

**AIR RESOURCES BOARD**

KUBOTA Corporation

EXECUTIVE ORDER U-R-025-0522
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	CKBXL 719KCB	0.479, 0.719	Diesel	3000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS				
Indirect Diesel Injection				
TYPICAL EQUIPMENT APPLICATION				
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 STANDARD CATEGORY	EXHAUST (g/kw-hr)				OPACITY (%)			
		HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
0 ≤ kW < 19	Tier 4 Final	N/A	N/A	7.5	6.6	0.40	20	15	50
	CERT	--	--	6.6	2.6	0.25	10	12	15

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 16th day of November 2011.

M. Lusk FOR AEM

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: KUBOTA Corporation
 Engine category: Nonroad CI
 EPA Engine Family: CKBXL719KCB
 Mfr Family Name: N/A
 Process Code: New Submission

Attachment

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10/19/2011

EO# U-R-025-0522

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
D722-ET01	D722-ET	20.0@3600	15.0	9.1	33.8@2600	16.3	7.1	EM IDI*
D722-ET02	D722-ET	15.6@3000	13.0	6.5	29.9@2000	14.4	4.8	EM
D722-ET03	D722-ET	18.8@3400	14.5	8.3	32.2@2600	15.3	6.7	EM
D722-ET04	D722-ET	17.7@3200	14.3	7.7	31.3@2600	14.9	6.5	EM
D722-ET05	D722-ET	17.7@3200	14.3	7.7	29.6@2400	13.9	5.6	EM
D722-ET06	D722-ET	16.9@3200	13.8	7.4	33.3@2200	15.9	5.9	EM
D722-ET07	D722-ET	16.6@3200	13.7	7.4	33.1@2200	15.8	5.8	EM
D722-ET08	D722-ET	16.6@3000	14.1	7.1	29.7@2600	14.2	6.2	EM
D722-ET09	D722-ET	16.6@3000	14.1	7.1	33.9@2200	16.1	5.9	EM
D722-ET10	D722-ET	15.4@2950	13.3	6.6	31.9@2200	15.0	5.5	EM
D722-ET11	D722-ET	15.2@2900	13.3	6.5	33.8@2200	15.9	5.9	EM
D722-ET12	D722-ET	15.4@2800	13.9	6.5	32.1@2200	15.1	5.6	EM
D722-ET13	D722-ET	10.3@2050	12.5	4.3	29.6@1600	14.2	3.8	EM
D722-ET14	D722-ET	15.2@2700	14.0	6.3	29.4@2400	14.0	5.6	EM
D722-ET15	D722-ET	14.5@2600	13.8	6.0	30.2@2200	14.2	5.2	EM
D722-ET16	D722-ET	11.9@2200	13.4	4.9	27.2@1900	13.6	4.3	EM
D722-ET17	D722-ET	13.9@2500	14.2	6.0	32.1@2000	15.8	5.3	EM
D722-ET18	D722-ET	10.2@2000	12.5	4.2	29.6@1600	14.2	3.8	EM
D722-ET19	D722-ET	20.0@3600	15.0	9.1	31.8@2800	15.6	7.3	EM
D722-ET20	D722-ET	12.9@2400	13.7	5.5	28.8@2100	14.0	4.9	EM
D722-ET21	D722-ET	15.2@2900	13.3	6.5	30.8@2400	15.2	6.1	EM
Z482-ET01	Z482-ET	13.4@3600	15.4	6.2	22.7@2500	16.6	4.6	EM
Z482-ET02	Z482-ET	13.3@3600	15.2	6.1	21.9@2600	16.2	4.7	EM
Z482-ET03	Z482-ET	11.1@3000	14.6	4.9	20.3@2500	14.7	4.1	EM
Z482-ET04	Z482-ET	11.1@3000	14.6	4.9	22.1@2300	16.5	4.2	EM
Z482-ET05	Z482-ET	9.7@2600	14.3	4.2	20.1@2200	14.3	3.5	EM

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Manufacturer: KUBOTA Corporation
 Engine Category: Nonroad CI
 EPA Engine Family: CKEXL719KCB
 Mfr Family Name: N/A
 Process Code: New Submission

Template

View Print View Database Preview
 Print Diagnose Records Save File Delete
 c Check to Database

Original Method New Method

VIEW ENGINE MODELS FILE

1 Engine Code 2 Engine Model 3 BHP@RPM (SAE Gross) 4 Fuel Rate: (for diesel only) 5 Fuel Rate: (for diesel only) 6 Torque @ RPM (SEA Gross) 7 Fuel Rate: (for diesel only) 8 Fuel Rate: (for diesel only) 9 Emission Control Device Per SAE J1930

D722-ET07	D722-ET	16.6@3200	13.7	7.4	33.1@2200	15.8	5.8	EM IDI
D722-ET08	D722-ET	16.6@3000	14.1	7.1	29.7@2600	14.2	6.2	EM
D722-ET09	D722-ET	16.6@3000	14.1	7.1	33.9@2200	16.1	5.9	EM
D722-ET10	D722-ET	15.4@2950	13.3	6.6	31.9@2200	15.0	5.5	EM
D722-ET11	D722-ET	15.2@2900	13.3	6.5	33.8@2200	15.9	5.9	EM
D722-ET12	D722-ET	15.4@2800	13.9	6.5	32.1@2200	15.1	5.8	EM
D722-ET13	D722-ET	10.3@2050	12.5	4.3	28.8@1600	14.2	3.8	EM
D722-ET14	D722-ET	15.2@2700	14.0	6.3	29.4@2400	14.0	5.6	EM
D722-ET15	D722-ET	14.5@2600	13.8	6.0	30.2@2200	14.2	5.2	EM
D722-ET16	D722-ET	11.9@2200	13.4	4.9	27.2@1900	13.8	4.3	EM
D722-ET17	D722-ET	13.9@2500	14.2	6.0	32.1@2000	15.8	5.3	EM
D722-ET18	D722-ET	10.2@2000	12.5	4.2	28.8@1600	14.2	3.8	EM
D722-ET19	D722-ET	20.0@3600	15.0	9.1	31.8@2800	15.6	7.3	EM
D722-ET20	D722-ET	12.9@2400	13.7	5.5	28.8@2100	14.0	4.9	EM
D722-ET21	D722-ET	15.2@2900	13.3	6.5	30.8@2400	15.2	6.1	EM
Z482-ET01	Z482-ET	13.4@3600	15.4	6.2	22.7@2500	16.6	4.6	EM
Z482-ET02	Z482-ET	13.3@3600	15.2	6.1	21.9@2600	16.2	4.7	EM
Z482-ET03	Z482-ET	11.1@3000	14.6	4.9	20.3@2500	14.7	4.1	EM
Z482-ET04	Z482-ET	11.1@3000	14.6	4.9	22.1@2300	16.5	4.2	EM
Z482-ET05	Z482-ET	9.7@2600	14.3	4.2	20.1@2200	14.3	3.5	EM
Z482-ET06	Z482-ET	11.1@3000	14.6	4.9	20.9@2600	15.2	4.4	EM
Z482-ET07	Z482-ET	8.9@2400	14.0	3.8	19.3@1900	13.6	2.9	EM
Z482-ET08	Z482-ET	8.0@2200	13.8	3.4	19.2@1900	13.5	2.9	EM
Z482-ET09	Z482-ET	11.1@3200	14.1	5.0	21.2@2300	15.3	3.9	EM
Z482-ET10	Z482-ET	12.9@3600	14.7	5.9	21.2@2600	15.7	4.6	EM