

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)
2023	PCPXL78.1NVF	78.1, 58.6	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Selective Catalytic Reduction - Urea			Pump, Loader, Tractor, Industrial Equipment, Commercial 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 (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), 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	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
ELSE>560kW	Tier 4 Final	<b>STD</b>	0.19	3.5	N/A	3.5	0.04	N/A	N/A	N/A
		<b>CERT</b>	0.06	2.7	--	0.8	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 23rd day of September 2022.



Robin U. Lang, Chief  
 Emissions Certification and Compliance Division

**Attachment: Engine Models**

**EO #:** U-R-001-0675

**Family:** PCPXL78.1NVF

**Attachment Last Revised:** 9/12/2022

Model	Code	Trim	Config	Displacement -		Peak Power -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fuel	Peak Torque -		Peak Torque - Fuel		OBD	GHG	Special	Notes
				Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Peak Torque - Fuel	Units				
3512E	Cert Test 1	NA	V12	58.56	Liters	1589	horsepower	1650	570	lb/hr	6281	lb-ft	1200	462	lb/hr	N/A	N/A	N/A	N/A
3512E	1 - 12 Cyl	NA	V12	58.56	Liters	1589	horsepower	1650	570	lb/hr	6281	lb-ft	1200	462	lb/hr	N/A	N/A	N/A	N/A
3516E	2 - 16 Cyl	NA	V16	78.08	Liters	1869	horsepower	1600	620	lb/hr	8275	lb-ft	1200	571	lb/hr	N/A	N/A	N/A	N/A
3516E	3 - 16 Cyl	NA	V16	78.08	Liters	2100	horsepower	1650	715	lb/hr	8217	lb-ft	1200	571	lb/hr	N/A	N/A	N/A	N/A
3516E	4 - 16 Cyl	NA	V16	78.08	Liters	2100	horsepower	1650	715	lb/hr	8217	lb-ft	1200	571	lb/hr	N/A	N/A	N/A	N/A