California Environmental Protection Agency Air Resources Board

KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0614 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	EKBXL03.3EKD	3.331	Diesel	8000						
SPECIAL	FEATURES & EMISSION (CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
Exhaust 0	ectronic Direct Injection, T Gas Recirculation, Electro Oxidation Catalyst, Perio	onic Control Module,	Loader, Tractor, Forklift, Mini Backhoe and Skid Steer Loade							

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		OPACITY (%)					
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	PM_	ACCEL	LUG	PEAK	
37 ≤ kW < 56	Tier 4 Final	4 Final STD		N/A	4.7	5.0 0.03		N/A	N/A	N/A	
		CERT			3.1	0.04	0.002				

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 at El Monte, California on this _______ day of December 2013.

Erik White, Chief

Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: KUBOTA Corporation

Engine category: Nonroad CI

EPA Engine Family: **EKBXL03.3EKD**

Mfr Family Name: N/A

Process Code: New Submission

Attachment page 1 of 1

EO# U-R-025-0614

Date: 11/22/2013

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9.Emission Control Device Per SAE J1930	EM, DFI, TC, EGR, ECM, PTOX,		irect Huel Injection	P																			
8.Fuel Rate: (lbs/hr)@peak torque	22.2	20.5	20.5	20.5	20.5	19.0	18.3	20.5	20.5	18.2	16.6	18.8	16.5	20.5	19.0	20.5		DHI= D					
7.Fuel Rate: mm/stroke@peak torque	66.1	61.0	57.2	61.0	61.0	8.09	51.1	61.0	57.2	58.2	53.0	60.0	52.7	61.0	8.09	61.0			8				
6.Torque @ RPM (SEA Gross)	212.2@1500	192.5@1500	187.3@1600	192.5@1500	192.5@1500	194.0@1400	163.7@1600	192.5@1500	187.3@1600	187.9@1400	168.5@1400	192.5@1400	170.8@1400	192.5@1500	194.0@1400	192.5@1500							
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	27.4	29.3	28.6	28.4	27.1	24.5	25.9	25.4	28.1	28.3	25.9	28.5	25.3	28.4	24.5	29.3							
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	55.8	50.4	49.2	53.0	55.1	54.8	44.6	49.4	52.3	52.8	48.3	53.1	47.2	53.0	54.8	50.4							
3.BHP@RPM (SAE Gross)	73.2@2200	73.2@2600	72.5@2600	73.2@2400	73.2@2200	65.7@2000	65.0@2600	66.1@2300	72.3@2400	73.0@2400	65.4@2400	73.2@2400	65.4@2400	73.2@2400	65.7@2000	73.2@2600							
2.Engine Model	V3307-CR-T-EF	C3.3B-CR-T-EF	C3.3B-CR-T-EF	D3.3H-CR-T-EF																			
1.Engine Code 2.Engine Model	V3307-CR-T-EF01	V3307-CR-T-EF02	V3307-CR-T-EF03	V3307-CR-T-EF04	V3307-CR-T-EF05	V3307-CR-T-EF06	V3307-CR-T-EF07	V3307-CR-T-EF08	V3307-CR-T-EF09	V3307-CR-T-EF10	V3307-CR-T-EF11	V3307-CR-T-EF12	V3307-CR-T-EF13	C3.3B-CR-T-EF04	C3.3B-CR-T-EF06	D3.3H-CR-T-EF02							