California Environmental Protection Agency AIR RESOURCES BOARD	KUBOTA Corporation	EXECUTIVE ORDER U-R-025-0542 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)
2012	CKBXL02.2FCD	1.647, 2.197	Diesel	5000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Indirect Diesel Injection	Tractor, Compressor, Generator Set, 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 STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 37	Interim Tier 4	STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT	--	--	6.0	1.0	0.18	2	3	5

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 27th day of December 2011.

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Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Form

EO# U-R-025-0542

11/30/2011

Manufacturer: **KUBOTA Corporation**

Engine category: **Nonroad CI**

EPA Engine Family: **CKBXL02.2FCD**

Mfr Family Name: **N/A**

Process Code: **New Submission**

Attachment

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
D1703-M-ET01	D1703-M-ET	35.0@2800	32.0	15.0	76.9@1600	35.4	9.5	EM IDI
D1703-M-ET02	D1703-M-ET	27.5@2200	30.9	11.4	75.6@1600	35.1	9.4	EM
D1703-M-ET03	D1703-M-ET	33.8@2700	31.8	14.4	76.9@1600	35.4	9.5	EM
D1703-M-ET04	D1703-M-ET	32.6@2600	31.6	13.8	76.9@1600	35.4	9.5	EM
D1703-M-ET04e	D1703-M-ET	32.6@2600	31.6	13.8	76.9@1600	35.4	9.5	EM
D1703-M-ET05	D1703-M-ET	31.2@2500	31.4	13.2	76.9@1600	35.4	9.5	EM
D1703-M-ET06	D1703-M-ET	30.0@2400	31.3	12.6	75.6@1600	35.1	9.4	EM
D1703-M-ET07	D1703-M-ET	28.8@2300	31.1	12.0	75.6@1600	35.1	9.4	EM
D1703-M-ET08	D1703-M-ET	28.2@2250	31.0	11.7	75.6@1600	35.1	9.4	EM
D1703-M-ET09	D1703-M-ET	26.8@2150	30.8	11.1	75.6@1600	35.1	9.4	EM
D1703-M-ET10	D1703-M-ET	33.4@2700	31.4	14.2	76.9@1500	35.4	8.9	EM
V2203-M-ET01	V2203-M-ET	48.1@2800	32.3	20.2	108.0@1500	36.5	12.2	EM
V2203-M-ET02	V2203-M-ET	48.1@2800	32.3	20.2	105.6@1600	35.8	12.8	EM
V2203-M-ET03	V2203-M-ET	37.8@2200	30.8	15.1	103.8@1600	35.7	12.8	EM
V2203-M-ET04	V2203-M-ET	39.6@2300	31.0	15.9	103.8@1600	35.7	12.8	EM
V2203-M-ET05	V2203-M-ET	44.7@2600	31.9	18.5	105.6@1600	35.8	12.8	EM
V2203-M-ET06	V2203-M-ET	42.9@2500	31.7	17.7	105.6@1600	35.8	12.8	EM
V2203-M-ET07	V2203-M-ET	41.3@2400	31.2	16.7	103.8@1600	35.7	12.8	EM
V2203-M-ET08	V2203-M-ET	46.4@2700	32.1	19.4	105.6@1600	35.8	12.8	EM
V2203-M-ET09	V2203-M-ET	38.6@2250	30.9	15.5	103.8@1600	35.7	12.8	EM
V2203-M-ET10	V2203-M-ET	37.1@2200	30.2	14.9	103.8@1600	35.7	12.8	EM
V2203-M-ET11	V2203-M-ET	42.1@2450	31.2	17.1	103.8@1600	35.7	12.8	EM
V2203-M-ET12	V2203-M-ET	43.9@2600	31.3	18.2	105.6@1500	35.8	12.0	EM
V2203-M-ET13	V2203-M-ET	44.9@2700	31.1	14.1	105.6@1500	35.8	9.0	EM