

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)
2012	CJDXL04.5211	4.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Charge Air Cooler, Diesel Oxidation Catalyst, Direct Diesel Injection, Electronic Control Module, Exhaust Gas Recirculation, Periodic Trap Oxidizer, Smoke Puff Limiter, Turbocharger			Tractor, Loaders, 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 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 (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Interim / ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	2.6	--	0.1	0.001	--	--	--

**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 29 day of July 2011.

  
 Annette Hebert, Chief  
 Mobile Source Operations Division

11/13/2011

Engine Model Summary Form

EO#: U-R-004-0441

Attachment page 1 of 1

Manufacturer: John Deere Power Systems  
Engine category: Nonroad CI  
EPA Engine Family: CJDXL04.5211  
Mfr Family Name: 350HBC  
Process Code: New Submission

1. Engine code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke@peak HP (for diesel only)	5. Fuel Rate: (lbs/hr)@peak HP (for diesels only)	6. Torque (ft/lbs) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
4045HPRNT8	4045	139.5@2200	110.3@2200	54.8@2200	396.1@1500	123.6@1500	41.7@1500	PTOX EC SPL EGR
4045HLV68	4045	122.0@2200	98@2200	48.5@2200	351.1@1550	107.9@1550	37.6@1550	PTOX EC SPL EGR

IC, CAC, DDI, DOC  
IC, CAC, DDI, DOC