### State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER M-2-356 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:

	Displacement		Exhaust Emission Control Systems
Engine Family	Cubic Centimeters	<u>Class</u>	& Special Features
YHNXCO1.5ABA	1520	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		Hydrocarbons	Carbon Monoxide		
(Corporate Average) Grams per Kilometer	(Designated) Grams per <u>Kilometer</u>	(Certification) Grams per Kilometer	(Standard) Grams per <u>Kilometer</u>	(Certification) Grams per Kilometer	
1.4	1.3	1.0	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. HONDA MOTOR CO., LTD.

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  $16^{\text{H}}$  day of June 1999.

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R. B. Summerfield, Chief Mobile Source Operations Division

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## Engine Family: YHNXC01.5ABA

# 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)
GL1500A	Х	1520	71.0 / 64.0	0(BTDC)	71.6	5000	145.1	4000
GL1500SE		1520	71.0 / 64.0	0(BTDC)	71.6	5000	145.1	4000
	6							

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
500	496 - 505	170.5	505	505	M5	28.2
500	496 - 505	170.5	505	505	M5	28.2
		-				
	74. EIM (kg) 500 500	74. 75. EIM Loaded (kg) Vehicle Weight Range (kg) 500 496 - 505 500 496 - 505	74. 75. 76.   EIM Loaded Road   (kg) Vehicle Load   Weight (nt)   Range (kg)   500 496 - 505 170.5   500 496 - 505 170.5	74. 75. 76. 77.   EIM Loaded Road Total   (kg) Vehicle Load Vehicle   Weight (nt) Mass   Range (kg) (kg)   500 496 - 505 170.5 505   500 496 - 505 170.5 505	74. 75. 76. 77. 78.   EIM Loaded Road Total Full Weight   (kg) Vehicle Load Vehicle Weight   Weight (nt) Mass Factory   Range (kg) Options (kg)   500 496 - 505 170.5 505 505   500 496 - 505 170.5 505 505	74.75.76.77.78.79.EIMLoadedRoadTotalFull WeightTrans.(kg)VehicleLoadVehiclewith AllTypeWeight(nt)MassFactoryOptions(kg)(kg)170.5505505M5500496 - 505170.5505505M5

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## Motorcycle Engine Family Information Form

- 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

10. Displacement (cc): 1520

11. Number of Cylinder: 6

15. Combustion Cycle: Otto

17. Fuel System: Carburetors

12. Cylinder Arrangement: Flat-6/Opposed

13. Cylinder Head Configuration: OHV/OHC

14. Type of Cooling: Liquid Cooled

16. Method of Aspiration: Natural

18. Number of Catalytic Converters: N/A

- 3. Model Year: 2000
- Process Code: New (new, correction, revised, r/c, f/f, etc.)
- 5. Engine Family: YHNXC01.5ABA

50s Eng. Code: N/A 49s Eng. Code: YDA1 Calif. Eng. Code: YDA2

- 6. Emission Control System: PAIR
- 7. Calif. Designated Standard(g/km): 1.3
- 8. Project Annual Sales: CONFIDENTIAL
- 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	Not Limited	Recess "D" shaped head that requires a special tool	Approved by EPA on 11/22/88

20. AECDs in the Emission Control System:

xhaust System	Evaporative System
ECDs In System:	AECDs In System:
PAIR Check Valve	Evap CAV Control Valve
PAIR Control Valve	
IAT Check Valve	
IAT Valve	
IAT Thermal Vacuum Valve	
IASA Valve	
Carburetor Coolant Thermal Valve	
Gear Position Switch	
ECM	
ECT Sensor	
IAT Sensor	
PAIR Solenoid Valve	
CAJ Solenoid Valve	
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Application Processed by: Joseph Jegede Date: 6/10/99 Reviewed by: 1. Hads Date: 6/10/9



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Engine Family: YHNXC01.5ABA

## Motorcycle Test Information Form

27. Are you carrying over test results from a previously certified family? 🛛 Yes 🗌 No

- a) If yes, indicate family name: MHN152042A7
- 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: GL1500A

- 29. Test Information Number: M03
- 30. Vehicle ID: 91DA-01
- 31. Service Accumulation Duration(km): 15015
- 32. Maximum Rated Power (kW @ RPM): 71.6 @ 5000
- 33. Displacement (cc): 1520
- 34. Certification Fuel: Indolene
- 35. Test Data Set: 1
- 42. Exhaust Emission Deterioration Factor

- 36. Road Load(nt): 170.5
- 37. Inertia Mass(kg): 500
- 38. N/V: 28.2
- 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 X No

(X)

(X)

(+)

41. If yes Vehicle Log Provided: N/A

		Emission Va	alues	1
Test Number	System Kilometers	HC	8	
1	3593	0.91	9.2	
2	6514	1.21	7.5	
3	6544	0.92	7.4	
4	9693	0.88	8.4	
5	12688	0.93	9.2	
6	12719	0.94	8.8	
7	15015	1.02	7.7	
Interpolate	d Values at 15,000	m: $HC = 0.9633$	$\infty = \underline{8.3627}$	
Extrapolate	d Values at 30,000	m: HC = 0.9371	co = <u>8.4958</u>	



43. Emission Test Results:

Official Test Results		Test 1	Test 2	Test 3	Test 4
g/km	00	7.7			1
g/km	CO2	127.6			
g/km	HC	1.02			
g/km	Evap.	0.80			



#### 44. Certification Levels:

g/km	00	(8)	-
g/km	HC	(1.0)	1
g/test	Evap.	0.8	

():Calculated Value

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Engine Family: YHNXC01.5ABA

## Evaporative Emission Information

45. Evaporative Family: YHNXE0025EZA

46. Number of Evap. Canisters: 1

47. Design Working Capacity(g): 25.0

- 2.0 (ACL Element) 48. Configuration: Open Bottom Refer to Section 17.02.02-2 (ACL Element)\*
- 49. Number of storage Areas: 2
- (Evap. canister & ACL Element) 50. Fuel Reservoir Volume(cc): 154
- 51. Vent System Configuration: Internal
- 52. Nominal Tank Capacity(liter): 24.0 \* : In our 1999 application certification

#### Bench DF

- 61. Test Vehicle ID: 88DA-01
- 62. Test Results:

Test Number	System Kilometers	Evap. Emission Values (g/test)
1	3500	0.67
2	3500	0.79
3	3500	0.86
4	15000	0.68
5	15000	0.64
6	15000	0.64
7		
Interpolated	Values at 15,000 k	n: = <u>0.653</u>
Extrapolated	Values at 30,000 k	n: = 0.497
Bench Test I	D.F. = 0.00 (calcu	lated value = $-0.16$ )

77-1-	1.	-7	-	DE
ven	ц		e	DE

63. Test Vehicle ID: 88DA-01

64. Test Results:

Test Number	System Kilometers	Evap. Emission Values (g/test)
1	3627	0.70
2	6494	0.70
3	6524	0.71
4	9665	0.69
5	12903	0.76
6	12933	0.66
7	15012	0.80
Interpolate	Values at 15,000 k	m: = 0.746
Extrapolate	d Values at 30,000 k	m: = <u>0.828</u>
Vehicle Tes	t D.F. = 0.08	

- 53. Engine Displacement Class: III
- 54. Storage Medium Composition: Charcoal Cellulose Charcoal (ACL Element)
- 55. Evap. Canister Medium Volume(cc): 680 +/- 12.7 Evap. Storage Element(g)\*\* 2.0 +/- 0.5
- 56. Evap. Family Sales: CONFIDENTIAL
- 57. Engine Code: YDA2
- 58. Evap. Emission Family Code: 00ZA
- 59. Evap. Emission Family Group: E
- 60. Overall Evap D.F.= 0.0
  - \*\* : Design Working Capacity

Regular DF	×
Modified DF	
If Different Specify Veh	t Vehicle icle ID

2000 HONDA Motorcycle