

Pursuant to the authority vested in California 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-19-095;

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)
2020	LJDXL04.5315	4.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Control Module, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Oxidation Catalyst, Ammonia Oxidation Catalyst			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) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.02	0.33	--	0.1	0.02	--	--	--

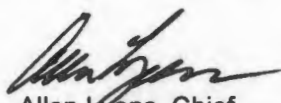
BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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 New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part I-D" adopted October 20, 2005 and last amended October 25, 2012.

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 17TH day of December 2019.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

EO#: U-R-004-0590

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Engine Model Summary Form

Manufacturer: John Deere Power Systems
 Engine category: Nonroad CI
 EPA Engine Family: LJDXL04.5315
 Mfr Family Name: 350HCG
 Process Code: New Submission

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate:		6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate:		9. Emission Control Device Per SAE J1930
			mm³/stroke@peak kW (for diesel only)	(kg/hr)@peak kW (for diesels only)		mm³/stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque	
4045HAC05A	4045	104@2200	100.9@2200	22.6@2200	400@1800	132.7@1800	18.5@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HAC05B	4045	86@2200	84.6@2200	19@2200	506@1800	105.8@1800	17.3@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04A	4045	104@2200	100.9@2200	22.6@2200	540@1800	113.7@1800	18.5@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04B	4045	100@2400	96.2@2400	23.5@2400	540@1800	114.2@1800	18.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04C	4045	93@2400	88.6@2400	21.7@2400	493@1800	103.1@1800	16.8@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04D	4045	93@2200	90.6@2200	20.4@2200	536@1800	112.7@1800	18.4@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04E	4045	86@2400	82.2@2400	20.1@2400	481@1800	96.8@1800	15.8@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04F	4045	86@2200	84.6@2200	19@2200	506@1800	105.8@1800	17.3@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04G	4045	74@2400	70.4@2400	17.2@2400	391@1800	84.2@1800	13.7@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04H	4045	74@2400	70.4@2400	17.2@2400	391@1800	84.2@1800	13.7@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04I	4045	74@2200	73.5@2200	16.5@2200	427@1800	99.3@1800	14.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04J	4045	74@2200	73.5@2200	16.5@2200	427@1800	89.3@1800	14.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04K	4045	63@2400	63.9@2400	15.6@2400	333@1800	72.2@1800	11.8@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04L	4045	63@2400	63.9@2400	15.6@2400	333@1800	72.2@1800	11.8@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04M	4045	63@2200	64.2@2200	14.4@2200	363@1800	88.4@1800	11.2@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04N	4045	63@2200	64.2@2200	14.4@2200	363@1800	88.4@1800	11.2@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04O	4045	110@2200	107.4@2200	24.1@2200	540@1800	113.6@1800	18.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04A	4045	99@1800	115.1@1800	21.1@1800	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04B	4045	80@1800	92.6@1800	17.7@1800	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04C	4045	87@1800	77.1@1800	14.1@1800	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04D	4045	80@1500	106.7@1500	23.3@1500	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04E	4045	87@1500	90.8@1500	13.9@1500	X	X	X	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV73	4045	99@2200	98.2@2200	22@2200	540@1800	113.2@1800	18.5@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV76	4045	86@2400	81.5@2400	19.9@2400	519@1800	107.9@1800	17.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV78	4045	94@2200	93.4@2200	21@2200	519@1800	107.8@1800	17.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV78A	4045	99@2200	96.8@2200	21.7@2200	540@1800	113.7@1800	18.5@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HMC05A	4045	104@2200	102@2200	23@2200	540@1800	113@1800	18.5@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HMC05B	4045	86@2400	85@2400	19.2@2400	480@1800	101@1800	16.4@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HP075	4045	94@2200	93.4@2200	21@2200	519@1800	107.8@1800	17.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HP075A	4045	99@2200	96.8@2200	21.7@2200	540@1800	113.7@1800	18.5@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFR114	4045	106@2400	99.6@2400	24.4@2400	577@1800	123.1@1800	20.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HT098	4045	94@2200	93.4@2200	21@2200	519@1800	107.9@1800	17.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM