CALIFORNIA AIR RESOURCES BOARD	**ZHEJIANG CONSTANT ENGINE MADING CO., LTD**	**EXECUTIVE ORDER U-U-243-0072** 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	DISPLACEMENT (cc)	ENGINE CLASS	FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)
2022	NZCES.2231GD	196, 208, 223	4-stroke, > 80 cc - < 225 cc	Gasoline, LPG, Gasoline-LPG Dual Fuel, Gasoline-LPG-CNG Triple Fuel

DURABILITY HOURS	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
500	EM	Pump, Pressure Washer, Generator Set

ENGINE CODES/MODELS (rated power in kilowatt, kW)	See Attachment

ABBREVIATIONS: EM=engine modification TWC/OC=three-way/oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed AIR MFI=multi port fuel injection SFI=sequential MFI TBI=throttle body fuel injection DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2(prefix)=parallel (2)(suffix)=in series ECM=engine control module

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," adopted October 25, 2012.

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
STANDARD	10.0	549	*
FAMILY EMISSION LEVEL	*	*	*
CERTIFICATION LEVEL	8.2	355	*

BE IT FURTHER RESOLVED: That the family emission level(s) (FELs), as applicable, is an emission limit declared by the manufacturer for use in 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).

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 9th day of August 2021.

Allen Lyons, Chief
Emissions Certification and Compliance Division

SORE Exhaust Model Summary Template (rev. 2020)

For CARB Use Only
Executive Order: U-U-243-0072
Attachment __1___ of __1___

Date: _06/21/2021_____
Engine Family: NZCES.2231GD

Model Summary

Worst Case (Check One)	47. Model Designation	48. Sales Code	49. Displacement (cc)	50. Bore/Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated Torque	55. Torque Speed (RPM)	56. Emission Control System
X	170FD-2-A15	50-State	223	70/58	23±2 BTDC	5.3kW	3600	15.0N.m	2800	EM
	170FDE-2-A15	50-State	223	70/58	23±2 BTDC	5.3kW	3600	15.0N.m	2800	EM
	170FDE-2-A16	50-State	223	70/58	23±2 BTDC	5.3kW	3600	15.0N.m	2800	EM
	170FD-2-A17	50-State	223	70/58	23±2 BTDC	5.3kW	3600	15.0N.m	2800	EM
	170FDE-2-A17	50-State	223	70/58	23±2 BTDC	5.3kW	3600	15.0N.m	2800	EM
	170FDE-2-A18	50-State	223	70/58	23±2 BTDC	5.3kW	3600	15.0N.m	2800	EM
	170FD-2-A19	50-State	223	70/58	23±2 BTDC	5.0kW	3600	13.5N.m	2800	EM
	170FDE-2-A19	50-State	223	70/58	23±2 BTDC	5.0kW	3600	13.5N.m	2800	EM
	170FDE-2-A20	50-State	223	70/58	23±2 BTDC	5.0kW	3600	13.5N.m	2800	EM
	SFE210DF	50-State	208	70/54	25±5 BTDC	4.8kW	3600	13.8N.m	2800	EM
	SFE210DFE	50-State	208	70/54	25±5 BTDC	4.8kW	3600	13.8N.m	2800	EM
	SFE210E	50-State	208	70/54	25±5 BTDC	4.8kW	3600	13.8N.m	2800	EM
	SFE210	50-State	208	70/54	25±5 BTDC	4.8kW	3600	13.8N.m	2800	EM
	SFE210ER	50-State	208	70/54	25±5 BTDC	4.8kW	3600	13.8N.m	2800	EM
	SFE210L	50-State	208	70/54	25±5 BTDC	4.2kW	3600	12.4N.m	2800	EM
	CST170FL/Q-J004	50-State	208	70/54	25±5 BTDC	4.5kW	3600	13.4N.m	2800	EM
	SPE200	50-State	196	68/54	25±5 BTDC	4.2kW	3600	13.2N.m	2800	EM
	SPE200E	50-State	196	68/54	25±5 BTDC	4.2kW	3600	13.2N.m	2800	EM
	CST170FD/T-K002	50-State	223	70/58	23±2 BTDC	5.1kW	3600	14.0N.m	2800	EM
	CST170FD/T-K003	50-State	223	70/58	23±2 BTDC	5.1kW	3600	14.0N.m	2800	EM