California Environmental Protection Agency AIR RESOURCES BOARD	MERCURY MARINE	EXECUTIVE ORDER U-W-001-0077 New Spark-Ignition Marine Engines

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Sections 43013, 43018, 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	4M9XM08.1HIO	Gasoline	8100	Ultra Low Emission ("Three Stars")

EQUIPMENT APPLICATION	ECS & SPECIAL FEATURES	ENGINE TYPE
Inboard & Sterndrive	Multiport Fuel Injection	4-Stroke

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) Section 2442(b). 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). 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."

	FAMILY EMISSION LIMIT (g/kW-hr)	CERTIFICATION LEVEL (g/kW-hr)
HC+NOx	16.0	13.7

Compliance with the emission standard on a corporate average basis shall be determined pursuant to 13 CCR Section 2442(b) based on the sales-weighted average 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.

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 10TH day of December 2003.

Allen Lyons, Chief
Mobile Source Operations Division

ATTACHMENT

Model Year: 2004
Manufacturer Name: Mercury MerCruiser
Engine Family: 4M9XM08.1HIO
SI MARINE ENGINE SUPPLEMENTAL INFORMATION.

Page:
Issued: 12/10/03
Revised: 6/24/04
E.O.#: V-W-001-0077

S11. MODEL SUMMARY (Use asterisk to identify worst-case engine model used for certification testing)

S12 Model Designation	S13 Engine Code	S14 Sales Codes (Check all appropriate codes)			S15 Eng. Disp. (cc)	S16 Rated Power (kW)	S17 Rated Speed (RPM)	S18 Peak Torque (N-m)	S19 Peak Torque Speed (RPM)
		Calif. Only	49 State	50-State					
*44T42228N1				X	8100	316.9	5000	650.8	4000
44T42238N1				X	8100	316.9	5000	650.8	4000
44T42258N1				X	8100	316.9	5000	650.8	4000
3308100061				X	8100	316.9	4800	650.8	4000
3308100041				X	8100	316.9	4800	650.8	4000
3308100251				X	8100	316.9	4800	650.8	4000
3308100171				X	8100	316.9	4800	650.8	4000
3308100521				X	8100	316.9	4800	650.8	4000
3308100231				X	8100	316.9	4800	650.8	4000
3308100481				X	8100	316.9	4800	650.8	4000
3308100351				X	8100	316.9	4800	650.8	4000
44T4222JN1				X	8100	316.9	5000	650.8	4000
44T4223JN1				X	8100	316.9	5000	650.8	4000
44T4225JN1				X	8100	316.9	5000	650.8	4000
3308100171				X	8100	316.9	5000	650.8	4000