

## **KOMATSU LIMITED**

EXECUTIVE ORDER U-R-005-0318 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	9KLXL03.3JD6	3.3	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Direct Dies	sel Injection, Turbocharg Engine Control Mo	er, Charge Air Cooler, odule	Loader, Dozer and Other Industrial Equipment			

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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			НС	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
		FEL	N/A	N/A	N/A	N/A	0.32	N/A	N/A	N/A
		CERT			4.3	1.3	0.23	4	1	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 November 2008.

Annette Hebert, Chief

Mobile Source Operations Division

Attachment 1 af 1

## **Engine Model Summary Template**

U-R-005-0318

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
9KLXL03.3JD6	3C01	SAA4D95LE-5-A	99@2600	69	40	304@1600	98	36	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C02	SAA4D95LE-5-A	99@2200	74	36	304@1600	96	34	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C03	SAA4D95LE-5-A	97@2200	76	37	264@1500	86	28	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C08	SAA4D95LE-5-A	80@2200	64	31	275@1400	88	27	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C09	SAA4D95LE-5-A	85@2600	60	34	275@1400	93	29	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C10	SAA4D95LE-5-A	89@2350	69	36	236@1600	82	29	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C11	SAA4D95LE-5-A	79@2350	60	31	207@1600	72	25	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C14	SAA4D95LE-5-A	96@2250	77	38	256@1600	85	30	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C15	SAA4D95LE-5-A	84@2400	65	34	239@1600	79	28	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C24	SAA4D95LE-5-A	91@2200	72	35	277@1500	92	30	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C25	SAA4D95LE-5-A	80@2200	64	31	259@1500	84	28	EM,TC,CAC,DFI,ECM
9KLXL03.3JD6	3C29	SAA4D95LE-5-A	100@2200	77	37	276@1600	88	31	EM,TC,CAC,DFI,ECM
9CEXL03.3ACB	FR30231	QSB3.3	99@2600	69	40	304@1600	98	36	EM,TC,CAC,DFI,ECM
9CEXL03.3ACB	FR30232	QSB3.3	99@2200	74	36	304@1600	96	34	EM,TC,CAC,DFI,ECM
9CEXL03.3ACB	FR92055	QSB3.3	80@2200	64	31	275@1400	88	27	EM,TC,CAC,DFI,ECM
9CEXL03.3ACB	FR92056	QSB3.3	85@2600	60	34	275@1400	93	29	EM,TC,CAC,DFI,ECM
9CEXL03.3ACB	FR93226	QSB3.3	99@2200	74	36	304@1600	96	34	EM,TC,CAC,DFI,ECM
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