

KOMATSU, LTD.

EXECUTIVE ORDER U-R-005-0537

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)					
2023	PKLXL23.2FDD	23.15	Diesel	8000					
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
Recircula	harger, Charge Air Coo ation, Electronic Contro Oxidation Catalyst, Oxi Electronic Direct Inj	l Module, Periodic dation Catalyst,	Loader, Dozer, Dump Tr	uck					

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 POWER	EMISSION				EXHAUST (g/kw-l		OPACITY (%)				
CLASS	STANDARD CATEGORY		NMHC NOx		NMHC+NOx	СО	PM	ACCEL	LUG	PEAK	
ELSE < 560 kW	Tier 4 Final	STD	0.19	3.5	N/A	3.5	0.04	N/A	N/A	N/A	
		CERT	0.01	2.7		0.01	0.000				

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>5th</u> day of October 2022.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-005-0537 Family: PKLXL23.2FDD Attachment Last Revised: 7/25/2023

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fuel		Peak Torque -	Peak Torque -		Peak Torque - Fue				
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
SAA6D170 E-7-B	5C01	N/A	16	23.15	Liters	775	horsepower	2000	424	mm3/stroke	2749	lb-ft	1400	546	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR ECM, PTOX, OC DFI, CCV
SAA6D170 E-7-B	5C03	N/A	16	23.15	Liters	775	horsepower	1800	476	mm3/stroke	2506	lb-ft	1400	515	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR ECM, PTOX, OC DFI, CCV
SAA6D170 E-7-B	5C02	N/A	16	23.15	Liters	775	horsepower	1800	459	mm3/stroke	2506	lb-ft	1400	501	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR ECM, PTOX, OC DFI, CCV
SAA6D170 E-7-B	5C04	N/A	16	23.15	Liters	775	horsepower	1800	459	mm3/stroke	2506	lb-ft	1400	501	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR ECM, PTOX, OC DFI, CCV
SAA6D170 E-7-B	6C01	N/A	16	23.15	Liters	775	horsepower	2000	424	mm3/stroke	2749	lb-ft	1400	546	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR ECM, PTOX, OC DFI, CCV
SAA6D170 E-7-B	6C02	N/A	16	23.15	Liters	775	horsepower	1800	459	mm3/stroke	2506	lb-ft	1400	501	mm3/stroke	N/A	N/A	N/A	EM, TC, CAC, EGR ECM, PTOX, OC DFI, CCV
SAA6D170 E-7-B	5C05	N/A	16	23.15	Liters	818	horsepower	2000	442	mm3/stroke	3011	lb-ft	1400	579	mm3/stroke	N/A	N/A	New Model Added	EM, TC, CAC, EGR ECM, PTOX, OC DFI, OCV
SAA6D170 E-7-B	6C05	N/A	16	23.15	Liters	818	horsepower	2000	442	mm3/stroke	3011	lb-ft	1400	579	mm3/stroke	N/A	N/A	New Model Added	EM, TC, CAC, EGR ECM, PTOX, OC DFI, OCV