1tate of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-8-51
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 1989 model-year Bayerische Motoren Werke AG exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

Engine Family	Displacement Liters (Cubic Inches)	Exhaust Emission Control Systems (Special Features)
KBM2.5V5F359	2.5 (152.2)	Three-Way Catalyst Heated Oxygen Sensor (Electronic Port Fuel Injection) (On-Board Diagnostics)

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	0.4

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)
0.21	2.4	0.2

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 also comply with 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.).

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 July, 1988.

K. D. Drachand, Chief
Mobile Source Division

Section 17.03.00

ARB SUPPLEMENTAL DATA SHEET

E.O. A-8-51

Manufacturer BMW

Engine Family KBM2.5V5F359

Evaporative Family EV 40

Engine Type 4 cycle, inline -GNF

Liters (CID) 2.5 l

(152.2 cu. in.)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
ECU-Electronic Control Unit
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard

Exhaust Emission Control System

AIP-Air Injection-Pump
AIV-Air Injection-Valve
EIC-Electronic Injection Control (Diesel only)
EGR-Exhaust Gas Recirculation
EM-Engine Modification
OC-Oxidation Catalyst
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
OS-Oxygen Sensor
HOS-Heated Oxygen Sensor
EIC-Electronic Injection Control
TWC-Three Way Catalyst
DBC-Dual Bed Catalyst
WUOC-Warm-Up Oxidation Catalyst
WUTWC-Warm-Up Three-Way Catalyst

Special Features

CFI-Central Fuel Injection or Throttle Body Injection
EPFI-Electronic Port Fuel Injection
MPFI-Mechanical Port Fuel Injection
SFI-Sequential Fuel Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
TC-Turbocharger
SC-Supercharger
IC-Intercooler or Aftercooler
CCV-Combustion Chamber Valve
OBD-On Board Diagnostic

Fuel System

CFI, EPFI, MPFI, SFI
DID, DIP, HOS, OS
nV-nVenturi Caburetor
VV-Variable Venturi Carburetor

Vehicle Model(s): BMW 325i, 325is, 325i Conv., 325iX, 525i

DRIVE SYSTEM: Front engine, rear wheel drive

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ENGINEERING EMISSION CONTROL

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AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET ED # A-8-51

X Passengers Cars ___ Light-Duty Trucks ___ Medium-Duty Vehicles

X Gas ___ Diesel

Manufacturer BMW Engine Family KBM2.5V5F359

Liter (CID) 2 494 cu. cm Eng. Type 4 cycle, inline

ECS (Special Features) TWC, HOS, EIC (EPFI, OBD)

Engine Code	Vehicle Model(s)	Trans. Type	Equiv. Test Weight	Ign.System Part No.	Fuel System Part No.	Catalyst Part No.
2.5/3 M5	325i 325is	manual (M 5)	3 125 lbs.	BMCU	BMCU	1 711 838 1 711 848
2.5/3 A4-4	325i 325is	autom.	3 250 lbs.	0 261 200 173	0 261 200 173	1 716 622 1 716 614
2.5/3 M5-C	325i Conv.	manual	3 375 lbs.	EID	AFM	
2.5/3 A4-C	325i Conv.	autom.	3 375 lbs.	1 235 522 365 1 715 905	0 280 202 082	
2.5/3M5-X-2	325iX	manual	3 250 lbs.		FI	
2.5/3M5-X-4	325iX	manual	3 375 lbs.		0 280 150 715	
2.5/3A4-X	325iX	autom.	3 375 lbs.			
2.5/5 M5 2.5/5 A4	525i 525i	manual autom.	3 750 lbs. 3 750 lbs.			

Comments: See the preceding page for abbreviations and evaporative emission family identification.
For dyno test HP settings refer to the test vehicle requirements list.

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ENGINEERING EMISSION CONTROL

TEST VEHICLE REQUIREMENTS

Engine Family	Model Type	Equiv. Test Weight (lbs.)	Actual Road Load Power (hp)
KBM2.5V5F359	325i, 325is	3 125	8.9
	325iA, 325isA	3 250	9.2
	325i Conv.	3 375	8.3
	325iA Conv.	3 375	8.3
	325iX	3 250 3 375	9.2 9.3
	325iXA	3 375	9.3
	525i	3 750	7.3
	525iA	3 750	7.6

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