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 California Environmental Protection Agency AIR RESOURCES BOARD	Komatsu Limited	EXECUTIVE ORDER U-R-005-0094 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-45-9;

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)
2002	2KLXL03.3JA1	3.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection			Crane, Loader, Tractor, Dozer, Pump, Compressor, Generator 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):

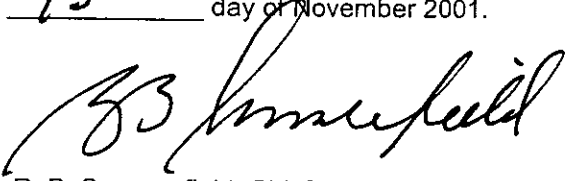
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	--	8.2	--	--	--	7	9	9

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 13th day of November 2001.



R. B. Summerfield, Chief
 Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

ATTACHMENT 1 of 1

U-R-005-0094

Manufacturer: **KOMATSU Ltd.** Process Code: **Running Change**

EPA Engine Family: **2KLXL03.3JA1** Manufacturer Family Name: **4D95LE-2**

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
KV2	4D95LE-2	65@2600	43	25	158@1600	48	17	DDZ, EM
KV3	4D95LE-2	60@2200	46	22	158@1600	48	17	EM
KL1	4D95LE-2	56@2100	44	21	176@1500	57	19	EM
KL2	4D95LE-2	56@1800	55	22	---	---	---	EM
KL6	4D95LE-2	56@1800	55	22	---	---	---	EM
KL7	4D95LE-2	56@1850	49	20	173@1500	54	15	EM
KL8	4D95LE-2	65@2600	43	24	158@1600	49	17	EM
CPL2675FR30001	B3.3	65@2600	43	25	158@1600	48	17	EM
CPL2675FR30002	B3.3	60@2200	46	22	158@1600	48	17	EM
CPLKNA1FRKL001	B3.3	56@2100	44	21	176@1500	57	19	EM
CPL2677FR30006	B3.3-G1	56@1800	55	22	---	---	---	EM
CPL2677FR30010	B3.3	56@1800	55	22	---	---	---	EM
CPLKNA7FRKL007	B3.3	56@1850	49	20	173@1500	54	15	EM
FR30011	B3.3	65@2600	43	24	158@1600	49	17	EM