

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	NVSXL12.8T4F	12.8	Diesel	8,000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Control Module, Electronic Direct Injection Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Periodic Trap Oxidizer, Ammonia Oxidation Catalyst Selective Catalytic Reduction – Urea			Loader, Hauler, Excavator, Pipe Layer, Landfill Compactor	

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	0.01	N/A	N/A	N/A
		CERT	0.08	0.17	--	0.1	0.004	--	--	--

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-003-0102 dated January 9, 2022.

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 27th day of April 2022.



Allen Lyons, Chief
Emissions Certification and Compliance Division

Attachment 1 of 1: Engine Models

EO #: U-R-003-0102-1

Family: NVSXL12.8T4F

Attachment Revised: 10/26/2022

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	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
D13J	13-110	N/A	I6	12.8	Liters	350	kilowatt	1800	72	kg/hr	2525	N-m	1050	347	mm3/stroke	N/A	N/A	None	Tested Engine
D13J	13-124	N/A	I6	12.8	Liters	310	kilowatt	1900	65	kg/hr	2343	N-m	1140	322	mm3/stroke	N/A	N/A	None	None
D13J	13-42	N/A	I6	12.8	Liters	336	kilowatt	1900	69	kg/hr	2407	N-m	1140	330	mm3/stroke	N/A	N/A	None	None
D13J	13-42	MultiTorque Curve Level 1	I6	12.8	Liters	315	kilowatt	1900	65	kg/hr	2340	N-m	1140	321	mm3/stroke	N/A	N/A	None	None
D13J	13-50	N/A	I6	12.8	Liters	251	kilowatt	1900	53	kg/hr	2276	N-m	1100	317	mm3/stroke	N/A	N/A	None	None
D13J	13-50	MultiTorque Curve Level 1	I6	12.8	Liters	251	kilowatt	1900	53	kg/hr	1810	N-m	1100	250	mm3/stroke	N/A	N/A	None	None
D13J	13-50	MultiTorque Curve Level 2	I6	12.8	Liters	251	kilowatt	1900	53	kg/hr	1770	N-m	1100	244	mm3/stroke	N/A	N/A	None	None
D13J	13-49	N/A	I6	12.8	Liters	218	kilowatt	1900	47	kg/hr	2071	N-m	1000	289	mm3/stroke	N/A	N/A	None	None
D13J	13-49	MultiTorque Curve Level 1	I6	12.8	Liters	218	kilowatt	1900	47	kg/hr	1620	N-m	1000	226	mm3/stroke	N/A	N/A	None	None
D13J	13-49	MultiTorque Curve Level 2	I6	12.8	Liters	218	kilowatt	1900	47	kg/hr	1605	N-m	1000	224	mm3/stroke	N/A	N/A	None	None
D13J	13-48	N/A	I6	12.8	Liters	199	kilowatt	1900	43	kg/hr	1999	N-m	1000	282	mm3/stroke	N/A	N/A	None	None
D13J	13-48	MultiTorque Curve Level 1	I6	12.8	Liters	199	kilowatt	1900	43	kg/hr	1520	N-m	1000	213	mm3/stroke	N/A	N/A	None	None
D13J	13-48	MultiTorque Curve Level 2	I6	12.8	Liters	199	kilowatt	1900	43	kg/hr	1435	N-m	1100	200	mm3/stroke	N/A	N/A	None	None
D13J	13-63	N/A	I6	12.8	Liters	284	kilowatt	1800	58	kg/hr	1928	N-m	1350	259	mm3/stroke	N/A	N/A	None	None
D13J	13-62	N/A	I6	12.8	Liters	230	kilowatt	1700	48	kg/hr	1692	N-m	1275	230	mm3/stroke	N/A	N/A	None	None
D13J	13-139	N/A	I6	12.8	Liters	340	kilowatt	1600	69	kg/hr	2200	N-m	1300	307	mm3/stroke	N/A	N/A	None	None
D13J	13-160	N/A	I6	12.8	Liters	312	kilowatt	1600	64	kg/hr	2070	N-m	1300	289	mm3/stroke	N/A	N/A	None	New Rating
D13J	13-159	N/A	I6	12.8	Liters	253	kilowatt	1600	53	kg/hr	1975	N-m	1200	275	mm3/stroke	N/A	N/A	None	New Rating