

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	LFPXL12.9TSS	12.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Engine Control Module, Turbocharger, Charge Air Cooler, Diesel Oxidation Catalyst, Selective Catalytic Reduction – Urea, Ammonia Oxidation Catalyst			Loader, Tractor, Generator Set, and Other Industrial Equipment	

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
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		FEL	N/A	0.23	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	0.004	0.14	--	0.02	0.02	--	--	--

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 hereby supersedes Executive Order U-R-015-0423 dated November 22nd, 2019.

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 16th day of March 2020.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Engine Model Summary Template

EO #: U-R-015-0423-1

Date: 3/9/20

Attachment: pg 1

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	
			BHP	RPM	mm/stroke	HP	mm/stroke	HP	mm/stroke	torque	mm/stroke	torque	mm/stroke	torque	mm/stroke	torque
LFPXL12.9TSS	F3HFE613B*B	F3HFE613B*B	545 @ 2100		270		N/A		1779 @ 1400		325		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE613A*B	F3HFE613A*B	563 @ 2100		277		N/A		1741 @ 1500		323		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE613C*B	F3HFE613C*B	523 @ 2100		256		N/A		1741 @ 1500		322		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE613D*B	F3HFE613D*B	515 @ 2100		254		N/A		1673 @ 1400		310		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE613F*B	F3HFE613F*B	496 @ 2100		244		N/A		1716 @ 1500		318		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE613G*B	F3HFE613G*B	464 @ 2100		232		N/A		1490 @ 1400		272		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE613H*B	F3HFE613H*B	429 @ 2100		215		N/A		1484 @ 1500		274		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE615C*B	F3HFE615C*B	473 @ 1800		261		N/A		1388 @ 1800		261		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE615B*B	F3HFE615B*B	509 @ 1800		280		N/A		1494 @ 1800		280		N/A		DDI ECM TC CAC DOC SCR-U AMOX	
LFPXL12.9TSS	F3HFE615A*B	F3HFE615A*B	568 @ 1800		313		N/A		1667 @ 1800		313		N/A		DDI ECM TC CAC DOC SCR-U AMOX	