California Environmental Protection Agency AIR RESOURCES BOARD	HONDA MOTOR CO., LTD.	EXECUTIVE ORDER U-M-003-0186 New Emission-Compliant Off-Highway Recreational Vehicles

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapters 1 and 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the engine and exhaust emission control systems produced by the manufacturer are certified as described below for off-highway recreational vehicles. Production vehicles shall be in all material respects the same as those for which certification is granted. **The manufacturer shall ensure that character "C" or "3" is not used in the eighth (8th) position of the vehicle identification number (VIN) of all vehicles in the engine family listed below. Violation of this VIN provision may result in incorrect registration of the vehicles.**

MODEL YEAR	ENGINE FAMILY	ENGINE DISPLACEMENT (cc)	VEHICLE TYPE	FUEL TYPE	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS
2007	7HNXX0.22AAA	223	OFMC	Gasoline	EM
ATV=all-terrain vehicle OFMC= off-road motorcycle EM=engine modification TWC=three-way catalyst OC=oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed AIR MFI=multi port fuel injection SFI=sequential MFI TBI=throttle body fuel injection DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2 (prefix)=parallel (2) (suffix)=in series					
VEHICLE MODELS / ENGINE CODES (equivalent inertia mass in kilograms, kg)	CRF230F / 72E1 (200 kg)				

The following are the exhaust hydrocarbon (HC) and carbon monoxide (CO) emission standards, or designated HC standard as applicable, and certification levels in grams per kilometer (g/km) for this engine family. The designated HC standard, as applicable, shall be displayed on the permanent emission control label. Vehicles within this engine family shall not discharge any crankcase emissions into the ambient atmosphere in conformance with Title 13, California Code of Regulations, (13 CCR) Section 2412(i).

HC (g/km)				CO (g/km)		* = not applicable
CORPORATE AVERAGE STANDARD	DESIGNATED STANDARD	(DIRECT) STANDARD	CERTIFICATION LEVEL	STANDARD	CERTIFICATION LEVEL	
*	*	1.2	0.9	15.0	12.9	

BE IT FURTHER RESOLVED: That certification to the designated HC standard listed above, as applicable, is subject to the following terms, limitations and conditions:

The designated standard shall be the exhaust limit for this engine family for the model year and cannot be changed by the manufacturer. It serves as the exhaust standard applicable to this engine family for determining engine family compliance, and compliance with the corporate average HC standard in accordance with 13 CCR Sections 2412(b) and (d) and 2414.

BE IT FURTHER RESOLVED: That the listed vehicles shall be subject to 13 CCR Section 2414 (enforcement and recall provisions).

BE IT FURTHER RESOLVED: That the listed vehicles shall comply with 13 CCR Sections 1965 and 2413 (emission control labels).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Vehicles in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 31st day of May 2006.

Allen Lyons, Chief
Mobile Source Operations Division

CERTIFICATION SUMMARY

California Environmental Protection Agency
AIR RESOURCES BOARD

EMISSION COMPLIANT OFF-ROAD MCs & ATVs

MODEL-YEAR 2007 **MANUFACTURER:** HONDA MOTOR CO., LTD. **EXECUTIVE ORDER:** U-M-003-0186

1. **EPA-Standardized Family Name:** 7HNXX0.22AAA
2. **Vehicle Category:** (QFMC)
3. **All Sales Codes within Engine Family:** 50S
4. **All Engine Displacement(s) in Engine Family** (units in cubic centimeters, (cc)):

1)	2)	3)	4)
223			

5. **Emission Standards Compliance:** DSC
6. If Corporate Averaging, list **Designated Standard:** _____ for _____.
7. **Engine Design:**

a. Combustion Cycle:	Four-stroke
@ Oil / Fuel Ratio	N/A
b. Engine Type:	Reciprocating
c. Valve train:	Overhead
d. Total Number of Intake and Exhaust Valves (ports) per Cylinder:	2
e. Type of Engine Cooling:	Air
f. Number of Cylinders:	1
g. Cylinder Arrangement:	I

8. **Intake, Fuel and Emission Control Systems (ECS):**

a. After treatment(s):	*
b. Sensor(s):	*
c. Fuel System:	CARB
d. Exhaust Gas Recirculation:	*
e. Method of Aspiration:	NAT
f. Air Injection Reaction:	*
g. Others:	(EM)

9. **Deterioration Factors (DFs) : a.** New Durability Testing : NO ; Carryover from EF: 6HNXX0.22AAA ;
   b. Durability Engine Model: 2006/CRF230F ID: 9C2ME09086R000008; **c.** Durability Test Distance (km/~~hr~~): 5000 ;
   d. Exhaust DF Values (no less than 1.000): HC: 1.000 ;NOx: 1.102 ;CO: 1.080 ; HC+NOx: N/A
10. **Certification Test Engine Information:** New Test: N/A ; Carryover from Engine Family: 6HNXX0.22AAA .
    a. Test Vehicle or Engine : Model CRF230F ID:9C2ME09086R000008 Rated Power, hp: 19.0@8000 ;Test Date: 03/22/2005
    b. Equivalent Inertia Mass(kg): 200 . RLF(Nt): 115.1 . Trans: M6 . MPG: _____.
    c. Test Fuel Type: IC01
    d. Special Test Equipment (e.g., cooling fans, special couplings, etc.); Yes/No: No . If Yes, describe below:

N/A

11. **Certification Emission Levels:** HC: (0.9) HC+NOx: ~~1.2~~ CO: (12.9)

Test No. and Type	Official Test Results in ( ): (raw data) (i.e., no DFs)				Certification Emission in ( ): (i.e., with DFs applied)			
	HC	NOx	HC+NOx	CO	HC	NOx	HC+NOx	CO
1. CARB g/km	0.87	0.27	N/A	11.9	0.87	N/A	N/A	12.9
2. EPA g/km	0.87	0.27	N/A	11.9	0.87	0.30	1.17	12.9
3.								
Standard:					1.2g/km			15.0 g/km
Standard: (EPA)					*		2.0 g/km	25 g/km

Remarks:

Issue Date: 03/09/2006 **Revision Date(s):** _____

ARB USE ONLY
Processed by: S Hada Date: 5-22-06 Reviewed by: _____ Date: _____.

Model Year: 2007
Manufacturer Name: HONDA MOTOR CO., LTD.
Engine Family: 7HNXX0.22AAA
EMISSION-COMPLIANT OFF-ROAD MC & ATV SUPPLEMENTAL INFO

Issued: 03/09/2006
Revised:
E.O.#: U-M-003-0186

11.MODEL SUMMARY (Use an asterisk(*) to identify worst-case vehicle or engine model used for certification testing.)

S12. Vehicle model	S13. Engine Code	S14. Sales Code			S15. Eng. Displ. (cc)	S16. Rated Power (hp)	S17. Rated Speed (RPM)	S18. Trans. (e.g., M5, A3, CVT)	S19. EIM (kg)	S20. RLF (nt)
		Calif. Only	49-State	50-State						
CRF230F	72E1			X	223	19.0	8000	M6	200	115.1