California Environmental Protection Agency	JOHN DEERE POWER SYSTEMS	EXECUTIVE ORDER U-R-004-0508
@ Air Resources Board		New Off-Road Compression-Ignition Engines

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)
2016	GJDXL02.9303	2.9	Diesel	8000
	FEATURES & EMISSION		TYPICAL EQUIPMENT	APPLICATION
Electror Turbocha	Electronic Control M nic Direct Injection, Perio arger, Charge Air Cooler	dic Trap Oxidizer.	Loaders, Tractor, Dozer, Pump, Co Other Industrial Ed	ompressor, Generator Set quipment

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	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS	STANDARD CATEGORY		HC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
19 ≤ kW < 56	Tier 4 Final	STD	N/A	• N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT			4.2	0.1	0.01			

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 and last amended October 25, 2012.

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

day of October 2015.

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

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E0#: U-R-004-0508

9-25-15

		Engine mode	I Summary Form						
anufacturer:	John Deere Power	Systems							
ngine category:	Nonroad Cl								
PA Engine Family:	GJDXL02.9303								
ffr Family Name:	320HCA								
rocess Code:	New Submission								
			4. Fuel Rate:	5. Fuel Rate:	6. Torque (Nm)	7. Fuel Rate:		9. Emission Contro	bl
		3. KW@RPM	mm/stroke@peak kW	(kg/hr)@peak kW	ØRPM	mm/stroke@peak	8. Fuel Rate:	Device Per	
1. Engine code	2. Engine Model	(SAE Gross)	(for diesel only)	(for diesels only)	(SEA Gross)	torque	(kW/hr)@peak torque	SAE J1930	
3029HFC03A	3029	55@2400	84.0@2400	15.4@2400	292@1550	103.6@1550	12.3@1550	EMECPTOX OC TC DFI CAC	FCM
3029HFC03B	3029	55@2200	88.3@2200	14.9@2200	304@1550	109.4@1550	13.0@1550	EMEC PTOX OC TC DFI CAC	1
3029HFC03C	3029	48@2400	75.7@2400	13.9@2400	254@1550	92.3@1550	10.9@1550	EMEC PTOX OC TC DFI CAC	
3029HFC03D	3029	48@2200	79.7@2200	13.4@2200	280@1550	99.8@1550	11.8@1550	EMEC PTOX OC TC DFI CAC	
3029HFC03E	3029	36@2400	63.202400	11.602400	192@1550	73.1@1550	8.7@1550	EMEC PTOX OC TC DFI CAC	
3029HFC03F	3029	36@2200	68.0@2200	11.4@2200	209@1550	78.6@1550	9.3@1550	EMEC PTOX OC TC DFI CAC	1
3029HFG03A	3029	55@1800	104.8@1800	14.4@1800	11		11	EMEC PTOX OC TC DFI CAC	
3029HFG03B	3029	48@1800	92.8@1800	12.8@1800		V		ENEC PTOX OC TC DFI CAC	1
3029HFG03C	3029	36@1800	80.2@1800	11.0@1800	Y	\wedge	X	EMEC PTOX OC TC DFI CAC	-
3029HFG03D	3029	48@1500	103.5@1500	11.9@1500	\wedge			EMEC PTOX OC TC DFI CAC	
3029HFG03E	3029	36@1500	81.6@1500	9.4@1500				EM EOPTOX OC TC DFI CAC	
3029HPRNT1	3029	55@2200	93.0@2200	15.7@2200	320@1600	113.5@1600	13.9@1600	EM SC PTOX OC TC DFI CAC	1
3029HPY61	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.201550	EMEC PTOX OC TC DFI CAC	
3029HPY62	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.2@1550	EMEC PTOX OC TC DFI CAC	1
3029HPY63	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.2@1550	EMEC PTOX OC TC DFI CAC	
3029HPY64	3029	55@2100	89.1@2100	14.3@2100	304@1550	102.9@1550	12.2@1550	EMEC PTOX OC TC DFI CAC	14
3029HPY64 3029HPY65	3029 3029	55@2100 55@2200	89.1@2100 84.7@2200	14.3@2100 14.2@2200	304@1550 304@1550	102.9@1550 102.4@1550	12.2@1550 12.1@1550	EMEC PTOX OC TC DFI CAC	1
								EMEC PTOX OC TC DFI CAC	¥ .
								EMEC PTOX OC TC DFI CAC	V
								EMEC PTOX OC TC DFI CAC	¥
								EMEC PTOX OC TC DFI CAC	¥
								EMEC PTOX OC TO DFI CAC	
			84.7@2200					EMEC PTOX OC TC DFI CAC	
								EMEC PTOX OC TC DFI CAC	
			84.7@2200					CHEC PTOX OC TO DFI CAC	
			84.7@2200					CHEC PTOX OC TC DFI CAC	
			84.7@2200					EMEC PTOX OC TC DFI CAC	
			84.7@2200					EMEC PTOX OC TO DFI CAC	
			84.7@2200					CHEC PTOX OC TC DFI CAC	
		55@2200	84.7@2200	14.202200				EMEC PTOX OC TC DFI CAC	
			84.7@2200					CHEC PTOX OC TE DFI CAC	
		55@2200	84.7@2200	14.202200				CHEC PTOX OC TE DFI CAC	
		55@2200	84.7@2200	14.202200				EMEC PTOX OC TC DFI CAC	
		55@2200	84.7@2200	14.202200				EMEC PTOX OC TE DFI CAC	
		55@2200	84.7@2200	14.202200				CHEC PTOX OC TE DFI CAC	
		55@2200	84.7@2200	14.202200				CHEC PTOX OC TE DFI CAC	
		55@2200	84.7@2200	14.202200				EMEC PTOX OC TE DFI CAC	