

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)
2022	NKLXL50.0AAI	50.0	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Electronic Control Module, Turbocharger, Charge Air Cooler, Selective Catalyst Reduction-Urea, Ammonia Oxidation Catalyst			Crane, Loader, Tractor, Dozer, Pump, Compressor, Excavator	

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
ELSE > 560 kW	Tier 4 Final	STD	0.19	3.5	N/A	3.5	0.04	N/A	N/A	N/A
		CERT	0.02	3.2	--	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).

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 on this 18th day of October 2021.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-005-0510

Family: NKXL50.0AAI

Attachment Last Revised: 9/23/2021

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel Units	OBD	GHG	Special	Notes	
QSK50	OK1	N/A	V16	50	Liters	2500	horsepower	1900	506	mm3/stroke	7081	lb-ft	1500	506	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX
SSDA16V159E-3	OK2	N/A	V16	50	Liters	2000	horsepower	1900	405	mm3/stroke	5805	lb-ft	1500	405	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX
SSDA16V159E-3	OK3	N/A	V16	50	Liters	1675	horsepower	1800	352	mm3/stroke	5590	lb-ft	1500	352	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX
SDA16V159E-3	OK4	N/A	V16	50	Liters	1575	horsepower	1900	328	mm3/stroke	7389	lb-ft	1300	328	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX
SDA16V159E-3	OK5	N/A	V16	50	Liters	1600	horsepower	1800	343	mm3/stroke	5044	lb-ft	1500	343	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX
QSK50	OK6	N/A	V16	50	Liters	1500	horsepower	1800	324	mm3/stroke	4846	lb-ft	1400	324	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX
QSK50	OK7	N/A	V16	50	Liters	1600	horsepower	1800	346	mm3/stroke	5044	lb-ft	1500	346	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX
QSK38	OK8	N/A	V16	50	Liters	1260	horsepower	1800	376	mm3/stroke	4054	lb-ft	1400	376	mm3/stroke	N/A	N/A	N/A	DDI, ECM, TC, CAC, SCR-U, AMOX