

## **JOHN DEERE POWER SYSTEMS**

EXECUTIVE ORDER U-R-004-0630 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	NJDXL09.0319	9.0	Diesel	8000					
SPECIAL	. FEATURES & EMISSION (	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
Injection Recircu	Air Cooler, Oxidation Ca , Electronic Control Mo Jation, Turbocharger, S tion-Urea, Ammonia Ox Periodic Trap Oxi	dule, Exhaust Gas Selective Catalyst kidation Catalyst,	Loader, Tractor, Dozer, Pump, 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 POWER	EMISSION			E	EXHAUST (g/kw-l	OPACITY (%)				
CLASS	STANDARD CATEGORY		NMHC NOx		NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
130 <u>&lt;</u> kW <u>&lt;</u> 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.03	0.11		0.04	0.001			

**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).

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 <u>19th</u> day of December 2021.

Allen Lyons, Chief

**Emissions Certification and Compliance Division** 

Attachment: Engine Models

EO #: U-R-004-0630

Family: NJDXL09.0319 Attachment Last Revised: 11/16/2021

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fue	el	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
6090	6090HFA03		I-6	9	Liters	335	kilowatt	1900	235	mm3/stroke	1851	N-m	1550	250	mm3/stroke	N/A	N/A		A/T Orientation is Vertical
6090	6090HFA04		I-6	9	Liters	285	kilowatt	1900	193.7	mm3/stroke	1667	N-m	1550	225.3	mm3/stroke	N/A	N/A		A/T Orientation is Vertical
6090	6090HN019		I-6	9	Liters	285	kilowatt	1900	193.7	mm3/stroke	1667	N-m	1550	225.3	mm3/stroke	N/A	N/A		A/T Orientation is Vertical
6090	6090HPRNT11		I-6	9	Liters	368	kilowatt	2200	227	mm3/stroke	2036	N-m	1550	278	mm3/stroke	N/A	N/A		A/T Orientation is Vertical
6090	6090RX503		I-6	9	Liters	335	kilowatt	1900	235	mm3/stroke	1851	N-m	1550	250	mm3/stroke	N/A	N/A		A/T Orientation is Vertical
6090	6090RX504		I-6	9	Liters	285	kilowatt	1900	193.7	mm3/stroke	1667	N-m	1550	225.3	mm3/stroke	N/A	N/A		A/T Orientation is Vertical
6090	6090RX505		I-6	9	Liters	285	kilowatt	1900	193.7	mm3/stroke	1667	N-m	1550	225.3	mm3/stroke	N/A	N/A		A/T Orientation is Vertical