

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	LDICL01.8LEB	1.794	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module			Loader, Tractor, Compressor, Generator, Auxiliary Power Unit, Excavators, Forklift, Toolcat	

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
19 ≤ kW < 56	Tier 4 Final	OPTIONAL STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	3.6	0.3	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 6th day of January 2020.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.kW@RPM (SAE Gross)	4.Fuel Rate: mm ³ /stroke @ peak kW (for diesel only)	5.Fuel Rate: (kg/hr) @ peak kW (for diesels only)	6.Torque Nm@ RPM (SEA Gross)	7.Fuel Rate: mm ³ /stroke@peak torque	8.Fuel Rate: (kg/hr)@peak torque	9.Emission Control Device Per SAE J1930
LDICL01.8LEB	DM01-LEP00	DM01P	45.0@2600	51.9	10.0	202@1800	62.8	8.4	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEP01	DM01P	41.0@2500	49.1	9.1	190@1600	60.5	7.2	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEP02	DM01P	41.0@2200	55.2	9.0	190@1600	60.5	7.2	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEP03	DM01P	36.7@2500	44.5	8.4	180@1600	54.9	6.6	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEP04	DM01P	31.3@2200	41.1	6.8	155@1600	47.6	5.7	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEP05	DM01P	24.6@2400	32.5	5.9	110@1600	35.3	4.2	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEE00	DM01P	31.3@2200	41.1	6.8	155@1600	47.6	5.7	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEE01	DM01P	36.4@2200	47.7	7.9	180@1600	54.9	6.6	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEE02	DM01P	41.0@2200	55.2	9.0	190@1600	60.5	7.2	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEE03	DM01P	41.0@2500	49.1	9.1	190@1600	60.5	7.2	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEE04	DM01P	24.6@2400	32.5	5.9	110@1600	35.3	4.2	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEG00	DM01PP	38.1@1800	62.0	8.3	202@1800	62.0	8.3	EGR,DOC,DFI,TC, CAC,ECM
LDICL01.8LEB	DM01-LEG00	DM01PP	30.2@1500	60.8	6.8	192@1500	60.8	6.8	EGR,DOC,DFI,TC, CAC,ECM

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.kW@RPM (SAE Gross)	4.Fuel Rate: mm ³ /stroke @ peak kW (for diesel only)	5.Fuel Rate: (kg/hr) @ peak kW (for diesels only)	6.Torque Nm@ RPM (SEA Gross)	7.Fuel Rate: mm ³ /stroke@peak torque	8.Fuel Rate: (kg/hr)@peak torque	9.Emission Control Device Per SAE J1930
LDICL01.8LEB	DM01-LEE20	DM01P	24.6@2400	32.5	5.9	110@1600	35.3	4.2	EGR,DOC,DFI,TC, CAC,ECM