

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER M-1-309  
Relating to Certification of New Motorcycles

KAWASAKI HEAVY INDUSTRIES, 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 the following engine and exhaust emission control systems produced by the manufacturer are certified as described below for four-stroke gasoline-powered motorcycles:

Model Year: 2001

<u>Engine Family</u>	<u>Displacement Cubic Centimeters</u>	<u>Class</u>	<u>Exhaust Emission Control Systems &amp; Special Features</u>
1KAXC.997AAA	997	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 certification emission values for this engine family. The designated hydrocarbons standard shall be listed on the permanent tune-up label:

<u>Hydrocarbons Standards (Corporate Average) Grams per Kilometer</u>	<u>Hydrocarbons Standards (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	1.5	1.3	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.

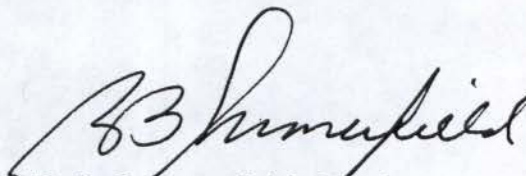
BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles," as required by Section 1976, Title 13 of the California Code of Regulations.

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 12<sup>th</sup> day of June 2000.



R. B. Summerfield, Chief  
Mobile Source Operations Division

# ATTACHMENT

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Issued: APR 06 2000

Revised:

E.O.#: M-1-309

Engine Family: 1KAXC.997AAA

## 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)
ZG1000-A16	No	997	74.0X58.0	10°/1000 rpm	80.9	9500	98.1	6500

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
ZG1000-A16	380	376 ~ 385	151.7	302.5	305	M-6	39.61

## Motorcycle Engine Family Information Form

1. Manufacturer: KAWASAKI HEAVY INDUSTRIES, LTD.

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

Jeffrey D. Shetler / David Corey  
 Kawasaki Motors Corp., U.S.A.  
 9950 Jeronimo Road, Irvine, CA 92618-2084  
 Tel : 949-770-0400 Fax : 949-460-5602

3. Model Year: 2001

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

5. Engine Family: 1KAXC.997AAA  
 50s Engine Code: -  
 49s Engine Code: -  
 Calif. Engine Code: ZGT00A-AC1

6. Emission Control System: EM+PAIR

7. Calif. Designated Standard: 1.5 gm/km

8. Projected Annual Sales: **CONFIDENTIAL**

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

10. Displacement: 997 cm<sup>3</sup>

11. Number of Cylinders: 4

12. Cylinder Arrangement: Inline-4

13. Cylinder Head Configuration: DOHC

14. Type of Cooling: Liquid

15. Combustion Cycle: 4

16. Method of Aspiration: Natural

17. Fuel System: Carburetor

18. Number of Catalytic Converters: NA

**CONFIDENTIAL**

19. Adjustable Parameters:

Parameter(s)	Adjustable Range (or NA)	Tamper Resistance Method (or NA)	Method Approved
Air adjust on carburetor (Air/Fuel Ratio)	NA	A tamper proof cap is placed over the adjusting screw	Carry over

20. AECDs In the Emission Control Systems:

Exhaust System	Evaporative System
AECDs In System: <u>EM and PAIR</u> _____ _____ _____	AECDs In System: <u>Sealed loop with Canister</u> _____ _____ _____

# Motorcycle Test Information Form

0.2

27. Are you carrying over test results from a previously certified family?  Yes  No  
 a) If yes, indicate family name: JKA099744A8  
 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: ZX1000-B1  
 29. Test Information Number: \_\_\_\_\_  
 30. Vehicle ID: JKAZXCB19JA000014  
 31. Service Accumulation Duration: 15000 (km)  
 32. Maximum Rated Power: 101 kW @ 10000 RPM  
 33. Displacement: 997 cc  
 34. Certification Fuel: Indolene: 91-95 RON  
 35. Test Data Set: Test 1

36. Road Load: 151.7 nt at 65 kph  
 37. Inertia Mass: 380 kg  
 38. N/V: 39.61  
 39. EVAP. Bench Test Method Approved:  
 Date: 2/23/1983  
 Reference: 84ARB-03  
 40. Unscheduled Maintenance:  Yes  No  
 41. If yes, Vehicle Log provided: \_\_\_\_\_

42. Exhaust Emission Deterioration Factors:

Test Number	System Kilometers	Emission Values	
		HC	CO
1	3313	1.31	10.8
2	5145	1.45	8.0
3	5175	1.13	9.6
4	9944	1.14	10.2
5	9974	1.30	9.4
6	15013	1.34	9.5
7			
Interpolated Values at <u>15000</u> km:		HC = <u>1.2774</u>	CO = <u>9.5123</u>
Extrapolated Values at <u>30000</u> km:		HC = <u>1.2753</u>	CO = <u>9.3579</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	9.5			
g/km	CO <sub>2</sub>	124.0			
g/km	HC	1.34			
g/test	Evap.	0.991			

Deterioration Factors	
(X)	1.000
	-----
(X)	1.000
(+)	0.095

44. Certification Levels:

g/km	CO	<u>10</u>			
g/km	HC	<u>1.3</u>			
g/test	Evap.	1.086			

Application Processed by: Joseph Jegede Date: 6/8/2000 Reviewed by: P. Hader Date: 6/8/00