



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	LVPXL16.1CJA	16.1	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Electronic Control Module, Charge Air Cooler, Turbocharger, Smoke Puff Limiter, Selective Catalytic Reduction-Urea, Exhaust Gas Recirculation, Ammonia Oxidation Catalyst			Crane, Loader, Pump, Compressor, Generator Set	

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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	N/A	N/A	N/A	0.03	N/A	N/A	N/A
		CERT	0.01	0.17	-	0.1	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.

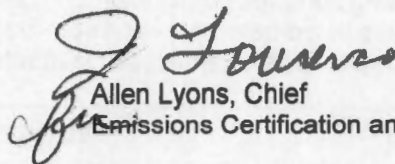
**BE IT FURTHER RESOLVED:** That the manufacturer has elected to include engine models in this engine family which are identified for "emergency equipment use only". These "emergency equipment use only" engines are exempt from requirements imposed pursuant to California law and the regulations adopted pursuant thereto for motor vehicle pollution control devices per California Vehicle Code Section 27156.2. The manufacturer must clearly label these engines for "emergency equipment use only" on the engines' emission control label

**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 14<sup>th</sup> day of November 2019.



Allen Lyons, Chief

Emissions Certification and Compliance Division

ATTACHMENT 1 OF 1

Date 10/25/2019

EO # U-R-014-0178

**Engine Model Summary Template**

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: nm/stroke@peakHP (for diesel only)	5.Fuel Rate: (lbs/hr)@peakHP (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 J193C
LVPXL16.1CJA	I	TAD1670 VE	543@1900	291	186	2757 Nm@1260	366	155	DDI,EM,ECM,CAC,TC,SPL,SCR-U,EGR,AMOX
LVPXL16.1CJA	II	TAD1671 VE	603@1900	321	205	2897 Nm@1260	386	164	DDI,EM,ECM,CAC,TC,SPL,SCR-U,EGR,AMOX
LVPXL16.1CJA	III	TAD1672 VE	690@1800	386	234	3213 Nm@1260	430	182	DDI,EM,ECM,CAC,TC,SPL,SCR-U,EGR,AMOX
LVPXL16.1CJA	IV(Emergency)	TAD1672 VE	690@1800	386	234	3213 Nm@1260	430	182	DDI,EM,ECM,CAC,TC,SPL,SCR-U,EGR,AMOX