

DEERE & COMPANY

EXECUTIVE ORDER: U-R-004-0659 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	RJDXL02.9303	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), Diesel Oxidation Catalyst (DOC), Periodic Trap Oxidizer (PTOX)	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 kilowatthour (g/kWh-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (*).

	Crit	Smoke Opacity					
Applicable Standard		NMHC+NOx	СО	PM	ACL	LUG	PEAK
	STD	4.7	5.0	0.03	*	*	*
Tier 4 Final 37 ≤ kW < 56	FEL	*	*	*	*	*	*
37 = KVV < 30	NTE	5.9	6.2	0.04	*	*	*

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 the manufacturer has elected to combine engines from the $19 \le kW < 56$ power categories into a single engine family. The listed engine models comply with the more stringent set of standards of the $37 \le kW < 56$ power category in accordance with Section 1039.230(e) of 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 August 2023.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: RJDXL02.9303 EO Number: U-R-004-0659 Date Applicable: 07/24/2023

Model		Trim			Peak Power			Peak Torque Torque	Speed	Fueling	ECS Num	GHG	Notes
	Code		Config	Displacement	Power	Speed	eed Fueling						
-	-	-	-	Liters	kilowatt	rpm	mm3/stroke	N-m	rpm	mm3/stroke	-	-	-
3029	3029HFC03A		I-3	2.9	55	2400	84	292	1550	103.6	1	N/A	
3029	3029HFC03B		I-3	2.9	55	2200	88.3	304	1550	109.4	1	N/A	
3029	3029HFC03C		I-3	2.9	48	2400	75.7	254	1550	92.3	1	N/A	
3029	3029HFC03D		I-3	2.9	48	2200	79.7	280	1550	99.8	1	N/A	
3029	3029HFC03E		I-3	2.9	36	2400	63.2	192	1550	73.1	1	N/A	
3029	3029HFC03F		I-3	2.9	36	2200	68	209	1550	78.6	1	N/A	
3029	3029HFG03A		I-3	2.9	55	1800	104.8	292	1800	104.8	1	N/A	
3029	3029HFG03B		I-3	2.9	48	1800	92.8	255	1800	92.8	1	N/A	
3029	3029HFG03C		I-3	2.9	36	1800	80.2	191	1800	80.2	1	N/A	
3029	3029HFG03D		I-3	2.9	48	1500	103.5	305	1500	103.5	1	N/A	
3029	3029HFG03E		I-3	2.9	36	1500	81.6	229	1500	81.6	1	N/A	
3029	3029HPRNT1		I-3	2.9	55	2200	93	320	1600	113.5	1	N/A	