

## **KUBOTA CORPORATION**

## **EXECUTIVE ORDER U-R-025-1057**

New Off-Road Compression-Ignition Engines Page 1 of 1

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)					
2023	PKBXL01.5BCB	1.124, 1.498	Diesel	3000					
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
	Indirect Diesel Inje	ection	Loader, Tractor, Pump, Compressor, Generator Set, Carrier, Forklift, Garden Tractor, Light Tower, Mini Backhoe, Mower, Roller, Skid Steer Loader, Nonroad Sweeper, Utility Vehicle, Welder, Wood, Chipper, Harvester, Lift, Excavator						

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 STANDARD CATEGORY			ı	EXHAUST (g/kw-l	OPACITY (%)				
POWER CLASS			NMHC	NOx	NMHC+NOx	СО	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).

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 5th day of October 2022.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

Attachment: Engine Models EO #: U-R-025-1057 Family: PKBXL01.5BCB Attachment Last Revised: 9/27/2022

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fue	l	Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque - Fue	el			
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Fuel	Units	OBD	GHG	Special	Notes
D1.1A-EF	D1.1A-EF07		I-3	1.124	Liters	15.4	kilowatt	2400	22.2	mm3/stroke	70.3	N-m	1600	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF01		I-3	1.124	Liters	18.2	kilowatt	3000	22.3	mm3/stroke	72.9	N-m	1800	26.0	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF02		1-3	1.124	Liters	18.2	kilowatt	3000	22.3	mm3/stroke	70.4	N-m	2200	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF02e		I-3	1.124	Liters	18.2	kilowatt	3000	22.3	mm3/stroke	70.4	N-m	2200	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF03		I-3	1.124	Liters	17.8	kilowatt	2800	22.9	mm3/stroke	71.3	N-m	1900	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF04		I-3	1.124	Liters	16.6	kilowatt	2700	21.9	mm3/stroke	67.5	N-m	1900	24.2	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF05		I-3	1.124	Liters	16.1	kilowatt	2600	21.7	mm3/stroke	70.6	N-m	1700	25.5	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF06		I-3	1.124	Liters	15.7	kilowatt	2500	21.9	mm3/stroke	70.2	N-m	1700	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF06e		I-3	1.124	Liters	15.7	kilowatt	2500	21.9	mm3/stroke	70.2	N-m	1700	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF07		I-3	1.124	Liters	15.4	kilowatt	2400	22.2	mm3/stroke	70.3	N-m	1600	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF07e		I-3	1.124	Liters	15.4	kilowatt	2400	22.2	mm3/stroke	70.3	N-m	1600	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF08		I-3	1.124	Liters	14.0	kilowatt	2250	21.4	mm3/stroke	67.8	N-m	1500	24.6	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF09		I-3	1.124	Liters	14.0	kilowatt	2200	21.9	mm3/stroke	70.3	N-m	1600	25.4	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF10		I-3	1.124	Liters	12.4	kilowatt	1800	23.6	mm3/stroke	65.8	N-m	1800	23.6	mm3/stroke	N/A	N/A	N/A	N/A
D1105-EF	D1105-EF11		I-3	1.124	Liters	14.4	kilowatt	2500	20.6	mm3/stroke	67.1	N-m	1700	24.0	mm3/stroke	N/A	N/A	N/A	N/A
V1505-EF	V1505-EF01		I-4	1.498	Liters	18.2	kilowatt	2300	20.4	mm3/stroke	91.2	N-m	1700	24.0	mm3/stroke	N/A	N/A	N/A	N/A
V1505-EF	V1505-EF01e		1-4	1.498	Liters	18.2	kilowatt	2300	20.4	mm3/stroke	91.2	N-m	1700	24.0	mm3/stroke	N/A	N/A	N/A	N/A
V1505-EF	V1505-EF02		I-4	1.498	Liters	17.9	kilowatt	2250	20.6	mm3/stroke	87.2	N-m	1700	22.8	mm3/stroke	N/A	N/A	N/A	N/A
V1505-EF	V1505-EF03		I-4	1.498	Liters	16.5	kilowatt	1900	22.3	mm3/stroke	87.3	N-m	1500	23.3	mm3/stroke	N/A	N/A	N/A	N/A
V1505-EF	V1505-EF04		I-4	1.498	Liters	18.1	kilowatt	2250	20.9	mm3/stroke	88.1	N-m	1700	23.1	mm3/stroke	N/A	N/A	N/A	N/A