

## **KUBOTA CORPORATION**

EXECUTIVE ORDER U-R-025-0250 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)		
2006	6KBXL02.4EAD	2.434	Dieset	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter (Some Models)			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	EMISSION			EXHAUST (g/kW-hr)				OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
		CERT			6.2	1.3	0.34	8	2	28

**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 2005.

Allen Lyons, Chief

Rephal Sundit

Mobile Source Operations Division

## **Engine Model Summary Form**

Manufacturer: KUBOTA Corporation

Engine category: Nonroad CI

EPA Engine Family: 6KBXL02.4EAD

Mfr Family Name: N/A

Process Code: Running Change

Attaliment 60# u-R-025-6250

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trol 1930	H					Ţ	
9.Emission Control Device Per SAE J1930	SPL PAIL	E	SPL	SPL	Ξ	х Ш	
e: 9.E torque Devic				anni print dipenganana karaka canadami.			
8.Fuel Rate: (lbs/hr)@peak torque	15.2	16.6	16.6	15.2	10.5	0.1	
7.Fuel Rate: mm/stroke@peak torque	45.4	49.5	49.5	45.4	39.1	41.0	A
7.F mm/s			×				
RPM (s	200	200	200	200	200	200	
6.Torque @ RPM (SEA Gross)	146.8@1500	60.9@1500	60.9@1500	146.8@1500	29.1@1200	135.0@1200	
6.Tor (SE	146	160	160	14	125	13,	
e: ik HP inly)							
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	25.4	27.5	27.5	25.4	18.4	18.7	
e: eak HP nly)			1.4				
4.Fuel Rate: mm/stroke @ peak (for diesel only	44.5	45.5	45.5	44.5	37.5	38.0	
4.F mm/stro (for α				and the second second second second			
	20	8	20	20	2	20	
3.BHP@RPM (SAE Gross)	62.4@2550	66.0@2700	66.0@2700	62.4@2550	48.9@2200	48.9@2200	
3.B	62.4	99	99.	62.4	48.9	48.	
odel		r-Es	r-ES	r-Es	r-ES	r-Es	
ine Mc	4IRX3T2	-M-DI-	-M-DI-I	-M-DI-		M-DI-	
2.Engine Model	4	V2403-M-DI-T-ES01 V2403-M-DI-T-ES	/2403-M-DI-T-ES01b V2403-M-DI-T-ES	/2403-M-Di-T-ES02b V2403-M-DI-T-ES	V2403-M-DI-T-ES03 V2403-M-DI-T-ES	V2403-M-DI-T-ES31 V2403-M-DI-T-ES	
apc		ES01	S01b	S02b	≘ <b>S</b> 03	ES31	
1.Engine Code	4IRX3T2	M-DI-T-I	A-DI-T-E	A-DI-T-E	M-DI-T-I	M-DI-T-I	
Ēng	4	2403-	2403-N	2403-N	2403-1	72403-1	