

## **JOHN DEERE POWER SYSTEMS**

EXECUTIVE ORDER U-R-004-0618 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below 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	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)					
2022	NJDXL02.9303	2.9	Diesel	8000					
SPECIAL	FEATURES & EMISSION C	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
Injectio	ronic Control Module, E n, Periodic Trap Oxidizo narge Air Cooler, Oxida	er, Turbocharger,	Loaders, Tractor, Dozer, Compressor, Generator Set, Other Industrial Equipment						

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION			I	EXHAUST (g/kw-l	OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
19 <u>&lt;</u> kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT			4.2	0.1	0.01			

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

**BE IT FURTHER RESOLVED:** That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 37 ≤ kW < 56 power category in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed on this 20th day of October 2021.

Allen **½**yons, Chief

**Emissions Certification and Compliance Division** 

Attachment: Engine Models EO #: U-R-004-0618 Family: NJDXL02.9303 Attachment Last Revised: 10/4/2021

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