

Pursuant to the authority vested in the 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)	ENGINE CLASS	FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas)
2017	HCZHS.1591V1	159, 141	4-stroke, >80 cc - <225 cc	Gasoline
DURABILITY HOURS	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION	
125	EM		Walk-Behind Lawnmower, Compressor, Pump, Pressure Washer, Stump Beater, Non-Backpack Blower, Tiller, Edger, Brushcutter, Other Industrial Equipment	
ENGINE CODES/MODELS (rated power in kilowatt, kW)	See Attachment			
<small>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</small>				

The following are the hydrocarbon plus oxides of nitrogen (HC+NO_x), 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+NO _x (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)
STANDARD	10.0	549	*
FAMILY EMISSION LEVEL	*	*	*
CERTIFICATION LEVEL	8.3	363	*

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).

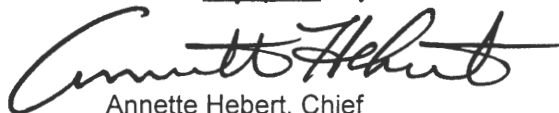
BE IT FURTHER RESOLVED: That for the listed engines, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2404 (emission control labels) and 13 CCR Sections 2405 and 2406 (emission control 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 16 day of December 2016.



Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Model Year: 2017

Issued:

Manufacturer: Chongqing Zongshen General Power

Revised: 9/18/2016

Engine Family: HCZHS.1591V1

E.O. Number:

4-11-082-0231

Small Off-Road Engine Model Summary Form

RCI: 8-29-17

Units for Table: kw

47. Worst Case?	48. Model Designation	49. Sales Code	50. Displ (cc)	51. Bore/ Stroke	52. Ignition Timing	53. Max Power	54. Rated Speed (RPM)	55. Rated Torque	56. Torque Speed (RPM)	57. Emiss Control Sys
	XP160_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	XP140_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65LU_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65LH_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65MT_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65NU_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65NH_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65NT_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65PT_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65RU_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65RH_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65TU_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65TH_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	5T65RU_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	5T65RH_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	5T65VU_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	5T65VH_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1T65ST_	50-State	141	65/42	20	2.2	3600	6.5	3000	EM
	1X65CU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65LU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM

Model Year: 2017
 Manufacturer: Chongqing Zongshen General Power
 Engine Family: HCZHS.1591V1

Issued:
 Revised: 9/18/2016
 E.O. Number: U-U-082-0231
 RC1-8-29-17

Small Off-Road Engine Model Summary Form

Units for Table:

Worst Case?	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
	1X65LH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65MU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65MH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65RU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65RH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65TU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65TH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65VU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65VH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65MU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65MH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65QU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65QH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
X	5X65RU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65RH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65VU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65VH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	6X65MU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	6X65MH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	6X65RU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM

Model Year: 2017
Manufacturer: Chongqing Zongshen General Power
Engine Family: HCZHS.1591V1

Issued:
Revised: 5/10/2017
E.O. Number:

U-U-082-0231
RCI: 8-29-17
Units for Table:

Small Off-Road Engine Model Summary Form

47. Worst Case?	48. Model Designation	49. 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
	6X65RH_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	7X65RU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	7X65MU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65ST_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65MT_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65QU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	5X65RW_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	6X65RW_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	6X65QU_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM
	1X65PT_	50-State	159	65/48	20	2.6	3600	7.0	3000	EM