State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-W-4-1
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

Fuel Type: Gasoline Engine Type: 4-Stroke

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

Equipment Application: Outboard

Engine Family: 11TXM.12322B

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 (estimated) Standard	Certification Level
64.80	34.43

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 Code of 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 25TH day of May 2000.

For

R. B. Summerfield, Chief
Mobile Source Operations Division

ATTACHMENT

Model Year: 2001
Manufacturer Name: TOHATSU CORPORATION
Engine Family: 11TXM.12322B
E.O.#: U-W-4-1

Page: _____
Issued: _____
Revised:

SI Marine Engine Model Summary Form

44. Engine Family Sales-Weighted Power: _____ kW

45	46			47	48	49	50	51	52	53	54
	Sales Codes										
Model Designation	(Check all appropriate codes)			Disp. (cc)	Bore/Stroke (mm)	Basic Ignition Timing (deg. @ idle)	Power	Rated Speed (RPM)	Rated Torque (N-m)	Torque Speed (RPM)	ECS
	Calif. Only	49 State	50 State				(kW)				
1F04201YK			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1F04201YB			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
7F04201KK			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
7F04201KM			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
7F04201KB			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1F04211YK			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1F04211YM			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1F04211YB			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
7F04211KK			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
7F04211KB			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1F04216YB			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1F04216KB			←	123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1F05201YK			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
1F05201YB			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
1F05201YK			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
7F05201KK			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
7F05201KB			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
1F05211YB			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
1F05211YM			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
1F05211YK			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
7F05211KK			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
7F05211KB			←	123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
1F06201YK			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
1F06201YB			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
1F06201YM			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
7F06201KK			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
7F06201KB			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
1F06211YB			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
1F06211YK			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
7F06211KK			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A
7F06211KB			←	123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A