KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0479 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)		
2011	BKBXL01.3BCD	1.335	Diesel	5000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection			Tractor, Compressor, 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		EXHAUST (g/kw-hr)				OPACITY (%)			
	STANDARD CATEGORY		HC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
8 ≤ kW < 37	Tier 4 Interim	OPTIONAL STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT			5.1	1.1	0.20	6	2	14

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

day of December 2010.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

KUBOTA Corporation Manufacturer:

Nonroad Cl Engine category:

BKBXL01.3BCD EPA Engine Family:

Mfr Family Name: N/A

New Submission Process Code:

Attachment

Complete: 11/29/2010 10 # U-R-0>5-0419 Date: 11/29/2010

8.Fuel Rate: 9.Emission Control bs/hr)@peak torque Device Per SAE J1930	EM	EM	EM	EM	EM	Ē
8.Fuel Rate: (lbs/hr)@peak torque	10.7	12.0	10.4	8.7	8.7	7.8
7.Fuel Rate: mm/stroke@peak torque	21.8	20.7	21.2	20.6	20.6	20.6
6.Torque @ RPM (SEA Gross)	61.0@2200	56.6@2600	58.7@2200	56.9@1900	56.9@1900	56.9@1700
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	13.5	14.8	12.8	11.3	11.1	10.8
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	20.2	18.4	19.1	18.8	19.1	18.6
3.BHP@RPM (SAE Gross)	30.8@3000	32.9@3600	29.2@3000	26.3@2700	25.9@2600	25.2@2600
2.Engine Model	V1305-ET	V1305-ET	V1305-ET	V1305-ET	V1305-ET	V1305-ET
Engine Code	V1305-ET01	V1305-ET02	V1305-ET03	V1305-ET04	V1305-ET05	V1305-ET06