CALIFORNIA AIR RESOURCES BOARD	ECHO INCORPORATED	EXECUTIVE ORDER U-U-010-1462 New Off-Road Small Spark-Ignition Engines at or Below 19 Kilowatts

Pursuant to the authority vested in California Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapters 1 and 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following engine and emission control systems produced by the manufacturer are certified for use in small off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	ENGINE CLASS	FUEL TYPE
2024	REHXS.0214KO	2-stroke, < 50 cc	Gasoline
DURABILITY HOURS	**EMISSION CONTROL SYSTEMS & SPECIAL FEATURES**	**EQUIPMENT APPLICATION**	
300	Three-Way Catalyst (TWC)	Hedge Trimmer	

Engines certified by this Executive Order are further described in Attachment.

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx), carbon monoxide (CO), and particulate matter (PM) emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2403(b)), and certification emission levels for this engine family in grams per kilowatt-hour (g/kW-hr). Engines within this engine family shall have closed crankcases in conformance with Section 1054.115(a) of the "California Exhaust Emission Standards and Test Procedures for New 2013 and Later Small Off-Road Engines," amended January 1, 2023.

	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
STANDARD	50	536	2.0
FAMILY EMISSION LIMIT	48	536	1.0
CERTIFICATION LEVEL	35	272	0.7

*not applicable

BE IT FURTHER RESOLVED: That the family emission limit(s) (FELs), as applicable, is an emission level that is declared by the manufacturer to serve for the averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2403(e)(1) and 2407(a).

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 Section 2404 (emission control labels) and 13 CCR Sections 2405 and 2406 (emission control system warranty).

BE IT FURTHER RESOLVED: That the listed engine models are certified based on the information provided by the manufacturer in its application for certification, the manufacturer's attestation that the listed engine models meet all applicable certification requirements for 2024 model year small off-road engines in the 13 CCR Sections 2400 through 2409, and Sections 2750 through 2774, and on CARB staff's review of the information and documents submitted by the manufacturer in support of that attestation.

On December 20, 2022, CARB submitted a request that the United States Environmental Protection Agency (U.S. EPA) grant California an authorization for 2021 Amendments to its Small Off-Road Engine regulation, which establishes emission standards and other emission-related requirements for off-road spark-ignition engines rated at or below 19 kilowatts. If U.S. EPA grants California the authorization for the 2021 Amendments to the Small Off-Road Engine regulation, this Executive Order terminates on the date that U.S. EPA's authorization decision is published in the Federal Register.

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 on this 8th day of April 2024.

Robin U. Lang

Robin U. Lang, Chief
Emissions Certification and Compliance Division

SORE Exhaust Model Summary Template (rev. 2020)

For CARB Use Only
Executive Order: U-U-010-1462
Attachment _1_ of _1_
RC01: 10/11/2024

Date: 9/26/2024
Engine Family: REHXS.0214KO

Model Summary

Worst Case (Check One)	47. Model Designation	48. Sales Code	49. Displacement (cc)	50. Bore/Stroke	51. Ignition Timing	52. Max Power	52. Rated Speed (RPM)	54. Rated Torque	55. Torque Speed (RPM)	56. Emission Control System
X	HT235	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC
	HT232	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC
	DH232	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC
	DH235	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC
	HC-2210	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC
	HC-2810	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC
	HCS-2810	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC
	HCS-3810	50-State	21.2	32.2/26	29.5±2@7500	0.56	7500	0.70 N-m	7500	EM/TWC