

KOMATSU LTD.

EXECUTIVE ORDER U-R-005-0517

New Off-Road Compression-Ignition Engines Page 1 of 1

Pursuant to the authority vested in California 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-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems 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)			
2022	NKLXL03.3JDB	3.26	Diesel	8000			
SPECIAL	. FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Recircula	harger, Charge Air Coo ition, Electronic Control Catalyst, Electronic Dire	Module, Oxidation	Loader, Forklift				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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			ı	EXHAUST (g/kw-l	OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT			3.4	0.6	0.02			

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 on this <u>3/st</u> day of October 2021.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-005-0517 Family: NKLXL03.3JDB Attachment Last Revised: 9/9/2021

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fuel Peak Torqu			Peak Torque - Peak Torque - Fuel						
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Peak Torque - Fuel		OBD	GHG	Special	Notes
SAA4D95L E-6-C	4C13	N/A	14	3.26	Liters	68	horsepower	1950	59	mm3/stroke	239	lb-ft	1400	76	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR, ECM, OC, DFI
SAA4D95L E-6-C	4C14	N/A	14	3.26	Liters	71	horsepower	2150	57	mm3/stroke	217	lb-ft	1400	69	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR, ECM, OC, DFI
SAA4D95L E-6-C	4C16	N/A	14	3.26	Liters	70	horsepower	2200	55	mm3/stroke	196	lb-ft	1600	64	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR, ECM, OC, DFI
SAA4D95L E-6-C	4C17	N/A	14	3.26	Liters	72	horsepower	2150	57	mm3/stroke	265	lb-ft	1400	85	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR, ECM, OC, DFI