

File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER M-2-357
Relating to Certification of New Motorcycles

HONDA MOTOR CO., LTD.

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 2000 model-year Honda Motor Co., Ltd. exhaust emission control systems are certified as described below for four-stroke gasoline-powered motorcycles:

| <u>Engine Family</u> | <u>Displacement Cubic Centimeters</u> | <u>Class</u> | <u>Exhaust Emission Control Systems & Special Features</u> |
|----------------------|---|--------------|--|
| YHNXC01.1AAC | 1099 | III | Engine Modification |

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:

| <u>Hydrocarbon Standards (Corporate Average) Grams per Kilometer</u> | <u>Hydrocarbons (Designated) Grams per Kilometer</u> | <u>Hydrocarbons (Certification) Grams per Kilometer</u> | <u>Carbon Monoxide (Standard) Grams per Kilometer</u> | <u>Carbon Monoxide (Certification) Grams per Kilometer</u> |
|--|--|---|---|--|
| 1.4 | 0.9 | 0.6 | 12 | 10 |

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.

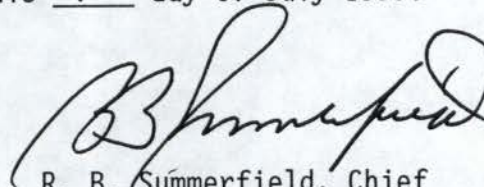
BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles."

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 1st day of July 1999.



R. B. Summerfield, Chief
Mobile Source Operations Division

Motorcycle Engine Family Information Form

0.4

1. Manufacturer: Honda Motor Co., Ltd.

2. Certification contact Person, address, phone, and fax:

Julie Barkow, Certification Assistant, Certification Department
 American Honda Motor Co., Inc. Mail Stop 500-2C-8A
 1919 Torrance Blvd., Torrance CA 90501-2746
 Telephone: (310)783-3417 Fax: (310)783-3510 E-Mail: Julie_Barkow@ahm.honda.com

3. Model Year: 2000

4. Process Code: New
 (new, correction, revised, r/c, f/f, etc.)

5. Engine Family: YHNXC01.1AAC

50s Eng. Code: N/A
 49s Eng. Code: YEE1
 Calif. Eng. Code: YEE2

6. Emission Control System: EM

7. Calif. Designated Standard(g/km): 0.9

8. Project Annual Sales: **CONFIDENTIAL**

9. New Technology: Yes No
 If yes, cite the correspondence or reference
 the submittal document: N/A

19. Adjustable Parameters:

| Parameters(s) | Adjustable Range (or N/A) | Tamper Resistance Method (or N/A) | Method Approved |
|------------------------|------------------------------|--------------------------------------|-----------------|
| Carburetor Pilot Screw | N/A | Sealed with an aluminum plug | N/A |
| | | | |
| | | | |

10. Displacement(cc): 1099

11. Number of Cylinder: 2

12. Cylinder Arrangement: 45 Degrees V-2

13. Cylinder Head Configuration: OHV/OHC

14. Type of Cooling: Liquid Cooled

15. Combustion Cycle: Otto

16. Method of Aspiration: Natural

17. Fuel System: Carburetors

18. Number of Catalytic Converters: N/A

20. AECDs in the Emission Control System:

| Exhaust System | Evaporative System |
|-------------------------|--|
| AECDs In System: N/A | AECDs In System: Evap CAV Control Valve |
| | |
| | |
| | |

Application Processed by: Joseph Jegede Date: 6/30/99 Reviewed by: Steve Hake Date: 6/30/99

Engine Family: YHNXC01.1AAC

Motorcycle Test Information Form

27. Are you carrying over test results from a previously certified family? Yes No
 a) If yes, indicate family name: VHN1.1PAGARB
 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: VT1100C3
 29. Test Information Number: W04
 30. Vehicle ID: 98EE-01
 31. Service Accumulation Duration(km): 15016
 32. Maximum Rated Power(kW @ RPM): 44 @ 4750
 33. Displacement(cc): 1099
 34. Certification Fuel: Indolene
 35. Test Data Set: 1
 42. Exhaust Emission Deterioration Factor

36. Road Load(nt): 155.8
 37. Inertia Mass(kg): 400
 38. N/V: 30.7
 39. Evap Bench Test Method Approval:
 Data: March 9, 1983
 Reference: 17.01.01-1(ARB) &
 17.01.02-2(ARB) thru
 17.01.02-12(ARB) in 1999
 Model Year Application
 40. Unscheduled Maintenance: Yes No
 41. If yes Vehicle Log Provided:
 See Section 7 page 14

| Test Number | System Kilometers | Emission Values | |
|--|-------------------|--------------------|---------------------|
| | | HC | CO |
| 1 | 3647 | 0.38 | 8.6 |
| 2 | 6371 | 0.42 | 9.0 |
| 3 | 6402 | 0.45 | 9.3 |
| 4 | 9605 | 0.44 | 9.6 |
| 5 | 12629 | 0.46 | 9.7 |
| 6 | 12662 | 0.45 | 9.1 |
| 7 | 15016 | 0.47 | 9.3 |
| Interpolated Values at <u>15,000</u> km: | | HC = <u>0.4727</u> | CO = <u>9.5304</u> |
| Extrapolated Values at <u>30,000</u> km: | | HC = <u>0.5655</u> | CO = <u>10.3498</u> |

| | |
|---|-------------------------------------|
| 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 | 9.3 | | | |
| g/km | CO ₂ | 102.5 | | | |
| g/km | HC | 0.47 | | | |
| g/km | Evap. | 0.89 | | | |

| Deterioration Factors | |
|-----------------------|-------|
| (X) | 1.086 |
| (X) | 1.196 |
| (+) | 0.1 |

44. Certification Levels:

| | | | | | |
|--------|-------|-----|--|--|--|
| g/km | CO | 10 | | | |
| g/km | HC | 0.6 | | | |
| g/test | Evap. | 1.0 | | | |

Engine Family: YHNXC01.1AAC

Evaporative Emission Information

- | | |
|---|---|
| 45. Evaporative Family: YHNKE0020FZD 46. Number of Evap. Canisters: 1 47. Design Working Capacity(g): 20.5 48. Configuration: Open Bottom 49. Number of storage Areas: 1 50. Fuel Reservoir Volume(cc): 172 51. Vent System Configuration: Internal 52. Nominal Tank Capacity(liter): 16.0 | 53. Engine Displacement Class: III 54. Storage Medium Composition: Charcoal 55. Evap. Canister Medium Volume(cc): 480 +/- 10 56. Evap. Family Sales: CONFIDENTIAL 57. Engine Code: YEE2 58. Evap. Emission Family Code: 00ZD 59. Evap. Emission Family Group: F 60. Overall Evap D.F. = 0.1 |
|---|---|

Bench DF

61. Test Vehicle ID: 95DP-01
 62. Test Results:

| Test Number | System Kilometers | Evap. Emission Values (g/test) |
|---|-------------------|--------------------------------|
| 1 | 3500 | 0.64 |
| 2 | 3500 | 0.63 |
| 3 | 3500 | 0.65 |
| 4 | 15000 | 0.80 |
| 5 | 15000 | 0.56 |
| 6 | 15000 | 0.51 |
| 7 | | |
| Interpolated Values at <u>15,000</u> km: = <u>0.623</u> | | |
| Extrapolated Values at <u>30,000</u> km: = <u>0.602</u> | | |
| Bench Test D.F. = <u>0.00</u> (calculated value = -0.02) | | |

| | |
|---|---|
| Check One: | |
| Regular DF | X |
| Modified DF | |
| If Different Vehicle Specify Vehicle ID | |
| | |

Vehicle DF

63. Test Vehicle ID: 95DP-01
 64. Test Results:

| Test Number | System Kilometers | Evap. Emission Values (g/test) |
|---|-------------------|--------------------------------|
| 1 | 3703 | 0.76 |
| 2 | 6473 | 0.80 |
| 3 | 6503 | 0.86 |
| 4 | 9466 | 0.87 |
| 5 | 12820 | 0.88 |
| 6 | 12850 | 0.91 |
| 7 | 15014 | 0.89 |
| Interpolated Values at <u>15,000</u> km: = <u>0.914</u> | | |
| Extrapolated Values at <u>30,000</u> km: = <u>1.081</u> | | |
| Vehicle Test D.F. = <u>0.17</u> | | |