EXECUTIVE ORDER U-R-025-0590 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)			
2013	DKBXL03.8AMD	3.77	Diesel	8000			
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION				
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, and Periodic Trap Oxidizer			Agricultural Tractor and Skid Steer Loader				

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) OPACIT					PACITY (%	o)	
POWER CLASS	STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 / ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.002	2.6		0.03	0.003			

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

Annette Hebert, Chief

Mobile Source Operations Division

day of December 2012.

## **Engine Model Summary Form**

Manufacturer:

**KUBOTA Corporation** 

Engine category:

Nonroad Cl

EPA Engine Family.

**DKBXL03.8AMD** 

Mfr Family Name: N/A

Process Code:

**New Submission** 

Attachment
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EU# U-R-025-0590 Date: 12/20/2012

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
V3800-CR-TI-EF01	V3800-CR-TI-EF	116.3@2600	75.0	43.6	276.9@1500	84.5	28.3	EM, ECM, EGR, DOC PTOX, DDI, T
V3800-CR-TI-EF02	V3800-CR-TI-EF	112.0@2600	71.1	41.3	226.1@1500	81.6	27.4	EM,ECM,EGR,
V3800-CR-TI-EF03	V3800-CR-TI-EF	108.4@2400	. 73.3	39.3	272.6@1500	81.6	27.4	EM,ECM,EGR,
V3800-CR-TI-EF04	V3800-CR-TI-EF	103.8@2200	75.9	37.3	272.6@1500	81.6	27.4	EM,ECM,EGR,
V3800-CR-TI-EF05	V3800-CR-TI-EF	114.0@2600	72.8	42.3	272.6@1500	81.9	27.5	EM,ECM,EGR,
V3800-CR-TI-EF06	V3800-CR-TI-EF	102.2@2600	65.5	38.1	251.5@1500	75.3	25.2	EM,ECM,EGR, 1
V3800-CR-TI-EF07	V3800-CR-TI-EF	104.5@2600	66.9	38.9	255.3@1500	76.4	25.6	EM,ECM,EGR,
V3800-CR-TI-EF08	V3800-CR-TI-EF	102.9@2400	70.0	37.6	255.3@1500	76.4	25.6	EM,ECM,EGR, (
V3800-CR-TI-EF09	V3800-CR-TI-EF	92.8@2200	68.1	33.5	272.6@1500	81.4	27.3	EM,ECM,EGR, (
C3.8-CR-TI-EF03	C3.8-CR-TI-EF	108.4@2400	73.3	39.3	272.6@1500	81.6	27.4	EM,ECM,EGR, (
D3.8H-CR-TI-EF04	D3.8H-CR-TI-EF	103.8@2200	75.9	37.3	272.6@1500	81.6	27.4	EM,ECM,EGR,
D3.8H-CR-TI-EF09	D3.8H-CR-TI-EF	92.8@2200	68.1	33.5	272.6@1500	81.4	27.3	EM,ECM,EGR,