

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	RY9XL09.3DAA	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (DDI), Turbocharger (TC), Charge Air Cooler (CAC), Engine Control Module (ECM), Exhaust Gas Recirculation (EGR), Selective Catalytic Reduction-Urea (SCR-U), Ammonia Oxidation Catalyst (AMOX), 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 (*).

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	*	*	*

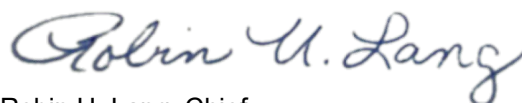
BE IT FURTHER RESOLVED: Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

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 30th day of October 2023.



Robin U. Lang, Chief
Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: RY9XL09.3DAA EO Number: U-R-024-0057 Date Applicable: 10/15/2023

Model	Code	Trim	Config	Displacement	Peak Power			Peak Torque			ECS Num	GHG	Notes
					Power	Speed	Fueling	Torque	Speed	Fueling			
-	-	-	-	L	hp	rpm	mm3/stroke	N-m	rpm	mm3/stroke	-	-	-
2133492	DC09 084A		I5	9.3	202	2100	161	1603	1100	263	1	N/A	
2133493	DC09 085A		I5	9.3	232	2100	185	1785	1200	289	1	N/A	
2133494	DC09 085A		I5	9.3	243	2100	192	1827	1200	295	1	N/A	
2133495	DC09 085A		I5	9.3	257	2100	203	1830	1200	296	1	N/A	
2488302	DC09 085A		I5	9.3	232	1800	208	1848	1200	298	1	N/A	
2133496	DC09 086A		I5	9.3	276	2100	218	1873	1300	305	1	N/A	
2133497	DC09 086A		I5	9.3	294	2100	238	1876	1400	311	1	N/A	
2245949	DC09 087A		I5	9.3	202	1800	176	1873	1200	227	1	N/A	
2245951	DC09 089A		I5	9.3	202	1800	176	1873	1200	227	1	N/A	
2245952	DC09 089A		I5	9.3	237	1800	211	1368	1100	234	1	N/A	