

ZHEJIANG YAOFENG POWER TECHNOLOGY CO., LTD.

EXECUTIVE ORDER U-U-220-0084
New Off-Road Small Spark-Ignition
Engines at or Below 19 Kilowatts

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)	
2018	JZYP	PS.2241GA 192, 196, 224 4-stroke, >8		4-stroke, >80 c	cc - <225 cc Gasoline, LPG, and Gasoline-LPG Dual Fuel		
DURABILITY HOURS		SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION		
250		EM			Pump, Pressure Washer, Generator Set, Other OEM Equipment		
ENGINE CODES/MODELS (rated power in kilowatt, kW)		See Attachment					
EGR=exhaus	t gas recirc	ulation AIR=seco	ondary air injection PAIR=	pulsed AIR MFi=mu	tti port fuel injec	varm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S tion SFI=sequential MFI TBI=throttle body fuel injection x)=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	8.5	330	*

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 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Page: 9

Model Year: Manufacturer:

47.

Model

Designation

YF168FD-2-L_G

YF168FD-2-LPG

YF168F-2

YF168FD-2

YF170FD

YF170FD-L_G

YF172F

YF172FD

YF172FD-LPG

YF172FD-L G

YF172IV

50-State

50-State

224

224

72/55

72/55

12BTDC

12BTDC

Worst

Case?

Х

Engine Family:

2018

Zhejiang Yaofeng Power Technology Co., JZYPS.2241GA

Issued:

Revised:

9/21/2017

12.6N.m

12.6N.m

12.6N.m

2800

2800

2800

EΜ

ΕM

E.O. Number: U-U-220-0084

Small Off-Road Engine Model Summary Form

Units for Table: kW Attachment 48. 49. 50. 51. 52. 53. 54. 55. 56. Rated Speed Sales Displ Bore/ Ignition Max Rated Torque Speed **Emiss** Code Stroke Timing Power (RPM) Torque (RPM) (cc) Control Sys 4.5 Gasoline4000 68/54 12BTDC 11N.m 2800 ΕM 50-State 196 3.5 LPG 3600 11.7N.m 2800 3.5 3600 11.7N.m 2800 ΕM 50-State 196 68/54 12BTDC 50-State 68/54 12BTDC 4.5 4000 11N.m 2800 ΕM 196 11N.m 2800 ΕM 50-State 196 68/54 12BTDC 4.5 4000 4.4 4000 12N.m 2500 ΕM 50-State 192 70/50 21BTDC 4.4 Gasoline4000 50-State 70/50 21BTDC 12N.m 2500 ΕM 192 3.95 LPG 10.5N.m 4000 2500 50-State 224 12BTDC 5.1 4000 12.6N.m 2800 ΕM 72/55 4000 12.6N.m 2800 ΕM 50-State 12BTDC 5.1 224 72/55 72/55 12BTDC 4 4000 12.6N.m 2800 ΕM 50-State 224

5.1 Gasoline4000

4000

4000

4 LPG

5.1