



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 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)
2020	LMBXL07.7RJD	7.7	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Diesel Oxidation Catalyst, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst, Periodic Trap Oxidizer			Crane, Dozer, Tractor, Loader, Pump, Compressor, Generator	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane 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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW ≤ 560	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.01	0.08	--	0.1	0.002	--	--	--

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).

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part I-D" adopted October 20, 2005 and last amended October 25, 2012.

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 31st day of December 2019.

Kim Pryor
for Allen Lyons, Chief
Emissions Certification and Compliance Division

ATTACHMENT 1 OF 1

Engine Model Summary Template
Engine Family LMBXL07.7RJD

U-R-016-0142

12/19/2019

Engine Code	Engine Model	KW@RPM	Fuel Rate @ peak KW (mm3/stroke)	Fuel Rate @ peak KW (lbs/hr)	Peak torque (Nm @ RPM)	Fuel Rate @ peak torque (mm3/stroke)	Fuel Rate @ peak torque (lbs/hr)	Emission Control Device
OM936LA.E5-1	OM934/936	280@1800	216.9	128.7	1550@1400	219.6	101.3	ECM, TC, CAC, EGR,
OM936LA.E5-2	OM934/936	260@1800	197.2	117.3	1450@1400	204.8	94.7	DPF, DDI, DOC AMOX,
OM936LA.E5-3	OM934/936	230@1800	171.7	102.2	1300@1400	179.4	83.0	SCR
OM936LA.E5-4	OM934/936	210@1800	155.2	92.4	1200@1400	165.2	76.4	(all ratings)
OM936LA.E5-5	OM934/936	195@1800	143.3	85.2	1100@1400	149.6	69.2	
OM936LA.E5-6	OM934/936	180@1800	131.2	78.1	1000@1400	136.5	63.2	
OM934LA.E5-1	OM934/936	170@1800	184.4	73.1	950@1400	194.3	59.9	
OM934LA.E5-2	OM934/936	150@1800	160.8	63.8	850@1400	169.8	52.4	
OM934LA.E5-3	OM934/936	129@1800	143.0	56.7	750@1400	152.3	47.0	
OM934LA.E5-4	OM934/936	115@1800	127.8	50.7	675@1400	137.9	42.5	