California Environmental Protection Agency Air Resources Board

KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0609 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the 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-02-003;

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)
2014	EKBXL.719KCB	0.479, 0.719	Diesel	3000
SPECIAL	FEATURES & EMISSION O	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLIC	ATION
	Indirect Diesel Injec	ction	Tractor, Compressor, Genera and Other Industrial Equipr	tor Set, ment

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	EXHAUST (g/kw-l	nr)		OF	PACITY (%	b)
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
kW < 19	Tier 4 Final	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT			4.9	2.6	0.26	11	13	15

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005.

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.

Erik White, Chief

Mobile Source Operations Division

Engine Model Summary Form

KUBOTA Corporation Manufacturer:

Nonroad Cl Engine category:

EO# U-R-025-0609

3.Br (SA)	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
D722-EF 20.0	20.0@3600	15.0	9.1	33.8@2600	16.3	7.1	FM IFI
D722-EF 18.8	18.8@3400	14.5	8.3	32.2@2600	15.3	6.7	EM IFI
D722-EF 17.7	17.7@3200	14.3	7.7	31.3@2600	14.9	6.5	EM IFI
D722-EF 16.6	16.6@3200	13.7	7.4	33.1@2200	15.8	5.8	EM. IFI
D722-EF 16.6	16.6@3000	14.1	7.1	33.9@2200	16.1	5.9	EM, IFI
D722-EF 15.4	15.4@2950	13.3	9.9	31.9@2200	15.0	5.5	EM. IFI
D722-EF 15.2	15.2@2900	13.3	6.5	30.8@2400	15.2	6.1	EM. IFI
	15.4@2800	13.9	6.5	32.1@2200	15.1	5.6	EM, IFI
	15.2@2700	14.0	6.3	29.4@2400	14.0	5.6	EM, IFI
	14.5@2600	13.8	6.0	30.2@2000	14.2	4.8	EM, IFI
	13.9@2500	14.2	0.9	32.1@2000	15.8	5.3	EM, IFI
	12.9@2400	13.7	5.5	28.8@2100	14.0	4.9	EM, IFI
	11.9@2200	13.4	4.9	27.2@1900	13.6	4.3	EM, IFI
	10.3@2050	12.5	4.3	29.6@1600	14.2	3.8	EM, IFI
	10.2@2000	12.5	4.2	29.6@1600	14.2	3.8	EM, IFI
	13.4@3600	15.4	6.2	22.9@2600	16.7	4.9	EM, IFI
	13.3@3600	15.2	6.1	21.9@2600	16.2	4.7	EM, IFI
	11.1@3200	14.1	5.0	21.2@2300	15.3	3.9	EM, IFI
	11.1@3000	14.6	4.9	20.9@2600	15.2	4.4	EM, IFI
	9.7@2600	14.3	4.2	20.1@2200	14.3	3.5	EM, IFI
	8.9@2400	14.0	3.8	19.3@1900	13.6	2.9	EM, IFI
Z482-EF 8.0	8.0@2200	13.8	3.4	19.2@1900	13.5	2.9	EM. IFI