

State of California
AIR RESOURCES BOARDEXECUTIVE ORDER A-7-124
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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1988 model-year Volkswagen AG exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
JVW2.1T5FVA0	2.1 (129)	Three-Way Catalyst Heated Oxygen Sensor (Electronic Port Fuel Injection)

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

The following are the emission standards for this engine family:

<u>Loaded Vehicle Weight</u>	<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0-3750	0.41	9.0	1.0
3751-5750	0.50	9.0	1.0

The following are the certification emission values for this engine family:

<u>Loaded Vehicle Weight</u>	<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0-3750	0.19	3.0	0.4
3751-5750	0.32	4.6	0.7

BE IT FURTHER RESOLVED: That the listed models in the 0-3750 loaded vehicle weight class were certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

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" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards 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 "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

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 regulations (Title 13, California Administrative Code, Section 2035 et seq.) and, for the listed vehicles in the 0-3750 loaded vehicle weight class, with Health and Safety Code Section 43204.

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 11th day of September, 1987.



K. D. Drachand, Chief
Mobile Source Division

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Volkswagen Executive Order No. A-7-124
 Engine Family JW2.1T5FVA0 Evaporative Family 1. VW-V
2. VW-VS
 Engine CID (Liters) 129 (2.1)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
 EEC-Electronic Engine Control
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance Control
 VA-Vacuum Advance
 VR-Vacuum Retard
 EIC: Electronic Ignition Control

Fuel System

CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor
 VV-Variable Venturi

Exhaust Emissions Control System

AIP-Air Injection-Pump
 AIV-Air Injection-Valve
 CL-Closed Loop
 EGR-Exhaust Gas Recirculation
 EM-Engine Modification
 OC-Oxidation Catalyst System
 TOC-Trap Oxidizer Continual
 TOP-Trap Oxidizer Periodical
 TR-Thermal Reactor
 TWC-Three-Way Catalyst System

Special Features

CCV-Combustion Chamber Valve
 CFI-Central Fuel Injection
 DID-Diesel Injection-Direct
 DIP-Diesel Injection-Prechamber
 EFI-Electronic Fuel Injection
 IC - Intercooler
 MFI-Mechanical Fuel Injection
 TC-Turbocharged

VEHICLE MODELS:

1. Vanagon Bus
 Vanagon Kombi
 Vanagon Campmobile
2. Vanagon syncro Bus
 Vanagon syncro Kombi
 Vanagon syncro Campmobile

DRIVE SYSTEM: 1. RWD Rear Engine/ Two -Wheel Drive

012584

2. Four Wheel Drive

C-2

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

E.O. 14176 7-124

Passenger Cars Light-Duty Trucks Medium-Duty Vehicles Gas Diesel

Manufacturer Volkswagen Page

Engine Family JVW2.1T5FVA0 Engine Code MV

ECS (Special Features) FI/TWC/EGS (EPFI/TWC/HDS) CID (Liter)-Type 129 (2.1) - 4 HO

Engine Code	Vehicle Models (If Coded see attachment) (Hp)	Trans.	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				Part No.	Part No.	Part No.	Part No.
MV	Vanagon Bus (16.4)	M 4	3,750	EIC Distributor 025905205 M	Fuel pump 043906091	n. a.	025131701
	Vanagon Kombi (16.4)						
	Vanagon Bus (16.4)	A 3	3,875	Fuel injection control 025133035	025131701 A		
	Vanagon Kombi (16.4)						
	Vanagon Camptobile (17.4)	M 4/A 3	4,000	ECU 025 906 022 D			
	Vanagon Syncro Bus/Kombi (19.2)	M 4+	4,000				
	Vanagon Camptobile (20.0)	Creepers	4,250				
Hp list: see page 05-01							

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

*Add 10% to dyno test HP for air conditioning usage.