KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0464 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	BKBXL02.2RCD	2.216	Diesel	5000					
	FEATURES & EMISSION (TYPICAL EQUIPMENT APPLICATION						
Ele	Mechanical Direct Inj ctronic Control Module (S	ection, Some Models)	Refrigeration Units						

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 STANDARD CATEGORY			E	XHAUST (g/kW-	·	OPACITY (%)					
			HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK		
19 ≤ kW < 37	Tier 4 Interim	STD	N/A	N/A	7.5	5.5	0.30	20	15	50		
		CERT			6.1	1.0	0.21	1	1	1		

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 January 2010.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

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			Medienical DZ	(1.2.	 .		->	•											
		introl J1930	10 P	Uic		Dic		2											•
ф 9		8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	EM	EM Electronic	Ē	EM, Electronic	EM FM Flectronic	2											
104		9.E rque Devic					1:5	ė.											
520-	<u>0</u>	Fuel Rate:)@peak to	11.3	7. 2. %	10.0	10.0	10.0	2					1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1						
Eo# U-R-025-0464	0102/41/1																		-
) # O)	7.Fuel Rate: mm/stroke@peak torque	31.7	29.3 29.3	29.7	29.7	7.67												
Ü	- .																		
		6.Torque @ RPM (SEA Gross)	101.0@1600	93.7@1800 93.7@1800	93.5@1500	93.5@1500	93.5@1500												
		6.Torq (SE	101		93.	 66	3 8												
Sut	ot o	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	12.5	7 7 7 7	12.1	12.1	- - 7		2 (A)										
Attachment	2							3	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								25 65		
	page	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	31.0	ရ ဂ	0	30.0	30.0 30.0												
		4.Fuel Rate: m/stroke @ pea (for diesel only	34	29.5 29.5	30.0	8 8	30.0												
			800	00 Z	800	800		-1											
ion		3.BHP@RPM (SAE Gross)	33.4@1800	37.8@2200 37.8@2200	32.1@1800	32.1@1800	30.3@1700							3					
orporati I RCD ission		lodel	<u> </u>		ĒT														
KUBOTA Corporation Nonroad Cl	BKBXL02.2RCD N/A New Submission	2.Engine Model	V2203L-DI-ET	V2203L-DI-ET	V2203L-DI-ET	V2203L-DI-ET	V2203L-DI-ET			-					÷				
					1 .		1:												
Manufacturer: Engine category:	EPA Engine Family. Mfr Family Name: Process Code:	1.Engine Code	V2203L-DI-ET01	V2203L-DI-E102	V2203L-DI-ET03	V2203L-DI-ET03e	V2203L-DI-ET04e				1.v 64 20								
Mar Eng	EPA Mfr	.		7 2		2 2	727				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. *				# 			