KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0545 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	CKBXL02.4FCD	1.826, 2.434	Diesel	5000						
SPECIAL	FEATURES & EMISSION (CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
	Indirect Diesel Inje	ction	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 non-methane hydrocarbon (NMHC), 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			E	XHAUST (g/kW-l	OPACITY (%)				
POWER	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
19 <u><</u> kW < 37	Interim Tier 4	STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT			6.4	0.9	0.21	. 4	5	6

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

KUBOTA Corporation Manufacturer

Nonroad CI Engine category: EPA Engine Family.

Mfr Family Name:

New Submission Process Code:

Attachment

E0# U-K-025-0545

1102/2/21

CKBXL02.4FCD N/A

								WK:			of all	88EW	Tan	y Z		570	ng apa Garig	r geise	2004 <u>7</u> 2007,0	1986				76 N
020 930	Ė					ing a second			7 H									-						
9.Emission Control evice Per SAE J193	EM INI	"		V		~		W.		l l		V		V		_	V	_						
nission Per (面	Ē	EM	E	EM	EM	Ž	EM		EM	Ē	Ē	Ž	EX	ĒΜ	Ē	EM	H						
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE 31930	· 外加。										54						T.						1 第 条	
orque											10 m						7			116) i
8.Fuel Rate: hr)@peak to	10.1	10.1	10.1	10.1	10.1	10.1	9.5	9.5	13.1	13.9	13.9	13.9	13.9	13.9	13.9	12.7	13.0	13.0						
8.Fue /hr)@p		7							V			\[\bar{\pi}{\pi}\]		٦										
sq)							ない。								を行う	3							0.00	
7.Fuel Rate: mm/stroke@peak torque		10	œ	~		10		~		0	6	0		6	_	10		\ _	9	73	No. N. P.		製造	*
7.Fuel Rate: n/stroke@pk torque	37.8	37.5	37.8	37.8	37.5	37.5	37.8	37.8	39.1	39.0	38.9	39.0	39.0	38.9	38.9	35.5	38.9	38.7						12 12 14 14
7.F mm/s																								
₹		_	_			_		0	0	0	0	0	0	0	0	0	0	0						
6. Torque @ RPM (SEA Gross)	85.3@1600	83.8@1600	85.3@1600	85.3@1600	83.8@1600	83.8@1600	85.3@1500	85.3@1500	117.6@1500	117.0@1600	15.0@1600	117.0@1600	17.0@1600	115.0@1600	115.0@1600	103.0@1600	116.5@1500	116.3@1500						
forque @ RF (SEA Gross)	5.3@	3.8@	5.3@	5.3@	3.8@	3.8@	5.3@	5.3@	17.6(17.00	15.0@	17.0%	17.0(15.0@	15.0(33.0%	16.5(16.3(
6.T (8	8	æ	8	ω.	æ	ω	a.	_	-		-	Υ.	٦	-	F	1	-	1946. 1833	The ord				
H KHP																								
5.Fuel Rate: /hr) @ peak or diesels on	15.9	12.3	15.2	14.5	13.6	12.9	15.2	15.6	20.8	20.8	16.9	20.8	19.9	18.8	17.8	15.0	20.8	20.6						<i>y</i>
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)		-		T.				-	1 P	N		N		Ī				2	100 100 100					
																				 350 13				
ite: xeak H xrily)																								
4.Fuel Rate: /stroke @ peak (for diesel only)	35.2	33.3	34.8	34.7	33.8	33.5	33.5	84.4 4.4	34.4	34.4	34.4	35.8	35.6	35.1	34.7	37.4	34.4	34.2						
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)								ill b										1.00 1.00 1.00 1.00						J.
					18. No. of the last of the las										Similar day			\$.) \$	18. Jan 1965					<i>y</i>
3.BHP@RPM (SAE Gross)	37.4@2700	30.6@2200	36.1@2600	2500	33.3@2400	2300	35.7@2700	2700	48.9@2700	2700	41.8@2200	2600	47.6@2500	45.7@2400	43.9@2300	1800	48.9@2700	48.3@2700		種				
BHP@	4@	(@)	9	34.7@2500	300	31.9@2300	@/_	36.6@2700	.9@	48.9@2700	.8@	48.9@2600	@9.	7.00	:@G	36.7@1800	.9@	3.30						
E. 89	3	30	36	ઝ	ဗ	9	35	8	4	4	4	4	47	4	43	Ř	4.	₩						
qel)		F		F.	+	 -	H	H	H	-	÷	F	H	H	Ь	—						
2.Engine Model	D1803-M-ET	D1803-M-ET	D1803-M-ET	D1803-M-ET	D1803-M-ET	D1803-M-ET	D1803-M-ET	D1803-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET	V2403-M-ET				A A	ii	
ingin	D180	D180	D180.	D180	D180	D180	D180.	D180	V240	V240	7240	V240	V240:	V240:	V240:	V240	V240:	V240						
2.E						9 /						ing jugʻ												
ode	101	T02	T03	T04	T05	T06	T07	T08	T01	T02	T03	T04	705	T06	T 07	T08e	T09	T10						
Engine Code	D1803-M-ET01	D1803-M-ET02	D1803-M-ET03	D1803-M-ET04	D1803-M-ET05	D1803-M-ET06	D1803-M-ET07	D1803-M-ET08	V2403-M-ET01	V2403-M-ET02	V2403-M-ET03	V2403-M-ET04	V2403-M-ET05	V2403-M-ET06	V2403-M-ET07	V2403-M-ET08e	V2403-M-ET09	V2403-M-ET10						
Eng.	- 180 - 180 - 180	D180	D180	D180	0180	D180	D180	D18C	V24 C	V240	√24€	V240	V24C	V240	V240	V240.	V240	V240	ishiji Artigal					