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-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 ENGINE FAMILY		DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2017	HKBXL01.5BPD	1.498	Diesel	5000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT	APPLICATION		
Indirect Diesel Injection, Turbocharger, Electronic Control Module, Diesel Oxidation Catalyst, Periodic Trap Oxidizer			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	EMISSION		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER CLASS	STANDARD		NMHC	NOx	NMHC+NOx	со	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
<u> </u>		CERT		1.77	3.3	0.2	0.01			

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 January 2017

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

## **Engine Model Summary Form**

EO# U-R-0>5-07-8 Date: 1/17/2017

Manufacturer:

**KUBOTA Corporation** 

**New Submission** 

Engine category:

Nonroad Cl

EPA Engine Family: HKBXL01.5BPD

Mfr Family Name:

Process Code:

Attachment page 1 of 1

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
V1505-T-EF01	V1505-T-EF	44.3@3000	29.4	19.7	87.5@2000	30.0	13.4	EM, IFI, TC, ECM, PTOX, DOC
V1505-T-EF02	V1505-T-EF	40.6@2800	29.1	18.2	86.1@2000	29.7	13.3	EM, IFI, TC, ECM, PTOX, DOC
V1505-T-EF03	V1505-T-EF	36.3@2500	27.8	15.5	86.1@1800	29.7	12.0	EM, IFI, TC, ECM, PTOX, DOC
V1505-T-EF04	V1505-T-EF	30.4@2500	23.4	13.1	76.6@1600	26.2	9.4	EM, IFI, TC, ECM, PTOX, DOC
V1505-T-EF05	V1505-T-EF	43.6@3000	29.1	19.5	86.1@2000	29.7	13.3	EM, IFI, TC, ECM, PTOX, DOC
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