

## **KUBOTA CORPORATION**

**EXECUTIVE ORDER U-R-025-1080** 

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	PKBXL02.4GND	1.826, 2.435	Diesel	5000					
SPECIAL	FEATURES & EMISSION C	ONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
Recircu	ctronic Direct Injection, lation, Electronic Contr ation Catalyst, Periodic	ol Module, Diesel	Loader, Tractor, Pump, Compressor, Asphalt Finisher, Carrier, Construction Machinery, Forklift, Garden Tractor, Mini Backhoe, Mower, Roller, Skid Steer Loader, Off-Road Sweeper, Welder, Wood Chipper, 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			ı	EXHAUST (g/kw-l		OPACITY (%)			
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
19 ≤ kW < 37	Tier 4 Final	STD	N/A	N/A	4.7	5.5	0.03	N/A	N/A	N/A
		CERT			3.1	0.04	0.001			

**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 <u>28th</u> day of October 2022.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

Attachment: Engine Models EO #: U-R-025-1080 Family: PKBXL02.4GND Attachment Last Revised: 10/10/2022

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fue	I	Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Fuel	Fuel Units	OBD	GHG	Special	Notes
C2.4-CR-EF	C2.4-CR-EF04		I-4	2.435	Liters	33.6	kilowatt	2400	32.5	mm3/stroke	157.4	N-m	1500	38.5	mm3/stroke	N/A	N/A	N/A	N/A
C2.4-CR-EF	C2.4-CR-EF05		I-4	2.435	Liters	30.7	kilowatt	2200	32.2	mm3/stroke	157.4	N-m	1500	38.5	mm3/stroke	N/A	N/A	N/A	N/A
D1803-CR-EF	D1803-CR-EF01		I-3	1.826	Liters	27.6	kilowatt	2700	33.0	mm3/stroke	114.1	N-m	1600	36.7	mm3/stroke	N/A	N/A	N/A	N/A
D1803-CR-EF	D1803-CR-EF02		I-3	1.826	Liters	26.6	kilowatt	2600	33.7	mm3/stroke	114.1	N-m	1600	36.7	mm3/stroke	N/A	N/A	N/A	N/A
D1803-CR-EF	D1803-CR-EF03		I-3	1.826	Liters	24.6	kilowatt	2400	32.7	mm3/stroke	114.1	N-m	1500	36.7	mm3/stroke	N/A	N/A	N/A	N/A
D1803-CR-EF	D1803-CR-EF04		I-3	1.826	Liters	22.7	kilowatt	2200	32.6	mm3/stroke	114.1	N-m	1500	36.7	mm3/stroke	N/A	N/A	N/A	N/A
D1803-CR-EF	D1803-CR-EF05		I-3	1.826	Liters	26.7	kilowatt	2700	32.0	mm3/stroke	114.1	N-m	1600	36.7	mm3/stroke	N/A	N/A	N/A	N/A
D1803-CR-EF	D1803-CR-EF06		I-3	1.826	Liters	24.2	kilowatt	2700	29.5	mm3/stroke	100.2	N-m	1600	31.7	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF01		I-4	2.435	Liters	36.0	kilowatt	2700	31.8	mm3/stroke	171.0	N-m	1600	40.5	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF02		I-4	2.435	Liters	36.0	kilowatt	2600	32.0	mm3/stroke	157.4	N-m	1600	38.1	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF03		I-4	2.435	Liters	30.5	kilowatt	2600	27.7	mm3/stroke	133.5	N-m	1600	31.8	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF04		I-4	2.435	Liters	33.6	kilowatt	2400	32.5	mm3/stroke	157.4	N-m	1500	38.5	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF05		I-4	2.435	Liters	30.7	kilowatt	2200	32.2	mm3/stroke	157.4	N-m	1500	38.5	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF06		I-4	2.435	Liters	30.7	kilowatt	2700	28.2	mm3/stroke	133.5	N-m	1600	31.8	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF07		I-4	2.435	Liters	33.5	kilowatt	2600	31.0	mm3/stroke	144.0	N-m	1600	34.4	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF08		I-4	2.435	Liters	36.0	kilowatt	2600	31.9	mm3/stroke	157.4	N-m	1600	38.1	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF09		I-4	2.435	Liters	34.6	kilowatt	2700	31.4	mm3/stroke	149.2	N-m	1600	35.7	mm3/stroke	N/A	N/A	N/A	N/A