

## JOHN DEERE POWER SYSTEMS

EXECUTIVE ORDER U-R-004-0580 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	KJDXL06.8312	6.8	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	EMISSION		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER	STANDARD CATEGORY		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	0.02	0.06	-	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 2018.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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## Engine Model Summary Form

Manufacturer: John Deere Power Systems
Engine category: Nonroad Cl
EPA Engine Family: KJDXL06.8312
Mfr Family Name: 350HCF
Process Code: New Submission-

		3. kW@RPM	4. Fuel Rate: mm/stroke@peak kW	5. Fuel Rate: (kg/hr)@peak kW	6.
1. Engine code	2. Engine Model	(SAE Gross)	(for diesel only)	(for diesels only)	
6068HFG05A	6068	192@1800	143.5@1800	39.5@1800	1
6068HFG05B	6068	160@1800	119.4@1800	32.9@1800	
6068HFG05C	6068	165@1500	145.4@1500	33.4@1500	
6068HFG05D	6068	160@1500	142.3@1500	32.6@1500	
6058HFG06A	6068	241@1800	180.4@1800	49.7@1800	
6068HFG06B	6068	216@1800	159.8@1800	44@1800	
8058HFG08C	8068	197@1500	176.6@1500	40.5@1500	
6088HPRNT7	6068	248@1800	184.8@1800	50.8@1800	-
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6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque
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9. Emission Control
Device Per
SAE J1930
EGR OC SCRC NHOOC DELTC CAC ECM
EGR OC SCRC NH3OC DFI TC CAC ECM
EGR OC SCRC NHOOC DETTC CAC ECM
EGR OC SCRC NH3OC DFI TC CAC ECM
EGR OC BORG NHOOD DELTO CAC EGM
EGR OC SCRC NH3OC DFI TC CAC ECM
EGR OC BORD NHOOD DETTO CAD BOM
EGR OC SCRC NH3OC DFI TC CAC ECM