

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	RYDXL01.6NMA	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Control Module (ECM), Exhaust Gas Recirculation (EGR), Direct Fuel Injection (DFI)	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 hydrocarbon plus oxides of nitrogen (NMHC+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 8 ≤ kW < 19	STD	7.5	6.6	0.40	20	15	50
	FEL	*	*	*	*	*	*
	NTE	9.4	8.2	0.60	*	*	*

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: That certification to the standards in 13 CCR 2423(b)(1)(B) - Table 1b listed above has been permitted pursuant to Endnote 1 of the same table.

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 5th day of June 2023.



Robin U. Lang, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-028-1101

Family: RYDXL01.6NMA

Date Applicable: 5/19/2023

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
4HNSPE1			I3	1.642	Liters	24.4	horsepower	2200	25.9	mm3/stroke	69.0	lb-ft	1300	28.6	mm3/stroke	N/A		N/A	[1]	
4HNPAE1			I3	1.642	Liters	24.4	horsepower	2400	24.0	mm3/stroke	66.4	lb-ft	1300	27.5	mm3/stroke	N/A		N/A	[1]	
4HNSAE1			I3	1.642	Liters	24.4	horsepower	2300	25	mm3/stroke	66.4	lb-ft	1300	27.5	mm3/stroke	N/A		N/A	[1]	
4HNSAE1			I3	1.642	Liters	24.4	horsepower	2200	25.9	mm3/stroke	66.4	lb-ft	1300	27.5	mm3/stroke	N/A		N/A	[1]	