

JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0602

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)			
2021	MJDXL02.9318	2.9	Diesel	8000			
SPECIAL	FEATURES & EMISSION O	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Injection	ronic Control Module, E n, Periodic Trap Oxidiz 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 STANDARD CATEGORY			EXHAUST (g/kw-hr)				OPACITY (%)		
POWER CLASS			NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
19 <u><</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 2nd day of December 2020.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-004-0602 Family: MJDXL02.9318 Attachment Last Revised: 11/11/2020 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 3029 3029HG530A N/A L3 55 1800 96.5 292 1800 96.5 mm3/stroke N/A N/A N/A N/A Liters kilowatt mm3/stroke N-m 3029 3029HG530B 48 N/A L3 29 Liters kilowatt 1800 84 6 mm3/stroke N-m 1800 84 6 mm3/stroke N/A N/A N/A N/A 64.1 1800 64.1 3029 3029HG530C N/A L3 2.9 Liters 36 kilowatt 1800 mm3/stroke 191 N-m mm3/stroke N/A N/A N/A N/A 3029 3029HG530D N/A L3 2.9 Liters 48 kilowatt 1500 96.2 mm3/stroke 305 N-m 1500 96.2 mm3/stroke N/A N/A N/A N/A 3029 3029HG530E N/A L3 2.9 Liters 36 kilowatt 1500 75.5 mm3/stroke 229 N-m 1500 75.5 mm3/stroke N/A N/A N/A N/A 3029 3029HI530A N/A L3 2.9 55 kilowatt 2400 77 mm3/stroke 293 N-m 1500 60.6 mm3/stroke N/A N/A N/A N/A 3029 3029HI530B N/A L3 2.9 Liters 55 kilowatt 2200 84.4 mm3/stroke 304 N-m 1500 68.3 mm3/stroke N/A N/A N/A N/A 3029 3029HI530C N/A L3 2.9 48 2400 68 mm3/stroke 255 N-m 1550 54.1 mm3/stroke N/A N/A N/A N/A 3029 3029HI530D N/A L3 2.9 Liters 48 kilowatt 2200 74.2 mm3/stroke 278 N-m 1550 64.1 mm3/stroke N/A N/A N/A N/A 3029 3029HI530E N/A L3 2.9 Liters 36 kilowatt 2400 54.5 mm3/stroke 193 N-m 1550 41.4 mm3/stroke N/A N/A N/A N/A 3029 3029HI530F N/A L3 2.9 Liters 36 kilowatt 2200 56.4 mm3/stroke 207 1550 48.1 mm3/stroke N/A N/A N/A N/A N-m 3029 3029HP530A N/A L3 2.9 55 kilowatt 1800 96.5 mm3/stroke 292 1800 96.5 mm3/stroke N/A N/A N/A Liters N-m N/A 3029 3029HP530B 2.9 48 1800 84.6 255 1800 84.6 N/A L3 mm3/stroke mm3/stroke N/A N/A N/A N/A Liters kilowatt N-m 3029 3029HP530C 36 1800 64.1 191 1800 64.1 N/A 1.3 2.9 Liters kilowatt mm3/stroke N-m mm3/stroke N/A N/A N/A N/A 3029 3029HP530D N/A L3 2.9 Liters 48 kilowatt 1500 96.2 mm3/stroke 305 N-m 1500 96.2 mm3/stroke N/A N/A N/A N/A 3029 3029HP530F N/A 1.3 2.9 36 kilowatt 1500 75.5 mm3/stroke 229 N-m 1500 75.5 mm3/stroke N/A N/A N/A N/A Liters 3029 3029HPRNT2 2.9 55 kilowatt 2400 77.8 mm3/stroke 320 1600 105.5 mm3/stroke N/A N/A N/A N/A N/A L3 Liters N-m 3029 3029HPY101 2100 82.8 mm3/stroke 304 1550 95.3 mm3/stroke N/A N/A L3 2.9 Liters 55 kilowatt N-m N/A N/A N/A 3029 3029HPY96 N/A L3 2.9 Liters 55 kilowatt 2200 80.6 mm3/stroke 304 N-m 1550 95.7 mm3/stroke N/A N/A N/A N/A 3029 95.7 3029HPY97 N/A L3 2.9 Liters 55 kilowatt 2200 80.6 mm3/stroke 304 N-m 1550 mm3/stroke N/A N/A N/A N/A 3029 3029HPY98 N/A L3 2.9 Liters 55 kilowatt 2100 82.8 mm3/stroke 304 N-m 1550 95.3 mm3/stroke N/A N/A N/A N/A