California Environmental Protection Agency AIR RESOURCES BOARD	KUBOTA Corporation	EXECUTIVE ORDER U-R-025-0368 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)
2009	9KBXL.898KCB	0.599, 0.898	Diesel	3000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Indirect Diesel Injection, Electronic Control Module (some models)	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 hydrocarbon (HC), 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 (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
0 ≤ kW < 19	Tier 4	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT	--	--	5.2	2.1	0.27	9	8	13

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 24th day of December 2008.

Raphael Susnowitz

for Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **KUBOTA Corporation**
Engine category: **Nonroad CI**
EPA Engine Family: **9KBXL.898KCB**
Mfr Family Name: **N/A**
Process Code: **Running Change**

Attachment

U-f-025-0368

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Date: 10/07/2009

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
D902-ET01	D902-ET	24.8@3600	18.4	11.1	41.4@2600	19.5	8.5	EM
D902-ET02	D902-ET	21.6@3200	17.5	9.4	41.4@2400	19.7	7.9	EM
D902-ET03	D902-ET	21.6@3200	17.5	9.4	41.4@2000	19.7	6.6	EM
D902-ET04	D902-ET	20.9@3200	17.0	9.1	40.3@2400	19.2	7.7	EM
D902-ET05	D902-ET	16.1@2300	17.2	6.6	38.5@1800	17.9	5.4	EM
D902-ET06	D902-ET	16.2@2400	16.9	6.8	40.3@1900	19.1	6.1	EM
D902-ET07	D902-ET	23.3@3400	18.6	10.6	40.6@2400	19.6	7.9	EM
D902-ET08	D902-ET	20.8@3000	17.3	8.7	41.4@2200	19.7	7.3	EM
D902-ET09	D902-ET	16.1@2300	17.4	6.7	38.4@1800	18.0	5.4	EM
D902-ET10	D902-ET	18.0@2600	17.3	7.5	40.1@2200	18.8	6.9	EM
Z602-ET01	Z602-ET	15.8@3200	19.6	7.0	30.2@2400	22.1	5.9	EM
Z602-ET02	Z602-ET	14.5@3200	18.0	6.4	28.0@2400	20.1	5.4	EM
Z602-ET03	Z602-ET	16.8@3600	18.9	7.6	27.9@2600	20.0	5.8	EM
Z602-ET04	Z602-ET	11.7@2600	17.4	5.1	26.8@2100	19.4	4.6	EM
Z602-ET05	Z602-ET	9.9@2200	17.4	4.3	25.6@1800	19.1	3.8	EM
Z602-ET06e	Z602-ET	12.7@2800	17.8	5.6	26.6@2300	19.0	4.9	EM, ECM
Z602-ET07	Z602-ET	10.7@2400	17.3	4.6	25.7@1900	17.9	3.8	EM

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