



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.

Table with columns: MODEL YEAR, ENGINE FAMILY, DISPLACEMENT (cc), ENGINE CLASS, FUEL TYPE, DURABILITY HOURS, SPECIAL FEATURES & EMISSION CONTROL SYSTEMS, TYPICAL EQUIPMENT APPLICATION, ENGINE CODES/MODELS (rated power in kilowatt, kW). Includes a row for model year 2019, engine family KM4XS.023413, displacement 23 cc, 2-stroke engine, gasoline fuel, 50 hours durability, EM special features, and typical equipment applications like Line Trimmer, Hedge Trimmer, Edger, Brushcutter.

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.

Table with 4 columns: Parameter, HC+NOx (g/kW-hr), CO (g/kW-hr), PM (g/kW-hr). Rows include STANDARD, FAMILY EMISSION LEVEL, and CERTIFICATION LEVEL.

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 26 day of December 2018.

Handwritten signature of Annette Hebert

Annette Hebert, Chief Emissions Compliance, Automotive Regulations and Science Division

Model Year: 2019
Manufacturer: MARUYAMA MFG. CO., INC.
Engine Family: KM4XS.023413

Attachment 1 of 1

Issued: 1/7/2006
Revised: 1/7/2006
E.O. Number: U-4-025-0270

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	BET230	Calif. Only	22.5	32X28	BTDC25DE	0.6	7000	0.93Nm	5000	EM