

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	RCEXL08.9AAQ	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (EDI), Electronic Control Module (ECM), Turbocharger (TC), Charged Air Cooler (CAC), Diesel Oxidation Catalyst (DOC), Periodic Trap Oxidizer (PTOX), Selective Catalytic Reduction – Urea (SCR-U), Ammonia Oxidation Catalyst (AMOX)	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 (*).

Applicable Standard		Criteria				Smoke Opacity		
		NMHC	NOx	CO	PM	ACL	LUG	PEAK
Tier 4 Final 130 ≤ kW ≤ 560	STD	0.19	0.40	3.5	0.02	*	*	*
	FEL	*	*	*	*	*	*	*
	NTE	0.28	0.60	4.4	0.03	*	*	*

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 22nd day of June 2023.



Robin U. Lang, Chief
 Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-002-0858

Family: RCEXL08.9AAQ

Date Applicable: 6/8/2023

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 Status	OBD Fines (\$)	GHG	ECS #	Notes
L9	OL1		16	8.9	Liters	325	horsepower	2100	181	mm3/stroke	1207	lb-ft	1100	236	mm3/stroke	N/A	N/A	N/A	1	
L9	OL2		16	8.9	Liters	330	horsepower	2000	181	mm3/stroke	1207	lb-ft	1100	236	mm3/stroke	N/A	N/A	N/A	1	
L9	OL3		16	8.9	Liters	300	horsepower	2100	171	mm3/stroke	1125	lb-ft	1100	212	mm3/stroke	N/A	N/A	N/A	1	
L9	OL4		16	8.9	Liters	285	horsepower	2000	191	mm3/stroke	1207	lb-ft	1100	236	mm3/stroke	N/A	N/A	N/A	1	
L9	OL5		16	8.9	Liters	365	horsepower	2100	193	mm3/stroke	1151	lb-ft	1400	223	mm3/stroke	N/A	N/A	N/A	1	
L9	OL6		16	8.9	Liters	340	horsepower	2100	182	mm3/stroke	1126	lb-ft	1400	218	mm3/stroke	N/A	N/A	N/A	1	
L9	OL7		16	8.9	Liters	310	horsepower	2100	186	mm3/stroke	1126	lb-ft	1400	218	mm3/stroke	N/A	N/A	N/A	1	
L9	OL8		16	8.9	Liters	280	horsepower	2100	185	mm3/stroke	1086	lb-ft	1400	209	mm3/stroke	N/A	N/A	N/A	1	
L9	OL9		16	8.9	Liters	350	horsepower	1800	201	mm3/stroke	1151	lb-ft	1400	223	mm3/stroke	N/A	N/A	N/A	1	
L9	OL10		16	8.9	Liters	338	horsepower	1800	194	mm3/stroke	1126	lb-ft	1400	218	mm3/stroke	N/A	N/A	N/A	1	
L9	OL11		16	8.9	Liters	325	horsepower	1800	186	mm3/stroke	1126	lb-ft	1400	218	mm3/stroke	N/A	N/A	N/A	1	
L9	OL12		16	8.9	Liters	295	horsepower	1800	185	mm3/stroke	1086	lb-ft	1400	209	mm3/stroke	N/A	N/A	N/A	1	
L9	OL13		16	8.9	Liters	430	horsepower	2100	231	mm3/stroke	1362	lb-ft	1500	268	mm3/stroke	N/A	N/A	N/A	1	
L9	OL14		16	8.9	Liters	415	horsepower	2100	220	mm3/stroke	1324	lb-ft	1400	256	mm3/stroke	N/A	N/A	N/A	1	
L9	OL15		16	8.9	Liters	390	horsepower	2100	233	mm3/stroke	1324	lb-ft	1400	256	mm3/stroke	N/A	N/A	N/A	1	
L9	OL16		16	8.9	Liters	400	horsepower	1800	233	mm3/stroke	1324	lb-ft	1400	256	mm3/stroke	N/A	N/A	N/A	1	
L9	OL17		16	8.9	Liters	365	horsepower	2100	221	mm3/stroke	1324	lb-ft	1400	256	mm3/stroke	N/A	N/A	N/A	1	
L9	OL18		16	8.9	Liters	380	horsepower	1800	221	mm3/stroke	1324	lb-ft	1400	256	mm3/stroke	N/A	N/A	N/A	1	
L9	OL19		16	8.9	Liters	349	horsepower	1900	191	mm3/stroke	1151	lb-ft	1400	221	mm3/stroke	N/A	N/A	N/A	1	
L9	OL20		16	8.9	Liters	362	horsepower	1900	197	mm3/stroke	1151	lb-ft	1400	221	mm3/stroke	N/A	N/A	N/A	1	
L9	OL21		16	8.9	Liters	402	horsepower	1900	213	mm3/stroke	1291	lb-ft	1400	240	mm3/stroke	N/A	N/A	N/A	1	
L9	OL22		16	8.9	Liters	429	horsepower	1900	229	mm3/stroke	1362	lb-ft	1400	264	mm3/stroke	N/A	N/A	N/A	1	