

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0351 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)			
2010	AKLXL03.3JD6	3.3	Diesel	8000			
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION				
Direct Dies	el Injection, Turbocharg Engine Control Mo	er, Charge Air Cooler, odule	Loader, Dozer and Other Inc	dustrial 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-l	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 24 day of December 2009.

Annette Hebert, Chief

Mobile Source Operations Division

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Engine Model Summary Template

U-R-005-0351

8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930	EM,TC,CAC,DF1,ECM	EM,TC,CAC,DFI,ECM	EM,TC,CAC,DFI,ECM	, EM,TC,CAC,DFI,ECM	EM,TC,CAC,DFI,ECM							
7.Fuel Rate: mm/stroke@peak 8.Fuel Rate: torque (lbs/hr)@peak to	98 36	96 34	86 28	88 27	93 29	82 29	72 25	85 30	79 28	92 30	84 28	
	304@1600	304@1600	264@1500	275@1400	275@1400	236@1600	207@1600	256@1600	239@1600	277@1500	259@1500	
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	40	36	37	31	34	36	31	38	34	35	31	
4.Fuel Rate: 5.Fuel Rate: mm/stroke @ peak HP (fbs/hr) @ peak HP 6.Torque @ RPM (for diesels only) (SEA Gross)	69	74	76	64	09	69	09	77	65	72	64	
3.BHP@RPM (SAE Gross)	99@2600	99@2200	97@2200	80@2200	85@2600	89@2350	79@2350	96@2250	84@2400	91@2200	80@2200	
2.Engine Model	SAAAD95LE-5-A	SAA4D95LE-5-A	SAAAD95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	SAA4D95LE-5-A	
Engine Family 1.Engine Code 2.Engine Model	3C01	3C02	3C03	3C08	3C09	3C10	3C11	3C14	3C15	3C24	3C25	
Engine Family	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	AKLXL03.3JD6	