

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0373 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 engine and emission control system 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 ENGINE FAMILY		DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2011	BKLXL03.3JD9	3.3	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT			
Electron	ic Direct Injection, Turbo Cooler, Engine Contro	charger, Charge Air of Module	Dozer 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Interim	STĎ	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT			4.3	1.4	0.22	3	2	5

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 November 2010

Annette Hebert, Chief

Mobile Source Operations Division

Attachment 1 of 1

Engine Model Summary Template

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Engine Family	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 torgue		9.Emission Control eDevice Per SAE J1930	,
KLXL03.3JD9	3C27	SAA4D95LE-5-C	68@1950	61	26	201@1600	67	24	EM,TC,CAC,DFI,ECM	
KLXL03.3JD9	3C28	SAA4D95LE-5-C	57@1950	54	23	179@1500	61	20	EM,TC,CAC,DFI,ECM	***************************************
KLXL03.3JD9	3C30	SAA4D95LE-5-C	71@2150	61	28	217@1400	72	22	EM,TC,CAC,DFI,ECM	
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