CATERPILLAR INC.

EXECUTIVE ORDER: U-R-001-0686 New Off-Road Compression-Ignition Engines Page 1 of 1

Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapters 1 and 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: The engines and emission control systems produced by the manufacturer as described below are certified for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

Mode Year	Engine Family	Combustion Cycle	Fuel Operation	Fuel Type(s)	Engine Operation			
2024	RCPXL32.1HXF	Diesel	Dedicated	Diesel	Variable Speed			

Emission Control Systems				
[1]: Electronic Direct Injection (DDI), Charged Air Cooler (CAC), Electronic Control Module (ECM), Turbocharger (TC), Diesel Oxidation Catalyst (DOC), Exhaust Gas Recirculation (EGR)	None			

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) and Not-To-Exceed (NTE) limits, as applicable, for criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and for smoke opacity as demonstrated during the Acceleration (ACL) and Lugging (LUG) modes, and the peak value (PEAK) in either mode of the Smoke Opacity cycle, as set forth in 13 CCR 2423 and the applicable California test procedures for off-road compression-ignition engines, and 2) family emission limits (FEL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per kilowatt-hour (g/kWh-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (*).

		Criteria				Smoke Opacity		
Applicable Standard		NMHC	NOx	СО	PM	ACL	LUG	PEAK
	STD	0.19	3.5	3.5	0.04	*	*	*
Tier 4 Final ELSE > 560 kW	FEL	*	3.2	*	*	*	*	*
ELGE 7 000 KVV	NTE	0.24	4.0	4.4	0.06	*	*	*

BE IT FURTHER RESOLVED: Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

BE IT FURTHER RESOLVED: For the listed engine models, the manufacturer has submitted materials to demonstrate certification compliance with 13 CCR 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models may only be installed in or on equipment such that engine operation is consistent with off-road compression-ignition engines as defined in 13 CCR 2421(a)(39).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed on this _____ day of May 2023.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

ЗА

NA

V12

32.1

921

C32B

Family: RCPXL32.1HXF EO Number: U-R-001-0686 Date Applicable: 04/30/2023 Peak Torque Peak Power Block Model Code Trim Config Displacement Fueling ECS Num GHG Power Speed **Fueling** Torque Speed Notes Liters horsepower rpm lb/hr lb-ft rpm lb/hr C32 Cert Test 1 NA V12 32.1 921 1750 315 3504 1300 295 1 N/A C32 V12 32.1 1300 1 NA 896 1800 306 3470 286 1 N/A C32 2 NA V12 32.1 884 1750 304 3461 1200 269 1 N/A C32B 2 NA V12 32.1 884 1750 304 3461 1200 269 1 N/A C32B 2A NA V12 32.1 884 1750 304 3461 1200 269 N/A C32 3 NA V12 32.1 921 1750 315 3504 1300 295 1 N/A C32B 3 NA V12 32.1 921 1750 315 3504 1300 295 1 N/A

1750

315

3504

1300

295

N/A

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