California Environmental Protection Agency AIR RESOURCES BOARD	TOHATSU CORPORATION	EXECUTIVE ORDER U-W-004-0009 New Spark-Ignition Marine Engines

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Sections 43013, 43018, 43101, 43102 and 43104; 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 emission control systems (ECS) produced by the manufacturer are certified as described below. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	FUEL TYPE	DISPLACEMENT (cc)	LEVEL OF CLEANLINESS
2002	21TXM.32822B	Gasoline	328	Very Low Emission ("Two Stars")

EQUIPMENT APPLICATION	ECS & SPECIAL FEATURES	ENGINE TYPE
Outboard	Engine Modification	4-Stroke

ENGINE MODELS (rated power in kilowatts, kw)	MFS9.9B/NSF9.9B (7.28 kw) MFS15B/NSF15B (11.03 kw) MFS18B/NSF18B (13.24 kw)

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx) exhaust emission standard (Title 13, California Code of Regulations, (13 CCR) Section 2442(b)) and certification emission level in grams per kilowatt-hour (g/kw-hr) for this engine family. Engines in this engine family shall have closed crankcases in conformance with Part I, Section 18(h) of the "California Exhaust Emission Standards and Test Procedures for 2001 Model-Year and Later Spark-Ignition Marine Engines."

	STANDARD (g/kw-hr) (estimated)	CERTIFICATION LEVEL (g/kw-hr)
HC+NOx	48.36	23.38

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 13 CCR Sections 2443.1, 2443.2 and 2443.3 (emission control, consumer, and environmental labels), and Sections 2445.1 and 2445.2 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Quarterly reports of engines produced in this engine family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 28TH day of August 2001.

FOR
R. B. Summerfield, Chief
Mobile Source Operations Division