

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	DJDXL06.8210	4.5, 6.5	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			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
75 ≤ 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	0.000	3.1	--	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 10 day of December 2012.


 Annette Hebert, Chief
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **John Deere Power Systems**
 Engine category: **Nonroad CI**
 EPA Engine Family: **DJDXL06.8210**
 Mfr Family Name: **350HBB**
 Process Code: **Running Change**

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EO#: U-R-004-0473

R/C

8-16-2013

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
6068HFC93E	6068	116.0@2200	80.7@2200	27.16@2200	670@1500	101.2@1500	23.23@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93C	4045	116.0@2400	107@2400	26.19@2400	616@1550	133.4@1550	21.09@1550	EGR EM EC SPL DFI TC CAC OC PTOX
6068HL490	6068	129.0@2100	90.3@2100	29.01@2100	785@1500	115.6@1500	26.53@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFG93B	4045	105.0@1800	83.9@1800	15.4@1800				EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93I	6068	104.0@2200	74.5@2200	25.08@2200	602@1500	92.6@1500	21.25@1500	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93J	6068	104.0@2200	74.5@2200	25.08@2200	602@1500	92.6@1500	21.25@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93F	4045	116.0@2200	114.1@2200	25.6@2200	645@1550	140.4@1550	22.2@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFL93C	4045	93.0@2400	86@2400	21.05@2400	494@1600	110@1600	17.95@1600	EGR EM EC SPL DFI TC CAC OC PTOX
4045HL497	4045	112.0@2100	117.5@2100	25.17@2100	628@1600	143.1@1600	23.35@1600	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93M	4045	93.0@2200	94@2200	21.09@2200	537@1550	118.3@1550	18.7@1550	EGR EM EC SPL DFI TC CAC OC PTOX
6068HT086	6068	129.0@2000	93.8@2000	28.7@2000	768@1400	111.8@1400	23.95@1400	EGR EM EC SPL DFI TC CAC OC PTOX
6068RW405	6068	129.0@2100	90.3@2100	29.01@2100	785@1500	115.6@1500	26.53@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93A	4045	129.0@2400	116.4@2400	28.5@2400	645@1550	141@1550	22.29@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93A	4045	124.0@1800	98.2@1800	18.03@1800				EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93H	4045	107.0@2400	97.6@2400	23.89@2400	549@1550	121.4@1550	19.19@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT068	4045	129.0@2200	125@2200	28.05@2200	645@1600	144@1600	23.5@1600	EGR EM EC SPL DFI TC CAC OC PTOX
4045HDW58	4045	129.0@2200	125@2200	28.05@2200	645@1600	144@1600	23.5@1600	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93C	6068	116.0@2400	78.5@2400	28.83@2400	622@1550	90.1@1550	21.37@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93G	4045	104.0@2400	98.4@2400	24.09@2400	552@1550	120.8@1550	19.1@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93I	4045	104.0@2200	103.4@2200	23.2@2200	601@1550	132.8@1550	21.0@1550	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93B	6068	129.0@2200	87.8@2200	29.55@2200	740@1500	110.6@1500	25.38@1500	EGR EM EC SPL DFI TC CAC OC PTOX
6068HT092	6068	129.0@2100	90.3@2100	29.01@2100	785@1500	115.6@1500	26.53@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFL93A	4045	115.0@2400	102.8@2400	25.17@2400	642@1600	142@1600	23.17@1600	EGR EM EC SPL DFI TC CAC OC PTOX
4045HL495	4045	129.0@2100	129.8@2100	27.8@2100	645@1550	142.3@1550	22.5@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93E	4045	116.0@2200	113.2@2200	25.4@2200	645@1550	139.8@1550	22.1@1550	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93D	6068	116.0@2400	78.2@2400	28.72@2400	622@1500	90.3@1500	20.72@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HL496	4045	129.0@2100	127@2100	27.2@2100	645@1550	142.3@1550	22.5@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93J	4045	104.0@2200	102.9@2200	23.09@2200	601@1550	132.8@1550	21.0@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HT069	4045	111.0@2200	117.5@2200	26.37@2200	628@1600	143.1@1600	23.35@1600	EGR EM EC SPL DFI TC CAC OC PTOX
4045HPRNT7	4045	129.0@2400	113.8@2400	27.86@2400	670@1600	150.3@1600	24.53@1600	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93A	6068	129.0@2400	85.2@2400	31.29@2400	684@1500	100@1500	22.95@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HP057	4045	129.0@2200	124.8@2200	28.01@2200	645@1550	142.3@1550	22.5@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93N	4045	93.0@2200	94@2200	21.09@2200	537@1550	118.9@1550	18.8@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93L	4045	93.0@2400	89.1@2400	21.81@2400	552@1550	108.8@1550	17.2@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HDW56	4045	129.0@2200	125@2200	28.05@2200	645@1600	144@1600	23.5@1600	EGR EM EC SPL DFI TC CAC OC PTOX
6068HT079	6068	129.0@2200	87.5@2200	29.45@2200	785@1500	115.6@1500	26.53@1500	EGR EM EC SPL DFI TC CAC OC PTOX
6068HT089	6068	129.0@1900	110.6@1900	32.15@1900	768@1400	94.6@1400	20.26@1400	EGR EM EC SPL DFI TC CAC OC PTOX
6068HDW84	6068	129.0@2200	87.5@2200	29.45@2200	785@1500	115.6@1500	26.53@1500	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93H	6068	104.0@2400	72.1@2400	26.48@2400	550@1500	81.1@1500	18.61@1500	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93G	6068	104.0@2400	71.9@2400	26.4@2400	550@1500	80.9@1500	18.57@1500	EGR EM EC SPL DFI TC CAC OC PTOX
6068HFC93F	6068	116.0@2200	80.7@2200	27.16@2200	670@1500	101.2@1500	23.23@1500	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93K	4045	93.0@2400	89.1@2400	21.81@2400	494@1550	109.4@1550	17.3@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFL93B	4045	110.0@2400	97.7@2400	23.92@2400	614@1600	134@1600	21.87@1600	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93B	4045	129.0@2200	125.2@2200	28.1@2200	645@1550	141@1550	22.29@1550	EGR EM EC SPL DFI TC CAC OC PTOX
4045HFC93D	4045	116.0@2400	107@2400	26.19@2400	616@1550	135.4@1550	21.41@1550	EGR EM EC SPL DFI TC CAC OC PTOX