

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)
2020	LJCBL04.8S12	4.765	Diesel	8,000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Turbocharger, Charge Air Cooler, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Crane, Loader, Tractor, Dozer, Pump, Compressor, 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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.08	0.37	—	0.1	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).

**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 1-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 31<sup>st</sup> day of December 2019.

*Kim Pryor*  
 per Allen Lyons, Chief  
 Emissions Certification and Compliance Division

## Engine Model Summary Template

Eo#: U-R-049-0059

Attachment: pg 1/1

Date: 12/26/19

Engine Family	1.Engine Code	2.Engine Model	4.Fuel Rate:		5.Fuel Rate:		7.Fuel Rate:		9.Emission Control Device Per SAE J1930
			3.BHP@RPM (SAE Gross)	mm/stroke @ peak HR (for diesel only)	@ peak HP (for diesels only)	6.Torque @ RPM (SAE Gross)	mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	
LJCBL04.8S12	448 TA4-108	C1A	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	C1C	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	D1A	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	D1A	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	E1A	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	E1C	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	I2A	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	I2A	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	I2C	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	I2C	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	L1A	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	L1C	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	V1A	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	V1C	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	W1A	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-108	W1C	145.2 @ 2000	109	53.9	413 @ 1500	122	41.1	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	F1C	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	E2A	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	E2C	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	E3A	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX
LJCBL04.8S12	448 TA4-129	E3C	173.3 @ 2050	135	62.2	509 @ 1500	149	50.3	DFI, ECM, EGR, TC, CAC, SCR-U, AMOX