State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-W-1-8 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 is certified as described below.

Model Year: 2001

Fuel Type: Gasoline

Level of Cleanliness: Very Low Emission ("Two Stars")

Equipment Application: Outboard

Engine Family: 1M9XM02.52C0

Displacement: 2507 cc

Exhaust Emission Control Systems and Special Features: DFI

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 hydrocarbon plus oxides of nitrogen (HC+NOx) exhaust emission standard described below, expressed in grams per kilowatt-hr (g/kW-hr) under Section 2442(b) of Title 13, California Code of Regulations (13 CCR).

HC + NOx	Certification
(estimated) Standard	<u>Level</u>
36.43	22.34

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 (Title 13, California Code of Regulations, Sections 2443.1, 2443.2 and 2443.3);
- Emission Control System Warranty (Title 13, California Code of Regulations, 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"); and
- 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.

BE IT FURTHER RESOLVED: That the certification to Section 2443.3, Title 13, California Regulations described herein is conditioned on approval of that section by California's Office of Administrative Law pursuant to Government Code Section 11349.4.

Executed at El Monte, California this / day of May 2000.

_ day of May 2000

R. B. Summerfield, Chief

Mobile Source Operations Division

9

Page: fssued: Revised:

Model Year: 2001

Manufacturer Name: Mercury Marine

Engine Family: 1M9XM02.52C0

E.O.#: (L-all)

Attachment

		54.	ECS	UFI				1) F	-1	>					DFI
	kW	53.	Torque Speed (RPM)	3000-3500	3000-3500	3000-3500	3000-3500	3080-3500	3000-3500	3065-3500	3000-3500	360-3500	3000-3500	3000-3500	3000-3500	3000-3500
		52.	Rated Torque (N-m)	346	346	346	346	346	346	346	346	346	376	376	376	376
y Form		35	Rated Speed (RPM)	5500	5500	9055	5500	5560	5500	5500	5500	5500	5500	5500	5500	5500
ımmar	43. Engine Family Sales-Weighted Power:	36.	Power (kW)	111.9	111.9	111.9	9,111	6.11.1	6.11.9	6.11.1	111.9	111.9	130.55	130.55	130.55	130.55
SI Marine Engine Model Summary Form		- - -	Basic Ignition Timing (deg. @ idle)	Fixed Timing												
ine Engir		48.	fore/Strok e (mm)	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3	88.4/67.3
SI Mar		47.	Disp. (cc)	2507	2507	2507	2507	2507	2507	2507	2507	2507	2507	2507	2507	2507
		S.	priate 50- State	×	×	>-	×	×	×	×	×	×	×	×	×	×
		46. Sales Codes	(Cucck-all-appra alif. 49. aly State													
		···	Calif.													
		45.	Model Designation	1150483YX	1150D73YD	1150D73YT	1150D73YY	1150D83YD	1150D84YD	7150D73KD	7150D83KD	7150D84KD	1175D73YD	7175D73KD	1920361YH	1920362YH

Page: Issued: Revised:

Model Year: 2001

Manufacturer Name: Mercury Marine

Engine Family: iM9XM02.52C0

E.O.#: 4-M-1-8

Attachment

	r				T				 	 	 	 _	
			ECS		DFI	WI)						
	44. Engine Family Sales-Weighted Power:	53.	Tarque	Speed (RPM)	3000-3500	3000-3500		A STATE OF THE PARTY OF THE PAR					
		52.	Rated	Torque (N-m)	376	376							
Form		51.	Raied	Speed (RPM)	5500	5500							
SI Marine Engine Model Summary Form		50,	Power	(k %)	130.55	130.55		And the second s	5				
		49.	Basic Ignition	Timing (deg. @ idle)	Fixed Timing	Fixed Timing							
		48.	Bare/Strol	c (mm)	88.4/67.3	88.4/67.3							
		47.	Disp.	(33)	2507	2507							
		ý	priate-	50- State	×	×							
		46. Salve Codes	(Check-all-appropri	49- State									
	1		(Chec	Calif. Only									
		45.	Model	Designation	1920371YH	1920375YH							