

## **KUBOTA CORPORATION**

EXECUTIVE ORDER U-R-025-0303 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)		
2007	7KBXL02.4HCD	2.434	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
	Indirect Diesel Inje	ection	Backhoe			

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	EMISSION STANDARD CATEGORY	EXHAUST (g/kW-hr)				OPACITY (%)				
POWER CLASS			нс	NOx	NMHC+NOx	co	PM:	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
		CERT			5.8	1.0	0.25	5	7	8

**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 December 2006.

Annette Hebert, Chief

Mobile Source Operations Division

## Engine Model Summary Form

KUBOTA Corporation nufacturer:

Nonroad Cl gine category:

7KBXL02.4HCD A Engine Family.

r Family Name: N/A

New Submission ocess Code:

8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	EM 7
8.Fuel Rate: (lbs/hr)@peak torque	14.9 14.9
7.Fuel Rate: mm/stroke@peak torque	41,7 41,6
6.Torque @ RPM (SEA Gross)	123.6@(150) 123.6@1600 122.7@(150
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	2/16 2/10 2/16
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	35.8 36.1 35.8
3.BHP@RPM (SAE Gross)	51.0@2700° 51.0@2600 51.0@2700
Model	2403-M-ES01 V2403-M-ES 51.0@2600 2403-M-ES02 V2403-M-ES 51.0@2600 2403-M-ES03 V2403-M-ES 51.0@2700
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