

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER M-3-302
Relating to Certification of New Motorcycles

YAMAHA 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 Yamaha Motor Co., Ltd. exhaust emission control systems are certified as described below for four-stroke gasoline-powered motorcycles:

<u>Engine Family</u>	<u>Displacement Cubic Centimeters</u>	<u>Class</u>	<u>Exhaust Emission Control Systems & Special Features</u>
YYMXC.599GCC	599	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:

<u>Hydrocarbon Standards (Corporate Average) Grams per Kilometer</u>	<u>Hydrocarbons (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>
1.0	1.4	0.9	12	6

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.

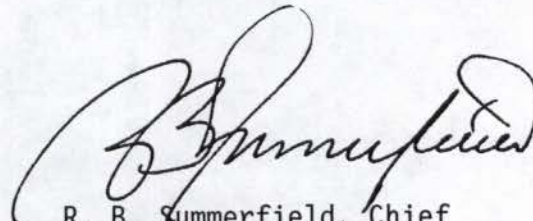
BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Code of Regulations, Section 2035 et seq.).

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 28th day of June 1999.



R. B. Summerfield, Chief
Mobile Source Operations Division

Motorcycle Engine Family Information Form

- 1. Manufacturer: YAMAHA
- 2. Certification Contact Person, address, phone and fax:

Name: <u>Michael J. Schmitt</u> Division Manager Government Relations Yamaha Motor Corporation, U.S.A. Address: 6555 Katella Avenue Cypress, California 90630 Phone No: (714) 761-7710 Fax. No: (714) 229-7940	<u>Izumi Yamamoto</u> Engineer Engineering Administration Division Motorcycle Operations Group Yamaha Motor Co., Ltd. 2500 Shingai, Iwata-shi Shizuoka Pref. 438-8501, Japan (0538) 37-4148 (0538) 37-4095
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- 3. Model Year: 2000
- 4. Process Code: Carry-over
- 5. Engine Family: YYMXC.599GCC
 50s Engine Code:
 49s Engine Code:
 Calif.Engine Code: v
- 6. Emission Control System: PAIR
- 7. Calif.Designated Standard: 1.4g/km
- 8. Projected Annual Sales:
- 9. New Technology Yes v No
 If yes, cite the correspondence or reference the submittal document:
- 10. Displacement: 599cc
- 11. Number of Cylinders: 4
- 12. Cylinder Arrangement: L-4
- 13. Cylinder Head Configuration: DOHC
- 14. Type of Cooling: Water
- 15. Combustion Cycle: 4
- 16. Method of Aspiration: Natural
- 17. Fuel System: Carburetor
- 18. Number of Catalytic Converters: N/A

19. Adjustable Parameters: N/A

Parameter(s)	Adjustable Range (or NA)	Tamper Resistance Method (or NA)	Method Approved

20. AECDs In the Emission Control Systems: N/A

Exhaust System	Evaporative System
AECDs In System:	AECDs In System:

Processed by: K. Pryor Date: 6/23/99
 Reviewed by: S. Chan Date: 6/25/99

m-3-302

Engine Family: YYMXC.599GCC

Motorcycle Test Information Form

27. Are you carrying over test results from a previously certified family? Yes No
 a) If yes, indicate family name: YYM.60PAGARE
 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: YZF600RC 36. Road Load: 135.4 NT at 65km/h
 29. Test Information Number: 5AH 37. Inertia Mass: 300 kg
 30. Vehicle ID: JYA5AHC06VA000014 38. N/V: 51.3
 31. Service Accumulation Duration: 3 months 39. EVAP. Bench Test Method Approved:
 32. Maximum Rated Power: 67.6 kW @ 11000 RPM Date: January 12, 1982
 33. Displacement: 599 cc Reference:
 34. Certification Fuel: Unleaded Gasoline 40. Unscheduled Maintenance: Yes No
 35. Test Data Set: 6 41. If yes, Vehicle Log provided: _____

42. Exhaust Emission Deterioration Factors:

Test Number	System Kilometers	Emission Values	
		HC	CO
1	3511	0.99	5.9
2	7019	0.97	6.0
3	7049	0.99	5.7
4	13070	1.09	5.7
5	13100	0.87	6.4
6	15051	0.90	6.1
7	---	---	---
Interpolated Values at <u>15000</u> km: HC= <u>0.9440</u> CO= <u>6.0826</u>			
Extrapolated Values at <u>30000</u> km: HC= <u>0.8740</u> CO= <u>6.4169</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	6.1			
g/km	CO2	85.3			
g/km	HC	0.90			
g/km	Evap.	0.70			

	Deterioration Factors
(×)	1.0550

(×)	0.9258
(+)	-0.3975

44. Certification Levels:

g/km	CO	6			
g/km	HC	0.9			
g/km	Evap.	0.7			

Engine Family: YYMXC.599GCC
 (N/A)

Evaporative Emission Information

- 45. Evaporative Family: YYMXE0022NAA
- 46. Number of Evap.Canisters: 1
- 47. Design Working Capacity: 22.0
- 48. Configuration: Canister
- 49. Number of Storage Areas: N/A
- 50. Fuel Reservoir Volume: 140cc (35×4)
- 51. Vent System Configuration: External
- 52. Nominal Tank Capacity: 19.0 ℓ
- 53. Engine Displacement Class: III
- 54. Storage Medium Composition: Charcoal
- 55. Evap.Canister Medium Volume: 310 +15, -10
- 56. Evap.Family Sales: 200
- 57. Engine Code: 5AH
- 58. Evap.Emission Family Code: N/A
- 59. Evap.Emission Family Group: E150A
- 60. Overall Evap.D.F. = 0.000

Bench DF

- 61. Test Vehicle ID: JYA5AHC04VA000013
- 62. Test Results:

Test Number	System Kilometers	Evap.Emission Values (g/test)
1	3516	0.83
2	3545	1.08
3	3575	0.92
4	3605	0.58
5	3635	0.77
6	3664	0.77
7	---	---
Interpolated Values at <u>15000</u> km: = <u>0.7067</u>		
Extrapolated Values at <u>30000</u> km: = <u>0.3980</u>		
Bench Test D.F. = <u>-0.3087</u>		

Check one:	
Regular DF:	<input checked="" type="checkbox"/>
Modified DF:	<input type="checkbox"/>
If different vehicle specify vehicle ID	

Vehicle DF

- 63. Test Vehicle ID: JYA5AHC06VA000014
- 64. Test Results:

Test Number	System Kilometers	Evap.Emission Values (g/test)
1	3511	1.16
2	7019	0.72
3	7049	0.93
4	13070	0.71
5	13100	0.94
6	15051	0.70
7	---	---
Interpolated Values at <u>15000</u> km: = <u>0.7222</u>		
Extrapolated Values at <u>30000</u> km: = <u>0.3246</u>		
Vehicle Test D.F. = <u>-0.3975</u>		