

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)
2018	JJDXL13.5310	13.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Charge Air Cooler, Oxidation Catalyst, Electronic Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Periodic Trap Oxidizer, Turbocharger, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalystr			Crane, 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
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		FEL	--	--	--	--	0.01	--	--	--
		CERT	0.03	0.11	--	0.1	0.003	--	--	--

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 24th day of August 2017.


 Annette Hebert, Chief
 Emissions Compliance, Automotive Regulations and Science Division

EO#: U-R-004-0556

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Engine Model Summary Form

Manufacturer: John Deere Power Systems
 Engine category: Nonroad CI
 EPA Engine Family: JJDXL13.5310
 Mfr Family Name: 650HCB
 Process Code: New Submission

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
6135HDW15	6135	460@2000	322.1@2000	88.5@2000	2750@1550	381.3@1550	90.4@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HDW16	6135	460@2100	313.4@2100	100.6@2100	2750@1550	381.3@1550	90.4@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-A	6135	448@2100	305.7@2100	98.5@2100	2750@1550	396.1@1550	91.5@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-B	6135	410@2100	276.4@2100	88.7@2100	2640@1550	363.2@1550	86.1@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-C	6135	410@2100	275.8@2100	88.5@2100	2640@1550	362.9@1550	86@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-D	6135	392@2100	264.8@2100	85@2100	2520@1550	347.8@1550	82.4@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-E	6135	392@2100	264.8@2100	85@2100	2520@1550	345.8@1550	81.9@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-F	6135	373@2100	252@2100	80.9@2100	2397@1550	328.6@1550	77.9@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-G	6135	373@2100	251.7@2100	80.8@2100	2397@1550	328.2@1550	77.8@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-H	6135	336@2100	224.8@2100	72.1@2100	2160@1550	292.9@1550	69@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-I	6135	336@2100	224.1@2100	72@2100	2160@1550	292.7@1550	67.9@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-J	6135	317@2100	213.8@2100	68.7@2100	2037@1550	277.8@1550	65.8@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-K	6135	317@2100	214.3@2100	68.8@2100	2037@1550	277.9@1550	65.9@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-L	6135	309@2100	209.7@2100	67.3@2100	1986@1550	271.7@1550	64.4@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFC09-M	6135	309@2100	210.3@2100	67.5@2100	1985@1550	270.6@1550	64.1@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFG09-A	6135	473@1800	361@1800	99.3@1800	X	X	X	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFG09-B	6135	411@1800	306@1800	84.3@1800	X	X	X	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HFG09-C	6135	356@1800	285@1800	73@1800	X	X	X	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HI008	6135	460@2100	320.5@2100	102.9@2100	2750@1550	405@1550	96@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HN008	6135	460@2100	320.5@2100	102.9@2100	2750@1550	396.1@1550	93.9@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HPRNT3	6135	490@2100	340@2100	108@2100	2920@1550	410@1550	97@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135HZ016	6135	460@2100	320.6@2100	102.9@2100	2750@1550	405@1550	96@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM
6135RW405	6135	460@2100	320.8@2100	102.9@2100	2750@1550	405@1550	96@1550	EGR PTOX OC SCRC NH3OC DFI TC CAC ECM