## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER U-W-1-11 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: Very Low Emission ("Two Stars")

Equipment Application: Outboard

Engine Family: 2M9XM.3232G0

Displacement: 323 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 (estimated) Standard 47.67 Certification Level

22.61

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  $\frac{29}{29}$  day of January 2001.

R. B. Summerfield, Chief Mobile Source Operations Division

Model Year: \_\_\_\_2002\_\_\_\_ Manufacturer Name: \_\_\_\_\_ Engine Family: \_\_\_\_2M9XM.3232G0\_\_\_\_\_ SI MARINE ENGINE SUPPLEMENTAL INFORMATION.

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

Model Engi	S12 Engine Code	Engine (Chec	S13 Sales Codes ck 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)
1F10203ZD				X	323	7.4	5000	41.8	3000
1F10213ZD				х	323	7.4	5000	41.8	3000
1F10352ZN				х	323	7.4	5000	49.44	3000
1F10253ZD				x	323	7.4	5000	49.44	3000
1F10263ZD		1994 - 1997 - 1994 - 1997 - 19		х	323	7.4	5000	49.44	3000
1F10312ZD				х	323	7.4	5000	41.8	3000
.F10312ZN				х	323	7.4	5000	41.8	3000
1F10351ZD				Х	323	7.4	5000	49.44	3000
1F10352ZD				х	323	7.4	5000	49.44	3000
1F10361ZD				х	323	7.4	5000	49.44	3000
1F15203ZD				Х	323	11.2	5000	45.56	3500
1F15213ZD				Х	323	11.2	5000	45.56	3500
1F15253ZD				X	323	11.2	5000	51.93	4000
1F15301ZD				х	323	11.2	5000	45.56	3500
1F15302ZD				х	323	11.2	5000	45.56	3500
1F15311ZD				х	323	11.2	5000	45. <u>5</u> 6	3500
*1F15312ZD				х	323	11.2	5000	45.56	3500
1F15352ZD				х	323	11.2	5000	51.93	4000
7F10203LD				х	323	7.4	5000	45.56	3500
7F10213LD				х	323	7.4	5000	45.56	3500
F10253LD				х	323	7.4	5000	49.44	3000

Model Year: \_\_\_\_2002\_\_\_\_ Manufacturer Name: \_\_\_\_\_ Engine Family: \_\_\_\_2M9XM.3232G0\_\_\_\_\_ SI MARINE ENGINE SUPPLEMENTAL INFORMATION.

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S11 Model Designation	S12 Engine Code	S13 Sales Codes (Check all appropriate codes)		S14 Eng. Disp. (cc)	<sup>&lt;</sup> S15 Rated Power	S16 Rated Speed	S17 Peak Torque	S18 • Peak Torque	
		Calif. Only	49 State	50- State		(kW)	(RPM)	(N-m)	Speed (RPM)
7F10312LD				X	323	7.4	5000	41.8	3000
7F10352LD				x	323	7.4	5000	49.44	3000
7F15312LD				x	323	11.2	5000	51.93	4000
7F15203LD				X	323	11.2	5000	45.56	3500
7F15213LD				X	323	11.2	5000	45.56	3500
7F15301LD				х	323	11.2	5000	45.56	3500
7F15302LD				х	323	11.2	5000	45.56	3500
F15311LD			•	х	323	11.2	5000	51.93	4000
7F15352LD			-	X	323	11.2	5000	45.56	3500