

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0286 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)
2007	7KLXL23.2FD5	23.2	Diesel	8000
	FEATURES & EMISSION		TYPICAL EQUIPMENT	APPLICATION
Direct Dies	sel Injection, Turbocharg Engine Control Mo	er, Charge Air Cooler, odule	Generator and Other Indu	ustrial Equipment

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	EMISSION			E	XHAUST (g/kw-l	nr)		OF	PACITY (%	b)
POWER	STANDARD CATEGORY		нс	NOx	NMHC+NOx	ÇO	PM	ACCEL	LUG	PEAK
kW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
		CERT		_	5.9	0.8	0.13			

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

1Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Template

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				4.Fuel Rate:	5.Fuel Rate:		7.Fuel Rate:				
Engine Family	Engine Family 1.Engine Code 2.Engine Model	2.Engine Model	3.BHP@RPM (SAE Gross)	mm/stroke @ peak HP (lbs/hr) @ peak HP (for diesel only) (for diesels only)	(lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	¥	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930	9.Emission Control	Control E J1930	
7KLXL23.2FD5	2G01	SAA6D170E2-3	1000@1800	567	343		1		DOI, EM,	EM, ECM, CAC	ر
7KLXL23.2FD5	2602	SAA6D170E2-3	891@1500	572	288		***	1488	EM, EC	EC	hard other name in partition out that the partition are see
7KLXL23.2FD5	2G03	SAA6D170E2-3	1145@1800	628	377		1		EM, EC	ဌ	100 m Accessivition and
7KLXL23.2FD5	2G04	SAA6D170E2-3	1009@1500	664	332	1	ı		EM, EC	ျှ	The party when the party were the party with the pa
7KLXL23.2FD5	2G05	SAA6D170E2-3	1220@1800	647	388	1	1	1	EM, EC	ပ္ပ	
7KLXL23.2FD5	2G06	SAA6D170E2-3	1060@1500	699	335		•	1	EM, EC	ည	-
7CEXL023.AAB	CPL2621FR50043 QSK23-G1-NR2	QSK23-G1-NR2	1000@1800	567	343	1	ı	1	EM, EC	ည္	
7CEXL023.AAB	CPL2621FR50043	QSK23-G1-NR2	891@1500	572	288	1	•		EM, EC	ည	Any seed of any management of management of the seed o
7CEXL023.AAB	CPL2621FR50045	QSK23-G2-NR2	1145@1800	628	377	,			EM, EC	ပ္ပ	ele and collection demonstrates to an indicate the second
7CEXL023.AAB	CPL2621FR50045	QSK23-G2-NR2	1009@1500	664	332	-			EM, EC	ျှ	The state of the s
7CEXL023.AAB	CPL2621FR50047 QSK23-G3-NR2	QSK23-G3-NR2	1220@1800	647	388			1	\) \ \ \ \ \	man charling and the state of the charles of the ch
7CEXL023.AAB	CPL2621FR50047	QSK23-G3-NR2	1060@1500	699	335	ł	1	1	V EM, EC	> No in	