## California Environmental Protection Agency Air Resources Board

VOLVO PENTA OF THE AMERICAS,

EXECUTIVE ORDER U-W-012-0091 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-14-012;

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
2017	HVPAM06.0GXC	Gasoline	6000	Super Ultra Low Emission ("Four Stars")
EQUIPME	NT APPLICATION	ECS & SPEC	IAL FEATURES	ENGINE TYPE
Sterndrive		Dual Three Way Catalytic Converter Heated Oxygen Sensor Sequential Multiport Fuel Injection On-Board Diagnostics-Marine System Low Perm Fuel Line		4-Stroke
ENGINE MODELS (rated power in kilowatts, kW)		V8	430 CE (321 kW)	

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) exhaust emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2442(b)) and certification emission levels in grams per kilowatt-hour (g/kW-hr) for this engine family. Engines in this engine family shall discharge no crankcase emissions into the ambient atmosphere in conformance with 13 CCR Section 2442(b).

	HC+NOx (g/kW-hr)	CO (g/kW-hr)
STANDARD	5.0	75.0
CERTIFICATION LEVEL	2.2	57.2

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), Section 2444.2 (on-board engine malfunction detection system), 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.

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 <u>A3Rb</u> day of November 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

for A. HEBERT