KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0799 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-14-012;

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)		
2019	KKBXL01.8E1D	1.826	Diesel	5000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Electronic Direct Injection, Turbocharger, Exhaust Gas Recirculation, Electronic Control Module, Periodic Trap Oxidizer, Diesel Oxidation Catalyst			Loader, Tractor, Pump, Compressor, 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	EMISSION			EXHAUST (g/kw-hr)				OPACITY (%)		
POWER	STANDARD		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	0.000			

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 July 2018

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Form

EO#U-R-025-0799 Date: 17/9/2018

KUBOTA Corporation ufacturer:

Nonroad CI

Engine Family: KKBXL01.8E1D

Family Name:

ne category:

N/A

New Submission ess Code:

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(672 Gloss) (for diesel only) (for diesels only) (f	Engine Code 2.Engine Model (SAE Gross) (Ibs/hr) (SAE Gross) (Ibs/hr) (SEA Gross) (Ibs/hr) (SEA Gross) (Ibs/hr)	ess Code:	New Submission						•	
103-CR-T-EW02 D1803-CR-T-EW 43.3@2400 41.4 16.7 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 03-CR-T-EW02L D1803-CR-T-EW 43.3@2400 41.4 16.7 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 103-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 103-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC	103-CR-T-EW02 D1803-CR-T-EW 43.3@2400 41.4 16.7 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 03-CR-T-EW02L D1803-CR-T-EW 43.3@2400 41.4 16.7 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 103-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 103-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC	Engine Code	2.Engine Model		mm/stroke @ peak HP	(lbs/hr) @ peak HP	6.Torque @ RPM (SEA Gross)	mm/stroke@peak	(lbs/hr)@peak	
D3-CR-T-EW02L D1803-CR-T-EW 43.3@2400 41.4 16.7 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 103-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC	D3-CR-T-EW02L D1803-CR-T-EW 43.3@2400 41.4 16.7 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC 103-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC	03-CR-T-EW01	D1803-CR-T-EW	48.3@2700	42.5	19.2	114.8@1600	48.4	13.0	EM, DFI, TC, EGR, ECM, PTOX, DOC
03-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC	:03-CR-T-EW03 D1803-CR-T-EW 39.8@2200 41.0 15.1 109.4@1500 47.0 11.8 EM, DFI, TC, EGR, ECM, PTOX, DOC	03-CR-T-EW02	D1803-CR-T-EW	43.3@2400	41.4	16.7	109.4@1500	47.0	11.8	EM, DFI, TC, EGR, ECM, PTOX, DOC
		03-CR-T-EW02L	D1803-CR-T-EW	43.3@2400	41.4	16.7	109.4@1500	47.0	11.8	EM, DFI, TC, EGR, ECM, PTOX, DOC
* tested engine Direct Fluel Injection	* tested engine Direct Fuel Injection	03-CR-T-EW03	D1803-CR-T-EW	39.8@2200	41.0	15.1	109.4@1500	47.0	11.8	EM, DFI, TC, EGR, ECM, PTOX, DOC
			tested en	igine					DHI	= Direct Fuel Injection