California Environmental Protection Agency Air Resources Board

KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0622 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	EKBXL02.4END	2.435	Diesel 8000								
SPECIAL	FEATURES & EMISSION (CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION								
Electronic Electroni	c Direct Injection, Exhaus c Control Module, Diesel Periodic Trap Oxid	Oxidation Catalyst,	Loader, Tractor, Pump, Compressor, and 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			Е	XHAUST (g/kW-l	OPACITY (%)				
	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
19 <u><</u> kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	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 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.

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

Erik White, Chief

Møbile Source Operations Division

Engine Model Summary Form

Attachment page 1 of

E0# U-8-025-0622

Date: 11/22/2013

EPA Engine Family: **EKBXL02.4END** Nonroad CI Mfr Family Name: Engine category:

KUBOTA Corporation

Manufacturer:

Process Code:

New Submission

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9.Emission Control Device Per SAE J1930	EM, DFI, EGR, ECM, PTOX, DO	EM, DFI, EGR, ECM, PTOX,	EM, DFI, EGR, ECM, PTOX,	EM, DFI, EGR, ECM, PTOX,			irect Huel Injection	9									
8.Fuel Rate: (lbs/hr)@peak torque	14.5	13.6	13.6	13.2		1	UHT=		T 2								
7.Fuel Rate: mm/stroke@peak torque	40.5	38.1	38.1	36.9													
6.Torque @ RPM (SEA Gross)	126.1@1600	116.1@1600	116.1@1600	114.6@1600					-						6		
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	20.7	19.3	19.9	19.7					4								
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	34.3	32.0	32.9	32.6													And the second s
3.BHP@RPM (SAE Gross)	52.7@2700	49.3@2700	48.5@2700	48.7@2700													
1.Engine Code 2.Engine Model	V2403-CR-EF	V2403-CR-EF	V2403-CR-EF	V2403-CR-EF							~						
1.Engine Code	V2403-CR-EF01	V2403-CR-EF02	V2403-CR-EF03	V2403-CR-EF04							,						