

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0289 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)			
2007	7KLXL03.3JA6	3.3	Diesel	8000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Indii	rect Diesel Injection, Eng	ine Modification	Crane, Loader, Tractor, Dozer, Pump, Compressor and Generator				

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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	RATED EMISSION POWER STANDARD CLASS CATEGORY				EXHAUST (g/kw-l	OPACITY (%)				
			HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
		FEL	N/A	N/A	4.7	N/A	0.30	N/A	N/A	N/A
		CERT			3.7	1.3	0.18	2	6	8

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 September 2007.

Annette Hebert, Chief

Mobile Source Operations Division

ATTACHMENT Pg (of (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 torque		9.Emission Control PEDevice Per SAE J1930
7KLXL03.3JA6	3C20	4D95LWE-5	65@2600	47	27	158@1600	58	21	EM, IDI
7KLXL03.3JA6	3C21	4D95LWE-5	60@2200	51	25	155@1600	56	20	EM, IDI
7KLXL03.3JA6	3C22	4D95LWE-5	60@2350	49	26	155@1600	56	20	EM, IDI
7KLXL03.3JA6	3C23	4D95LWE-5	54@2350	45	24	141@1600	50	18	EM, IDI
7CEXL03.3ACE	FR92198	B3.3	65@2600	47	27	158@1600	58	21	EM, IDI
7CEXL03.3ACE	FR92 197	B3.3	60@2200	51	25	155@1600	56	20	EM, IDI