

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER M-6-81
Relating to Certification of New Motorcycles

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 the following engine and exhaust emission control systems produced by the manufacturer are certified as described below for four-stroke gasoline-powered motorcycles:

Model Year: 2001

<u>Engine Family</u>	<u>Displacement Cubic Centimeters</u>	<u>Class</u>	<u>Exhaust Emission Control Systems & Special Features</u>
1BMXC0.65R13	652	III	Multiport Fuel Injection Three Way Catalytic Converter Heated Oxygen Sensor

Vehicle models and transmissions are listed on the attachment. Production motorcycles shall be in all material respects the same as those for which certification is granted.

The following are the exhaust emission standards and exhaust emission certification values in grams per kilometer for this engine family:

<u>Hydrocarbons</u>		<u>Carbon Monoxide</u>	
<u>Standard</u>	<u>Certification</u>	<u>Standard</u>	<u>Certification</u>
1.0	0.2	12	3

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," as required by Section 1976, Title 13 of the California Code of Regulations.

BE IT FURTHER RESOLVED: That these motorcycles are found exempt from compliance with the Air Resources Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" pursuant to Executive Order G-70-16-E.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 22nd day of June 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division

ATTACHMENT

Engine Family: 1BMXC0.65R13

Motorcycle Model Summary Form

65. Model Designation	66. Worst Case	67. Disp. (cc)	68. Bore / Stroke (mm)	69. Basic Ignition Timing (degrees)	70 Power (kW)	71 Rated Speed (RPM)	72 Rated Torque (Nm)	73. Rated Speed (RPM)
F650GS	X	652	100/83	0° static	37	6500	60	5000
F650GS Dakar	X	652	100/83	0° static	37	6500	60	5000

65. Model Designation	74. EIM (kg)	75. Loaded Vehicle Weight Range (kg)	76 Road Load (nt)	77 Total Vehicle Mass (kg)	78 Full Weight with All Factory Options (kg)	79. Trans. Type	80 N/V
F650GS	280	276 - 285	131,1	380	200	M-5	43,1
F650GS Dakar	280	276 - 285	131,1	380	200	M-5	43,1

Motorcycle Test Information Form

27. Are you carrying over test results from a previously certified family? ___ Yes No
 a) If yes, indicate family name: _____
 b) Is the family being certified identical to the family from which the data is being carried over? _____

28. Model Designation of Test Vehicle: F650GS
 29. Test Information Number: R13
 30. Vehicle ID: V 101963
 31. Service Accumulation Duration: 15033 (km)
 32. Maximum Rated Power: 37 kW @ 6500 RPM
 33. Displacement: 652 cc
 34. Certification Fuel: unleaded gas 91 AKI
 35. Test Data Set: 1

36. Road Load: 131,1 N
 37. Inertia Mass: 280 kg
 38. N/V: 43,1
 39. EVAP. Bench Test Method Approved:
 Date: 1996
 Reference: V 101466
 40. Unscheduled Maintenance: ___ Yes No
 41. If yes, Vehicle Log provided: _____

42. Exhaust Emission Deterioration Factors:

Test Number	System Kilometers	Emission Values	
		HC	CO
1	3553	0,242	2,256
2	10032	0,229	2,397
3	10098	0,262	2,737
4	15033	0,212	2,346
5			
6			
7			
Interpolated Values at 15 000 km:		HC = 0,2237	CO = 2,4927
Extrapolated Values at 30 000 km:		HC = 0,1883	CO = 2,6581

Check one:	
Regular DF	<input checked="" type="checkbox"/>
Modified DF	<input type="checkbox"/>
If different vehicle specify vehicle ID	

43. Emission Test Results:

Official Test Results		Test 1	Test 2	Test 3	Test 4
g/km	CO	2,346			
g/km	CO ²	89,6			
g/km	HC	0,212			
g/test	Evap.	1,09			

Deterioration Factors
(X) 1,066

(X) 1,000
(+) 0,096

44. Certification Levels:

g/km	CO	2,502			
g/km	HC	0,212			
g/test	Evap.	1,186			

Processed by: Sten Hada
 Date: 6/20/2000

Reviewed by: Joseph Jegerse
 Date: 6/21/2000

EO # M-6-81

2001 / BMW Motorcycle

Section: 7: Page: 1

Issued: 3/27/2000

Revised:

Motorcycle Engine Family Information Form

- 1. Manufacturer: BMW
- 2. Certification Contact Person, address, phone, and fax:
Mr. Gordon B. Keil
BMW of North America, Inc.
Montvale, N.J. 07645
Phone No. 201-573 2195
Fax No. 201-930 8402
- 3. Model Year: 2001
- 4. Process Code: new
(new, correction, revision, r/c, f/f. etc.)
- 5. Engine Family: 1BMXC0.65R13
50s Engine Code: X
49s Engine Code: _____
Calif. Engine Code: _____
- 6. Emission Control System: MFI, TWC, HO₂S
- 7. Calif. Designated Standard N/A
- 8. Projected Annual Sales: total
California
- 9. New Technology ___ Yes No
If yes, cite the correspondence or reference the
submittal document: _____
- 10. Displacement: 652 cc
- 11. Number of Cylinders: 1
- 12. Cylinder Arrangement: upright
- 13. Cylinder Head Configuration: OHC
- 14. Type of Cooling: Water
- 15. Combustion Cycle: 4 stroke
- 16. Method of Aspiration: natural
- 17. Fuel System: FI
- 18. Number of Catalytic Converters: 1

0.34

19. Adjustable Parameters:

Parameter(s)	Adjustable Range (or NA)	Tamper Resistance Method (or NA)	Method Approved
Ignition timing	N.A.	N.A.	
Idle speed	1500 ± 100 RPM	N.A.	

20. AECDs In the Emission Control Systems:

Exhaust System	Evaporative System
AECDs In System: <u>ECM</u> <u>Fuel pressure regulator</u> <u>Coolant temperature sensor</u> <u>Air temperature sensor</u> <u>Throttle position sensor</u> <u>Oxygen sensor</u> <u>Throttle valve actuator</u>	AECDs In System: <u>Purge valve</u> _____ _____ _____