

JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0621

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	NJDXL04.5304	4.5	Diesel	8000								
SPECIAL	FEATURES & EMISSION O	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION									
	ronic Control Module, E Turbocharger, Oxidatio Trap Oxidizer	n Catalyst, Periodic	Loaders, Tractor, Dozer, Pump, Compressor, Generator Set, Other Industrial Equipment									

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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			I	EXHAUST (g/kw-l		OPACITY (%)			
CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	С	PM	ACCEL	LUG	PEAK
37 <u><</u> kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		FEL	N/A	N/A	N/A	N/A	0.01	N/A	N/A	N/A
		CERT			4.4	0.1	0.001			

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 30th day of October 2021.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-004-0621 Family: NJDXL04.5304 Attachment Last Revised: 8/12/2022

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power -		Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Fuel Units	Peak Torque	Units	Speed (rpm)	Fuel	Fuel Units	OBD	GHG	Special	Notes
4045	4045TFC03A		I-4	4.5	Liters	55	kilowatt	2400	66.6	mm3/stroke	304	N-m	1550	74.9	mm3/stroke	N/A	N/A		
4045	4045TFC03B		1-4	4.5	Liters	55	kilowatt	2200	66.6	mm3/stroke	304	N-m	1550	74.8	mm3/stroke	N/A	N/A		
4045	4045TFG03A		I-4	4.5	Liters	55	kilowatt	1800	72.8	mm3/stroke	292	N-m	1800	72.8	mm3/stroke	N/A	N/A		
4045	4045TI530A		1-4	4.5	Liters	55	kilowatt	2400	66.6	mm3/stroke	304	N-m	1550	74.9	mm3/stroke	N/A	N/A		
4045	4045TI530B		1-4	4.5	Liters	55	kilowatt	2200	66.6	mm3/stroke	304	N-m	1550	74.8	mm3/stroke	N/A	N/A		
4045	4045TPRNT3		1-4	4.5	Liters	55	kilowatt	2400	63.4	mm3/stroke	311	N-m	1600	75.2	mm3/stroke	N/A	N/A		
4045	4045HT106		1-4	4.5	Liters	55	kilowatt	2000	64.7	mm3/stroke	305	N-m	1500	75.1	mm3/stroke	N/A	N/A		new model
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