

KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0536 New Off-Road

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)						
2012	CKBXL01.5FAD	1.499	Diesel 5000							
	FEATURES & EMISSION (TYPICAL EQUIPMENT APPLICATION							
lr	ndirect Diesel Injection, Tu Smoke Puff Limiter (Som	urbocharger, ne Models)	Tractor, Compressor, Generator Set, and 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			E		OPACITY (%)					
	STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK	
19 ≤ kW < 37	Interîm Tier 4	STD	N/A	N/A	7.5	5.5	0.30	20	15	50	
		CERT			6.0	0.7	0.23	5	4	12	

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 2011.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: KUBOTA Corporation
Engine category: Nonroad Cl
EPA Engine Famiy. CKBXL01,5FAD
Mfr Family Name: N/A
Process Code: New Submission

Attachment

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8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	EN T	EM	SPL	EM	SPL	EM	SPL	Ē	SPL													7 (1)			
9.Emissic Jevice Per	Ш	Ш	EM,SPL	Ш	EM,SPL	Ш	EM,SPL	Ш	EM,SPL													77			
ate: c torque [_				_																			
8.Fu el R ate: hr)@peak to	13.2	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4																
7.Fuel Rate: mm/stroke@peak torque	46.2	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5		1000 1000 1000 1000 1000 1000 1000 100														
7.Ft mm/str t																									
RPM iss)	1700	900	009	900	009	909	. 009	900	909																
6.Torque @ RPM (SEA Gross)	101.4@1700	92.6@1600	92.6@1600	92.6@1600	92.6@1600	92.6@1600	92.6@1600	92.6@1600	92.6@1600																ĺ.
						0,		U,															21°		· · ·
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	18.8	18.4	18.4	17.5	17.5	16.7	16.7	15.8	15.8																· .
5.Fue (lbs/hr) (for dies		_		-		_	•	-																	··· .
e: sak HP (ylc																							٠.		
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	40.0	39.2	39.2	38.7	38.7	38.2	38.2	37.8	37.8														•		
4. mm/str (for																							. ·		
aRPM Sross)		2800	2800	2700	2700	2600	2600	2500	2500								٠.								
3.BHP@RPM (SAE Gross)	44.7@2800	42.2@2800	42.2@2800	40.8@2700	40.8@2700	39.2@2600	39.2@2600	37.7@2500	37.7@2500																
del		ET	Ь	ET	Ш	Ш	ET.	占	L				-												
2.Engine Model	D1503-M-T-ET	D1503-M-T-ET	D1503-M-T-ET	D1503-M-T-ET	D1503-M-T-ET	D1503-M-T-ET	D1503-M-T-ET	D1503-M-T-ET	D1503-M-T-ET												,				
2.Eng	Dis	75	D15	D15	D15	D15	D15	D15	D								7						<u>. </u>		
Code	T-ET01	T-ET02	-ET02b	T-ET03	-ET03b	T-ET04	-ET04b	T-ET05	-ET05b				 				7								· .
1.Engine Code	D1503-M-T-ET01	D1503-M-T-ET02	D1503-M-T-ET02b	D1503-M-T-ET03	D1503-M-T-ET03b	D1503-M-T-ET04	D1503-M-T-ET04b	D1503-M-T-ET05	D1503-M-T-ET05b																
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