State of California AIR RESOURCES BOARD

EXECUTIVE ORDER M-2-352 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 |
|---------------|-----------------------------------|-------|--|
| YHNXC01.1AAD | 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 St | tandards | Hydrocarbons | Carbon N | |
|-------------------------------|-----------|---------------------------|----------------------|---------------------------|
| (Corporate Average) Grams per | | (Certification) Grams per | (Standard) Grams per | (Certification) Grams per |
| Kilometer | Kilometer | Kilometer | Kilometer | |
| 1.4 | 0.9 | 0.6 | 12 | 8 |

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 2^{4} day of June 1999.

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R. B. Summerfield, Chief Mobile Source Operations Division

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Issued: 1999/03/05 Revised: 1999/10/12

Engine Family: YHNXC01.1AAD

Motorcycle Model Summary Form

| | (mn) | (degrees) | | (RPM) | (Nm) | (RPM) |
|------|-------------------|------------|------|-------|------|-------|
| 1099 | 87.5 / 91.4 | 12(BTDC) | 47.7 | 5500 | 97.1 | 3000 |
| 1099 | 87.5 / 91.4 | 11.5(BTDC) | 47.7 | 5500 | 97.1 | 3000 |
| | | | | | | |
| | The second second | | | | | |

| 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 |
|-----------------------------|--------------------|---|-----------------------------|---|---|-----------------------|------------|
| VT1100T | 400 | 396 - 405 | 155.8 | 405 | 405 | M5 | 34.7 |
| VT1100C2 | 390 | 386 - 395 | 153.8 | 395 | 395 | M5 | 34.4 |
| - 4 | | | | | | | |
| | | | | | | | |

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Revised:

Engine Family: YHNXC01.1AAD

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) |
|-----------------------------|----------------------|----------------------|------------------------------------|---|----------------------|--------------------------------|--------------------------------|--------------------------------|
| VT1100T | Х | 1099 | 87.5 / 91.4 | 12(BTDC) | A7.7 | 5500 | 97.1 | 3000 |
| | | | | / | | | | |
| | | | | | | | | |
| | | | | | | | | |

| 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 |
|--------------------|---|---|---|---|---|--|
| 400 | 396 - 405 | 155.8 | 405 | 405 | M5 | 34.7 |
| | / | | | | | |
| / | | • | | | | |
| / | | | | | | |
| | EIM (kg) | EIM Loaded (kg) Vehicle Weight Range (kg) | EIM Loaded Road (kg) Vehicle Weight (nt) Range (kg) 400 396 - 405 155.8 | EIM Loaded Road Total (kg) Vehicle Weight Range (kg) 400 396 - 405 155.8 405 | EIM Loaded Road Total Full Weight Weight (nt) Mass (kg) Weight Range (kg) 400 396 - 405 155.8 Full Weight with All Factory Options (kg) 405 | EIM Loaded Road Total Full Weight Weight Range (kg) 400 September 10 |

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Revised:

| MO COT CACTE TINGTINE TOWNS TO THE PROPERTY OF | Motorcycle | Engine | Family | Information | Form |
|--|------------|--------|--------|-------------|------|
|--|------------|--------|--------|-------------|------|

0.1

- 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: YHNXC01.1AAD

50s Eng. Code: N/A 49s Eng. Code: YEF1 Calif. Eng. Code: YEF2

- 6. Emission Control System: EM
- 7. Calif. Designated Standard (g/km): 0.9
- 8. Project Annual Sales: CONFIDENTIAL
- New Technology: ☐ Yes ☒ No
 If yes, cite the correspondence or reference
 the submittal document: N/A
- 19. Adjustable Parameters:

- 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

| 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:

| Evaporative System |
|--|
| AECDs In System: Evap CAV Control Valve |
| |
| |
| |
| |

Application Processed by: Joseph Jegoda Date: 6/4/99 Reviewed by: Stack Date: 6/7/99

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Issued: 1999/03/05

Revised:

Engine Family: YHNXC01.1AAD

Motorcycle Test Information Form

- 27. Are you carrying over test results from a previously certified family?

 Yes

 No
 - a) If yes, indicate family name: WHNXCO1.1AAD
 - 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: VT1100T
- 29. Test Information Number: W01
- 30. Vehicle ID: 98EF-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
- 42. Exhaust Emission Deterioration Factor

- 36. Road Load(nt): 155.8
- 37. Inertia Mass(kg): 400
- 38. N/V: 34.7
- 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: N/A

| | | Emission V | alues |
|--------------|--------------------------------|-------------|-------------------|
| Test Number | System Kilometers | HC | ∞ |
| 1 | 3460 | 0.56 | 8.5 |
| 2 | 6548 | 0.51 | 8.7 |
| 3 | 6578 | 0.54 | 9.0 |
| 4 | 9572 | 0.53 | 8.7 |
| 5 | 12914 | 0.64 | 9.4 |
| 6 | 12944 | 0.53 | 8.0 |
| 7 | 15014 | 0.53 | 8.4 |
| Interpolated | d Values at <u>15,000</u> km : | HC = 0.5594 | $\infty = 8.6045$ |
| Extrapolated | d Values at 30,000 km: | HC = 0.5892 | $\infty = 8.4193$ |

| Regular DF | × |
|-----------------------------|---|
| Modified DF | |
| If Different Specify Veh | |

43. Emission Test Results:

| Official Test Results | | Test 1 | Test 2 | Test 3 | Test 4 |
|--------------------------|-------|--------|--------|--------|---|
| g/km | α | 8.4 | 15 | | |
| g/km | Φ, | 108.4 | | | |
| g/km | HC | 0.53 | | | |
| g/km | Evap. | 0.89 | | M-A-A | 111111111111111111111111111111111111111 |

(X)

(X)

(+)

| Deterioration Factors | |
|--------------------------|----|
| 1.000 (0.978 | 3) |
| | |
| 1.053 | |
| 0.1 | |

44. Certification Levels:

| g/km | ∞ | 8 | |
|--------|----------|-----|--|
| g/km | HC | 0.6 | |
| g/test | Evap. | 1.0 | |

():Calculated Value

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Revised:

Engine Family: YHNXC01.1AAD

Evaporative Emission Information

45. Evaporative Family: YHNXE0020FZE

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: YEF2

58. Evap. Emission Family Code: 00ZE

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 | | |
| Interpolate | d Values at 15,000 k | m: = <u>0.623</u> |
| Extrapolate | d Values at 30,000 k | m: = <u>0.602</u> |
| Bench Test | D.F. = 0.00 (calcu | lated value = -0.02) |

| Regular DF | × |
|------------------------------|-----------|
| Modified DF | |
| If Different Specify Vehi | : Vehicle |

Vehicle DF

63. Test Vehicle ID: 95DP-01

Vehicle Test D.F. =

64. Test Results:

| Test Number | System Kilameters | 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 |
| Interpolate | d Values at 15,000 k | m: = 0.914 |
| | d Values at 30,000 k | |

0.17