

File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-7-209
Relating to Certification of New Motor Vehicles

VOLKSWAGEN AG

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1999 model-year Volkswagen AG exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: XVWXV01.8228 Displacement: 1.8 Liters (109 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Sequential Multiport Fuel Injection
- Secondary Air Injection
- Turbocharger
- Charge Air Cooler
- Three Way Catalytic Converter
- Heated Oxygen Sensors (two)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The TLEV certification exhaust emission standards for this engine family in grams per mile are:

| <u>Miles</u> | <u>Non-Methane Organic Gas</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Formaldehyde</u> | <u>Carbon Monoxide (20°F)</u> |
|--------------|--------------------------------|------------------------|------------------------|---------------------|-------------------------------|
| 50,000 | 0.125 | 3.4 | 0.4 | 0.015 | 10.0 |
| 100,000 | 0.156 | 4.2 | 0.6 | 0.018 | n/a |

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gas (NMOG) reflect application of a 0.98 RAF for 1999 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

| <u>Miles</u> | <u>Non-Methane Organic Gas</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Formaldehyde</u> | <u>Carbon Monoxide (20°F)</u> |
|--------------|--------------------------------|------------------------|------------------------|---------------------|-------------------------------|
| 50,000 | 0.067 | 1.4 | 0.1 | 0.001 | 3.7 |
| 100,000 | 0.069 | 1.5 | 0.1 | 0.001 | n/a |

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 and Subsequent Model Motor Vehicles," Title 13, California Code of Regulations, Section 1978, and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

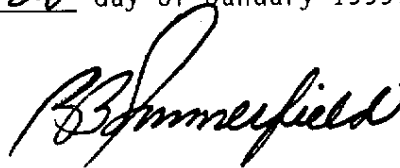
BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 28th day of January 1999.



R. B. Summerfield, Chief
Mobile Source Operations Division

1999 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: VOLKSWAGEN Exh Eng Fam: XVWXV01.8228 Evap Fam: XVWXR0110234
 All Eng Codes in Eng Fam: CA 49S 50S X AB965 ORVR: YES X NO
 Exh Std: CA Tier-1 TLEV X LEV ULEV SULEV ; US EPA Tier-1
 Veh Class(es): PC X LDT1 LDT2 MDV1 MDV2 MDV3 MDV4 MDV5
 Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)
 Fuel Type(s): Dedicated X Flex-Fuel Dual-Fuel Bi-Fuel Gasoline X Diesel
 CNG LNG LPG M85 Other (specify)
 Exh Emiss Test Fuel(s): Indo CBG X CNG LPG M85 Other (specify)
 Diesel: 13 CCR 2282 40 CFR 86.113-90 40 CFR 86.113-94
 Evaporative Emission Test Procedure: California Federal X
 Service Accum: Std AMA Mod AMA Mfr ADP X Other (specify)
 NMOG Test Procedure: N/A Std X Equip R/L Test Proc: SHED X Pt Source
 Hybrid: Type A B C , APU Cycle (e.g., Otto, Diesel, Turbine)
 Engine Config. 4, in line Displacement: 1.8 Liters 109 Cubic Inches
 Valves per Cylinder: 5 Rated HP: 148 @ 5,800 RPM
 Engine: Front X Mid. Rear Drive: FWD X RWD 4WD-FT 4WD-PT
 Exhaust ECS (eg., EGR, MFI, TC, CAC, etc.) SFI / AIR / TC / CAC / TWC / HO2S(2) / OBDII
 (use abbreviations per SAE 1930 JUN93)

| Engine Code (also list CA/49ST/50ST) | Vehicles Models (if coded see attachment) | Trans. Type A-auto M-man. | ETW or Test WT | DPA or RLHP | Ignition (ECM/PCM) Part No. | EGR System Part No. | Catalytic Converter Part No. |
|--|--|------------------------------------|-------------------------|-------------------|---------------------------------------|-------------------------------|--|
| APH 50 ST | New Beetle | M5 | 3,125 | 8.0 | 06A 906 032 E 06A 906 032 C | - | 1J0 131 701 FA or 1J0 178 EA |
| APH 50 ST | New Beetle | A4 | 3,250 | 7.8 | 06A 906 032 B 06A 906 032 A | - | 1J0 131 701 FA or 1J0 178 EA |

Date Issued: 10-17-98

Revisions: _____