California Environmental Protection Agency Air Resources Board	JOHN DEERE POWER SYSTEMS	EXECUTIVE ORDER U-R-004-0468 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-02-003;

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)
2013	DJDXL03.0208	2.4, 3.4	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter, Electronic Control Module	Generator Set

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
37 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	20	15	50
		FEL	--	--	--	--	0.30	--	--	--
		CERT	--	--	3.9	1.0	0.22	14	3	22

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 28 day of December 2012.

Annette Hebert, Chief
Mobile Source Operations Division

Attachment: Page 1 of 1
6/25/2013
R/C
EO#: U-R-004-0468

Engine Model Summary Form

Manufacturer: **John Deere Power Systems**
Engine category: **Nonroad CI**
EPA Engine Family: **DJDXL03.0208**
Mfr Family Name: **250HBB**
Process Code: **Running Change**

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
4024HT011B	4024H	49.0@2600	46.9@2600	12.44@2600	230@1950	56.5@1950	11.24@1950	SPL EC EM
4024HT011A	4024H	46.0@2600	44@2600	11.67@2600	219 @ 1950	54.6@1950	10.86@1950	SPL EC EM
4024HF297	4024H	49.0@2800	45.5@2800	12.99@2800	227 @ 2000	55@2000	11.22@2000	SPL EC EM
4024HLV11A	4024H	45.0@2400	46.2@2400	11.31@2400	227@1800	55.6 @ 1800	10.2 @ 1800	SPL EC EM
5030HF286A	5030H	55.0@2800	39.9@2800	14.24@2800	257@2000	50.7@2000	12.93@2000	SPL EC EM
5030HT014	5030H	55.0@2800	39.2@2800	13.99@2800	256@2050	48.5@2050	12.68@2050	SPL EC EM
5030HF295B	5030H	55.0@2200	48.8@2200	13.69@2200	344@1650	66.4@1650	13.97@1650	SPL EC EM
4024HLV11B	4024H	49.0@2400	49.9@2400	12.22@2400	256 @ 2400	61 @ 2400	11.25 @ 2400	SPL EC EM
4024HT015A	4024H	55.0@2800	50@2800	14.28@2800	260@2000	65.7@2000	13.4@2000	SPL EC EM
5030HLV11B	5030H	55.0@2200	46.9@2200	13.16@2200	300@1650	57.1@1650	12.01@1650	SPL EC EM