

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-133-4
Relating to Exemptions under Section 27156
of the Vehicle Code

REDLINE, INC. A SUBSIDIARY OF IMPAC
REDLINE CARBURETOR EXCHANGE KIT NO. K8055
USING ONE (1) WEBER MODEL 32/36 DGEV33B1 CARBURETOR

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 Redline Carburetor Exchange Kit No. K8055 using one (1) Weber model 32/36 DGEV33B1 carburetor 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 1968 through 1974 model-year MGB vehicles equipped with 1.8L "B" series engines.

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 REDLINE CARBURETOR EXCHANGE KIT NO K8055.

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.

Executed at El Monte, California, this 10th day of September, 1985.

Bob Cross for

K. D. Drachand, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF THE REDLINE CARBURETOR EXCHANGE KIT
NO. K8055 USING ONE (1) MODEL 32/36 DGEV33B1
WEBER CARBURETOR FOR EXEMPTION FROM THE
PROHIBITIONS OF VEHICLE CODE SECTION 27156
IN ACCORDANCE WITH SECTION 2222, TITLE 13
OF THE CALIFORNIA ADMINISTRATIVE CODE

SEPTEMBER, 1985

EVALUATION OF THE REDLINE CARBURETOR EXCHANGE
KIT NO. K8055 USING ONE (1) MODEL 32/36 DGEV33B1
WEBER CARBURETOR FOR EXEMPTION FROM THE
PROHIBITIONS OF VEHICLE CODE SECTION 27156
IN ACCORDANCE WITH SECTION 2222, TITLE 13
OF THE CALIFORNIA ADMINISTRATIVE CODE

by

Mobile Source Division
State of California
AIR RESOURCES BOARD
9528 Telstar Avenue
El Monte, CA 91731

(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

Redline, Inc., a distributor of Italian made Weber carburetors, has applied for exemption from the prohibitions of Vehicle Code Section 27156 for the Redline Carburetor Exchange Kit No. K8055 using one (1) Weber model 32/36 DGEV33B1 carburetor.

The Redline Carburetor Exchange Kit replaces the original equipment dual S.U. HIF 1-Barrel carburetors on 1968-74 model-year MGB vehicles. The original equipment air cleaner is not retained in the Redline Kit installation. The Redline Carburetor Exchange Kit utilizes an open type air cleaner which the staff has determined does not increase evaporative emissions. A delay valve is added to the gulp valve vacuum control line so that the gulp valve functions properly with the Weber carburetor. An anti-dieseling solenoid is installed in the idle circuit of the Weber carburetor to prevent the engine from running on after the engine has been shut off.

Comparative exhaust emission tests demonstrate that the aftermarket Redline Carburetor Exchange Kit No. K8055 using Weber model 32/36 DGEV33B1 carburetor does not adversely affect emissions. Based on the results of the tests and the evaluation of the Redline Carburetor Exchange Kit, the staff recommends that the exemption be granted as requested for the 1968-74 model-year MGB vehicles equipped with 1.8L "B" series engines.

CONTENTS

	<u>Page Number</u>
<u>SUMMARY</u>	i.
<u>CONTENTS</u>	ii.
I. <u>INTRODUCTION</u>	1.
II. <u>CONCLUSIONS</u>	1.
III. <u>RECOMMENDATIONS</u>	1.
IV. <u>DEVICE DESCRIPTION</u>	2.
V. <u>EVALUATION PROGRAM</u>	3.
VI. <u>DISCUSSION</u>	4.
APPENDIX	
Carburetor Diagrams	
HIF S.U. 1-Barrel	A-1
Weber DGEV33B1	A-2

EVALUATION OF THE REDLINE CARBURETOR EXCHANGE KIT NO. K8055 USING MODEL 32/36 DGEV33B1 WEBER CARBURETOR FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13 OF THE CALIFORNIA ADMINISTRATIVE CODE

I. INTRODUCTION

Redline, Inc. of Torrance, California, a subsidiary of Imported Parts and Accessories Corporation (IMPAC), is a distributor of Italian-made Weber carburetors. The company has applied for exemption from the prohibitions of Vehicle Code Section 27156 for a Carburetor Exchange Kit designated as Redline Kit No. K8055 utilizing one (1) Weber model 32/36 DGEV33B1 carburetor. The Carburetor Exchange Kit is designed to replace the original equipment manufacturer (OEM) dual S.U. HIF 1-Barrel carburetors as found on 1968-1974 model-year MGB vehicles equipped with 1.8L "B" series engines.

This report describes the evaluation of the Redline Carburetor Exchange Kit and the findings.

II. CONCLUSIONS

Comparative exhaust emission data and other information submitted by the applicant demonstrated that the Redline kit using one (1) Weber model 32/36 DGEV33B1 carburetor meets the Air Resources Board (ARB) requirements for exemption from the prohibitions of Vehicle Code Section 27156.

III. RECOMMENDATIONS

Based on the submitted comparative data of the Redline Carburetor Exchange Kit, the staff recommends that Redline, Inc. be granted exemption from the prohibitions of Vehicle Code Section 27156 for the Redline Carburetor Exchange Kit No. K8055 using one (1) model 32/36 DGEV33B1 Weber carburetor for 1968-74 model-year vehicles equipped with 1.8L "B" series engines.

IV. DEVICE DESCRIPTION

The Redline Carburetor Exchange Kit No. K8055 uses one (1) Weber model 32/36 DGEV33B1 carburetor to replace the OEM dual S.U. HIF 1-Barrel carburetors. The S.U. HIF 1-Barrel is a single barrel sidedraft carburetor; its venturi area is automatically changed according to engine air intake. The amount of fuel passing through the main jet is governed by a tapered needle which moves proportional to the engine air intake. A choke valve and auxiliary nozzle are used for cold starting. Main components of the carburetor consist of: a float chamber, suction chamber, suction piston, piston damper, metering needle and jet, throttle valve body, choke valve and auxiliary nozzle (See Appendix A).

The Weber 32/36 DGEV33B1 carburetor is a progressive two-barrel down draft design (see Appendix A). The Weber carburetor uses a mechanically-operated secondary which starts to open after the primary throttle opens approximately 68 percent. A diaphragm type accelerator pump is actuated by throttle movement and injects fuel into the primary barrel. The Weber is fitted with an anti-dieseling valve in the idle circuit which shuts off the fuel supply to the idle circuit whenever the ignition is switched off. The addition of this anti-dieseling valve upgrades the emission control of the MGB vehicles since the OEM carburetors were not equipped with such a device.

The DGEV model Weber carburetor is fitted with an electric choke which is more accurate and consistent than the manual choke used on the OEM carburetors.

Included in the Redline kit is the Weber carburetor, intake manifold, air cleaner, throttle linkage, and all necessary hoses, clamps and fasteners needed to install the Weber carburetor correctly.

INSTALLATION INSTRUCTIONS



READ & UNDERSTAND ALL STEPS OF THESE INSTRUCTIONS BEFORE BEGINNING THIS INSTALLATION. After unpacking, examine the carburetor and other components for shipping damage. If any damage is found, notify shipper/supplier immediately.

MGB (1968 - 1974) 1.8 Litre Eng. For Kit Nos. K8055, 52-55202 Using (1) Weber 32/36 DGAV-33B1 Carburetor

TOOLS AND EQUIPMENT NEEDED:

Combination, box or open end wrenches (metric)
Socket set with 12 mm socket
Screwdriver (regular and Phillips)
Pliers
Gasket Scraper
Rags
Cleaning Solvent
Knife

PARTS SUPPLIED WITH INSTALLATION KIT

1 - Hardware Kit
1 - Intake Manifold
1 - Weber 32/36 DGAV-33B1 Carburetor
1 - Air Filter Assembly

Note: A new fuel filter should be installed with this kit.

TUNE-UP SPECIFICATIONS

All tune-up specifications for the Weber Carburetor remain the same as those specified by the Factory, EXCEPT FOR IDLE MIXTURE AND DISTRIBUTOR ADVANCE SETTINGS. Emissions tune-up should be carried out by a suitably qualified Dealer or Independent garage, using infrared gas analyzing equipment.

Ignition Timing: 6° BTDC @ 850 RPM (with vacuum line removed)

Idle Mixture: 2.5% ± .5% CO

NOTE: Late model vehicles fitted with Emission Control Systems have many vacuum lines and electrical connections in their fuel systems. It is essential when dismantling, that disconnected lines be identified with a corresponding number tag or label system. To establish function, locate and identify the source of each line.

1. Remove the vehicle's gas cap.
2. Disconnect the battery.
3. **CAUTION: ENGINE SHOULD BE COLD BEFORE PERFORMING THIS STEP.** Drain the engine coolant from the radiator into a suitable container.
4. Remove the stock air filter and attached hoses.
5. Disconnect the vent hose from the carburetor to the charcoal canister.
6. Disconnect the crankcase vent hose.
7. Remove the stock choke cable.
8. Disconnect the throttle cable and fuel line. Plug the end of the fuel line to prevent any leakage.

This is sold under the provisions of California Air Resources Board Executive Order No. D-133-4 (C.A.R.B. E.O. No. D-133-4 Products with C.A.R.B. E.O. numbers are exempt from the prohibitions of Section 27156 of the California Vehicle Code. Performance kits so noted are legal for use on public highways in California.

WEBER DISTRIBUTION

9. Remove the nuts and washers retaining the carburetors to the intake manifold.
10. Remove the carburetors and the linkage as one unit. Remove the plastic heat insulators from the intake manifold.
11. Remove the metal heat shield and throttle cable bracket.
12. Remove the Gulp Valve and hose from the stock intake manifold. **(Fig. A)**

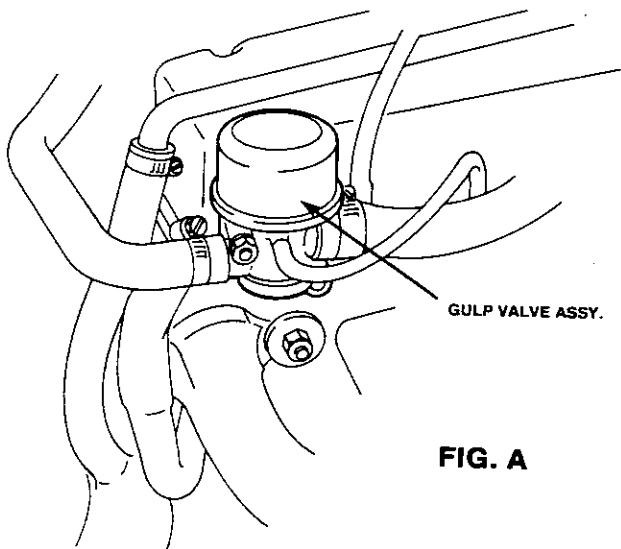


FIG. A

13. Remove the distributor advance hose and plug the distributor vacuum diaphragm using one of the rubber plugs provided in the kit. (Refer to the front page of these instructions and the under hood decal for new timing specifications.)
14. Remove the washers and nuts securing the intake manifold in place. Retain these parts for later use.
15. Remove the intake and exhaust manifolds. Insert a clean rag in the intake ports to prevent dirt from entering the engine. Remove any excess dirt and oil from the manifold mounting area with a gasket scrapper.

16. BENCH ASSEMBLY

(A) Install the water housing to the bottom of the new intake manifold using the stud, aluminum washer, o-ring seal and nyloc nut provided in the kit. **(Fig. B)**

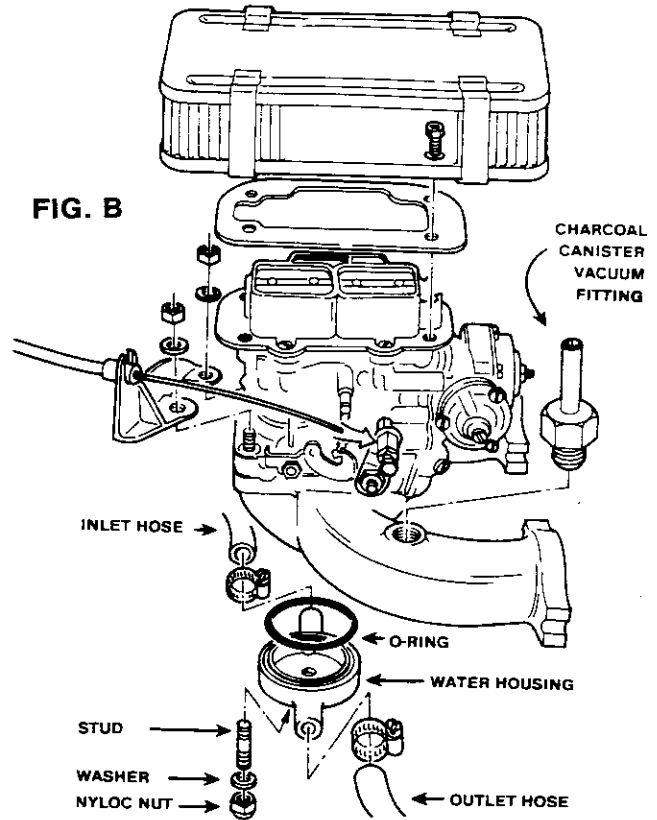


FIG. B

(B) Install the 4 carburetor studs in the mounting flange of the new manifold using the locking compound provided.

(C) Install the flange gasket, carburetor and throttle cable bracket as shown in Fig. A. Secure the carburetor and bracket in place using the lockwashers and nuts provided in the kit. **Do Not over tighten the carburetor nuts.**

(D) Install the throttle cable trunion on the carburetor as shown in Fig. B. Do not tighten the throttle cable trunion nut completely. Some free movement should be present to prevent bending the cable.

(E) Install the throttle return spring bracket on the choke diaphragm. Install the return spring provided in the kit.

17. Remove the rags from the intake ports and install the intake manifold and carburetor using the original washers and nuts. Install the new intake/exhaust gasket supplied in kit. Use a suitable gasket sealing compound on the intake gasket.
18. Install the Gulp Valve hose fitting from the kit in the front (# 1/2 runner) on the new intake (Fig. F) Install the charcoal canister vacuum purge fitting in the rear location. **(Fig. B)** If your vehicle is not equipped with either of these fittings, plugs are provided in the kit. **(BE SURE TO USE LOCKTITE WHEN INSTALLING PLUGS.)**

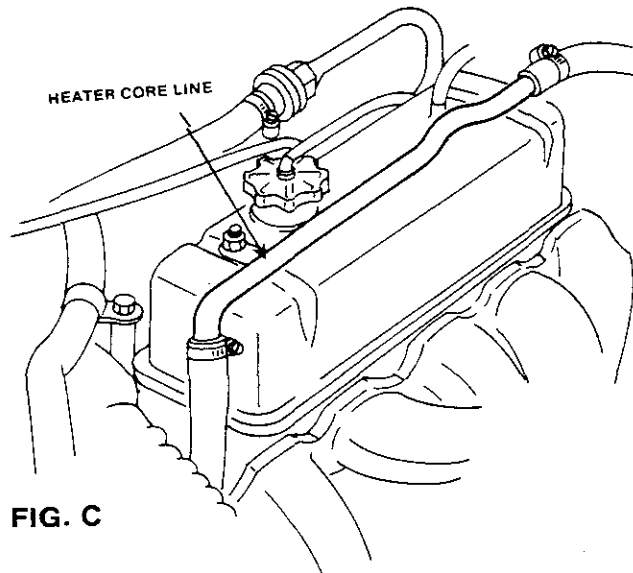


FIG. C

19. Disconnect and remove the metal heater core line that runs along the top of the valve cover. (Fig.C) Install the water hose extender from the kit in the front heater core hose. Using the hose from the kit route the hoses as shown in Fig. B Hose clamps are provided in the kit.

20. Install the throttle cable jacket in the bracket and route the cable thru the trunion. Tighten the trunion set screw to secure the cable in place.

21. **Check Throttle operation for free movement. If there is any indication of sticking or binding, correct as necessary before proceeding.**

22. Connect the vacuum hose for the charcoal canister to the rear fitting in the intake manifold. Connect the large hose for the Gulp Valve to the front fitting.

23. Install the plastic tee in the charcoal canister vacuum line. Cut a 4" piece of vacuum line supplied in the kit and install it on the tee. Install the vacuum delay valve with the **Black** side towards the Gulp Valve. Connect the delay valve to the top of the Gulp Valve using the remaining hose from the kit. (Fig. D)

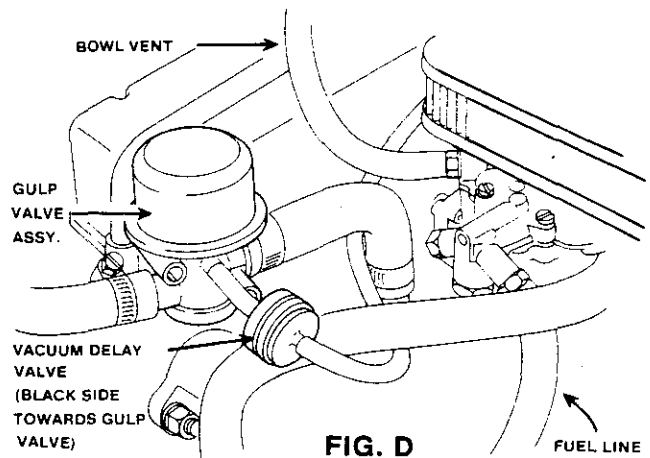


FIG. D

24. Reconnect the fuel line and the charcoal canister hose to the bowl vent fitting on the carburetor.

CAUTION: Do not reverse the fuel line and bowl vent connections. (Fig. E)

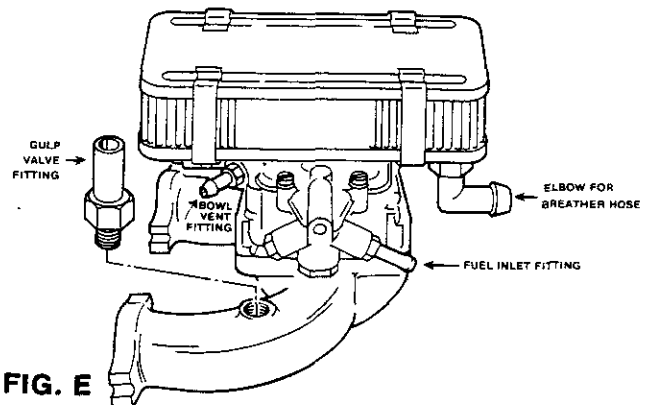


FIG. E

25. Connect the wire loom supplied in the kit to the choke element and idle cut-off solenoid. Connect the remaining end of the wire to an ignition activated 12v source.

26. Refill the radiator and reconnect the battery.

27. Install the plastic elbow supplied with the air filter to the underside of the filter base. Install the filter assembly and connect the breather hose to the elbow fitting.

28. Replace the gas cap.

29. Start the engine and check for vacuum and fuel leaks. Correct as necessary before proceeding.

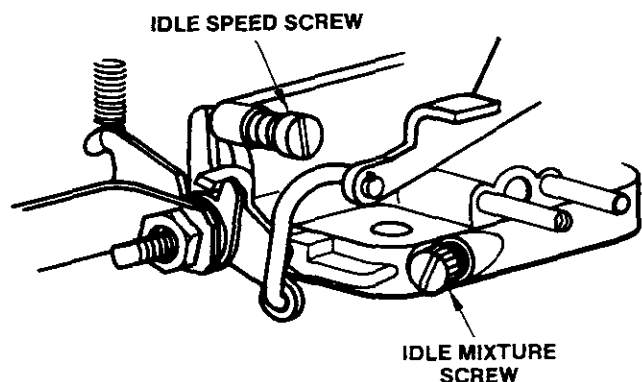
30. Apply the Tune-Up Specifications decal supplied in the kit next to the original decal in the engine compartment of the vehicle. Adjust the vehicle to the specifications on the new decal.
31. Check for adequate hood clearance before closing hood.
32. The automatic choke on this carburetor is activated by depressing throttle pedal twice slowly and then ignition key is activated.

DGV/DGAV LEAN BEST IDLE SETTING PROCEDURE

NOTE: Before adjusting carburetor, be sure engine is at operating temperature, (choke fully off) air cleaner is removed and vacuum lines are plugged off.

1. The Weber DGV/DGAV idle speed screw should be adjusted to its "preliminary" set-point before adjusting the idle mixture. To set the idle speed screw follow these steps:
2. Back "out" the idle speed screw until the tip of the screw no longer touches the throttle lever. Then slowly turn the screw in until it just comes in contact with the throttle lever.
3. From the "contact" position, turn the idle speed screw "in" one (1) full turn.
4. If a tachometer is available, install it prior to starting the engine. If a tachometer is not available set idle mixture "by ear."
5. Start engine, be sure choke is not engaged, and proceed to adjust the idle mixture.
6. Turn the idle mixture screw "in" (clockwise) until the engine RPM begins to fluctuate on the tachometer. (If adjusting by ear, until a noticeable drop in speed is heard.)
7. Back "out" (counterclockwise) the idle mixture screw slowly, until the engine idle becomes steady. Try to obtain the leanest setting without affecting the idle speed. If necessary, repeat steps 6 and 7 until the best setting is achieved.

8. Once the idle mixture is set, fine tune the engine's idle speed; if necessary, by readjusting the idle speed screw. (Note: Turning "in" (clockwise) the idle speed screw will increase engine speed. Turning "out" (counterclockwise) the idle speed screw will decrease the engine speed.)
9. If idle speed is reset, go back and repeat steps 6 and 7.



If after following these instructions you require further assistance, please call the Weber Tech. Service dept. at the phone numbers listed below, during normal business hours.

1-800-WEBER US (Outside CA)
(932-3787)

1-800-WEBER CA (CA Only)
(932-3722)