KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0420 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)								
2010	AKBXL.778KCB	0.778	Diesel 3000									
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION									
	Indirect Diesel Inje	ction	Generator Set, Other Industrial E	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				EXHAUST (g/kw-l	OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
8 <u><</u> kW < 19	Tier 4	STD	N/A	N/A	7.5	6.6	0.40	20	15	50
		CERT	-		5.8	2.5	0.29	6	4	13

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 2009.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

KUBOTA Corporation Manufacturer:

Nonroad Cl Engine category:

AKBXL.778KCB EPA Engine Family.

Mfr Family Name: N/A Process Code:

New Submission

Attachment

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U-R-025-0420

12/15/2009

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8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930		_	_	_	_	_										1			-		
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9.Emi																					
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8.Fuel Rate: hr)@peak to	4.8	6.8	6.4	5.6	4.2	4.7	4.8														
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7.Fuel Rate: mm/stroke@peak torque	15.8	16.8	16.0	16.7	15.6	15.6	15.8			. :											
7.Fue n/stro to		,			,		Ì			'						٠.					
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6.Torque @ RPM (SEA Gross)	34.2@1800	36.7@2400	34.4@2400	34.5@2000	33.3@1600	33.3@1800	34.2@1800														
rque EA G	1.2@	3.7@	4.4@	1.5@	3.3@	3.3@	1.2@		-	.											
6.To (S	જ	గ	જ	ઌ	ĸ	3	જ														
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ate: Bak H only	-																				
Lea R Q p iesels	6.8	8.3	7.3	7.1	5.2	5.6	6.8				•										
5.Fuel Rate: (lbs/fir) @ peak HP (for diesels only)																					
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eek nly) H					- 2																
Fuel Rate: oke @ pea	15.6	15.5	14.6	14.6	1.4	14.6	15.6								1						
4.Fu stroke for die		,		,		,					."					1.					
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)																					
	0	0	0	0	0	0	0														
@RPI Gross	260	3320	8	3290	3220	3230	3260		-												
3.BHP@RPM (SAE Gross)	15.8@2600	19.3@3200	17.0@3000	16.5@2900	12.5@2200	13.3@2300	15.8@2600			-											
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2.Engine Model			_	_	_	_															
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jine (3D67E	D782-ET01	D782-ET02	D782-ET03	D782-ET04	D782-ET05	D782-ET06														
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1.Engine Code	ਲ	D78	D78	D78	D78	D78	D78														