## KAWASAKI HEAVY INDUSTRIES, LTD.

EXECUTIVE ORDER U-L-036-0022 New Off-Road Large Spark-Ignition Engines Above 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-19-095;

IT IS ORDERED AND RESOLVED: That the following new large spark-ignition engines and emission control systems produced by the manufacturer are certified for use in off-road equipment as described below. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR			DISPLACEMENT (liters)	ENGINE CLASS		FUEL TYPE		
2021		MKAXB.8242IB	0.824	≤ 825 cc		Gasoline		
DURABILITY HOURS		SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT USAGE			
1000		Multiport Fuel Injection			Aerial Lift, Generator, Tractor/Tug			
ENGINE MODELS (rated power in kilowatt, kW)		See Attachment						

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) exhaust certification emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2433(b)(1)) 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 13 CCR Section 2433(b)(3).

	HC+NOx (g/kW-hr)	CO (g/kW-hr)		
STANDARD	8.0	549		
CERTIFICATION LEVEL	6.8	284		

**BE IT FURTHER RESOLVED:** That for the listed engines for the aforementioned model-year, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2433(d) (certification and test procedures), 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.

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 <u>26th</u> day of December 2020.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 

LSIE Exhaust Model Summa	ary Template (rev.	2020
Date:		

For CARB Use Only Executive Order: U-L-036-0022 Attachment \_1\_of\_1\_

RC1\_09-08-2021

Model Summary

Engine Family: MKAXB.8242IB

		S15. Sales Codes (Check all appropriate)			·				
513. Engine Model	S14. Engine Code	CA Only	49-State	50-State	S16. Engine Displacement (Liters)	S17. Rated Power (kW)	S18. Rated Speed (RPM)	S19. Peak Torque (FT-LB)	S20. Peak Torque Speed (RPM)
FD851D	FD851D			X	0.824	20.3	3600	58.4	2800
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