Husqvarna Zenoah Co., Ltd.

EXECUTIVE ORDER U-U-016-0566 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	ENGII	NE FAMILY	DISPLACEMENT (cc)	ENGINE CLASS 2-stroke, < 50 cc		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)	
2020	LHQZ	ZS.0354HJ	35			Gasoline	
DURABILITY HOURS		SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION		
125			EM			Chainsaw	
ENGI CODES/M (rated po kilowatt	ODELS wer in	See Attachment					
EGR=exhaus	it gas recirc	ulation AIR=sec	ondary air injection PAlR≒pul	lsed AIR MFI=multi p	ort fuel inj	=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S jection SFi≍sequential MFI TBi=throttle body fuel injection uffix)=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	50	536	2.0
FAMILY EMISSION LEVEL	49	536	2.0
CERTIFICATION LEVEL	42	307	0.8

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 at El Monte, California on this _____day of October 2019.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment 1 of 1

Model Year: Manufacturer: 2020

Husqvarna Zenoah Co., Ltd.

Engine Family: LHQZS.0354HJ

Issued: 2019/10/03

Revised:

E.O. Number: V - V - 016 - 0566

Small Off-Road Engine Mode Summary Form

Units for Table: kW

	Units for Table, RVV									
	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.
Worst Case?	Model Designation	Sales Code	Displ (cc)	Bore/ Stroke	Ignition Timing	Max Power	Rated Speed (RPM)	Rated Torque	Torque Speed (RPM)	Emiss Control Sys
×	GZ3500T	50-State	35	40/28	33	1.39	10000	1.57	7500	EM
	T435	50-State	35	40/28	33	1.39	10000	1.57	7500	EM
	CS2236T	50-State	35	40/28	33	1.39	10000	1.57	7500	EM
	439	50-State	35	40/28	33	1.39	10000	1.57	7500	EM
	GZ360	50-State	35	40/28	33	1.39	10000	1.57	7500	EM