

## CATERPILLAR INC.

## **EXECUTIVE ORDER U-R-001-0671**

New Off-Road Compression-Ignition Engines Page 1 of 1

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	PCPXL32.0HXG	32.1	Diesel	8000				
SPECIAL	. FEATURES & EMISSION C	ONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION					
	Direct Injection, Turbo Ingine Control Module, Exhaust Gas Recirc	Oxidation Catalyst,	Loader, Pump, Compressor, Off-road Truck, Shovel, 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 (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	EMISSION			E	EXHAUST (g/kw-l	OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC NOx		NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
ELSE>560kW	Tier 4 Final	STD	0.19	3.5	N/A	3.5	0.04	N/A	N/A	N/A
		CERT	0.05	3.1		0.01	0.04			

**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 15th day of September 2022.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

Jolin U. Lang

Attachment: Engine Models EO #: U-R-001-0671 Family: PCPXL32.0HXG Attachment Last Revised: 1/9/2023

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power -		Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Fuel Units	Peak Torque	Units	Speed (rpm)	Fuel	Fuel Units	OBD	GHG	Special	Notes
C32	Cert Test 1	NA	V12	32.1	Liters	1198	horsepower	1800	404	lb/hr	4311	lb-ft	1200	323	lb/hr	N/A	N/A	N/A	N/A
C32	1	NA	V12	32.1	Liters	1124	horsepower	1800	385	lb/hr	4044	lb-ft	1200	308	lb/hr	N/A	N/A	N/A	N/A
C32	2	NA	V12	32.1	Liters	1124	horsepower	1800	385	lb/hr	4044	lb-ft	1200	308	lb/hr	N/A	N/A	N/A	N/A
C32	3	NA	V12	32.1	Liters	1198	horsepower	1800	404	lb/hr	4311	lb-ft	1200	323	lb/hr	N/A	N/A	N/A	N/A
C32	4	NA	V12	32.1	Liters	1198	horsepower	1800	404	lb/hr	4311	lb-ft	1200	323	lb/hr	N/A	N/A	N/A	N/A
C32	5	NA	V12	32.1	Liters	1124	horsepower	1800	385	lb/hr	4044	lb-ft	1200	308	lb/hr	N/A	N/A	N/A	N/A
C32	6	NA	V12	32.1	Liters	1124	horsepower	1800	385	lb/hr	4044	lb-ft	1200	308	lb/hr	N/A	N/A	N/A	N/A
C32	7	NA	V12	32.1	Liters	1026	horsepower	1800	351	lb/hr	4003	lb-ft	1250	316	lb/hr	N/A	N/A	N/A	N/A
C32	8	NA	V12	32.1	Liters	1026	horsepower	1800	351	lb/hr	4003	lb-ft	1250	316	lb/hr	N/A	N/A	N/A	N/A
C32B	8	NA	V12	32.1	Liters	1026	horsepower	1800	351	lb/hr	4003	lb-ft	1250	316	lb/hr	N/A	N/A	New Model Added	N/A
C32	9	NA	V12	32.1	Liters	1008	horsepower	1800	348	lb/hr	3851	lb-ft	1200	295	lb/hr	N/A	N/A	N/A	N/A
C32B	9	NA	V12	32.1	Liters	1008	horsepower	1800	348	lb/hr	3851	lb-ft	1200	295	lb/hr	N/A	N/A	New Model Added	N/A
C32	9A	NA	V12	32.1	Liters	1008	horsepower	1800	348	lb/hr	3851	lb-ft	1200	295	lb/hr	N/A	N/A	N/A	N/A
C32	10	NA	V12	32.1	Liters	1008	horsepower	1800	348	lb/hr	3851	lb-ft	1200	295	lb/hr	N/A	N/A	N/A	N/A
C32	11	NA	V12	32.1	Liters	1008	horsepower	1800	348	lb/hr	3851	lb-ft	1200	295	lb/hr	N/A	N/A	N/A	N/A
C32	12	NA	V12	32.1	Liters	1008	horsepower	1800	348	lb/hr	3851	lb-ft	1200	295	lb/hr	N/A	N/A	N/A	N/A
C32	13	NA	V12	32.1	Liters	999	horsepower	1800	352	lb/hr	3919	lb-ft	1200	299	lb/hr	N/A	N/A	N/A	N/A
C32	14	NA	V12	32.1	Liters	1026	horsepower	1800	351	lb/hr	4003	lb-ft	1250	316	lb/hr	N/A	N/A	N/A	N/A
C32B	14	NA	V12	32.1	Liters	1026	horsepower	1800	351	lb/hr	4003	lb-ft	1250	316	lb/hr	N/A	N/A	New Model Added	N/A