

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-314
Relating to Exemptions Under Section 27156
of the Vehicle Code

FUELSAVER OVERSEAS LIMITED
FUELSAVER

WHEREAS, Vehicle Code Section 27156 and Title 13 California Code of Regulations (hereafter "CCR") Section 2222(e), authorizes 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, Fuelsaver Overseas Limited has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for the Fuelsaver.

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-45-5, the ARB finds:

1. The Fuelsaver is an add-on device that is attached to the fuel line in a motor vehicle.
2. The fuel line is part of the required motor vehicle pollution control system.
3. The Fuelsaver is intended for use with a required pollution control system.
4. The Fuelsaver by being installed on the fuel line alters the original design of a motor vehicle pollution control system.
5. The Fuelsaver is a device subject to the prohibitions of Vehicle Code Section 27156 and an add-on part as defined by 13 CCR Section 1900(b)(1).
6. The Fuelsaver does not reduce the effectiveness of any required motor vehicle pollution control device.
7. The ARB, in the exercise of technical judgement, is aware of no basis on which the Fuelsaver will provide either a decrease in emission or an increase in fuel economy.
8. It has not been determined what effect use of the Fuelsaver may have on any warranty, either expressed or implied, by the manufacturer of a motor vehicle on which the device is installed.

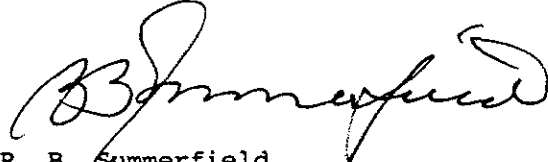
9. The Fuelsaver is not a certified motor vehicle pollution control device pursuant to Health and Safety Code Section 43644.
10. The ARB by granting an exemption to Fuelsaver Overseas Limited for the Fuelsaver does not recommend or endorse in any way the Fuelsaver for emissions reduction, fuel economy, or any other purpose.

IT IS HEREBY RESOLVED that the Fuelsaver is exempt from the prohibitions of Vehicle Code Section 27156 for installation on 1993 and earlier model-year vehicles subject to the following conditions:

1. 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.
2. No changes are permitted to the device as described in the application for exemption. Any changes to the device, applicable model year, or other factors addressed in this order must be evaluated and approved by the ARB prior to marketing in California.
3. 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 the Executive Order 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 component of the product as an individual device.
4. Any oral or written references to this Executive Order or its content by the Fuelsaver Overseas Limited, 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 fuel economy or emissions reduction claims for the Fuelsaver and is only a finding that the device is exempt from the prohibitions of Vehicle Code Section 27156.
5. 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 communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the order, in 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 after hearing that grounds for revocation exist.

Executed at El Monte, California, this 22nd day of March, 1993.



R. B. Summerfield
Assistant Division Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF FUELSAVER OVERSEAS LIMITED'S FUELSAVER
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION
27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA CODE OF REGULATIONS

March 1993

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by

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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

Fuelsaver Overseas Limited of St. Anthony's House, Rousdon, Lyme Regis, Dorset DT7 3XP, England, has applied for exemption from the prohibitions in Section 27156 of the California Vehicle Code for the Fuelsaver device. The device is designed for installation on 1993 and older model-year vehicles.

Previously the Air Resources Board (ARB) exempted three similar devices; "Fuel Charger" by J. A. Lance Company, Inc., "Fuel-Energizer" by the Magnetizer Group, Inc. and "Magna Charger" by B & D Research and Development. Based on the engineering evaluation of the Fuelsaver device and exemptions issued for the devices that operate in a manner similar to the Fuelsaver, the staff believes that the Fuelsaver will not have any adverse effects on the exhaust emissions from motor vehicles.

The staff recommends that the Fuelsaver device be exempted from the prohibitions in Vehicle Code Section 27156 and that Executive Order D-314 be issued.

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I. INTRODUCTION

Fuelsaver Overseas Limited of St. Anthony's House, Rousdon, Lyme Regis, Dorset DT7 3XP, England, has applied for an exemption from the prohibitions of Vehicle Code Section (VC) 27156 for the Fuelsaver device. The device is designed for installation on 1993 and older model-year vehicles. The applicant submitted installation instructions and drawings of the device for our evaluation.

II. CONCLUSION

Previously, the Air Resources Board (ARB) exempted three similar devices; "Fuel Charger" by J. A. Lance Company, Inc., "Fuel-Energizer" by the Magnetizer Group, Inc. and "Magna Charger" by B & D Research and Development". Based on the engineering evaluation of the device and the exemptions issued to other devices that operate in a manner similar to the Fuelsaver, the staff has determined the Fuelsaver will not have any adverse effects on the exhaust emissions from motor vehicles.

III. RECOMMENDATION

The staff recommends that Fuelsaver Overseas Limited be granted an exemption from the prohibitions in California Vehicle Code Section 27156 for the Fuelsaver device and that Executive Order D-314 be issued.

IV. DEVICE DESCRIPTION

The Fuelsaver is constructed out of tin alloy and magnetic ferrite. The total length of the cylindrical device depends on the model used which, can vary from 4 to 12 inches in length. The device is designed to be installed inline with the fuel supply line using hose clamps.

V. DISCUSSION

Fuelsaver Overseas Limited claims that the Fuelsaver, when installed on a vehicle's fuel line, provides more combustion and better lubrication to the engine by depositing a tin amalgam into and electromagnetically treating the fuel. The manufacturer stated that the tin helps lubricate and cushion engine parts while the magnetic ferrite core reverses the polarity of the hydrocarbons. The manufacturer claims this device decreases emissions and increases driveability. The device is further claimed to reduce and clean bacteria build-up and waxing in diesel injectors. The ARB did not perform any testing on the device to substantiate the claims made by the manufacturer. However, it is the staff's opinion that the technical principles underlying the stated function of the device are not capable of producing any effects on emissions and fuel economy.

The ARB previously exempted three similar devices; "Fuel Charger" by J. A. Lance Company, Inc., "Fuel-Energizer" by the Magnetizer Group, Inc. and "Magna Charger" by B & D Research and Development". Because of previous exemptions issued to similar devices with the same operating principle as the Fuelsaver and the fact that qualifying for an exemption is based on not adversely affecting exhaust emissions, the staff recommends that Fuelsaver Overseas Limited be granted an exemption as requested.

APPENDIX

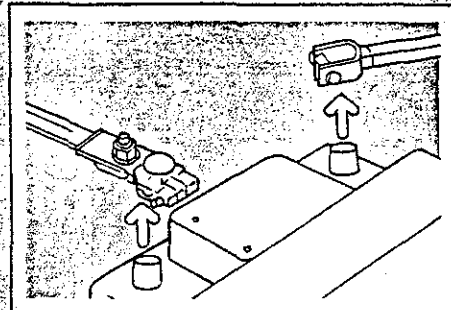
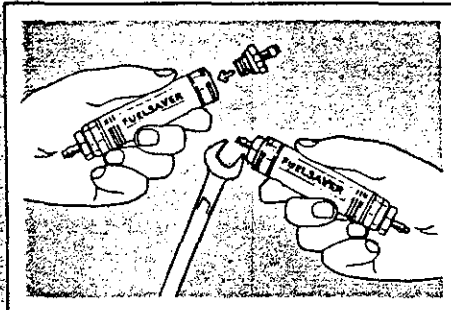
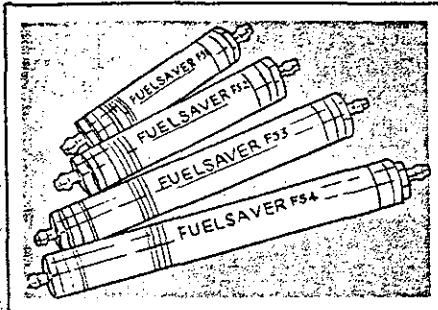
FITTING INSTRUCTIONS

For best results from your FUELSAVER it should be fitted by an authorised agent or a competent mechanic, with final tuning carried out on an exhaust gas analyser.

Choose the correct unit for the engine size.

Screw the adaptors into each end of the unit, and "nip up" using 19mm or 3/4" AF spanner (DO NOT overtighten).

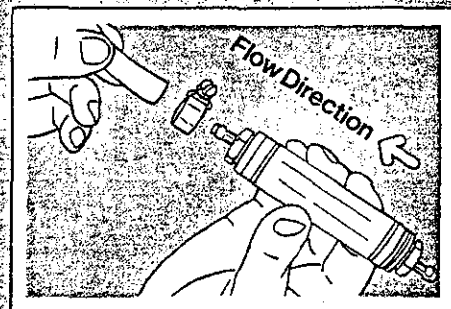
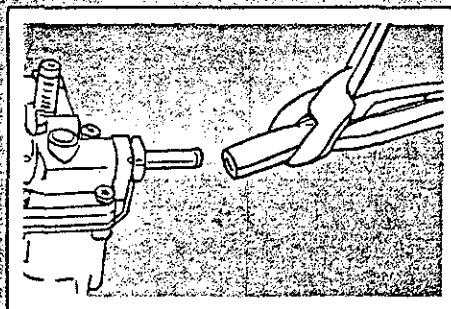
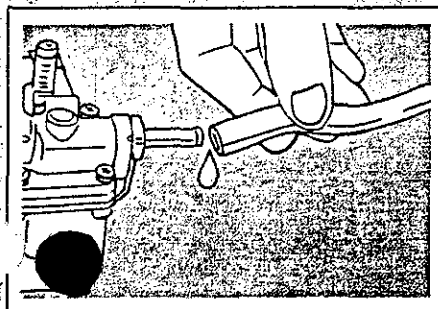
Disconnect the battery terminals to avoid sparks.



4 Remove and drain the fuel line.

5 Cut fuel line very close to the carburettor/injection pump and place the unit within 10 cm of it.

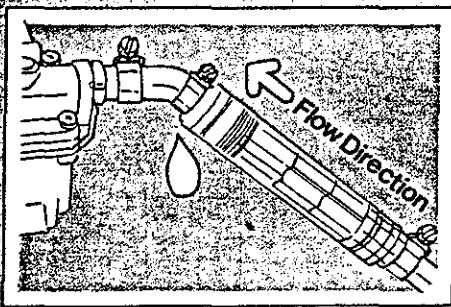
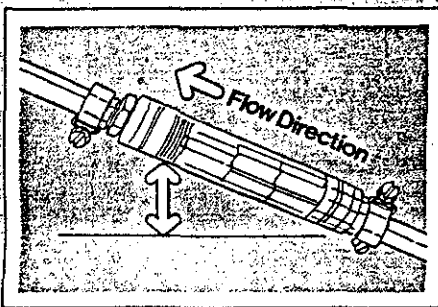
6 Fit the unit by pushing the fuel line fully onto the adaptors and fixing with hose-clips provided.



7 The unit is best fitted with a slight incline upwards at the outlet end as this prevents air-locks forming.

8 Run the engine and check for leaks.

9 For maximum performance, tune the engine and check again at 500 miles (900 km) with a further tune-up at 3 000 miles (5 400 km).



Where the manufacturer states that a car can be converted to use unleaded fuel, Fuelsaver may be fitted thereby avoiding alteration to the timing, this will have a marked effect on performance and fuel consumption. Where the engine is already running on unleaded fuel, the fitting of Fuelsaver will allow the engine to be re-tuned back to leaded fuel performance whilst still using unleaded fuel. This will produce significant benefits to your "pocket", particularly when using unleaded fuel.

WORKSHOP TECHNICAL DATA

Ensure that the vehicle engine is in a serviceable condition prior to fitting. Install the correct size unit and follow the fitting instructions. Run the engine and test for fuel leaks before proceeding.

VARIABLES AND THEIR RELEVANCE

Monoxide output is an indicator of air ratio at the intake manifold. An

increase in this value means an over rich mixture.

2. Hydrocarbon output is the amount of unburnt fuel leaving the engine and indicates combustion efficiency.

3. Oxides of nitrogen show a higher reading when there are lower toxic emissions.

4. Oxygen is an indicator of combustion efficiency and condition of manifold and exhaust system, which should read zero.

DIESEL ENGINES

5. No adjustment or conversion is needed after FUELSAVER has been fitted. Simply fill up and run normally.

SET-UP PROCEDURES

- Run the engine until the oil temperature is above 60°C.
- Using a gas analyser, run the engine above 2 000 RPM for at least thirty seconds to clear the system. Allow the engine to idle and let the gas reading stabilise for approx-

- Set the idle RPM to specification + or - 50 RPM.
- Adjust the gas readings to the manufacturer's specification. It is advised to carry out this operation within three minutes for best results.

- As the unit has a run in period, ask the customer to bring the vehicle back after 2 000 to 3 000 miles (3 600 to 5 400 km) to recheck and adjust the gas readings.
- If the vehicle has a catalytic converter or a fuel management system (Lambda), then