

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-8-38
Relating to Certification of New Motor Vehicles

BAYERISCHE MOTOREN WERKE 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 Bayerische Motoren Werke AG exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
HBM2.7V5F300	164 (2.7)	Three-Way Catalyst with Closed Loop (Electronic 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>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per mile</u>
0.41	3.4	0.7

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

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.24	2.7	0.4

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.).

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 3rd day of April, 1986.

Bob Cross for

K. D. Drachand, Chief
Mobile Source Division

Section 17.03.00 ARB Supplemental Data Sheets

Manufacturer BMW
 Engine Family HBM2.7V5F300

Executive Order No. A-8-38
 Evaporative Family EV 20
 Engine CID (Liters) (2.7) 164

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
 EEC-Electronic Engine Control
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance Control
 VA-Vacuum Advance
 VR-Vacuum Retard
 BMCU-Bosch Motronic Control Unit
 EID-Electronic Ignition Distributor

Exhaust Emission Control System

AIP-Air Injection-Pump
 AIV-Air Injection-Valve
 CL-Closed Loop
 EGR-Exhaust Gas Recirculation
 EM-Engine Modification
 OC-Oxidation Catalyst System
 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
 MFI-Mechanical Fuel Injection
 TC-Turbocharged
EFI-ELEK. FI

Fuel System

CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor
 VV-Variable Venturi
 FI Fuel Injection Valves
 BMCU-Bosch Motronic Control Unit
 AFM-Air Flow Meter

DRIVE SYSTEM: Front engine, rear wheel drive

ISSUED: 040886

ISSUE DATE	REV.				SATISFACTORY	UNSATISFACTORY
12/5/85	DATE				DATE	NAME

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Passengers Cars Light-Duty Trucks Medium-Duty Vehicles

Gas Diesel

Manufacturer BMW E.O. A -8-38

Engine Family HBM2.7V5F300 CID (liter)-Type (2.7)¹⁶⁴ - inline six cyl.

ECS (Special Features) (EFI), TWC, CL

Engine Code	Vehicle Models (If Coded see attachment)	Trans.	Ign. System Part No.	Fuel System Part No.	Label Ident. Part No.	
2.7-30 M5	BMW 325, 325e, 325es	manual	BMCU	<u>EFI</u>	2 121 507	
2.7/3-4 M5			0 261 200 027	BMCU	1 874 981	
2.7/3-4 A4		automatic	EID	0 261 200 027	AFM	
			1 235 522 365	0 280 202 066	FI	
				0 280 150 126		

Comments: See page 17 -26 for abbreviations and evaporative emission family identification

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ENGINEERING EMISSION CONTROL

ISSUED: 040886

TEST VEHICLE REQUIREMENTS

Engine Family	Engine Code	Equiv. Test Weight (lbs.)	Actual Road Load Power *
HBM2.7V5F300	2.7-30 M5	3 000	8.7 hp
	2.7/3-4 M5	3 125	8.6 hp
	2.7/3-4 A4	3 125	8.6 hp

* coast down values

ISSUE DATE	REV DATE	SATISFACTORY DATE	UNSATISFACTORY NAME
12/5/85			

F.O.A-8-38