

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-W-4-7
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: 2002

Fuel Type: Gasoline Engine Type: 2-Stroke

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

Equipment Application: Outboard

Engine Family: 21TXM.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 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).

<u>HC + NOx Standard</u>	<u>Certification Level</u>
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 (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 23rd day of May 2001.



R. B. Summerfield, Chief
Mobile Source Operations Division

Model Year: 2002
 Manufacturer Name: TOHATSU CORPORATION
 Engine Family: 21TXM.12322B

Page: _____
 Issued: _____
 Revised: _____
 E.O.#: _____

SI Marine Engine Model Summary Form

44. Engine Family Sales-Weighted Power: _____ kW

45. Model Designation	46. Sales Codes (Check all appropriate codes)			47. Disp. (cc)	48. Bore/Stroke (mm)	49. Basic Ignition Timing (deg. @ idle)	50. Power (kW)	51. Rated Speed (RPM)	52. Rated Torque (N-m)	53. Torque Speed (RPM)	54. ECS
	Calif. Only	49-State	50-State								
1B04201ZB, 1B04211ZB 1F04201ZB, 1F04201ZL 1F04201ZK, 7F04201LB 7F04201LM, 7F04201LK 1F04211ZB, 1F04211ZM 1F04211ZL, 1F04211ZK 7F04211LK, 7F04211LB 1F04216ZB, 7F04216LB		X		123	59/45	BTDC 25°	2.94	5000	7.35	3500	N/A
1B05201ZB, 1B05211ZB 1F05201ZB, 1F05201ZL 1F05201ZK, 1F05201ZM 7F05201LB, 7F05201LK 1F05211ZB, 1F05211ZM 1F05211ZL, 1F05211ZK 7F05211LK, 7F05211LB		X		123	59/45	BTDC 25°	3.68	5000	7.45	3500	N/A
1B06201ZB, 1B06211ZB 1F06201ZB, 1F06201ZL 1F06201ZK, 1F06201ZM 7F06201LB, 7F06201LK 1F06211ZB, 1F06211ZL 1F06211ZK, 7F06211LK 7F06211LB		X		123	59/45	BTDC 25°	4.41	5500	8.43	4250	N/A

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