## JIANGSU JIANGHUAI ENGINE CO., LTD.

EXECUTIVE ORDER U-U-068-0336 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.

2021     MJDGS.4592GL     420, 440, 459     4-stroke, ≥ 225 cc     Gasoline, LPG       DURABILITY HOURS     SPECIAL FEATURES & TYPICAL EQUIPMENT APPLICATION       250     EM     Compressor, Pump, Pressure Washer, Generator Set       ENGINE CODES/MODELS (rated power in the compression)     See Attachment	MODEL YEAR         ENGINE FAMILY         DISPLACEMENT (cc)         ENGINE CLASS         FUEL TYPE (CNG/LNG=compressed/liquefied nature LPG=liquefied petroleum gas)						(CNG/LNG=compressed/liquefied natural gas		
HOURS EMISSION CONTROL SYSTEMS  250 EM Compressor, Pump, Pressure Washer, Generator Set  ENGINE CODES/MODELS  See Attachment	2021 MJD0		SS.4592GL	420, 440, 459 4-strol		225 cc	Gasoline, LPG		
ENGINE CODES/MODELS See Attachment			TYPICAL FOLIPMENT APPLICATI			TYPICAL EQUIPMENT APPLICATION			
CODES/MODELS See Attachment	250		EM Compressor, Pump, Pressure Washer, Generator Set						
kilowatt, kW)	CODES/MODELS (rated power in See Attachment						hment		

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

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	8.0	549	*	
FAMILY EMISSION LEVEL	*	*	*	
CERTIFICATION LEVEL	6.2	450	*	

**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 on this 6th day of December 2020.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 

Date: _	11/10/2020	
Engine	Family: _MJDGS.4592GL	

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Executive Ord	der:	U-U-06	8-03	36
Attachment _	_1_	of _	_1	_

## Model Summary

	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.
Worst Case (Check One)	Model Designation	Sales Code	Displacement (cc)	Bore/Stroke	Ignition Timing	Max Power	Rated Speed (RPM)	Rated Torque	Torque Speed (RPM)	Emission Control System
Х	JF460GL	50-State	459	92/69mm	25BTDC	9.5kW	3600	29N.m	2800	EM
	JF460GL	50-State	459	92/69mm	25BTDC	10.5kW	3600	31N.m	2800	EM
	JFNT460GL	50-State	459	92/69mm	25BTDC	9.5kW	3600	29N.m	2800	EM
	JFNT460GL	50-State	459	92/69mm	25BTDC	10.5kW	3600	31N.m	2800	EM
	JF440GL	50-State	440	92/66mm	25BTDC	9.0kW	3600	28N.m	2800	EM
	JF440GL	50-State	440	92/66mm	25BTDC	10.0kW	3600	30N.m	2800	EM
	JFNT440GL	50-State	440	92/66mm	25BTDC	9.0kW	3600	28N.m	2800	EM
	JFNT440GL	50-State	440	92/66mm	25BTDC	10.0kW	3600	30N.m	2800	EM
	JF420GL	50-State	420	90/66mm	25BTDC	8.5.0kW	3600	26N.m	2800	EM
	JF420GL	50-State	420	90/66mm	25BTDC	9.0kW	3600	28N.m	2800	EM
	JFNT420GL	50-State	420	90/66mm	25BTDC	8.5.0kW	3600	26N.m	2800	EM
	JFNT420GL	50-State	420	90/66mm	25BTDC	9.0kW	3600	28N.m	2800	EM