

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-8-105  
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 Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1998 model-year Bayerische Motoren Werke AG exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: WBMXV04.4M62 Displacement: 4.4 Liters (268.4 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Dual Three Way Catalytic Converters  
Dual Heated Oxygen Sensors (two)  
Sequential Multiport Fuel Injection

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

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

<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.25	3.4	0.4	10.0
100,000	0.31	4.2	0.6	n/a

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

<u>Miles</u>	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.18	1.1	0.2	7.0
100,000	0.20	1.2	0.3	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 non-methane organic gas (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 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 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 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 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.).

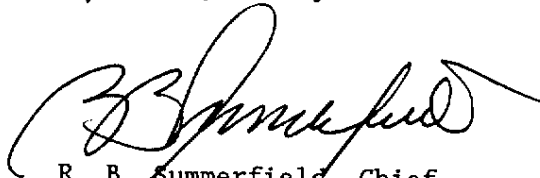
BAYERISCHE MOTOREN WERKE AG

EXECUTIVE ORDER A-8-105  
(Page 3 of 3)

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 13<sup>th</sup> day of May 1997.



R. B. Summerfield, Chief  
Mobile Source Operations Division

**1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
PASSENGER CARS, LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES**

Manufacturer: BMW Exh Engine Family: WBMXV04.4M62 Evap. Fam: WBMXR0160E38  
 All Eng Codes in Eng Fam: CA 49S 50S X AB965 CRUR: Yes X NO US EPA Tier-1 X  
 Exh Std: CA Tier-1 X TLEV LEV ULEV ZEV ;  
 Evap Std: 50K Useful Life with R/L X In-Use Exh Std: Full In Use X Alt In Use  
 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)  
 Emiss Test Fuel (s): Indo Ph2 X CNG LPG M85 Other (specify)  
Diesel: 13 CCR 2282 40 CFR86.113-90 40 CFR86.113-94  
 Service Accum: Std AMA Mod AMA Mfr ADP X Other (specify)  
 NMOG Test Procedure: N/A Std Equiv R/L Test Proc: SHED X Pt Source  
 Hybrid: Type A B C, APU Cycle (e.g., Otto, Diesel, Turbine)  
 Engine Configuration: V - 8 Displacement: 4.4 Liters 268.4 Cubic Inches  
 Valves per Cylinder: 4 Rated HP: 282 @ 5700 RPM  
 Engine: Front X Mid Rear Drive: FWD RWD X 4WD-FT 4WD-PT  
 Exhaust ECS: 2TWC,2 HO2S-2, SFI

EVAP TEST PROCEDURE: STATE FED X

Engine Code (50 ST)	Vehicle Models	Trans. Type	ETW (lbs.)	DPA or RLHP (hp)	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
4.4/7 A5	740i, 740iL	L5	4 500	7.3	1 429 917		1 745 243 1 745 244

E.O.# A-8-105  
2062

**1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
 PASSENGER CARS, LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES**

**Manufacturer :** BMW **Exh. Engine Family :** WBMXV04.4M62 **Evap. Fam:** WBMXR0160E39  
**All Eng Codes in Eng Fam:** CA \_\_\_ 49S \_\_\_ 50S X AB965 \_\_\_ **ORVR:** YES X NO \_\_\_  
**Exh Std:** CA Tier-1 X TLEV \_\_\_ LEV \_\_\_ ULEV \_\_\_ SULEV \_\_\_ US EPA Tier-1 \_\_\_  
**Veh Class:** PC X LDT1 \_\_\_ LDT2 \_\_\_ MDV1 \_\_\_ MDV2 \_\_\_ MDV3 \_\_\_ MDV4 \_\_\_ MDV5 \_\_\_  
**Single Cert Std for Multi - Class Eng Fam:** N/A  
**Fuel Type (s):** Dedicated \_\_\_ Flex-Fuel \_\_\_ Dual Fuel \_\_\_ Bi - Fuel \_\_\_ Gasoline X Diesel \_\_\_  
 CNG \_\_\_ LNG \_\_\_ LPG \_\_\_ M85 \_\_\_ Other (specify) \_\_\_  
**Emiss Test Fuel (s):** Indo \_\_\_ CBG X CNG \_\_\_ LPG \_\_\_ M85 \_\_\_ Other (specify) \_\_\_  
 Diesel: 13 CCR 2282 \_\_\_ 40 CFR86.113-90 \_\_\_ 40 CFR86.113-94 \_\_\_  
**Evaporative Test Procedure:** California \_\_\_ Federal X  
**Service Accum:** Std AMA \_\_\_ Mod AMA \_\_\_ Mfr ADP X Other (specify) \_\_\_  
**NMOG Test Procedure:** N/A \_\_\_ Std X Equiv \_\_\_ **R/L Test Proc:** SHED X Pt Source \_\_\_  
**Engine Configuration:** V - 8 **Displacement:** 4.4 Liters 268.4 Cubic Inches  
**Valves per Cylinder:** 4 **Rated HP:** 282 @ 5 700 RPM  
**Engine:** Front X Mid \_\_\_ Rear \_\_\_ **Drive:** FWD \_\_\_ RWD X 4WD-FT \_\_\_ 4WD-PT \_\_\_  
**Exhaust ECS:** 2TWC, 2HO2S(2), SFI

Engine Code (50 ST)	Vehicle Models	Trans. Type	ETW (lbs.)	DPA or RLHP (hp)	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
4.4/5 A5 4.4/5 M6	540iA 540i	L5 M6	4 000 4 000	7.6 8.1	1 430 147 1 430 146		1 745 243 1 745 244