## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER U-W-1-13 Relating to Certification of New Spark-Ignition Marine Engines

## MERCURY MARINE

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, and 43104 of the Health and Safety Code; 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 new spark-ignition marine engine and exhaust emission control system produced by the manufacturer are certified as described below.

Model Year: 2002

<u>Fuel Type</u>: Gasoline <u>Engine Type</u>: 4-Stroke

Level of Cleanliness: Ultra Low Emission ("Three Stars")

Equipment Application: Outboard

Engine Family: 2M9XM.4982G0

Displacement: 498 cc

**Exhaust Emission Control Systems and Special Features:** 

**Engine Modification** 

Engine models are listed on the attachment. Production engines shall be in all material respects the same as those for which certification is granted.

BE IT FURTHER RESOLVED: That the manufacturer has opted to certify, and has certified the listed engines to the hydrocarbons plus oxides of nitrogen (HC+NOx) exhaust emission standard described below, expressed in grams per kilowatt-hour (g/kW-hr) under Section 2442(b) of Title 13, California Code of Regulations (13 CCR).

HC + NOx	Certification
(estimated) Standard	<u>Level</u>
19 29	10.85

Compliance with the standard under 13 CCR Section 2442(b) shall be determined based on the sales-weighted average power of the engine family based on engines produced in this family for sale in California. This engine family shall not be used to determine compliance through corporate averaging.

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 the following California emission regulations and requirements. Engines certified under this Executive Order shall conform to all applicable California emission regulations and requirements:

- All applicable requirements in the "California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines"
- Emission Control Labeling and Consumer/Environmental Labeling (13 CCR Sections 2443.1, 2443.2 and 2443.3)
- Emission Control System Warranty (13 CCR Sections 2445.1 and 2445.2)
- Closed Crankcases (Part 1, Section 18.(h) of the "California Exhaust Emission Standards and Test Procedures for 2001 Model Year and Later Spark-Ignition Marine Engines")
- Quarterly reports of engines produced in this family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter.

Executed at El Monte, California this 29 day of January 2001.

R. B. Summerfield, Chief

Mobile Source Operations Division

Model Year: 2002		
		Page:
Manufacturer Name:Mercury Marine		Issued:
Engine Family: 2M9XM.4982G0		Revised:
I MARINE ENGINE SUPPLEMENTAL INFORMATION.	. •	E.O.#:

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)
1F25203ZD				х	498	18.65	5000	86.8	4000
1F25213ZD				х	498	18.65	5000	86.8	4000
1F25301ZD				Х	498	18.65	5000	86.8	4000
1F25302ZD				Х	498	18.65	5000	86.8	4000
1F25203ZD				Х	498	18.65	5000	86.8	4000
1F25311ZD				· x	498	18.65	5000	86.8	4000
*1F25312ZD				Х	498	18.65	5000	86.8	4000
1F25312ZN	,			X	498	18.65	5000	86.8	4000
1F25412ZD				Х	498	18.65	5000	86.8	4000
1F25412ZN				Х	498	18.65	5000	86.8	4000
7F25203LD				X	498	18.65	5000	86.8	4000
7F25213LD				X	498	18.65	5000	86.8	4000
7F25302LD				Х	498	18.65	5000	86.8	4000
7F25312LD				Х	498	18.65	5000	86.8	4000
7F25412LD				X	498	18.65	5000	86.8	4000