CALIFORNIA AIR RESOURCES BOARD	KOMATSU LIMITED	EXECUTIVE ORDER U-R-005-0487 New Off-Road Compression-Ignition Engines

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-14-012;

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)
2020	LKLXL30.5GDC	30.48	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation, Electronic Control Module, Periodic Trap Oxidation Catalyst, Oxidation Catalyst, Electronic Direct Injection	Loader, Dozer, Dump Truck

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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	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	0.02	3.2	–	0.01	0.004	–	–	–

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 28th day of June 2019.

Kim Pryor

per Allen Lyons, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Template

ATTACHMENT 1 OF 1

U-R-005-0487
06/10/19

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	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
LKLXL30.5GDC	5C02	SAA12V140E-7	1065@1800	298	363	3371@1350	321	292	EM,TC, CAC,EGR,ECM,PTOX,OC, DPI
LKLXL30.5GDC	5C01	SAA12V140E-7	1200@1900	335	423	3747@1350	369	331	EM,TC, CAC,EGR,ECM,PTOX,OC, DPI
LKLXL30.5GDC	5C04	SAA12V140E-7	900@2050	231	321	3067@1300	294	258	EM,TC, CAC,EGR,ECM,PTOX,OC, DPI
LKLXL30.5GDC	5C03	SAA12V140E-7	1042@2000	281	370	3335@1400	325	300	EM,TC, CAC,EGR,ECM,PTOX,OC, DPI