EXECUTIVE ORDER U-R-004-0511 New Off-Road Compression-Ignition Engines

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)		
2016	GJDXL06.8210	4.5, 6.8	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Injection	Cooler, Oxidation Cata n, Electronic Control Mo lation, Periodic Trap Ox Limiter, Turbocha	dule, Exhaust Gas idizer, Smoke Puff	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), 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	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final / ALT 5% NOx	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		FEL		3.20						
		CERT	0.000	3.10		0.1	0.01			

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 2015.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

**Engine Model Summary Form** 

12-7-2015

EO # U-R-004-0511
Attachment page 15f1

Manufacturer: John Deere Power Systems

Engine category: Nonroad CI EPA Engine Family: GJDXL06.8210 Mfr Family Name: 350HBB

Process Code:	Running Change		4. Fuel Rate:	5. Fuel Rate:	6. Torque (Nm)	7. Fuel Rate:		9. Emission Control
1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	mm/stroke@peak kW (for diesel only)	(kg/hr)@peak kW (for diesels only)	@RPM (SEA Gross)	mm/stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque	Device Per SAE J1930
4045HPRNT7	4045	129@2400	113.8@2400	27.9@2400	670@1600	150.3@1600	24.5@1600	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT069	4045	111@2200	117.5@2200	24.3@2200	482@1600	143.1@1600	22.8@1600	EGR EM EC SPL DFI TC CAC OC PTOX
6068HT089	6068	129@1900	94.6@1900	27.5@1900	768@1400	110.6@1400	23,7@1400	EGR EM EC SPL DFI TC CAC OC PTOX
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