

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0321 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 YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)			
2009	9KLXL03.3JD9	3.3	Diesel	8000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS				TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control 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		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT			4.3	1.4	0.22	2	1	3

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 2008.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Template

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 torque		9.Emission Control eDevice Per SAE J1930
9KLXL03.3JD9	3C27	SAA4D95LE-5-C	68@1950	61	26	201@1600	67	24	EM,TC,CAC,DFI,ECM
9KLXL03.3JD9	3C28	SAA4D95LE-5-C	57@1950	54	23	179@1500	61	20	EM,TC,CAC,DFI,ECM
The Control of the Co	ede pedantinat massact toward betalast betalastic for the light topological of the cases of	IN IL PRIZOTINI I DOGLE P. MORPOS TERFORALI EN PRINSI LE POR LE PORTE PRINSI COMPANIONI MORRADA AMENTE	Phile all all the visit of the lead of the information of the committee of the phile all all the committee of the lead of the information of the committee of t	eki (1841) kirjaki (1841) kun jun jun ja mangari (1842) kirjaki (1844) kirjaki (1844) kirjaki (1844) kirjaki (1844)	**************************************	MANAN PERSONAL SAMES SAMES SAME SAME SAME AND	na manganan na na naona pra naonpy i T. (4 to 14 p. 44). Y E <mark>vento</mark> ni i M angan i Hali i Sevil	lat til s blir sam allat ers amså kriskmades læda ak savnis av mennessistisk væget opni 2000.	n de la company de la comp
, write also in early is $8.5\mathrm{eV}$, and an illimitation	La La margina de la marcha con como como como con la constitución de consultados	THE OUT OF THE PROPERTY AND PRO	ulandaranganiq upoğut samortoktox killus umus kululumannari yakan	am ur pa hagga a pul againe, Millio Shan (Sur, abar), a pur para combanno a ambara ana ana ana ana ana ana ana	AND	a dan serie da salam da ga merante de jeste dit empelet voya de si de home emplembre	na e pana in distribució des panas des de un orra productivo de la la filla algan enció impreso de las de redistribuciós	an , aux 35 - and 3 hit year his districted in 200 has a birth subsequent subsequent succession and wis secure	THE CONTROL OF THE STREET OF T
	n Philippin (See See See See See See See See See Se	errorrorrorrorrorrorrorrorrorrorrorrorro		ant day to person person de mineral region de pretion de la constitución de la constitución de la compositium	rgitarrith agus neo 500° 500 han nao 1000 an San San San San San San San San San		CONTRACTOR OF THE PROPERTY OF	·	