

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	JJDXL09.0313	9.0	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Charge Air Cooler, Oxidation Catalyst, Electronic Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Turbocharger, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			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 hydrocarbon (HC), 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):

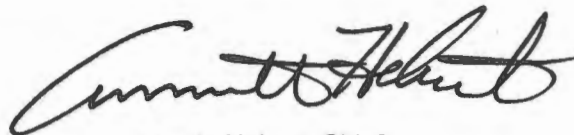
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.004	0.10	--	0.01	0.02	--	--	--

**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 22 day of September 2017.



Annette Hebert, Chief  
 Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Form

9/12/2017

Manufacturer: John Deere Power Systems  
 Engine category: Nonroad CI  
 EPA Engine Family: JJDXL09.0313  
 Mfr Family Name: 450HCD  
 Process Code: New Submission

EO#: U-R-004-0562

Attachment: Page 1 of 1

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
6090HFG06A	6090	345@1800	263.2@1800	72.4@1800	N/A	N/A	N/A	EGR OC SCRC NH3OC DFI TC CAC ECM
6090HFG06B	6090	300@1500	269.8@1500	61.9@1500	N/A	N/A	N/A	EGR OC SCRC NH3OC DFI TC CAC ECM
6090HFG06C	6090	326@1800	247.5@1800	68.1@1800	N/A	N/A	N/A	EGR OC SCRC NH3OC DFI TC CAC ECM
6090HFG06D	6090	300@1500	269.5@1500	61.8@1500	N/A	N/A	N/A	EGR OC SCRC NH3OC DFI TC CAC ECM
6090HFG06E	6090	273@1800	201.3@1800	55.4@1800	N/A	N/A	N/A	EGR OC SCRC NH3OC DFI TC CAC ECM
6090HFG06F	6090	273@1500	243@1500	55.7@1500	N/A	N/A	N/A	EGR OC SCRC NH3OC DFI TC CAC ECM
6090HPRNT7	6090	364@1800	277.6@1800	76.4@1800	N/A	N/A	N/A	EGR OC SCRC NH3OC DFI TC CAC ECM