State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER M-2-353
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
YHNXC0.64ABA	644	III	Pulsed Secondary Air Injection

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	(Designated) Grams per Kilometer	Hydrocarbons (Certification) Grams per Kilometer	Carbon Monoxide (Standard) Grams per Kilometer	(Certification) Grams per Kilometer
1.0	0.8	0.4	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 7th day of June 1999.

R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Family: YHNXC0.64ABA

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)
XR650L	X	644	100.0 / 82.0	8 (BTDC)	29.8	6000	50	5000

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
XR650L	250	246 - 255	125.3	255	255	M5	47.0

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: YHNXC0.64ABA
   50s Eng. Code: N/A
   49s Eng. Code: YCW1
   Calif. Eng. Code: YCW2

6. Emission Control System: PAIR

7. Calif. Designated Standard(g/km): 0.8

8. Project Annual Sales: CONFIDENTIAL

9. New Technology: ☐ Yes ☒ No
If yes, cite the correspondence or reference the submittal document:

10. Displacement(cc): 644

11. Number of Cylinder: 1

12. Cylinder Arrangement: Vertical

13. Cylinder Head Configuration: OHV/OHC

14. Type of Cooling: Air 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	Limited to 7/8 turn leaner side only	Limiter cap	N/A

20. AECDs in the Emission Control System:

Exhaust System	Evaporative System
AECDs In System: PAIR Control Valve	AECDs In System: N/A

Application Processed by: Joseph Jegede Date: 6/4/99 Reviewed by: S. Hada Date: 6/7/99

Engine Family: YHNXC0.64ABA

Motorcycle Test Information Form

27. Are you carrying over test results from a previously certified family? ☒ Yes ☐ No
    a) If yes, indicate family name: XHNXC0.64ABA
    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: XR650L

29. Test Information Number: P03

30. Vehicle ID: 93CW-01

31. Service Accumulation Duration(km): 15015

32. Maximum Rated Power(kW @ RPM): 29.8 @ 6000

33. Displacement(cc): 644

34. Certification Fuel: Indolene

35. Test Data Set: 1

36. Road Load(nt): 125.3

37. Inertia Mass(kg): 250

38. N/V: 47.0

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	3653	0.36	8.5
2	6480	0.33	8.2
3	6510	0.35	7.9
4	9617	0.37	8.6
5	12936	0.40	8.9
6	12966	0.37	9.1
7	15015	0.37	9.0
Interpolated Values at 15,000 km:		HC = 0.3819	CO = 9.0496
Extrapolated Values at 30,000 km:		HC = 0.4306	CO = 10.2976

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	9.0				(X)	1.138
g/km	CO_2	85.0					———
g/km	HC	0.37				(X)	1.128
g/km	Evap.	0.28				(+)	0.1

44. Certification Levels:

g/km	CO	10			
g/km	HC	0.4			
g/test	Evap.	0.4			

Engine Family: YHNXC0.64ABA

Evaporative Emission Information

45. Evaporative Family: YHNXE0019AZN
46. Number of Evap. Canisters: 1
47. Design Working Capacity(g): 19.0
48. Configuration: Open Bottom
49. Number of storage Areas: 1
50. Fuel Reservoir Volume(cc): 60
51. Vent System Configuration: External
52. Nominal Tank Capacity(liter): 10.5
    * : In our 1999 application certification
53. Engine Displacement Class: III
54. Storage Medium Composition: Charcoal
55. Evap. Canister Medium Volume(cc): 360 +/- 7.7
    Evap. Storage Element(g)**
56. Evap. Family Sales: CONFIDENTIAL
57. Engine Code: YCW2
58. Evap. Emission Family Code: 00ZN
59. Evap. Emission Family Group: A
60. **Overall Evap D.F.**= 0.1
    ** : Design Working Capacity

Bench DF

61. Test Vehicle ID: 89CP-01
62. Test Results:

Test Number	System Kilometers	Evap. Emission Values (g/test)
1	3500	0.43
2	3500	0.40
3	3500	0.33
4	15000	0.55
5	15000	0.52
6	15000	0.45
7		
Interpolated Values at 15,000 km: = 0.507		
Extrapolated Values at 30,000 km: = 0.663		
Bench Test D.F. = 0.16		

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

Vehicle DF

63. Test Vehicle ID: 93CW-01
64. Test Results:

Test Number	System Kilometers	Evap. Emission Values (g/test)
1	3653	0.30
2	6480	0.28
3	6510	0.29
4	9617	0.33
5	12936	0.30
6	12966	0.36
7	15015	0.28
Interpolated Values at 15,000 km: = 0.315		
Extrapolated Values at 30,000 km: = 0.342		
Vehicle Test D.F. = 0.03		