State of California AIR RESOURCES BOARD

EXECUTIVE ORDER M-6-86 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

| Engine Family | Displacement Cubic Centimeters | Class | Exhaust Emission Control Systems & Special Features |
|---------------|-----------------------------------|-------|---|
| 1BMXC01.2KLT | 1171 | Ш | 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:

| Hydrocarbons S | Standards | Hydrocarbons | Carbon | Monoxide |
|---|----------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|
| (Corporate Average) Grams per Kilometer | (Designated) Grams per Kilometer | (Certification) Grams per Kilometer | (Standard) Grams per Kilometer | (Certification) Grams per Kilometer |
| 1.4 | 0.8 | 0.7 | 12 | 3 |

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 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

R. B. Summerfield, Chief

Mobile Source Operations Division

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Issued: 5/17/2000

Revised:

Engine Family: 1BMXC01.2KLT

Attachment

Motorcycle Model Summary Form

| 65. Model Designation | 66. Wors t 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) |
|-----------------------------|--------------------------|----------------------|------------------------------------|-------------------------------------|---------------------|-------------------------------|-------------------------------|--------------------------------|
| K1200LT | X | 1171 | 70,5/75 | 6° static | 74 | 6750 | 115 | 4750 |

| 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 |
|-----------------------------|--------------------|--|----------------------------|--|--|-----------------------|-----------|
| K1200LT | 450 | 446 - 455 | 164,9 | 600 | 370 | M-5 | 30,54 |

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Issued: 5/17/2000

Revised:

Engine Family: 1BMXC01.2KLT

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: YBMXC01.2KLT
 - 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: K1200LT
- 29. Test Information Number: KLT
- 30. Vehicle ID: V 401660
- 31. Service Accumulation Duration: 15100 (km)
- 32. Maximum Rated Power: 74 kW @ 6750 RPM
- 33. Displacement: 1171 cc
- 34. Certification Fuel: 95 RON
- 35. Test Data Set: 1

- 36. Road Load: 164,9 N
- 37. Inertia Mass: 450 kg
- 38. N/V: 30,54
- 39. EVAP. Bench Test Method Approved:

Date: 1998

Reference: V 401514

- 40. Unscheduled Maintenance: ____ Yes X No
- 41. If yes, Vehicle Log provided:

42. Exhaust Emission Deterioration Factors:

| | | E | mission Values |
|-------------|-------------------|-------|----------------|
| Test Number | System Kilometers | HC | CO |
| 1 | 3659 | 0,393 | 2,433 |
| 2 | 9982 | 0,552 | 2,848 |
| 3 | 10019 | 0,712 | 4,106 |
| 4 | 15100 | 0,524 | 2,547 |
| 5 | | | |
| 6 | | | |
| 7 | | | |

Interpolated Values at $15\ 000$ km: HC = 0.6146 CO = 3.0874

Extrapolated Values at $30\ 000$ km: HC = 0.8106 CO = 3.3809

| Regular DF | X |
|-------------------------------------|---|
| Modified DF | |
| If different veh specify vehicle | |

43. Emission Test Results:

| Official Test Results | | Test 1 | Test 2 | Test 3 | Test 4 |
|--------------------------|-----------------|--------|--------|--------|--------|
| g/km | СО | 2,547 | | | |
| g/km | CO ² | 139.9 | | | |
| g/km | HC | 0,524 | | | |
| g/test | Evap. | 0,910 | | | |

(X)

(X) (+)

| D | Peterioration Factors |
|---|--------------------------|
| | 1,095 |
| - | |
| | 1,319 |
| | 0,022 |

44. Certification Levels:

| g/km | CO | (2,789) | |
|--------|-------|---------|--|
| g/km | HC | 0,691 | |
| g/test | Evap. | (0,932) | |

Processed 6/ Stack Date: Cluloo Reviewed 69: Joseph Jegede Date: 6/27/2000

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Revised: Engine Fam-ly

Motorcycle Engine Family Information Form IBMKC01.21 LT

| | Manufacturer: | BMW Bayerischo | : Moteron Werte) | 46- | | |
|-----------------------------|---|---|--|-----------------------------------|--|--|
| 2. | Certification Co Mr.Gordon B. K BMW of North Montvale, N.J. O Phone No. 201-5 | ntact Person, address, phor Teil America, Inc. 17645 | | 0.68 | | |
| 3. | Model Year: 200 | <u>01</u> | 10. Displacement: 117 | l cc | | |
| 4. | Process Code: no (new, correction | ew ı, revision, r/c, f/f. etc.) | 11. Number of Cylinde | rs: <u>4</u> | | |
| 5. | Engine Femily, 1 | DMYCOL OFF T | 12. Cylinder Arrangem | ent: <u>inline</u> | | |
| ٥. | 50s Engine | IBMXC01.2KLT | 13. Cylinder Head Con | figuration: OHC | | |
| | 49s Engine | | 15. Cymidei fiead Con | inguration. <u>OTIC</u> | | |
| | | e Code: | 14. Type of Cooling: W | <u>Vater</u> | | |
| 6. | Emission Control | System: MFI, TWC, HO ₂ S | S 15. Combustion Cycle: | 15. Combustion Cycle: 4 stroke | | |
| 7. | Calif. Designated | Standard: 0,8 g/km HC | 16. Method of Aspirati | 16. Method of Aspiration: natural | | |
| 8 | Projected Annual | Sales: total | 17. Fuel System: | n FI | | |
| | | lalifornia | 18. Number of Catalytic | | | |
| 9. 1 | | Yes X No rrespondence or reference ent: | 18. Number of Catalytic | | | |
| 9. 1 | If yes, cite the co submittal docume | Yes X No rrespondence or reference ent: eters: Adjustable Range | 18. Number of Catalytic the Tamper Resistance Method | | | |
| 9. N | If yes, cite the co submittal docume Adjustable Param Parameter(s) | Yes X No rrespondence or reference ent: eters: Adjustable Range (or NA) | 18. Number of Catalytic the Tamper Resistance Method (or NA) | Converters: 1 | | |
| 9. 1 19. | If yes, cite the co submittal docume | Yes X No rrespondence or reference ent: eters: Adjustable Range | 18. Number of Catalytic the Tamper Resistance Method | Converters: 1 | | |
| 9. 1 19. | If yes, cite the co submittal docume Adjustable Param Parameter(s) tion timing speed | Yes X No rrespondence or reference ent: Adjustable Range (or NA) N.A. 1050 ± 50 RPM | Tamper Resistance Method (or NA) N.A. N.A. | Converters: 1 | | |
| 9. 1 19. Igni Idle | Adjustable Param Parameter(s) tion timing speed AECDs In the Emaust System | Yes X No rrespondence or reference ent: Adjustable Range | Tamper Resistance Method (or NA) N.A. | Converters: 1 | | |