLTS OF NUMBER SIX CYLINDER LOOSE FOR INSTALLATION OF DIP STICK TUBE BRACKET. NOW WITH A FILE, FILE AWAY A PORTION OF DIP STICK BRACKET AS SHOWN IN THE ILLUSTRATION ON THE TOP OF THE PAGE.
9. AFTER TIGHTENING DOWN BOTH HEADERS, YOU WILL NEED TO GO UNDER VEHICLE AGAIN WITH THE FOUR 7/16" BOLTS, NUTS AND WASHERS. YOU WILL ALSO NEED A 5/8" SOCKET WITH A HALF INCH DRIVE EXTENSION AND RATCHET. FROM THE BOTTOM OF THE CAR STARTING WITH THE PASSENGER SIDE, PUSH ONE BOLT WITH WASHER THROUGH FLANGE ON H-PIPE AND FLANGE ON STUBBIE COLLECTOR TO ATTACH 7/16" NUT TO COLLECTOR SIDE. YOU WILL MOST LIKELY NEED A SECOND PERSON TO HOLD NUT IN PLACE WITH 11/16" WRENCH WHILE TIGHTENING. WHILE TIGHTENING BOLTS ON BOTH SIDES OF VEHICLE MAKE SURE THAT BOTH ARE TIGHTENED EQUALLY WHILE BROUGHT UP TO PROPER TORQUE SPECIFICATIONS.
10. AFTER H-PIPE TO STUBBIE BOLTS ARE TIGHTENED PROCEED TO THE TOP OF VEHICLE AND LOWER CAR TO THE GROUND. PROCEED BY REPLACING ALL ORIGINAL PARTS ON VEHICLE AS THEY WERE REMOVED. YOU WILL NEED TO RE-TIGHTEN HEADER BOLTS AFTER SEVERAL HOURS OF DRIVING DUE TO THE TIME IT TAKES FOR THE BOLTS TO EXPAND WITH HEAT AND BECOME TIGHT WITHIN THE HEAD. IT MAY ALSO BE NECESSARY TO PULL THE BOTTOM AIR CONDITION LINE AWAY FROM HEADER SO THAT THEY DO NOT TOUCH EACH OTHER.

NOTE: SOME 86-92 5.0 MUSTANGS WERE INSTALLED WITH MOTOR MOUNT #E7ZZ-6033. THIS MOTOR MOUNT WILL NOT FIT WITH OUR HEADER. INSTEAD USE PART # E3ZZ-6038-E TO ELIMINATE PROBLEMS.