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	ODEL ENGINE FAMILY DISPLACEMENT (liters)		FUEL TYPE	USEFUL LIFE (hours)			
2020	LJDXL09.0313	9.0	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Charge Air Injection Recircu Redu	r Cooler, Oxidation Cata n, Electronic Control Mo ulation, Turbocharger, S ction-Urea, Ammonia O	lyst, Electronic Direct dule, Exhaust Gas selective Catalytic xidation Catalyst	Pump, Compressor, Generator Set, Other Industrial Equipment				

The engine models and codes are attached.

CALIFORNIA

AIR RESOURCES BOARD

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 POWER CLASS	EMISSION		EXHAUST (g/kw-hr)				OPACITY (%)			
	CATEGORY		NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 <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
		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

day of December 2019.

Allen Lyons, Chief Emissions Certification and Compliance Division

EQH: U-R-004-0587 Attach ment: page lofi 8[30/19 Form

Engine Model Summary Form

68.1@1800

61.8@1500

55.4@1800

55.7@1500

76.4@1800

Manutaceurer.	John Deere Power Sy						
Engine category:	Nonroed Cl						
EPA Engine Family:	LJDXL09.0313						
Mir Family Name:	450HCD						
Process Code:	New Submission					1	
			4. Fuel Rate:	5. Fuel Rate:	6. Torque (Nm)	7. Fuel Rate:	
		3. KW@RPM	mm/stroke@peak kW	(kg/hr)@peak kW	ORPM	mm/stroke@peak	8. Fuel Rate:
1. Engine code	2. Engine Model	(SAE Gross)	(for diesel only)	(for diesels only)	(SEA Gross)	torque	(kW/hr)@peak torque
6090HFG06A	6090	345@1800	263.2@1800	72.4@1800	1/		1
BOOOHECOBB	6000	300/#1500	260 8/0 1500	61 0/0 1500			

247.50 1800

289.5@1500

201.3@1800

243@1500

277.6@1800

- BOOCHFGOOC

6090HFG08D

6090HFG06E

6090HFG06F

6090HPRNT7

6090

6090

6090

6090

6090

326@1800

300@1500

273@1800

273@1500

364@1800

9. Emission Control Device Per SAE J1930 BGR QC BCRC INIGOC DRITC DAC ECM EGR QC SCRC INIGOC DRITC DAC ECM SEGR QC SCRC INIGOC DRITC CAC ECM EGR QC SCRC INIGOC DRITC CAC ECM EGR QC SCRC INIGOC DRITC CAC ECM EGR QC SCRC INIGOC DRITC CAC ECM

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