State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-7-113
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 1987 model-year Volkswagen AG exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

| Engine Family | Displacement Cubic Inches (Liters) | | Exhaust Emission Control Systems (Special Features) |
|---|---|---|---|
| HVW1.8V6FSA5 | 109 | (1.8) | Three-Way Catalyst<br>Heated Oxygen Sensor<br>(Mechanical 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:

| Hydrocarbons Grams per Mile | Carbon Monoxide Grams per Mile | Nitrogen Oxides Grams per mile |
|---|---|---|
| 0.41 | 7.0 | 0.7 |

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

| Hydrocarbons Grams per Mile | Carbon Monoxide Grams per Mile | Nitrogen Oxides Grams per Mile |
|---|---|---|
| 0.25 | 2.2 | 0.3 |

BE IT FURTHER RESOLVED: That the listed models 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 1981 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 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 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 29th day of August, 1986.

K. D. Drachand, Chief
Mobile Source Division

# 1987 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

| | | | |
|---|---|---|---|
| Manufacturer | VW AG | Engine Family | HVW1.8V6FSA5 |
| Evap. Family | HVWSI-4V and HVWGI | Engine Type | Otto |
| | | Displacement (Liters) | 1.8 |

## ABBREVIATIONS

### Ignition System

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

### 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
SPL - Smoke Puff Limiter or Throttle Delay
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

### Fuel System

CFI, CL, DID, DIP, EFI, MFI
nV - nVenturi Carburetor

### VEHICLE MODELS:

Scirocco 16 V
Jetta GLI 16 V
GTI 16 V

Engine: Front X Mid. ___ Rear ___

DRIVE SYSTEM: FWD X RWD ___ 4WD Full Time ___ 4WD Part Time ___

E.O. No. 7-113

# 1987 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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

Manufacturer VW AG Engine Family HVW 1.8 V6FSA5

Displacement (Ltr.) 1.8 Engine Type Otto

Emission Control System MFI, OL, TWC

| Engine Code | Vehicle Models (Dyno HP) | Trans. Type | Equiv. Test Weight | Ignition System Part No. | Fuel System Part No. | EGR Valve Part No. | Catalyst Part No. |
|---|---|---|---|---|---|---|---|
| 1.8 DHK5 | | | | | | | |
| .....US2 | Scirocco 16V | M5 | 2625 | EI-ESAC | MFI | --- | 533 131 701 or |
| .....HS2 | (7.0) | | | 027 905 205 P | 026 133 353 A | --- | 533 253 208 |
| 1.8 DHK5 | | | | | | | |
| .....US2 | Jetta GLI 16V | M5 | 2750 | EI-ESAC | MFI | --- | 165 131 701 C or |
| .....HS2 | (7.0) | | | 027 905 205 P | 026 133 353 | --- | 165 253 208 |
| 1.8 DHK5 | | | | | | | |
| .....US2 | GTI 16V | M5 | 2750 | EI-ESAC | MFI | --- | 165 131 701 C or |
| | (7.0) | | | 027 905 205 P | 026 133 353 | | 165 253 208 |

Comments:
See page one for abbreviations and evaporative emission family identification 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.

Date of Issue:- Revisions: 03-05-87