State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER M-6-77
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 are certified as described below for four-stroke gasoline-powered motorcycles:

Model Year: 2000

Engine Family	Displacement Cubic Centimeters	Exhaust Class	Emission Control Systems & Special Features
YBMXC01.2R2C	1170	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 for this engine family. The designated hydrocarbons standard shall be listed on the permanent tune-up label:

Hydrocarbon Standards (Corporate Average) Grams per Kilometer	Hydrocarbon Standards (Designated) Grams per Kilometer	Hydrocarbons (Certification) Grams per Kilometer	Carbon Monoxide (Standard) Grams per Kilometer	Carbon Monoxide (Certification) Grams per Kilometer
1.4	0.8	0.6	12	5

BE IT FURTHER RESOLVED: That the above-described certification is subject to the following terms, limitations and conditions:

The above designated hydrocarbons standard shall be the exhaust limit for this engine family during the model year and therefore cannot be redesignated by the manufacturer. It represents the hydrocarbons exhaust emission standard applicable to this engine family that shall be applied when determining compliance of any motorcycle

within this engine family pursuant to Section 2101 of Title 13, California Code of Regulations. It will also be used to determine compliance with the above corporate average hydrocarbons standard as required per Section 1958(b), Title 13 of the California Code of Regulations.

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 1978 Through 2000 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 27th day of April 2000.

R. B. Summerfield, Chief
Mobile Source Operations Division

ATTACHMENT
EO# M-6-77

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)
R1200C	X	1170	101/73	0° static	45	5000	98	3000

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
R1200C	340	256	143,6	450	256	M-5	33,4

EO# M-6-77

Issued: 6/1/99

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

0.63

3. Model Year: 2000

4. Process Code: running change
   (new, correction, revision, r/c, f/f. etc.)

5. Engine Family: YBMXC01.2R2C
   50s Engine Code: X
   49s Engine Code: _____
   Calif. Engine Code: _____

6. Emission Control System: MFI, TWC, HO_2S

7. Calif. Designated Standard: 0.8 g/km HC

8. Projected Annual Sales:

9. New Technology ___ Yes X No
   If yes, cite the correspondence or reference the submittal document: _____

10. Displacement: 1170 cc

11. Number of Cylinders: 2

12. Cylinder Arrangement: opposed

13. Cylinder Head Configuration: OHC

14. Type of Cooling: Air

15. Combustion Cycle: 4 stroke

16. Method of Aspiration: natural

17. Fuel System: FI

18. Number of Catalytic Converters: 2

19. Adjustable Parameters:

Parameter(s)	Adjustable Range (or NA)	Tamper Resistance Method (or NA)	Method Approved
Ignition timing	N.A.	N.A.	
Idle speed	750 ± 50 RPM	N.A.	

20. AECDs In the Emission Control Systems:

Exhaust System		Evaporative System	
AECDs In System:	ECM Fuel pressure regulator Engine oil temperature sensor Air temperature sensor Throttle position sensor Oxygen sensor Throttle valve actuator	AECDs In System:	Purge valve

Engine Family: YBMXC01.2R2C

Motorcycle Test Information Form

27. Are you carrying over test results from a previously certified family? X Yes __ No
    a) If yes, indicate family name: XBMXC01.2R2C
    b) Is the family being certified identical to the family from which the data is being carried over? Yes

28. Model Designation of Test Vehicle: R1200C

29. Test Information Number: R2C

30. Vehicle ID: V 201512

31. Service Accumulation Duration: 14985 (km)

32. Maximum Rated Power: 45 kW @ 5000 RPM

33. Displacement: 1170 cc

34. Certification Fuel: 95 RON

35. Test Data Set: 1

36. Road Load: 143,6 N

37. Inertia Mass: 340 kg

38. N/V: 33,4

39. EVAP. Bench Test Method Approved:
    Date: 1997

    Reference: V 201508

40. Unscheduled Maintenance: ____ Yes X No

41. If yes, Vehicle Log provided: _____

42. Exhaust Emission Deterioration Factors:

		Emission Values	
Test Number	System Kilometers	HC	CO
1	3487	0,281	6,235
2	10123	0,333	6,048
3	10212	0,267	5,134
4	14985	0,401	5,353
5			
6			
7			
Interpolated Values at 15 000 km:		**HC = 0,3718**	**CO = 5,2732**
Extrapolated Values at 30 000 km:		**HC = 0,5171**	**CO = 4,0861**

Check one:	
Regular DF	X
Modified DF	
If different vehicle specify vehicle ID	

43. Emission Test Results:

Official Test Results		Test 1	Test 2	Test 3	Test 4		Deterioration Factors
g/km	CO	5,353				(X)	**1,000**
g/km	CO^2	127,5					----------
g/km	HC	0,401				(X)	**1,391**
g/test	Evap.	0,810				(+)	**0,335**

44. Certification Levels:

g/km	CO	5,353			
g/km	HC	0,558			
g/test	Evap.	1,145			

Processed by: [signature] Date: 4/19/00 Reviewed by: [signature] Date: 04/20/2000

Engine Family: YBMXC01.2R2C

Evaporative Emission Information

45. Evaporative Family: YBMXC0040R21
46. Number of Evap. Canisters: 1
47. Design Working Capacity: 24 g
48. Configuration: plastic can
49. Number of Storage Areas: 1
50. Fuel Reservoir Volume: 17,5 l
51. Vent System Configuration: purge
52. Nominal Tank Capacity: 17,5 l
53. Engine Displacement Class: III
54. Storage Medium Composition: charcoal
55. Evap. Canister Medium Volume: 450 cm^3
56. Evap. Family Sales: 630 (California)
57. Engine Code: 50s
58. Evap. Emission Family Code: 50s
59. Evap. Emission Family Group: NA
60. **Overall Evap D.F.** = 0,335

Bench DF

61. Test Vehicle ID: V 201508
62. Test Results:

Test Number	System Kilometers	Evap. Emission Values (g/test)
1	3500	0,317
2	10000	0,337
3	15000	0,410
4		
5		
6		
7		
Interpolated Values at 15000 km: = 0,398		
Extrapolated Values at 30000 km: = 0,516		
Bench Test D.F. = 0,118		

Check One:	
Regular DF:	X
Modified DF:	
If different vehicle specify the vehicle ID	

Vehicle DF

63. Test Vehicle ID: V 201512
64. Test Results.

Test Number	System Kilometers	Evap. Emission Values (g/test)
1	3487	0,36
2	10123	0,51
3	10212	0,40
4	14985	0,81
5		
6		
7		
Interpolated Values at 15000 km: = 0,715		
Extrapolated Values at 30000 km: = 1,266		
Vehicle Test D.F. = 0,551		