

JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0624

New Off-Road Compression-Ignition Engine Page 1 of 2

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	NJDXL06.8302	4.5, 6.8	Diesel	8000				
SPECIAL	FEATURES & EMISSION O	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION					
Direct Inje	Air Cooler, Oxidation C ection, Electronic Contr Recirculation, Periodic arger, Selective Catalys Ammonia Oxidation (ol Module, Exhaust Trap Oxidizer, st Reduction-Urea,	Crane, Tractor, Loader, Dozer, Pum Generator Set, Other Industrial					

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	EMISSION				EXHAUST (g/kw-l		OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC NOx		NMHC+NOx	СО	PM	ACCEL	LUG	PEAK	
75 <u><</u> kW <u><</u> 560	Tier 4 Final	STD	0.19 0.40		N/A	3.5	0.02	N/A	N/A	N/A	
		FEL	N/A	N/A	N/A	N/A	0.01	N/A	N/A	N/A	
		CERT	0.03	0.16		0.03	0.003				

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).

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 130 ≤ kW ≤ 560 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.



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BE IT FURTHER RESOLVED: That the manufacturer has elected to include engine models in this engine family which are identified for "emergency vehicle use only". These "emergency vehicle use only" engines are exempt from requirements imposed pursuant to California law and the regulations adopted pursuant thereto for motor vehicle pollution control devices per California Vehicle Code Section 27156.2. The manufacturer must clearly label these engines for "emergency vehicle use only" on the engines' emission control label.

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 19th day of December 2021.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-004-0624 Family: NJDXL06.8302 Attachment Last Revised: 11/10/2021

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fuel		Peak Torque -	Peak Torque -	Peak Torque - Fuel					
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units Peak Torque		Units	Speed (rpm)	Peak Torque - Fuel Units OB		OBD	GHG	Special	Notes
4045	4045CI551A		1-4	4.5	Liters	129	kilowatt	2400	122.3	mm3/stroke	667	N-m	1500	142.2	mm3/stroke	N/A	N/A		
4045	4045CI551B		1-4	4.5	Liters	116	kilowatt	2200	115.3	mm3/stroke	667	N-m	1500	141.7	mm3/stroke	N/A	N/A		
4045	4045CI551C		1-4	4.5	Liters	116	kilowatt	2400	27	mm3/stroke	616	N-m	1500	130.3	mm3/stroke	N/A	N/A		
4045	4045CI551D		1-4	4.5	Liters	129	kilowatt	2200	128	mm3/stroke	667	N-m	1500	142.9	mm3/stroke	N/A	N/A		
4045	4045CI551E		1-4	4.5	Liters	125	kilowatt	2200	125.1	mm3/stroke	616	N-m	1500	130.3	mm3/stroke	N/A	N/A		
4045	4045CI551F		1-4	4.5	Liters	125	kilowatt	2000	132.2	mm3/stroke	667	N-m	1500	141.7	mm3/stroke	N/A	N/A		
4045	4045CI551G		1-4	4.5	Liters	125	kilowatt	2000	132.2	mm3/stroke	667	N-m	1500	140.8	mm3/stroke	N/A	N/A		
4045	4045HFC07A		1-4	4.5	Liters	95	kilowatt	2200	94.2	mm3/stroke	494	N-m	1500	104.3	mm3/stroke	N/A	N/A		
4045	4045HFC07B		1-4	4.5	Liters	104	kilowatt	2400	98.9	mm3/stroke	540	N-m	1500	116.8	mm3/stroke	N/A	N/A		
4045	4045HFG09A		1-4	4.5	Liters	124	kilowatt	1800	143.8	mm3/stroke	658	N-m	1800	143.8	mm3/stroke	N/A	N/A		
4045	4045HFG09B		1-4	4.5	Liters	105	kilowatt	1800	121.5	mm3/stroke	558	N-m	1800	121.5	mm3/stroke	N/A	N/A		
4045	4045HL503		1-4	4.5	Liters	129	kilowatt	2100	132.4	mm3/stroke	730	N-m	1575	156.3	mm3/stroke	N/A	N/A		
4045	4045HP076		1-4	4.5	Liters	104	kilowatt	2200	103.9	mm3/stroke	555	N-m	1500	119.6	mm3/stroke	N/A	N/A		
4045	4045HRT09A		1-4	4.5	Liters	124	kilowatt	2000	133.7	mm3/stroke	660	N-m	1500	138.4	mm3/stroke	N/A	N/A		
4045	4045HRT09B		1-4	4.5	Liters	119	kilowatt	2000	117.4	mm3/stroke	612	N-m	1500	127.7	mm3/stroke	N/A	N/A		
4045	4045HRT09C		1-4	4.5	Liters	103	kilowatt	2000	103.7	mm3/stroke	562	N-m	1500	120	mm3/stroke	N/A	N/A		
4045	4045HT084		1-4	4.5	Liters	129	kilowatt	2200	128.9	mm3/stroke	730	N-m	1575	156.9	mm3/stroke	N/A	N/A		
4045	4045HT091		1-4	4.5	Liters	104	kilowatt	2200	103.9	mm3/stroke	555	N-m	1500	119.6	mm3/stroke	N/A	N/A		Emergency Vehicle
4045	4045HT092		1-4	4.5	Liters	104	kilowatt	2200	103.9	mm3/stroke	555	N-m	1500	119.6	mm3/stroke	N/A	N/A		Emergency Vehicle
4045	4045HT093		1-4	4.5	Liters	103	kilowatt	2000	110	mm3/stroke	555	N-m	1500	118.7	mm3/stroke	N/A	N/A		
4045	4045HT098		1-4	4.5	Liters	104	kilowatt	2200	103.9	mm3/stroke	555	N-m	1500	119.6	mm3/stroke	N/A	N/A		
4045	4045HT099		1-4	4.5	Liters	104	kilowatt	2200	103.9	mm3/stroke	555	N-m	1500	119.6	mm3/stroke	N/A	N/A		
6068	6068HPRNT5		1-6	6.8	Liters	237	kilowatt	2340	136.5	mm3/stroke	1309	N-m	1600	187.4	mm3/stroke	N/A	N/A		
6068	6068HRT08A		1-6	6.8	Liters	151	kilowatt	2000	103.8	mm3/stroke	833	N-m	1500	123.5	mm3/stroke	N/A	N/A		
6068	6068HRT08B		1-6	6.8	Liters	145	kilowatt	2000	94.4	mm3/stroke	745	N-m	1500	109.4	mm3/stroke	N/A	N/A		
6068	6068HRT08C		1-6	6.8	Liters	131	kilowatt	2000	85.3	mm3/stroke	703	N-m	1500	102.8	mm3/stroke	N/A	N/A		
6068	6068HRT08D		1-6	6.8	Liters	116	kilowatt	2000	78.7	mm3/stroke	640	N-m	1500	93	mm3/stroke	N/A	N/A		
6068	6068HTJ63		1-6	6.8	Liters	163	kilowatt	2000	112.7	mm3/stroke	842	N-m	1600	119.7	mm3/stroke	N/A	N/A		
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