

## CHONGQING ZONGSHEN GENERAL POWER MACHINE CO., LTD.

EXECUTIVE ORDER U-U-082-0343 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 FAMI		DISPLACEMENT (cc)	ENGINE CLASS		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)		
2019	KCZH	IS.7502VE	750, 679	4-stroke, ≥	225 cc	Gasoline		
DURABILITY HOURS		SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
500		ECM, TBI, O2S			Riding Mower, Tractor, Compressor, Pump, Pressure Washer, Stump Beater, Non-Backpack Blower, Tiller, Commercial Turf			
ENGINE CODES/MODELS (rated power in kilowatt. kW)		See 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," adopted October 25, 2012.

DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2(prefix)=parallel (2)(suffix)=in series ECM=engine control module

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)		
STANDARD	8.0	549			
FAMILY EMISSION LEVEL	*	*	*		
CERTIFICATION LEVEL	6.7	280	*		

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 December 2018.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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Model Year:

2019

Attachment, 1 of 1

Issued: Revised:

3/11/2019

Engine Family: KCZHS.7502VE

Manufacturer: Chongqing Zongshen General Power

E.O. Number: u-u-082-0343

## **Small Off-Road Engine Model Summary Form**

PC1:5-9-2019

Units for Table: kw

	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
	9Q82HU_	50-State	750	82/71	24	18.0	3600	45	2800	ECM+TBI+O2S
. <b>X</b>	9Q78HU_	50-State	679	78/71	24	16.5	3600	43	2800	ECM+TBI+O2S
	9Q78ZU_	50-State	679	78/71	24	16.5	3600	43	2800	ECM+TBI+O2S
	9Q78KU_	50-State	679	78/71	24	16.5	3600	43	2800	ECM+TBI+O2S
	9Q78XU_	50-State	679	78/71	24	16.5	3600	43	2800	ECM+TBI+O2S
	9Q82ZU_	50-State	750	82/71	24	18.0	3600	45	2800	ECM+TBI+O2S
	9Q82KU_	50-State	750	82/71	24	18.0	3600	45	2800	ECM+TBI+O2S
	9Q82XU_	50-State	750	82/71	24	18.0	3600	45	2800	ECM+TBI+O2S
	9Q82MU_	50-State	750	82/71	24	18.0	3600	45	2800	ECM+TBI+O2S
	9Q78MU_	50-State	679	78/71	24	16.5	3600	43	2800	ECM+TBI+O2S
	9Q78HW_	50-State	679	78/71	24	16.5	3600	43	2800	ECM+TBI+O2S
	9Q78XW_	50-State	679	78/71	24	16.5	3600	43	2800	ECM+TBI+O2S
	9Q82HW_	50-State	750	82/71	24	18.0	3600	45	2800	ECM+TBI+O2S
	9Q82XW_	50-State	750	82/71	24	18.0	3600	45	2800	ECM+TBI+O2S
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