

Pursuant to the authority vested in the 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-14-012;

**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)
2018	JJDXL02.9303	2.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Control Module, Electronic Direct Injection, Periodic Trap Oxidizer, Turbocharger, Charge Air Cooler, Oxidation Catalyst			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) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), 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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 56	Tier 4 Final	OPTIONAL 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 complied with the more stringent set of standards from the various power categories in conformance with 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 I-D" adopted October 20, 2005 and last amended October 25, 2012.

**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 at El Monte, California on this 25<sup>th</sup> day of August 2017.

  
Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

EO#: U-R-004-0548

Attachment: Page 1 of 1

8/10/2017

Engine Model Summary Form

Manufacturer: John Deere Power Systems  
Engine category: Nonroad CI  
EPA Engine Family: JDXL02.9303  
Mfr Family Name: 320HCA  
Process Code: New Submission

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate: mm/stroke@peak kW (for diesel only)	5. Fuel Rate: (kg/hr)@peak kW (for diesels only)	6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque	9. Emission Control Device Per SAE J1930
3029HFC03A	3029	55@2400	84@2400	15.4@2400	292@1550	103.5@1550	12.3@1550	PTOX OC TC DFI CAC ECM
3029HFC03B	3029	55@2200	88.3@2200	14.9@2200	304@1550	109.4@1550	13@1550	PTOX OC TC DFI CAC ECM
3029HFC03C	3029	48@2400	75.7@2400	13.9@2400	254@1550	92.3@1550	10.9@1550	PTOX OC TC DFI CAC ECM
3029HFC03D	3029	48@2200	79.7@2200	13.4@2200	280@1550	99.8@1550	11.8@1550	PTOX OC TC DFI CAC ECM
3029HFC03E	3029	38@2400	63.2@2400	11.6@2400	192@1550	73.1@1550	8.7@1550	PTOX OC TC DFI CAC ECM
3029HFC03F	3029	36@2200	68@2200	11.4@2200	209@1550	78.6@1550	9.3@1550	PTOX OC TC DFI CAC ECM
3029HFG03A	3029	55@1800	104.8@1800	14.4@1800	X	X	X	PTOX OC TC DFI CAC ECM
3029HFG03B	3029	48@1800	92.8@1800	12.8@1800	X	X	X	PTOX OC TC DFI CAC ECM
3029HFG03C	3029	36@1800	80.2@1800	11@1800	X	X	X	PTOX OC TC DFI CAC ECM
3029HFG03D	3029	48@1500	103.5@1500	11.9@1500	X	X	X	PTOX OC TC DFI CAC ECM
3029HFG03E	3029	38@1500	81.6@1500	9.4@1500	X	X	X	PTOX OC TC DFI CAC ECM
3029HPRNT1	3029	55@2200	93@2200	15.7@2200	320@1600	113.5@1600	13.9@1600	PTOX OC TC DFI CAC ECM
3029HPY61	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.2@1550	PTOX OC TC DFI CAC ECM
3029HPY62	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.2@1550	PTOX OC TC DFI CAC ECM
3029HPY63	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.2@1550	PTOX OC TC DFI CAC ECM
3029HPY64	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.2@1550	PTOX OC TC DFI CAC ECM
3029HPY65	3029	55@2200	84.7@2200	14.2@2200	304@1550	102.4@1550	12.1@1550	PTOX OC TC DFI CAC ECM