

## JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0565 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-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)	
2019	KJDXL13.5314	13.5	Diesel	8000	
SPECIA	L FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT	APPLICATION	
Charge Air Cooler, Oxidation Catalyst, Electronic Direct Injection, Exhaust Gas Recirculation, Electronic Control Module, 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 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, Califomia Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION		EXHAUST (g/kW-hr)			OPACITY (%)				
POWER	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	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	0.06	0.04		0.03	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

\_ day of December 2018.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

F0#: U-2-004-0565

498@1800

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11-27-2018

**Engine Model Summary Form** 

Engine category: EPA Engine Family: Mfr Family Name:

**6135HPRNT4** 

John Deere Power Systems

Nonroad Cl KJDXL13.5314 650HCC

ocess Code:	New Submission	
		3. kW@RPM
1. Engine code	2. Engine Model	(SAE Gross)
6135HFG06A	6135	473@1800
6135HFG06B	6135	427@1500

**B135** 

5. Fuel Rate: 6. Torque (Nm) @RPM mm/stroke@peak kW (kg/hr)@peak kW (for diesels only) (SEA Gross) (for diesel only) 99.1@1800 360,1601800 85.4@1500 372.4@1500

106@1800

4. Fuel Rate:

384@1800

7. Fuel Rate: mm/stroke@peak torque

8. Fuel Rate: (kW/hr)@peak torque 9. Emission Control Device Per **SAE J1930** 

EGR OC SCRC MHOO'C DIT TO CAC ECM A-MOX EGR OC SCRC MHOO'C DIT TO CAC ECM A-MOX EGR OC SCRC MHOO'C DIT TO CAC ECM A-MOX