

KUBOTA CORPORATION

EXECUTIVE ORDER U-R-025-0274 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)			
2007	7KBXL.778KCB	0.778	Diesel				
	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
	Indirect Diesel Inje	ction	Riding Mower, 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
CLASS			HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
8 ≤ kW < 19	8 ≤ kW < 19 Tier 2 STD		N/A	N/A	7.5	6.6	0.80	20	15	50
		CERT			6.1	2.4	0.33	5	3	9

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 2006.

Annette Hebert, Chief

Rephal Sumairk

Mobile Source Operations Division

Engine Model Summary Form

CONFICINITIAL MISCONNIC

Manufacturer:

Engine category: Nonroad Cl
EPA Engine Family: 7KBXL.778KCB

Mfr Family Name: N/A

New Submission Process Code:

Attachment ED \$4-2-025-0274

9.Emission Control Device Per SAE J1930	EM Hat		ĽΝ	EN	EM	+	
8.Fuel Rate: (lbs/hr)@peak torque [5.0	6.8	6.4	5.6	4.3	4.9	
7.Fuel Rate: mm/stroke@peak torque	16.5	16.8	16,0	16.7	15.9	16.1	
6.Torque @ RPM (SEA Gross)	34.6@1800	36.7@2400	34.4@2400	34.5@2000	33.9@1600	34.1@1800	
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.8	8.3	7.3	12	5.2	2.6	
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	. 15.6	15,5	14.6	14.6	14.1	14,6	
3.BHP@RPM (SAE Gross)	15.8@2600	19.3@3200	17,0@3000	16.5@2900	4,7,12.5@2200	13.3@2300	
2.Engine Model	3D67E	D782-ES	D782-ES	D782-ES	D782-ES	D782-ES	
1.Engine Code	3D67E	D782-ES01	D782-ES02	D782-ES03	D782-ES04	D782-ES05	