

KUBOTA CORPORATION

EXECUTIVE ORDER U-R-025-0228 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)					
2006	6KBXL01.1BCB	1.123	Diesel	3000					
	FEATURES & EMISSION (TYPICAL EQUIPMENT APPLICATION						
	Indirect Diesel Inje	ction	Riding Mower, Commercial Turf, 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	EMISSION			E	XHAUST (g/kW-l		OPACITY (%)				
POWER CLASS		STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM:	ACCEL	LUG	PEAK
	8 <u><</u> kW < 19	Tier 2	STD	N/A	N/A	7.5	6.6	0.80	20	15	50
Ì			CERT			6.6	1.3	0.21	4	3	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.

Raphael Susneart

Executed at El Monte, California on this ______ day of December 2005.

Allen Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: KUBOTA Corporation

Engine category: Nonroad CI

EPA Engine Family: **6KBXL01.1BCB**

Mfr Family Name: N/A

Process Code: New Submission 12/ C

Attachment Eo#u-12-025-0228

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9.Emission Control Device Per SAE J1930	# EM #	EM	EM	EM	ΕM	EM	EM	EM	EM	EM	ШW	EM	EM	EM	ע EM
8.Fuel Rate: (lbs/hr)@peak torque	7.3	7.9	6.7	7.2	7.8	6.7	6.7	6.3	6.2	5.7	4.4	6.3	8.1	6.7	9.4
7.Fuel Rate: mm/stroke@peak torque	25.5	24.7	24.8	25.4	25.4	24.9	25.1	25.0	24.5	22.8	21.7	25.1	25.4	25.1	25.4
6.Torque @ RPM (SEA Gross)	52.9@1700	50.5@1900	50.9@1900	52.6@1700	53.5@1900	52.5@1600	52.7@1600	50.7@1500	49.4@1500	46.5@1500	43.6@1200	52.7@1500	53.4@1900	52.7@1600	52.7@2200
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	9.5	6.6	86	9.2	9.6	8.7	8.7	8.1	7.6	7.2	5.1	8.7	10.6	7.9	7.1
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	21.7	21.9	27.6	21.9	22.8	21.5	21.6	21.4	21.7	21.5	20.1	21.6	22.6	21.5	22.7
3.BHP@RPM (SAE Gross)	21.9@2600	22.5@2700	22.3@2700	21.3@2500	22.8@2500	20.8@2400	20.9@2400	19.0@2250	17.8@2100	16.9@2000	11.8@1500	20.9@2400	24.3@2800	19.0@2200	24.8@3000
2.Engine Model	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES	D1105-ES
1.Engine Code	D1105-ES01	D1105-ES02	D1105-ES03	D1105-ES04	D1105-ES05	D1105-ES06	D1105-ES07	D1105-ES08	D1105-ES09	D1105-ES10	D1105-ES11	D1105-ES12	D1105-ES13	D1105-ES14	D1105-ES15