CALIFORNIA AIR RESOURCES BOARD	KUBOTA Corporation	EXECUTIVE ORDER U-R-025-0909 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in 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 (liters)	FUEL TYPE	USEFUL LIFE (hours)
2021	MKBXL01.5DCB	1.124, 1.498	Diesel	3000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Indirect Diesel Injection	Transport Refrigeration Unit

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
8 ≤ kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT	--	--	5.8	1.4	0.21	5	3	12

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: Engines certified under this Executive Order shall not be produced before January 2, 2020.

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 at El Monte, California on this 27th day of September 2019.

Allen Lyons, Chief
Emissions Certification and Compliance Division

EO# U-R-025-0909

Date: 1/8/2020

Engine Model Summary Form

Attachment page 1 of 1

Manufacturer: **KUBOTA Corporation**
Engine category: **Nonroad CI**
EPA Engine Family: **MKBXL01.5DCB**
Mfr Family Name: **N/A**
Process Code: **Running Change**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
D1105-EF01	D1105-EF	24.4@3000	22.3	11.2	53.8@1800	26.0	7.8	EM, IFI
D1105-EF02	D1105-EF	18.8@2250	21.4	8.1	50.0@1500	24.6	6.2	EM, IFI
D1105-EF08	D1105-EF	18.8@2250	21.4	8.1	50.0@1500	24.6	6.2	EM, IFI
* D1105-EF08e	D1105-EF	18.8@2250	21.4	8.1	50.0@1500	24.6	6.2	EM, IFI
V1505-EF03	V1505-EF	22.1@1900	22.3	9.5	64.4@1500	23.3	7.8	EM, IFI
* V1505-EF03e	V1505-EF	22.1@1900	22.3	9.5	64.4@1500	23.3	7.8	EM, IFI

* new engine codes