

## **KUBOTA Corporation**

EXECUTIVE ORDER U-R-025-0919 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	MKBXL.778KCB	0.778	Diesel	3000		
SPECIAL	FEATURES & EMISSION (	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
	Indirect Diesel Inje	ction	Tractor, Generator Set, Other Industrial Equipment			

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	EMISSION			E	XHAUST (g/kw-l	OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
8 <u>&lt;</u> kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT			6.1	1.6	0.29	10	11	20

**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).

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 18th day of September 2020.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 

## **Engine Model Summary Form**

**KUBOTA Corporation** Manufacturer:

**Nonroad CI** Engine category:

EPA Engine Family: MKBXL.778KCB

Mfr Family Name: N/A

Process Code: **New Submission** 

EO# U-R-025-0919 Date: 9/9/2020

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
3D67E	3D67E	15.6@2600	15.6	6.8	33.7@1800	15.8	4.8	EM, IFI
D782-EF01	D782-EF	19.2@3200	16.1	8.6	36.7@1900	17.2	5.5	EM, IFI
D782-EF02	D782-EF	19.0@3200	15.5	8.3	36.1@2400	16.8	6.8	EM, IFI
D782-EF03	D782-EF	16.8@3000	14.6	7.3	33.9@2400	16.0	6.4	EM, IFI
D782-EF04	D782-EF	15.6@2600	15.6	6.8	33.7@1800	15.8	4.8	EM, IFI