California Environmental Protection Agency

OB Air Resources Board

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	JJDXL04.5315	4.5	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT	PPLICATION		
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 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		EXHAUST (g/kw-hr)					OPACITY (%)		
	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	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

day of August 2017.

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

Attachment: Page 10f1 E0#: U-R-004-0551

8/11/17

Engine Model Summary Form

Manufacturer:	John Deere Power Systems
Engine category:	Nonroad Cl
EPA Engine Family:	JJDXL04.5315
Mfr Family Name:	350HCG
Process Code:	New Submission

PIODESS CODE.	New Submission		4. Fuel Rate:	5. Fuel Rate:	C Terrine (blas)	7. Fuel Rate:		9. Emission Control
		2 14400 0044	4. Fuel Rate: mm/stroke@peak kW		6. Torque (Nm) @RPM	mm/stroke@peak	8. Fuel Rate:	Device Per
A MORE AND	O Friday Mardal	3. kW@RPM		1.9. 7.91	(SEA Gross)		(kW/hr)@peak torque	
1. Engine code	2. Engine Model 4045	(SAE Gross)	(for diesel only)	(for diesels only)	(SEA GIOSS)	torque	(KWMI) (C) peak torque	CAL JING
4045HAC05A	4045	811V1210-01/141-01/2	64 C @ 0000	1000000	EDD IN LODO	the second s		EGR OC SCRC NH3OC DFI TC CAC ECM
4045HAC05B		86@2200	84.6@2200	19@2200	506@1600	105.8@1600	17.3@1800	EGROCISCROM DOCUSERCIA
4045HFC04A	4045	104@2200	100 9@2200	22.6@2200	540@1600	113.7@1800	Contraction of the second second	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04B	4045	100@2400	96.2@2400	23.5@2400	540@1600	114.2@1600	18.6@1600	a to the second a second
4045HFC04C	4045	9302400	68.602400	21.7@2400	493@1600	103.1@1600	16.8@1600 2	EGR OC SCRC NHOOD DEI TO CAC ECM
4045HFC04D	4045	93@2200	90.8@2200	20.4@2200	538@1600	112.7@1600	18.4@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04E	4045	86@2400	82.202400	La Venzi Mane, qu' en marcadon anteners.	State 100	A LA LA LA	ALX OF A	and a stell beginn a cost of the sheet for the state of the state
4045HFC04F	4045	66@2200	84.6@2200	19@2200	506@1600	105.8@1600	17.3@1600	EGR OC SCRC NHOOD DFI TO CAC ECM
4045HFC04G	4045	74@2400	70.402400	17.202400	391@1500	84.2@1800	13.7@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04H	4045	74@2400	70.4@2400	17.2@2400	391@1600	84.2@1600	13.7@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC041	4045	74@2200	18 - @ 2200	18.5022001	A Did with the state of the stress of the state of the st	STATED SOLDED	and a state of the	٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ - ٢٠٠٠ -
4045HFC04J	4045	74@2200	73.502200	16.5@2200	427@1600	89.3@1600	14.6@1800	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04K	4045	6302400	63.902400	15.8@2400	3330 1600	PROPERTY OF A CALIFIC AND A CALIFICADO AND A CALIFICADO A CAL	11.8@1600	
4045HFC04L	4045	63(2400	63.9@2400	15.6@2400	333@1600	72.2@1800	11.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HEC04M	4045	63(2)2200	54.2@2200	14.4@2200	363(2)1600	88.4001600	11.2@1600	EGR OC SCRC NH3OC DELTC CAC ECM
4045HFC04N	4045	63@2200	54 2@2200	14.4@2200	363@1600	68.4@1600	11.2@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC040	4045	110@2200	107.4@2200	24.1@2200	540@1600	113.8@1600	18.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04A	4045	99@1800	115.1@1800	21.1@1800				EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04B	4045	80(21800	92.6@1800	17@ 1800		XI		EGR OC SCRC NH3OC DEI TC CAC ECM.
4045HFG04C	4045	67@1800	77.1@1800	14.1@1800	X	Y	X	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04D	4045 3	BO@1500	106.7@1500	18.301500	Entra Antonia	A.		EGR OC SCRC NH3OC DEI TC CAC ECM
4045HFG04E	4045	67@1500	90.8@1500	13.9@1500				EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV73	4045	99022002	98,2@2200	22@2200	540@1600	113.2@1600	18.5@1600	EGR OC SCRC NH3OC DEI TC CAC ECM
4045HLV75	4045	94@2200	93.4@2200	21@2200	519(2)1600	107.9@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV76	4045	8602400	81.502400	19.9(2400	519(21600	107.9@1600	17.6(2)1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV78	4045	94@2200	93.402200	21@2200	519@1600	107.9@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HMC05A	4045	104@2200	10202200	The sector states in	43.9 100	STALKT MODEL	service of the servic	المستع عدادة والمعالية فالمعالية فالمعاصية المعالية
4045HMC05B	4045	H6(2200	85@2200	19.2@2200	480@1600	101@1600	16.4@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HP075	4045	94@2200	93.4(2)2200	21@2200	519歳1600	107.9@1600	17 6@ 1600	EGR OC SCRC NHOOC DELTC CAC ECM
4045HP075A	4045	99@2200	96.8@2200	21.7@2200	540@ 1800	113.7@1600	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HPRNT 4		10602400	99.5(22400	24.4@2400	577@1600	123.1@1600	1 20,10 1600 -1	EGHLOS SCRC NHOOD DELTO CAD ECHLES
4045HT096	4045	94@2200	93.4@2200	21@2200	519@1600	107.9@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
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