California Environmental Protection Agency AIR RESOURCES BOARD	KOMATSU LIMITED	EXECUTIVE ORDER U-R-005-0320 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	9KLXL03.3JD8	3.3	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler	Crane, Loader, Tractor, Dozer, Pump, Compressor and Generator

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
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT	--	--	4.1	1.2	0.31	8	2	14

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 27th day of November 2008.

J. Lourenco

Annette Hebert, Chief
Mobile Source Operations Division

ATTACHMENT B 1 of 1

Engine Model Summary Template

U-R-005-0320

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	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
9KLXL03.3JD8	3C05	SAA4D95LEM-5	87@2600	63	37	246@1600	77	28	EM, DFI,TC,CAC
9KLXL03.3JD8	3C06	SAA4D95LEM-5	85@2600	62	36	225@1500	70	23	EM, DFI,TC,CAC
9KLXL03.3JD8	3C07	SAA4D95LEM-5	80@2200	66	32	225@1500	70	23	EM, DFI,TC,CAC
9KLXL03.3JD8	3C12	SAA4D95LEM-5	76@2600	59	35	214@1500	65	22	EM, DFI,TC,CAC
9KLXL03.3JD8	3C13	SAA4D95LEM-5	85@2400	67	36	239@1600	75	27	EM, DFI,TC,CAC
9CEXL03.3ACC	FR3C05	B3.3	87@2600	63	37	246@1600	77	28	EM, DFI,TC,CAC
9CEXL03.3ACC	FR92084	B3.3	85@2600	62	36	225@1500	70	23	EM, DFI,TC,CAC
9CEXL03.3ACC	FR92085	B3.3	80@2200	66	32	225@1500	70	23	EM, DFI,TC,CAC
9CEXL03.3ACC	FR92086	B3.3	76@2600	59	35	214@1500	65	22	EM, DFI,TC,CAC
9CEXL03.3ACC	FR92233	B3.3	85@2400	67	36	239@1600	75	27	EM, DFI,TC,CAC