

KUBOTA CORPORATION

EXECUTIVE ORDER U-R-025-0945

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	MKBXL02.4GND	1.826, 2.435	Diesel	5000					
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
Recircu	ctronic Direct Injection, llation, Electronic Contr lation Catalyst, Periodic	ol Module, Diesel	Loader, Tractor, Pump, Compressor, Asphalt Finisher, Carrier, Construction Machinery, Forklift, Garden Tractor, Mini Backhoe, Mower, Roller, Skid Steer Loader, Nonroad Sweeper, Welder, Wood Chipper, Excavator, 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 POWER CLASS	EMISSION			I	EXHAUST (g/kw-l	OPACITY (%)				
	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	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	1	-	

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>25th</u> day of November 2020.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-025-0945 Family: MKBXL02.4GND Attachment Last Revised: 11/18/2020

Model	Code T		Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD		Special	l Notes
		Trim															GHG		
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		1-4	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	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	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		1-4	2.435	Liters	36	kilowatt	2700	31.8	mm3/stroke	171	N-m	1600	40.5	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF02		1-4	2.435	Liters	36	kilowatt	2600	32	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		1-4	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		1-4	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		1-4	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		1-4	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		1-4	2.435	Liters	33.5	kilowatt	2600	31	mm3/stroke	144	N-m	1600	34.4	mm3/stroke	N/A	N/A	N/A	N/A
V2403-CR-EF	V2403-CR-EF08		1-4	2.435	Liters	36	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		1-4	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