## CATERPILLAR INC.

EXECUTIVE ORDER: U-R-001-0688 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.

Model Year	Engine Family	Combustion Cycle	Fuel Operation	Fuel Type(s)	Engine Operation
2024	RCPXL58.6HXF	Diesel	Dedicated	Diesel	Variable Speed

Emission Control Systems						
[1]: Electronic Direct Injection (DDI), Charged Air Cooler (CAC), Exhaust Gas Recirculation (EGR), Electronic Control Module (ECM), Turbocharger (TC), Diesel Oxidation Catalyst (DOC) [2]: Electronic Direct Injection (DDI), Charged Air Cooler (CAC), Exhaust Gas Recirculation (EGR), Electronic Control Module (ECM), Turbocharger (TC), Diesel Oxidation Catalyst (DOC)	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 (\*).

		Crit	eria	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	*	*	*	*	*	*	*
LEGE > 300 KW	NTE	0.24	4.4	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 EO #: U-R-001-0688 Family: RCPXL58.6HXF Date Applicable: 4/17/2023

					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 Status	OBD Fines (\$)	GHG	ECS#	Notes
3512E	Cert Test 1	NA	V12	₿8.56	Liters	2481	horsepower	1800	879	lb/hr	10542	lb-ft	1375	712	lb/hr	N/A	N/A	N/A	2	
3512E	1	NA	V12	₿8.56	Liters	2481	horsepower	1800	879	lb/hr	10542	lb-ft	1375	712	lb/hr	N/A	N/A	N/A	1	
3512E	2	NA	V12	₿8.56	Liters	2231	horsepower	1800	810	lb/hr	9023	lb-ft	1350	598	lb/hr	N/A	N/A	N/A	1	