

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.898KCB	0.599, 0.899	Diesel	3000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Indirect Diesel Injection			Loader, Tractor, Pump, Compressor, Generator Set, Auxiliary Power Unit, Forklift, Garden Tractor, Mini Backhoe, Mower, Roller, Skid Steer Loader, Nonroad Sweeper, Utility Vehicle, Welder, 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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT	--	--	5.6	2.0	0.31	8	6	13

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: That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 8 ≤ kW < 19 power category in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

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 7th day of October 2020.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Engine Model Summary Form

EO# U-R-025-0921

Date: 9/10/2020

Manufacturer: **KUBOTA Corporation**
 Engine category: **Nonroad CI**
 EPA Engine Family: **MKBXL.898KCB**
 Mfr Family Name: **N/A**
 Process Code: **New Submission**

Attachment Page 1 of 1

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
D0.9A-EF08	D0.9A-EF	15.8@2300	17.4	6.7	37.8@1800	18.0	5.4	EM, IFI
D902-EF01	D902-EF	24.4@3600	18.4	11.1	40.8@2600	19.5	8.5	EM, IFI
D902-EF01e	D902-EF	24.4@3600	18.4	11.1	40.8@2600	19.5	8.5	EM, IFI
D902-EF02	D902-EF	22.9@3400	18.6	10.6	40.0@2400	19.6	7.9	EM, IFI
D902-EF03	D902-EF	21.3@3200	17.5	9.4	40.8@2400	19.7	7.9	EM, IFI
D902-EF04	D902-EF	20.5@3000	18.0	9.1	40.5@2000	19.6	6.6	EM, IFI
D902-EF05	D902-EF	20.0@3000	17.5	8.8	40.3@2000	19.4	6.5	EM, IFI
D902-EF06	D902-EF	17.7@2600	17.3	7.5	39.5@2200	18.8	6.9	EM, IFI
D902-EF07	D902-EF	16.0@2400	16.9	6.8	39.7@1900	19.1	6.1	EM, IFI
D902-EF08	D902-EF	15.8@2300	17.4	6.7	37.8@1800	18.0	5.4	EM, IFI
D902-EF09	D902-EF	21.3@3200	17.5	9.4	40.8@2000	19.7	6.6	EM, IFI
Z602-EF01	Z602-EF	16.6@3600	19.0	7.6	28.0@2200	20.2	5.0	EM, IFI
Z602-EF02	Z602-EF	16.5@3600	18.9	7.6	27.4@2600	20.0	5.8	EM, IFI
Z602-EF03	Z602-EF	14.2@3200	18.0	6.4	27.6@2400	20.1	5.4	EM, IFI
Z602-EF04	Z602-EF	12.6@2800	17.8	5.6	26.3@2300	19.0	4.9	EM, IFI
Z602-EF05	Z602-EF	11.5@2600	17.4	5.1	26.5@2100	19.4	4.6	EM, IFI
Z602-EF06	Z602-EF	10.6@2400	17.3	4.6	25.3@1900	17.9	3.8	EM, IFI
Z602-EF07	Z602-EF	9.8@2200	17.4	4.3	25.2@1800	19.1	3.8	EM, IFI

Engine Model D0.9A-EF = 0.899L; D902-EF = 0.899L; Z602-EF = 0.599L