EXECUTIVE ORDER U-U-017-0231 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	FNGINE FAMILY		DISPLACEMENT (cc)	ENGINE CLASS		FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefie petroleum gas)			
2015	FYMX	S.3592EH	359	4-stroke, ≥2	25 cc	Gasoline			
DURABILITY HOURS			SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
500			ЕМ			Compressor, Pump, Pressure Washer, Stump Beater, Generator, Non-Backpack Blower and Other Industrial Equipment			
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.

*=not applicable	HC+NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)	
STANDARD	8.0	549	*	
FAMILY EMISSION LEVEL	*	*	*	
CERTIFICATION LEVEL	6.4	326	*	

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 November 2014.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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Model Year:

2015

ATTACHMENT By lof1

Revised:

5/13/2015

RCI 7/2/2015

Manufacturer: Engine Family: FYMXS.3592EH

YAMAHA MOTOR CO.,LTD.

E.O. Number: *U-U-017-023*(

Small Off-Road Engine Model Summary Form

Units for Table: kw

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
X	EF72DE	50-State	359	85x63.2mm	BTDC 20	8.6kw	3600	25.4Nm	2400	EM
	EF72D	50-State	359	85x63.2mm	BTDC 20	8.6kw	3600	25.4Nm	2400	EM
	EF72DP	50-State	359	85x63.2mm	BTDC 20	8.6kw	3600	25.4Nm	2400	EM
	EF55DE	50-State	359	85x63.2mm	BTDC 20	8.6kw	3600	25.4Nm	2400	EM
	EF55D	50-State	359	85x63.2mm		8.6kw	3600	25.4Nm	2400	EM
	EF55DP	50-State	359	85x63.2mm		8.6kw	3600	25.4Nm	2400	EM
	7HCB-020	50-State	359	85x63.2mm		8.6kw	3600	25.4Nm	2400	EM
	7HDB-020 7HDB-030 7HCJ-040	50-State 50-State 50-State	359 359 359	85x63.2mm 85x63.2mm 85x63.2mm	BTDC 20	8.6kw 8.6kw 8.7kw	3600 3600 3600	25.4Nm 25.4Nm 25.4Nm		EM EM EM
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