

KUBOTA CORPORATION

EXECUTIVE ORDER U-R-025-0204 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)	
2005	5KBXL02.8BCC	2.746	Diesel		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection			Generator Set		

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	EMISSION STANDARD		EXHAUST (g/kW-hr)				OPACITY (%)			
CLASS	CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
19 <u>≤</u> kW < 37	Tier 2	STD	N/A	N/A	7.5	5.5	0.60	N/A	N/A	N/A
		CERT		-	6.4	1.0	0.26			

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 Jons, Chief

Mobile Source Operations Division

Engine Model St mary Form

Manufacturer: KUBOTA Corporation

Engine category: Nonroad CI

EPA Engine Family: 5KBXL02.8BCC

Mfr Family Name: N/A

Process Code: New Submission

Attachment 1 of 1 ~ W-R-025-0204

8.Fuel Rate: 9.Emission Control ibs/hr) @ peak torque Device Per SAE J1930	* QH + **	NIA	AWA.
8.Fuel Rate: (lbs/hr)@peak torque	N/A	N/A	N/A
7.Fuel Rate: mm/stroke@peak torque (t	N/A	N/A	A/A
6.Torque @ RPM (SEA Gross)	N/A	N/A	N/A
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	15.7	18.6	16.2
4.Fuel Rate: mm/stroke @ peak HP ((for diesel only)	37.4	37.0	32.3
3.BHP@RPM (SAE Gross)	F2803-BG-ES 28.738.5@1500	F2803-BG-ES 33.44.8@1800	40.4@1800
3.ВНР@RPM 2.Engine Model _{k. (} JSAE Gross)	F2803-BG-ES 2	F2803-BG-ES 🙎	F2803-BG-ES
1.Engine Code	F2803-BG-ES01	F2803-BG-ES02	F2803-BG-ES03