Catifornia Environmental Protection Agency AIR RESOURCES BOARD

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)		
2005	5KBXL03.3ACD	3.318	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection			Pump, Compressor, 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	EXHAUST (g/kW-hr)				OPACITY (%)				
	STANDARD CATEGORY		нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
37 <u>≤</u> kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
	1	CERT			6.6	2.6	0.34	2	2	3

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 October 2004.

Allen Joons, Chief Mobile Source Operations Division

Engine Model S⁷ mmary Form

KUBOTA Corporation 5KBXL03.3ACD Nonroad Cl EPA Engine Famly. Engine category: Manufacturer:

Running Change

Process Code:

Mfr Family Name: NA

u-2-02-0206

7.Fuel Rate: mm/stroke@peak torque (54.5	50.0	52.5	48.5	52.7
6.Torque @ RPM (SEA Gross)	180.0@1400	171.0@1700	176.7@1400	166.3@1400	173.6@1400
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	28.5	25.7	24.7	22.1	25.6
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	49.0	46.0	46.0	45.0	47.7
3.BHP@RPM (SAE Gross)	73.6@2600	67.9@2500	68.8@2400	61.4@2200	67.1@2400
2.Engine Model	V3300-DI-ES	V3300-DI-ES	V3300-DI-ES	V3300-DI-ES	V3300-DI-ES
L.Engine Code 2.Engine	V3300-DI-ES01	V3300-DI-ES02	V3300-DI-ES03	V3300-DI-ES04	V V3300-DI-ES05
	>	>	>	Z,	>

16.4 15.2 16.5

8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930

17.1 19.0

V Added