

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)
2014	EJDXL04.5211	4.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Charge Air Cooler, Smoke Puff Limiter, Oxidation Catalyst, Electronic Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Turbocharger, Periodic Trap Oxidizer			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 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
56 ≤ kW < 130	Interim Tier 4 / ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	--	3.2	--	--	0.01	--	--	--
		CERT	0.01	2.6	--	0.1	0.001	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-C" adopted October 20, 2005.

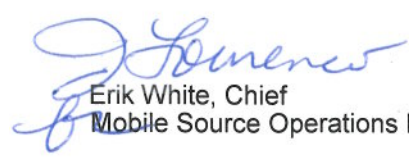
BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any 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 9th day of December 2013.


 Erik White, Chief
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **John Deere Power Systems**
 Engine category: **Nonroad CI**
 EPA Engine Family: **EJDXL04.5211**
 Mfr Family Name: **350HBC**
 Process Code: **New Submission**

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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
4045HFC92A	4045	91.0@2200	95.4@2200	21.41@2200	480@1550	105.6@1550	16.7@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92B	4045	86.0@2400	82.9@2400	20.29@2400	460@1550	101@1550	15.97@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HMC92C	4045	104.0@2200	107.6@2200	24.15@2200	534@1550	120.9@1550	19.11@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT070C	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HPRNT8	4045	104.0@2200	110.3@2200	24.75@2200	537@1500	123.6@1500	18.91@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92G	4045	74.0@2200	74.0@2200	18.0@2200	427@1550	94.9@1550	15.0@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HL490	4045	104.0@2100	110.2@2100	23.61@2100	534@1550	116.4@1550	18.4@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92T	4045	74.0@2200	80.2@2200	18.0@2200	418@1550	94.9@1550	15.0@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFG92D	4045	99.0@1800	117.8@1800	21.63@1800				EGR EM EC SPL DFI TC CAC OC PTOX
4045HFG92E	4045	80.0@1800	95.2@1800	17.48@1800				EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92K	4045	63.0@2200	69.5@2200	15.6@2200	363@1550	82.2@1550	13.0@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT070B	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92R	4045	74.0@2400	74.9@2400	18.34@2400	391@1550	87.9@1550	13.9@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFG92F	4045	67.0@1800	81.6@1800	14.98@1800				EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92O	4045	86.0@2400	84.3@2400	20.64@2400	460@1550	102.2@1550	16.16@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92L	4045	102.0@2200	105.6@2200	23.7@2200	517@1550	112@1550	17.71@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92P	4045	86.0@2200	90.9@2200	20.4@2200	480@1550	104.4@1550	16.51@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT070D	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92J	4045	63.0@2200	69.1@2200	15.51@2200	363@1550	81.6@1550	12.9@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HLV68	4045	91.0@2200	98@2200	21.99@2200	476@1550	107.9@1550	17.06@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92Q	4045	74.0@2400	74.4@2400	18.21@2400	391@1550	87.9@1550	13.9@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT070A	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HLV69	4045	86.0@2400	83.3@2400	20.39@2400	480@1550	105.4@1550	16.66@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92U	4045	63.0@2400	66.2@2400	16.21@2400	333@1550	75.5@1550	11.94@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92H	4045	63.0@2400	65.3@2400	15.99@2400	333@1550	75.1@1550	11.87@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92S	4045	74.0@2200	80.7@2200	18.11@2200	418@1550	94.2@1550	14.89@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92M	4045	102.0@2200	105.6@2200	23.7@2200	517@1550	112@1550	17.71@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HLV70	4045	104.0@2200	107@2200	24.01@2200	534@1550	116.4@1550	18.4@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFL92C	4045	76.0@2400	78.2@2400	19.14@2400	413@1550	94.3@1550	14.91@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFG92B	4045	80.0@1800	96@1800	17.63@1800				EGR EM EC SPL DFI TC CAC OC PTOX
4045HT063	4045	104.0@2250	104.8@2250	24.05@2250	534@1550	115.6@1550	18.28@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HMC92A	4045	102.0@2200	106.8@2200	23.97@2200	530@1550	119.3@1550	18.86@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92V	4045	63.0@2400	65.8@2400	16.11@2400	333@1550	75.3@1550	11.91@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92F	4045	74.0@2200	80.7@2200	18.11@2200	427@1550	94.2@1550	14.89@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92I	4045	63.0@2400	65.3@2400	15.99@2400	333@1550	75.1@1550	11.87@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HMC92B	4045	86.0@2200	91.8@2200	20.6@2200	480@1550	108@1550	17.07@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFL92A	4045	86.0@2400	82.4@2400	20.17@2400	480@1550	105.2@1550	16.63@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFL92B	4045	74.0@2400	77.4@2400	17.97@2400	413@1550	91.3@1550	14.43@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT066	4045	90.0@2000	100.9@2000	20.58@2000	430@1500	116.1@1500	17.76@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92C	4045	86.0@2200	90.9@2200	20.4@2200	480@1550	104.4@1550	16.51@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFG92C	4045	67.0@1800	81.2@1800	14.91@1800				EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92X	4045	63.0@2200	69.5@2200	15.6@2200	363@1550	82.2@1550	13.0@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFG92A	4045	99.0@1800	117.8@1800	21.63@1800				EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92D	4045	74.0@2400	73.4@2400	17.97@2400	391@1550	86.6@1550	13.69@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT073	4045	104.0@2250	104.8@2250	24.05@2250	534@1550	115.6@1550	18.28@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92E	4045	74.0@2400	73.4@2400	17.97@2400	391@1550	86.6@1550	13.69@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92N	4045	91.0@2200	95.4@2200	21.41@2200	480@1550	105.6@1550	16.7@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC92W	4045	63.0@2200	69.1@2200	15.51@2200	363@1550	81.6@1550	12.9@1550	EGR EM EC SPL DFI TC CAC OC PTOX

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