## Liquid Combustion Technology, LLC

EXECUTIVE ORDER U-U-063-0175 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-14-012;

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)	ENGIN	E CLASS	FUEL TYPE		
2019	-	KLCTS.4142SN	369, 414, 420	4-stroke, ≥ 225 cc		Gasoline		
DURABILITY HOURS		SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
250		EM			Snowblower, Ice Auger			
ENGINE MODELS (rated power in kilowatt, kW)			See Attachment					

The following are the 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).

*=not applicable	CO (g/kW-hr)	PM (g/kW-hr)			
STANDARD	549	•			
FAMILY EMISSION LEVEL	•	•			
CERTIFICATION LEVEL	390	*			

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).

BE IT FURTHER RESOLVED: That because the listed engine models shall be used exclusively in wintertime snowblower and/or ice auger products only (13 CCR Section 2403(b)(5)), the equipment is exempt from complying with 13 CCR, Chapter 15, Article 1 (evaporative emission requirements for off-road equipment).

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 \_\_

day of January 2019.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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Model Year:

Engine Family:

2019

Llquid Combustion Technology, LLC Manufacturer:

KLCTS.4202SN

Issued:

1/23/2019

Revised: E.O. Number: U-U-063-U15

## Small Off-Road Engine Model Summary Form

Units for Table: kw

Service March	47. Model Designation	48. Sales Code	49. Displ (cc)	50. Bore/ Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated Torque	55. Torque Speed (RPM)	56. Emiss Control Sys
	PWHK-E1 414	50-State	414	90/65	fixed	8.4	3600	22.4Nm	2700	EM
	PWHK-E1 420	50-State	420	90/66	fixed	8.6	3600	22.7	3600	EM
36	PWHK-E1 369	50-State	369	85/65	fixed	7.8	3600	23.5Nm	3250	EM