File



State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER M-2-349
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:

| Engine Family | Displacement Cubic Centimeters | Class | Exhaust Emission Control Systems & Special Features |
|---|---|---|---|
| YHNXC01.1AAA | 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:

| 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 | 0.9 | 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 19th day of May 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Family: YHNXC01.1AAA

# 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) |
|---|---|---|---|---|---|---|---|---|
| VT1100C | X | 1099 | 87.5 / 91.4 | 11.5(BTDC) | 47.7 | 5500 | 97.1 | 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 |
|---|---|---|---|---|---|---|---|
| VT1100C | 370 | 366 - 375 | 149.7 | 375 | 375 | M5 | 29.5 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

# Motorcycle Engine Family Information Form

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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: YHNXC01.1AAA
   50s Eng. Code: N/A
   49s Eng. Code: YDB1
   Calif. Eng. Code: YDB2

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

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

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 |
| | | | |
| | | | |

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: 5/18/99 Reviewed by: Steve Hada Date: 5/18/99

Engine Family: YHNXC01.1AAA

# 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: VT1100C

29. Test Information Number: V04

30. Vehicle ID: 97DB-01

31. Service Accumulation Duration(km): 15014

32. Maximum Rated Power(kW @ RPM): 47.7 @ 5500

33. Displacement(cc): 1099

34. Certification Fuel: Indolene

35. Test Data Set: 1

36. Road Load(nt): 149.7

37. Inertia Mass(kg): 370

38. N/V: 29.5

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

42. Exhaust Emission Deterioration Factor

| | | Emission Values | |
|---|---|---|---|
| Test Number | System Kilometers | HC | CO |
| 1 | 3506 | 0.48 | 9.5 |
| 2 | 6457 | 0.53 | 9.4 |
| 3 | 6486 | 0.55 | 9.9 |
| 4 | 9534 | 0.54 | 9.8 |
| 5 | 12817 | 0.66 | 10.5 |
| 6 | 12847 | 0.57 | 9.4 |
| 7 | 15014 | 0.54 | 9.8 |
| **Interpolated Values at 15,000 km:** | | **HC = 0.5967** | **CO = 9.9470** |
| **Extrapolated Values at 30,000 km:** | | **HC = 0.7169** | **CO = 10.4668** |

| 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 | 9.8 | | | | (X) | 1.052 |
| g/km | $CO_2$ | 89.8 | | | | | ——— |
| g/km | HC | 0.54 | | | | (X) | 1.201 |
| g/km | Evap. | 0.89 | | | | (+) | 0.1 |

44. Certification Levels:

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

Engine Family: YHNXC01.1AAA

# Evaporative Emission Information

45. Evaporative Family: YHNXE0020FZB
46. Number of Evap. Canisters: 1
47. Design Working Capacity(g): 20.5
48. Configuration: Open Bottom
49. Number of storage Areas: N/A
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: YDB2
58. Evap. Emission Family Code: 00ZB
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** 15,000 **km: =** 0.623 | | |
| **Extrapolated Values at** 30,000 **km: =** 0.602 | | |
| **Bench Test D.F. =** 0.00 (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** 15,000 **km: =** 0.914 | | |
| **Extrapolated Values at** 30,000 **km: =** 1.081 | | |
| **Vehicle Test D.F. =** 0.17 | | |