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## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER U-W-4-2 Relating to Certification of New Spark-Ignition Marine Engines

## TOHATSU CORPORATION

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: 2001

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

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

Equipment Application: Outboard

Engine Family: 11TXM.12322A

Displacement: 123 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 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 <u>Standard</u>	Certification <u>Level</u>
64.80	34.26

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.

Executed at El Monte, California this  $\frac{38}{28}$  day of August 2000.

R. B. Summerfield, Chief

Mobile Source Operations Division

TACHMENT

Model Year: 2001

Manufacturer Name: TOHATSU CORPORATION
Engine Family: 11TXM.12322A

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Revised:
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	44. Engine Family Sales-Weighted Power: kW	54.		ECS			N/A	N/A	N/A	N/A	N/A	N/A				
SI Marine Engine Model Summary Form		53.		Torque	Speed	(RPM)	3500	3500	3500	3500	4250	4250				
		52.		Rated	Tordne	(M-N)	7.35	7.35	7.45	7.45	8.43	8.43				
		51.		Rated	Speed	(RPM)	2000	5000	2000	2000	5500	5500				
		50.		Power	(KW)		2.94	2.94	3.68	3.68	4,41	4.41				
		<del>-</del> 69.		Basic Ignition	Timing (deg.	(@ idle)	BTDC 25°	BTDC 25"	BTDC 25°	BTDC 25°	BTDC 25°	BTDC 25°				
		.48.		Bore/Stroke	(mm)		54/45	59/45	59/45	59/45	59/45	59/45				
SIN		47.		Disp.	(55)		123	123	123	123	123	123				
		46.	Sales Codes	(Check all appropriate codes)		50-State										
						49-State										
					:	Calli.										
		45.		Model	Designation		MFS4A	NSF4A	MFSSA	NSF5A	MFS6A	NSF6A				