

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	RLHAL12.0SQC	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (DDI), Charged Air Cooler (CAC), Electronic Control Module (ECM), Turbocharger (TC), Selective Catalytic Reduction – Urea (SCR-U), Ammonia Oxidation Catalyst (AMOX), Reductant Quality Sensor (RDQS)	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 4th day of October 2023.



Robin U. Lang, Chief
 Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: RLHAL12.OSQC EO Number: U-R-018-0224 Date Applicable: 9/13/2023

Model	Code	Trim	Config	Displacement	Peak Power			Peak Torque			ECS Num	GHG	Notes
					Power	Speed	Fueling	Torque	Speed	Fueling			
-	-	-	-	L	hp	rpm	mm3/stroke	lb-ft	rpm	mm3/stroke	-	-	-
D946 A7-04	R06KQ7104	N/A	L6	11.946	536	1900	290	1860	1350	345	1	N/A	
D946 A7-04	R06KQ7103	N/A	L6	11.946	469	1900	255	1831	1350	340	1	N/A	
D946 A7-04	R06KQ7102	N/A	L6	11.946	442	1900	240	1727	1350	320	1	N/A	
D946 A7-24	R06KQ7105	N/A	L6	11.946	442	1900	239	1727	1350	323	1	N/A	
D956 A7-04 TCD 12.0 L6	R06NQ7105	N/A	L6	11.946	536	2100	279	1861	1400	353	1	N/A	
D956 A7-04 TCD 12.0 L6	R06NQ7107	N/A	L6	11.946	510	2100	267	1861	1400	353	1	N/A	
D956 A7-04 TCD 12.0 L6	R06NQ7103	N/A	L6	11.946	456	2100	240	1710	1400	325	1	N/A	
D956 A7-04 TCD 12.0 L6	R06NQ7106	N/A	L6	11.946	402	2100	216	1509	1400	286	1	N/A	
D956 A7-04	R06NQ7104	N/A	L6	11.946	459	2100	247	1674	1400	332	1	N/A	
D956 A7-04	R06NQ7108	N/A	L6	11.946	355	2100	193	1556	1400	289	1	N/A	