

MERCURY MARINE

EXECUTIVE ORDER U-W-001-0055 New Spark-Ignition Marine Engines

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Sections 43013, 43101, 43102 and 43104; 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 following new spark-ignition marine engine and emission control systems (ECS) produced by the manufacturer are certified as described below. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	FUEL TYPE DISPLACEMENT (cc)		LEVEL OF CLEANLINESS			
2004	4M9XM.7472GE	Gasoline	747	Ultra Low Emission ("Three Stars")			
EQUIPMENT APPLICATION Outboard			CIAL FEATURES	ENGINE TYPE 4-Stroke			
		Multiport	Fuel Injection				
ENGINE MODELS (rated power in kilowatts, kW)	See Attachment						

BE IT ORDERED AND RESOLVED: That the listed engines are certified to a hydrocarbon plus oxides of nitrogen (HC+NOx) family emission limit (FEL) in accordance with a plan submitted by the manufacturer to, and approved by, the Executive Officer for compliance with the exhaust emission standard on a corporate average basis pursuant to Title 13, California Code of Regulations, (13 CCR) Sections 2442(a)(1) and (a)(2). The FEL shall be the applicable emission standard for this engine family for determining compliance of any engine within this engine family pursuant to 13 CCR Sections 2444.1 (in-use compliance) and 2446 (audit testing). The FEL and certification emission level in grams per kilowatt-hour (g/kW-hr) for this engine family are as follows. Engines in this engine family shall have closed crankcases in conformance with Part I, Section 18(h) of the "California Exhaust Emission Standards and Test Procedures for 2001 Model-Year and Later Spark-Ignition Marine Engines."

HC+NOx	FAMILY EMISSION LIMIT (g/kW-hr)	CERTIFICATION LEVEL (g/kW-hr)		
	18.00	14.68		

Compliance with the emission standard on a corporate average basis shall be determined pursuant to 13 CCR Sections 2442(a)(2)(D) and 2442(a)(2)(F) based on the sales-weighted average power of all engines produced for sale in California that are included in the approved corporate average compliance plan for the model-year.

BE IT FURTHER RESOLVED: That for the listed engines, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Sections 2443.1, 2443.2 and 2443.3 (emission control, consumer, and environmental labels), and Sections 2445.1 and 2445.2 (emission control system warranty).

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

Quarterly reports of engines produced in this engine family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter pursuant to 13 CCR Section 2442(a)(2)(B).

This Executive Order is only granted to the engine family and model-year listed above. Engines 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 30⁷⁷ day of January 2003.

Allen Lyons, Chief

Mobile Source Operations Division

ATTACHMENT

Model Year:2004	Page:
Manufacturer Name:Mercury Marine	Issued:
Engine Family:4M9XM.7472GE	Revised:
SI MARINE ENGINE SUPPLEMENTAL INFORMATION.	E.O.#: $U_{-}W_{-}OOI_{-}OOSS$

S10. MODEL SUMMARY (Use asterisk to identify worst-case engine model used for certification testing)

S11 Model Designation	S12 Engine Code	S13 Sales Codes (Check all appropriate codes)		S14 Eng. Disp. (cc)	S15 Rated Power	S16 Rated Speed	S17 Peak Torque	S18 Peak Torque	
		Calif. Only	49 State	50- State		(kW)	(RPM)	(N-m)	Speed (RPM)
1A30302CD				X	747	22.07	5750	97.63	3000
1A30311CD				X	747	22.07	5750	97.63	3000
1A30312CD				X	747	22.07	5750	97.63	3000
1A30412CD				X	747	22.07	5750	97.63	3000
*1A40302CD				X	747	29.43	5750	115.3	4500
1A40311CD				X	747	29.43	5750	115.3	4500
1A40312CD				X	747	29.43	5750	115.3	4500
1A40411CD				X	747	29.43	5750	115.3	4500
1A40412CC				X	747	29.43	5750	115.3	4500
1A40412CD				X	747	29.43	5750	115.3	4500
1A40412CN				X	747	29.43	5750	115.3	4500
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2									